Chapter 1

Introduction

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Chapter 1

Introduction

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1. Older People in Thailand

1.1. Population Ageing

Thailand is rapidly ageing. In 2017, 11.3 million or 17.1% of its 69 million people were 60 years old or more. Of older people that year, 16.5% had diabetes, 33.6% had hypertension, and 34.3% lived below the poverty line (Prasartkul et al., 2019; National Statistical Office of Thailand, 2018 [2561BE]).[1]

By 2020, more than 700,000 older people needed long-term care. By 2024, 2.78 million older people will be dependent and need long-term care: 60% will have low dependency, 30% moderate dependency, and 10% high dependency. (Srithamrongsawat et al., 2018 [2561BE]).

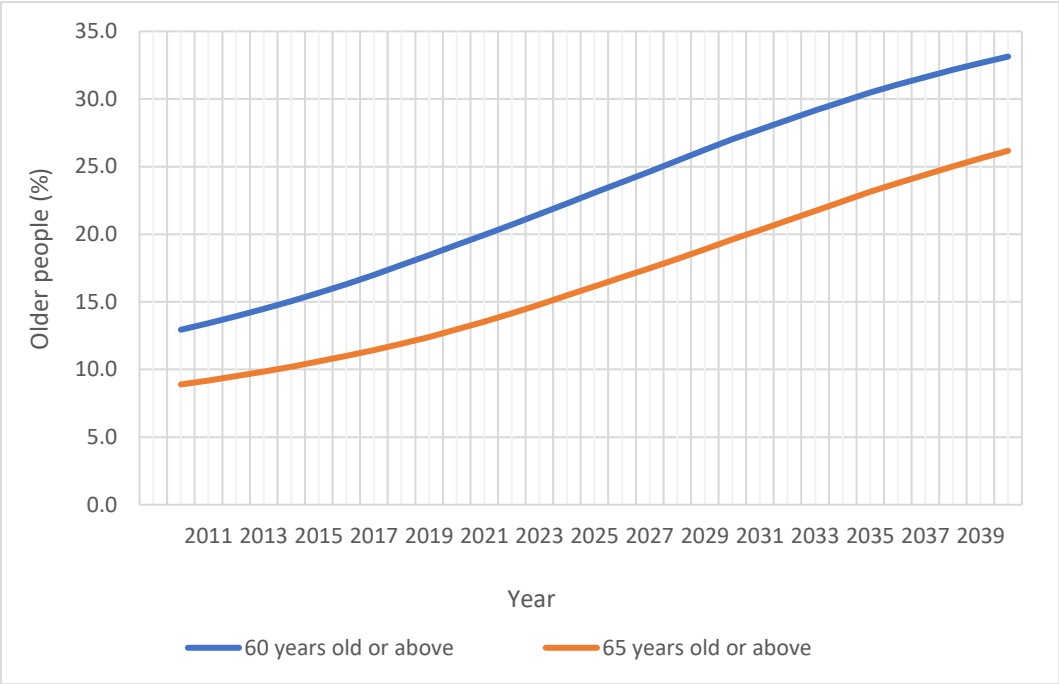
By 2040, more than 20 million people or 33% of the total population will be 60 years old or above.

Figure 1.1 shows the ageing trend in 2010–2040. The proportion of older people aged 60 and over and 65 and over will increase from 13% and 9% in 2010 to 32% and 25% in 2040 (Suwanrada, 2014).

In 16 provinces, people aged 60 or more were estimated to make up more than 20% of the total population in 2020. More people of productive age are expected to migrate from rural to urban areas, leaving their offspring behind to be cared for by their grandparents. Such skipped-generation households are particularly visible in the north and north-east (Srisuchart, Tangtipongkul, and Aroonruengsawat 2018 [2561 BE]).

[1] The references using the Buddhist Era (BE) are published in Thai.

Figure 1.1: Percentage of Older People in the Total Population of Thailand



Source: United Nations, Department of Economic and Social Affairs, Population Division (2019).

