ELDERLY DISABILITY IN THAILAND: RECOMMENDATIONS FOR LONG-TERM CARE POLICIES IN THE COMING ERAS

Miss Pattaraporn Khongboon

จุฬาลงกรณ์มหาวิทยาลัย
Chulalongkorn University
บทคัดย่อและแฟ้มข้อมูลฉบับเต็มของวิทยานิพนธ์ตั้งแต่ปีการศึกษา 2554 ที่ให้บริการในคลังปัญญาจุฬาฯ (CUIR)
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ภาวะทุพพลภาพในผู้สูงอายุไทย: ข้อเสนอแนะเชิงนโยบายการดูแลผู้สูงอายุในระยะยาวในทศวรรษหน้า

นางสาวภัทรพร คงบุญ

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรดุษฎีบัณฑิต
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By	Miss Pattaraporn Khongboon
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Thesis Advisor	Associate Professor Sathirakorn Pongpanich, Ph.D.
Thesis Co-Advisor	Dr. Viroj Tangcharoensathien, M.D., Ph.D.

Accepted by the College of Public Health Sciences, Chulalongkorn University in Partial Fulfillment of the Requirements for the Doctoral Degree

.....Dean of the College of Public Health Sciences
(Associate Professor Sathirakorn Pongpanich, Ph.D.)

THESIS COMMITTEE

.....Chairman
(Professor Surasak Taneepanichskul, M.D.)
.....Thesis Advisor
(Associate Professor Sathirakorn Pongpanich, Ph.D.)
.....Thesis Co-Advisor
(Dr. Viroj Tangcharoensathien, M.D., Ph.D.)
.....Examiner
(Dr. Robert S. chapman, M.D.)
.....Examiner
(Professor Karl j. Neeser, Ph.D.)
.....External Examiner
(Dr. Suwit Wibulpolprasert, M.D.)
.....External Examiner
(Professor Vicharn Panich, M.D.)

ภัทรพร คงบุญ : ภาวะทุพพลภาพในผู้สูงอายุไทย: ข้อเสนอแนะเชิงนโยบายการดูแลผู้สูงอายุในระยะยาวในทศวรรษหน้า (ELDERLY DISABILITY IN THAILAND: RECOMMENDATIONS FOR LONG-TERM CARE POLICIES IN THE COMING ERAS) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: รศ. ดร. สถิรกร พงศ์พานิช, อ.ที่ปรึกษาวิทยานิพนธ์ร่วม: นพ. ดร. วิโรจน์ ตั้งเจริญเสถียร, 191 หน้า.

ภาวะทุพพลภาพในผู้สูงอายุมีแนวโน้มเพิ่มสูงขึ้น ตามจำนวนประชากรสูงวัยที่เพิ่มขึ้นอย่างรวดเร็วในประเทศไทย ผู้สูงอายุที่มีภาวะทุพพลภาพ อยู่ในภาวะพึ่งพิง จำเป็นต้องได้รับการดูแลในระยะยาว อันจะส่งผลกระทบต่อสภาวะเศรษฐกิจและสังคม จึงจำเป็นต้องทราบปัจจัยบ่งชี้การเกิดภาวะทุพพลภาพในประชากร เพื่อการวางแผนนโยบายและป้องกันโรคในระดับบุคคล เพื่อให้ผู้สูงอายุมีคุณภาพชีวิตที่ดีที่สุดเท่าที่จะทำได้ การศึกษานี้มีวัตถุประสงค์สามข้อดังนี้ 1) ศึกษาหาปัจจัยใดๆ ที่อาจมีอิทธิพลต่อความชุกของการเกิดภาวะทุพพลภาพในประชากรผู้สูงอายุ ระหว่างปี พ.ศ. 2545 ถึง พ.ศ. 2554 2) วิเคราะห์หาสิ่งที่ต้องการการแก้ไขอย่างเร่งด่วน เพื่อให้ผู้สูงอายุที่อยู่ในภาวะพึ่งพิงมีคุณภาพชีวิตที่ดีขึ้น 3) เพื่อพัฒนาระบบการดูแลระยะยาวสำหรับผู้สูงอายุที่อยู่ในภาวะพึ่งพิงในทษวรรศหน้า

ข้อมูลการสำรวจประชากรผู้สูงอายุ ปี พ.ศ. 2545, พ.ศ. 2550 และ พ.ศ. 2554 สำรวจโดยสำนักงานสถิติแห่งชาติ นำมาวิเคราะห์ด้วยสถิติเชิงพรรณนาและสถิติถดถอยลอจิสติก หาความสัมพันธ์ระหว่างปัจจัยอิสระที่มีปฏิสัมพันธ์กับการปฏิบัติกิจวัตรประจำวัน หกกิจกรรม คือ การรับประทานอาหาร, การสวมเสื้อผ้า, การนั่งยองๆ, ความสามารถในการยกของหนัก, การขึ้นลงบันได 2-3 ขั้น, และการเดินทางสัญจรคนเดียว นอกจากนี้ ได้สัมภาษณ์เชิงลึก ผู้กำหนดนโยบาย 11 ท่าน เพื่อวิเคราะห์หาประเด็นที่ต้องการการแก้ไขอย่างเร่งด่วน และเพื่อพัฒนาระบบการดูแลระยะยาวสำหรับผู้สูงอายุที่อยู่ในภาวะพึ่งพิงในทษวรรศหน้า สัมภาษณ์และบันทึกข้อมูลเป็นภาษาไทย จากนั้นแปลเป็นภาษาอังกฤษโดยนักวิจัยสองภาษา ตรวจสอบความหมายและแปลกลับจากภาษาไทยเป็นภาษาอังกฤษเพื่อให้ความหมายคงเดิม ใช้การวิเคราะห์แก่นเนื้อหา (thematic analysis) ด้วยซอฟแวร์ NVivo 8 ซึ่งนักวิจัยสองท่านเป็นผู้กำหนดรหัสข้อมูล

ผลการศึกษาเชิงปริมาณจากการสำรวจทั้งสามปี พบว่าภาวะทุพพลภาพที่มีความชุกสูงสุดในกลุ่มตัวอย่างคือ ความสามารถในการยกของหนัก 5 กิโลกรัม (30.7%) ผู้สูงอายุที่รายงานว่าไม่ได้ทำงานเนื่องจากเกษียณอายุ มีความสัมพันธ์ต่อการเกิดภาวะทุพพลภาพสูงกว่าปัจจัยอิสระอื่นๆ ทั้งนี้ ผู้กำหนดนโยบายเห็นว่า ความจำเป็นที่ต้องได้รับการแก้ไขอย่างเร่งด่วนมีหกประเด็น ได้แก่ ความไม่สมดุลในการให้บริการด้านสังคมและบริการด้านการแพทย์ ระบบบริหารจัดการด้อยประสิทธิภาพ, ผู้ดูแลอย่างไม่เป็นทางการ ต้องการความรู้ทักษะเสริม, การขาดแคลนบุคลากรด้านสาธารณสุข , ปัญหาด้านการกำกับดูแล และระบบข้อมูลสารสนเทศ นอกจากนี้ ระบบการดูแลผู้สูงอายุในระยะยาวควรอยู่บนพื้นฐานครอบครัวและชุมชน ดังนั้นจากผลการศึกษาเห็นควรเสนอให้มีการ ขยายระยะเวลาเกษียณอายุราชการ เนื่องจากกลุ่มที่ไม่ได้ทำงานมีความเสี่ยงสูงที่จะเกิดภาวะทุพพลภาพในอนาคตเมื่อเปรียบเทียบกับกลุ่มที่ยังทำงาน

นอกจากนี้ ผู้สูงอายุที่อยู่ในภาวะพึ่งพิงสามารถมีคุณภาพชีวิตที่ดีขึ้นโดย การควรบูรณาการบริการด้านสังคมและการแพทย์ เร่งผลิตกำลังคน จัดการกำกับดูแลระบบอย่างเข้มงวด เร่งผลิตกำลังคน พัฒนาโครงสร้างพื้นฐานการจัดส่งบริการ ลงทุนเน้นการป้องกันโรคในกลุ่มผู้สูงอายุที่สุขภาพดี ควรมีนโยบายที่ครอบคลุมเพื่อรองรับรูปแบบการดูแลระยะยาว โดยที่เน้นศักยภาพของสังคมและชุมชน ดังนั้นทุกคนควรตระหนักและเตรียมพร้อมรับมือกับความต้องการที่จะเพิ่มสูงขึ้นในอนาคต

สาขาวิชา สาธารณสุขศาสตร์ ลายมือชื่อนิสิต .....

ปีการศึกษา 2558 ลายมือชื่อ อ.ที่ปรึกษาหลัก .....

ลายมือชื่อ อ.ที่ปรึกษาร่วม .....

5479175053 : MAJOR PUBLIC HEALTH
KEYWORDS: DISABILITY / ELDERLY / LONG TERM CARE / POLICY / RISK

PATTARAPORN KHONGBOON: ELDERLY DISABILITY IN THAILAND: RECOMMENDATIONS FOR LONG-TERM CARE POLICIES IN THE COMING ERAS. ADVISOR: ASSOC. PROF. SATHIRAKORN PONGPANICH, Ph.D., CO-ADVISOR: DR. VIROJ TANGCHAROENSATHIEN, M.D., Ph.D., 191 pp.

As the elderly population is growing rapidly in Thailand, the risk of disability and chronic illness is expected to grow rapidly with increased longevity. Furthermore, it is not clear whether the risk factors of disability can be changed in the existing social system. There are three aims of this study that include 1) investigating any factors that may have contributed to the prevalence of disabilities among the country's elderly population between 2002 through 2011; 2) identifying what needs to be done urgently to improve the quality of life for the elderly whose conditions are long term; and 3) developing a sustainable and feasible LTC delivery over the next ten years.

We used data derived from Thailand's cross-sectional Survey of Older Persons 2002, 2007, and 2011, which was conducted by the National Statistical Office, in order to conduct risk factor assessments. Six activities that include eating, dressing, squatting, lifting 5 kg, climbing up 2–3 stairs, and using transportation were compared. SPSS 18 was utilized in descriptive analysis as well as in logistic regression. Sample probability weights were applied to data for each year. Additionally, in-depth interviews were conducted with 11 key policy makers regarding the Development system of Long Term Care for Older Persons in Thailand. Interviews in the Thai language were copied and translated into English by the bilingual researcher. A thematic code and sub-codes were created by two independent investigators after transcripts were subjected to an NVivo 8.

Over all three surveys, the most prevalent disability in the sample population was lifting 5 kg (30.7%). Elderly who reported that they were not working due to retirement were associated with higher risk factors than other factors. The key informants raised six issues that need to be solved urgently including an imbalance in care services, poor management systems, the need for skill among informal caregivers, a health workforce shortage, and problems with regulations and the information system. These surveys mentioned that in the next ten years, the long-term care scheme should be family-community based.

Since those who did not work seven days before their interviews had higher risk for disability in our study, we suppose that older people who are not working due to retirement may be at a higher risk for experiencing disability in the future compared to those still working. This result suggests that raising the mandatory retirement age might be associated with reduced risk of some disabilities. The quality of life for those elderly individuals suffering from long-term conditions could be improved by providing integration services, consolidation of the regulatory system, building a LTC workforce, developing a delivery infrastructure, and investing in elderly health groups. LTC in the next decade must make use of the capabilities of society through a comprehensive policy. Because of these increasing needs, everyone should raise their awareness and be ready for ageing.

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Field of Study: Public Health
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Student's Signature .....
Advisor's Signature .....
Co-Advisor's Signature .....

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LIST OF ABBREVIATIONS

ADL	Activities in Daily Living
CI	Confidence Interval
EC	European Commission
GDP	Gross Domestic Product
IADL	Instrumental Activities in Daily Living
ICF	International Classification of Functioning, Disability and Health
LAO	Local Administrative Organisation
LTC	Long Term Care
MOPH	The Ministry of Public Health
MSDHS	The Ministry of Social Development and Human Security
NHSO	The National Health Security Office
NSO	The National Statistical Office
OAA	Old Age Allowance
OECD	Organization for Economic Co-operation and Development
SOP	Survey of Older Person
TGRI	The Foundation of Thai Gerontology Research and Development Institute
UN	The United Nation
WHO	The World Health Organization

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CHAPTER I
INTRODUCTION

1.1 Background

The population of old people is rising exponentially in Thailand. According to The Foundation of Thai Gerontology Research and Development Institute, TGRI (2013)(1), the country has the second highest population of elderly folk in south-east Asia. The aged population includes persons of who have lived for 60 years or more. It is projected the aged population in Thailand will significantly rise to approximately 22 million by 2040. In 25 years, 33.5% of the entire Thailand population will be old people. This means that in every three Thais, one will be 60 or older. Demographic estimations show that the rise of the population of people who have lived for 80 years or more will be even more significant. People in this age group usually have the highest rate of disability and are often the most dependent. Their population is estimated to rise to approximately 4.4 million from the current 1.1 million.

According to the UN (2013)(2), 20% of the entire population will be comprised of people who have lived for 80 years or more. With regard to economic development, Thailand is one of the countries whose economy falls in the "getting old before getting rich" category. In contrast to developed countries, like the US, Japan, and France, Thailand's aging population is rising when its economic and social status is yet to become entirely stable. The rise in Thailand's aging population began back in 2000. At that time, Thailand had GDP per capita of $2,206. This, according to the UN (2014)(3), is a huge contrast with Japan whose GDP per capita was $12,499 during its transition to an aging nation, back in 1967. Another contrast, as identified by FAO (2012)(4), is that most of Japan's population resided in rural areas during the transition where they mostly practiced agriculture for commerce and subsistence.

In spite of the improvement in life expectancy among Thais, studies have shown that the prevalence of acute degenerative diseases has become augmented. As a result, the amount of time spent fighting ill-health and disability during old age has increased significantly during the period. In a study conducted by Prachuabmoh et al. (2013)(5), it was established that the length of years during which Thailand's elderly folk live in dependency due to functional limitations rose from 0.53 to 0.65 years among males and 0.93 to 1.24 years among females between 2002 and 2011. The study also revealed that there was a significant decline in the ratio of active life expectancy to total life expectancy age. The inference that can be drawn from these findings is the demand for long-term care services has immensely increased. This results in multiple challenges both for the families of the elderly folk and the country in general.

The Buddhist filial piety philosophy is still largely espoused in Thailand. The care given to Thailand's elderly folk is mostly informal, where they are catered for at home by their families, particularly the adult daughters. Nonetheless, Suwanrada et al. (2010) (6) observed that formal care has started to be adopted in the country. This shift can be attributed to the transition in Thais demographics where families are now opting to have only a small number of children. It can also be attributed to the migration of the young people to cities in a bid to seek an income generating activity. Old people are also developing numerous chronic diseases that require professional healthcare interventions. This has led to establishment of formal care institutions such as nursing homes, day care centers and the like to provide social and health care to the elderly, especially those of higher socio-economic status.

The shift to formal care institutions has also been facilitated by the fact that the long-term care services provided to elderly folk in current healthcare systems are of poor quality. It was observed that several government-run health institutions only offer general services which are inadequate for people suffering from chronic ailments. According to TGRI (2013)(1), older people were also subjected to early discharges due to limited number of beds, which were mostly set aside to cater for people that need acute care. Judging from such incidences, old people have become burdens to their families and the community in general.

In spite of the efforts made by the Thai government to enhance the quality of healthcare services for the older population, the prevalence of disparate access to services, inadequate quantity healthcare resources (such as equipment, personnel and finance), and lack of inter-institutional and intra-institutional coordination among healthcare institutions still persists. In a bid to counter these problems, the Thai government commissioned a working group to make changes to the country's National Plan on Older Persons in 2009. The working group drew inspiration from the findings of an evaluation of this plan that had been previously conducted and recommended for the establishment of community-based long-term care institutions for the elderly. These institutions would offer medical and social care for the elderly in the comfort of their homes.

1.2 Rationale and knowledge gaps

The combined effects of fertility decline and increase in life expectancy of the people of Thailand has led to a substantial and relative rise in the number of the country's elderly population. This unexpected rise in the population of the elderly has resulted in apprehensions on a number of issues connected to their welfare in terms of treatment and expenses involved in taking care of old age disability, as well as the degree of care reasonably required in handling cases of such old people with physical disability. It is important to understand that the elderly have lots of many different needs which are not adequately met, thereby forcing many of them to go about their daily lives with these additional challenges. Likewise, it is expected that the risks involving disability and long-term illnesses on the part of the elderly will see a steady and sharp rise because of the increase in people's longevity. Nonetheless, no current studies have been conducted to look into the disability risk factors throughout the country beginning from the year 2002 to 2011. One important factor is the lack of clarity on the problems that should be given urgent attention for solutions to see to it that the quality of life for those elderly individuals suffering from long term conditions could be improved. Another is the development of sustainable and feasible delivery for LTC to take care of the rise in the

needs of LTC during the next decade. Such worries deserve thorough assessment and political accommodation. The intent of this dissertation is to see to it that our understanding in this field is expanded by way of qualitative methods and detailed interviews.

1.3 Research questions and objectives

Research questions	**Objectives**
1. What is the overall prevalence of elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011?	To examine the overall prevalence of the elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011.
2. What are the risk factors of the elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011?	To identify the key risk factors of the elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011.
3. What need to be solved urgently in order to improve quality of life of elderly whose are in long term condition?	To identify policies, interventions to improve quality of life of elderly whose are in long term condition *Specific objectives* -To understand the existing patterns of elderly care available in Thailand. -To identify *strengths and weaknesses* of the existing care service delivery for elderly with disabilities. -To identify the factors that influence the LTC implementation in Thailand.
4. How Thailand develop a sustainable and feasible LTC delivery to address the	To develop a sustainable and feasible LTC delivery to address the growth in LTC needs over the next ten years

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growth in LTC needs over the next ten years?	- To identify the appropriate based care - To identify who should be primarily responsible for expense

1.4 Thesis structure

A brief description of the thesis structure, conceptual framework, research questions, study rationale, and the introduction background, for instance, long-term care (LTC) needs drivers and current Thai LTC provision, are catered to in Chapter 1.

A comprehensive review of the literature focusing on present old-age disability around the globe followed by disability risk factors and conceptual models exists in Chapter 2. Additionally, the chapter explores definitions of LTC and the way it applies in different countries. In the final section, the chapter examines efforts geared toward Thai's LTC and ageing. Moreover, section 2.2 in Chapter 2 present evidences for old-age disability risk factors whereas section 2.3 presents the disability's conceptual models. A definition for LTC followed by the LTC of different countries is availed in section 2.4. Finally, section 2.5 presents the efforts directed toward Thailand's ageing disability.

The methodology for data sources obtained from the National Statistical Office (NSO) and that is used within quantitative study to record surveys of aged individuals in Thailand in 2002, 2007, and 2011 are presented in Chapter 3. Section 3.1 provides a detailed description of the aforementioned. Furthermore, sampling method, in-depth interviews, and procedures utilised for compiling LTC ideas are present in section 3.2. The research outcomes are presented in Chapter 4; the RQ1 and RQ2 (that is, prevalence and six kinds of disability risk factors) are presented in section 4.1, whereas the proposals of policy makers regarding LTC are presented in section 4.2.

Additionally, section 4.2 addresses the RQ3 and RQ4, that is, what issue require urgent resolution for improvement of the elderly life quality? Moreover, how can Thailand come up with a practical and sustainable LTC delivery aimed at addressing the increase in LTC demands in the next decade?

The summary and discussion, alongside recommendations in the current study are presented in Chapter 5.

A conclusion and key findings summary are given in Chapter 6. In addition, a description of the drawbacks that characterised the study coupled with potential means of undertaking further research are presented. The significance of the study is concluded thorough a summary in the chapter.

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1.5 Conceptual framework

Figure 1.1 summarizes the research questions, methodological approaches, and data employed to answer each question.

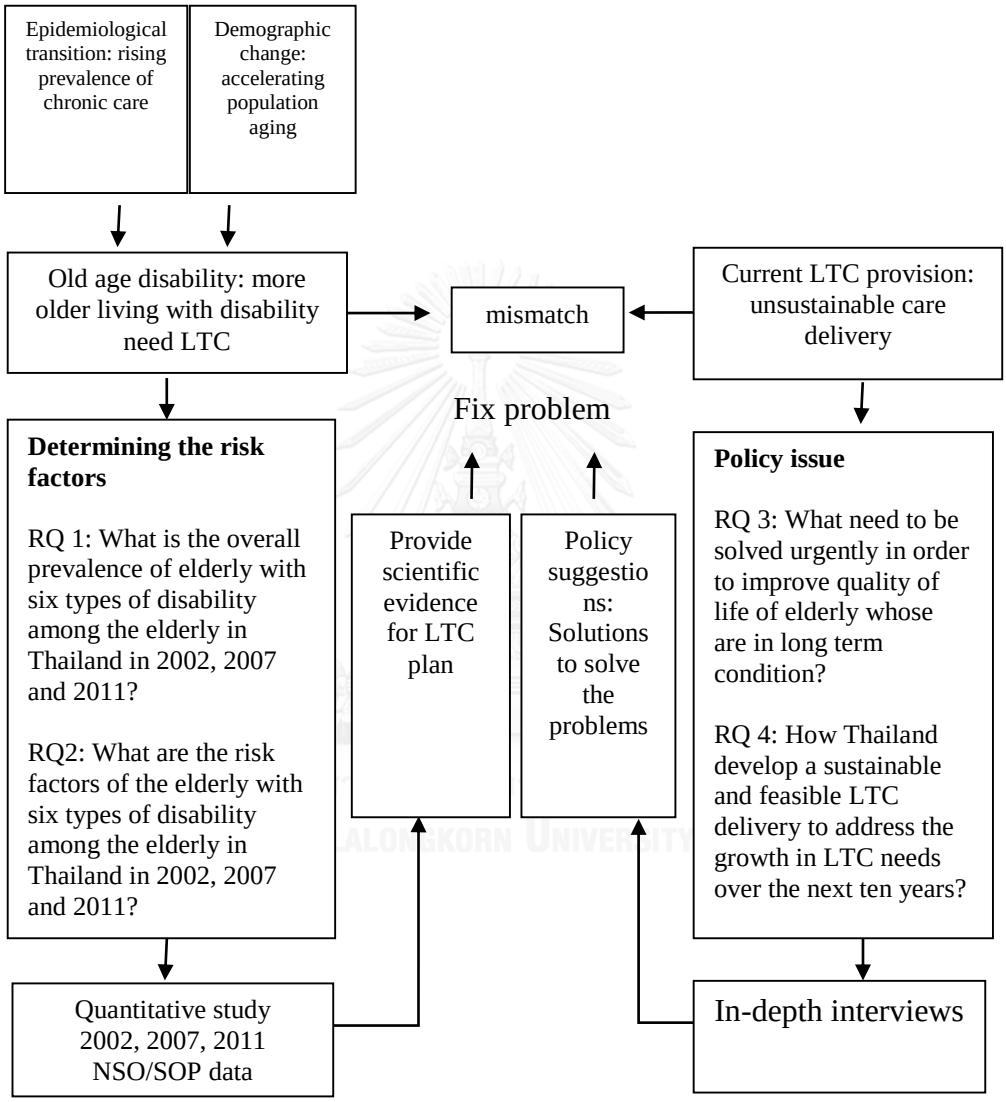

Figure 1. 1 Conceptual framework of this study

1.6 Definition

Long-term care refers to health and social service to respond to the need of assistance from the people with chronic illness, accidents, or disability and the elderly who cannot care for themselves in daily basis. Long-term care can be provided formally (care by health and social staff) and informally (care by family, neighbors). The facility is the social service focuses on the regular and ongoing rehabilitation, treatment, and health promotion to better their quality of life, be able to live their lives independently based on the respect for human dignity.

Dependency means the condition which the assistance from other is required for living and doing activities. In this report, "dependence" is defined based on the Royal Institute, Demography (4 February 2002)

Dependent elderly refers to the elderly who has difficulty in doing activity of daily living dependently which referred to the care for doing basic activities such as bathing, dressing, excretion, up and down movement, walking, eating; including other activities such as travelling, shopping, counting, cleaning house, and cooking. The high dependent elderly (measured from The Barthel ADL Index) are considered to be the person with the difficulty in living which this report mainly focuses on the difficulty in the basic activities.

Institutional long-term care refers to the institute provides the service based on lifestyle to fulfill the need of care of the elderly throughout the gerontological process. The institute provides at least 3 months service for the elderly from both government sector and private sector, profit and non-profit organizations.

Community-based care refers to the care which use houses and community as a service base which the members of family and community are taking part. It is organized by the service unit in the community or from the outside.

CHAPTER II
REVIEW LITERATURE

This chapter will start by providing some evidences of old-age disability in international society follow by the risk factors of disability (section 2.2) and the conceptual models of disability (section 2.3). Section 2.4 define long term care and follow by the LTC from many countries (starts from the LTC in OECD follow by USA, Asia-Pacific, Japan and China).The last section efforts on ageing disability and LTC in Thailand (section 2.5).

2.1 Old-Age Disability in many countries

The best health indicators for old age are ADL and IADL as they give the clear picture of the ability of person for the personal care and continue doing it independently. There is a link between disability in old age and demands for care and social services. Toileting, dressing, feeding, grooming, transferring can be used as a tool for knowing the degree of disability in form of judging the activities in daily life (ADL) (Katz 1983)(7). Whereas, IADL includes the ability to clean house, make food and buy groceries. If the person is not able to perform ADL then this denotes sever disability, inability to carry out IADL denotes moderate disability. These days ADL and IADL are often used for measuring health in both clinical studies and community-based surveys of older group (8, 9).

The standard dimensions for disability commonly comprises of the activities of daily living like dressing, moving around, using the bathroom, eating and bathing. While evaluating disability, these dimensions are included in the debates about long-term care (LTC) in the literature. According to Stallard (2000) (10) and Feder (2000) (11, 12) , the eligibility criteria in order to receive benefits in United States (U.S) and European countries, is also measured with the help of these dimensions. Although, instrumental activities of everyday life like cooking, housekeeping, taking medications, utilizing the

public transportation and handling budget are placed among the category of minor critical disability, such activities define the capacity of elders to live without help in the society. The calculations regarding IADLs is asymmetrical in the across diverse cultures, even if the evaluations of ADLs has been normally regular among various countries and in varying time frame. All of those activities that are auxiliary in everyday life are different for every country as seen in the surveys, due to cultural, geographical and temporal deviations. National surveys of four countries including Mexico, China, U.S, and Korea incorporated ADL and IADL items in them that are depicted in the Table 2.1. It is evident that the calculations regarding IADL items show diversity while among all four surveys; the measurements of ADL items are constant and regular. Regarding disability, there is low level of assurance. According to Crimmins (2004) (13), the trends in ADL-dependency levels in the United States have dropped and that has been notified in the latest Ageing Report by European Communities 2009, p.139 (14). On the other hand, the report depicts the incrimination in the many other European countries and Japan and Australia shows no variation whatsoever, as stated in OECD (2007) (15).

According to Lafortune et al. (15), the study provides distinct proof that these five countries; Denmark, Finland, Italy, Netherlands and the United States have experienced a fall in the disability rate among elders, out of the other twelve countries. However, reduced critical amount of disability was used as a scale for evaluation and the findings were based on the functional weak points only while measuring for Denmark. Two countries including Australia and Canada testify a constant rate of disability. On the other hand, the speed of critical disability is incrementing among people in the age group of 65 and over occurring in three countries including Belgium, Japan and Sweden over the span of past five to ten years. As stated by Lafortune et al. (2007) (15), the variation in the trends in ADL disability rates among elderly people as seen in the information acquired from various surveys done for France and United Kingdom is a huge hurdle in the way of reaching any ultimate outcomes regarding the course of the trend.

Table 2. 1 Activity in Daily Living (ADL) and Instrumental Activity in Daily Living (IADL) items in selected National surveys

Country	Survey	ADL items	IADL items
U.S.	Health and Retirement Study (HRS)	1. bathing 2. dressing 3. eating 4. walking across a room 5. getting in/out of bed 6. using the toilet	1. using the telephone 2. taking medication 3. handling money 4. shopping for groceries 5. preparing meals 6. using a map
Korea	Korean Longitudinal Study of Aging (KLoSA)	1. dressing 2. bathing 3. eating 4. using the toilet 5. getting in/out of bed, walking across room	1. using the telephone 2. managing money 3. taking medication 4. shopping for groceries 5. preparing a hot meal
China	Chinese Health and Retirement Longitudinal Study (CHARLS)*	1. dressing 2. bathing/showering 3. cutting food 4. going to the bathroom 5. controlling urination and defecation 6. getting in/out of bed	1. doing household chores 2. preparing hot meals 3. shopping for groceries 4. managing money 5. making phone calls 6. taking medications
Mexico	Mexican Health and Aging Study (MHAS)**	1. walking across a room 2. bathing/showering 3. eating/cutting food 4. getting into/out of bed 5. using the toilet	1. preparing a hot meal 2. shopping for groceries 3. taking medications 4. managing money

Notes:

* This classifications is grounded on Straus (2010) (16). They also used the following "physical activities" items: walking for 100 m, stooping, kneeling, crouching, extending arms above shoulder level, lifting weights like a heavy bag, etc.

** The survey grouped "dressing" under functionality. Other functionality measures are: walking one or several blocks, running/jogging one kilometre, sitting for 2 hours, getting up from a chair, etc.

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As indicated by EC (2009, p.145)(14), these incidence of disability for every age group and gender occurring in the highly traditional European case for the next fifty years probably will not alter. The size and composition of care recipients would solely rely on the projected demographic schema of the population, as described in the aforementioned quote of Ageing report in the words of entirely demographic circumstances, if the possibility of getting formal care at home and formal care in an institution remains regular with the conservative calculations. The numbers regarding these circumstances are arresting as it is reckoned that between 2007 and 2060, the number of people older than 65 with at least one ADL disability will amplify reaching 44.4 million by 2060. Number of people being provided with informal or no care at all would increment from 12.2 to 22.2 million, whereas the number of people getting formal care would increase three times and reach 8.3 million. The demand for both home and formal care is massively high in Spain, Luxembourg or Ireland, whereas, the disparity among countries indicate that there is an extremely minor incrimination in the requirement of formal or informal care among various East European countries. Perchance, it is anticipated that even the countries with deliberately gradual progress in the requirement would experience increase in it and it will approximately double the amount.

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The list utilized by all surveys or analysts related to ADLs varies and majority of them corporate a list of toileting, dressing, bathing activities and eating. Nonetheless, owing to the fact that time issue and inconvenience related to the participants, there is a possibility that not all of these questions would be asked individually. Particularly, if the researcher is calculating the amount of ADL issues then, what and the number of activities considered would cause disparity in the amount of people that are handicapped. The amount of people with ADL disabilities would clearly amplify if more ADLs are incorporated. The five ADLs like toileting, transferring, dressing, bathing and eating is the main focus of the public policy, lately. In order to decide the eligibility for assistance in various proposed public insurance programs, there are also the ADL items that have been recommended. According to Wiener, Clark, & Van, 1990 (17), private insurance plans show a disparity and the ADLs they utilize to agree on the eligibility for the benefits.

Even if there is a huge range of disparity in the way surveys have questions regarding ADL functioning, there is some agreement among all of these surveys related to what activities of everyday life should be incorporated. According to the Guralnik et al. (18), the calculations might differ merely due to the reason that the participants have a different understanding of the question seeing as the self-report instruments do not include distinct meaning for the calculated activity or plausible answer categories. As stated by Linn and Linn (19) , the criteria of evaluation of disability by individuals can be affected by language, education and culture. The factors like time period of disability, the kind of help that was given and what range of complexity they experience while performing every ADL vary in surveys.

2.2 Risk Factors of Disability in Old Age

Much effort has been invested in identifying the risk factors associated with how disability sets in, and the corresponding model proposed by Nagi (1976) (20) is a major source of input in this regard, constituting of components related to pathology, functional impairments, functional limitations, and disability. As individuals age, pathological impairments in the form of decreased muscle strength, poor balance and associated issues correspondingly increase, hindering the individual's functionality and translating to disabilities in the long run. Research indicates multiple functions contributing to this, including *non-modifiable risk factors* in the form of age, gender and genetics and a set of *modifiable risk factors* defined in terms of *individual factors* on the likes of age-related disease, impairments, functional imitations, poor coping skills, sedentary lifestyles and associated unhealthy behavior. The characteristics of the environment in relation to sociocultural barriers also contribute in a major way in this regard. Further, the level of *social support* expressed in terms of social networks, contacts, support and services also contribute to the extent and severity of disability observed. Multiple modifiable risk factors evolve over the lifetime of the individual, and therefore in evaluating the progression of disability in an individual, it is important to consider the overall lifestyle instead of only focusing on the current conditions prevailing. Further, individuals within disadvantaged *socioeconomic positions* are

observed to have more disabilities than well off peers, which is particularly demonstrated in individuals within the age group of 85-90 years.

The onset of disabilities require additional help, hospitalization, frequent nursing home admissions and ultimately concludes with premature death. The older generation lose their independence and being admitted to a nursing care facility is the most viable option in such scenarios, since they require a community based level of assistance. From the perspectives of the elderly themselves, physical disabilities contribute to significantly reducing their quality of life, affecting their life expectancies. Correspondingly, individuals with disabilities are demonstrated to have shorter life spans in comparison to their peers who are healthy and able to independently carry themselves around. Further, disability has a financial cost associated to it, since the disabled require greater use of specialized health services.

Down the line, disabled individuals could be expected to require a certain amount of LTC services in formal or informal settings, within an institution, in the community or at home. However, in planning to ensure the availability of the required extent of LTC services, planners and policy makers need to have an estimate of the current and projected populations of the elderly disabled. Unfortunately, to date, there have been no such studies conducted within Thailand utilizing the associated ADLs and IADLs indices, which could provide the necessary input in this regard.

2.3 Conceptual models of disability

According to the difference in disability concept, the social model and the medical model are the two fundamental models of disability. The social model covers a broader view of disability. Physical environment, social policies and social attitudes are the main disability causing factors as per the social model. As the name indicates, this model says that the impact of social factors is the major cause of disability in an individual that is very difficult to be reversed. These short comings make an individual unable to live independently in such an environment. Social discriminations are one of the most commonly encountered problems that can well explain the concept of social

model of disability. But the concept of disability is incomplete without including the other type of disability model which is the medical model. The problems that occur as a result of disease, trauma or inherited from birth in a person are all included in the medical model of disability. According to this model, such problems can be resolved by ensuring the availability of proper medical treatment. Another important point in this model is the aim of reversing the disabled state to normal by provision of these medical treatments.

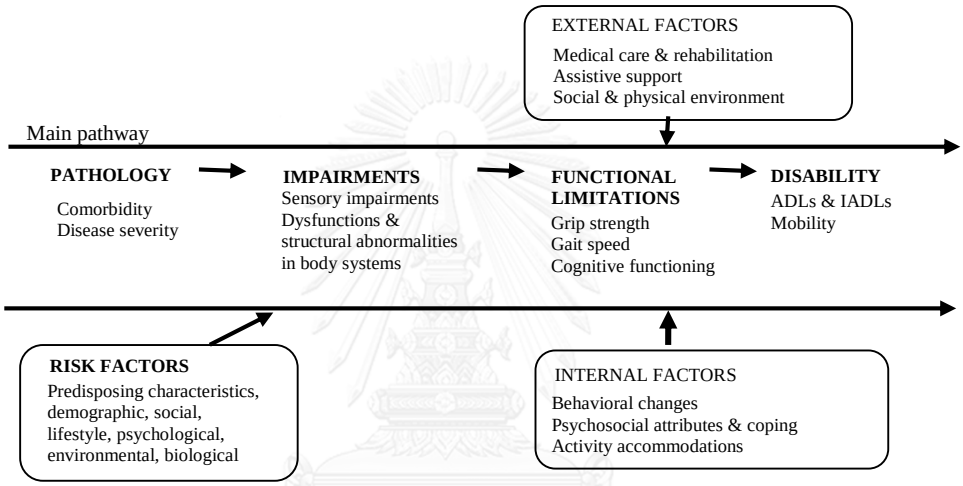

Figure 2. 1 Model of the disablement process adapted from Verbrugge and Jette 1994 (21)

By merging the concept of the above two models, another model was put forward by Verbrugge and Jette 1994 (21) the model of the disablement process (Fig 2.1). In this new concept, the medical conditions result in disturbed physical conditions which in turn cause altered social responses and disabilities. Verbrugge & Jette exemplify this concept of disablement process by mentioning a case of an individual suffering from rheumatoid arthritis. This disease or pathology often results in bone deformities and deformation of joints of hands and wrist. Such condition makes the individual physically impaired which ultimately makes the individual to suffer functional

limitations in performance of his daily life activities. And when this functional limitation hinders the daily activities, it becomes a disability. Verbrugge&Jette titles this disability as “a gap between personal capability and environmental demand”. But an important point to note is that it is not important for every kind of pathology to be converted into a serious physical impairment. Also, the type of disability depends upon different factors. Several internal and external factors take part in formation of a disability. Access to medical care and rehabilitation, treatment programs, physical and social environments and support services are the external factors whereas life style, behavioural changes activity modification and psychosocial traits and coping skills make the internal factors.

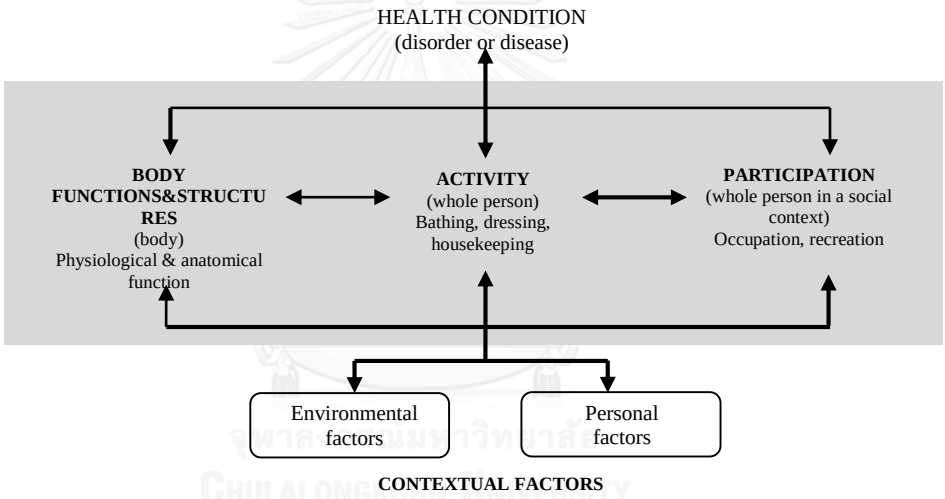

Figure 2. 2 International Classification of Functioning, Disability and Health (ICF) (22)

Similar to the concept given by Verbruge & Jette [13], the WHO also put forward the model of disability. They also merged the concept of medical and social model but in spite of the only two models, the WHO has combined several biological, psychological and social determinants of health (fig 2.2) to form its disability model. According to WHO, three levels or factors can be used to describe an individual's proper functioning. The corporeal body is the first level of functioning, which includes the functions and structures of the body. The activity of the whole person makes the second level whereas the participation or social factor of the person makes the third level of functioning. The link between these levels is well elucidated in figure 2.2 along with their relationships with various other determinants. An important point is highlighted by the WHO which says that these three levels are not alone that lead to the formation of a disability but there is involvement of several factors that lead to such a conclusion. These include various personal, health and environmental factors like the physical geography, climate, architectural characteristics, social attitudes, diseases, disorders, sex, age, education, occupation, and social background etc.

Like Verbruge & Jette, the WHO also gives the definition of disability as per their own model of disability. "The negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (personal and environmental factor)". Along with the definition, the WHO has also put forward two qualifiers that ease in better understanding and description of the levels of disability. These qualifiers are ***capacity*** and ***performance***. The WHO model is widely accepted and by using this model, has led the foundations of the standard classification system; the International Classification of Functioning, Disability and Health (ICF).The two qualifiers are described on the basis of the way of doing a task in a particular environmental condition. Working in the normal casual environment in normal routine manner is called the capacity whereas working well in a challenging, modified and adapted environment defines a person's performance. Though all the models provide sufficient information and add to the concept of disability in an individual, the most widely accepted and best proven tools are the WHO's conceptual model and the International Classification of Functioning, Disability and Health (ICF).

