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Population Ageing and the Well-being of Older Persons in Thailand

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University of Michigan
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Executive Summary

Introduction

Population ageing is occurring in much of Asia. In countries such as Thailand where fertility rates have fallen sharply over the past decades, this process is recent and pronounced. Thailand is particularly fortunate in having a series of nationally representative surveys of the older population that permit determining important trends in the well-being of the older age population and an up to date assessment of their current situation. In this report, we examine the demography of ageing in Thailand, explore the social and economic well-being of the older population, and describe government policies and programs related to population ageing. Particular attention is given to differences in relation to age, gender and place of residence (urban or rural).

Demography of ageing

As a result of an exceptionally rapid decline in fertility in which the total fertility rate fell from above 6 in the 1960s to its current level below replacement, Thailand is undergoing an extensive process of population ageing. Changes in the age structure will be profound and the growth of the older age population truly dramatic. From a situation prior to the fertility transition when older persons constituted only 5% of the population, more than one in four Thais are likely to be age 60 or older within just a few decades from now. Moreover, in just a little more than another decade, persons age 60 and older will exceed those under age 15 for the first time in Thailand's history. This pace of population ageing is many times faster than experienced historically in the West. Moreover, the older population itself is ageing and there is a pronounced sex imbalance with women greatly outnumbering men especially among the oldest old. Within Thailand, the flow of young adults from rural to urban areas combined with rural grandparents taking responsibility for their young grandchildren whose parents migrated to cities has resulted in higher concentrations of both children and elderly in the rural compared to urban areas. The population in the most economically productive ages relative to that in elderly ages where economic dependency is common is virtually certain to decline to only a fraction of what it has been in the recent past. Thus the provision of material support for older persons will take on quite a different dimension than has been or currently is the case. Likewise, given the far greater likelihood of serious health problems among older persons compared to the rest of the population, pressures on health facilities and services will increase enormously. In brief, these demographic developments will have important consequences for families, communities, and Thai society as a whole.

Demographic, social and economic characteristics

The social and economic profile of today's elderly and trends over the recent past as presented in this report are encouraging in several respects. Significant improvement in the material well-being of the older population has clearly occurred. Compared to just a little over a decade ago, older Thais in 2007 live in households with far more appliances and amenities that make daily life more convenient. Their households are also more likely to have a motorized vehicle making meeting transportation needs easier. Particularly dramatic is the rapid and recent spread of telephones, especially mobile phones, a development that greatly improves the ability of elderly and their

children and relatives who live elsewhere to maintain contact with each other. This not only contributes to social well-being but facilitates seeking assistance at times of health emergencies or when other critical situations arise.

Also reassuring is the finding that material assistance from adult children has not diminished despite the extensive social change that is often assumed to undermine filial responsibility. Not only do the vast majority of elderly receive at least some income from children but the percent who indicate that children are their main source of support has changed little during the last decade or so. Likewise encouraging are findings concerning government welfare allowances. Not only has the share of older persons who receive them very substantially increased in recent years but those in greatest need of assistance are far more likely to receive an allowance than those least in need. Thus the program is having reasonable success in meeting its original goal. Still there are likely significant numbers who sorely need financial assistance but do not receive it.

The situation regarding gender equity among Thai elderly is also relatively positive. Older women have received less schooling than men but this disadvantage will decline steadily over the next few decades. Older women are also far more likely than men to be widowed. However, for both men and women, not having a spouse is not associated with lower perceived income sufficiency or financial satisfaction. Perhaps most encouraging is that older men and women are similar with respect to the quality of their housing, household possessions, and self-assessed adequacy of income and satisfaction with financial situation. Among married persons, women disproportionately report low personal income and wealth compared to men but as wives they may well benefit from the husband's income and wealth. Among unmarried older persons, women fare at least as well as men. Older men are substantially more likely than older women to be currently gainfully employed, but it is unclear whether continuing to work in old age is an advantage or disadvantage.

Some results are less encouraging and point to needs that should be taken into account when formulating policy and programs intended to ensure the security and improve the well-being of the elderly as population ageing proceeds. Substantial rural-urban disparity persists. Rural elderly are less educated, less literate, more likely to work, more dependent on their own work for support, and have substantially lower average incomes than their urban counterparts. They are also substantially more likely to indicate that their income is insufficient or only sometimes sufficient and to express dissatisfaction with their financial situation.

Projections of the characteristics of the future elderly population make clear that the family size of cohorts entering the elderly age range will decline sharply in the relatively near future. Given the current reliance of older age Thais on their adult children for both material support and personal care during periods of illness and frailty, this change has potentially significant implications that needs to be taken into account in government planning for the future older age population.

Health status

During most of their elderly years, older Thais are in sufficient health to take care of themselves. The period of dependence when a caregiver is needed to carry out daily living activities is thus relatively short consisting of only a few years. Also the percent of older persons who report their health as good or very good has recently been increasing. A substantial majority of older

persons who have difficulties with the most essential daily activities have a personal caregiver. However, those who can carry on basic activities of daily living on their own but have mobility problems are far less likely to have a caregiver assisting them.