1.2. Changing Families, Declining Capability to Care for Older People

Households are becoming smaller. In 1980, the average household had 5.2 people, but in 2017 only 3.2 (Srisuchart, Tangtipongkul, and Aroonruengsawat, 2018 [2561BE]). People are marrying later and the birth rate has dropped. The total fertility rate in 2015 was 1.5, lower than the replacement fertility rate of 2.1. People's capacity to care for older people is declining and demand for elderly care is rising (Faculty of Nursing Chulalongkorn University, 2016 [2559 BE]).

Households comprising only older people rose from 22% in 2002 to 26% in 2011 to 32% in 2017. The trend is more remarkable in cities than in the countryside (Prasartkul et al., 2019).

The State of Thailand's Population 2015 (Peek, Im-em, Tangthanaseth, n.d.), published by the United Nations Population Fund and the Office of the National Economic and Social Development Board, shows household trends from 1987 to 2013. In this report, households are classified into four types: (1) nuclear families, (2) extended families, (3) one person, and (4) unrelated. Nuclear families are further classified into (1) husband and wife; (2) husband, wife, and children; and (3) single parent. Extended families are (1) three generation and (2) skipped generation. The 'husband, wife, and children' subtype was the most common in 1987 (54.1% of 11.3 million households), whilst in 2010, it was the 'three-generation' subtype (36.6% of 19.5 million households). 'Husband and wife' families increased remarkably from 5.6% of 11.3 million in 1987 to 16.2% of 19.5 million in 2013, and 'one-person' households from 6.1% in 1987 to 13.9% in 2013. The proportion of

'skipped-generation' households was low but steadily increasing, from 1% in 1987 to 2.1% in 2013.

In the past, women played a vital role in caring for older people in households, following traditional values and Buddhist teachings. Now, higher education and higher social status allow more and more women to enter the workforce, so they have less time to care for their older family members (Choowattanapakorn, 1999; Ingersoll-Dayton and Saengtienchai, 1999). In the past, if older people got sick, they were cared for by their children and grandchildren and other relatives, especially in rural areas where the whole village often consisted of neighbours and relatives (Sitthiwanthana et al., 2019 [2562 BE]).

1.3. Economy of Older People

1.3.1. Older People's Sources of Income

In 2015, 34.3% of older people lived below the poverty line (THB2,647/month). Their major source of income was support from children, which accounted for 37% in 2015, dropping from 52% in 2007. Older people's income from work rose from 29% in 2007 to 34.3% in 2015 (Srisuchart, Tangtipongkul, and Aroonruengsawat, 2018 [2561 BE]).

1.3.2. Pension, Healthcare, and Public Support

Older people have not necessarily benefited from the pension system. Of 38 million people of working age, only 44.7% (17 million) are formally employed, with Social Security Fund membership and healthcare insurance, whilst 55.3% (21 million) are employed, without such welfare programmes.

One of the most common problems of people of working age is healthcare. Few employers provide healthcare insurance, and workers do not know their rights and do not receive proper treatment (National Statistical Office of Thailand, 2017 [2560 BE]; Srisuchart, Tangtipongkul, and Aroonruengsawat, 2018 [2561 BE]).

The government provides welfare to older people, but the benefits depend on the category of beneficiary:

1) Retired government officer
    a) Lump sum from Government Pension Fund (about THB1 million)
    b) Monthly pension (about 70% of the average salary of the last 60 working months guaranteed) or lump sum
    c) Lump-sum payment equivalent to the salary of the last 30 working months in case of death before 60 years old (payable to parents, spouse, or children of the deceased)
    d) Civil Servant Medical Benefit Scheme, including spouse, parents, and children under 21 years old

2) Retired private formal sector employees and/or Social Security Fund members
    a) Government gives an allowance of THB600/month to those 60–70 years old, THB700/month to those over 70, THB800/month to those over 80, and THB1,000/month to those over 90. (Retired government officials are not

eligible for the allowance.)

b) Pension from the Social Security Fund of about THB3,000/month for those who have retired and worked and contributed to the Social Security Fund for 15 working years, and +1.5% incremental per 12 working months
c) Universal Coverage Scheme (or THB30 co-payment package combined with free medical check-ups, flu vaccination, and health promotion activities)
d) Provident fund (non-mandatory) and retirement compensation (10 months for 10 working years)

3) Retired informal workers (self-employed) and not members of the Social Security Fund
   a) Government gives an allowance of THB600/month to those 60–70 years old, THB700/month to those over 70, THB800/month to those over 80, and THB1,000/month to those over 90.
   b) Universal Coverage Scheme

Another safety net provided by the government is public welfare support. According to the Department of Older Persons, Ministry of Social Development and Human Security, older people living below the poverty line receive public welfare support and the government allowance for older people. Public welfare support is THB1,250–THB1,400/month to support housing expenses. Considering that average food expenditure is THB5,006/month and inflation increases by 3% per year, public welfare support is clearly not enough.