2.4 Defining Long-term Care

People suffering from chronic disabilities or from physical or cognitive injury who are not capable of fulfilling their own social, personal and medical requirements, being facilitated with a range of medical and non-medical services is defined as Long-term care (LTC). The non-medical services includes personal care and medical ones incorporating skilful nursing care and nearly all of these facilities contain aid regarding both ADLs and IADLs or any one of them. These long-term care facilities include formal care suppliers that cost money or informal ones that are for free. They can be presented in an institutional scenario including nursing homes, in a private home or public situation. According to Colombo, et al. (23), the mainstream of LTC services being given around the globe consist of informal care from neighbours, friends and family even though the formal care that us given but nurses and social workers is imperative. According to OECD (23), the likelihood of people lying in the age group of 65 and over and henceforth denoted as older adults, particularly those who are described as oldest old and are above 80, being offered with LTC is maximum. Calculations done in the United States depict that LTC might be needed by roughly 70% of elder citizens, ultimately at some point in their lives. According to Kemper (24), the duration of 20 % of the elderly citizens requiring LTC would exceed 5 years and typically, every old person will require LTC for three years before death.

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The central focus of this research is the people in the older age group, due to the fact that LTC is generally prevailing among people of age 65 and over. The range of this study excludes the long-term care for younger people suffering from developmental disabilities or mental disorders.

2.4.1 Long Term Care Pressing Policy Subject in Many Countries

The major systems throughout the OECD and current policy enhancement presents in Table 2.2. The change is enforced by some countries or system has been affected by valuable reforms, even no amendments are made in the salient features. Consequently, Mexico, a new OECD country also established its first National Gerontology Plan. LTC insurance which is necessary is basically introduced by the Belgian region Flanders whose purpose is to supplements the major public LTC coverage. For maintenance of good health and long term care the cantons commenced a human resource which will build our stamina by regular exercise. On the other hand Countries like Germany and France set an example for other countries, both of them faced a frequent or regular stream of policy adaptations and made amendments in their systems. Reforms has been discussed by France, subsequently it is also taking interest in the establishment of a fifth social security pillar (early 2011). For leading in fact an independent life United Kingdom (England) has took an active part in the current or latest years for the creation of a number of diplomatic plans or specific affairs and mark groups (2006), an impressive Carrier Strategy (UK HM Government, 2008), older workers targets a policy that comprise especially on the main controversy of team work, it also talks about other obligations for example protection or feeling of care (2006) and a broader perspective of social care (2010). France being a very diplomatic country has established intended Alzheimer Plan (2008-12), just like United Kingdom had done in 2009, whereas most of the countries have also taken part in the advancement of progressive strategic documents and the need for its execution. For example the Icelandic New Strategy for Elderly Care or the Finnish National scheme for Excellent Quality Services for senior citizens cannot be denied.

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Table 2. 2 Selected LTC policy changes over the past ten years in OECD countries at a glance

Title of policy or reform		coverage			use		Care	provision	
		Financing	Cost Sharing	Access (eligibility) and changes in services	Benefits	Choice	support	Workforce	Quality
Australia			♦	♦	♦	♦		♦	♦
Austria					♦		♦	♦	
Belgium	Care insurance (Flanders) (2003) 3rd Protocol: Conversion of rest home beds in nursing home beds (2005-11)	♦							
Canada				♦			♦	♦	
Czech Republic		♦		♦	♦	♦			♦
Denmark	Quality reform (2007)							♦	♦
Finland	National Framework for High-quality Services for Older People (2008)			♦	♦				♦
France	Old Age Solidarity Strategy (2007-10)	♦	♦	♦		♦	♦	♦	♦
Germany	LTC insurance reform (2008)	♦	♦	♦	♦	♦	♦	♦	♦
Ireland	Fair deal (2009)	♦	♦	♦					
Iceland	A new strategy plan for elderly care (2008)		♦	♦		♦		♦	♦
Japan	Partial Revision LTC Insurance Act (2005-06) Revision of LTC Insurance Act (2009)	♦	♦		♦			♦	
Korea	National LTC insurance (2008)	♦	♦	♦	♦			♦	♦
Luxembourg				♦	♦	♦			♦
Mexico	Institutional Gerontology Plan (2006)								
Netherlands	Social Support Act (2007) Care Innovation Platform (2007)	♦		♦	♦			♦	♦
New Zealand			♦	♦			♦	♦	♦
Portugal	National Network for Integrated Continuous Care (RNCCI) fully implemented in 2016 (2006)	♦		♦	♦				
Slovakia					♦	♦	♦		
Spain	Long-term care law (2006)	♦	♦	♦		♦	♦	♦	
Switzerland								♦	
United Kingdom	Supporting people with long-term conditions (2005) Carers Strategy (2008, refreshed 2010) Working to put people first (2008) Dementia Strategy (2009)			♦			♦		
United States	Increasing grants to States for Money Follows Person Programme (2005) More "waivers' assisting states" home-based care programmes (2005) Private LTC insurees can protect more assets if ending up spending down for Medicine (2005) New opportunities (with increased federal co-funding) for States to offer home-based care services (2010) Class Act (2010, to be implemented 2012)	♦	♦		♦	♦		♦	

Source: Francesca, Ana et al. 2011 (23)

In order to get access to services (involving the number and type of), Coverage reforms will stay a better option as it is even connected to financing (comprising cost sharing). Recently over the last ten years, for the increment of LTC coverage and beneficial services, a number of countries have enforced or lengthened programmed or their

concerned issues, they are also seeking to enhance their valuable service allocation for the help of concerned association like for those who are handicap or suffering from dementia. Alteration in financing for LTC has been made by seven countries for their benefits. As the importance of LTC system cannot be denied and Two latest financing systems has been set up, one of them is based on tax (in Spain, 2006) and the other one is based on National Compulsory Insurance (Korea, 2008). Both of them are designed to meet the need of access (discussing eligibility), advantages (what is covered or what is not), remittance needed for (what do citizens pay under concerned conditions) and especially have labour force consequences (as both nations enforced regulations which will meet the need of services). A number of in progress reforms has been imposed by Germany which actually had commenced LTC insurance plan in1994. In fact, in 2004 Germany needs people who are retired to help them in their LTC programmed by donating, whereas, since 2005,people who don't have children has to pay extremely higher provision. In 2008, amendments had been made by the insurers in order to enhance presumption, whereas the need for Market encouragement was meet in 2007 and for people who have elevated earnings or are the owner of high bank accounts LTC was made mandatory for them in 2008. Japan, one the largest technology consumer reconsider its LTC insurance plan after every three years, also accommodate premier and client's fees three times, whereas in 2006, amendments in community services was made.

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To prevent extreme inflation and to reach on the way of providers easily, benefit testing and high income are extremely the tremendous options and these all things can only occur. On the other hand, New Zealand i.e. also known as kiwi's is actually arranging an impressive and useful testing in order to initiate nursing homes. The reduction or decrease in economy is only done by Netherlands. In 2007, IADL subsistence was actually taken back of LTC insurance to major district's authority. It was considered more convenient in 2012 to launch the "Class Act" in the United States as a share of 2010 Affordable Care Act 8.Class is actually a confidentially financed, issued by government and intentional insurance programmed whose mission is to accommodate a regular cash issuance to those people whom need for care cannot be neglected even after five years enrolment.

Cost sharing reforms utilized in unusual modifications. One of the best example is when 20% cost sharing was allocated to Korea on just institutional care and 15% was consumed by co-payments for domestic care, which is mixture of ADL assistance as well as for basic needs such as conveyance, day and night care, short term respite care and materials that comprise of wheelchairs and orthopedic mattresses. In Australia, some alterations were enforced in cost sharing over the years in order to convey impartiality between temporary retirees as well as pensioners for the purpose of reduction of co-payments for those people who have some benefits.

The beneficial rules and regulations have been altered to a great extent by winding cost sharing at 15% of the quality rate over a highest time duration of three years. Access related reforms comprise of amendments for the betterment of eligibility criteria, furthermore it should also consist of alterations in capacity as well as range and also sorts of services that are easily accessible in the system. It is considered by many countries that a "one size fits all" evaluation and service stipulation need a lot of compromise over a long time period as new considerations and aimed groups may get a chance or may be the recent model is not suitable. Therefore, people who are suffering from dementia or are liable due to any reason will get special facilities by several nations. Australia altered and cut down their eligibility criteria, whereas it expands residential backing in remote areas and also increases residential capacity from 100 places per 1000 people who were aged over 70 years in 1985 to 113 in 2011. It was a biggest goal of Finland to meet every individual's need; In 2008 National Frame work was an excellent option for excellent quality services just for senior citizens. France and Finland were the last in the context of 2007-2010 in the scheme "Old Age Solidarity Policy". On the other hand, in 2008-2012 National Alzheimer Plan have set their concerned targets in order to do increment in the services of the community, while Finland set its goal to reduce residential care utilization from about 6.5 to 3% of the total population by 2012 and also persuade on the need of community care. National assessment tool was enforced by New Zealand in 2008.

Benefits and choice are reliant on Use- related reforms. Expansion of LTC concerned advantages are done by most of the OECD nations, as it comprises of tailored specifics for people who are dwelling in rural areas and is a victim of dementia. The utilization and consumption of cash payments, acknowledgement dissemination like World Wide Web i.e. internet and a challenging competition between suppliers is one of the tremendous option for enhancing customer expectation choice for further benefits. Benefit package is ameliorating by several nations. Some of the examples are Australia, Austria, Finland, Luxembourg (for home and feeling of care) and Germany even comprise of advantages for specific concerned groups, like those people who are a liability and suffering from dementia. A dedicated aimed training for LTC staff was commenced in Luxembourg in 2009.

It was a huge amendment by Germany as it extended settlement in 2009 by the instalment of disease concerned activity steps regarding LTC insurance plan. In 2004, a ten year clan was established by Canada to strengthened health care facilities for every individual in order to get access to free of cost home services that would be a great help to people. It was a goal of Finland to enhance medical schemes and supply of care at home and decrease institutional care. Australia rise assets for those people who are restricting as well suffering from torture of dementia, and lastly care policies between the health and LTC system was expanded public findings.

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The choice of customer and clients cannot be denied. One of the main elements is cash payments in most of the nations. The other options comprise of additional acknowledgement for consumers to investigate throughout the system, For Example via easy to handle websites (Australia). The increment in co-funding for cash follow the people's policies in United States commenced in 2005. These policies initiate the service provision and the region where a person who need to be cared of wants it to be delivered. In fact in one's own place and experienced rise in funding for the nations who assist states' home based care policy in 2010. Several Nordic European countries enforced and introduced market incentives to motivate confidential suppliers into the market.

Consequently, policies were enforced to facilitate carer in OECD countries, For example, through enhanced options for taking care leave, it would be whichever paid (Canada) or voluntary (Germany), or may be aimed carrier allowances should be installed. Many other nations like Germany, Austria, and the Slovak Republic forfeit other offerings like pension for carrier development or should have established human rights of pension for excellent carrier (Spain), whereas Austria also took active part in the payment of health insurance and Germany is a source of stipulation of unemployment insurance. Usually, care allowance is established by Slovak Republic for those who cannot afford basics and have low salary threshold in 2009. A great carrier strategy (UK HM Government, 2008) was published by United Kingdom, enforcing some procedures for need to brace family carers for instance growth of respite services, steps shall be taken to encourage carers to reorganize the job markets, procedures to boost support for young carers, genuine practitioners and other specialized guidance for the recognition and fame of support carers. On the issue of annual health checks for carer's counselling, some vital projects have been signed, whereas it would be a great blessing of the working hours for care was expanded.

LTC workforce refer to supply of service reforms and to meet excellence needs. Several complain have been made by work labour related issue. The security measures comprise of income increase which was made in Japan (2009), financial support of human resource establishment initiatives and finally sustaining hard work for the increment in retentions. One of the main supporters of initiatives is Canada who actually permits nurses to contribute 20% of their working hour in order to improve trained development (Newfoundland/Labrador). Payment of adult re-education in the third year of retraining was taking over by the German federal administration, therefore supplied stimulatory, whereas a foremost training scheme was made obligatory by Luxembourg on the issue of palliative care to join with its new sedative care advantage. The great aim of malleability of foreign born care labour in home care was admired by Austria (2007) and Italy (2002,2009), whereas France dreams to rise the labour capacity per dweller regarding LTC skill and set in an area in order to get job amendments and recruitment program (2008). The development of work labour funding was done by New Zealand in 2007, whereas the main objective of England was to favour professionalism of the

social care work labour through many valuable means (2009). The establishment of lower-level care workers was made by Austria in order to get access to nursing or medical challenges, under expert guidance. Other measures comprise of enhancement of valuable packages especially for LTC employees (Belgium), enforcement of officially authorized qualification need (Spain, Austria, Germany) or rising worker capacity in certain concerned needs and settlement of care (France, Germany). Affairs regarding excellence are extremely vital and this issue cannot be denied. A latest excellence coordination has been set up Australia, that comprise of summary of accreditation Republic and the Slovak Republic enforced omission schemes, agreement and lastly complaints of supplier's excellence which actually very important, but Germany improved its excellence under expert supervision which is a good aspect and goals to get impressive views of suppliers regarding quality management, combined with customer voice. National quality Standards for Residential Care settings for senior citizen was available in Ireland in 2009, whereas Austria emphasized to create handbook or document on dementia and Luxembourg has established a Committee on excellence of care.

2.4.2 Long Term Care in United States of America

LTC, which stands for long- term care, is a term used to refer to a wide variety of services offered to weak senior citizens and other people who can't function surly on their own. These services are provided by independent agencies that are strictly regulated by the government. These agencies include nursing homes, home health agencies, hospices, adult day care centres and residential care communities. Together they absorb a huge chunk of the total expenditure on personal health care services in the United States. Statistics reveal that every year, 8,357,100 people avail the services provided by the five aforementioned long-term care service agencies. Of this number, 56.7% are catered to by home health agencies, followed by16.5% by nursing homes, 14.9% by hospices and 8.5% and 3.2% by residential care communities and adult day service centres respectively (25). Most of the candidates in need of LTC are old people with approximately 63% being 65 years of age and older. This amounts to a total of 6.3

million elderly people. The remaining 37% who are 64 years old and younger, amount to 3.7 million. In people aged 65 years or above 68% of the people can suffer from cognitive impairment or disability from at least two daily life activities. In 2007 about 12 million American were in need of LTC.

It is estimated that the number of people using long-term care services in any type of setting will double from 13 million in 2000 to 27 million in 2050. This figure of course has a lot to with the population growth of the senior citizens community in need of such care. Around 30% of this population, of which 25% comprises of people 85 and above, has very significant long-term care needs (26). It was reported that 14.8% of the people in the 65 and above age category were living below the poverty line in 2012. Furthermore, 69% of people in this category were likely to develop some form of disability before they died with 35% eventually having to join a nursing home at some point (27). It was also reported that almost one fifth of elderly people would have $25,000 worth of lifetime long- term costs to their name before they died. Statistics further showed that while there appeared to be no change in the prevalence of physical impairment in the older population over the previous ten years, the prevalence of cognitive impairment had shown an increase (28). As of 2012, the number of people in the 85 and above age bracket was approximately 5.9 million, a figure that was forecasted to reach 19.4 million in 2050 (29). This had severe implications in that it could lead to an increase in the number of people aged 85 and above who had memory problems to some degree.

Sector differences can be found in the ownership structure of LTC providers while regional differences are prevalent in size and supply of resources. Of the five sectors involved in providing long term care, most of the providers in four of those sectors operated for profit. Only the adult day service sector consisted mainly of non-profit organizations. The number of people accommodated by each provider depended on the sector in which they operated. It was found that on average, adult day services centres and residential care communities served less than half of the people served by nursing homes. Similarly, a yearly comparison showed that hospices served lesser people on average than home health agencies. The supply of care beds in long term care service

centres can be measured by number of beds available per 1,000 people aged 65+. In the west this supply was almost the same in residential units and nursing homes whereas in other regions care beds in nursing homes outnumbered those in residential centres. The accommodation capacity of adult day service centres and the supply of care beds in nursing homes and residential communities differed from region to region. For instance, the number of beds in residential units was more in the Midwest than in the South and adult day services centres could accommodate more people in the former area. This suggests significant disparities in terms of physical access for consumers of LTC services.

Individuals such as family members, neighbours and friends who provide unpaid care for elderly people are referred to as informal caregivers or family caregivers. These people can work either full time or part time and can either live with the people being cared for or live somewhere else. They can also fall into either the primary caregiver or secondary caregiver categories, depending on how much time they devote overall. While these people are close acquaintances of the recipient of care and hence informal caregivers, formal caregivers are also employed by the service system. These include paid employees and/or volunteers (30, 31). Interestingly, 80% of old people who receive such help live in private residences and not formal institutions. Senior citizens with serious functional limitations living in the community receive around nine hours of aid in a day. This concept of availing services while living in communities rather than permanent placement in nursing homes was formally recognized at the Olmstead Decision. This was a court case which took place in 1999 where the Supreme Court recognized the right of people to obtain care in such a manner that did not bind them to an institution (25, 32).

This move was important to facilitate the care giving process especially since the percentage of 65+ Americans with impairments who depend completely on formal care to meet their personal needs, has increased over the years. This holds true at a national level and this can be seen by the increase of assisted living facilities from 32,886 in 2000 to 36,399 in 2002. (33). An increase of 4% in population aged 65 and above who require personal assistance have been observed from 1984 to 1999. It is important to

note that this figure does not take into account the true number of assisted living units as many of them are unregistered. Despite the adequate supply of such community based residential facilities, most of the assisted living facilities, known as ALFs, let go of residents whose mental/cognitive disabilities become difficult to handle or of those who need additional help moving about. This kind of treatment leaves people with such problems with no alternative but to seek help from nursing homes and other institutions (34).

Unfortunately, older people become very prone to being institutionalized once they reach a certain age. In 2010 it was reported that one eighth of people aged 85 and above lived in institutions as compared to 1 percent of people between 65 and 74. 2012 saw a total of 1.4 million people living in nursing homes across the United States (32). Additionally, in the twelve years leading up from 2000, prices for premium rooms in nursing homes rose by 4.25% based on a year-on-year average. In 1999, of the 65+ age bracket, 52% of the nursing home population was 85 years old or more as compared to 35% and 13% of the population which comprised of people aged between 75-84 and 65-74 respectively.

In the year 2012, total spending on LTC amounted to $219.9 billion which was 9.3% of America's entire expenditure on personal healthcare. This includes public and private spending. This amount is expected to increase in the long run with a total of $346 being projected for 2040 (25, 35). In 2010, around 55% of Medicaid long-term care funding was devoted to institutional long term care compared to 45% allocated to home and community based services. The services rendered by caregivers were worth an annual $450 billion-a huge increase from $375 billion just two years earlier. It can be seen that although community based care was gaining popularity, nothing substantial was being done towards establishing it as a viable option. This is validated by the fact that only 18.2% of long-term spending on the elderly was directed toward community-based care (36).

Skilled Nursing Facility (NSF) absorbs much of the total expenditure on LTCs as opposed to other sectors. The average expenses per adult receiving care in a SNF is up

to four times more than average expenses incurred by an individual in community based settings. Due to these cost savings and a changing mind-set, in 2009 Medicaid allocated 34% of expenditures devoted towards LTCs, for community based services (37). This was a move in response to the preference of Americans to obtain care in the home or community rather than an institution (38). So change is being implemented. Overall, an increase in America's aging population, especially those who are 85 years old and above-is going to lead to a tripling of LTC expenditures. These expenses have been forecasted to rise to $346 billion in 2040-a huge leap from $115 billion in 1997 (39) .

2.4.3 Long Term Care in Asia-Pacific

Though the cut-off ages to classify "old age people" are different for countries in the Pacific and Asia are different but countries in both regions are experiencing rapid growth in this age group. The countries have specified different age groups for different purposes like pensionable age, retirement ages, granting of certain benefits. The retirement ages for a few sectors in Singapore and Hong Kong are lower; for Singapore the age is 55 and is increasing to 60 in some places (40, 41) while for Hong Kong the age in offices is 60 (42, 43). In Malaysia (44) and Thailand (45) the age at which the person is included in the elderly population is 60 while the age for including in elderly population in Singapore, Hong Kong and Korea is 65 (46, 47). There are a number of factors which are resulting in increased elderly population all across the world; among these reasons one of the main factors is the low fertility rate. Taking care of the older persons has been the responsibility of the family in many Pacific and Asian countries up till now. But it has been observed that the population of the oldest age group- 80 years and above is increasing and an increase of 0.52% has been determined from 1990 to 2012 and it is predicted that by 2050 the population of elderly people will increase to 4.4%; among this population women are present in majority because of their longer life expectancy. The government is now thinking of taking some measures because of the increased elderly population as well as the changing economic and social conditions of the people.

A wide diversity in social and health care is provided in the Long-term care to the elderly people who are unable to take care of themselves for a long time. The facilities and services provided by the long-term care include ADLs and IADLs like dressing, bathing, taking medication, dealing with daily chores, feeding, walking, using bathroom, shopping and also palliative care and nursing. In order to maintain the quality of life and health and the involvement of the old people in different activities it is necessary that the support and care being provided to them is proper and such that it develops confidence and independence in the older people.

In the countries of Pacific and Asia family care is the foremost care for the elder people and then community care is present as an alternative care for the people. Long-term care for the old people is primarily provided by the family members among whom the dominant care providers are children and the spouses. Community care can be provided by volunteers offered by organizations like Older Persons Association (OPAs), which are developed by the community and they provide home services for the old people and also by community day care centres. Government bodies and local hospital have minimal participation in providing volunteers for health care.

As the demographics of the region are changing, women are increasingly getting involved in the labour market and greater internal migration is taking place it is gradually becoming very difficult for the family members to provide the necessary long-term care for the elder people. In this region women live longer than men and women are responsible for giving care to the children grand children and spouses and also many older women live alone as compared to old men and therefore women need someone apart from the family to provide them with the necessary care. Institutional care is also provided although it is not much common in the region.

2.4.4 Long Term Care in Japan

In the year 2000, Japan introduced a long-term care insurance system for the people with age 65 and above depending on their mental and physical condition. The insurance system was developed with the tag line ‘from care by family to care by

society'. The motto behind the development of such a system was to provide home care and institutional care to every elderly people and also to avoid and reduce hospitalization of the elderly people and help in everyday life activities (48, 49). Initially, the long-term care and medical care were separate provisions but now they have amalgamated and this has impacted on the policy. The insurance act given by the Japanese basis on two basic ideas which are, community based care and integrated care. As the name suggests the main focus of the act is on community based integrated care. Secondly, the insurance act targets long-term care also. Since the population of elderly people is increasing, the costs required to maintain and provide them care also increases; therefore the act demands more money to ensure the proper care of the elderly people (50, 51).

Basically, long-term care insurance system is under the control of municipal administration. They had started the long-term care services in order to improve the human welfare services and to serve humanity in a better way. The municipal government had been doing many projects for human welfare and it had also made 'community plans' for old age people. Additionally, for helping the self-employed and jobless people, municipal government is also providing the national health insurance plan. All these services for human welfare and betterment of society had made the municipal government the best candidate for starting long-term care insurance program (52). However, home-based care can never replace the value of institutional care (49). It has been found that some dishonest care managers persuade users to get services which are not essential but productive for the managers. The system needs to improve its administrative management standards to avoid these kinds of disgraceful acts (53).

In the long-term care reform of 2005, the long-term care insurance services were expected to be integrated with other essential care resources locally (51). The community general support centre was also expected to work as an influential coordinator. However, the outcomes were not as good as expected and the centres could not manage to perform the coordinating services effectively. The district five-year health policies were drawn up in the late 2000s by the prefectures. One of such five-year plans of the financial year 2013 mentioned that the home-based medicinal care

should include achievement targets along with interlinking them with the long-term care insurance strategy (54). The idea of the 5-year fitness policies is to amalgamate different providers like rehabilitation hospitals, home-based care, prime care professionals, long-term care services and the acute care hospitals (51). Financial motives were also provided to take in these strategic plans. The novel fees formation encouraged the domestic medical treatment and the early release of old patients from hospitals, under the medicinal insurance.

The novel fees raised the recompense of doctors advising the care managers in domestic care and it supported the care manager's synchronization in hospital release support. Model projects have been employed to coordinate different ways of home-based medical care in approximately 105 localities countrywide. These projects coordination is based on clinics, local hospitals and other medical institutions on contrary to be based on common community support-centres. The foundations are crewed by knowledgeable medical care and long-term care specialists. The crew facilitates the calm hospital release by introducing information sharing between the prime care professionals and the hospitals, teaming up with the community general support centres and keeping track of new sources of supply that can help in more collaboration (55). In the year 2012 the monetary plan to support community initial steps for home-based medical care was raised to 20 times that of the past year(56).

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It is recommended by the Japan's expertise in community based care incorporation that this project requires the insertion of informal mutual assistance, amalgamation of medical and social care, managerial constraints on profit-seeking and conformity between setups with various geographical spheres. Overall, Japan's LTC policies for the senior old age citizens focus on to create versatile care integration in local communities. They not only revere the value of the flow of elder's life in the community but also the economy of all such steps. Empirical examinations are mandatory to find out the usefulness of all such initial steps.

The most significant ingredients of long-term care system are the LTC deliverance and finance, these major ingredients formulates other components like the dealings of quality of care and the LTC workers.

2.4.5 Long term care in China

China has existence of both the informal and formal care, with the informal typed care as delivered by the family members being the major LTC source (57-59). Numerous particular LTC services in China are delivered in communities (like adult day-care centres and community service centres), in institutions (like old age care centres and nursing homes) and in houses (like the care as given by the relatives). Such services have inadequate reach in less developed internal provinces and in rural areas; however, variety of services exists and are constantly progressing in more developed provinces and in urban areas (60, 61). Even if many organizations are delivering specific types of LTC services in various forms, there exist no national financing and delivery scheme in China.

Government along with some NGOs and private investors had recently been funding and operating institutions. Aged adults institutes like aged specific apartments, nursing homes and additional community benefit organizations provide the institutional LTC. However, these institutes are less in number and are insufficient to meet the present LTC requirements and there is an inequity between the care requirements and its supplies (60). Realized by the Chinese Government about the inadequate public resources for institutional care expansion, it has raised plans to promote foreign as well as private investment in constructing elder care centres and nursing homes, this has resulted in a fast growth of elder care centres in urban regions recently (61). Since the government funded institution's eligibility criteria is not applicable to privately possessed institutions, the major element to get admitted into such institutes is the paying capacity, as the institutions are comparatively far more costly than government-funded institutions. According to common perception, these privately possessed institutions mainly serve aged people from highborn families.

Recently, there is a good development in private nursing homes of urban localities in comparison with the fast development of LTC requirements; still the LTC institutional expansion is quite slow. Around 6% or 11 million “entirely disabled” old people are in institutional care requirement (62, 63). The number of elder care institutions by the late 2010 was 39,904 with merely 3.2 million beds (, this shows that it was 26.5 beds per 1,000 aged adult (on contrary there are 44 beds per 1,000 aged adults in U.S). Even though many of the disabled elders never approach any nursing home for many reasons, still then the 8-million gap between the number of “entirely disabled” aged Chinese and the number of beds is enormous.

Mostly the elders having social problems like no child, no or low income, no relatives to support them are institutionalized (57, 64). Government funded institutions usually have austere admission criteria called the ‘5-nil criteria’. They chiefly serve poor aged adults (65). It has been a tradition in China that the family members particularly the women are responsible for taking care of the elderly people and this tradition is expected to continue in the future as well. China does not have any public funded national health insurance program to provide long term care to the elderly population (62) . Majority of the families have to bear the LTC expenses through pensions, remittances from adult children, out-of-pocket expenses, retirement salaries, and other sources. Due to the lack of social safety in China, the people of China have the highest household saving rate. According to Feng (61) people’s expectation from the government to provide elderly funds is minimal. Only a few private insurance plans are available that provide the people with LTC services but these plans are way expensive for the low and medium income families to buy. It has been found out that the farmer’s income is not even one third of the earning of an urbanite and therefore the elderly population of rural areas is unable to buy these expensive insurance policies which provide LTC services.

2.5 Ageing and Disability in Thailand

2.5.1 Brief information

Since 1970, Thailand has experience a sharp decrease in the fertility rate. The rate was very high in the past, amounting to 6.48 births per woman in 1960-1964 (66). It decreased to 1.82 in 2000, which is below the replacement rate. This phenomenon is a result of the different population policies in two periods of time. Before the 1960s, the policy aimed to increase the number of population. However, since the 1970s, the family planning program has been implemented to control the number of population. Due to advances of medical knowledge and innovations, Thai people live longer these days. The life-expectancy at birth increased from 50.7 years in 1950-1955 to 73.6 years in 2005-2010. The life expectancy of women is higher than that of men in all ages. Thai ageing index showed an increase from 8.38 in 1980 to 23.44 in 2000 and is further expected to reach 55.77 by 2020 (67). Aging of population has now caused a worry.

In the years 1950-1955, the life expectancy at birth was low at 50.7 in Thailand which was increased to 63.6 in 1975-1980 and 73.6 in 2005-2010 (68) (Figure 2.3). In the year 2050 the expected life is 79.5 years. Statistical analysis has revealed that females have better life expectancy than males and this is currently 77.1 and 70.2 years for women and men. This increase in life expectancy can be due to the development of modern medication and techniques due to which disease can be detected and cured in the earlier stages.

Almost half of the elderly Thais were suffering from any chronic diseases. The prevalence rate of chronic diseases is higher in women as compared to men among old age Thai. In 2011, 41% respondents perceived their health as ‘medium”, 38.0% as ‘good’ and 4% as ‘very good. Moreover, only 14% respondents reported their health as ‘not good’ and 1.0% as ‘not good at all’. Vision problems are more widespread as compared to hearing issues. The problems increase with increase in age and are common in women and in rural populations as compared to men and urban population.

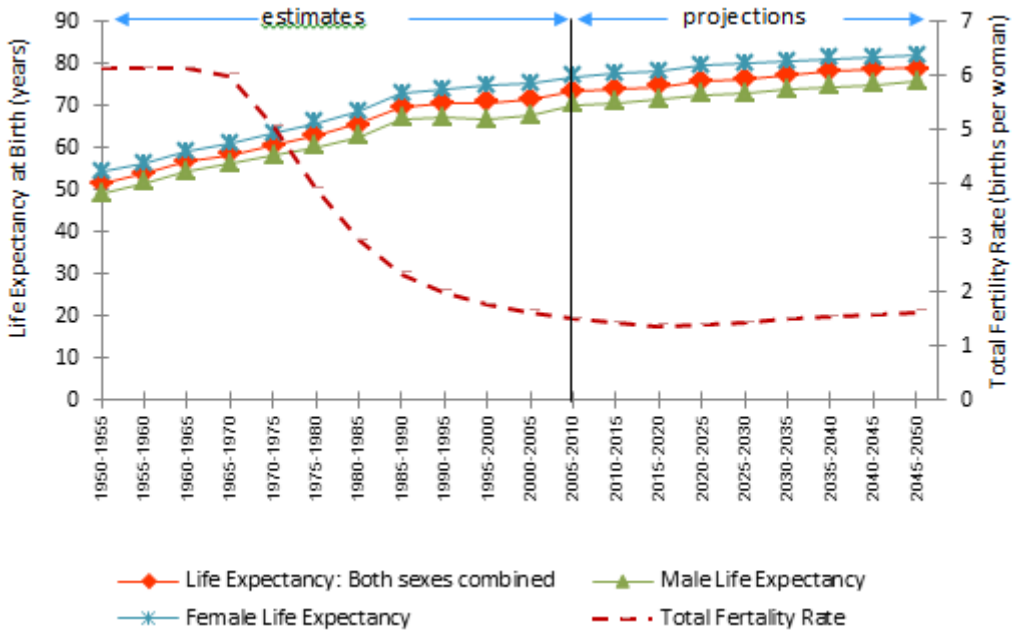

Figure 2. 3 Fertility decline and Increasing Longevity, Thailand 1950-2050
Source: United Nation 2013 (68)

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In addition, the household size in Thailand declined from 5% in 1986 to 3.6% in 2011 (69). This phenomenon is reflected the exchange relationship between the elderly and their children. The elderly living in one-generation households increased from 19% to 31% between 1994 and 2011 (69). The skipped generation households are another important trend has been increasing. This trend has increased between 1990 and 2007 from 2.34 per cent to 7.18 per cent. The skipped generation households entail a very high risk of living in economic privations because grandparents and grandchildren are either not or less economically active when matched to other living arrangements. Thus, this situation poses a serious threat. At present, nevertheless, over one-third of Thai senior citizens live in three-or-more-generational household setup.

Different saving behaviours are observed in different living arrangements. Two-/three-or-more-generational households tend to save more than the one-generational households. Households having very young or very old heads save less. Nowadays, more old people contribute to the economy by working. Before 2009, 80% of respondents relied on their children for income. Later in 2011, the percentage of older that depend on their children's income was a bit lesser as compared to the proportion that received Old Age Allowance (OAA) form government. Regarding formal income sources, pensions are cited by urban elderly more than rural elderly (12% vs. 3%). OAA is cited by rural elderly twice than urban elderly (14% vs. 7%). Income distributions have shown a variety due to gender, residential area and age. The ones aged 70 and above, rural elderly and women have shown lower incomes while individuals in 60s, urban people and men have shown greater percentage for higher income groups.

Both 2007 and 2011 SOP showed a greater proportion of respondents rated their income as satisfied or more satisfied. The houses constructed from non-permanent material was low as 6% in 1994 and further decline to 1% in 2011 (69). The older persons using a toilet sit was as low as 10% in 1994 that has dramatically increased to one third by 2011. The biggest change is the usage of piped water that was below one third in 1994 and has jumped to 80% by 2011 (69).

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Working persons' percentage aged 50 and over, the overall level conceal big distinctions by age. The pattern that proportions of men and women having had worked in the previous week drops moderately with age. It is observed that slightly more than half of the people aged 60-64 worked in contrast to below one-fourth of ones aged 70-74 while the ones aged 80 and above still working were 6%. Among all of the age in older-age span, more men than women probably worked in the past week with comparative differences in ever age group. The elderly in agricultural sector tend to work for longer than the ones in formal sector.

2.5.2 Limitation and Disability in Thailand

Aging also hinders the routine activities and makes it difficult for the patient to practise routine activity i.e. self-care tasks commonly known as activities of daily living (ADLs). Some other tasks which person carries on his own known as instrumental activities of daily living (IADLs) are also impacted. IADLs can be delegated to someone also and cannot be carried out homogeneously by everyone themselves, unlike ADLs. Few of the IADLs are responsible for working within a community rather than functioning in a home only. With the increase in the functional restrictions and ADL and IADL the difficulties are elevated which increases the demands for the caregivers.

In Thailand, questions were included in 2011 SOP regarding the four potential functional restrictions as well as potential problems with seven ADLs and three IADLs. For every question the participants were inquired if they had any difficulty in performing their tasks themselves. Their response was noted in form of three categories which are: unable to do at all, can perform little activity but with the assistance of physical aid and cam perform without any hindrance nor require anyone's help. The results are summarized in table 2.3.

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In total, one third reported having one of four functional limitations. At least one of the difficulties along with ADLs were reported for 4% or the participants and IADL difficulty was reported by a fourth. 30% of people reported functional restrictions and they were not able to lift 5 kilograms by themselves. However, very less number or individuals (only half as many or less) reported that they had difficulty while using toilet still 3% showed problems in carrying out this task. 25% with respect to IADLs reported difficulty with the transportation but 10% indicated difficulties in counting change or having the medicines without the help of others. For the cases which compel functional restrictions, ADLs and IADLs nearly 40 % of the elderly people show problems with any one of them.

Table 2. 3 Functional limitations, difficulty with activities of daily living (ADLs) and difficulty with instrumental activities of daily living (IADLs), among persons 60 or older by age, gender and area of residence, 2011

		age		Gender		Area	
	Total	60-69	70+	Men	Women	Urban	Rural
% with functional difficulties							
Lifting 5 kgs	29.2	17.1	45.7	20.5	36.0	31.2	28.2
Walking 200-300 meters	15.7	7.4	27.0	11.6	18.9	16.5	15.2
Squatting	12.7	6.3	21.3	9.4	15.2	14.4	11.7
Climbing 2 or 3 stairs	11.9	4.9	21.5	8.5	14.6	12.6	11.5
Any functional difficulties	32.9	20.0	50.6	23.8	40.0	34.6	32.1
% with ADL difficulties							
Using toilet	3.1	1.2	5.6	2.5	3.5	3.9	2.6
Bathing	2.9	1.2	5.1	2.4	3.2	3.7	2.5
Putting on shoes	2.8	1.2	5.1	2.5	3.1	3.6	2.4
Dressing	2.7	1.2	4.8	2.3	3.0	3.5	2.3
Grooming self	2.6	1.1	4.6	2.4	2.7	3.2	2.3
Wash face/brush teeth	2.4	1.0	4.3	2.2	2.6	3.2	3.0
Eating	2.2	1.0	3.8	1.9	2.4	2.7	1.9
Any ADL difficulty	4.1	1.9	7.1	3.5	4.5	5.1	3.6
% with IADL difficulties							
Using transportation	24.0	11.0	41.9	17.5	29.1	24.1	24.0
Counting change	10.6	4.1	19.6	7.9	12.7	9.5	11.2
Taking medicines	9.3	3.6	17.1	7.2	10.9	8.8	9.5
Any IADL difficulty	25.5	12.2	43.8	19.0	30.7	25.2	25.7
% with any functional, ADL or IADL difficulty listed above	37.7	23.5	57.3	28.4	45.1	38.3	37.4

Source: 2011 SOP (69)

Note: persons with functional, ADL or IADL difficulties include who cannot do the task at all and those who can do it only with someone else's assistance or with an aid.

Beyond any doubt factors like age and gender are linked with the functional limitation and complexity with ADLs and IADLs. People who are over 70 years of age are more prone to these problems in contrast to the individuals in their 60s. Moreover, it was clearly expressed that females tend to show more difficulties than men when they are

asked to perform a similar task. Area of residence do not play a predominant role in alteration of function but it is generally believed that older people or rural areas show less functional restrictions than the residents of urban areas.

Less than one-fifth of the persons between 60 to 64 years experience problem with any of the tasks, this will show a steady increase as the age progresses. Out of individuals who are 80 or elder than that, more than one fourths show restrictions with one or more tasks. A parallel steep is noted in both the functional limitations and IADL difficulties are more prevalent whereas ADL issues show a little incline in persons less than 75 years. For the individuals aged 80 years and above, around 17 % experience difficulty with at least one ADL. Functional limitations of any one kind were noted in 40 % of the individuals; on the contrary one fifth have all four. Out of the proportion of the older person who have problem with ADLs, approximately 45 % have difficulty with all the seven issues which were inquired about and only one fourth had faced only one such difficulty. While considering IADLs almost half showed problems with only one out of three issues whereas, one fourth indicated problems with all the reaming three tasks.

2.5.3 Long-term Care in Thailand

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Thailand started to consider ageing as a serious issue in 1980s. The awareness rose regarding ageing in the World Conference of Aged Population by the United Nations which gave rise to the First National Elderly Council of Thailand was commenced in 1982 (Table 2.4). The First National Long-Term Plan for Older Persons (1982-2001) which tended to design path for the life quality of elderly persons by providing guidelines for their treatment was also introduced in the same year. In the year 1991, the elderly rights were put forward in front of World Assembly by the United Nations which needed following of the Member States. Few years later, in 1997 older persons were highlighted for the first time in the Constitution of the Kingdom of Thailand. Articles 54 and 80 hold government responsible to take care of the less-privileged citizens aged 60 and above. The constitution further binds the government to work for the good of disabled and poor along with the older citizens in an attempt to make sure that the particular citizens mentioned live a standard and stable life (70).

Table 2. 4 Timeline of activities regarding Ageing Population in Thailand, in relation to the UN activities 1980-2011.

year	Activities in Thailand	Activities of United Nations
1982	First Elderly Council in Thailand	World Conference of Aged Population
	The First National Long-Term Plan for Older Persons (1982-2001)	
1991		UN World Assembly Recognized Elderly Rights
1993	Introduction of the Elderly Monthly Allowance (200 Baht/month, targeting 20,000 persons)	
1997	New Constitution of the Kingdom of Thailand, with two sections devoted to the elderly	
1999	National Committee of Senior Citizens Declaration of Thai Senior Citizen	UN International Elderly Year WHO introduced the concept of Active Ageing
	Expansion of the Elderly Monthly Allowance (300 Baht/month, targeting 400,000 persons)	
2000	Older Persons' Brain Bank	
2002	The Second National Long-Term Plan for Older Persons (2002-2021)	UN Second World Assembly on Ageing; led to Madrid International Plan for Action on Ageing
2003	Elderly Act B.E. 2546	
2005	Healthy Thailand; one component focused on promoting health of the elderly	
2006	Sunday, the Family Day to promote family relationship nationwide	
2009	The Elderly Monthly Allowance for all people aged over sixty years of age (500 Baht/month)	
2011	The Elderly Monthly Allowance for all people aged as following Age 60-69 receive 600 Baht/month Age 70-79 receive 700 Baht/month Age 80-89 receive 800 Baht/month 90 + receive 1,000 Baht/month	

Source: Adapted from Table 1 in Jitapunkul and Wivatvanit (2009, p.63).(70)

The importance of elderly was further highlighted in the year 1999 which was tagged to be the International Elderly Year by the United Nations. In the same year, a permanent committee called as National Committee for Senior Citizens was introduced in Thailand which aimed to apply elderly related policies. Individuals representing a number of non-government organisations, departments, ministries and public as well as private sector are members of the committee. The year 1999 is further marked by the Declaration of Thai Senior Citizens. It shows great responsibility and concern of the Prime Minister and all political parties to enhance the living standards of Thai senior citizens as well as to safeguard their basic living rights.