Substantial gender differences with respect to health among older Thais are evident. Older women in Thailand, as in many other countries, generally have more non-fatal health problems than men. At the same time, older men are distinctly disadvantaged with respect to life expectancy. Among elderly who have a caregiver, wives most commonly fill this role for men while children or children-in-law are the most common caregivers for women. The difference is in part a result of the far higher levels of widowhood among women than men. Among non-married older persons, most of whom are widowed, children or children-in-law are by far the most likely to be the main caregiver.

Family support and intergenerational exchanges

The proportion of older persons who co-reside with children has steadily declined over the last two decades. Yet even by 2007 over 70% of persons age 60 and over either lived with or next to a child. The percent of elderly who live alone as well as the percent who live with a spouse only have both increased. Still, in 2007 only 8% of elderly lived alone and in half of these cases a child lived within the same locality. Likewise while one in six Thai elderly lives only with their spouse, just over half of these elderly also have a child residing in the same locality. Only less than 10% of elderly who have children do not have one living within the same province.

One type of living arrangement that has recently increased is the "skip generation" household in which grandparents and grandchildren live together without any middle generation married adults present. Currently 14% of persons aged 60 and over live in such households. An considerably higher proportion of older persons have a minor age grandchild living with them whose parents live elsewhere or are deceased. In half of these cases the grandparents are the main persons responsible for these grandchildren's care but for more than 80% the parents of the grandchildren are the major financial supporters. Thus grandchild care may not be a serious financial drain on the grandparents since absent parents send remittances to support the grandchildren.

The trends towards lower coresidence levels and higher proportions of elderly living alone or only with a spouse are likely to continue in the future. A main contributing factor will be the smaller family sizes that will characterize the future generations of older persons. So far these changes in living arrangements have not been accompanied by a decline in filial material support as already noted. In addition, the widespread increase in access to telephones, particularly inexpensive cell phones, has provided a new and effective way for elderly parents and their migrant children to maintain social contact. Substantial proportions of older persons indicate they speak on a telephone daily or weekly and almost two-thirds report at least monthly telephone contact with non-coresident children.

Despite frequent highlighting of examples of elderly parents deserted by their adult children in the mass media, such cases are relatively uncommon on a population basis. Only a little more than one percent of elderly parents report no contact with any of their children during the prior

year and even less had neither contact nor received remittances from any child. Even among the minority of parents whose children all live away from the parental province, under 3% receive no monetary support or contact from any child. Thus so far intergenerational solidarity between older age parents and their adult children appears relatively in tact in Thailand.

The AIDS epidemic and older persons

Although Thailand has been unusually successful in combating the AIDS epidemic there are still very significant numbers of HIV infected adults, most of whom have living parents in older ages. Infection among older age persons is relatively low compared to other age groups but large numbers are affected through AIDS related illness and death of adult children. The number of older age parents who experience the loss of a son or daughter to AIDS has decreased. However, the recent increase in access to effective antiretroviral therapy (ART) to prolong lives of those infected is leading to rapidly increasing numbers of older persons with adult children who are under treatment.

Research conducted prior to widespread access to ART revealed that older age parents were commonly involved in the living and caregiving arrangements of their HIV infected adult children, especially at the terminal stages of AIDS. Thus older age parents contributed significantly to the ability of Thai society to cope with the epidemic. To what extent widespread ART has altered these circumstances is an open question. To do so, however, would require appropriate knowledge. Recent survey results reveal relatively poor knowledge among older persons related to AIDS and at the same time suggests that better knowledge increases willingness to care for a family member ill from AIDS.

Policy and programme responses

The Thai government's response to population ageing is relatively recent but increasingly vigorous. Before the early 1990s responses were relatively slow and passive but since then they are far more active and progressive. Recent responses include the formulation of a new national plan on ageing, enactment of laws and regulations concerning elderly well-being, and the establishment of organizations to encourage consideration of elderly related issues in government programmes. The private sector response has mainly been the establishment of the private nursing homes although systematic information about these homes is largely lacking.

Until relatively recently, government guaranteed retirement benefits were limited to government and state enterprise employees. In 1991, a national social security system was launched to cover the private sector but not until 1999 did it include provisions for old age pensions and these require 15 years of contributions before entitlement to full benefits. In recognition of future trends towards population ageing, both the government and private sector are working towards developing broader based pension and social security systems to reduce long term financial uncertainty for the older age population. In the meantime, the government welfare allowance which started in the early 1990s and was originally intended for indigent older persons has been expanded. In addition, the provision of essentially free government medical services to older persons has also been a policy in one form or another since the early 1990s.

It is notable that the driving forces behind policy development regarding older persons in Thailand have shifted from primarily external influences, mainly United Nations recommendations, to concerns emanating internally within in Thailand. Nevertheless, the recently adopted 2nd National Long-Term Plan for Older Persons is largely in line with the Madrid International Plan of Action on Ageing. Some organizations outside the government have also shown concern about the potential consequences of population ageing. However, given the magnitude of the task ahead, only government efforts are likely to be at the scale that can adequately confront the challenges that the population ageing will pose. Thus the increased seriousness with which the Thai government is now treating ageing issues is most welcome.