In 2019, the government allocated about THB72 billion for the older people's allowance, but only about THB419 million for public welfare support for older people living below the poverty line although as many as 4.6 million are eligible for public welfare support.

1.3.2. Employment of Older People

In 2015, 35% of people aged 60 years or older were still working, but the employment rate fell with age: 59% for those 60–64 years old, 46% for those 65–69 years old, 25% for those 70–74 years old, and 11% for those over 75 years old (Srisuchart, Tangtipongkul, and Aroonruengsawat, 2018 [2561 BE]).

The average income was more than THB10,000/month in 2017. The average income per person increases with age, particularly for younger generations, but peaks at 55–60 years old (more than THB20,000/month) and declines at over 60 years old (Srisuchart, Tangtipongkul, and Aroonruengsawat, 2018 [2561 BE]).

2. Long-term Care for Older People

2.1. Definition of Long-term Care

At the National Health Assembly in 2009, the Working Group on Recommendations for Long-term Care for Dependent Older People defined long-term care as comprehensive care covering the social, health, economic, and environmental well-being of older people

who suffer from chronic illness or are disabled or partially disabled and require full or partial assistance in their daily lives from medical staff members or family members. Long-term care also covers in-house care and care provided by the community or nursing homes (Sasat, Choowattanapakorn, and Lertrat, 2009 [2552 BE]).

Most Thai researchers define long-term care as care only for dependent older people, but *World Report on Ageing and Health* defines it as 'the activities undertaken by others to ensure that people at risk of a significant ongoing loss of intrinsic capacity can maintain a level of functional ability consistent with their basic rights, fundamental freedoms and human dignity' (World Health Organization, 2015).

2.2. Government Policies

In 2006, the National Strategy on Long-term Care and the Policy on Developing Long-term Care were approved by the National Health Security Office and the National Committee for the Elderly. The policies were designed to strengthen the capacity of households to care for older people so that they can continue living in a familiar environment with family members and neighbours. The principle has been adopted by sub-district long-term care policies developed by the Ministry of Public Health and/or other ministries involved in long-term care.

The 10th National Economic and Social Development Plan (2007–2011) emphasised valuing older people, strengthening their professional capacity, promoting self-care and health awareness , and fostering lifelong learning.

The 11th National Economic and Social Development Plan (2012–2016) emphasised developing a lifelong learning society, supporting social security, strengthening the potential of older people as the foundation of development, and promoting community activities to gain experience and knowledge to support older people.

The 12th National Economic and Social Development Plan (2017–2021) adheres to the 20-year National Strategy (2017–2036) and aims to create a dynamic and balanced ageing society where older people will be as physically, mentally, and economically self-reliant as possible so that healthcare system can be sustainable. The government is trying to improve the ecosystem of older people through programmes that make them more economically independent. These concepts were adopted by policies developed by ministries involved in issues of population ageing (Keeratipongpaiboon, 2018).

The evaluation report of the second (2002–2011) and the third (2012–2016) National Strategy for Older People suggests that implementation of policies on older people have not been effective. Many government agencies are working on older people's issues but lack coordination amongst themselves. Decentralisation and allocation of budget to local authorities have not been carried out effectively. Databases on older people are numerous but not synchronised nationally or locally, making it difficult to follow up and evaluate the work that has been done. All these shortcomings lead to ineffective implementation of the National Strategy for Older People.

2.3. Demand for Older People's Care

Chronic conditions such as diabetes mellitus or hypertension can cause critical events that result in functional loss and disability (Vu et al., 2020). Typical examples are cardiovascular diseases such as stroke or myocardial infarction. According to the results of the 2017 Survey of Older Persons in Thailand, the prevalence of diabetes and hypertension amongst older people in 2017 was about twice what it was in 2002 (Prasartkul et al., 2019).