In the year 2002, there appeared the Second National Long-Term Plan for Older Persons (2002-2021) that aimed to enhance the previous plan and further tended to address the United Nations' Madrid International Plan for Action on Ageing. The central aims of the Plan are to make Thai people aware of the worth and value of the elderly as well as to ring a bell for Thai people to realise the importance of ageing and the measures needed to address it. With communities, families and private and public figures at the back, Thai people need to consider the ageing quality. The second plan is further explained with the help of central domains and basic activities in Jitapunkul and Wivatvanit (2009)(70).

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The second plan is distinct from the first one because it focuses on the needs of the Thai ageing population while the first plan was introduced just to address the questions raised by United Nations regarding ageing consciousness. Public hearings were organised in each of the four regions as well as in Bangkok to highlight the demand of Thai elderly. The second plan is said to be more focused and successful as compared to the first. The reasons for second plan's success are well-explained and extensive plans and objectives and the proper strategies to measure performance levels that the first plan lacked as highlighted by Jutapunkul and Wivatvanit (2009)(70). These reasons paved the way for second plan to gain broader success and retained the restrained the first plan to achieve ultimate success.

The year 2003 brought to light the new Elderly Act B.E 2546 in which the rights of Thai elderly are highlighted. The services to be provided to the senior Thai citizens aged 60 and over as per the Act are security in residential buildings, health and medical benefits, discounted transportation charges, aids for deserted, illegally exploited and abused persons, important facilities and clothing, vocational training, waived admission fees at state attractions, participation in community and social activities, consulting and counselling for legal matters or family disputes and aids and allowances as well as support to organise traditional funeral (71). The Act further provides income tax deduction to a wealth or asset donators to some foundation and b) supporters of aged parents who aren't earning much to support themselves.

The Elderly Act B.E. 2546 and the Second National Long-Term Plan for Older Persons (2002-2021) are currently in practice. To respond to the Plan and the Act, various activities and projects have been organised especially for the betterment of elderly. For instance, in the year 2005, Healthy Thailand had to be promoted as a national agenda so that people of Thailand show their capabilities in spiritual, social, mental and physical constituencies. The aim is to ensure a happy and peaceful life of elderly in communities and the families. Family relationships have been give mere consideration by the Ministry of Social Development and Human Security. Thai culture ensures the significance and happy living of a family where the family members live together and thus support each other. A campaign known as Sunday, the Family Day is another step since 2006 towards strengthening family bonds and thus developing love, care and strength among family members. The projects and activities regarding Thai elderly people are further explained (71) (72).

The LTC Committee headed by the Ministry of Public Health Permanent Secretary was formed by the National Commission on Older Persons in 2009. In 2011, an Action Strategy on LTC (2011-2013). Social and economic matters and health that sought to be executed by the concerned parties or line ministries are covered by the plan. A sub-Committee on lasting care to establish a lasting care system for needy elderly people was established by the National Health Security Board on March 11, 2013 (73).

Nonetheless, the office of the National Health Security is not authorized for direct control of LTC.

2.5.4 Service care delivery

Thai society is arranged on the premise that youngsters would care for their elders. This has helped the Thai government in not having to concentrate specifically towards ensuring the availability of basic services for the elderly, since the younger generation has been traditionally doing this. Thus, the only long term service the government seemingly provides the elderly is in the form of constructing a network of elderly homes for the poor, and those who have no family to take care of their needs and requirements. Overall, elderly care in Thailand constitutes two basic categories, stated in terms of homes for the aged, and nursing homes for the infirm, explained as follows.

2.5.4.1 Home for Aged/Residential Home

The first ever government initiative in this regard was the Bangkae Home for the Aged, founded in 1953 in Bangkok. It started off being within the purview of the Department of Public Welfare and Social Services, Ministry of Interior, but was subsequently taken over by the Ministry of Social Development and Human Security (74). Since then, multiple initiatives have been undertaken in this regard, and today there are some 25 public residential homes for the poor and elderly. As of 2007, 12 of these institutions were being managed by the Ministry of Social Development and Human Security while the remaining 13 were under the guardianship of the Ministry of Interior. Residential homes have been designed in various ways. Therefore, they could include options for the inhabitant designing his individual independent unit and spend his life there, or they rent a single room within a commune. Nevertheless, a factor considered while designing the houses was the extent of care it could provide to inhabitants, and the affordability of the targeted segment of the

population, with public residential homes generally benefiting the poor, the homeless or those without any care-giver in society. Nevertheless, there are still deficiencies in the extent of long-term care options, and a residential home for the elderly is considered to be more associated with social welfare concepts rather than something which is the responsibility of the state.

2.5.4.2 Nursing Home

Generally, the standard options available in this regard are in the private sector. A telephonic survey within Metropolitan Bangkok accounted for some 19 nursing homes and 5 long-stay hospitals. However, of these only 8 were found to be registered with the Medical Registration Division (MRD), Ministry of Public Health (75). The institutions were all independent units, in the private sector, and were drawing no assistance from the government. Since the Medical Registration Division (MRD) has yet to state a formal nursing home category within its classifications, therefore concepts of long-term care has yet to be defined and explained upon by the government. A few hospitals have allowed for the long term care of the infirm and elderly, defining a long-term care units within their premises. Others have converted an apartment or a residential unit into a nursing facility, a trend generally observed in urban areas. Such establishments would not necessarily have formal designated living areas, or prescribed formal safety regulations. Since these nursing home were all in the private sector, their admission criteria generally included the inhabitants having no communicable diseases, and being able to bear the associated costs of the establishment. While the general trend in Thai society was for the younger generation to care for their elders, if the care-givers were themselves employed and unable to personally look after the old, they are apt to hire care assistants from care agencies to fill the gap.

2.5.5 Services Provider by Public Sector

Government funded facilities for the old and the infirm currently include residential homes, generally targeted for the population segment whose are below the poverty line, and have no caregivers left (Bureau of Empowerment for Older

Persons, 2008) (74) . However, as their health deteriorates over the passage of time, they are increasingly more in need of nursing facilities than just residential homes.

Although a significant percentage of the older population increasingly require nursing facilities, there are unfortunately no dedicated nursing facilities available in the public sector. Sasat & Purkdeeprom (76) are of the perspective that even though formal nursing facilities are not available, but nevertheless a more intensive degree of care can be provided within a residential home to a certain extent. A corresponding study by Choowattanapakorn, et al. (2007) (77) concluded that residential homes had to factor-in handling multiple health issues amongst its residents, including chronic illnesses, dependency, and post hospitalization complications. In coordinating the aforementioned, the homes often have to cope with shortages of health professionals within their staff, including the likes of nurses, physiotherapists, and occupational therapists (78). This indicates that the residential homes are often manned by non-specialized staff, and a seemingly perennial shortage of men and equipment which could bring into question the kind of facilities provided at residential homes, especially for residents requiring specialized care and support. It also needs to be kept in perspective that the limited facilities provided are just seemingly restricted to current residents, although there are many more individuals in need of such services. Therefore, there is an urgent need for the government to do more in this regard, and provide more services for the older segment of our population.

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2.5.6 Services Provided by Private Sector

All permanent nursing care facilities in Thailand are in the private sector. The government has yet to formally recognize nursing homes as a distinct classification, which is why the current facilities are registered as simply being medical institutions for chronic illnesses. Such a classification require the facilities to maintain independent out-patient departments, pharmacies, emergency rooms and related facilities. Large sized nursing homes would need to be registered as private care medical institutions. Hence, it is difficult to clearly delineate the number of nursing care

facilities for the elderly from amongst the more than 400 registered medical facilities in the country (76).

A limited survey of 76 elderly care institutions by a gerontological nursing student from Chulalongkorn University (2006) (75) concluded that there are some 19 nursing homes, 5 dedicated long term care units for the elderly within hospitals, 17 care homes and agencies sourcing dedicated services for the elderly and a single temporary residential home. The remaining institutions were found to be service agencies catering to this sector, training institutions for professions and the related. It was also concluded that of the 19 institutions designated to be nursing homes, only 8 of them were recognized by the Medical Registration Division as chronic care institutions (75). Further, of the 17 institutions identified to be either personal care homes or agencies sourcing services for this sector, 8 of them were found to be registered with the Ministry of Commerce, 8 with the Ministry of Labor and the remaining institute was found not to be registered at all.

The requirement for institutional care as a complement when needed was pin pointed by policy makers; despite of its expensive costs concerning home-and-community enhanced care, as in their knowledge, it demonstrates impractical to depend on just family care givers plus volunteers.

The last section below entailed the execution of current guidelines on area-based care of elderly people in Thailand, with more emphasize on the model of Lamsonthi district.

2.5.7 Community based care

As most of the people take care of their elders at home, consequently, the Second National Long-term Plan for older people focused on taking measures to help take care of these people at their own homes in the community. Lately, the assistance programs have been increased in order to help the elderly after they have

been discharged from a public hospital. That is because it had been established that the elderly will need measures so that proper care shall be taken. For the elders and handicapped, setting up community and home-based services is pretty essential. Among all the other services that have been established, an ambulance had been allotted at the disposal of the patients, in the tertiary care hospital settings. Apart from that, timely home visits for the handicapped or the patients who had been discharged from the hospital, were set up; although this couldn't be carried out for long. Thus, it could not have been labelled as true home health service.

During the 1990s, although, the MoPH proposed an idea of 'Home Health Care', it wasn't carried out as planned. It was supposed to have a team consisting of a physician, nurse, social workers and physiotherapist so that they could stop by, at the patient's house to check in. Few services which allowed the community curative care of the elderly if they were suffering from a chronic disease, were all what came into being despite everything that had been thought. This too, didn't involve any rehabilitation programme. Less than one third of the elderly population have been visited by these health caregivers at their homes. This statistical analysis had been done during a survey held by Government's health services.

For the betterment of healthcare of the elderly, 26 hospitals introduced a new project, under the Ministry of Public Health in 2005, known as HHC i.e. the home health care. It provides risk prevention, health promotion, treatment or rehabilitation. This all is done solely for the purpose of helping and enhancing mental and physical health of the elderly and be a channel through which old people can be looked after in the community. 65% of the community hospitals are known to cater home-based health care services. Similarly, most of the central and provincial hospitals in all the provinces practice the policies of this project. On the downside, despite everything, the palliative care for the weak old people is under-developed and hasn’t been able to claw its way into the hospitals as yet, along with the community rehabilitation.

In Thailand, (Chiangrai, Nonthaburi, KonKaen, and Surathani provinces) different regions have been chosen to introduce a new four year project by MoPH (2007-2010)

i.e. “Community-Based Integrated Services of Health Care and Social Welfare for Thai Older Persons”. By the help of intersectional co-operation between the two chief ministries, a model is to be formulated regarding the care of old people in the community. Apart from that, the local authorities and the elder people themselves will play a part in making this work; volunteers are also appreciated. On the other hand, in Bangkok metropolitan areas, a new model was designed known as, "The Bangkok 7 Model". By merging the health care and social services, the model of community service has paved a new path.

Lamsonthi model-an area-based development on community-based long-term care

In Lopburi Province, at Lamsonthi District, a community-based LTC structure has been created, which projects to evade the revisits to medical centre and to conquer a shortage of family care-givers for needy elderly people and younger persons who need lasting care, for instance persons with disabilities. A partnership between Lamsonthi District Hospital and the Local Administrative Organisations (LAO) has founded a synchronized medical and social care system. Lamsonthi District Hospital plus the community medical centres or local health support hospitals offer care management plus technical support. The care team comprises care assistants where most of them are rural health volunteers. They have on-the-job training as well as training on basic medical care for elderly people. LAOs offer their unassuming monthly salaries of THB 5,000 equivalent to $155. They are charged with (1) supporting patients to take drugs; (2) organizing proper positions in bed; (3) crucial sign taking; (4) enhancing Activities of Daily Living (ADL) such as dressing, showering, relocating and eliminating; (5) helping in rehabilitation; (6)mental health assistance such as chatting with them, reading articles to the patients; (7) harmonization with relevant parties; (8) offering general advice; (9) household tasks such as making the bed or dusting the house.

When volunteers or care assistants notify the community of cases or when a plan for discharge is made, arrangements for LTC services are made. The hospitals or the health centers in the community assess the needs of the LTC. A further diagnosis is carried out after the results of the assessment are released. The district hospitals' multi-disciplinary teams develop a care plan. The multi-disciplinary team includes the psychologist, nutritionist, therapist, doctor, occupational therapist, family nurse and the plan and data officer. The multi-disciplinary team supervises the care assistants who provide community based care and they are also responsible for the provision of technical support. Social and health care are some of the services offered where the national health security funds these health care services. On the other hand, LAOs, volunteers' contributions in kind and charity funds finance the social care services. Volunteers and home carers should cater for the varied older persons' needs according to the LTC policy of Thailand. Currently, the district of Lamsonthi is able to overcome the challenge of family carers' shortage due to the use of care assistants who are paid. This is a clear illustration of social and health sectors collaboration. This aids in reducing the gaps of service and enables practical ageing process. However, the district of Lamsonthi is not linked to other health centers from other districts. This makes it hard for them to make a follow up of their patients who sought treatment outside the district. Although social and health care has been provided quite effectively, the quality of these services is not assured since there are no standards agreed upon on how operations and training of care assistants should be carried out.

The maintenance of the communities' population's well-being became a responsibility of the LAOs after the policy of decentralization was passed. The LAOs are however not allowed to implement or finance programs fully. These programs include issues related to staffing. LAOs are not part of the regulated list although they carry out care assistants' employment using alternative lines of budget. For the provision of older persons' social services and critical welfare, there is a need to amend laws and regulation related to this.

2.6 Summary

This chapter has reviewed the old-age disabilities which are central outcomes for public health and ageing. The prevalence of chronic diseases increases with older ages, as does the development of senescent changes that lead to frailty. Requiring assistance or facing problems while doing one or many activities in daily living (ADLs) or instrumental activities of daily life (IADLs) is often used to describe old-age disability in many countries.

ADL are basic and universal competencies of adulthood. All people need to accomplish ADL tasks; and people perform these tasks on all or most days. While the IADLs are household competencies, which typically include managing finances, going shopping, doing housework, doing laundry, using the telephone, and taking medicine. The need, desire, and training to perform IADL tasks vary by gender, education, health status, lifestyle, and culture.

Over the years these measures have made their way onto national surveys and studies in which older adults, typically, in a community setting, are asked to self-report their level of difficulty or need for help or use of help with daily activities. However, there are many additional challenges related to these measurements such as the variation across questions in whether underlying or residual difficulty is being assessed; source of information (proxy report or elderly themselves such as children, spouse, relative etc.)

The ICF and WHO disability conceptual model have broad acceptance worldwide, offers several advantages for public health and ageing. First, components can be expressed in both “positive and negative terms”, thus changing the dialogue from disability prevention and maximizing functioning. Second, it introduces the notion of participation in activities beyond those necessary for self-care (so-called ADLs) and domestic life (so-called IADLs). Last, there is an explicit role for environmental factors of central interest to public health, including services, systems, and policies in filling the gap between capacity and performance.

Owing to the increasing amount of elderly population falling prey to growing chronic diseases burdens, long-term care for disabled elder citizens is now considered as a pressing dilemma among developed countries, for instance; Organization for Economic Co-operation and Development or OECD, and even more in developing countries. There is an escalating distress regarding the capabilities of current LTC systems to keep up with the increasing amount of elderly people and their necessities related to LTC services. It is anticipated that the fraction of people above 80 would increase three times around the globe in the next 40 years, as stated by (79). Similarly, the number of years that people estimate now to live with disability is escalating as the total number of older adults and the problem of diseases are not intensifying. This increases the possibility of people being helpless without LTC services. Among many countries, the systematic information regarding LTC requirement and availability is inadequate. According to OECD Francesca 2013 (23) across various countries, the central resource of LTC is the informal care supplied by family members and that mostly includes women. The inclination of elder people towards leading an independent life at home or the community for as long as they can, it is explained by their dependence on informal care to some extent. In many developing and developed countries, the dwindling size of families owing to the increase in low fertility and female contribution as employees leads to the conclusion that there are less family members capable of offering informal care to their parents. The formal care is anticipated to take the place of informal care or at least to some degree, taking into account the deteriorating accessibility of the latter.

Thai population exhibits increase in total disability and long-term disability with increasing age. Similarly as the risk of disability and chronic illness is expected to grow rapidly with increased longevity, no recent studies have been examined the risk factors of disability across country from 2002 through 2011. Moreover, it is unclear what need to be solved urgently in order to improve quality of life of elderly whose are in long term condition and how might Thailand develop a sustainable and feasible LTC delivery to address the growth in LTC needs over the next ten years? The next chapter will explore data sources and methodologies employed in this study.

CHAPTER III
RESEARCH METHODOLOGY

The focus of this chapter is on the sourcing of data utilized in this study.Based on different type of research questions, two different approaches have been used in this study. The first two research questions (RQ1 and RQ2) approached by quantitative method, which collected national survey data. This methodological are designed to ensure objectivity, generalizability and reliability. The descriptions of all these are described in detail in Section 3.1. While the last two research questions (RQ3 and RQ4) approached by qualitative method, which in-depth interview were chosen to collect the perceptions and attitudes regarding Long Term Care Policy in Thailand. In section Section 3.2, also, are the presentations of the procedures used in in-depth interviews and samples of the methods used in putting ideas regarding LTC together.

Research questions	**Method**
1. What is the overall prevalence of elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011?	Quantitative method (3.1)
2. What are the risk factors of the elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011?	
3. What need to be solved urgently in order to improve quality of life of elderly whose are in long term condition?	Qualitative method (3.2)
4. How Thailand develop a sustainable and feasible LTC delivery to address the growth in LTC needs over the next ten years?	

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3.1 Quantitative study: Survey of Older Person 2002, 2007 AND 2011

Research questions	Objectives
1. What is the overall prevalence of elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011?	To examine the overall prevalence of the elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011.
2. What are the risk factors of the elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011?	To identify the key risk factors of the elderly with six types of disability among the elderly in Thailand in 2002, 2007 and 2011.

3.1.1 Data Source and Sampling

Applying for access to microdata.

A formal letter and research proposal to principals seeking *permission* access micro data of the Older Person Survey sent to the National Statistical Office (NSO) of Thailand (Appendix A.1-A.3). The asking permission was followed the principle procedure of NSO.

Statistical Forecasting Bureau, National Statistical Office.
The Government Complex Commemorating His Majesty the King's 80th Birthday Anniversary, Ratthaprasasanabhakti Building 2nd Floor.
Chaeng Watthana Road Laksi Bangkok 10210
Telephone: 0-214-17500 - 03 email: services@nso.go.th

The NSO had conducted three cross sectional surveys in 2002, 2007 and 2011, and so there are three data sets. The prime goal of this survey to form a data base of

demographic, socioeconomic, health characteristics and living arrangements of people aged 50 years and over in Thailand can be represented nationally. To obtain this goal, a stratified multi-stage sampling technique was done by the NSO through allocating 76 strata in 76 provinces of Thailand which were further classified based on administered classification into urban and rural areas. The blocks for municipal areas and villages for non-municipal areas were the main sampling units. The probability of selection depends on the number of households exist in a block or village. As illustrated in Table 3.1, a total of 5,796 blocks/villages were chosen in 2002 and 2011 while 5,793 blocks/villages were chosen in 2007.

Secondly, the private household were sampled. There were 15 households including a person aged 50 years or older was chosen systematically from each chosen block and for the non-municipal area; 12 households were chosen systematically from each village. As shown in Table 3.2 consequently, in 2002 and 2011, 79,560 households were chosen for final sample and in 2007, 79,542 households were chosen for final sample.

The interviews were conducted with the people aged 60 and above of elderly 24,835, 30,427 and 34,173 people in the 2002, 2007 and 2011 Surveys of Elderly Thai respectively. It was covered by the survey of elderly in Thailand that a variety of demographic, socio-economic, health characteristics and management of people being at the age of 60 or above need to be there. This questionnaire is divided into following sections:

- Age, Gender, Marital Status, Education, Number of Children, Income, Sources of Income and Reasons for not working are part of Demographic and Socio-Economic Characteristics.
- The health status included problems regarding self-related health along with daily living activities.
- Type of living quarter, toilet type and location, bedroom and the living place of owner are included in the living conditions.
- Co-residence and relationship with spouse, children and relatives, and material exchanges performing with children or others are part of living arrangements.

Through the questions on health of the aged in Thailand, the first indicator of the diseases and mortality in old age was the self-rated health. Another indicator for the disability in old age was the capability of doing activities in daily basis which is associated with the need for personal assistance.

Since the surveys have almost the identical questions on health, then the availability of three cross-sectional data sets potentially present the capability to quantify the differences of health between three points of time while caution will require to be exercised. This will aid to predict and plan future health.

Table 3. 1 The number of Primary Sampling Units (PSUs) in survey of 2002, 2007, 2011

	Municipal area	Non-municipal area	total
Bangkok			
2002	312	-	312
2007	312	-	312
2011	312		312
Central (excluding BKK)			
2002	1,080	888	1,968
2007	1,080	887	1,967
2011	1,080	888	1,968
North			
2002	696	540	1,236
2007	696	540	1,236
2011	696	540	1,236
Northeast			
2002	720	576	1,296
2007	720	576	1,296
2011	720	576	1,296
South			
2002	528	456	984
2007	528	454	982
2011	528	456	984
Whole Kingdom			
2002	3,336	2,460	5,796
2007	3,336	2,457	5,793
2011	3,336	2,460	5,796

Table 3. 2 The number of private households in survey of 2002, 2007, 2011

	Municipal area	Non-municipal area	total
Bangkok			
2002	4,680	-	4,680
2007	4,680	-	4,680
2011	4,680	-	4,680
Central (excluding BKK)			
2002	16,200	10,656	26,856
2007	16,200	10,644	26,844
2011	16,200	10,656	26,856
North			
2002	10,440	6,480	16,920
2007	10,440	6,480	16,920
2011	10,440	6,480	16,920
Northeast			
2002	10,800	6,912	17,712
2007	10,800	6,912	17,712
2011	10,800	6,912	17,712
South			
2002	7,920	5,472	13,392
2007	7,920	5,448	13,368
2011	7,920	5,472	13,392
Whole Kingdom			
2002	50,040	29520	79,560
2007	50,040	29,484	79,524
2011	50,040	29,520	79,560

Primary sampling unit: blocks for municipal and non-municipal areas

Secondary sampling unit: households which were systematically selected from listing of all enumerated households in each block/village.

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3.1.2 Data management

Exploring the questionnaire and data dictionary in each year. Look up data dictionary which codes correspond to each response. Component of data dictionary include variable names, variable descriptions, variable types, response options and codes used to represent the response options. It is important to review the dataset to identify errors before beginning analysis.

Step 1: Identify how many records are in the database

Step 2: Detecting and correcting missing, duplication records.

Step 3: We detected outliners by examining descriptive statistics for each variable.

Step 4: We examined the data in each variable by conducting a frequency distribution. Review the individual variables and look for values that are out-of-range or inconsistent with other data in the record or where data missing. We use a command to show missing value.

In this study we create a dummy variable for each dependent variables, if the elderly answer 'not know' we create it as system missing.

For example

compute b28e=b28.

if b28e=9 b28e=$sysmis

b28

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	373	1.2	1.2	1.2
	yes with aid	392	1.3	1.3	2.5
	yes without aid	29627	97.4	97.4	99.9
	not know	35	.1	.1	100.0
	Total	30427	100.0	100.0	

b28e

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	373	1.2	1.2	1.2
	1	392	1.3	1.3	2.5
	2	29627	97.4	97.5	100.0
	Total	30392	99.9	100.0	
Missing	System	35	.1		
Total		30427	100.0		

Step 5: Then created the same-name variables in the original files for each year,

for example, creating the name variables in 2007 and 2011 dataset

```
2007
If yr=50 studyyear = 2007 .
if area = 1 rural = 0 .
if area =2 rural = 1 .
if b12 = 1 liveother =0.
if b12= 2 liveother = 1.
compute notwork =  c1r .
compute incomelow = c25r .
compute marr3level = a5Rrev .
compute wgtpop3yr = wgt .
compute wgtprob3yr = wtprob60up .

if yr = 54 studyyear = 2011 .
compute female =genderrfl .
compute rural = arearfl .
compute liveother = membersrfl .
compute notwork = op14rfl .
compute incomelow = op41rfl .
compute marr3level = a10rflrev .
compute wgtpop3yr = wgt_pop .
compute wgtprob3yr =  wgtprobrsc60up .
```

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Step 6: We rechecked by conducting a frequency distribution, the new variable must be the original name, for example, gender and marital status in 2011 data, the table below display the distribution of original variable name and new variable name.

original variable name

genderRFL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	14541	42.6	42.6	42.6
	1.00	19632	57.4	57.4	100.0
	Total	34173	100.0	100.0	

a10rflrev

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	13052	38.2	38.2	38.2
	1	19594	57.3	57.3	95.5
	2	1527	4.5	4.5	100.0
	Total	34173	100.0	100.0	

New variable name

female

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	14541	42.6	42.6	42.6
	1	19632	57.4	57.4	100.0
	Total	34173	100.0	100.0	

marr3level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	13052	38.2	38.2	38.2
	1	19594	57.3	57.3	95.5
	2	1527	4.5	4.5	100.0
	Total	34173	100.0	100.0	

Step 7: Deleted original name from data set in each year

Step 8: Before merging files on top of each other, the variables must be in the same order in all files. Then we use the merged file to analyse the data in this study.

```
* open 2002 file then  merging  ALL
ADD FILES /FILE=*
 /FILE='D:\filename2007.sav'.
EXECUTE.
ADD FILES /FILE=*
 /FILE='D:\filename2011.sav'.
EXECUTE.
```

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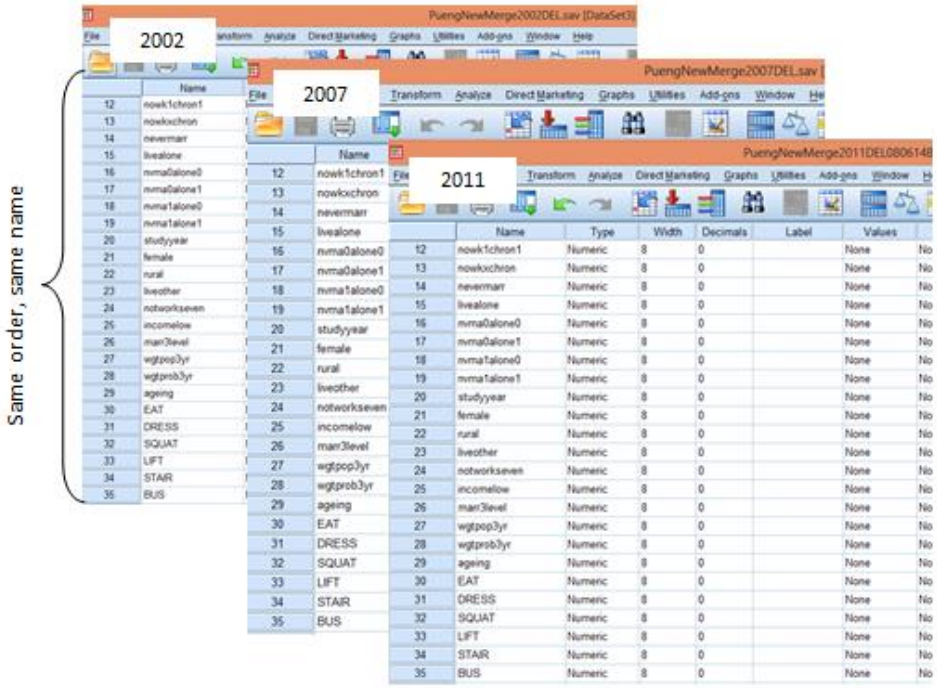

The health variables from the Survey of Older People in Thailand are obtained from the ability to perform activities in daily living as present in table below.

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Table 3. 3 Health variables of ability to perform activities in daily living in each survey

Can you perform these activities by yourself? (no, yes with aid, yes without aid)

ID	Activities	Activities	Activities
	2002	**2007**	**2011**
1	Eating	Eating	Eating
2	Dressing	Dressing	Dressing
	Bathing/toileting	Bathing/toileting	Bathing
			Toileting
			Shave/comb/fix up hair
			Put on shoes
3	Squatting	Squatting	Squatting
4	Lifting 5 kg	Lifting 5 kg	Lifting 5 kg
	Walking 1 km	Walking 20-300 meter	Walk 200-300 meter
5	Stairs 2-3 steps	Stairs 2-3 steps	Stairs 2-3 steps
6	Bus/boat alone	Bus/boat alone	Bus/boat alone
		Money management	Count money
			Taking medicine correctly

From above table we get six activities queried all 3 surveys to use as dependent variables

Activities	Field name		
year	**2002**	**2007**	**2011**
Eating	G33	B28	Op104
Dressing	G34	B29	Op105
Squatting	G36	B31	Op111
Lifting 5 kg	G37	B32	Op112
Stairs 2-3 steps	G39	B34	Op114
Bus/boat alone	G40	B35	Op115

3.1.3 Dependent Variables

Since three surveys have six the identical questions on doing activities. There are six activities in this study that determine disability status: eating, dressing, squatting, lifting a 5-kg object, ease of stair use and being able to travel by bus or boat. Survey participants in all three years (2002, 2007 and 2011) specified for each task whether they

1) could not do the task at all
2) could do the task with help
3) could do the task without help

We recoded these 3 responses into a dummy variable. Persons who *could do* the task *without help* were considered *not to have the disability*. Persons who *could not do* the task, or *could do it only with help*, were considered to have the disability. Then we recheck by conducting a frequency distribution.

b28e

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	373	1.2	1.2	1.2
	1	392	1.3	1.3	2.5
	2	29627	97.4	97.5	100.0
	Total	30392	99.9	100.0	
Missing	System	35	.1		
Total		30427	100.0		

EAT

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	29627	97.4	97.5	97.5
	1	765	2.5	2.5	100.0
	Total	30392	99.9	100.0	
Missing	System	35	.1		
Total		30427	100.0		

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3.1.4 Independent variables

Table 3. 4 Independent variables in this study

Variables		2002	2007	2011	Dummy
Age		A2	A2	Age	
Chronic diseases	categorical measurement	Hypertension: G16 Diabetes: G18 Heart: G19 Cancer: G21 Stroke: G26 and G27	Hypertension: B22 Diabetes: B23 Heart: B24 Cancer: B25 Stroke: B21 and B26	Hypertension: OP 96_1 Diabetes: OP 96_2 Heart: OP_3 Cancer: OP 96_5 Stroke: OP 96_13	Not present = 0 Present any of 5 chronic disease = 1;
Education	categorical measurement	A4	A6	A8	Any education = 0 No formal education = 1,
Gender	categorical measurement	A1	A1	Gender	Male = 0; Female = 1
Income	categorical measurement	C25	A80	op41	higher income = 0 lower income =1
Living arrangements	categorical measurement	B12	Members	members	Living with other = 0; Living alone = 1
Marital status	categorical measurement	A5	A4	A10	0 = never marr, 1 marr living with other, 2 marr not living with other.
Place of residence	categorical measurement	area	Area	area	Urban = 0 Rural =1
Region	categorical measurement	Reg	Reg	Reg	Bangkok, the Central , the Northeast, the North, South;
Study year	categorical measurement	yr	yr	yr	2002 2007 2011
Working status in previous 7 days	categorical measurement	C1	A52	Op14	Work = 0 Did not work=1

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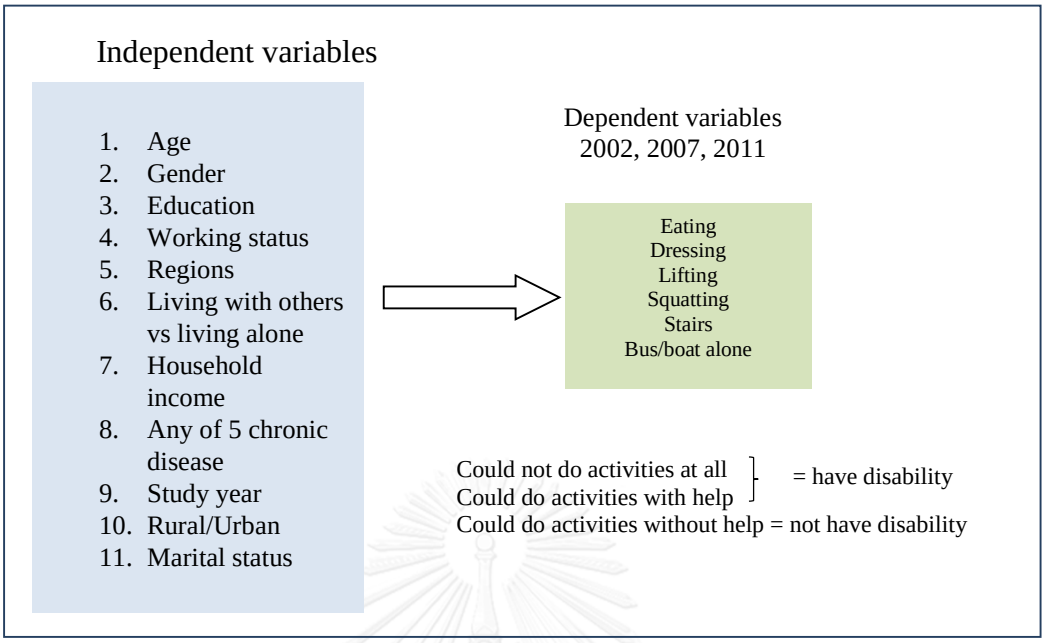

Figure 3. 1 Variable diagram of the study

3.1.5 Data Analysis

Descriptive statistics were used to summarize characteristics of study participants. Logistic regression analysis was used to assess the extent to which the selected independent variables explain the disability of the elderly in Thailand. Confidence intervals (CIs) were calculated at the 95% level to estimate statistical significance. Sample probability weights were applied to data for each year. Statistical analysis was conducted using IBM- SPSS version 18.

The modelled absolute prevalences of each disability, along with odd ratios, were calibrated including and not including every independent variable and computing the mean values of every other independent variable. The difference found in the modelled prevalence for every independent value was computed in the form of a ratio of weighted prevalence associated with that disability. The degree of effect produced by every independent value on every disability was provided by this product. (As example, the

model prevalences found during problem in carrying 5 kg, in individuals who did and did not work over the past week, and at the mean stages of every other independent variable, were calculated as 32.8% and 15.6%, having a modelled prevalence difference of 17.2%. The proportion of this difference was found to include 0.560 of the weighted lifting disability prevalence of 30.7% (.172/.307=.560). The proportions were then averaged among all of the six disabilities for every independent variable. Proportions belonging to the independent variables were organized in an order descending to the average proportions in order to allow contrast among the relative impacts of the independent variables. (There are similarities between this approach and computation and comparison of the modelled population-attributable risk fractions for all independent variables. However, this approach does not incorporate prevalences. Therefore, this approach is considered as an evaluation of "absolute impact" of the risk factors, despite their frequency found in the study population.) In addition to this, this technique also provides the advantage of including the absolute prevalence differences also related to risk factors besides odd ratios, which have significant differences at varying baseline prevalences of the results under study, which are can be misleading.

3.1.6 Ethical Consideration

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As indicated above, the analyses reported here employed secondary data, which were originally collected by Thailand's National Statistical Office (NSO) in its nationwide surveys of 2002, 2007, and 2011. The NSO obtained written consent from all participants in these surveys. Completed consent forms are on file at the NSO.

3.2 Qualitative study: In-depth interview

Research questions	**Objectives**
3. What need to be solved urgently in order to improve quality of life of elderly whose are in long term condition?	To identify policies, interventions to improve quality of life of elderly whose are in long term condition *Specific objectives* -To understand the existing patterns of elderly care available in Thailand. -To identify *strengths and weaknesses* of the existing care service delivery for elderly with disabilities. -To identify the factors that influence the LTC implementation in Thailand.
4. How Thailand develop a sustainable and feasible LTC delivery to address the growth in LTC needs over the next ten years?	To develop a sustainable and feasible LTC delivery to address the growth in LTC needs over the next ten years - To identify the appropriate based care - To identify who should be primarily responsible for expense

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3.2.1 Sampling strategy

Creswell (79) asserted that the basic objective of employing qualitative research is not to view at the concerned generally rather to make an in-depth analysis of it. This can effectively be achieved by using definite sampling techniques. For such an analysis in which an in-depth examination of the subject matter is required, random sampling would not be appropriate as in this case the intent is not to generalize the results to a specific portion of population but to approach people who are fully aware and acknowledged of the goals and objectives of this research i.e. Long-term care policy in Thailand.

3.2.2 Data collection and sample size

For conducting interviews from the experts, the selected sampling technique incorporates the basic features of maximal variation and snowball sampling methods. The snowball sampling method refers to the sampling technique in qualitative research which usually progresses with the development of research process and specifically occurs when the participants of the study are asked by the researcher to suggest other individuals for conducting study (79). The selection of snowball approach is based upon researcher's lack of adequate knowledge about the research topic and complexity of the topic. The approach initiates from an expert whom may not be interviewed but had instigated the occurrence of snowballing. Nonetheless, after the continuation of this process, it is required to keep it directed through a definite direction so that to collect views from different experts having different backgrounds and perspective regarding the concerned topic. The maximal variation approach tends to allow the researcher to opt for a diverse population so that they may be able to attend to the pertaining complexity of the researched phenomenon. It can be referred to a sampling technique in which the researcher examines the cases or individuals having varying characteristics.

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Keeping in view the availability of limited time period the corresponding weightage of the expert interviews with respect to literature and document review, the sample size was decided to be of ten interviewees from the following sectors:

	Number of persons
The government organization	3-5
Non-Government Organization	3-5
Academics	3-5

Inclusion Criteria

- Must be a sub-committee/committee member of The Development system of Long Term Care for Older Persons in Thailand.
- Must have a lifetime of knowledge and experience in elderly policy in Thailand.
- Must get involved in the development of long-term care for elderly policy at least 1 year.

Exclusion criteria

- Could not participation the sub-committee/ committee meeting and asked other professionals in their organization to represent them more than two times of meeting.
- Not willing to give the opinions.

The list of key informants are in Appendix B

- **Location of Interview**

The detailed interviews require a peaceful and friendly environment therefore we settled on to carry out the interviews via telephonic conversations as this communication mean is more comfortable and expedient for the participator. Afterwards, we give them an opportunity to select the location of interview that might be their home, administrative centre or any further place of their choice. Similarly, the scheduled time with the participants is decided earlier. Moreover, we held the interview of a personnel member and ask him if he could tell the suitable time for the interview and transliterate them.

- **Time duration of interview**

  The most detailed interview took 30-45 minutes to complete.

3.2.3 Methodologies regarded as appropriate for interview purpose

3.2.3.1 Tape Recording

The entire interview was recorded via tape recorder for creating an audible evidence of the interview and the interviewee would be at ease too rather than considering that his statements are being recorded in a written manner and the recording was also consented by the interviewee. Furthermore, abbreviated note takings are done during the interview, written and then the notes are arranged while the interview is about to terminate. The tape recordings would be heard afterwards to extract necessary information or detail.

The entire emphasis was laid down over the fact that:

i) To gain all the appropriate outlooks and elaborations of the interview, it is recorded.
ii) The tape recording would not take place without the consent of the interviewee.
iii) The recording would be kept confidential.

3.2.3.2 Note-taking

Note taking serves to be a key element of the interview and it will be great significance after the interview. The most suitable way of preparing the interview is to get the queries well-typed with adequate space left in between every question in order to inscribe the comments of the interviewee during the interview.

3.2.4 Processes, privacy and confidentially

The maximum time of the interview will be 45 minutes along with tape recording done. The interviewees will be interrogated for their levels of expertise along with their personal perceptions regarding the long-run approaches of Thailand. Afterwards, if the interviewee agrees upon the consent form then his initials will only

be taken with providing the confidentiality to his data endowed. Consequently, the name of the interviewee will not be utilized during the interview due to the privacy over tape recording. The consent form along with the recording tapes would be kept in a secret room with no one else allowed to utilize or access that data. The file of the interview and the recording tape would be kept free from any recognition tool. This method will assist in providing security to the interviewee and to ensure him that his data would not be utilized in the research reports but the main objective is to conduct an interview. The confidentiality of all the data and the information of interviewees is the responsibility of chief pollster whereas the entire data would be eradicated once the research is accomplished i.e. after one year period. The information provided by the interviewees may be presented for publishing purposes but their recognition would be kept confidential.

3.2.5 Data Analysis

Interviews in the Thai language were copied and translated into English by the bilingual researcher. Randomly selected interviews were checked for accuracy of the content and the translation through back translation. After that, transcripts were subjected to an NVivo 8 for data analysis (avoid the researcher's impressions of the data). A first set containing thematic codes produced from the transcript subset was created by 2 independent investigators to enhance reliability. Afterwards, the codes were adjusted using an inductive analytical method, and outcomes arranged basing on major themes within the data.

3.2.5.1 Thematic analysis

Thematic analysis is a form of qualitative analysis. It is utilized for analyzing classifications as well as presenting thematic concerns (trends), which are related to the information. It shows detailed data and addresses various topics through interpretations. Thematic analysis emerges as a suitable method for studies, which attempt to discover through interpretations. It offers a systematic avenue through which data can be analyzed. It enables the investigator to compare the thematic frequency

analysis with the one existing in the entire content. This would confer intricacy as well as accuracy and bring out the whole meaning of the research. Qualitative research needs a better understanding and collection of varied data and aspects. Moreover, thematic analysis offers an opportunity of understanding of an issue's potential in an extensive manner (80).

Additionally, thematic analysis enables the investigator to identify precisely how concepts are related and can be compared to the replicated information. Through thematic analysis, it is possible to connect different learner views and concepts, and compare them with the information collected under different conditions at different durations in the project. All interpretation possibilities are available. (Details of Thematic process are in Appendix C)

3.2.5.2 Themes' reliability and validity

One critical stage in thematic analysis revolves around the fact that thematic concerns ought to be assessed to ensure their consistency with the entire text. According to Miles and Huberman (2002) (81), validation of thematic concerns in the initial and final phases of analyzing data is crucial.

In this phase, the services of an external reviewer were sought for evaluation of identified thematic concerns. Simply put, to determine whether the thematic concerns identified by the investigator are consistent with the entire text. Afterwards, an "independent reviewer" was engaged for a feedback.

This would allow the investigator to relate the two groups of feedback. This procedure is aimed at "developing reliability within theme analysis coding". The investigator has a better understanding of any redundant outcomes with regard to thematic concerns, which were omitted or added by the independent and external reviewers.

Notably, the investigator need to crosscheck with the set of thematic concerns evaluated by the external reviewer and identify the excerpts from respondents in support of all thematic concerns. Final verification and checking entailed an evaluation of the overall thematic concerns, demonstration and confirmation of the textual excerpt details by an independent reviewer. According to Miles and Huberman (1994)(82), the inclusion of two reviewers (independent and external researcher) in the

two different stages would create a strong and credible analytical process. Validation should be undertaken within the initial phases of any study. At this stage, the accepted codes of external and independent reviewers were concurrent with fewer variations between them.

3.2.6 Instrumentation

Among a large number of data collection techniques employed in qualitative research, interviews are deemed as the best choice. Interviews are the most widely used technique in qualitative research. In this particular research, a semi-structured interview with open-ended questions was chosen.

The selection of semi-structured interviews was based on following aspects:

-In the semi-structured design the participants have sufficient margin with respect to time and scope for articulating their opinions. The researcher is respectively allowed to attend to and act as per the newly conceived concepts and thus get a better understanding of the pertaining phenomenon. The results obtained through semi-structured interviews can be subjected to a comparative analysis among each other as all participants are supposed to give their opinions about the same topic. This approach not only enables the researcher to evaluate the participants' opinions, statements and convictions but to draw substantial conclusion on the basis of the narratives about their personal experiences. Open-ended questions provide the participants the liberty to narrate their experiences without any restraint and allows for very little or no influence of the researcher's behaviours and previously results (79).

-The participants were ensured that their identity would be kept as anonymous so that they may be comfortable to give their opinion and also speak upon sensitive political issues.

A list of guidelines was prepared in order to ensure that the participants of the expert interviews attend to the interview process as per the objectives of

the study. The list of guidelines have been approved by 3 senior researchers. (Appendix D)

This list was not used to generalize the data collection procedure; rather it facilitated a basic framework for the interviewing process and was aimed at encouraging the participants to voice their opinions.

In-depth interview guideline

1. What is the existing care for elderly with disability in Thailand? and how its effect the elderly and their families?
2. What are the *strengths and weaknesses* of the existing care service delivery for elderly with disabilities?
3. What are the problems needs to be solved urgently to provide care for elderly with disabilities? and how to solved it?
4. What factors that influence successful LTC policy implementation?
5. Who should be the primary responsibility for the care of the elderly with disabilities in the next ten years?
6. How should services to elders with disabilities and their families be designed, and who should deliver them in the next ten years?

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3.2.7 Ethical Consideration

Ethical approval to undertake the study was granted by the Ethics Review Committee for Research Involving Human Research Subjects, Health Sciences Group, Chulalongkorn University (ECCU) with the Reference number 192.1/57. (Appendix E)

3.3 Summary

Based on different type of research questions, two different approaches have been used in this study. The first two research questions (RQ1 and RQ2) approached by

quantitative method, which collected national survey data. This methodological are designed to ensure objectivity, generalizability and reliability. While the last two research questions (RQ3 and RQ4) approached by qualitative method, which in-depth interview were chosen to collect the perceptions and attitudes regarding Long Term Care Policy in Thailand.

For quantitative study, the data were gathered from a cross-sectional surveys of Older Persons in Thailand's was utilized in risk factor assessments. These were annual surveys conducted in 2002, 2007 and 2011 by the National Statistical Office (NSO). A stratified multi-stage sampling technique was done by the NSO through allocating 76 strata in 76 provinces. The probability of selection depends on the number of households exist in a block or village. A total of 5,796 blocks/villages were chosen in 2002 and 2011 while 5,793 blocks/villages were chosen in 2007. Secondly, the private households were sample. In 2002 and 2011, 79,560 households were chosen for final sample and in 2007, 79,542 households were chosen for final sample. The interviews were conducted with the people aged 60 and above of about 24,835, 30,427 and 34,173 people in the 2002, 2007 and 2011 Surveys of Elderly Thai respectively. It was covered by the survey of elderly in Thailand that a variety of demographic, socio-economic, health characteristics and management of people. It is important to review the dataset to identify errors before beginning analysis. Exploring the questionnaire and data dictionary in each year. Look up data dictionary which codes correspond to each response. Then cleaning the data, managing data, rechecked data. Then we use the merged file to analyze the data in this study. Since three surveys have six the identical questions on doing activities so there are six dependent variables included feeding, dressing, and squatting, together lifting a weight of 5 kg, climbing up 2-3 stairs, and transportation.

The participants of the survey that run for three years (2002, 2007 and 2011) chose whether they:-

1) Could not carry out the task in any way
2) Could carry out the task with assistance
3) Could perform the assignment with no assistance

The responses for these 3 scenarios were recorded in dummy variables. Respondents who confirmed that could accomplish the task without assistance were assumed not to have been disabled. On the other hands, respondents who could not carry out task, or could carry out the task with some assistance, were assumed to have some form of disability.

The independent variables used in this research included: age, sex, academic Level, employment status, location, living alone and with others, family income, those who had suffered from a list of 5 Chronic diseases, Year of Study, rural/urban and Marital Status. Sample probability weights were used on the data gathered for each year and SPSS 18 was applied to carry our explanatory evaluation, in addition to logistic regression.

Additionally to odds ratios, the modeled absolute prevalences of each disability were calculated with and without each independent variable, at the mean values of all other independent variables. For each independent variable, the resulting difference in modeled prevalence was calculated as a proportion of weighted prevalence of that disability. This procedure gave a measure of the impact of each independent variable on each disability.

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With regards to qualitative study, a further evaluation was carried out in order to find out what action was required to be taken immediately so as to enhance the quality of life particularly for the aged with long term issues as well as to develop a sustainable and feasible LTC delivery to address the growth in LTC needs over the next ten years. The *snowball method* was used to choose the *important informants* who were *sub-committee/committee member* of *The Development structure of long-standing* Care for their *elderly* people in Thailand. *Partial* arrangements in the comprehensive interview were used. The longest time spent on an interview was estimated to be 45 minutes which included the tape recording. The respondents were cross-examined in order to establish their level of knowledge in addition to their individual perceptions concerning the long-term methods of Thailand.

Interviews that were initially conducted in the Thai language were later on copied and translated into English by the multilingual researcher. Arbitrarily chosen interviews were evaluated to ensure the accurateness of the material and the final copy after the back translation. Subsequently, the records were analysed through NVivo 8. The initial set that included thematic codes were derived from the transcript subset that was produced by 2 independent researchers in order to boost consistency. Later, the codes were accustomed using an inductive systematic technique, along with results presented based on the main themes in the records.

Table 3. 5 Summary of methodology approached in this study

RQ	**RQ 1,2**	**RQ 3,4**
Research methodology	**Quantitative**	**Qualitative**
Population	Thai age > 60 years old	Policy maker at National Level Inclusion: Must be a sub-committee/committee member of The Development system of Long Term Care for Older Persons in Thailand.
Sampling technique	Stratified multi-stage sampling by the National Statistical Office, Thailand	Snowballing
Sample size	2002 n = 24,835 2007 n = 30,427 2011 n = 34,173	n = 11
Instrumentation	Structure questionnaire, face-to-face interview	Semi-structure, open ended questions
Data collection	The Survey of Older Person in Thailand, on 2002, 2007 and 2011	In-depth interview
Duration	2002, 2007, 2011	May-June 201
Analysis	Descriptive, Logistic regression	Thematic analysis, Two independent researchers Bilingual back translation
Software	SPSS version 18	Nvivo8

CHAPTER IV
RESULTS

Every society has people who are disabled and ageing. These two facts are real and distinct from each other but connected. Therefore, there is a need to craft and develop simple and unambiguous health services policies that will reflect the real lives that people live rather than classifying them. This chapter, therefore, attempts to come up with the finding based on research questions. The finding from research question 1 and question 2 were approached by quantitative method. Section 4.1 has a full presentation of all these with the description of the risk factors facing the elderly uses the surveys conducted on the elderly in Thailand during the years 2002, 2007 and 2011 to describe the six kinds of disabilities affecting the elderly in the country. While section 4.2 contains the finding based on research question 3 and question 4 which approached by in-depth interview, this sections contains the suggestions made by major policy maker with regards to LTC.

4.1 Quantitative study: Survey of Older Person 2002, 2007 AND 2011

4.1.1 Characteristics of Study Population

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The interviews were conducted with the people aged 60 and above of about 24,835, 30,427 and 34,173 people in the 2002, 2007 and 2011 Surveys of Elderly Thai respectively. The mean of the ages of all members was found to be 68.6, 69.0 and 69.2 years according to the 2002, 2007 and 2011 surveys, respectively. In each of the three surveys, females were found to be in majority in the population. Over 90% of the elderly individuals occurring in the specimen were found to be residing with others. The percentage showed slight but regular decrease from 93.7 in 2002 to 92.3 in 2007 and to 91.4 in 2011. Elderly citizens suffering from at least one chronic illness were found to occur in a percentage increasing from 29.6 in 2002 to 40.3 in 2007 and to 43.8 in 2011. (Table 4.1) Elderly citizens found not to have gone to school were found to decrease from 20.6 in 2002 to 16.4 in 2007 and to 11.8 in 2011. About 30% of these were found

to reside in the Northeast region, having the largest population of elderly citizens in comparison to all the areas in Thailand

Table 4. 1 Characteristics of study population, weighted by probability weight

	2002 N (%)	**2007 N (%)**	**2011 N (%)**	**Total N (%)**
N	24,835	30,427	34,173	89,435
Demographic				
Mean Age	68.61 ± 7.2	69.03 ± 7.4	69.24 ± 7.5	68.96(7.3)
Female	13,480 (54.3)	16,859 (55.4)	19,119 (55.9)	49,938 (55.7)
No education	5,113 (20.6)	5,002 (16.4)	4,030 (11.8)	14,145 (16.26)
Low income	8,548 (34.4)	12,751 (41.9)	13,149 (38.6)	34,448 (38.3)
Did not work	16,848 (67.8)	19,552 (64.3)	21,077 (61.7)	57,477 (64.6)
Marital status				
Married not together	7,732 (35.2)	10,592 (34.8)	12,352 (36.1)	22,944 (35.4)
Married couple	13,677 (62.2)	19,001 (62.4)	20,494 (60.0)	53,172 (61.5)
Never married	584 (2.7)	834 (2.7)	1,325 (3.9)	2,743 (3.1)
Living arrangement				
Living alone	1,554 (6.3)	2,332 (7.7)	2,933 (8.6)	6,819 (7.5)
Living with others	23,281 (93.7)	28,095 (92.3)	31,240 (91.4)	82,616 (92.5)
Chronic disease				
Absent	17,482 (70.4)	18,176 (59.7)	19,210 (56.2)	54,868 (62.1)
At least one chronic disease	7,353 (29.6)	12,251 (40.3)	14,963 (43.8)	34,567 (37.9)
Area of residence				
Rural	17,130 (69.0)	21,737 (71.4)	22,728 (66.5)	61,595 (68.9)
Bangkok	2,577 (10.4)	2,806 (9.2)	3,366 (9.9)	8,749 (9.8)
Central (excluding Bangkok)	6,373 (25.7)	7,166 (23.6)	7,918 (23.2)	21,457 (24.2)
North	5,230 (21.1)	6,360 (20.9)	6,948 (20.3)	18,538 (20.8)
Northeast	7,591 (30.6)	10,224 (33.6)	11,647 (34.1)	29,462 (32.8)
South	3,063 (12.3)	3,872 (12.7)	4,293 (12.6)	11,228 (12.5)

4.1.2 Prevalences Disabilities in Three Study Years

The prevalence of the six limiting actions by the year is displayed in Figure 4.1 and Table 4.2. The prevalence of difficulty faced in lifting 5 kg was discovered to decrease from 37.4% in 2002 to 27.0% in 2007 and slightly increase to 29.2% in 2011. There was a decrease in the prevalence of difficulty in transportation

alone, from 30.5% in 2002 and 25.8% in 2007 and 24.0% in 2011. In 2002, the percentage of elderly citizens who found difficulty in climbing 2-3 stairs was found to be 10.1%, which increased to 13.6% in 2007 and slightly decreased to 11.9% in 2011. Difficulty in squatting was found to have prevalence of 6.5%, 12.4% and 12.7% in 2002, 2007 and 2011, respectively. Difficulty faced during dressing was discovered to be 2.1% in 2002, which was found to increase to 3.0% in 2007 and then decrease slightly to 2.7% in 2011. Individuals with limitations in eating were discovered to have percentage of 1.2% in 2002, 2.3% in 2007 and 2.2% in 2011.

Table 4. 2 Weighted prevalences (%) of disabilities by year

	2002 N (%)	**2007 N (%)**	**2011 N (%)**	**Overall N (%)**
Lifting 5 kg	9,067 (37.4)	8,185 (27.0)	9,970 (29.2)	27,222 (30.7)
Travelling alone	7,341 (30.5)	7,835 (25.8)	8,207 (24.0)	23,383 (26.4)
Climbing 2-3 steps	2,422 (10.1)	4,140 (13.6)	4,066 (11.9)	10,628 (12.0)
Squatting	1,574 (6.5)	3,761 (12.4)	4,325 (12.7)	9,660 (10.9)
Dressing	503 (2.1)	918 (3.0)	926 (2.7)	2,347 (2.6)
Eating	280 (1.2)	687 (2.3)	738 (2.2)	1,705 (1.9)
Number of Disabilities				
1-2	9,410 (40.7)	8,299 (27.4)	10,154 (29.7)	27,863 (31.8)
≥ 3	967 (4.2)	2,339 (7.7)	2,313 (6.8)	5,619 (6.4)
Any disability	10,954 (44.9)	10,712 (35.2)	12,467 (36.5)	34,133 (38.4)

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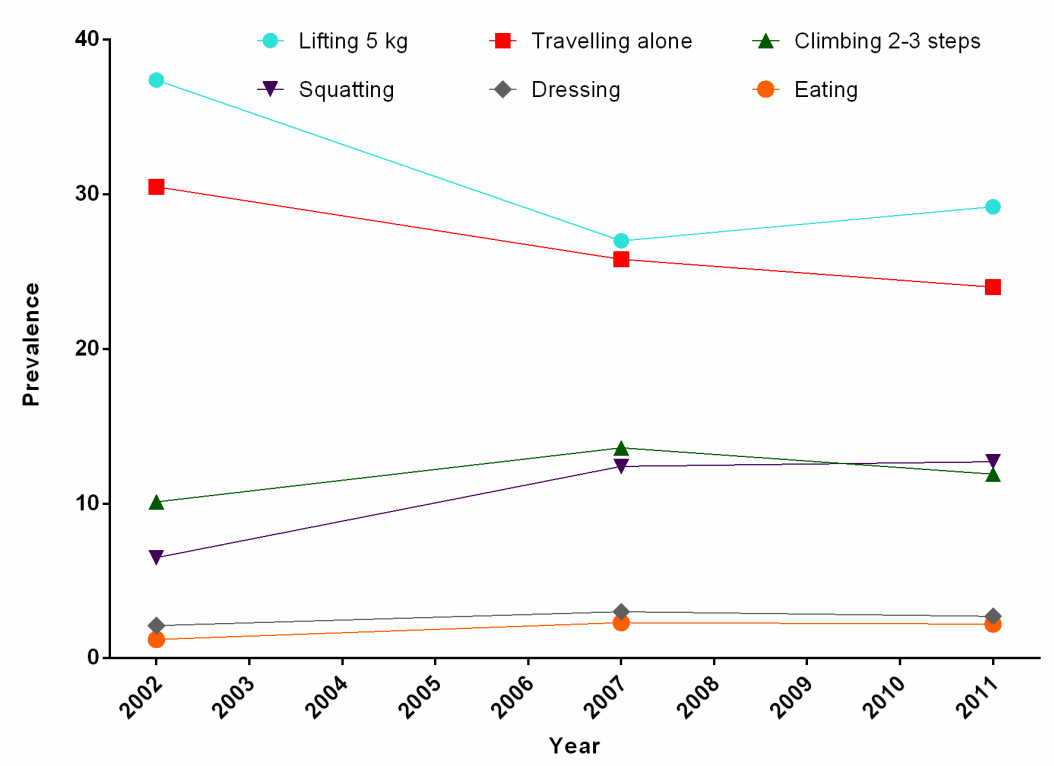

Figure 4. 1 Weighted prevalences (%) of disabilities by year

In the sample population, the disability found to have the highest prevalence activity in all of the three surveys was lifting 5 kg (30.7), which was followed by independent travel by bus or boat (26.4). It was found that 12% of the elderly citizen population faced difficulty during climbing 2-3 stairs, which was found to be considerably higher than that found for squatting (10.9). The figure 4.2 showing estimated numbers of people with the disabilities (the population weight.)

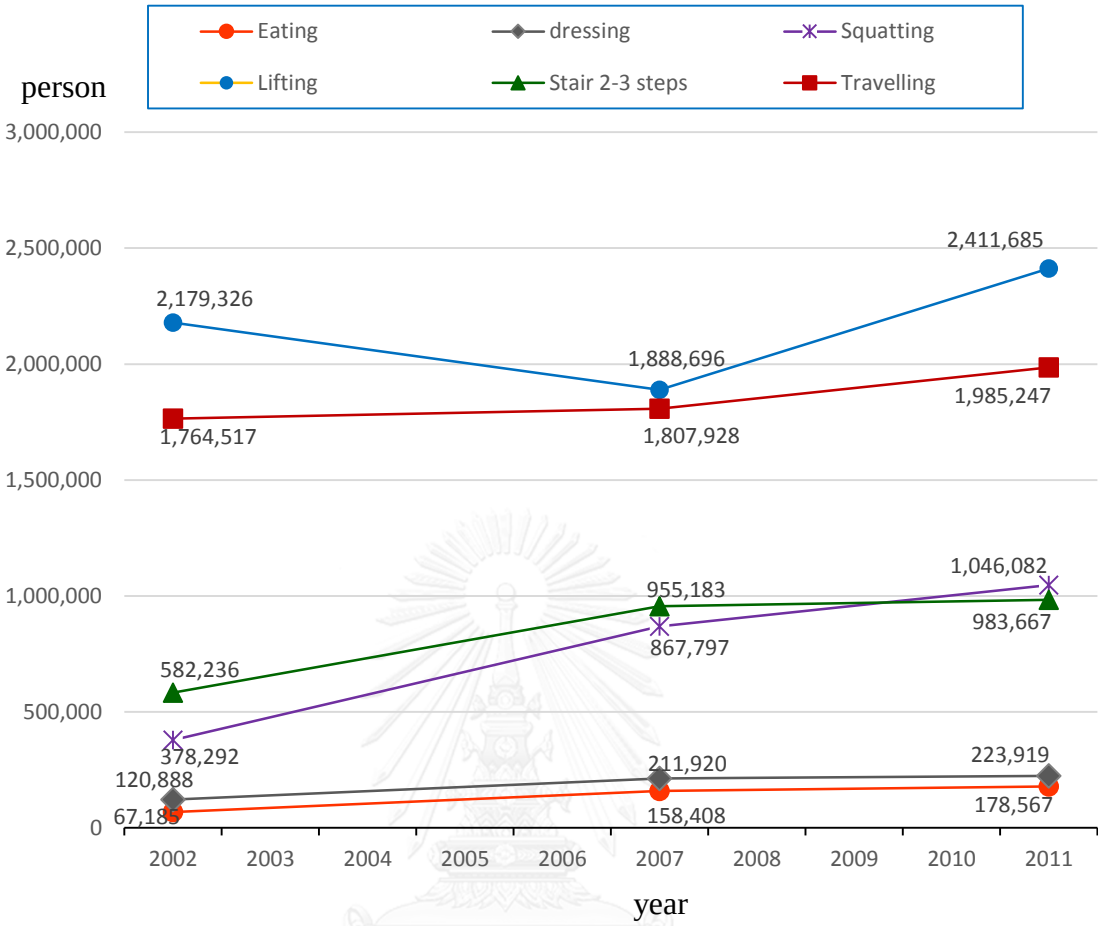

Figure 4. 2 Population weight of disabilities by year

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4.1.3 Logistic Regression of Risk Factors Over all Three Survey Years

The subject characteristics related to risk of disability is shown in Table 4.3. The highest risk of difficulty with dressing (OR=1.09, 95%CI: 1.09-1.10), eating (OR=1.09, 95%CI: 1.08-1.10), climbing stairs (OR=1.10, 95%CI: 1.09-1.10), traveling independently (OR=1.12, 95%CI: 1.12-1.13), lifting 5 kg (OR=1.10, 95%CI (1.09-1.10), squatting (OR=1.08, 95%CI: 1.08-1.09) and disability (OR=1.11, 95%CI 1.10-1.11) at $p<0.001$ was found to be due to age.

No education was found to associated a higher risk of difficulties faced during dressing (OR=1.34, 95%CI: 1.20-1.49),eating (OR=1.59, 95%CI: 1.41-1.79), climbing stairs (OR=1.21, 95%CI: 1.14-1.28), traveling independently (OR=1.42, 95%CI: 1.36-1.49),

lifting 5 kg (OR=1.27, 95%CI: 1.21-1.33), squatting (OR= 1.13, 95%CI: 1.06-1.20) and any disability (OR=1.39, 95%CI: 1.32-1.45) at p<0.001 when the education level was studied. Insufficient income also displayed highest risks for difficulty during dressing (OR=1.14, 95%CI: 1.29-1.54), eating (OR=1.29, 95%CI: 1.16-1.43), climbing stairs (OR=1.35, 95%CI: 1.29-1.41), traveling independently (OR=1.28, 95%CI: 1.23-1.33), lifting 5 kg (OR=1.09, 95%CI: 1.05-1.13), squatting (OR= 1.26, 95%CI: 1.20-1.32) and any disability (OR 1.20, 95%CI: 1.16-1.40) at p<0.001. Residence with other individuals also presented highest risk for difficulty during dressing (OR=2.79, 95%CI: 2.21-3.52), eating (OR=1.96, 95%CI: 1.54-2.51), using stairs (OR=1.38, 95%CI: 1.27-1.51), traveling alone (OR=1.18, 95%CI: 1.10-1.26), lifting 5 kg (OR=1.10, 95%CI: 1.03-1.17), squatting (OR= 1.45, 95%CI: 1.32-1.59) and any disability (OR= 1.12, 95%CI: 1.05-1.19) at p<0.001.

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Table 4. 3 Associations of subject characteristics with disability risk over all three surveys, weighted logistic regression models

	Lifting 5 kg.			Traveling alone		
	Coefficient	Odds ratio(95% CI)	p-value	Coefficient	Odds ratio(95% CI)	p-value
Did not work in past 7 days	0.97	2.64 (2.53-2.76)	< 0.001	1.19	3.28 (3.12-3.44)	< 0.001
Age (per year)	0.09	1.10 (1.09-1.10)	< 0.001	0.12	1.12 (1.12-1.13)	< 0.001
Any chronic disease*	0.53	1.70 (1.64-1.76)	< 0.001	0.61	1.85 (1.78-1.92)	< 0.001
Living with others vs. alone	0.09	1.10 (1.03-1.17)	0.004	0.16	1.18 (1.10-1.26)	< 0.001
No education vs. any education	0.24	1.27 (1.21-1.33)	< 0.001	0.35	1.42 (1.36-1.49)	< 0.001
Inadequate vs. adequate income	0.09	1.09 (1.05-1.13)	< 0.001	0.25	1.28 (1.23-1.33)	< 0.001
Female vs. male	0.62	1.85 (1.79-1.92)	< 0.001	0.49	1.64 (1.57-1.71)	< 0.001
Year2007 vs. 2002	-0.64	0.53 (0.50-0.55)	< 0.001	-0.37	0.69 (0.66-0.72)	< 0.001
Year2011 vs. 2002	-0.53	0.59 (0.57-0.62)	< 0.001	-0.51	0.60 (0.57-0.63)	< 0.001
Bangkok vs. South	0.30	1.35 (1.25-1.45)	< 0.001	0.10	1.11 (1.02-1.21)	0.014
Central vs. South	0.05	1.05 (0.99-1.11)	0.138	0.08	1.08 (1.01-1.15)	0.019
Northeast vs. South	0.35	1.42 (1.34-1.51)	< 0.001	0.20	1.22 (1.15-1.30)	< 0.001
North vs. South	0.35	1.42 (1.33-1.51)	< 0.001	0.08	1.08 (1.01-1.15)	0.020
Rural vs. urban	-0.08	0.92 (0.89-0.96)	< 0.001	0.12	1.13 (1.08-1.18)	< 0.001
Married (not together) vs. unmarried	0.06	1.06 (0.97-1.17)	0.214	-0.18	0.83 (0.75-0.92)	< 0.001
Married (couple) vs. unmarried	-0.08	0.93 (0.84-1.02)	0.115	-0.33	0.72 (0.65-0.80)	< 0.001
Constant	-8.62		< 0.001	-10.51		< 0.001

* Any chronic disease includes heart problems, hypertension, diabetes, cancer and stroke.

Table 4.3. (continued) Associations of subject characteristics with disability risk over all three surveys, weighted logistic regression models

	Climbing 2-3 steps			Squatting		
	Coefficient	Odds ratio(95% CI)	p-value	Coefficient	Odds ratio(95% CI)	p-value
Did not work in past 7 days	1.39	4.04 (3.73-4.37)	< 0.001	0.96	2.61 (2.44-2.80)	< 0.001
Age (per year)	0.10	1.10 (1.09-1.10)	< 0.001	0.08	1.08 (1.08-1.09)	< 0.001
Any chronic disease*	0.77	2.16 (2.06-2.26)	< 0.001	0.73	2.07 (1.97-2.17)	< 0.001
Living with others vs. alone	0.32	1.38 (1.27-1.51)	< 0.001	0.37	1.45 (1.32-1.59)	< 0.001
No education vs. any education	0.19	1.21 (1.14-1.28)	< 0.001	0.12	1.13 (1.06-1.20)	< 0.001
Inadequate vs. adequate income	0.30	1.35 (1.29-1.41)	< 0.001	0.23	1.26 (1.20-1.32)	
Female vs. male	0.22	1.25 (1.19-1.32)	< 0.001	0.30	1.36 (1.29-1.43)	< 0.001
Year2007 vs. 2002	0.31	1.37 (1.28-1.45)	< 0.001	0.73	2.07 (1.93-2.22)	< 0.001
Year2011 vs. 2002	0.09	1.09 (1.02-1.16)	0.007	0.72	2.05 (1.91-2.19)	< 0.001
Bangkok vs. South	-0.25	0.78 (0.70-0.86)	< 0.001	0.05	1.05 (0.95-1.16)	0.360
Central vs. South	-0.19	0.83 (0.77-0.89)	< 0.001	0.02	1.02 (0.94-1.10)	0.645
Northeast vs. South	-0.16	0.85 (0.79-0.92)	< 0.001	-0.38	0.69 (0.63-0.74)	< 0.001
North vs. South	-0.42	0.66 (0.61-0.72)	< 0.001	-0.06	0.94 (0.87-1.02)	0.165
Rural vs. urban	-0.04	0.96 (0.91-1.01)	0.126	-0.18	0.84 (0.79-0.88)	< 0.001
Married (not together) vs. unmarried	-0.24	0.79 (0.69-0.89)	< 0.001	-0.09	0.92 (0.80-1.05)	0.196
Married (couple) vs. unmarried	-0.41	0.66 (0.58-0.76)	< 0.001	-0.16	0.85 (0.74-0.97)	0.015
Constant	-10.50		< 0.001	-9.65		< 0.001

* Any chronic disease includes heart problems, hypertension, diabetes, cancer and stroke.

Table 4.3. (continued) Associations of subject characteristics with disability risk over all three surveys, weighted logistic regression models

	Dressing			Eating		
	Coefficient	Odds ratio(95% CI)	p-value	Coefficient	Odds ratio(95% CI)	p-value
Did not work in past 7 days	1.80	6.03 (4.88-7.45)	< 0.001	1.64	5.15 (4.10-6.47)	< 0.001
Age (per year)	0.09	1.09 (1.09-1.10)	< 0.001	0.09	1.09 (1.08-1.10)	<0.001
Any chronic disease*	1.23	3.41 (3.10-3.76)	< 0.001	1.16	3.19 (2.85-3.56)	<0.001
Living with others vs. alone	1.03	2.79 (2.21-3.52)	< 0.001	0.68	1.96 (1.54-2.51)	<0.001
No education vs. any education	0.29	1.34 (1.20-1.49)	< 0.001	0.46	1.59 (1.41-1.79)	<0.001
Inadequate vs. adequate income	0.34	1.41 (1.29-1.54)	< 0.001	0.26	1.29 (1.16-1.43)	<0.001
Female vs. male	-0.28	0.76 (0.68-0.83)	< 0.001	-0.30	0.74 (0.66-0.83)	<0.001
Year2007 vs. 2002	0.33	1.38 (1.28-1.57)	< 0.001	0.66	1.93 (1.65-2.25)	<0.001
Year2011 vs. 2002	0.14	1.15 (1.02-1.30)	0.023	0.56	1.75 (1.50-2.04)	<0.001
Bangkok vs. South	-0.01	0.99 (0.83-1.18)	0.887	-0.04	0.96 (0.79-1.18)	0.719
Central vs. South	-0.04	0.97 (0.84-1.11)	0.633	-0.01	0.99 (0.84-1.16)	0.896
Northeast vs. South	-0.34	0.71 (0.61-0.83)	< 0.001	-0.27	0.76 (0.64-0.90)	0.002
North vs. South	-0.34	0.71 (0.61-0.83)	< 0.001	-0.58	0.56 (0.46-0.67)	<0.001
Rural vs. urban	-0.18	0.83 (0.75-0.93)	0.001	-0.26	0.77 (0.69-0.87)	<0.001
Married (not together) vs. unmarried	-0.48	0.62 (0.49-0.78)	< 0.001	-0.53	0.59 (0.45-0.77)	<0.001
Married (couple) vs. unmarried	-0.72	0.49 (0.39-0.62)	< 0.001	-0.60	0.55 (0.42-0.72)	<0.001
Constant	-12.53		< 0.001	-12.47		< 0.001

* Any chronic disease includes heart problems, hypertension, diabetes, cancer and stroke

Those suffering from at least one chronic illness (heart problems, diabetes, hypertension, cancer or stroke) displayed considerable influence on dressing (OR=3.41, 95%CI: 3.10-3.76), eating (OR=3.19, 95%CI: 2.85-3.56), using stairs (OR=2.16, 95%CI: 2.06-2.26), traveling alone (OR=1.85, 95%CI: 1.78-1.92), lifting 5 kg (OR=1.70, 95%CI: 1.64-1.76), squatting (OR= 2.07, 95%CI: 1.97-2.17) and any disability (OR=1.77, 95%CI: 1.71-1.83) at $p<0.001$. Having female gender provided negative relation to difficulty in eating and dressing and a positive relation to squatting, lifting 5 kg, climbing stairs, traveling by bus and any disability. Individuals who were married displayed more efficiency in performance of routine activities as compared to individuals who were not married (divorced, widowed, and separated). Individuals residing in rural areas were found to display difficulties performing while suffering from any disability and independently travelling by means of bus or boat as compared to individuals residing in urban areas. However, they did not show as many difficulties during eating, dressing, squatting, lifting 5 kg and climbing stairs.

It is interesting to note that not working in a week before an interview caused a greater risk for difficulty during dressing (OR=6.03, 95%CI: 4.88-7.45), eating (OR = 5.15,95% CI: 4.10-6.47), using stairs (OR=4.0495% CI: 3.73-4.37), traveling independently by bus (OR = 3.28, 95% CI: 3.12-3.44), lifting 5 kg (OR=2.64, 95% CI: 2.53-2.76), having any disability (OR = 2.64, 95% CI: 2.54-2.75) and squatting (OR=2.61,95% CI: 2.44-2.80) at $p<0.001$.

Figure 4.3 and Table 4.4 show the proportional effects of independent variables on disability prevalences. The features found to have the greatest severe influence on disability prevalence were unemployment over the past week (average impact 61.2%), age per 10 years (53.7%), and suffering from one or more chronic illnesses (46.3%). Residence with other individuals, absence of education and insufficient income were found to be related to positive influences on disability prevalences (average impacts 16.4% 15.1%, and 12.6%, respectively). Having female gender was found to present a positive effect overall. However, it displayed significant variation with each disability (average 12.5%, range 37.6% to -12.2%). With each disability, the proportional impacts of study year differed. Regional impacts were not as significant; disabilities differed

visibly. Disability risks were lower in individuals residing in rural areas as compared to urban areas. Individuals who were married also faced lower risks when contrasted to individuals who were unmarried. This was also acceptable for married individuals residing together as couples.

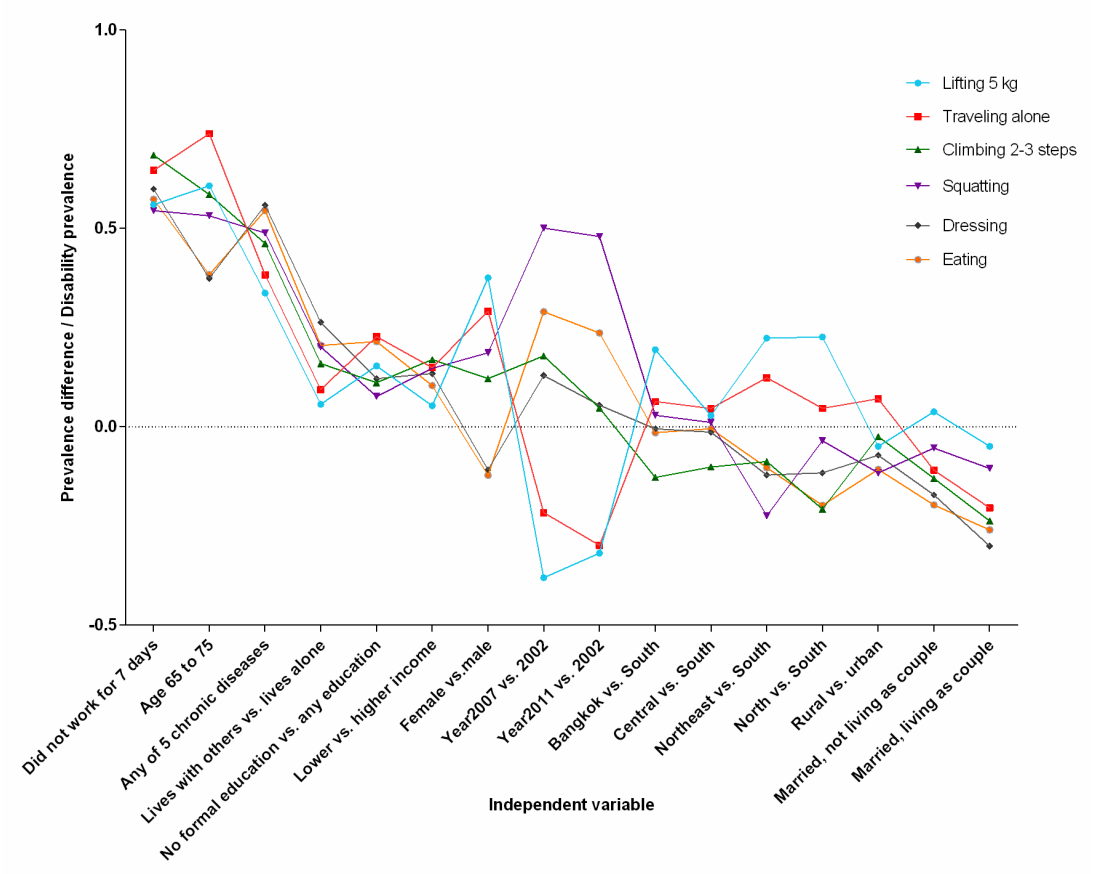

Figure 4. 3 Proportional impacts of modeled independent variables on prevalences of the 6 disabilities studied.

Table 4. 4 Proportional impacts of independent variables on prevalences of six disabilities in the elderly in Thailand in 2002, 2007, and 2011.

Independent variable	Has difficulty with indicated activity						
	Lifting 5 kg.	Traveling by self	Climbing stairs	Squatting	Dressing	Eating	Overall average
Did not work for 7 days	0.560	0.647	0.685	0.545	0.600	0.574	0.602
Age 65 to 75	0.608	0.739	0.586	0.532	0.374	0.384	0.537
Any of 5 chronic diseases*	0.338	0.383	0.462	0.489	0.559	0.546	0.463
Lives with others vs. lives alone	0.057	0.094	0.160	0.202	0.264	0.205	0.164
No formal education vs. any education	0.154	0.227	0.111	0.077	0.122	0.215	0.151
Lower vs. higher income	0.053	0.149	0.170	0.148	0.135	0.104	0.126
Female vs. male	0.376	0.292	0.122	0.187	-0.108	-0.122	0.125
year2007 vs. 2002	-0.380	-0.216	0.179	0.501	0.129	0.290	0.084
year2011 vs. 2002	-0.318	-0.298	0.048	0.480	0.055	0.237	0.034
Bangkok vs. South	0.195	0.064	-0.127	0.029	-0.005	-0.014	0.024
Central vs. South	0.029	0.046	-0.101	0.011	-0.013	-0.004	-0.005
Northeast vs. South	0.224	0.124	-0.087	-0.224	-0.121	-0.103	-0.031
North vs. South	0.227	0.047	-0.207	-0.035	-0.116	-0.198	-0.047
Rural vs. urban	-0.049	0.071	-0.024	-0.116	-0.071	-0.107	-0.050
Married, not living as couple vs. unmarried	0.038	-0.109	-0.129	-0.053	-0.171	-0.197	-0.104
Married, living as couple vs. unmarried	-0.049	-0.204	-0.237	-0.105	-0.300	-0.260	-0.192

* Heart disease, hypertension, diabetes, stroke, and cancer

4.2 Qualitative study: In-depth interview

4.2.1 Characteristics of key informants

A qualitative method was selected to offer a comprehensive understanding of key contexts that are considered critical in improving the life quality of Thai octogenarians. 11 participants comprising of 8 males and 3 females were interviewed. Transcripts were subjected to an NVivo 8 for data analysis. A first set containing thematic codes produced from the transcript subset was created by 2 independent investigators to enhance reliability. Afterwards, the codes were adjusted using an inductive analytical method, and outcomes arranged basing on major themes within the data.

While respondents came from academic, non-governmental organisation (NGO) and government, the presentation of data was based on issues that required urgent resolution to enhance octogenarian life quality and better care within the next decade. Variations between respondents' opinions from various were not ascertained.