Age is related to the deterioration of functional health. The same survey showed that only 18% of people aged 60–64 years had any functional limitations (e.g. lifting 5 kilograms, walking 200–300 meters, climbing 2 or 3 steps); difficulties in activities of daily living (e.g toilet, dressing, bathing, grooming); and instrumental activities of daily living (e.g taking public transport, counting change), whilst 80% of those 80 years old or above had functional limitations. The same trend can be seen amongst older people who reported the need for assistance. Of those 60–64 years old, only 3.9% reported that they needed assistance, whilst 25.5% of those 80 years old or more reported the need for assistance (Teerawichitchainan, Pothisiri, and Knodel, 2019).

Even though demand for long-term care for older people is growing, professional care workers are not common in Thailand. The 2017 survey found that assistance with daily living activities was provided to older people mainly by female family members such as daughters (40.4%) and spouses (31.9%) (Teerawichitchainan, Pothisiri, Knodel, 2019).

2.4. Cost of and Demand for Institutional Long-term Care

Long-term care for older people can greatly burden families economically because its length and seriousness are unpredictable. Every country is, therefore, encouraged to establish reliable long-term care systems to improve healthcare and the welfare system and prevent economic distress caused by the burden of long-term care (World Health Organization, 2003; Sasat, Choowattanapakorn, and Lertrat, 2009 [2552 BE]).

As the population of older people grows, the number of older people who need care, who need high-level care, and who have severe functional limitations also increases. Thailand is expected to have a growing number of older people eligible for institutional long-term care. According to a study that assumed 2% of those with severe dependency would be admitted into long-term care institutions, the cost of institutional long-term care would be THB0.9 billion in 2009r and THB2.8 billion in 2024. In case of a 25% admission rate of severely dependent people, the cost would be as much as THB34.6 billion (Srithamrongsawat et al., 2009).

The study's recommendations are the following:

1) Differentiate long-term care from acute care.
2) Develop the capacity of public residential homes to meet increasing demand for long-term care for older people.
3) Improve and enforce standards of care of long-term care institutions.

4) Strengthen home- and community-based long-term care services, considering the high cost of institutional long-term care services and most clients' preference to live at home.

3. Specialisation of Care Facilities and Capacity Building

Types of care that are most effective in promoting recovery from acute conditions, such as stroke, brain and/or spinal trauma, or perioperative conditions, vary depending on their phase. Healthcare systems are encouraged to clearly differentiate acute, intermediate, and long-term care to optimise resources and contribute to the maximum recovery of people who need care.

Intermediate care is vitally important to reduce the burden on long-term care resources. An effective referral system from major hospitals, which mainly provide acute care, to community hospitals is required to promote intermediate care. The Ministry of Public Health established a policy encouraging all community hospitals to provide intermediate care for patients with any of three acute conditions: stroke, brain trauma, and spinal trauma. The ministry aims for at least two beds for immediate care patients in each community hospital.

The ministry defines intermediate care as transitional, bridging the gap between acute and home- or community-based care. Intermediate care is for patients in stable medical condition but not sufficiently stable for the family or community to care for them. Intermediate care does not require up-to-date medical devices and equipment or doctors specialised in up-to-date acute care, but it does require a multidisciplinary approach. Such care can be safely provided at intermediate hospitals, which are between advanced hospitals and primary healthcare facilities. The cost of intermediate care can be covered by the universal health coverage scheme only for a designated period, which cannot be more than 6 weeks or 45 days.

In 2017, the Ministry of Public Health initiated a cooperation project with the Japan International Cooperation Agency (JICA) to establish a community care model for intermediate care.

Some communities have already established care systems in response to looming concerns about care for older people. Such activities are based on community solidarity and initiated by local hospitals or local authorities. Care for older people is considered the community's duty. Such systems are sparse so far and depend on the capability of the community leaders (Prasartkul et al., 2017), which is why Thailand needs a realistic strategy to cope with population ageing.