Table 4. 5 Characteristics of key informants

	N (11)
Sector:	
Government	5
Non-Government Organization	3
Academic	3
Gender:	
Male	8
Female	3
Age (years):	
Range	42-90

4.2.2 The existing Long term care pattern in Thailand

Policy makers stated that it was not concrete LTC policy that have been implementing, but it can be divided into two types, there were informal care and formal care.

1. Informal care; this type of caregivers provided constant care and support without being paid. It included care by family member, neighbor, volunteer in community.
2. Formal care provided by experts in institutional based, whether government operated or handled by private organizations.

- *The exiting form of elderly care in Thailand varies, it depends on the degree of illness or disable level. I think that elderly who are living with their family tend to receive care from family member first. But if they need attention care 24 hours, they will be move to hospital or institution whether operated by government or private. (female 1, NGO)*

From the past until present, elderly care in Thailand based on family. At some point in our life, we have to provide care to our parents. Most of family caregivers are daughter (male 1, Gov't)

Some policy-makers stated that another form of care that increase significant has been observed is hiring an in-home health employee from a private organization or agency. In-home health worker may possibly be nurses' assistant or other types of visiting nurse for example a certified *home* health *aide.*

There are many forms of long term care in Thailand, it can be divided into three types, institutional care by government, hiring care giver to provide care at their home and volunteer care. (male 2, Academic)

Care provided by family members is still the dominant form of long-term care in Thailand. The form or type of care are varies from one place to another. Some family that have dependent elder person may hiring the care giver from private agency. (male 3. Gov't)

4.2.3 Benefits and drawbacks of each pattern

Benefits and drawbacks of such services can be assessed depending on the requirements of older people and needs of the elderly.

4.2.3.1 Family based care

Following are the major benefits of family based care source:

- Family members can also play their role through several ways and possess the tendency to make the individual feel more comfortable in his home environment.
- Such care is time-consuming as it is easier to develop a routine in such circumstances.
- Chances of recovery increases as the comfort level in such conditions increases.
- The process of providing care is considered a precious manner to reward the loved ones so most of the caregivers prefer to provide services to their parents or spouse.
- Providing such facilities at home are less expensive as compared to the care provided in the hospitals or residential care.

Several negative consequences had mentioned by key informants. As a matter of fact, these caregivers were not experts and were certainly not better than the professionals

in terms of healthcare knowledge and abilities. In case if the patient is in critical situation, the family caregivers cannot handle such situation, thus, professionals are needed.

The amount of work increases when the patient is ill. As the caregiver works and handles the patient at the same time, there is a significant increase in the amount of work. Most of the caregivers felt physically tired and fatigued after critical care of the older person. The symptoms like fatigue, poor appetite, decline in sleep quality etc. were witnessed in the family caregivers. Another concern is financial support as the most family caregivers had to belt-tighten due to insufficient income.

4.2.3.2 Community based

The major advantage of using health volunteer in community is less expensive. They can also be an invaluable resource of reaching certain isolated or vulnerable older people. On the other hand, health volunteers in community don't have time to volunteer or visit the elderly and provide some daily task as they have their own duties.

4.2.3.3 Institutional Care

Institutional setting provided professional care with appropriate facilities, equipment. On the other hand, elderly living in such settings may possibly be at risk for social separation, mistreatment that will not only affect them physically but psychologically as well. In addition, it's expensive and many families cannot afford the services. Moreover, the elder people acquire services easily by fulfilling the conditions of admitting into the LTC institution and such conditions should be transformed as per the need and embrace LTC need evaluation.

4.2.3.4 Hiring aid from agency

Some policy maker stated that some Thai people relies strongly on private, home-based care, much of which is purchased in the grey economy, probably due to the availability of immigrant carers. The first advantage is that agency staff

member are more likely to be fully trained and licenses. An individual gets one-on-one concentration when hiring the personal care assistant from agency. Agencies will be generally provide backup care should primary aide or nurse become temporality unavailable. Policy maker pointed out the drawback of hiring aid from agency including, elderly and family may not get to pick the particular worker who will provide services. This can become a problem if the elderly and the aide do not get along. In addition, most of nurse aides from agency are migrant workers such as Lao, Burmese. So, the quality of service should take into consideration when hiring home carers.

4.2.4 The factors that influence policy implementation in Thailand

The interviewee expressed the opinion that there are various factors that determine the success or failure of policy application; however, the main factors are politics and government. For any policy that was agreed on by the government, the government offices will heed it and immediately put it into action as can be seen from the previous government's policy of establishing elderly centers in every sub-district, but there was no continuous operation.

In addition, there is also cooperation between government offices, of which currently there are many offices undertaking the issue the elderly, but they only do it for the part that they are responsible for. Moreover, sometimes many offices take care of the same issue causing duplicated work. Furthermore, each office also tries to expand the scope of their mission to be wider without making any benefit for the elderly but for their own offices.

Factors of applying policies into action in the field level are still dependant on the leaders of each office as to whether they recognize problems and the importance of policies or not. If they do not see the importance, then no operation is undertaken; for example, in Lamsonthi sub district, policies were successfully applied as the leader agreed with the polices, and moreover, staff were prompt and willing to collaborate. Another factor are commitment and relationships between the organizations that are responsible for applying policies into practice with other relevant organizations are also

important factors. In addition, limit funding factor, thereby offices at the field level cannot complete their work. Furthermore, the successful policy implementation can be found at some local areas but cannot expand to another area.

> *It shall be occurred in the period that leaders can talk together with us and understand us. However, if the leader is changed, and we cannot talk to the leader, it may not be sustainable." [male 6, Academic]*

> *For successfully implementation, it' must be heart, if you have heart or passion in something, you will find the way to do it, second, head, I mean…the vision of the leader, and last one is hand, which mean should have team. [male 4, Gov't]*

> *It need corporation among key stakeholders, moreover, commitment among key players.[male 2, NGO]*

4.2.5. The problems that urgently need to be solved to improve the QoL of disable people

4.2.5.1 Imbalance in health care and social care service

Key policy makers addressed that, there are imbalance between social care and health care as the Ministry of Public Health is emphasize on only health care, cure, treatment; despite, there is economic and social support. The elderly care for doing normal daily tasks and living is the main obligation of the family in Thai society.

Currently, many sectors are responsible for social management but the main sector is Ministry of Social Development and Human Security and Local Administration Organization. However, the current service is arranged in a form of periodical assistance with objects or money such as elderly cash allowance rather than

a systematically service management for impoverished elderly. Government sector only provide nursing home for those who are dependency.

> *We [government] set up the policy but it tend to provide only health care or medical care…you know well Universal Health Coverage but how about social support such as help them out their home, buy thing or any type of simple home task…who should support? (female 3, Gov't)*

> *The care for community now is now separated into section. One section is for social care, and another section is for health. We provide health care via many channels, via universal health coverage, but how about social support. (male 7, NGO)*

> *For such case, only normal villager can do it with not very high salary, but just salary for their living. Or, we can hire caregiver from private company such as NGO or Profit to help. However, the quality shall be controlled and improved. There will be another new work as a career. (male 6, Academic)*

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4.2.5.2 Poor management system

A lasting care inevitably engages to several entities, prior to a duty and responsibility that requires coordination of efforts. The recent scheme of community incorporated elderly care is based on management between the elderly care centers, health promotion hospitals in addition to executive organizations. Unluckily, every community has its individual perspective within the scheme. Thus, to keep up with a sustainable elderly care service, further mechanism will need to be recognized to strengthen coordination as well as cooperation amongst disjointed associations like the 'Committee for Community Long-term Elder Care'.

the administration system need to improve as it do their task separately (male 3, Gov't)

there are fragmentation, discontinuous work, need coordination (female 2, Gov't)

At community level, if a volunteer organization does not have appropriate capability, then an important person who has undergone good training has to work and assist the older people for the provision of a lasting healthcare. Thus, every now and then the health volunteers operations are not that well managed and poorly organized and can result in the care volunteers issues and problems in communication in order to address their roles and sense of duties powerfully. Consequently, there must be several data collected in order to discover the efficient areas of the healthcare volunteers as well as elderly home care villages and be able to recognize and realize ways for the development of assistance and its underlying staff improvement.

In case, one Aor-Sor-Mor cannot visit the elderly at some day, is it possible to inform another one [Aor-Sor-Mor] to visit the elderly in that day. (male 2, NGO)

Why don't we use technology to support the health worker in order to manage the data and information. (male 3, Gov't)

4.2.5.3 Caregivers need knowledge and skills

Policy makers expressed that the quality of care outcome remains poor due to lack of tools or equipment. Moreover, family caregivers need more information, knowledge and skills to provide appropriate assistance to their elder. Providing the external support such as services, tools and increasing family caregiver's knowledge and skills are the solutions that mentioned by key informants.

This has only their heart, but it cannot meet the standard of care. It is true that this kind of caregiver will meet the basic needs of the elderly according to Maslow. It fulfills only at a certain level, but if you want more than this, it cannot be supported.(female 3, Academic)

We must have an academic professional team to support in the family as it can take care of them conventionally, but it still doesn't meet the standard of care. There shall be team of doctors, nurses, family, scholars, or whoever who can provide more knowledge, especially for another stage of diseases. Suppose some caregivers who don't understand for it shall be very stressful as the elderly are very boring for them. (male 7, Gov't)

The volunteers of the care for elderly will need an improvement of their care abilities and skills. Thus, the project has initiated a village based healthcare volunteers in addition to the elderly home care advocates do not include enough training to serve well the older people in the community. As a result, the volunteers will need ample support in the improvement of their abilities and skills and be successful in providing of elderly care services.

Some cases, Aor-Sor-Mor cannot handle elderly that have serious ill especially psychological or mental health. We [government, policy maker] should think about this circumstant and form health care team such as professional, nurse to help Aor-Sor-Mor. (male 3, Gov't)

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4.2.5.4 Health human resource shortage

Key informants shared their though that the problem is caregiver shortage, both formal and informal caregiver. Remote and rural areas are the specific sectors that are faced with a shortage of services to cater their needs, and some of this shortage includes a low number of skilled and trained doctors, nurses and health professionals that can address the concerns of the elderly and patients. The sectors that are greatly affected by this shortage include the community care and residential aged care sector. The shortage of health care workers also contributes to the provision of low quality health care services in the communities.

> *Lack of caregiver to provide care assistant is urgently need to fix, even paid caregiver…now high demanding but no caregiver supply. (male 4, Gov't)*

> *We [Thai people] usually think volunteering involves committing time and energy to provide health care or assistant that benefits someone without expecting financial rewards. If they [Aor-Sor-Mor] get some paid, it's not volunteer. How can they survive without money, it's extremely hard to survive. (male 2, NGO)*

4.2.5.5 Problem in Regulation issue

Key informants mentioned that the problems that need to be solved for formal care are lack of price regulation issue and standard of curriculum training issue. Private Service facilities are more operated for take care the elderly but they still lack of price monitoring. If the service depends on market mechanism, the

price will be getting higher and the customers are unsure whether the price is reasonable for the standard service and worth paying or not.

> *we don't know the cost that we pay is reasonable or not. No existing price regulation, it seems the private institution are take advantage by market demand. (female 1, NGO)*

> *From now on, Thailand will have more and more elderly in the country, so why don't we rethink how to improve the course of teaching…..increasing credits and hours in studying for the elderly caring field and spilt this course as another subject. (male 7, Gov't)*

Some key informants shared their thoughts that the Elderly Care Training Curriculum is variety and mainly based on the curriculum of Ministry of Education. When the elder caretaker is more required, private training center responds to this demand by training more elder caretaker aides. The curriculum of Ministry of Education is applied along with English and computer skills. Moreover, some training centers modify the curriculum to be completing in a shorter period to produce the elder caretaker aide to respond the market demand. Thus, the variety of training curriculums does not meet the standard. Further, the training is lack of monitoring, assessment, and standard control from professional associations.

> *There are many private agencies enter this [elderly care] market. They offered short course training, but in fact, how do we know the quality of care as the short course training are depend on that agencies, how they develop the course? (male 8, Gov't)*

4.2.5.6 Problem in Information system

Policy makers stated that various organizations gather viable information on elders such as for example, the local government unit and the elderly care centers. Nonetheless, ideal information is not all the time precise and functional since it is not evaluated for totality as well as appropriateness. Any information must be collected and confirmed each time since the information about these older people can be altered rapidly. As a result, the weight of meeting up with sensible and precise information must be impressed on a local community. They must be settled up with tools to assess and to analyze the available data in order to know the situation of the elderly.

> *There are many unit collect elderly information, but the data is not accurate or some unit don't share their data.. that's the problem…[female 2, Gov't]*

4.2.6 Gathering the idea how to develop a sustainable and feasible LTC delivery to address the growth in LTC needs over the next ten years

In the next 10 years, policy makers agree that long-term care in Thailand should be based on family and community. Thai social value in "the gratitude to parents" is the significant culture heritage to promote the long term caring system development for the elderly in community. Meanwhile, most of elderly would like to live in the house and be taken care of by the children rather than to live in the nursing home. Thus, the development direction is to promote the family as a major in charge for caring. However, the supportive system in community must be developed to enhance the family to be able to take the role.

Another 10 years, family base may be used as always, but it may be covered to the neighbors. Of course, we have compassion, generosity, etc., but everyone has their own duties and they don't free for all 24 hours. Thus, we have to think about system that we will use to provide help for the family. (female 1, NGO)

In the next 10 years, it shall be in the community family, but in another 20years, the pictures of rural areas might be changed to be more urban and it will become urbanization. (male 4, Gov't)

This is the policy challenge of what we can do to take care of the family without resigning from the current work and it can be used as our own business. (male 5, Academic)

In the future, the size of family will continue decrease, and the female will be main family caregivers…comprehensive local service in assisting family is key point.(female 1, NGO)

To some extend, we further asked about who should take the financial responsibility for Long term care?

Policy maker suggests that the responsibility should be shared between family, community, local administration organization, and government at the first stage. The elderly from the capable family should be the burden of their families. Local and community should set the service system to support those families and. Moreover, they should take more action with the elderly who have no family or the families are unable to take the by accessing Health Security Local Fund service and the support from the community. In a long term, Community Welfare Fund or National Benefit and Pension Fund to support finance for service system development might be developed. Lastly, all policy makers agreed that everybody must prepare themselves in advance.

For the source of money.... we should talk and discuss together clearly that we will collect more local taxation or central taxation to manage this system or will use what kind of security system for this as hospital cannot bear for this duty. (male 2, NGO)

For financing in long term care, everybody should be aware, prepare themselves. (male 3, Gov't)

The elderly must award adapt themselves and rely on themselves as much as possible. (female 2, Gov't)

4.3 Summary

This study was conducted to explore the understanding of disability in older Thai people and factors that contribute to their disability (quantitative). In addition, this study explored perceptions and reactions to current LTC policy (qualitative).The results provided covered the quantitative study on SOP 2011, 2007 and 2002. On average, there was a mild reduction amongst of the six events. Indiscretion may transpire in relation to the realized levels of intricacy witnessed in the findings since not all the assessments were carried out by the NSO. The aspects realized to portray the utmost stern impact on disability frequency were ailments from several chronic illnesses (46.3%), did not working 7 days before interview (61.2%), and age for every 10 years (53.7%).

An additional assessment was conducted via in-depth interviews. The following issues regarding durable care for the elderly were found critical and needed to be attended to effectively and in urgency:

1. discrepancy in service providence amid health care and social care

2. deprived managerial supervision
3. problem in regulation issues
4. deficiency of expertise and proficient skills
5. shortage of health employees
6. problem in information systems

From their perception, makers of policies believe that that enduring care in Thailand ought to be founded on family and society. In addition, the Chapter 5 provides a deep discussion regarding explicit findings from the research.

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CHAPTER V
DISCUSSIONS AND RECOMMENDATIONS

This subtopic offers a thorough discussion of the findings from the preceding chapters. This chapter commences at subtopic 5.1 with a synopsis of key results from the quantitative research regarding the disability's risk factors. Additionally, this section offers a comparison analysis of the empirical results. Section 5.2 discusses the findings gathered from qualitative research, commencing with factors affecting implementation of the defined policy (subsection 5.2.1). Subsection 5.2.2 discusses various matters regarding the setbacks that ought to be unraveled. The suggestion regarding the establishment of maintainable and a viable LCT delivery for the purposes of highlighting the development within LCT for the next decade will be discussed in subsection 5.2.3. For every section highlighted, a summary and a policy recommendation will be provided.

5.1 Quantitative study: Survey of Older Person 2002, 2007 AND 2011

5.1.1 Disability prevalence in three survey study

Between the years 2002 and 2007, the prevalence of disability in each type faced by elderly persons were slightly decreased. The category which displayed decrease in the level of difficulty during 2002 and 2007 and increase during 2007 and 2011 was the capability to travel independently by bus or boat. The level of difficulty in one or two disabilities was found to be lower during 2007 and slightly increase during 2011. However, in case of three or more disabilities, the scenario was inverse i.e. the difficulty level increased in 2007 and decreased in 2011. The overall difficulty level showed mild decrease among all of the six activities. Irregularity may occur in association to the recorded levels of difficulty seen in the results due to the fact that not all the surveys were conducted by the associated parties.

Furthermore, different studies show distinctions in the appearance of ADL disability. Due to the use of different ADL measurements and age groups, contrast among various studies is not convenient. In addition to this, documents describing the disability prevalence in Thailand are uncommon. It was found in a study by village health communicators in 1989 in community residing in a rural northern Thailand that the total rate of prevalence of disabled aged was 6.3/1000 population (83). In a study during 1997, 19% of members aged 60 years and over were discovered to suffer from long-term disability (84). After this, in 2001, a study discovered that the disability prevalence rates were higher in females as compared to males of the elderly population residing in the Central region (85).

The rate of ADL disability in populations with individuals being of age 60 or over was as great as 25.7% in Lebanon, when considering the international context (86). In studies carried out after the year 2008, the ADL disability was found to not be as broadly prevalent. In China, the population consisted of individuals of age 65 years and over and displayed prevalence of approximately 14.9% (62). In the US, the same age group was found to have a prevalence of 18.4% (87). In Malaysia, the prevalence of the ADL disability for populations having age 69 years or more was 10.6% (88). These studies were diverse as the age group for Malaysia was younger (mean age 69.0) in contrast to the Chinese and US populations (mean age 75.1 and 74.5 respectively). The difference of prevalence of ADL and IADL limitations among Asian countries was shown in a study conducted by Ofsterdal et. al 2007 (89) and the trend was found to be increasing. In Singapore, the prevalence of ADL disability was 3.9% (1999), 4.7% in Beijing (1997), 6.5% in Indonesia (1997), 9.2% in Taiwan and 14.7% in Philippines (2000). IDAL restriction found in Singapore was 17.2% (1999), 17.7% in Beijing (1997), 25.1% in Taiwan and 27.7% in Philippines (2000). Although we cannot explained the reasons why our results contrast with these, we can, however, conclude that there is an increase of disability associated with the elderly Thai citizens.

5.1.2 Factors associated with Disability

In this study, the characteristics found to be related to disability are old age, having female gender, lack of education, insufficient income, cohabitation, unemployment seven days before the interview, suffering from at least one chronic illness (hypertension, heart problems, diabetes, strokes or cancer), and living in a rural area. As shown in previous studies, various groups including age, gender and socio-economic status are components of physical disability in elderly citizens (90-92). In this study, different factors such as age, income and marital status are linked to this problem. In physical disability, age is highly associative risk factor (18, 93).

Several studies have been conducted which assess variations in gender in case of the ADL disability, showing that there is greater prevalence of this disability in females as compared to males (86, 88, 94-96). In Lebanon, a study was conducted which explained that there is greater disability among women in contrast to men (31.3% in comparison to 18.7%) (86). The increase of mortality rates of men in comparison to women is determined as the cause of such gender variations (97), as well as by the higher prevalence of the ADL disability in women as compared to men having increased durability and decreased recovery rate (98, 99). In Netherlands, a study was conducted during 1990 to 1999 using population of 55 years and older not suffering from baseline disability. It was found that approximately 26.7% displayed the ADL disability at a follow-up six years later. It was found that the prevalence of the ADL was higher in women (33.2%) as compared to men (19.7%)(100). In Brazil, another study examined populations of age 60 years and older and discovered that ADL disability prevalence was higher in females in comparison to males. The population at the baseline was found to not be suffering from any disability. In the follow-up conducted six years later, the rate in females was 42.4/1000 person-years and in males, 17.5/1000 person-years. Compared to this, a review study described that upon management of socioeconomic factors, health conditions and social links, differences in the occurrence of disability amongst males and females were non-existent (101). In Sweden, a study conducted

showed that there were no differences in ADL disability occurrence between males and females (102).

Regarding residential area (rural vs. urban), not many studies have studied the differences in the ADL disability and health. Most of these studies initiated from Asia (103-108). In these studies, it was discovered that the prevalence of the ADL disability is higher and health conditions are worse among older adults residing in rural areas as compared to those living in urban areas (103, 106, 108). In Canada and Australia, a study was conducted which discovered that there was weaker health among individuals of age 18 years and older residing in the rural areas of these countries. Differences in rural areas were studied in another research conducted in Canada (105). The rurality of an area and health of adults aged 18 years or older were found to be correlated i.e. the more rural an area was, the weaker health is showed (107). In Finland, a research studying the differences in rural and urban areas associated to health and health behaviour of adults of age group 52 years and older were studied, which showed weaker health in rural areas. Additionally, adults living in rural areas displayed an unhealthy lifestyle including lack of physical activity, bad eating habits, obesity and smoking (104).

In this study, income was found to be more related to disability as compared to education. Many prior studies validate this statement (91, 109). However, others describe the unimportance of income in predicting the potential disability which could be displayed (110). Despite this, individuals earning insufficient incomes may not take necessary measures for healthcare.

Observed unexpectedly in this study that elderly citizens residing with other individuals were more probable to be disabled. This result is identical to the results of Li-Tang Tai's study (111). Individuals living alone are more likely to complete tasks independently without external support, while those residing with others are dependent (112). A clear link cannot be obtained between disability and living with another individual in this study. The individual may begin to live with someone else after they have become disabled or vice versa. We need to conduct more researches in order to

obtain proof. Several studies debate that elderly citizens living independently may acquire a disability (113, 114), specifically with a lower socio-economic rank (115).

The cause of a significant link among disability risk and unemployment for seven days prior to the interview is not definite. The problems faced while defining unemployment is a component in the high likeliness as this can include individuals unemployed as a result of disability, individuals searching for jobs and those who have taken a temporary sick leave, are retired, home-makers and individuals who face restrictions by their spouse and/or children. In addition, this may be reverse causality. Therefore, this issue should be examined further.

Because of data inconsistency, this study was not able to include health behaviour variables including exercise, smoking, drinking water, etc. Past studies showed that physical activities and exercise positively impact the physical functioning and ADL in the elderly citizens (116, 117). Therefore, this can lower the risk of ADL disability development (118-120). It was found in an intervention study conducted amongst older adults (70-89 adults) that the physical capabilities of the physical activity group were found to improve after 12 months (119). One more study which analysed adults 65 years and over discovered that at the time of the 3-year follow up the ADL disability risk increased for those lacking physical activity (118). Another study conducted in the US for older adults showed a link between higher total physical activity and lower disability (120). Self-rate health was not included in this study due to the possibility of rating current health based on previous health (90).

5.1.3 Policy recommendation for disability

The results of this research discover the associates of old people who face disability plus require special consideration from policy makers plus both government and agencies who serve older people. Policy inferences plus intervention programs ought to concentrate on the cohorts of the susceptible people as follows.

1. For the jobless, the illiterate, the elderly old plus the poor people. These features are inextricably linked to each other. Thus, these sets of people should be

offered with openings to develop and sustain their healthy situations and aged with no problems by encouraging involvement programs in the following ways.

1) Life long education should be enhanced through group education plus heath learning on community to increase skill and awareness for personal-care management
2) Paid job after retirement that is relating to their livelihood in the society such as tasks that utilises the local knowledge or available materials such as local music, conventional massage and growing herbs must be supported by skills enhancement. Subsequently, the Thai governing body must progressively enhance the marketing and allotment of these commodities. Offering suitable task for the old not only enables them add their revenues and active commitment but as well reduces their reliability on the family plus the society. In coming years, Thailand's size of human resource will reduce due to swift fertility reduction, thus an elderly labour-force can augment national product.
3) The government may consider to provide the pensions for the too disable old group with extremely poor elders.

2. Because of the major relationship amid disability and chronic illnesses, it is necessary for rule makers to promote plans of wellbeing prevention so as to reduce the danger of disabilities in coming years. The impediment of chronic diseases must begin in young adulthood through adoption of health support initiatives. Furthermore, the old people experiencing chronic condition must be medicated and handled via proper inferences such as individual-help group, personal management, drug observance and treatment use by medical care experts working close with family and society to reduce complications plus avert long-duration care issues and load for families and community. Moreover, early diagnosis of chronic illnesses like diabetes mellitus plus hypertension under the "Healthy Thailand" scheme that is powered by the MOPH to prompt screen plus identify these NCD in every Thailand province must be progressively carried out and highlighted

for elderly living in the society so as to reduce the predominance of chronic illnesses.

3. Almost 30 per cent of older citizens experienced strain in carrying heavy things such as grocery bags or lifting 5 kg, which has biggest predominance compared to other six disabilities. Therefore, it may be hard for them to pick commodities off supermarket, it may influence the daily life, buying habits, as well as alter standard of old life. This plan can sustain home delivered foods, ageing market, small duties in the house (all including shifting heavy boxes, changing light bulbs), shopping for grocery, and assist in goods production at this demographic.
4. It was discovered that 26.4 per cent old people are unable to travel alone. This is when immediately being reliable on another mode for getting common services can be a big issue. This supports the demand to begin strategizing and executing substitute transport alternatives for individuals living in regional and country side areas. The public transport system should offer access for individuals effortlessly, safely and effectively. Even if public mode is gradually presented in some parts, most elderly people struggle getting public transportation. In some areas, older adults may struggle walking to bus stops. These regions require improved alternative transport. The financial side of public transportation will create conventional public transport modes in regional parts quite tough. There exist small levels of support where citizens will not be travelling to workplaces and there exists no present public transport facilities in countryside parts. It is as well important that any future strategizing has a regional emphasize to make sure that all modes of transport and movement are incorporated at a countryside level. Moreover, elderly still have commute requirements after retirement plus the personal vehicle is feasible to stay the central and safest means of mobility for the seniors. In addition, to seniors, driving symbolises a mark of autonomy, freedom and self-dependence, as well as controlling their own life. Pitiable movement poses a big burden on the person, family, neighbourhood and public and there is

an actual requirement concern of the mobility requirements of elderly at all levels to enhance continuing movement for elderly road users.

5.2 Qualitative study- in-depth interview

Even though Buddhists place importance on the parent refunds as definitely inbuilt in Thai civilization the declining family members will outcome in lesser caregivers, perhaps parting older connections with no attendants (45, 121). For that reason, it is predictable that some weak elderly will have incomplete support. The preservation of traditional care regardless of modernization will be the challenge when scheming up an efficient lasting care scheme. Various factors required to encourage and support this cause have been developed at the national scale, employing national best practice, policies, practice, but it required more support for the better results.

The government of Thailand and people of the society have realized the significance of these issues with the passage of time (71). Moreover, various strategies have been adopted to deal with these challenges. These strategies involve the developments in various institutions and introduction of various community-based programs. Nevertheless, some community-based programs are providing the services but there exists no national LTC delivery and financing system. The following sections were draw from the key informant.

5.2.1 Factors that influence policy implementation

We crafted our hypothesis on the principles that quality of life for the elderly within the community is influenced by the local policies that are in place. However, certain factors, in the form of the policy makers' intentions and understanding, as well as the agencies' staff and their commitment heavily influence the carrying out of such policies. Other factors such as the coordination of government

agencies and accomplishing of policy goals as well as the emergence of a good and competent leader also affect implementation policies. Despite the fact that any of these factors can, on its own, influence the carrying out of these policies, they are, nonetheless, related to one another.

Policy change could be due to a leader's action, but its implementation may still not push through if no adequate resources and committed staff are available. Sometimes, necessity forces intergovernmental agencies to coordinate among themselves, especially when one agency may not have all the resources required for the completion of a project. Furthermore, bickering among agencies always leads to difficulties in coordination, thereby defeating the leader's noble intentions. Coming up with the effect of each factor is difficult to assess with just a single case study.

The implementation of policies appears to be influenced by the degree of dedication shown by elected officials and staff with regards to a project. Berke and French (122) discovered that plans might be of no essence if there is no degree of dedication shown. Opportunity to promote and deliver good health services to the elderly, for example, may be identified by dedicated staff, but such identification may become of no essence if there are no commitments given by the concerned authorities for such project to take off. Capacity is of essence, but any specific policy can be scuttled by lack of resources, no matter how strong the commitment is. Nonetheless, having enough resources does not really guarantee policy implementation.

However, tensions emerge when funds become limited, as users compete and struggle for it. Take as an example funds allocated by a government agency for the training of health staff. If provisions are not made in the budget for traveling in order to visit the elderlies in their homes, it will defeat the intent of the program as limited funds will be involved in the distribution of the outreach services in their homes.

Policy goals are also accomplished through coordination that runs across government stages and agencies (123). It is really important that coordination be established across government agencies given the degree of fragmentations that exist in them. Agencies,

on the other hand, must have the will to share and the desire to participate in joint tasks if coordination is to work. It is quite amazing regarding the level of coordination that takes place in the country, considering the many obstacles encountered in the form of contradicting missions and absence of resources, as well as differences in personalities and the no-show on the part of the individual tasked with the job of ensuring that coordination takes place.

Intergovernmental coordination in Thailand, nonetheless, has become institutionalized through the creation of organizational and administrative infrastructure-mandatory referral as well as through the yearly expansion policies and boosting. Still, others include master plan process and stirring up expectation or developing a culture that helps work beyond boundaries. It does not necessarily mean that successful coordination taking place among government agencies will always lead to opportunities in the expansion of implementation policy. Intent and policy champion's efforts are equally essential in intergovernmental coordination.

Many studies have shown that an advocate or a champion's actions can be a boost in achieving policies or accomplishing program objectives (124-126). In that case, the champions must have the will to invest their time, pour in their energies and commit their money in the promotion of a specific position or issue. Three major qualities are present in successful champions. The first quality is their ability to make hearing claims as a result of their positions and professionalism. The second quality is their ability to have political connections, while the third major quality is their tenacity in persistence and perseverance. A lot of policy changes would never had taken place nor good policies ever be executed had policy champion not emerged.

The importance of ensuring that a champion who would help in raising consciousness regarding issues or policies affecting changes is well illustrated in our research. Nonetheless, a paradox is presented in the quest to clamor for strong and visible change.

Generally, the factors so far presented have demonstrated their relevancy while trying to comprehend how Thailand implements its policies, specifically those that deal with

long-term care. Analyzing the implementation policies of only one site made the findings to be limited. Again, the interviews utilized only 11 informants. However, different findings would have emerged, had a different set of informants been interviewed. Lastly, an extensive policy overview was made as well as the factors influencing their implementations. However, the study failed to be as in-depth as other studies that directed their focus on a specific implementation policy.

5.2.2 The problems that urgently need to be solved in order to improve quality of life of disable people.

From the results (Chapter IV), the key informants highlight the following six issues that urgently need to be solved.

5.2.2.1 Imbalance in health care and social care service

Several reasons may be attributed to the imbalance of health care services. Firstly, for more than thirty years ago, shifts from adoption of the individual disability model to the social model, as well as from policies that considered peoples` problems to policies that consider societies` problems have been evident at both UN and EU levels (127-129) The perspective embedded in the individual model is that it is the individual that experiences problems, and as such, it is the person that requires to be changed via rehabilitation, therapy or by preventing the respective persons from being born as an initial intervention. The perspective embedded in the social model implies that it is the society and its institutions that experience the problem hence it is the social institutions that require to be changed (130).

The second reason concerns the bureaucracy in administrative systems (131, 132). Separation of health care services for disabled individuals and older individuals poses a huge barrier to the holistic view of the health services demanded by older individuals. There are *The Ministry of Social Development* and *Human* Security (MSDHS) and

Ministry of Public Health (MoPH) and managerial and regional levels. This is attributed to a variety of problems; firstly, even though we are required to ensure existence of a "unified health system", this leads to additional levels of bureaucracy on the ground, and smaller organizations that focus on a single form of disability across all ages do not have the capacity to handle this. Secondly, these separations result in difficulties for the individual upon reception of the services. Regarding psychiatric services for instance, it was seen that when a person attains 65 years of age, they tend to have "graduated" from their services, and now join the elderly category of services, irrespective of the level of comfort and satisfaction the person may have been experiencing in the initial arrangement. Closing this aspect of service separation was viewed as the challenge as well as a remedy to the respective problems. It was thus agreed that the manner in which the delivery of health and social care services require amendment. Eventually, we are supposed to attain a level where a person is assessed with respect to his or her needs.

The third reason concerns several disciplines. Research focused on paid and unpaid care services for the elderly individuals covers a number of disciplines (133). Policy makers have been immensely concerned with the latest increase in the level of utilization of paid care and in reducing replacement of formalities for unpaid family-offered care services (134-136). To help the community in targeting patients who are at high risks, general practitioners and epidemiologists have established a number of risk factors associated with the use of paid care (97). Demographers have especially concentrated on the importance of the presence of a kin in refraining the living choices and arrangements of care (113, 137). Social gerontologists have examined family care giving and the burden linked to provision of care services and work on the function of market factors in the need for care services (138).

Majority of studies reveal that increase in restrictions in activities of daily living (ADLs) as well as in instrumental ADLs (IADLs) lead to greater tendencies of living with others to access paid care or a mixed care network (8, 139). There are a number of reasons to expect that the period of care used by the disabled elderly will also respond variedly to comparable huge declines and improvements in performance levels when other things remain equal. This is especially possible for the unpaid IADL services

offered by family care givers that tend to be associated with significant social elements (140, 141). The pattern on use of time linked to shared meals, housekeeping and transport provision established during the time of care may be sustained or even partly reduced in cases where the patient recovers to levels where he or she can manage self-care (142). Whenever an older parent settles with a child in response to the ADL need, the co-residence may be sustained in spite of a later recovery to full functionality. In-turn, co-residence fosters IADL assistance provision even if the help may not be seriously needed. Other researches have also identified some level of unpaid ADL help received by older individuals who, as per their self-reported accounts, do not require this kind of assistance (143). As regards paid care, particularly in handling ADL needs, we would anticipate third-party payers for these kinds of services to ensure enforcement of declines in service levels in response to performance improvement and reduced degree of evaluated need. Nevertheless, the monitoring of altered care requirements may be less efficient, taking place at large or irregularly spaced intervals of time. Carefulness on the part of case managers as well as home health aides may also result in situations where clients` performance shows improvement but no reduction to services. Therefore, both paid and unpaid care services may respond in asymmetric manner to changes in the seriousness of the disability. The responses shown by every type of care may vary.

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Furthermore, even though it may be difficult to realize an equitable allocation of service with the availability of substantial heterogeneity in disability trajectories, programs that are home-based and policies that require to be developed around the premise that disability at old age represents a dynamic construct if the policy makers are to consider such an objective.

Recommendations

1. Joint working between wellbeing and social consideration staff, is either helped or impeded coordination is by a scope of elements, yet the commitment of expert generalizations and issues of status is noteworthy. It appears to be clear that for any type of multi-disciplinary incorporation to be fruitful time and vitality must be committed to helping the diverse

expert gatherings see one another's parts, obligations and methods for working. Joint preparing and instruction can make a critical commitment here as can having distinctive expert gatherings cooperate from a common area.

2. A volunteering system must set up the integrated aspects of health as well as social care. Previously, the operation of community volunteers and home care advocates were not constantly harmonized ever since the health advocates emphasize on the wellbeing aspect of care and the volunteers only concentrate on a social feature.

5.2.2.2 Poor Management System

When the time has changed, these elderly would have dependency and take care of each other. Some dependent elderly, who are able to pay for will use the service from the private nursing home. However, these nursing homes are lack of service quality monitoring from the sectors responsible for medical and public health service, which separated from those responsible for social service. This results in the limitation of the linkage and service continuity. Thus, the linkage mechanism is required. Medical and public health mechanism to approach the elderly in the community is Public Health center while the Local Administrative Organization is the social mechanism to approach them such as Sub-district Administrative Organization (SAO) or municipality, so the linkage of the two organizations is significant. Health Security Local Fund provides more opportunity for the cooperation; including the budget for operation.

Moreover, elderly people in society suffer negatively in the misconduct of the established laws, rules and regulations since they find themselves unable to enjoy and exercise their perks and rights in obtaining access to a number of available government services provided for them. It reflects the poor management system. For instance, hospitals put up sign boards that state that elderly people that are aged 70 and above no longer need to wait in line in order to receive medical assistance, yet in reality they still

wait in long lines since there is a shortage in the number of doctors and nurses to attend to them. Additionally, the elderly are theoretically entitled to free entry fees and services, yet they do not enjoy this privilege. Therefore, the need to enforce these set of rules and regulations is imperative.

Recommendations

1. One of the integral aspects of health promotion programs for older individuals include management structures that warrant unfailing quality of health interventions and use of knowledge of good practice throughout the health organization. Efficient communication and information should be observed at all scopes of project operationalization in order to guarantee the transfer of evidence-based guidelines and experimental know-how between the centre and the health practitioners.
2. Adaptive Management is one of the solutions in addressing the issues and problem within an organization in order for the latter to improve, adapt and respond to the need for change. The goal of adaptive management is to address the concern of the communities in terms of their need for a wide range of social duties and responsibilities through long-term care. Recommendations and solutions to the problems can be fully addressed through conducting a public gathering in a designated area, wherein they are entitled to voice out their concerns and opinions on a specific subject matter. By doing so, meeting of minds between the different parties that have diversified fields of expertise can be established in order to arrive at the optimal solution.
3. **A "one-stop shop" strategy for access to services**: Flexibility in service provision is essential. Service providers should consider an aspect where elderly individuals are not supposed to bargain for their services and deal with a variety of service providers in order to meet all their needs but rather access all their service requirements at one point.

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5.2.2.3. Caregivers need knowledge and skills

Persons or individuals who are part of a family and of a local community that give ample care for the elders frequently do not comprise absolute knowledge of the enduring elderly attention and care (144). They tend to have insufficient knowledge to offer suitable care and receive minimal guidance from the general health practitioners. For example, nurses as well as family care givers rarely concur on particular requirements of problems during instances of hospital admission or discharge from hospitals. This is attributed in part to the fact that nurses tend to be unaware of the strengths and weaknesses of both the caregiver and the patient.

Insufficient knowledge and skills of family caregivers render them unfamiliar with the kind of care they are required to offer and the level of care needed. Family caregivers may fail to know that community resources form part of the necessities, and they may also fail to know when to access and how to sufficiently make use of the available resources. Due to this, caregivers usually ignore their own health care requirements to allow themselves to take care of the family members in need. Hence, the result may be a deterioration in the health and well-being of the caregiver.

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In view of this, there must be encouragement of knowledge about the care of the elderly because various local enriching traditions were handed down from a generation to a generation such as on food as well as nutrition. A single approach to improve their knowledge to have some learning institutions that are willing to serve and help others such as a vocational college for a caregiver training for them to understand the ultimate values of a lasting elderly care.

Recommendation

1. Improving the professional support from social work

Professionals from the developed countries in the West reveal that professional practice of social work can offer an irreplaceable technical platform

that can aid the supply of public services by third party organizations, society as well as the government. Meanwhile, it can also offer technical support as professional service support for the demands of caregivers and their families. On the other hand, the government may be actively involved in leading a proper development of social work and also collaborate with teachers and students of higher learning majoring in social work to allow provision of differentiated and specific professional services for caregivers in line with their attributes like social work for women, elderly and families.

To be concrete, Thailand may introduce a complete assessment system, which depends on the expertise of social workers to execute professional assessments of the demands of the old-age individuals, caregivers and their families. Additionally, experts in the field of social work should also be dedicated towards establishing a university-community research collaboration to promote research and practice of community bases social work services for caregivers.

5.2.2.4 Health human resource shortage

Shortfall in the workforce of both volunteers and paid workers are the problems identified by major policy makers(145, 146). Assuring the availability of such care will partly depend on appropriate personnel. Such workers will come in the form of registered nurses (RNs) and licensed practical nurses (LPNs), as well as certified nurse's aides (CNAs) and personal care attendants (147, 148) . Other workers will include unpaid family members and neighbors, as well as volunteers who could render care services when needed. Many communities are already struggling with the problem of procuring enough RNs and LPNs while other parts of the country may possibly be hit with shortfalls in the supply of professional staff (148). The reason for the shortage of staff is because of the high rate of turnover along with the difficulty of finding and selecting the appropriate staff replacement for the job (147). The high rate of turnover can be traced to the fact that the employees often find themselves looking for a more stable job since serving in the rural sector only provides low salary, a relatively isolated work environment, lack of motivation in identifying their career path,

health and safety issues in the personal homes of the patients, and the community care workforce's age profiles (147, 149). With both the private and public sectors taking no conclusive actions in the strengthening and expansion of the workforce, there is the fear that the problems will take a turn for the worse as older adults' health and long-term care increases (147).

The salaries of most professionals are very low and the majority of them do not even receive benefits. Besides, in home situations, the work that is performed is part-time and sometimes unpredictable. Most aides working in nursing homes as well as in home health care do not necessarily enjoy benefits coming from the employer-provided health insurance nor are they provided with normal worker pension coverage. Aside from the low wages and the few benefits given to them, paraprofessionals have little or no opportunity of advancing in their careers despite the fact that they work in very difficult environments that are physically challenging and mentally grueling. In their line of work, they transfer patients in and out of bed, stand and walk for hours, and attend to and handle disoriented or uncooperative patients or residents (150). Likewise, undertaking this job is quite dreadful as it requires one to constantly bathe, feed, change diapers, and ensure that the bedsores of the clients who are elderly and disabled are kept clean. The majority of the workers complain of no respect, absence of autonomy, or lack of recognition accompanying the performance of these tasks despite the fact that a lot of researchers recognize the "high touch" care necessary in providing life quality to long-term disabled individuals (147).

Family members are now being recognized by policy makers as a bridge that makes it possible for those needy individuals to have long-term care (136). Unpaid family caregivers actually provide most of the long-term care to those who are old or disabled in homes where they stay or where they live with families (151) . The savings realized in public spending as a result of relatives and friends volunteering their time in providing long-term care to the elderly and the disabled are now gaining recognition by policymakers (152). Although a good number of informal caregiving is happening together and in cooperation with formal arrangements, nonetheless, many elderly and

disabled people would have been forced to be institutionalized had there not been for the assistance from family members and friends (45).

Most long-term care, contrary to more services that are medically oriented, remains informally provided from family members and friends. A good number of caregivers have remained unpaid despite the fact that the use of paid care is now expanding. More than 70% of people providing care to the elderly with limited activities is family members (69, 153). Likewise, many individuals belonging to youth have seen shifting to urban areas for finding employment opportunities and causing deterioration to the current support system of the rural areas (154) . The LTC in Thailand is highly influenced by these findings and it is anticipated that there will be a dearth of caregivers to satisfy elevating care needs, more specifically in the rural regions (155, 156). Recently, out-migration of adult was highly associated with poor mental health but it was not associated with the physical health of the elderly left behind (157, 158). As there has been an upsurge in the remarkable economic and social changes in the last few decades, the family has not proven better to provide LTC to elder people and majority of the nursing homes existing or recently structure are far too pricey and owned by private sectors that low-income elders cannot afford them.

In Thailand, there are several good practices plus lessons cultured of wide-ranging community-based programs which could be implemented and more developed even though these efforts are disjointed (152, 159, 160). Several local professionals also perform the LTC functions and visit to those elder people's homes that reside in remote areas where there is no LTC institution or community-based program. People dwelling in rural areas usually suffer with some diseases and not severe symptom so they do not require intensive care and, thus, the LTC workers or volunteer may visit them at their homes. Voluntarism is a significant requirement of the community for elders who are commonly free but slowing down. Volunteers can give facilities in a way that makes elders carry on feeling linked to a community and not reliant on a formal care system. Also, volunteers often can act as precautionary medicine, keeping away the impacts of social isolation and keeping elders as lively and busy as possible. Ability of the

volunteer does not appear without effort, nevertheless, communities require employing, instructing and encouraging volunteers.

National Health Security Office (NHSO), not long ago, came up with the care manager because their task is considered a means of ensuring high quality care through their planning, executing, and assessing of the care provided to elderly adults that enable them live independently for a long time in their homes for as much as possible. But a lot of questions still remained unanswered at this initial state. Follow-ups need to accompany the training of care managers. Their roles and effectiveness also need to be monitored and evaluated.

Recommendations

1. The government, in trying to address the shortages in workforce as well as in turnover rates, should focus on training and advancement of career, as well as improving the working conditions through the development of new methods.

2. Financial reimbursement or in-kind substitutes given by the health system that precisely reveal the worth given to volunteer work could actually strengthen present incentive at the individual stage by making volunteer feel encouraged and competent enough to give more time to health-related undertakings without feeling they are avoiding other duties. Better policies and strategies can be designed in this regard by keeping in view the current sources of encouragement. Moreover, this process should not only reflect the organizational level as a source of inspiration but will consider how support delivered by the health system can strengthen sources of motivation at various levels, in this manner assisting to make sure the sustainability of volunteer packages.

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5.2.2.5 Problems in Regulation of price and standard of curriculum training issue

The key informants voiced many concerns about standard of curriculum training and price regulation.

With respect to the standard of course training, a lot of agencies train caregivers in the art of taking care of elderly people right in their own homes. This kind of service is very expensive, and only those families within the middle and upper income brackets can afford to pay for that. Poor individuals, on the other hand, look for their own relatives to take care of older people living among them. Care providers who render care services for the elderly (as well as for children) in their private homes receive special training from their own schools. The Ministry of Education is mandated with the task of seeing to it that these schools providing training to caregivers are registered and their performance monitored. But the key informants raises concerns on the quality of training which these schools provide and the kind of care they give apart from the fact that professional nursing standards which fall under the council's jurisdiction are being violated.

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Thus, fast-tracked short courses are now being applied in situations where even individuals undertaking such short courses have no prior work experience in dealing with elderly people or community organizations. In spite of the fact that the system of vocational education calls for the acquiring of competence in terms of training and skills and not just putting up attendance in a training program. In the positive side, this short course provide health care givers to serve the demand side, but on the other hand, the quality of curriculum training may not meet the standard. The truth that a lot of these accredited agencies offering training courses find it difficult to cope with the set standard is an indication that many of these trainees are not actually learning from these agencies, the skills and competence they are supposed to acquire from them.

Short course training programs are issues in Thailand that are quite remarkable in terms of the aged and the care giving sector in the community and the entire vocational sector.

Two major conclusions can be drawn here: The first is that the trainees do not get the proper training and skills that they are supposed to acquire. The second is that accredited agencies making genuine efforts to provide quality skill training and competencies required of them are facing stiff and unfair competition coming from other accredited agencies that provide cheap (in terms of costs and prices of training), incompetent, and below standard skill training deemed to be unrealistic and with shortcomings in all standards.

The result is that we are left with an environment that has created a training market where competition has turned into a competitive race to the bottom to see which agency attracts more students through cost cutting measures for the courses offered and with no regards to the quality accompanying such skill training. In this manner, quality and adequate time are sacrificed while quality skill learning, competence, and assessment become the causalities of this system.

Lastly, the dissimilarities that are prevalent among the agencies when it comes to providing work placements in terms of training and evaluation of care programs for the aged and the community were quite remarkable. Nonetheless, all these seem not to relate to the variations present in the training requirements of the clients.

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There has not always been enough clarity regarding any mandatory requirement when it comes to the delivery of training, together with exposure at the workplace and assessment. A lot of these are being taken care of in the on-going reevaluation of the training packages. They are also being looked into in the proposals which delivery and evaluation measures included in the training package have become part of. Still, a lot more needs to be accomplished. Additional and current critical regulatory evaluations will be required to curb the high rate of non-compliance to standards among agencies offering care training for the aged and the community.

It will then follow that the vocational education curriculum will be determined by clarity with reference to skills and competencies which the economy requires, rather than focusing on the content of training programs which agencies themselves determine

and produce. In the light of all these vital developments enfolding in the entire system of vocational education through the assurance that it meets the modern needs of the labor market, it has become unacceptable for these agencies to overlook the entire picture of the standard program required of them and just pay lip service to the giving of competent and quality training skills.

Recommendation for standard of course training

It is therefore essential that a continuance of the critical regulatory examination by the Skills Quality Authority be given high priority in the area of regulation and regular monitoring of care training for the aged and the community. Skills Quality Authority should also make it a mandatory requirement for any agency offering the training services to include care training and evaluation of the aged and the community and also include its sample of qualifications when conducting audits of agencies providing such training services. As a way of understanding and coming to terms with the requirements of the revised national standards, agencies must also be mandated to attend workshops designed to teach and explain everything about the revised standard. The workshops should take off once the final approval by the National Standards of the new national standards for agencies registration is made.

Regarding the price control, the history of control of prices is extensive, consistent as well as uninspiring (161, 162). Tight caps of prices result in wastage of resources, which can stop production. Extensive shortages warrant service providers a sufficient demand for substandard services and block them from benefiting through quality improvement and innovation. Prices fixed by fiats lower incentives for service providers to reduce costs and motivate them to look for profits via playing politics instead of taking care of their customer`s needs. While recommendations have proposed that regulations can confirm the capacity of monopolists regarding price inflation, it may be possible to eke out all the aspects of competition to persist in the market. Theoretically, while price control may lead to reduced prices and increase output on a monopolist, in the absence of an intervention by the government or structural roadblocks to competition, any market power will appear to be a short-term phenomenon (163). Ideally, the ability to increase prices than the marginal cost of service provision is cruel towards attraction of

the substantial fixed capital investments, which are essential for the present health care system. The hospital market for instance, is not a natural monopoly but rather an artificial one brought up by regulation. If providers are permanently prevented from competition, control of prices may not replace the need to improve on the causes of unearned market power, including barriers to hospital expansion, regulatory limitations on the ability of insurers to negotiate with care providers, licensing needs or regulations that benefit favored service providers. Far from mimicking the advantages attributed to competition, government`s price regulation hinders care providers from competing amid themselves to get more through provision of a better service.

Price control, as a general issue, is most efficient in a market where significant natural barriers to competition are present, with a few homogenous products as well as providers to be checked and one ideal objective. Circumstances like this may not be more varied compared to those persisting in the health care system.

As a matter of fact, the elderly people are more likely to suffer with chronic ailments and disabilities, require care from institutions; thus, institutional care serves as a crucial part of the LTC system of Thailand. Moreover, the institutional care may be given more significance in urban areas as people have the potential to pay higher remunerations and fees of LTC services, considering institutional care better for their parents. Institutions initiatives by Private-sector are seen as the fastest way to meet the demand of long term care. These facilities are too expensive to be afforded by the low income segment of the population(164).

Nonetheless, it is still difficult to implement the best designed price regulatory system since a significant amount of resources need to be invested if the regulators are expected to collate, analyze, and act properly on the information regarding the regulated firm’s structure costs and sales. With price monitoring system in place, the regulator is relieved of some of the information burden, although the pressure being exerted on the monitored establishments is very much in place.

According to Afifi and Busse 2003 (165), the present price regulation system lacks effectivity and has weak retention in its economic values. Even in scenarios where these economic doctrines are opposed, other initiatives still possess the scope that would inevitably boost the service delivery efficiency which could be brought in to take the place of the present inefficient and ineffective price regulation. It is difficult to implement an all-inclusive price regulation system which has clarity and transparency while geared towards efficient results because of an absence of any monopoly pricing problem. Regulation of private health care prices in the private health sector is not an effective method of controlling costs because of its extreme direct nature.

Recommendation for price control

It is recommended that a shift to the system of price monitoring be implemented in the premiums for private elderly care providers.

5.2.2.6 Problem in Information system

An elder registration is an imperative concern in terms of the assessment and the giving of obligations of older people from different clusters. This permits every cluster to obtain a suitable stage of service and or unique concentration, and tolerates the consideration of family support along with practical assistance required in society. To guarantee that any information is practical, it is vital that the foundation be well thought-out for the reason that ample sequence regarding elder population has inclinations to transform often. In view of that, the reliable basis of information about elder citizens is a health promotion hospital. This is due to lose connections with the old people who knew their existing situation, including those elderly who are bedridden.

Thus, the challenge of offering efficient and suitable healthcare services to disabled and elderly individuals in elderly nursing home has been issue of great concern. It is important for Information and Communications Technology (ICT) to be adopted to

enhance quality of living standards and healthcare of the elderly individuals. Nevertheless, the rate of ICT development for assisting elderly life is quite restricted when compared to other aspects in which ICT is applied in education, entertainment, business among others. Certain hindrances have been identified by some research studies in the discipline of healthcare (166). These hindrances include:

- *Poor system of disseminating health information.* At the present time, majority of local healthcare organizations utilize health data that is restricted within care settings only. There has been no sharing of healthcare data in areas outside healthcare settings and particularly not even in the elderly care setting The impacts of such situation in which medical data is not shared with places outside care organizations include effects of poor efficiency of delivery care services, increased cost of managing healthcare resources and poor use of healthcare facilities and resources.
- *Poor method of preventing,* assessing and managing health issues.
- The available healthcare *framework* is incapable of *consolidating several care needs*. The present healthcare framework is majorly focused on illnesses, which is, the healthcare framework majorly focuses on addressing reoccurrence of disease, but has failed to holistically concentrate on improving people's health. The effect is that information associated with patients' care issues (for instance, information about people's health or health records) is suppressed because most healthcare information focuses on types of diseases and information regarding treatment options. The current healthcare system has failed to integrate several healthcare needs because of numerous illnesses affecting the elderly person particularly persistent illnesses that affect the elderly.

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Recommendation

Communications of healthcare information should be improved while quality procedures and operations of healthcare data should be enhanced. It is advisable

for healthcare practitioners to be trained on methods of quality of healthcare data, and to enhance the existing healthcare data.

For a long time, Thailand had a disintegrated administrative framework for continuous healthcare activities. Based on the past events, programs were assigned in different departments depending on the available finance, professional attributes of the individuals administering such programs or other considerations.

Several government organizations create administrative centers to meet the needs of the residents living in the county level. Under several experienced circumstances, the organizations developed a new framework of new quality management structure for all LTC initiatives which consist of an advocate serving patients' needs as well as a continuous care administrative system to perform the role for sustaining and developing high respected, competent skilled and rewarded LTC team of employees who would offer effective quality healthcare within a supportive framework.

5.2.3 Gathering the idea how to develop a sustainable and feasible LTC delivery to address the growth in LTC needs over the next ten years

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Key informant mentioned that in the next ten years, long term care scheme must make use of capability of a society. Thai social order has immense prospective and Thai communities have momentous competence (167). On the other hand, ever since lasting elderly attention and care cannot just depend on the members of the household or family, the system needs an orderly establishment of care personnel and care organizations as a whole. Like, a sub-district hospital, a voluntary elderly care centers can contribute in the care of older people.

The standard amount or number of children involved in a family and or a household had decreased and this also includes the decreased number of household members readily okay and available to take good care of the old members of the family (153, 168). Further, there has been an increasing amount of the elderly people who are already in a bedridden status of which these people frequently need ample and effective

care as well as proper attention coming from other members of the family (169). Thus, certain hospitals that are of a sub-area promotion of the health must engage and take hold of the main duties and responsibilities for the integration as well as the coordination of key players that deliver and present long lasting care and attention to the elder individuals within a particular community zone and or societal unit. These sub-area hospitals do not compel and do not assume that a family caregiver will give ample care and time to attend to such issues or concerns (170).

Thus, a privately owned establishment or institution must need to show or display a more innovative and updated role for the provision of care to people who are old already. For instance, a business firm could deliver and give out some funds for the care of these elders as part of realizing their CSR supported roles and will serve as a factor to strengthen their business and promote more on its mission and vision engagements.

In addition, a monastery of the Buddhist is known as an organization that is asserted as appropriately integrated as well as enhanced from the social arrangement in Thailand's social order (171). Thus, numerous Thai monasteries do have suitable and considerable sources and means in addition to enough financial support or monetary funds. These monasteries do have ample roles for the promotion of programs and its underlying development for the elders. A monastery has a good potential to carry out and execute long term care for the older people like that of service offices generation that will give proper assistance and care to the elders living in monasteries.

As the number of older people increases, more healthcare programs and long term care services will be required for them. With the passage of time, the needs and requirements of an individual increases that involves walking or dressing, and instrumental activities of daily living (IADLs), for example grocery shopping and money management. The availability of informal caregivers has been influenced by the socio-demographic elements. As most of the women now are working women, thus, they are not able to spend more time with family members and cannot help the older people of the family. The following factors have also affected the availability of family caregivers:

- Marriage and reproductive trends

- Smaller family sizes
- Higher divorce rates

Then a long term care of the elders has to be well-organized in order to get the others be involved in serving for a local district in a community, for case in point a driver of a taxi of which the driver can help the elderly when they want to have some food or water for the purpose of consumption on a daily basis. Aside, the giving of a merit by means of voluntarily giving of alms to a monk and or help in calling out a taxi if the monk needs a transportation to go to see a doctor.

As the most widespread type of ‘‘voluntarism’’ is the care given casually by families, friends, neighbourhood. These caregivers also require encouragement through coaching programs and respite programs. Many consider that extra financial help for family caregivers is required too. Such contributions to encourage family care-giving also demonstrate a significant characteristic of community capacity to encourage elders (152, 172, 173).

Thus, volunteers have a relatively large population in the labor workforce in providing long-term care to the different sectors in society because of their strong sense of responsibility in achieving their advocacy and supporting care for others. Despite the fact that they are generally helpful and plentiful in society, it should still be considered that volunteers are never a substitute to full-time and paid employees and professionals. The reason behind this is that volunteers are not bound to provide personal care that involves changing diapers, cleaning up filthy areas, helping with the toilet, assisting medically, and managing different notorious behaviors from patients. With this, policies are established that encourage volunteers to recognize that providing their labor to the society also entails relationship-based care in order to successfully execute a specific set of tasks.

Communities and volunteers are making efforts so as to make the environment friendlier for older people but this is not enough. A well-ordered, inexpensive formal long-term care system is necessary for every community (45, 146, 151, 174, 175). It is not clear whether such local care systems can develop effortlessly through market

powers or whether market disappointments will arise to hinder the development of care systems that reveal the requirements and desires of elders.

In the coming 10 years, how many people will require formal services? In the present time, it is not possible to answer this question accurately. In case, if informal caregivers and volunteers continue to help elders in various ways then the number of people with poor health who need help, care and other services could be quite similar to the number in 2015 in the next ten years. The number of people with poor health should be kept same so as to keep costs inexpensive and affordable.

More people will be inclined towards combining family caregiving with paid work in the near future and the government will also encourage this initiative. Structural actions intended at a manager's strategy that is approachable to carers are inevitable if the government wants to support greater contribution by women and the aged people in the labour market and simultaneously make greater requests on carers and helpers. These should involve comprehensive steps intended at making it simpler to mix work and care but primarily, also steps focused at decreasing the system of government and red tap facing carers. Such steps can be taken via general and individual settings with managers. Successful mediation programs will thus have to be reinforced and economically supported.

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5.2.3.1 Who should take financial responsibility for the Long Term Care?

In the past, Thailand's long-term care had been unfairly prejudiced in favor of the hospital; but, today, a rising number of services are giving care to Thai's aging and disabled for their future. Lots of these services are less expensive compared to having complete institutional care. However, they are still being utilized by a larger number of elderly and disabled individuals (176). Expenses for long-term care will naturally increase significantly if the demand is to be met (177). The generation of baby boomers has better education and better financial security than the generation before

them who are aged. There is still no clarity on whether they, too, are factored in when it comes to long-term retirement plan.

Public funds are what dominate financing and even the present economic growth rates in the economy are probably not going to lend any support to public funding at the percentage range that it is at present and neither will it do so when it greatly increases as forecasted. Even growth brought about by increase in the coverage of private health insurance will not force it to do so. These assertions are all indications that new methods to finance and deliver long term care services must be found and accommodated. Nonetheless, such attempts become lost in the ideological debates regarding which method should be considered the best approach - social insurance or a private insurance (178). The focus on values and beliefs come in conflict regarding what the proper role of the federal government should be when it comes to providing financing social services.

Policy analysts are one in warning that major problems with regard to long-term financing are confronting us (177). Yet, significant problems are going to surface in the near future that will be even worse than the solvency problems that the Universal Health Care program and the Social Security system are battling at this present time.

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The failure to reach a consensus with regard to these very reforms is not a good sign to suggest that a political solution can be found very soon to tackle the problem of long-term-care financing.

We have to be ready, both at the level of the individual as well as at the level of society, for the time when old age sets in. Preventive health measures and financial preparedness will be our focus on the individual level because we are quite aware that a good number of individuals reach their old-age years with little or no money to show as their savings.

The opinion raised by the major informant with regard to this study should not serve as the ultimate solution to problems of long-term financing. It should rather serve as an awareness that will help bring out these issues in order to create a pattern that pushes for a policy debate that will eventually result in finding creative solutions. Everyone should raise their awareness about saving money, and be ready.

5.2.3.2 Recommendation for LTC needs over the next ten years

(1) Entire Family Policy Principles and Compensatory and Developmental Policies Integration

The old-age individuals, family caregivers and the family logically make up an entity. Addressing and satisfying the needs of family caregivers and their families will satisfy the needs of the old-age individuals, allowing them to enhance the quality of their lives. As such, through advancing the policy of elderly-care, the government is supposed to ensure consideration for the elderly and their families as a single entity via inclusion of family caregivers into elements for welfare and offering holistic services for caregivers and their families. This strategy would warrant maintenance and improvement of care-giving capacities among family caregivers.

Additionally, regarding the critical requirements of the family caregivers, the government is supposed to offer economic support to their families. For unproductive old-age patients, the government is supposed to offer caring allowances in various proportions in line with the required caring levels. The government may also support caregivers directly via allowing them suitable tax exemptions or bounty granting, hence lessening the serious severe economic ordeals resulting from offering care to the old-age patients. Furthermore, amendment of the important policies is not only required to be limited to treat defects in order to satisfy the basic requirements, but they are supposed to consider it as the beginning point to offer support and fulfill the development requirements of the caregivers and their families via focusing on prevention, support and interventions in advance and surpassing the conventional ides of mitigating poverty. Meanwhile, the government is also supposed to work together

with the media and societies to support the publicity and operationalization of policies and familiarize caregiver with the important policies to in significant ways benefit the caregivers, the old-age patients as well as their families.

(2) Energetic Support of Service Development of Non-governmental Organizations (NGOs) and Communities

The authority NGOs in offering support comes when the third party is required as a complement amidst market and government failures. Presently in Thailand, the civil society is not decisively grounded and the development of NGOs is faced with grueling tasks. As such, energetic support from the government is necessary, particularly the support and motivation in terms of revenue allocation as well as tax preferences. Non-governmental organizations can be an advantageous complement for the government in regards to policy making and allocation of funds under idyllic modes. By the allocation of social and governmental resources, they can also have a crucial duty in designing and executing specific programs in line with the real requirements of caregivers and their families. For example, communities can work together with the government to initiate and operationalize the plan of offering support to the family caregivers and also develop different community services that may support caregivers via putting in the family policy at the community level.

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(3) Investing in healthy elderly group

The evolving practices of the current policies for the elderly are focused on confronting current problems that call for taking care of group elders already at their dependency stage. For the fact that these groups are a small part of the entire local population, attempting to cover a larger number of them through the provision of preventive care and self-management of themselves will possibly be a more efficient method of providing benefits that can be measured throughout the local economy. It is an accepted fact that a single policy or one pattern is unable to tackle all the problems existing in different areas because different areas have their unique contexts and unique

environmental factors. Furthermore, as a result of the dynamic society we currently have in progress, the policies now being implemented might not be feasible to implement in the future.

It is with this regard that the author is advancing a concept that would highlight the healthy groups of elders residing within the levels of the local community in promoting an elderly community. The following three components must be present in the local community:

(3.1) Local Wisdom: The first component is the promotion of local wisdom that will promote the forward movement of self-adjustment and the development of an economy that will be based on sufficiency. Citizens who are self-reliant have always built strong and long-term communities capable of protecting the local culture and adapted excellently whenever there are inevitable changes. No doubt, the ageing society appears to be a burden in many ways, but communities are always presented with the opportunities of transforming crises into opportunities and benefits. Putting forward, events that promote the traditional game provide visitors with some attractions. Letting older people become engaged in social activities will help improve their self-esteem.

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(3.2) Effective Management of System in community: There is always the need to employ a system of effective management because it is not that simple to undertake activities that bring about benefits that lead to stability and balance among large groups of individuals. A well-managed community would always have a popularly accepted leader with vision and ideology, who is an adept in organizing discussions on community's preparations. Such a leader should also be a local philosopher who understands the uniqueness of every part of his community and be knowledgeable on which activity should be conducted in each area and at the same time understand how resources should be organized and distributed. In addition, this leader should have committees placed at every community level effectively to manage the area.

(3.3) External Support System: Elders in the community are taken care of by the external support system through health promotion and health prevention, together with medical care, social care, and professional teams. Elders should be given the support in having their personal plan because each individual is different and as such has different needs that require different plans because individuals have different health problems. Elders should be allowed participation in decision making that involves their medical treatment and information on their requirements. These come in the form of desire to quit smoking, go on diets, or desire to adapt an exercise program that supports health improvement, as well as the desire to undertake recreational activities, or the desire to save money. In addition, an external support system has within it information advice and other supportive elements that the government, private organizations, or NGOs provide.

There must also be proper coordination of all these three parts involved.

5.3 Summary

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The data obtained from cross-sectional Survey of Older Persons in Thailand was used for risk factor assessments. The cross-sectional surveys were annual surveys carried out by the National Statistical Office (NSO) in year 2002, 2007, and 2011 For this survey, the interviewed respondents were elderly individuals of 60 years and older. Six activities were compared in the survey, including eating, dressing, lifting a weight of 5 kg object, squatting, climbing 2-3 stairs, and transportation alone. For the descriptive analysis and for logistic regression, software SPSS 18 was used.

The total difficulty level indicated a slight reduction among all the six activities. There could be irregularity in linking the recorded difficulty levels seen in the findings because all surveys were not carried out by the associated parties. Moreover, various studies show differences in the presence of ADL disability. It is not adequate to have differences between different studies because of utilisation of different ADL

measurement and age groups. A study performed by Ofsterdal et al 2007 (89) indicated the differences in the existence of ADL and IADL limitations in Asian nations. This trend was observed to be continuously increasing.

In this research, the features that were observed to be associated with disability included old age, being a female, inadequate income, dearth of education, unemployment seven days prior to the interview, cohabitation, residing in a rural area, and suffering from at least one chronic disease (heart problems, hypertension, cancer, strokes, or diabetes). Differences in gender with regard to ADL disability have been analysed in a number of studies, which indicate that in females there is higher prevalence of this disability than in males (86, 88, 94-96). Considering residential area (rural or urban), there is little research on the differences in the ADL disability and health. Majority of this research were performed from Asian regions (103-108) . It was found through these studies that there is increasing prevalence of ADL disability and health conditions are worsening in elder people living in rural locations in comparison to those residing in urban locations areas (103, 106, 108). This study indicated that when income and education were compared, income was observed to be more related to disability. This statement has been confirmed in a number of previous studies (91, 109). But, income has also been explained by some as being insignificant when predicting the possible disability which could be apparent (110). Irrespective of this, necessary measures for healthcare might not be taken by those who do not earn enough incomes.

It was observed in this study that there were higher chances of disability in those elderly citizens who were living with other individuals. These findings conform to the findings of Li-Tang Tai's study (111). This is because individuals who live alone tend to perform their tasks on their own without any external assistance, but those living with others tend to become dependent (112). There is also no clear reason for the significant association between risk of disability and unemployment for seven days before the interview. Thus, there could be further study regarding this link.

Through the outcomes of this study, the associates of elder people who are experiencing disability and who need special consideration, from policy makers and government and

agencies addressing older people, are discovered. The focus of policy inference and intervention programs should be on the associates of the vulnerable individuals as mentioned below:

1. For the illiterate, jobless, elderly, and poor people. All these characteristics are quite connected with each other. Therefore, some options for these sets of people should be provided so they could enhance and maintain their healthy conditions and age with no issues if involvement programs are promoted through these methods: 1) paid job after retirement; 2) Life-long education; 3)via government rations pension for support of very old and very weak elders.
2. Since there is a significant link between disability and chronic illness, it is important that policy makers should encourage programs of well-being and prevention so that the risk of disabilities in the near future could be reduced.
3. Around 30% of elderly citizens felt strain when lifting heavy items like grocery bags or 5kg weight. This disability had the highest predominance in comparison to other six disabilities. This shows that their daily life activity could be difficult. This plan could help in provision of home delivered grocery, little errands around the house, ageing market, and help in production of goods pertaining at this age group.
4. It was found that independent travelling is not possible for around 26.4% of old people. At this stage, it could be a major concern to find an immediate and reliable mode for receiving common services. There should be safe, easy, and effective access of public transport system for all individuals.

Personal interviews were used to for the extra evaluation. The problems that needed to be dealt with immediately and efficiently concerning the wellbeing of the old people are as follows:

1. Coherent attitude regarding health, welfare and support should be assembled and the inequality amidst health care and social care services should be reduced. Even though the assurance of reasoning and problems regarding position is evident, the

impartiality between the wellbeing and social consideration staff, mainly aided and obstruct is due to many factors.

2. Prior to accountabilities and authorities that need management of work, many firms use LTC. Along with executive firms, elderly care centres and health promotion hospitals are also among the incorporated elderly care being administered according to the current arrangement. The strategy of each society has its own distinctive view. Additional techniques will be acknowledged to intensify the regulation and collaboration between disconnected corporations to maintain a viable elderly care service. To assure the assigning of proof-based direction and empirical skill among the centre and the health specialists, adequate contact should be exercised when the strategy is under process. In service provision, the adaptability is also vital.

3. Usually the person or character providing the old people with consideration and concern are not aware of the expertise required, specifically the ones who are a part of a family or a local community. Taking these things into account, the improved culture of looking after the retired which was passed along amongst generations like meals and nourishment should be supported and shared. To achieve this, the simple way is to obtain the help of some associations that are agreeable to supply and provide the awareness regarding the concern of retired people like caregiver trainings being offered at vocational college.

4. The senior citizens and patients of the distant and country regions are confronted with the lack of aid to help them with their requirements which comprise of a deficiency of experienced and competent doctors, nurses and health specialists. The community care and residential aged care sectors are the areas that are highly troubled by this deficiency. The senior citizens who are most retired and declining in health look forward to voluntary workers which are an important necessity. It is the duty of government to establish creative resolutions involving training, career progress, and refined employment while considering the shortfall of help and large turnover percentage.

5. The issues that require being resolved include the failure to control the cost and approved scheduled training programs according to basic informers. For the concern of aged people, the Private Services facilities are usually considered but the cost control is their weak point. Due to its severely straightforward character the organizing of the private health care costs is not an efficient procedure of supervising prices. In case of private elderly care services a switch to the scheme of controlling costs are observed. When there is an increase in the demand of caretakers, the private training sector deals with it by guiding more individuals through training programs. Hence, the ideal approved specification is not met with because of the diversity. In the sector concerning with rules and routine overseeing of care trainings, the constant crucial supervision for the aged and the community by the Skills Quality Authority should be given great preference.

6. For the evaluation and the assigning of responsibilities regarding array of elderly people, an elder registration is a compulsory matter. This enables each individual elder to receive the essential service and care they require, and also allows the family's help and society's cooperation. The information regarding healthcare should be transmitted and the quality procedures and activities should be intensified. The health experts are recommended to be skilled in healthcare information procedures and upgrading it.

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Long term care plans, in the next decade, must put the abilities of the society to use, as suggested by the key informants. To aid the elders who are incapable of having the perfect life and exercise social capabilities, the long-term care vows to provide the kind of care and concern that is relatable to the care of family, institute, and community. Health services and social services are services and activities coinciding to other services. Activities and services from appropriate subdivisions should be linked together in a good long-term care services provider, which should have assistance to treat chronic illness, specifically mental diseases. Also, for affording necessary supplies to reduce the strain from long-term care, appliances and devices substantial for the elderly residents, suitable settlement to collect funds should be initiated.

CHAPTER VI
CONCLUSIONS

This chapter provides a conclusion and key findings summary in section 6.1. In addition, a description of the drawbacks that characterised the study coupled with potential means of undertaking further research is presented. The significance of the study is concluded through a summary in the chapter.

6.1 Key findings summary

Thailand has seen dramatic increase in both the proportional and numerical size of its older populations due to the combined impacts of declining fertility and rising life expectancy. These sudden increase raise concern for a number of issues related to the welfare of the elderly including the treatment and costs involved with old age disability, and the level of care that can be reasonably provided to those who are physically impaired. Also, elderly have different unmet needs. This makes them to live with additional challenges in their daily lives.

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Similarly as the risk of disability and chronic illness is expected to grow rapidly with increased longevity, no recent studies have been examined the risk factors of disability across country from 2002 through 2011 (RQ1, RQ2). More importantly, it is unclear what is the problem that urgently need to be solved in order to improve quality of life of elderly whose are in long term condition and how might Thailand develop a sustainable and feasible LTC delivery to address the growth in LTC needs over the next ten years? (RQ3, RQ4). All these concerns merit thorough examination and political consideration.

Based on research question number 1 and number 2, the data derived from Thailand's cross-sectional Surveys of Older Persons was utilized in risk factor assessments. These were annual surveys conducted in 2002, 2007 and 2011 by the National Statistical

Office (NSO). The respondents, interviewed for this survey, were elderly individuals, aged 60 years and above. A total of six activities were compared. These were eating, dressing, and squatting, together lifting a weight of 5 kg, climbing up 2-3 stairs, and transportation. SPSS 18 was utilized in descriptive analysis, as well as in logistic regression.

1. It is essential that policy makers see to it that illness prevention policies be encouraged to help reduce future disability risks because of the notable links between long term illnesses and disability. One important characteristic that has a link with disability in elderly people is unemployment. The problem of disability can be lessened with regards to the elderly if increasing job opportunities can be made available to elderly people although there is cannot specific the casualties.

2. Elderly citizen who experience problems in lifting 5 kg or finding it difficult to carry heavy objects such as grocery bags number approximately 30%. This difficulty encountered in lifting weight among elderly people is the most common of all their difficulties. A solution can be found through policies that would lead to the creation of goods which could take care of individuals in this demography. It has been discovered that 26.4% of the elderly find it difficult to travel independently. Such difficulty must be taken into consideration when crafting policies for infrastructures so that the concerns of the elderly can be factored in and addressed in terms of their need for mobility and travelling around safely.

3. There has been a steady rise in the total number people with disability in Thailand despite a general downtrend in prevalence. Increased disability problems and new challenges now confront the health-care delivery system and the people themselves. There is therefore a need to increase the mandatory retirement age of 60 years in Thailand since our study indicated that elderly people who stopped working had increased chances of suffering from disability. Providing the elderly with the opportunity to work will reduce their chances of becoming disabled; however, such casualties are very unclear.

Based on research question number 3 and number 4, in-depth interview have been chosen to collect the opinion from key policy makers. An additional assessment was

conducted via direct interviews. The months of May and June 2015 were both selected to organize personal interviews. The bilingual expert worked to interpret the interviews held in Thai language to English. With performing back transcription, the contents of the casually picked interviews were inspected for certainty. Data analysis was later on done on the translations administering to an NVivo 8. Authenticity was improved by 2 uncontrolled examiners who constructed the first set of thematic codes from the transcriptions. The adaptation of these codes was done by operating an inductive examining procedure and the dominant ideas help to form the conclusion. The demonstration of input was established on problems that require vital solutions regarding the improvement and providing superior care in the next ten years, to the people already in their eighties, even though the accused came from snowball path mainly academic, government and non-government organization (NGO). Contrast between the beliefs of the accused and several others were not determined. The problems that needed to be dealt with immediately and efficiently concerning the wellbeing of the old people are as follows:

The following six issues regarding durable care for the elderly were found critical and needed to be attended to effectively and in urgency:

1. discrepancy in service providence amid health care and social care;
2. deprived managerial supervision;
3. problem in regulation issues;
4. deficiency of expertise and proficient skills;
5. shortage of health employees;
6. problem in information systems

From their awareness, makers of policies believe that that enduring care in Thailand ought to be founded on family and society. Thus, the significance of long-term care is to care continually and associate with the care in family, institute, and community to fulfill the basic need to help the persons who lose the ability to do social activity to have the best quality of life. For this reason, the activity and the service are overlapping with the different services: health service and social service. Also, there is the difference in service types of long-term care. Thus, a good long-term care should connect activities

and services from relevant sectors very well, have service management for chronic illness, particularly mental disease which requires many suitable health services. At the same time, an appropriate arrangement of habitation and raising money for supplying equipment and instruments which are social service are important for the elderly and it is the mechanism to lessen the burden of long-term care.

6.2 Policy Recommendations

Based on the results, the following policy recommendations have been put forward.

6.2.1 Providing integration service that elderly people want

Thus, the preferences of the older citizens that are living in their own houses for as long as it appears universal, where in the values of the family are extremely regarded as well as deep-rooted in the cultural practices of filial goodness. In certainty, nevertheless, the up to date guidelines and the resource distribution inclination in the direction of the institutional care for the elderly. Aside, there is a requirement for further facilities to remain justified; however the Thailand based policy creators must be cautious and keep away from any form of institutional prejudice into the country's fledgling lasting care arrangement. Even though what does constitute the most positive service combination seems indefinable, the makers of the policy should go all-out to create a reasonable scheme of service that reveals the elderly choices.

6.2.2 Consolidation regulatory oversight through information systems

Various scandals have previously started to surface in relation to Thailand lasting care amenities, prior to the underscoring the requirement for a narrow supervision. Thailand makers of the policy will need to set up a formal regulatory arrangement in immediate manner. An effective supervision will need the building of better information schemes in order to smoothen the progress of evidence based guidelines in addition to authoritarian enforcement.

6.2.3 Building a LTC workforce

Indeed, the lack of competent and lack of expert labor force in lasting care for the elderly is a pressing concern in Thailand. The mainstream of care employees are poorly educated and weakly salaried. Nevertheless, insufficient preparation for care personnel is not a mere barrier. A specialized clinical along with administration staffs are moreover required to guarantee better change of contemporary information on the delivery of care and its underlying scheme. The makers of the policy must prioritize the education as well as the initiative for training for achieving professional elderly care and care related labor force.

6.2.4 Developing appropriate Delivery Infrastructure

The country Thailand is required to construct an LTC delivery infrastructure equalizing the care services delivered in three different parts and different objectives to support the entire LTC system and supplies. The rural and urban differences will also be highlighted through this infrastructure whereas the institutional care of the LTC delivery system should be reinforced in urban and rural areas. The expansion of community-based programs should be taken care of but they should be present in different structures in the rural and urban areas where support services should be endowed to support informal caregivers.

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6.2.5 Investing in healthy elderly group

The current practices of the existing policies for the elderly meet the challenges of taking care of the elderly who are in their dependency stage. Since these groups form only a small part of the local population, it is practical to cover them in a large number in terms of preventive care and self-management. This system is more efficient than any other methods of giving benefits to the elderly, and measured through the local economy. The three major elements of a local community include local wisdom, effective management system and external support system. ***Local Wisdom*** promotes the people's wisdom in a locality. This element will enhance the forward movement of the people's self-adjustment. Additionally, it will lead to a healthy economy's growth that makes sufficiency as the basis. Self-reliant citizens often build

stable and long-term communities that can protect the local culture. When inevitable changes occur, the people can adapt to them excellently. On the other hand, it is necessary to use an ***Effective Management System*** for this task. The reason is that it is a bit difficult to engage in activities that produce benefits for a large group of persons in terms of stability and balance. Under the ***External Support System***, the focus is on the elders of the community. This system takes care of them through health promotion programs and disease prevention techniques. It also involves medical care, social care, and participation of professional teams. These three major elements need the presence all these functions to work efficiently.

6.2.6 Concerning Relevant Policy Areas

Apparently, technology is increasingly becoming pervasive in all aspects of life including inside and outside home, with amazingly wide relevant policy areas. These policy areas must be influenced since present decisions will tend to bear impact on people in the future days. Nevertheless, technology may be viewed as a twin-bladed sword since it can create barriers, which were previously absent. Majority of products and services are presently being delivered electronically and not via the conventional delivery methods. Due to this, it is becoming increasingly vital to have the capability of accessing the products and services via electronic means. If the products and services are not designed in a manner that renders them accessible, disabled and elderly individuals encounter fresh barriers that would not have been in existence.

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6.3 Limitations of study

1. We recognized that our study is not entirely conclusive. It was not possible to procure data on all aspects of the effects of disability on daily life. Additionally, as our surveys relied on the involved parties describing their own circumstances, inaccurate data may have been transmitted if a friend or family member took part in the reporting. The percentage of proxy respondents on surveys of 2002, 2007 and 2011 were 27.1%, 28.7% and 32%, respectively. Because this study

was cross-sectional in design, another concern about its limitations is that causality cannot be definitively determined.