JICA surveyed 20 community hospitals and found that doctors, nurses, and patients did not recognise the necessity and effectiveness of intermediate care. They considered rehabilitation cumbersome. Many families did not have anybody to accompany the patient to rehabilitation regularly. The government is encouraged to promote cooperation between community and local hospitals and the Elderly Quality of Life Development and Career Promotion Centres, established by the Ministry of Social Development and Human Security and the Ministry of Interior and Senior Citizens Council of Thailand to provide

intermediate and long-term care efficiently at the district *(amphoe)* level. The Ministry of Social Development and Human Security is encouraged to promote caregiving training locally to raise awareness of the importance of intermediate care for older people who need community care in an integrated manner, from intermediate care to long-term care.

The JICA study found several acute-care hospitals that had strong leaders who initiated rehabilitation programmes in Surat Thani, Khon Kaen, and Nakorn Rachasima provinces. Hospitals in Chonburi developed a network connecting provincial acute-care hospitals; community hospitals; and geriatric hospitals under the Department of Medical Service, Ministry of Public Health. Another good practice reported by JICA was that of Nontaburi provincial public health office, which has fostered good relations with the provincial authority and developed an effective intermediate care system.

The human resources required to develop intermediate care are different from those needed for long-term care. Caregivers and care managers are crucial in long-term care, whilst physiotherapists and nurses have a key role in intermediate care.[2]

Long-term care not only provides medical treatment but also support for daily activities and modification of the living environment. Long-term care can be provided through cooperation amongst families, the community, healthcare staff members, and social workers. Community services for older people are still limited but integrated care is emerging in some places (Jaisin, 2018).

4. Recommendations for the Development of a Long-term Care Model

Thailand's long-term care system has the following problems (Sasat, Choowattanapakorn, and Letrat, 2009 [2552 BE]):

1) There is no standard for quality of care that older people receive. Care facilities in public hospitals could deliver quality care if the staff were trained to have compassion and treat older people as their own relatives. Donations through foundations affiliated with care facilities could help improve care.
2) Some older people are institutionalised at long-term care facilities although they do not have to be there. The government has the responsibility to prevent such cases. One option is to draft a law requiring adult children to take care of their own parents. Privately owned facilities should be registered, monitored, and evaluated.
3) Long-term care facilities may encounter (a) a lack of expertise and experience of staff members, (b) not enough staff members, and (c) a lack of an integrated database and information on long-term care facilities.

The authors suggested several policy approaches to improve long-term care. First, long-term care facilities should be registered and monitored by the Ministry of Social Development and Human Security and the Department of Medical Services, Ministry of Public Health. Second, the government should develop policies to encourage local authorities and the private sector to set up long-term care facilities and related services,

[2] From a by Akio Koide, chief advisor, JICA Thailand Office, at the Thailand Ageing Strategy Forum, 29 November 2018, hosted by the ABCD Centre, Thammasat Business School, Bangkok.

including rehabilitation and intermediate care. Third, clear rules and standards are required to improve the quality of long-term care facilities, as well as an assessment system of long-term care facilities. Assessment procedure should be a mutually agreed on by supervising and operating bodies. Last, community volunteers should be mobilised to care for older people.

5. Importance of Caregivers

Many long-term care models depend on charity or donations and are managed in compliance with religious principles.

We found that caregivers are vital at every level of care. Their quality is crucial to improve social and spiritual care. The public healthcare system has not focused on building caregivers' capacity. Most of the government budget for older people goes to monthly pensions, and more than half the district and sub-district healthcare budgets are spent on new medical equipment.

To improve the quality of life of older people, more experts should be deployed who have the skills to provide quality care to older people in communities, raise awareness of preventive care for older people, and train others to take care of older people. The budget and personnel of local authorities should be increased to improve long-term care services.

6. Objective and Method of the Study

Based on the background information on older people, this study asked two questions: (1) What are the long-term care models and best practices suited to the realities of Thailand? (2) What policies are needed to cope with population ageing so that people can enjoy healthy, happy, active, and productive lives as long as possible?