2. We interviewed 11 key respondents for this work. Our findings might have produced a different result had we chosen to interview a different set of respondents. We might have failed in our findings since they are not the result of an in-depth study, in contrast to other studies that had their focus on a single implementation policy. This is because we studied the general overview policies and factors affecting implementations.

6.4 Future research

This research investigate the risk factors of six type of disability among Thai elderly during 2002, 2007 and 2011 combined with the insight perspectives of 11 key policy makers. So, the potential area that should be further study is as follows:

1. Elderly citizens cohabiting with other individuals had a greater chance to be disabled invariably, was not proved in a study. This coincided with Li-Tang Tai study (111). Solitary individuals were more prone to finish jobs independently, but cohabitation resulted in interdependence (112). A lucid correlation cannot be derived between disability and cohabitation with others. Individuals may live with others, after disability has set in, or the other way round. More research is required to get more concrete results. Several studies argue that elderly citizens living on their own may get an infirmity (113, 114), particularly down the ladder in the socio-economic hierarchy (115). Thus quality-of-life is the index of disabled conditions level, whether living alone or not. The solitary or otherwise factor required more analysis to understand, which caused greater disability conditions.

2. The reason between disability risk and weekly unemployment, preceding the interview is hazy. The obstacles encountered in defining joblessness, is present as a parameter of high likeliness, since it absorbs unemployment in the category

of disability, such as job searching people, people on temporary medical leave, retired ones, home-makers and those who are constrained by their family members. Hence this angle can be scrutinized further. Unemployment is a kind of disability, since it shows normal life deviation, but how much it relates to actual physical retardation is a matter of scientific debate, study and research. More observations for concrete materials and proof need to be gathered and scrutinized.

3. It is therefore essential that further investigations regarding trends linked to disability risk factors be continued. The results derived will help policy makers draw adequate intervention plans to help in the reduction of disability burdens.

4. Restrictive functioning, ADL and IADL, obstacles become higher, and thus caregivers are in greater demand. Although most have a physical independence, sometimes help is required for activities of daily living (ADL). Family members or home care practitioners are available sometimes, but they can be absent or inadequate, and then the result is kept unfulfilled. These have stronger needs for social support as indicated. The aged living with life partners or other individuals have more fulfilled needs, than the solitary ones (179-182). People without any family or support otherwise, are more likely to have more unsatisfied needs, since they have no one to call for help. The elderly face the same outcome with informal help constraints (182-184). Individuals with more care wants, restrictions and tough infirmities, have chances of larger unmet situations (180-182,185, 186). There is proof to support that a larger need for care wanting situations, occur in an overload on the caregivers, and hence fulfilling all care needs become constrained. The elderly, in general, have a difficult time coping alone. Policy making for long term support needs, have a central position, since this requires a lot of detailed issues to be taken care of. Short term needs, having their roots in brief illnesses, will lead to long term problems, unless sufficient attention is paid to it. As already said, the elderly have different problems. Their daily lives are filled with extra challenges. Adequate research has not been done yet, which has resulted in a knowledge

gap in these areas. Unmet studies need to be studied more, and still it is fuzzy that whether the elderly are made to feel incapacitated, merely by chance of the given social system. Short-term or long term physical problems need equal attention. Their causes and effects need to be studied with great care, and the cumulative and supplementary effects also need to be examined in proper perspective. Social situations may differ under different conditions from time to time, and how they affect physical health makes up a huge body of study.

5. Future study needs to discriminate between those receiving any human help, either by paid jobs or otherwise, from those who were independent, but used disability related equipment. They reflect a modicum of disability, where environmental policies application in meeting their needs by promoting the self-help method.

6. Studies displayed that chronic disabilities, corresponded with physical constraints such as lifting heavy objects or carrying shopping for groceries. It could be osteoporosis that becomes less harmful, earlier diagnosis and treating with advanced methods, may be the cause for some seemingly decreased rate of chronic illnesses. But these may be more expensive, such as mobility improvement methods, like hip and knee replacement have shown a huge leap in recent years, indicating that disability improvement implementations are due to higher health care spending.

7. Nonetheless, much improvement can be achieved with regard to Thailand's health data if the Survey of Elderly is conducted again. Authentic health trends are possible if a series of good time surveys were conducted. It is also vital that health questions such as the ones appearing in previous surveys be asked again in any surveys that are being repeated. In addition, development of longitudinal panel studies will benefit Thailand especially when questions with health status are asked. Such will help in the measuring of transition between health states.

6.5 Summary

As the demand for care has increased, it is a challenge for the Thai government to take steps to develop the treatment processes and improving the management of long-term conditions. This procedure includes a shift away from reactive, disease-focused, disjointed model of care towards one that is more active, holistic and integrated, in which people long-term circumstances are inspired to play a significant role in handling their own care.

It is believed today that care and support required living with a long-term condition needs a fundamental re-design of facilities, permitting patients to handle the care development process. Regardless of the initiatives taken at several forums and strategies, development on the ground has been slow with less significant improvement in the past 10 years. Many of the components required to encourage change have been established, employing international best practice, but they stay inaccessible and disjointed. Top-down encouragement and objectives have been unsuccessful to affect change and clinical behaviour at the grassroots. Along with developing a sustainable system for long-term community health-care for adults, there is a need to attend to the inadequacies in the existing system. Despite of serious steps being taken to bring improvement in the quality of care, sustainability and access to facilities, there still remains room for more.

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Certainly, integrated care delivery systems are deemed as most well-organized and helpful system for providing care delivery to senior citizens. A non-integrated system, which though includes health and social support, home care, community services, case management, residential care, and certain elements of acute care (particularly continuing care) neither facilitates an individual with ability to pass through from one service to the next nor provides them with cost-saving substitutions. In such a home care program there exist a need to develop a relationship between informal caregivers and community voluntary and local government organizations. This would help to provide an effective support network for informal caregivers and people. Hence, this requires a formal health care system, to not remain isolated but in the form of a joint

collaboration between other individuals, groups and organizations aim at benefiting the senior citizens within their localities. Both internal as well as external environments of a formal health care system require to be integrated.

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APPENDIX A

Letter of permission

A.1 Letter Seeking *Permission* to Use the *Survey data*

ที่ ศธ 0512.38 / 0065

วิทยาลัยวิทยาศาสตร์สาธารณสุข
จุฬาลงกรณ์มหาวิทยาลัย
ซ.จุฬาลงกรณ์ 62 ถนนพญาไท
แขวงวังใหม่ เขตปทุมวัน
กรุงเทพมหานคร 10330

16 มกราคม 2558

เรื่อง ขอความอนุเคราะห์ให้นิสิตเก็บข้อมูล

เรียน ผู้อำนวยการสำนักสถิติพยากรณ์ สำนักงานสถิติแห่งชาติ

สิ่งที่ส่งมาด้วย 1. โครงร่างงานวิจัย จำนวน 1 ชุด

ด้วย นางสาวภัทรพร คงบุญ รหัสประจำตัวนิสิต 5479175053 นิสิตหลักสูตรสาธารณสุขศาสตรดุษฎีบัณฑิต สาขาวิชาสาธารณสุขศาสตร์ (หลักสูตรนานาชาติ) วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย มีความประสงค์จะจัดทำวิทยานิพนธ์เรื่อง แนวโน้มการไม่ได้รับการตอบสนองการต้องการความช่วยเหลือในการปฏิบัติกิจวัตรประจำวันของผู้สูงอายุไทย ปี พ.ศ. 2550 และ พ.ศ. 2554: การวิเคราะห์เพื่อเสนอแนะเชิงนโยบาย (Trends in Unmet Need for Personal Assistance with Activities of Daily Living among Thai Elderly in 2002, 2007 and 2011) โดยมี รศ. ดร. สถิรกร พงศ์พานิช เป็นอาจารย์ที่ปรึกษาหลัก และ นพ. ดร. วิโรจน์ ตั้งเจริญเสถียร เป็นอาจารย์ที่ปรึกษาร่วม

การนี้ วิทยาลัยวิทยาศาสตร์สาธารณสุข จึงใคร่ขอความอนุเคราะห์จากท่านในการขอข้อมูลสถิติการสำรวจประชากรผู้สูงอายุในประเทศไทย เพื่อประกอบการทำวิทยานิพนธ์ของนิสิต นางสาวภัทรพร คงบุญ รายละเอียดดังนี้ 1. การสำรวจประชากรสูงอายุในประเทศไทย พ.ศ. 2545, (The Survey of Elderly in Thailand in 2002) 2. การสำรวจประชากรสูงอายุในประเทศไทย พ.ศ. 2550, (The Survey of Elderly in Thailand in 2007) 3. การสำรวจประชากรสูงอายุในประเทศไทย พ.ศ. 2554, (The Survey of Elderly in Thailand in 2011) หากมีข้อสงสัยติดต่อผู้รับผิดชอบคือ นางสาวภัทรพร คงบุญ หมายเลขโทรศัพท์ 085-161-5432

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์ด้วย จักเป็นพระคุณยิ่ง

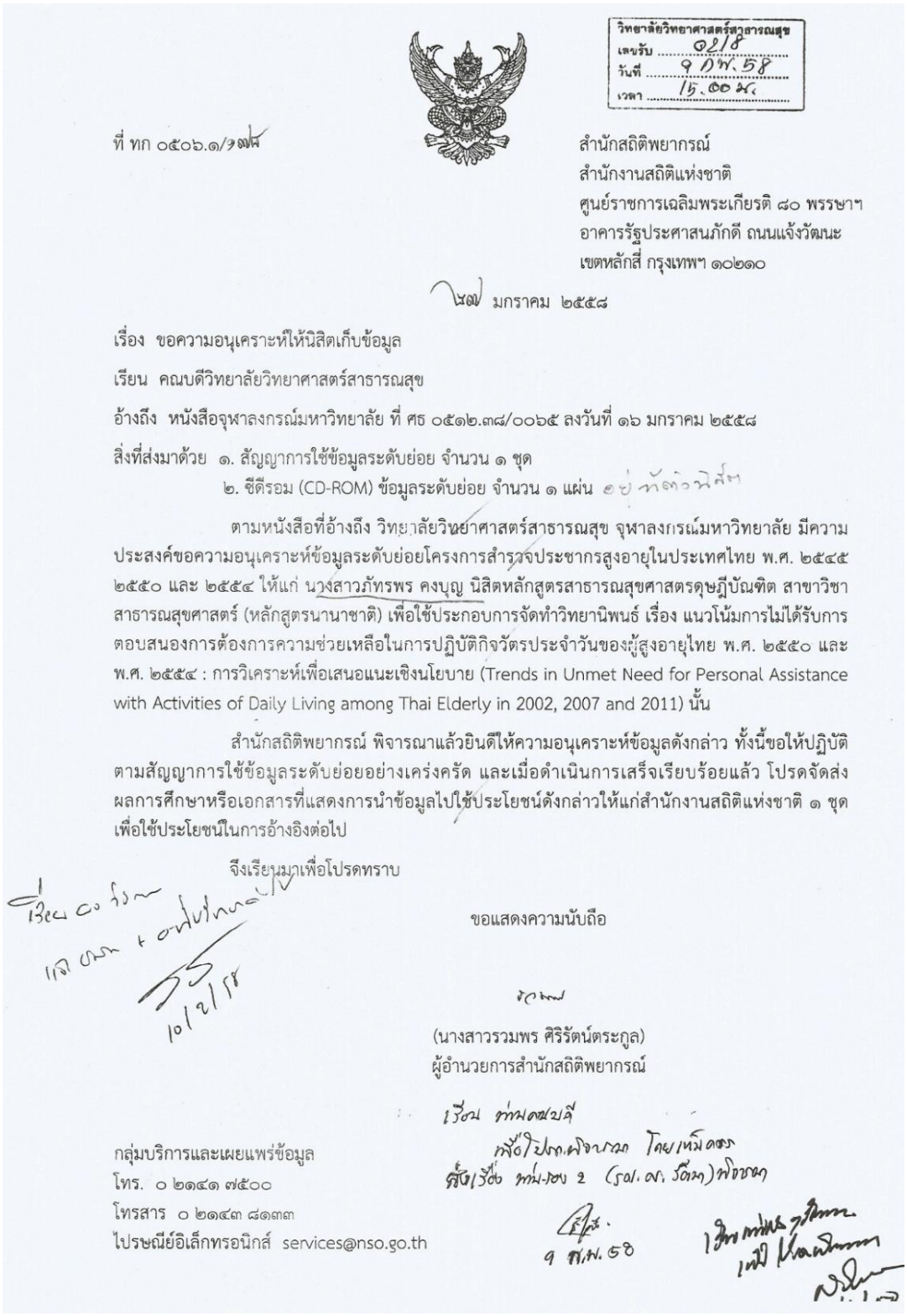
ขอแสดงความนับถือ

(รองศาสตราจารย์ ดร. สถิรกร พงศ์พานิช)
คณบดีวิทยาลัยวิทยาศาสตร์สาธารณสุข

สำเนาเรียน กลุ่มบริการและเผยแพร่ข้อมูล สำนักสถิติพยากรณ์ สำนักงานสถิติแห่งชาติ

โทร. 022188193-4

A.2 Letter of permission from National Statistical Office.



วิทยาลัยวิทยาศาสตร์สาธารณสุข
เลขรับ 0218
วันที่ 9 ก.พ. 58
เวลา 15.00 น.

ที่ ทก ๐๕๐๖.๑/๗๗๕

สำนักสถิติพยากรณ์
สำนักงานสถิติแห่งชาติ
ศูนย์ราชการเฉลิมพระเกียรติ ๘๐ พรรษาฯ
อาคารรัฐประศาสนภักดี ถนนแจ้งวัฒนะ
เขตหลักสี่ กรุงเทพฯ ๑๐๒๑๐

๒๗ มกราคม ๒๕๕๘

เรื่อง ขอความอนุเคราะห์ให้นิสิตเก็บข้อมูล

เรียน คณบดีวิทยาลัยวิทยาศาสตร์สาธารณสุข

อ้างถึง หนังสือจุฬาลงกรณ์มหาวิทยาลัย ที่ ศธ ๐๕๑๒.๓๘/๐๐๖๕ ลงวันที่ ๑๖ มกราคม ๒๕๕๘

สิ่งที่ส่งมาด้วย ๑. สัญญาการใช้ข้อมูลระดับย่อย จำนวน ๑ ชุด
๒. ซีดีรอม (CD-ROM) ข้อมูลระดับย่อย จำนวน ๑ แผ่น

ตามหนังสือที่อ้างถึง วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย มีความประสงค์ขอความอนุเคราะห์ข้อมูลระดับย่อยโครงการสำรวจประชากรสูงอายุในประเทศไทย พ.ศ. ๒๕๔๕ ๒๕๕๐ และ ๒๕๕๔ ให้แก่ นางสาวภัทรพร คงบุญ นิสิตหลักสูตรสาธารณสุขศาสตรดุษฎีบัณฑิต สาขาวิชาสาธารณสุขศาสตร์ (หลักสูตรนานาชาติ) เพื่อใช้ประกอบการจัดทำวิทยานิพนธ์ เรื่อง แนวโน้มการไม่ได้รับการตอบสนองการต้องการความช่วยเหลือในการปฏิบัติกิจวัตรประจำวันของผู้สูงอายุไทย พ.ศ. ๒๕๕๐ และ พ.ศ. ๒๕๕๔ : การวิเคราะห์เพื่อเสนอแนะเชิงนโยบาย (Trends in Unmet Need for Personal Assistance with Activities of Daily Living among Thai Elderly in 2002, 2007 and 2011) นั้น

สำนักสถิติพยากรณ์ พิจารณาแล้วยินดีให้ความอนุเคราะห์ข้อมูลดังกล่าว ทั้งนี้ขอให้ปฏิบัติตามสัญญาการใช้ข้อมูลระดับย่อยอย่างเคร่งครัด และเมื่อดำเนินการเสร็จเรียบร้อยแล้ว โปรดจัดส่งผลการศึกษาหรือเอกสารที่แสดงการนำข้อมูลไปใช้ประโยชน์ดังกล่าวให้แก่สำนักงานสถิติแห่งชาติ ๑ ชุด เพื่อใช้ประโยชน์ในการอ้างอิงต่อไป

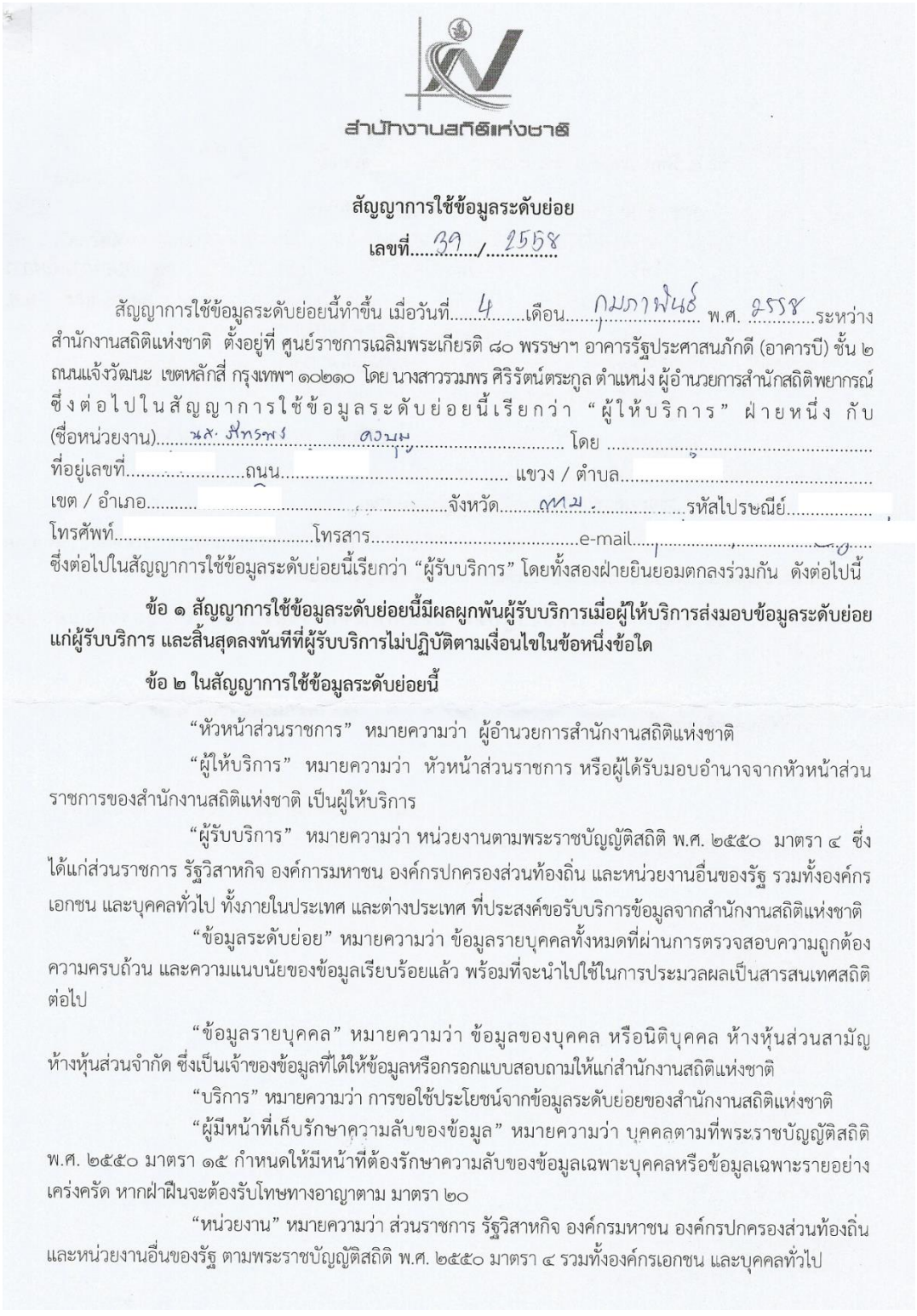
จึงเรียนมาเพื่อโปรดทราบ

ขอแสดงความนับถือ

(นางสาวรวมพร ศิริรัตน์ตระกูล)
ผู้อำนวยการสำนักสถิติพยากรณ์

กลุ่มบริการและเผยแพร่ข้อมูล
โทร. ๐ ๒๑๔๑ ๗๕๐๐
โทรสาร ๐ ๒๑๔๓ ๘๑๓๓
ไปรษณีย์อิเล็กทรอนิกส์ services@nso.go.th

A.3 Contract for access the Survey of Older Person in Thailand 2002, 2007 and 2011 (page 1 of 3)



สำนักงานสถิติแห่งชาติ

สัญญาการใช้ข้อมูลระดับย่อย

เลขที่ 39 / 2558

สัญญาการใช้ข้อมูลระดับย่อยนี้ทำขึ้น เมื่อวันที่ 4 เดือน กุมภาพันธ์ พ.ศ. 2558 ระหว่าง สำนักงานสถิติแห่งชาติ ตั้งอยู่ที่ ศูนย์ราชการเฉลิมพระเกียรติ ๘๐ พรรษาฯ อาคารรัฐประศาสนภักดี (อาคารบี) ชั้น ๒ ถนนแจ้งวัฒนะ เขตหลักสี่ กรุงเทพฯ ๑๐๒๑๐ โดย นางสาวรวมพร ศิริรัตน์ตระกูล ตำแหน่ง ผู้อำนวยการสำนักสถิติพยากรณ์ ซึ่งต่อไปในสัญญาการใช้ข้อมูลระดับย่อยนี้เรียกว่า "ผู้ให้บริการ" ฝ่ายหนึ่ง กับ (ชื่อหน่วยงาน) นส. ศิรกพร ดวงมุ โดย .....
ที่อยู่เลขที่.....ถนน..... แขวง / ตำบล.....
เขต / อำเภอ.....จังหวัด.....รหัสไปรษณีย์.....
โทรศัพท์.....โทรสาร.....e-mail.....
ซึ่งต่อไปในสัญญาการใช้ข้อมูลระดับย่อยนี้เรียกว่า "ผู้รับบริการ" โดยทั้งสองฝ่ายยินยอมตกลงร่วมกัน ดังต่อไปนี้

ข้อ ๑ สัญญาการใช้ข้อมูลระดับย่อยนี้มีผลผูกพันผู้รับบริการเมื่อผู้ให้บริการส่งมอบข้อมูลระดับย่อยแก่ผู้รับบริการ และสิ้นสุดลงทันทีที่ผู้รับบริการไม่ปฏิบัติตามเงื่อนไขในข้อหนึ่งข้อใด

ข้อ ๒ ในสัญญาการใช้ข้อมูลระดับย่อยนี้

"หัวหน้าส่วนราชการ" หมายความว่า ผู้อำนวยการสำนักงานสถิติแห่งชาติ

"ผู้ให้บริการ" หมายความว่า หัวหน้าส่วนราชการ หรือผู้ได้รับมอบอำนาจจากหัวหน้าส่วนราชการของสำนักงานสถิติแห่งชาติ เป็นผู้ให้บริการ

"ผู้รับบริการ" หมายความว่า หน่วยงานตามพระราชบัญญัติสถิติ พ.ศ. ๒๕๕๐ มาตรา ๔ ซึ่งได้แก่ส่วนราชการ รัฐวิสาหกิจ องค์การมหาชน องค์กรปกครองส่วนท้องถิ่น และหน่วยงานอื่นของรัฐ รวมทั้งองค์กรเอกชน และบุคคลทั่วไป ทั้งภายในประเทศ และต่างประเทศ ที่ประสงค์ขอรับบริการข้อมูลจากสำนักงานสถิติแห่งชาติ

"ข้อมูลระดับย่อย" หมายความว่า ข้อมูลรายบุคคลทั้งหมดที่ผ่านการตรวจสอบความถูกต้อง ความครบถ้วน และความแนบนัยของข้อมูลเรียบร้อยแล้ว พร้อมที่จะนำไปใช้ในการประมวลผลเป็นสารสนเทศสถิติต่อไป

"ข้อมูลรายบุคคล" หมายความว่า ข้อมูลของบุคคล หรือนิติบุคคล ห้างหุ้นส่วนสามัญ ห้างหุ้นส่วนจำกัด ซึ่งเป็นเจ้าของข้อมูลที่ได้ให้ข้อมูลหรือกรอกแบบสอบถามให้แก่สำนักงานสถิติแห่งชาติ

"บริการ" หมายความว่า การขอใช้ประโยชน์จากข้อมูลระดับย่อยของสำนักงานสถิติแห่งชาติ

"ผู้มีหน้าที่เก็บรักษาความลับของข้อมูล" หมายความว่า บุคคลตามที่พระราชบัญญัติสถิติ พ.ศ. ๒๕๕๐ มาตรา ๑๕ กำหนดให้มีหน้าที่ต้องรักษาความลับของข้อมูลเฉพาะบุคคลหรือข้อมูลเฉพาะรายอย่างเคร่งครัด หากฝ่าฝืนจะต้องรับโทษทางอาญาตาม มาตรา ๒๐

"หน่วยงาน" หมายความว่า ส่วนราชการ รัฐวิสาหกิจ องค์กรมหาชน องค์กรปกครองส่วนท้องถิ่น และหน่วยงานอื่นของรัฐ ตามพระราชบัญญัติสถิติ พ.ศ. ๒๕๕๐ มาตรา ๔ รวมทั้งองค์กรเอกชน และบุคคลทั่วไป

A.3 Contract for access the Survey of Older Person in Thailand 2002, 2007 and 2011 (page 2 of 3)

ข้อ ๓ วัตถุประสงค์ และระยะเวลาการใช้ข้อมูลระดับย่อย

๓.๑ ผู้รับบริการมีความประสงค์ขอใช้ข้อมูลระดับย่อย *โครงการสำรวจประชากรสูงอายุในประเทศไทย พ.ศ. ๒๕๔๕ ๒๕๕๐ และ ๒๕๕๔ เพื่อใช้ประกอบการจัดทำวิทยานิพนธ์ เรื่อง แนวโน้มการไม่ได้รับการตอบสนองการต้องการความช่วยเหลือในการปฏิบัติกิจวัตรประจำวันของผู้สูงอายุไทย พ.ศ. ๒๕๕๐ และ พ.ศ. ๒๕๕๔ : การวิเคราะห์เพื่อเสนอแนะเชิงนโยบาย (Trends in Unmet Need for Personal Assistance with Activities of Daily Living among Thai Elderly in 2002, 2007 and 2011) นั้น*

๓.๒ ระยะเวลาการใช้ข้อมูลระดับย่อย ตั้งแต่วันที่.....เดือน.....พ.ศ. ..... ถึงวันที่.....เดือน.....พ.ศ. .....

ข้อ ๔ ระยะเวลาของสัญญาการใช้ข้อมูลระดับย่อย

สัญญาการใช้ข้อมูลระดับย่อยฉบับนี้มีผลบังคับใช้เมื่อได้ลงนามในสัญญาการใช้ข้อมูลระดับย่อย และจะสิ้นสุดลงเมื่อผู้รับบริการได้ส่งผลงานให้แก่สำนักงานสถิติแห่งชาติแล้ว

ข้อ ๕ ผู้รับบริการต้องปฏิบัติตามหลักเกณฑ์การขอรับบริการข้อมูลระดับย่อยของผู้ให้บริการ

โดยรายละเอียดหลักเกณฑ์และการคิดค่าใช้จ่าย(ถ้ามี) ให้เป็นไปตามเอกสารแนบท้ายสัญญาการใช้ข้อมูลระดับย่อยนี้

ข้อ ๖ หน้าที่ของผู้รับบริการ

เมื่อผู้รับบริการได้รับข้อมูลระดับย่อยไปจากผู้ให้บริการแล้ว ผู้รับบริการย่อมผูกพันตนเป็น “ผู้มีหน้าที่เก็บรักษาความลับของข้อมูล” ตาม พ.ร.บ. สถิติ ๒๕๕๐ และจะต้องถือปฏิบัติตามข้อกำหนดดังต่อไปนี้อย่างเคร่งครัด

๖.๑ ผู้รับบริการต้องใช้ข้อมูลระดับย่อยตามวัตถุประสงค์ และเงื่อนไขที่กำหนดไว้ในสัญญาการใช้ข้อมูลระดับย่อยนี้เท่านั้น หากมีการใช้ข้อมูลระดับย่อยไม่เป็นไปตามวัตถุประสงค์ ผู้ให้บริการมีสิทธิเลิกสัญญานี้

๖.๒ ผู้รับบริการต้องใช้ข้อมูลระดับย่อยเพื่อประโยชน์สำหรับการจัดทำสถิติ วิเคราะห์ หรือวิจัย และผู้รับบริการจะต้องไม่นำข้อมูลไปหาประโยชน์ใด ๆ นอกเหนือวัตถุประสงค์ที่ระบุไว้ในข้อ ๓ เท่านั้น เว้นแต่ได้รับอนุญาตเป็นลายลักษณ์อักษรจากผู้ให้บริการ

๖.๓ ผู้รับบริการต้องศึกษาและทำความเข้าใจกับรายละเอียดของโครงการสำมะโน/สำรวจต่าง ๆ และข้อจำกัดทางด้านวิชาการก่อน เพื่อป้องกันการนำข้อมูลระดับย่อยไปใช้ผิดจากหลักวิชาการ

๖.๔ ผู้รับบริการต้องส่งรายงานผลการวิเคราะห์ ผลงานวิจัย วิทยานิพนธ์ หรือข้อมูลที่จัดทำขึ้นเพิ่มเติมจากข้อมูลระดับย่อยที่ขอรับบริการให้สำนักงานสถิติแห่งชาติ จำนวน ๑ ชุด ภายใน ๖๐ วัน หลังจากสิ้นสุดระยะเวลาตาม ข้อ ๓.๒ และหากไม่ส่งผลงานดังกล่าว สำนักงานสถิติแห่งชาติขอสงวนสิทธิ์ในการพิจารณาให้บริการข้อมูลในครั้งต่อไป

๖.๕ ผู้รับบริการต้องรักษาความลับของข้อมูลระดับย่อยอย่างเคร่งครัด และต้องรับผิดชอบในความเสียหายใด ๆ ที่เกิดจากการรั่วไหลของข้อมูลระดับย่อย

A.3 Contract for access the Survey of Older Person in Thailand 2002, 2007 and 2011 (page 3 of 3)

๖.๖ ผู้รับบริการต้องจัดให้มีระบบความปลอดภัย (Security) เพื่อป้องกันการเข้าถึงข้อมูลระดับย่อยอย่างรัดกุมเพียงพอ

๖.๗ ผู้รับบริการจะต้องให้ความคุ้มครองและปกป้องผู้ให้บริการ ให้ปลอดพ้นจากการเรียกร้องค่าเสียหาย ความเสียหาย หรือ ค่าใช้จ่ายใด ๆ อันเกิดจากการนำข้อมูลระดับย่อยไปใช้

ข้อ ๗ ข้อห้ามของผู้รับบริการ

ห้ามผู้รับบริการทำสำเนา ดัดแปลง ขาย ให้เช่า ให้ประโยชน์ อนุญาต หรือกระทำการใด ๆ ต่อข้อมูลระดับย่อยที่ขอรับบริการตามสัญญาการใช้ข้อมูลระดับย่อยนี้ แก่ผู้อื่น หรือให้ผู้อื่นได้ข้อมูลระดับย่อยดังกล่าวด้วยวิธีการใด ๆ เว้นแต่จะได้รับอนุญาตเป็นลายลักษณ์อักษรจากผู้ให้บริการ

ข้อ ๘ ความรับผิดในความเสียหายของผู้รับบริการ

๘.๑ ผู้รับบริการต้องรับผิดชดใช้ค่าเสียหายที่เกิดจากการรั่วไหล หรือผลกระทบด้านต่าง ๆ รวมทั้งความเสียหายอย่างใด ๆ ที่เกิดจากการนำข้อมูลระดับย่อยไปใช้

๘.๒ หากผู้รับบริการไม่ปฏิบัติตามหน้าที่ในข้อ ๖ หรือฝ่าฝืนข้อห้ามในข้อ ๗ ให้ถือว่าผู้รับบริการไม่ปฏิบัติตามข้อตกลง และผู้รับบริการตกลงยินยอมชดใช้ค่าเสียหายอย่างใดๆ ที่เกิดขึ้นต่อผู้ให้บริการอันเนื่องมาจากการไม่ปฏิบัติตามสัญญาการใช้ข้อมูลระดับย่อยนี้

ทั้งนี้ ความรับผิดของผู้รับบริการยังมีอยู่แม้ความผูกพันตามสัญญาการใช้ข้อมูลระดับย่อยจะสิ้นผลไปแล้ว หากปรากฏในภายหลังว่ามีการรั่วไหลของข้อมูลระดับย่อย หรือ เกิดกรณีตาม ข้อ ๖.๗

ข้อ ๙ ข้อมูลและผลงานวิจัย

๙.๑ ข้อมูลระดับย่อยที่ผู้รับบริการได้รับจากผู้ให้บริการ ตามสัญญาการใช้ข้อมูลระดับย่อยนี้เป็นลิขสิทธิ์ของผู้ให้บริการแต่เพียงผู้เดียว

๙.๒ ผลงานการวิเคราะห์ หรือผลงานการวิจัยต่าง ๆ ที่เกิดจากการใช้ข้อมูลระดับย่อยตามสัญญาการใช้ข้อมูลระดับย่อยนี้ เป็นของผู้รับบริการ ทั้งนี้ ผู้รับบริการยินยอมให้ผู้ให้บริการมีสิทธิเข้าดูและขอใช้ประโยชน์ในผลงานดังกล่าวได้ โดยแจ้งให้ผู้รับบริการทราบ

สัญญาการใช้ข้อมูลระดับย่อยนี้ทำขึ้นเป็นสองฉบับ มีข้อความถูกต้องตรงกันทุกประการ ซึ่งคู่สัญญาการใช้ข้อมูลระดับย่อยทั้งสองฝ่ายได้อ่านและเข้าใจข้อความโดยละเอียดแล้ว จึงลงลายมือชื่อไว้เป็นหลักฐานและคู่สัญญาการใช้ข้อมูลระดับย่อยทั้งสองฝ่ายต่างยึดถือสัญญาการใช้ข้อมูลระดับย่อยนี้ไว้ฝ่ายละหนึ่งฉบับ

ลงชื่อ.....ผู้รับบริการ
(.....)
ตำแหน่ง .....

ลงชื่อ.....ผู้ให้บริการ
(นางสาวรวมพร ศิริรัตน์ตระกูล)
ตำแหน่ง ผู้อำนวยการสำนักสถิติพยากรณ์

ลงชื่อ.....พยาน
(.....)
ตำแหน่ง .....

ลงชื่อ.....พยาน
(นายนัทธวรรธน์ เหมนาควิทย์)
ตำแหน่ง นักวิชาการสถิติชำนาญการ รักษาการในตำแหน่ง ผู้อำนวยการกลุ่มบริการและเผยแพร่ข้อมูล

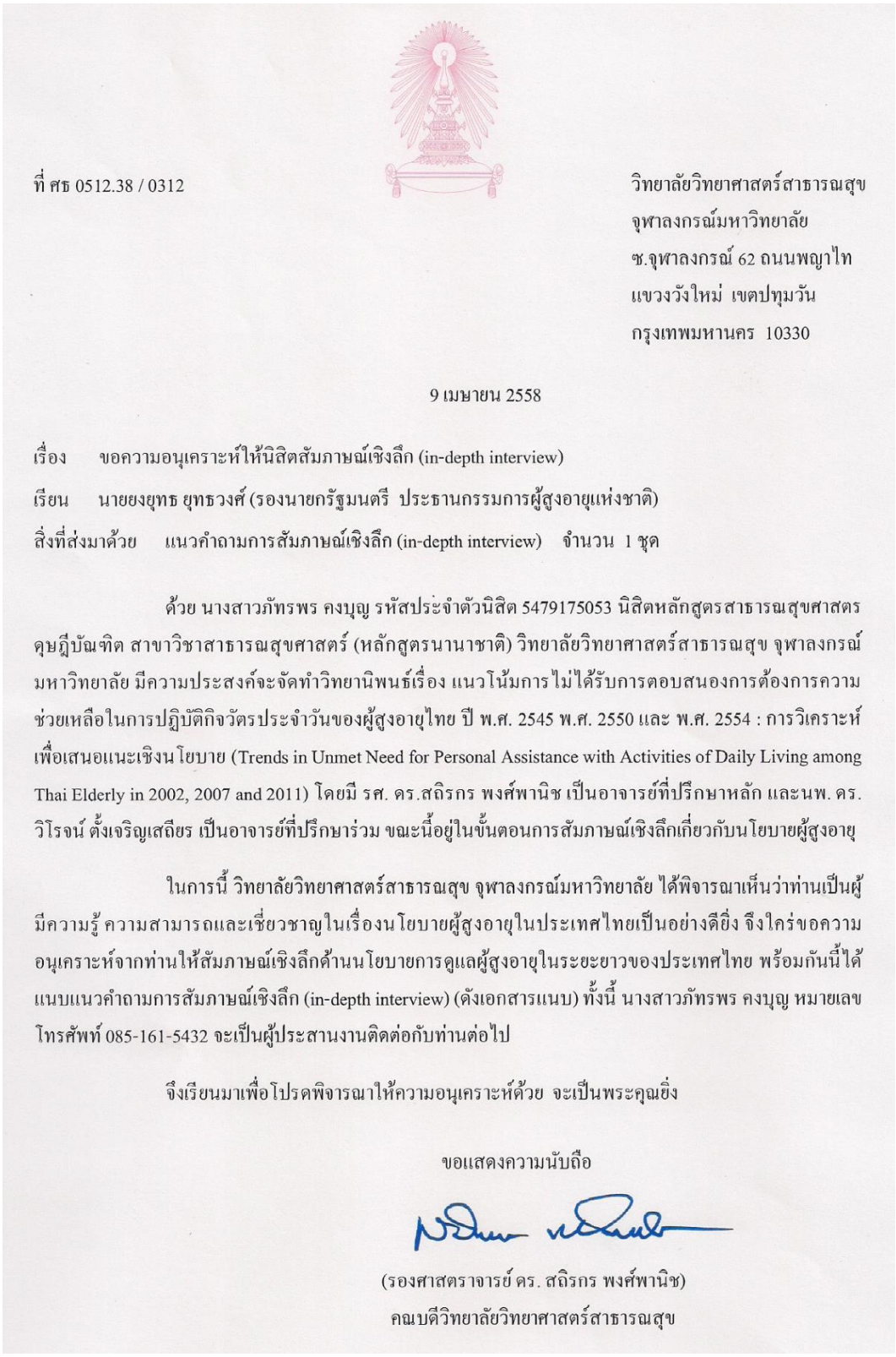
APPENDIX B

Key informants and letter requesting an interview

B.1 List of key informants

	Name	Position	Date of interview
1	Dr. Bunloo Siripanich, M.D.	Chair, the Foundation of Thai Gerontology Research and Development Institute (TGRI)	12 May, 2015
2	Dr. Jadej Thammatach-aree, M.D.	Director of Bureau of Policy and Planning, National Health Security Office (NHSO)	20 May, 2015
3	Dr. Ekachai Piensriwatchara, M.D.	Director Bureau of Elderly Health, Ministry of Public Health	26 May, 2015
4	Dr. Ladda Damrikarnlert, M.D.	Deputy secretary-general of the Foundation of Thai Gerontology Research and Development Institute	31 April, 2015
5	Dr. Samrit Srithamrongsawat, MD. PhD.	Deputy Secretary General, National Health Security Office	21 May, 2015
6	Associate Professor Sasipat Yodpetch	The Faculty of Social Administration lecturer at Thammasat Universit	14 May, 2015
7	Ms. Siriwan Arunthippaitoon	Bureau of Empowerment for Older Persons, Ministry of Social Development and Human Security.	11 May, 2015
8	Dr. Thaworn Sakunphanit,M.D.	Director, Health Insurance System Research Office (HISRO)	15 May, 2015
9	Dr. Vichai Chokevivat, M.D.	Ministry of Public Health	6 May, 2015
10	Dr. Worawet Suwanrada, Ph.D.	Dean, Associate Professor. Education. Ph.D. in Economics	18 May, 2015
11	Dr. Yongyuth Yuthavong, Ph.D.	Deputy Prime Minister, Royal Government of Thailand	14 May, 2015

B.2 Sample letter requesting an interview.