This study employed the following methods:

1) reviewing the academic literature published in 2008–2018 related to population ageing in Thailand, including various dimensions from health, social, environmental, and economic perspectives, and creating the Database of Ageing Research (http://aging.omeka.net) from the 1,424 results of subject and keywords searches (see Appendix);
2) analysing and integrating the results of the literature review to find
3) trends in government policies, private sector strategies, and practice models of healthcare and long-term care for older people; and
4) conducting focus group discussions with experts to develop policy recommendations from their ideas and the analyses of the literature review results.

The results of the study are discussed in accordance with the entities that provide care for older people. Chapter 2 discusses self-care, chapter 3 home- and community-based care, and chapter 4 institution-based care.

References

Choowattanapakorn, T. (1999), 'The Social Situation in Thailand: The Impact on Elderly People', *International Journal of Nursing Practice*, 5, pp.95–9.

Ingersoll-Dayton, B. and C. Saengtienchai (1999), 'Respect for the Elderly in Asia: Stability and Change', *The International Journal of Aging and Human Development*, 48(2), pp.113–30.

Jaisin, K. (2018), *Thailand Ageing Strategy Forum: Medical Perspective toward Medical Expense Policy*. Bangkok: Ageing Business & Care Development Centre. https://www.abcdcentre.tbs.tu.ac.th/copy-of-thailand-ageing-strategy (accessed 22 June 2019).

Keeratipongpaiboon, T. (2018), *Thailand Ageing Strategy Forum: Policy Maker Views on Thailand Aged Society*. Bangkok: Ageing Business & Care Development Centre. https://www.abcdcentre.tbs.tu.ac.th/copy-of-thailand-ageing-strategy (accessed 22 June 2019).

Peek, C., W. Im-em, and R. Tangthanaseth (n.d.), *The State of Thailand's Population 2015: Features of Thai Families in the Era of Low Fertility and Longevity*. Bangkok: The United Nations Population Fund Thailand Country Office and the Office of the National Economic and Social Development Board of Thailand.

Prasartkul, P. et al. (eds.) (2019), *Situation of the Thai Elderly 2017*. Nakorn Pathom: Institute for Population and Social Research, Mahidol University; and Bangkok: Foundation of Thai Gerontology Research and Development Institute.

Prasartkul, P. et al. (eds.) (2017), *Situation of the Thai Elderly 2016*. Bangkok: Foundation of Thai Gerontology Research and Development Institute.

Srithamrongsawat, S., K. Bundhamcharoen, S. Sasat, P. Odton, and S. Ratkjaroenkhajorn (2009), 'Projection of Demand of Expenditure of Institutional Long Term Care in Thailand', *Long Term Care Series*. Thailand: Health Insurance System Research Office.

Suwanrada, W. (2014), *National Experiences from Thailand regarding Long-term Care of Older Persons*. Bangkok: Chulalongkorn University, College of Population Studies. https://esbn.unescap.org/sites/default/files/Item%203%20(b)%20Long-term%20care%20in%20Thailand_0.pdf (accessed 18 May 2019).

United Nations, Department of Economic and Social Affairs, Population Division (2019), *World Population Prospects 2019* (custom data acquired via the website). https://population.un.org/wpp/ (accessed 21 January 2021).

Vu, N.C., M.T. Tran, L.T. Dang, C.L. Choi, and Y. Saito (eds.) (2020), *Ageing and Health in Viet Nam*. Jakarta: Economic Research Institute for ASEAN and East Asia; and Ha Noi: Institute of Population, Health and Development (PHAD).

World Health Organization (WHO) (2015), *World Report on Ageing and Health*. Geneva: WHO.

WHO (2003), *Collection on Long-term Care: Key Policy Issues in Long-term Care*. Geneva: WHO.

Thai Sources

คณะพยาบาลศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย (2559), การดูแลระยะยาวในประเทศไทย. กรุงเทพ: จุฬาลงกรณ์มหาวิทยาลัย, คณะพยาบาลศาสตร์. http://www.longtermcarethailand.com/ (เข้าถึงเมื่อ 1 มิถุยายน 2562).

[Faculty of Nursing Chulalongkorn University (2016), *LONGTERMCARETHAILAND*. Bangkok: Chulalongkorn University, Faculty of Nursing. http://www.longtermcarethailand.com/ (accessed 1 June 2019).]

ศิริพันธุ์ สาสัตย์, ทัศนา ชูวรรณธนะปกรณ์, และ เพ็ญจันทร์ เลิศรัตน์ (2552), รูปแบบการปฏิบัติการดูแลผู้สูงอายุระยะยาวในสถานบริการในประเทศไทย. กรุงเทพ: สถาบันวิจัยระบบสาธารณสุข.

[Sasat, S., T. Choowattanapakorn, and P. Lertrat (2009), *Models of Caregiving Practices for Older People in Long-term Care Facilities in Thailand*. Bangkok: Health Systems Research Institute.]

ศุภชัย ศรีสุชาติ, แก้วขวัญ ตั้งติพงศ์กูล, และ อนิณ อรุณเรืองสวัสดิ์ (2561), รายการฉบับสมบูรณ์ โครงการส่งเสริมการมีรายได้และการมีงานทำของผู้สูงอายุตามนโยบายประชารัฐเพื่อสังคม. กรุงเทพ: สำนักงานศูนย์วิจัยและให้คำปรึกษาแห่งมหาวิทยาลัยธรรมศาสตร์ และ สถาบันเสริมการศึกษาและทรัพยากรมนุษย์.

[Srisuchart, S., K. Tangtipongkul, and A. Aroonruengsawat (2018), *A Complete Report of the Project to Promote Employment and Generate Income amongst the Elderly in Conformity with the Prachrath Policy for Society*. Bangkok: Thammasat University Research and Consultancy Institute and Institute for Continuing Education and Human Resources.]

สัมฤทธิ์ ศรีธำรงสวัสดิ์, ไพบูลย์ สุริยะวงศ์ไพศาล, วิชช์ เกษมทรัพย์, วิชัย เอกพลากร, บวรศม ลีระพันธ์ (2561), โครงการวิจัยเพื่อพัฒนาระบบการดูแลระยะยาว (*Long-term care*) สำหรับผู้สูงอายุที่มีภาวะพึ่งพิงภายใต้ระบบหลักประกันสุขภาพแห่งชาติ. กรุงเทพ: มหาวิทยาลัยมหิดล คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี และสถาบันวิจัยระบบสาธารณสุข.

[Srithamrongsawat, S., P. Suriyawongphaisarn, W. Kasemsap, W. Ekplakorn, and B. Leeraphan (2018), *A Project to Develop Long-term Care Systems for the Elderly Dependent under the National Health Security System*. Bangkok: Mahidol University, Faculty of Medicine, Ramathibodi Hospital, and Health Insurance System Research Office.]

สำนักงานสถิติแห่งชาติ (2560), สรุปผลการสำรวจภาวการณ์ทำงานของประชากรในไตรมาสที่ 3: เดือนกรกฎาคม - กันยายน 2560 . กรุงเทพ: สำนักงานสถิติ แห่งชาติ.

http://www.nso.go.th (เข้าถึงเมื่อ 11 มิถุนายน 2562).

(National Statistical Office of Thailand (2017), *The Labour Force Survey July – September 2017.* Bangkok: National Statistical Office. http://www.nso.go.th\(accessed 11 June 2019).)

สำนักงานสถิติแห่งชาติ (2561), รายงานการสำรวจประชากรสูงอายุในประเทศไทย พ.ศ. *2560*. กรุงเทพ: สำนักงานสถิติแห่งชาติ.

[National Statistical Office or Thailand (2018), *Report on the 2017 Survey of Older Persons in Thailand*. Bangkok: National Statistical Office.]

เอกภพ สิทธิวรรณธนะ, ปองกมล สุรัตน์, ฐนิดา อภิชนะกุลชัย, อัจฉรา ตะนะสุข (กองบรรณาธิการ) (2562), ชุมชนกรุณานิมิตใหม่ของสังคมไทย.กรุงเทพ: สำนักงานกองทุนสนับสนุนการสร้างเสริมสุขภาพ.

[Sitthiwanthana, A., P. Surat, T. Apichanakulchai, and A. Tanasook (eds.) (2019), *Peaceful Death: A New Hope of Thai Society*. Bangkok: Thai Health Promotion Foundation.]