ที่ ศธ 0512.38 / 0312

วิทยาลัยวิทยาศาสตร์สาธารณสุข
จุฬาลงกรณ์มหาวิทยาลัย
ซ.จุฬาลงกรณ์ 62 ถนนพญาไท
แขวงวังใหม่ เขตปทุมวัน
กรุงเทพมหานคร 10330

9 เมษายน 2558

เรื่อง ขอความอนุเคราะห์ให้นิสิตสัมภาษณ์เชิงลึก (in-depth interview)

เรียน นายยงยุทธ ยุทธวงศ์ (รองนายกรัฐมนตรี ประธานกรรมการผู้สูงอายุแห่งชาติ)

สิ่งที่ส่งมาด้วย แนวคำถามการสัมภาษณ์เชิงลึก (in-depth interview) จำนวน 1 ชุด

ด้วย นางสาวภัทรพร คงบุญ รหัสประจำตัวนิสิต 5479175053 นิสิตหลักสูตรสาธารณสุขศาสตรดุษฎีบัณฑิต สาขาวิชาสาธารณสุขศาสตร์ (หลักสูตรนานาชาติ) วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย มีความประสงค์จะจัดทำวิทยานิพนธ์เรื่อง แนวโน้มการไม่ได้รับการตอบสนองการต้องการความช่วยเหลือในการปฏิบัติกิจวัตรประจำวันของผู้สูงอายุไทย ปี พ.ศ. 2545 พ.ศ. 2550 และ พ.ศ. 2554 : การวิเคราะห์เพื่อเสนอแนะเชิงนโยบาย (Trends in Unmet Need for Personal Assistance with Activities of Daily Living among Thai Elderly in 2002, 2007 and 2011) โดยมี รศ. ดร.สถิรกร พงศ์พานิช เป็นอาจารย์ที่ปรึกษาหลัก และนพ. ดร. วิโรจน์ ตั้งเจริญเสถียร เป็นอาจารย์ที่ปรึกษาร่วม ขณะนี้อยู่ในขั้นตอนการสัมภาษณ์เชิงลึกเกี่ยวกับนโยบายผู้สูงอายุ

ในการนี้ วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ได้พิจารณาเห็นว่าท่านเป็นผู้มีความรู้ ความสามารถและเชี่ยวชาญในเรื่องนโยบายผู้สูงอายุในประเทศไทยเป็นอย่างดียิ่ง จึงใคร่ขอความอนุเคราะห์จากท่านให้สัมภาษณ์เชิงลึกด้านนโยบายการดูแลผู้สูงอายุในระยะยาวของประเทศไทย พร้อมกันนี้ได้แนบแนวคำถามการสัมภาษณ์เชิงลึก (in-depth interview) (ดังเอกสารแนบ) ทั้งนี้ นางสาวภัทรพร คงบุญ หมายเลขโทรศัพท์ 085-161-5432 จะเป็นผู้ประสานงานติดต่อกับท่านต่อไป

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์ด้วย จะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(รองศาสตราจารย์ ดร. สถิรกร พงศ์พานิช)
คณบดีวิทยาลัยวิทยาศาสตร์สาธารณสุข

B.3 Sample inform consent

AF 05-07

หนังสือแสดงความยินยอมเข้าร่วมการวิจัย

เขียนที่ ทำเนียบรัฐบาล ตึกสันติไมตรี ชั้น 3

วันที่ 14 เดือน ม.ค. พ.ศ. 2558

ข้าพเจ้า (นาย/นาง/นางสาว) ศ.ดร. ยงยุทธ ยุทธวงศ์ อายุ 70 ปี

ขอทำหนังสือแสดงเจตนายินยอมเข้าร่วมโครงการวิจัยเพื่อเป็นหลักฐานว่า

ข้าพเจ้ายินยอมเข้าร่วมโครงการ ***แนวโน้มการไม่ได้รับการตอบสนองการต้องการความช่วยเหลือในการปฏิบัติกิจวัตรประจำวันของผู้สูงอายุไทย ปี พ.ศ. 2545, พ.ศ. 2550 และ พ.ศ. 2554 : การวิเคราะห์เพื่อเสนอแนะเชิงนโยบาย*** ด้วยความสมัครใจและพร้อมให้ความร่วมมือในการวิจัย โดยบุคคลผู้รับผิดชอบคือ นางสาวภัทรพร คงบุญ ที่อยู่ที่ติดต่อ [redacted] กรุงเทพมหานคร 10240 โทรศัพท์ [redacted]

ข้าพเจ้า **ได้รับทราบ**รายละเอียดเกี่ยวกับที่มาและวัตถุประสงค์ในการทำวิจัย รายละเอียดขั้นตอนต่างๆ ที่จะต้องปฏิบัติหรือได้รับการปฏิบัติ ความเสี่ยง/อันตราย และประโยชน์ซึ่งจะเกิดขึ้นจากการวิจัยเรื่องนี้ โดยได้อ่านรายละเอียดในเอกสารชี้แจงผู้เข้าร่วมการวิจัยโดยตลอด และ**ได้รับคำอธิบาย**จากผู้วิจัย **จนเข้าใจเป็นอย่างดีแล้ว** *ว่าผู้สัมภาษณ์จะดำเนินการสัมภาษณ์ครั้งเดียว โดยมีระยะเวลาประมาณ 60 นาที*

ข้าพเจ้าจึง**สมัครใจ**เข้าร่วมในโครงการวิจัยนี้ ตามที่ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย โดยข้าพเจ้ายินยอม ให้สัมภาษณ์ ตอบคำถาม และยินยอมให้บันทึกเสียงขณะสัมภาษณ์ เมื่อเสร็จสิ้นการวิจัยแล้วข้อมูลที่เกี่ยวข้องกับผู้มีส่วนร่วมในการวิจัยจะถูกเก็บไว้ในสถานที่ปลอดภัย และจำกัดการเข้าถึงข้อมูล และจะทำลายแถบบันทึกเสียงภายหลังเสร็จสิ้นการศึกษาวิจัยเป็นระยะเวลา 1 ปี

ข้าพเจ้ามีสิทธิ**ถอนตัว**ออกจากการวิจัยเมื่อใดก็ได้ตามความประสงค์ **โดยไม่ต้องแจ้งเหตุผล** ซึ่งการถอนตัวออกจากการวิจัยนั้น จะไม่มีผลกระทบในทางใดๆ ต่อข้าพเจ้าทั้งสิ้น

ข้าพเจ้าได้รับคำรับรองว่า ผู้วิจัยจะปฏิบัติต่อข้าพเจ้าตามข้อมูลที่ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย และข้อมูลใดๆ ที่เกี่ยวข้องกับข้าพเจ้า ผู้วิจัยจะเก็บรักษาเป็นความลับ โดยจะนำเสนอข้อมูลการวิจัยเป็นภาพรวมเท่านั้น ไม่มีข้อมูลใดในการรายงานที่จะนำไปสู่การระบุตัวข้าพเจ้า

หากข้าพเจ้าไม่ได้รับการปฏิบัติตรงตามที่ได้ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย ข้าพเจ้าสามารถร้องเรียนได้ที่คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย ชั้น 4 อาคารสถาบัน 2 ซอยจุฬาลงกรณ์ 62 ถนนพญาไท เขตปทุมวัน กรุงเทพฯ 10330
โทรศัพท์ 0-2218-8147, 0-2218-8141 โทรสาร 0-2218-8147 **E-mail: eccu@chula.ac.th**

ข้าพเจ้าได้ลงลายมือชื่อไว้เป็นสำคัญต่อหน้าพยาน ทั้งนี้ข้าพเจ้าได้รับสำเนาเอกสารชี้แจงผู้เข้าร่วมการวิจัย และสำเนาหนังสือแสดงความยินยอมไว้แล้ว

ลงชื่อ [redacted]
(นส. ภัทรพร คงบุญ)
ผู้วิจัยหลัก

ลงชื่อ ....
(ศ.ดร. ยงยุทธ ยุทธวงศ์)
ผู้ถูกสัมภาษณ์

เลขที่โครงการวิจัย 192-1/57
วันที่รับรอง 13 ก.พ. 2558
วันหมดอายุ 12 ก.พ. 2559

ลงชื่อ [redacted]
(... [redacted] ..)
พยาน

1-1

APPENDIX C

Thematic process

1 Data reduction

According to Miles and Huberman's (1994) model (82), reducing data constitutes the initial step of analysing data. It encompasses transformation, simplification and selection of data. The process of reducing data is undertaken in a manner that allows verifications to be completed and conclusions to be drawn. Moreover, coding is included through assigning of table values to the information, which might be gathered from the respondents whether it exists as one statement or long answer.

Coding is mainly used in thematic analysis for connecting different data parts. Coding is obtained from the response of informants, for instance, reports and statements and it classifies data with the intention of structuring it in form of theoretical perceptions. Notably, coding would enable the investigator to examine the entire data by determining it critical meaning or simply put the message contained in the data.

Phases in data reduction

The reduction of data might be attained in three main stages. However, in each stage, data was reduced in various means as indicated below.

I. First phase for data reduction

After data has been gathered, it is recorded using Microsoft Word before organizing and preparing the data content. This implies that the information is ready for word-by-word analysis using tables that indicate key themes or trends. Going through the data severally prior to and after determining the codes and themes emerged critical because of the reasons below.

1. It enabled the investigator to understand the entire picture and connect between the respondents' data, ideas and views gathered through observations.

2. Reading before commencing analysis enabled the investigator to locate and have abundant time for evaluating the data, thus avoiding premature conclusions.

II. The second phase of data reduction

This stage entailed highlighting each respondent's sentences that might be utilized, for instance, to respond to the research questions by picking "excerpts from respondent's full text". Notably, investigators should always focus on the research questions during gathering and analyzing of data; this will enable the investigator to locate accurately 'excerpts' that are related to the objectives of the study.

III. The Third phase of data reduction

This stage entailed utilizing the "highlighted sentences" and then dividing the data into minor themes or segments. The themes or segments are sentences that form a paragraph. In view of this, the investigator should read the whole content repeatedly to search, contrast and compare data that was missing in the initial phase of the thematic concerns (187).

The data ought to be developed further at the initial theme level that allows thematic texts to be tabulated effectively and to save them in new Word file. This process would enhance clarity and understanding of themes with regard to the focus of the investigator. The data ought to be prepared for classification and identification of level-two themes.

2 Data display

The second step for the Miles and Huberman Model (1994) is display of data. The step entails obtaining data through data display. It may not be delineated from the process of reducing data as it supports the former.

Data display can be defined as the systematic and compressed compilation of data. Its aim entails understanding the collected data. Data display arranges data and, assists in the arrangement of thoughts and concepts.

Following the reduction of themes, the investigator ought to review the RQs (research questions) for identification of data that compares to the similar concepts. Additionally, data display plays several roles that include:

1 . The ability of viewing and enhancing the clarity of research data

2 . To avert data overload in the analysis process

3. Understanding the collected data through display of similar concepts from various statements.

All data, which relates to every question, ought to be presented and arranged systematically. This would enable the investigator to examine any correlations, similarities and variations by inserting the data in form of conceptual clusters during analysis.

Displaying of data was utilized descriptively for gaining conceptual coherence through collation of items, which related to all research questions. A detailed description of data reduction was undertaken (188).

At this stage, analysis extended to include the interpretation of concepts utilized within the research subjects in supporting the statements of respondents through provision of reliable evidence.

3 Data drawing and conclusions

The third phase of Miles & Huberman Model encompasses drawing of data and conclusions (1994)(82). The two investigators proposed the application of certain points to enable investigators draw conclusions after displaying data in different ways.

Some ideas for generating meaning from the information utilized in the current study was borrowed from their work. Such include:

1- The identification of any thematic concerns or patterns as well as the importance of all statements, particularly if contrasting or similar

2- Grouping or creating categories of ‘similar data’

3- Locating correlations amongst variables and factors

4- Creating conceptual consistency and coherence that in the end should be utilized for exploring the findings validity to facilitate their fitting into the study’s theoretical framework.

The data display and drawing phases should not be delineated from the reduction of data, because they play a complementary. Furthermore, the phases entail verification and data drawing (Miles & Huberman 1994) (82).

APPENDIX D

Interview Guideline and approval letter

D.1 Interview guideline of Long term care policy for elderly in Thailand

วัตถุประสงค์	คำถาม
วิเคราะห์รูปแบบการดูแลผู้สูงอายุที่มีภาวะพึ่งพิงในปัจจุบัน	1. รูปแบบการดูแลผู้สูงอายุที่อยู่ในภาวะพึ่งพิง ปัจจุบันเป็นอย่างไร เหมาะสมกับสภาวะในปัจจุบันหรือไม่ 2. จุดอ่อนของรูปแบบเป็นอย่างไร 3. จุดแข็งของรูปแบบเป็นอย่างไร 4. รูปแบบที่ดำเนินอยู่ในปัจจุบัน ช่วยแก้ไขปัญหา / ตอบสนองความต้องการของผู้สูงอายุหรือไม่ อย่างไร 5. ท่านคิดว่า ปัญหาที่ต้องการการแก้ไขอย่างเร่งด่วนที่สุดในขณะนี้ เพื่อให้การดูแลผู้สูงอายุที่มีภาวะพึ่งพิง ขับเคลื่อนไปข้างหน้า ได้คืออะไร และท่านคิดว่าแนวทางการแก้ปัญหาต้องทำอย่างไร 6. ท่านคิดว่าครอบครัว ชุมชน ที่มีผู้สูงอายุในภาวะพึ่งพิงนี้ได้รับผลกระทบจากรูปแบบการดูแลผู้สูงอายุในปัจจุบันนี้หรือไม่ อย่างไร
ปัจจัยที่มีอิทธิพลต่อรูปแบบการดูแลผู้สูงอายุที่มีภาวะพึ่งพิงในปัจจุบัน	1. ปัจจัยกำหนดความสำเร็จและความล้มเหลวของรูปแบบการดูแลผู้สูงอายุ ในขณะนี้ การนำนโยบายไปปฏิบัติ 2. การวัดความสำเร็จและความล้มเหลวของการนำนโยบายไปปฏิบัติ
เพื่อพัฒนารูปแบบที่เหมาะสมสำหรับการดูแลผู้สูงอายุที่มีภาวะพึ่งพิง	1. ท่านคิดว่าถ้าจะส่งเสริมคุณภาพชีวิต ผู้สูงอายุในภาวะพึ่งพิง ให้ผู้สูงอายุที่มีภาวะพึ่งพิงนั้นเข้าถึงบริการนั้น รัฐควรมีนโยบายหรือแนวทางในการดำเนินงานอย่างไร ชุมชนควรมีบทบาทอย่างไร 2. ท่านคิดว่ารูปแบบการดูแลผู้สูงอายุที่มีภาวะพึ่งพิงควรอยู่บนพื้นฐานอะไร (เน้น ครอบครัว ชุมชน เป็นฐาน หรือเน้นสถานบริการพยาบาลของรัฐเป็นฐาน เป็นต้น) 3. ท่านคิดว่าใครควรเป็นผู้รับผิดชอบหลักในการดูแลผู้สูงอายุที่มีภาวะพึ่งพิง (รัฐส่วนกลาง หรือ องค์กรปกครองส่วนท้องถิ่น หรือ ครอบครัว) 4. ภาระค่าใช้จ่ายในการดูแลผู้สูงอายุที่มีภาวะพึ่งพิงนั้น ใครควรเป็นผู้รับผิดชอบ (รัฐสวัสดิการ หรือ ผู้สูงอายุ หรืออื่นๆ)

D.2 Sample letter requesting for approve the Interview guideline

ที่ ศธ 0512.38 / 0063

วิทยาลัยวิทยาศาสตร์สาธารณสุข
จุฬาลงกรณ์มหาวิทยาลัย
ซ.จุฬาลงกรณ์ 62 ถนนพญาไท
แขวงวังใหม่ เขตปทุมวัน
กรุงเทพมหานคร 10330

16 มกราคม 2558

เรื่อง ขอเรียนเชิญท่านเป็นผู้ทรงคุณวุฒิตรวจสอบเครื่องมือในการวิจัย

เรียน นายแพทย์ สุวิทย์ วิบูลผลประเสริฐ

สิ่งที่ส่งมาด้วย 1. โครงร่างงานวิจัย จำนวน 1 ชุด
2. แนวคำถามการสัมภาษณ์เชิงลึก จำนวน 1 ชุด

ด้วย นางสาวภัทรพร คงบุญ รหัสประจำตัวนิสิต 5479175053 นิสิตหลักสูตรสาธารณสุขศาสตรดุษฎีบัณฑิต สาขาวิชาสาธารณสุขศาสตร์ (หลักสูตรนานาชาติ) วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย มีความประสงค์จะจัดทำวิทยานิพนธ์เรื่อง แนวโน้มการไม่ได้รับการตอบสนองการต้องการความช่วยเหลือในการปฏิบัติกิจวัตรประจำวันของผู้สูงอายุไทย ปี พ.ศ. 2550 และ พ.ศ. 2554: การวิเคราะห์เพื่อเสนอแนะเชิงนโยบาย (Trends in Unmet Need for Personal Assistance with Activities of Daily Living among Thai Elderly in 2002, 2007 and 2011) โดยมี รศ. ดร. สถิรกร พงศ์พานิช เป็นอาจารย์ที่ปรึกษาหลัก และ นพ. ดร. วิโรจน์ ตั้งเจริญเสถียร เป็นอาจารย์ที่ปรึกษาร่วม โดยการวิจัยในครั้งนี้เป็นการสัมภาษณ์เชิงลึกเกี่ยวกับนโยบายผู้สูงอายุ

การนี้ วิทยาลัยวิทยาศาสตร์สาธารณสุขได้พิจารณาเห็นว่าท่านเป็นผู้ทรงคุณวุฒิตรวจสอบเครื่องมือในการวิจัยให้แก่นิสิต เพื่อให้ได้ผลการวิจัย การประเมินอย่างถูกต้อง แม่นยำ มีประสิทธิภาพ จึงใคร่ขอเรียนเชิญท่านเป็นผู้ทรงคุณวุฒิตรวจสอบเครื่องมือในการวิจัยให้กับนิสิตด้วย (ดังเอกสารที่แนบมาพร้อมนี้)

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์ด้วย จะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(รองศาสตราจารย์ ดร. สถิรกร พงศ์พานิช)
คณบดีวิทยาลัยวิทยาศาสตร์สาธารณสุข

D.3 Letter approval the interview guideline – *from the 1st Expert*

มูลนิธิสถาบันวิจัยและพัฒนาผู้สูงอายุไทย
Foundation of Thai Gerontology Research and Development Institute (TGRI)

20 มกราคม 2558

เรื่อง ผลการพิจารณาตรวจสอบความเหมาะสมของแบบสอบถามเชิงลึก สำหรับสัมภาษณ์ผู้กำหนดนโยบายเรื่องนโยบายผู้สูงอายุ

เรียน คณบดี วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย

อ้างถึง หนังสือวิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ที่ ศธ 0512.38/0064 ลงวันที่ 16 มกราคม 2558 ตามหนังสือที่อ้างถึง วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ได้แต่งตั้งให้ พญ.ลัดดา ดำริการเลิศ มูลนิธิสถาบันวิจัยและพัฒนาผู้สูงอายุไทย(มส.ผส.) เป็นผู้ทรงคุณวุฒิ ตรวจสอบความเหมาะสมของแบบสอบถามเชิงลึก ของ นางสาวภัทรพร คงบุญ นิสิตหลักสูตรสาธารณสุขศาสตร์ดุษฎีบัณฑิต วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ความแจ้งแล้วนั้น

ในการนี้ ข้าพเจ้าขอรายงานผลการพิจารณาความเหมาะสมของแบบสอบถามดังกล่าวว่า คำถามในแบบสอบถามมีความเหมาะสมสอดคล้องกับวัตถุประสงค์การวิจัย และระยะเวลาในการสัมภาษณ์ มีความเหมาะสม 60 นาที ดังนั้นแบบสอบถามเชิงลึกนี้เหมาะสมสำหรับใช้เป็นเครื่องมือในการศึกษาวิจัยสามารถนำไปสัมภาษณ์ผู้กำหนดนโยบายผู้สูงอายุในประเทศไทยได้

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

แพทย์หญิงลัดดา ดำริการเลิศ

มูลนิธิสถาบันวิจัยและพัฒนาผู้สูงอายุไทย (มส.ผส.)
1168 ซอยพหลโยธิน 22 ถนนพหลโยธิน แขวงจอมพล เขตจตุจักร กรุงเทพฯ 10900 โทรศัพท์ 0-2511-4963 โทรสาร 0-2511-4962
Foundation of Thai Gerontology Research and Development Institute (TGRI)
1168 Soi Phaholyothin 22, Phaholyothin Rd., Jomphol, Chatuchak, Bangkok 10900, Thailand. Tel. (662)511-4963 Fax. (662)511-4962

D.4 Letter approval the interview guideline – *from the 2nd Expert*

มูลนิธิ IHPP Thailand

มูลนิธิเพื่อการพัฒนานโยบายสุขภาพระหว่างประเทศ
International Health Policy Program Foundation

วิทยาลัยวิทยาศาสตร์สาธารณสุข
เลขรับ 0149
วันที่ 18/2/58
เวลา 15.00 น.

28 มกราคม 2558

เรื่อง ผลการพิจารณาตรวจสอบความเหมาะสมของแบบสอบถามเชิงลึก สำหรับสัมภาษณ์ผู้กำหนดนโยบายเรื่องนโยบายผู้สูงอายุ

เรียน คณบดี วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย

อ้างถึง หนังสือวิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ที่ ศธ 0512.38/0063 ลงวันที่ 16 มกราคม 2558

ตามหนังสือที่อ้างถึงวิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ได้แต่งตั้งให้ นายแพทย์สุวิทย์ วิบุลผลประเสริฐ ข้าราชการเกษียณในตำแหน่งผู้ทรงคุณวุฒิด้านควบคุมป้องกันโรค (ระดับ 11) กระทรวงสาธารณสุข ปัจจุบันเป็นรองประธานมูลนิธิเพื่อการพัฒนานโยบายสุขภาพระหว่างประเทศ เป็นผู้ทรงคุณวุฒิ ตรวจสอบความเหมาะสมของแบบสอบถามเชิงลึก ของนางสาวภัทรพร คงบุญ นิสิตหลักสูตรสาธารณสุขศาสตร์ดุษฎีบัณฑิต วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ความแจ้งแล้วนั้น

ในการนี้ ข้าพเจ้าขอรายงานผลการพิจารณาความเหมาะสมของแบบสอบถามดังกล่าวว่า คำถามในแบบสอบถามมีความเหมาะสมสอดคล้องกับวัตถุประสงค์การวิจัย และระยะเวลาในการสัมภาษณ์ มีความเหมาะสม ดังนั้น แบบสอบถามเชิงลึกนี้เหมาะสมสำหรับใช้เป็นเครื่องมือในการศึกษาวิจัยได้

จึงเรียนมาเพื่อทราบ

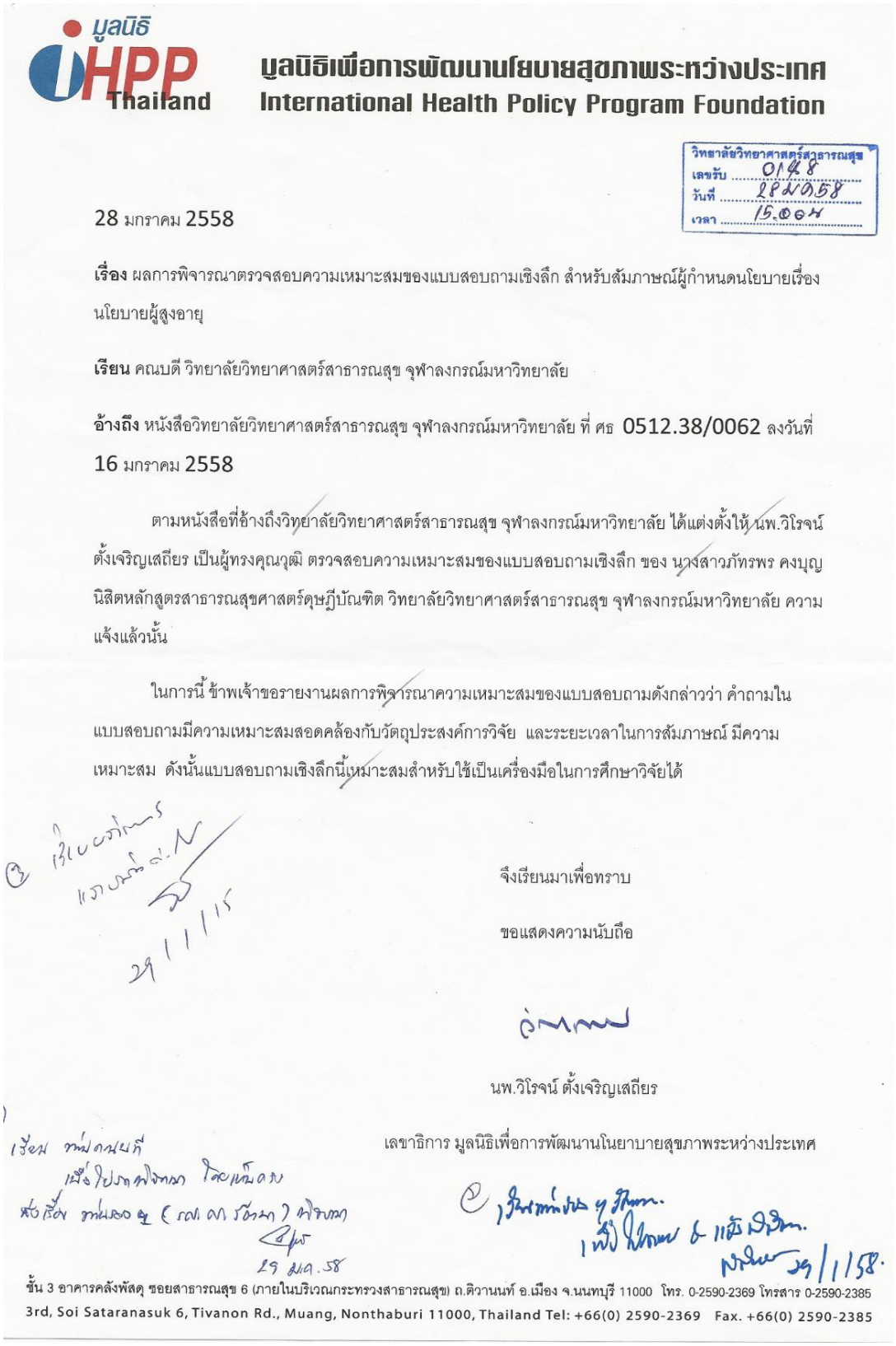
ขอแสดงความนับถือ

(นายแพทย์สุวิทย์ วิบุลผลประเสริฐ)
รองประธานมูลนิธิเพื่อการพัฒนานโยบายสุขภาพระหว่างประเทศ

โทรศัพท์ 02-5902305
โทรสาร 02-5902380

ชั้น 3 อาคารคลังพัสดุ ซอยสาธารณสุข 6 (ภายในบริเวณกระทรวงสาธารณสุข) ถ.ติวานนท์ อ.เมือง จ.นนทบุรี 11000 โทร. 0-2590-2369 โทรสาร 0-2590-2385
3rd, Soi Sataranasuk 6, Tivanon Rd., Muang, Nonthaburi 11000, Thailand Tel: +66(0) 2590-2369 Fax. +66(0) 2590-2385

D.5 Letter approval the interview guideline – *from the 3rd Expert*



มูลนิธิ IHPP Thailand

มูลนิธิเพื่อการพัฒนานโยบายสุขภาพระหว่างประเทศ
International Health Policy Program Foundation

วิทยาลัยวิทยาศาสตร์สาธารณสุข
เลขรับ 0148
วันที่ 18 ม.ค. 58
เวลา 15.00 น.

28 มกราคม 2558

เรื่อง ผลการพิจารณาตรวจสอบความเหมาะสมของแบบสอบถามเชิงลึก สำหรับสัมภาษณ์ผู้กำหนดนโยบายเรื่องนโยบายผู้สูงอายุ

เรียน คณบดี วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย

อ้างถึง หนังสือวิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ที่ ศธ 0512.38/0062 ลงวันที่ 16 มกราคม 2558

ตามหนังสือที่อ้างถึงวิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ได้แต่งตั้งให้ นพ.วิโรจน์ ตั้งเจริญเสถียร เป็นผู้ทรงคุณวุฒิ ตรวจสอบความเหมาะสมของแบบสอบถามเชิงลึก ของ นางสาวภัทรพร คงบุญ นิสิตหลักสูตรสาธารณสุขศาสตร์ดุษฎีบัณฑิต วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย ความแจ้งแล้วนั้น

ในการนี้ ข้าพเจ้าขอรายงานผลการพิจารณาความเหมาะสมของแบบสอบถามดังกล่าวว่า คำถามในแบบสอบถามมีความเหมาะสมสอดคล้องกับวัตถุประสงค์การวิจัย และระยะเวลาในการสัมภาษณ์ มีความเหมาะสม ดังนั้นแบบสอบถามเชิงลึกนี้เหมาะสมสำหรับใช้เป็นเครื่องมือในการศึกษาวิจัยได้

จึงเรียนมาเพื่อทราบ

ขอแสดงความนับถือ

นพ.วิโรจน์ ตั้งเจริญเสถียร

เลขาธิการ มูลนิธิเพื่อการพัฒนานโยบายสุขภาพระหว่างประเทศ

ชั้น 3 อาคารคลังพัสดุ ซอยสาธารณสุข 6 (ภายในบริเวณกระทรวงสาธารณสุข) ถ.ติวานนท์ อ.เมือง จ.นนทบุรี 11000 โทร. 0-2590-2369 โทรสาร 0-2590-2385
3rd, Soi Sataranasuk 6, Tivanon Rd., Muang, Nonthaburi 11000, Thailand Tel: +66(0) 2590-2369 Fax. +66(0) 2590-2385

APPENDIX E

Ethical Consideration

E.1 Letter to the Ethics Review Committee for Research Involving Human Research Subjects, Health Sciences Group, Chulalongkorn University.

AF 01-07

บันทึกข้อความ

ส่วนงาน วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัยโทร.02-218-8193-4 โทรสาร 02-255-6046

ที่ศธ 0512.38/ 0049 **วันที่** 14 **มกราคม** 2558

เรื่อง ขอเสนอโครงการวิจัย (ฉบับแก้ไข) เพื่อรับการพิจารณาจริยธรรม

เรียน ประธานกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย

สิ่งที่ส่งมาด้วย 1. ตารางรายละเอียดที่แก้ไขตามข้อเสนอของคณะกรรมการฯ

2. โครงร่างการวิจัยฉบับแก้ไข จำนวน 3 ชุด

ตามที่ คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย ได้แจ้งผลการพิจารณาจริยธรรมการวิจัย การแก้ไขครั้งที่ 1 ของโครงการวิจัยที่ 192/57 เรื่อง ***แนวโน้มการไม่ได้รับการตอบสนองการต้องการความช่วยเหลือในการปฏิบัติกิจวัตรประจำวันของผู้สูงอายุไทย ปี พ.ศ. 2545, พ.ศ. 2550 และ พ.ศ. 2554 : การวิเคราะห์เพื่อเสนอแนะเชิงนโยบาย*** (TRENDS IN UNMET NEED FOR PERSONAL ASSISTANCE WITH ACTIVIES OF DAILY LIVING AMONG THAI ELDERLY IN 2002, 2007 AND 2011) นั้น ข้าพเจ้า นางสาวภัทรพร คงบุญ นิสิตระดับดุษฎีบัณฑิต วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย เห็นชอบกับมติของคณะกรรมการการพิจารณาฯ และได้ดำเนินการแก้ไขตามมติคณะกรรมการฯ แล้ว

จึงเรียนมาเพื่อโปรดพิจารณาดำเนินการให้ด้วย จักเป็นพระคุณยิ่ง

(รศ.ดร.สถิรกร พงศ์พานิช)
อาจารย์ที่ปรึกษาวิทยานิพนธ์
วันที่ 14 มกราคม 2558

(นางสาวภัทรพร คงบุญ)
ผู้วิจัยหลัก
วันที่ 14 มกราคม 2558

E.2 Certificate of Approval-Thai

AF 01-12

คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย
อาคารสถาบัน 2 ชั้น 4 ซอยจุฬาลงกรณ์ 62 ถนนพญาไท เขตปทุมวัน กรุงเทพฯ 10330
โทรศัพท์: 0-2218-8147 โทรสาร: 0-2218-8147 E-mail: eccu@chula.ac.th

COA No. 031/2558

ใบรับรองโครงการวิจัย

โครงการวิจัยที่ 192.1/57 : แนวโน้มการไม่ได้รับการตอบสนองการต้องการความช่วยเหลือในการปฏิบัติกิจวัตรประจำวันของผู้สูงอายุไทยในปี พ.ศ.2545, พ.ศ.2550 และ พ.ศ.2554: การวิเคราะห์เพื่อเสนอแนะเชิงนโยบาย

ผู้วิจัยหลัก : นางสาวภัทรพร คงบุญ

หน่วยงาน : วิทยาลัยวิทยาศาสตร์สาธารณสุข จุฬาลงกรณ์มหาวิทยาลัย

คณะกรรมการพิจารณาจริยธรรมการวิจัยในคน กลุ่มสหสถาบัน ชุดที่ 1 จุฬาลงกรณ์มหาวิทยาลัย ได้พิจารณา โดยใช้หลัก ของ The International Conference on Harmonization – Good Clinical Practice (ICH-GCP) อนุมัติให้ดำเนินการศึกษาวิจัยเรื่องดังกล่าวได้

ลงนาม.....
(รองศาสตราจารย์ นายแพทย์ปรีดา ทัศนประดิษฐ)
ประธาน

ลงนาม.....
(ผู้ช่วยศาสตราจารย์ ดร.นันทรี ชัยชนะวงศาโรจน์)
กรรมการและเลขานุการ

วันที่รับรอง : 13 กุมภาพันธ์ 2558 **วันหมดอายุ** : 12 กุมภาพันธ์ 2559

เอกสารที่คณะกรรมการรับรอง

1) โครงการวิจัย
2) ข้อมูลสำหรับกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัยและใบยินยอมของกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย
3) ผู้วิจัย
4) แบบสอบถาม

เลขที่โครงการวิจัย 192.1/57
วันที่รับรอง 13 ก.พ. 2558
วันหมดอายุ 12 ก.พ. 2559

เงื่อนไข

1. *ข้าพเจ้ารับทราบว่าเป็นการผิดจริยธรรม หากดำเนินการเก็บข้อมูลการวิจัยก่อนได้รับการอนุมัติจากคณะกรรมการพิจารณาจริยธรรมการวิจัยฯ*
2. *หากใบรับรองโครงการวิจัยหมดอายุ การดำเนินการวิจัยต้องยุติ เมื่อต้องการต่ออายุต้องขออนุมัติใหม่ล่วงหน้าไม่ต่ำกว่า 1 เดือน พร้อมส่งรายงานความก้าวหน้าการวิจัย*
3. *ต้องดำเนินการวิจัยตามที่ระบุไว้ในโครงการวิจัยอย่างเคร่งครัด*
4. *ใช้เอกสารข้อมูลสำหรับกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย ใบยินยอมของกลุ่มประชากรหรือผู้มีส่วนร่วมในการวิจัย และเอกสารเชิญเข้าร่วมวิจัย (ถ้ามี) **เฉพาะที่ประทับตราคณะกรรมการเท่านั้น***
5. *หากเกิดเหตุการณ์ไม่พึงประสงค์ร้ายแรงในสถานที่เก็บข้อมูลที่ขออนุมัติจากคณะกรรมการ ต้องรายงานคณะกรรมการภายใน 5 วันทำการ*
6. *หากมีการเปลี่ยนแปลงการดำเนินการวิจัย ให้ส่งคณะกรรมการพิจารณารับรองก่อนดำเนินการ*
7. *โครงการวิจัยไม่เกิน 1 ปี ส่งแบบรายงานสิ้นสุดโครงการวิจัย (AF 03-12) และบทคัดย่อผลการวิจัยภายใน 30 วัน เมื่อโครงการวิจัยเสร็จสิ้น สำหรับโครงการวิจัยที่เป็นวิทยานิพนธ์ให้ส่งบทคัดย่อผลการวิจัย ภายใน 30 วัน เมื่อโครงการวิจัยเสร็จสิ้น*

E.3 Certificate of Approval-English

AF 02-12

The Research Ethics Review Committee for Research Involving Human Research Participants, Health Sciences Group, Chulalongkorn University
Jamjuree 1 Building, 2nd Floor, Phyathai Rd., Patumwan district, Bangkok 10330, Thailand,
Tel/Fax: 0-2218-3202 E-mail: eccu@chula.ac.th

COA No. 031/2015

Certificate of Approval

Study Title No.192.1/57 : **TRENDS IN UNMET NEED FOR PERSONAL ASSISTANCE WITH ACTIVITIES OF DAILY LIVING AMONG THAI ELDERLY IN 2002, 2007 AND 2011: ANALYSIS FOR POLICY RECOMMENDATION**

Principal Investigator : MISS PATTARAPORN KHONGBOON

Place of Proposed Study/Institution : College of Public Health Sciences, Chulalongkorn University

The Ethics Review Committee for Research Involving Human Research Subjects, Health Science Group, Chulalongkorn University, Thailand, has approved constituted in accordance with the International Conference on Harmonization – Good Clinical Practice (ICH-GCP) and/or Code of Conduct in Animal Use of NRCT version 2000.

Signature: ...Prida Tasanapradit... Signature: ...Nuntaree Chaichanawongsaroj.....

(Associate Professor Prida Tasanapradit, M.D.) Chairman

(Assistant Professor Nuntaree Chaichanawongsaroj, Ph.D.) Secretary

Date of Approval : 13 February 2015 Approval Expire date : 12 February 2016

The approval documents including

1) Research proposal
2) Patient/Participant Information Sheet and Informed Consent Form
3) Researcher
4) Questionnaire

Protocol No. 192.1/57
Date of Approval 13 FEB 2015
Approval Expire Date 12 FEB 2016

The approved investigator must comply with the following conditions:

1. *The research/project activities must end on the approval expired date of the Ethics Review Committee for Research Involving Human Research Subjects, Health Science Group, Chulalongkorn University (ECCU). In case the research/project is unable to complete within that date, the project extension can be applied one month prior to the ECCU approval expired date.*
2. *Strictly conduct the research/project activities as written in the proposal.*
3. *Using only the documents that bearing the ECCU's seal of approval with the subjects/volunteers (including subject information sheet, consent form, invitation letter for project/research participation (if available).*
4. *Report to the ECCU for any serious adverse events within 5 working days*
5. *Report to the ECCU for any change of the research/project activities prior to conduct the activities.*
6. *Final report (AF 03-12) and abstract is required for a one year (or less) research/project and report within 30 days after the completion of the research/project. For thesis, abstract is required and report within 30 days after the completion of the research/project.*
7. *Annual progress report is needed for a two- year (or more) research/project and submit the progress report before the expire date of certificate. After the completion of the research/project processes as No. 6.*

VITA

Dr. Pattaraporn Khongboon was born in Surin Province, Thailand. She did her undergraduate work at Sirindhorn School in Surin Province. She received her Bachelor of Nursing Science, Faculty of Nursing, Mahidol University in 1996. During her four years in nursing studies, she was introduced to public health. The curriculum exposed her to a broad range of interdisciplinary topics and enabled her to experience diverse opportunities in her career. She realized that as a nurse she had not enough power to affect change to make patients' lives better.

Through a Master degree in the field of Toxicology, Faculty of Science, Mahidol University, she had an opportunity to expand her laboratory skills. It provided her a chance to experience and to gain in-depth knowledge of what it is like to conduct research (Thesis title: Inhibitory effect of piperine on 1,2-dimethyl hydrazine-induced aberrant crypt foci formation in the rat colon, published in Mutation Research vol 483, suppl. 1, 2001, S1-S192). She has realized the impact of research which contributes to the advance in science and technology. After graduation in Master of Science in Toxicology, Mahidol University in 2002, she has been working at the Prince Mahidol Award Foundation under the Royal Patronage until present (www.princemahidolaward.org). In so doing and serving as the secretary to the Scientific Advisory Committee and International Award Committee, she has opportunities to learn and to increase her knowledge in coordinating among the committees members and also facilitating the support of information concerning public health and medicine. Her duties as part of the secretariat team of the Prince Mahidol Award Conference 2007, she attended seminars and met with public health leaders who came from other parts of the world at different events. The reflection on health problems indicates that there is still a need for proper solutions to resolve the issues by all stake holders. Consequently, an opportunity to do an internship at the International Health Public Policy (IHPP), Ministry of Public Health for three months was offered in 2010. She learned that the health system consists of several sub-sections. There are big barriers among patients, practitioners and policy-makers. It is possible to break down barriers through communication and management.

She completed her Ph.D. in 2015 through the College of Public Health Sciences, Chulalongkorn University, with a concentration on health policy and management, her dissertation research focusing on elderly disability and recommendations for Long term care policies in the coming eras in Thailand. It was a logical extension of her academic pursuits. It helps in building her confidence and skills required to achieve her dreams and, to benefit mankind.