Conclusions and recommendations

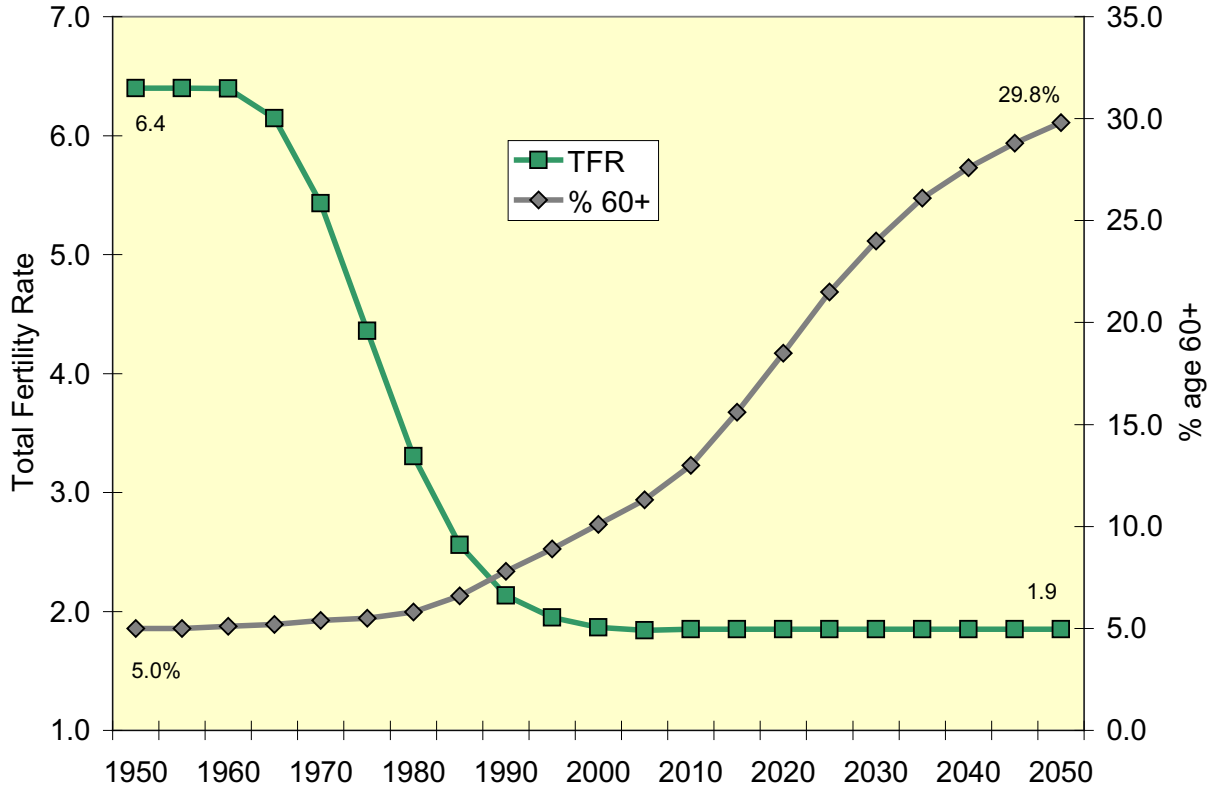
At least compared to other major changes in society, population ageing is very predictable. Thus the government has the major advantage knowing its rough dimensions well in advance and can plan for it ahead of time. Appropriate policies and programs in response to population ageing need to be based on solid evidence concerning the economic, social and health situation of the older population. The goal of this report has been to provide a review of such evidence and thereby contribute to an informed discussion of issues surrounding population ageing in Thailand. Based on this review we offer a set of recommendations dealing with general policy, personal and long term care issues, social protection and poverty reduction, involvement of older persons in the AIDS epidemic, and monitoring and research.

Section 1. Introduction

A. Population ageing as emerging concern

Population ageing, as indicated by increasing proportions of older persons in the total population, is occurring throughout Asia. With the exception of Japan, which as of 2005 had the oldest population of any country in the world (UN 2007a), this is a recent process in Asia typically dating back only several decades at most. It is particularly pronounced in countries such as Thailand where fertility rates have fallen rapidly over the past decades. While reducing high fertility rates was the major demographic issue of public policy and scientific concern during recent past decades in Thailand, as in much of Asia, rapid population ageing is quickly becoming the major demographic preoccupation in the 21st Century (Knodel 1999). Figure 1.1 makes clear why. Only five decades ago, total fertility in Thailand was very high at over 6 children per woman while only 5 percent of the population was age 60 or older. The situation projected for the coming decades is just the reverse. Total fertility had already fallen below the replacement level of just over two births per woman by the 1990s and is anticipated to remain very low for the foreseeable future. At the same time, the share of the population aged 60 and over already doubled to 10 percent by 2000 and is projected to approach 30 percent by mid century.

Figure 1.1. Total Fertility and Population Ageing, Thailand 1950-2050



Source: United Nations 2007b (medium variant)

The implications of these trends both for social and economic life are far reaching and profound. Despite the fact that the two phenomenon are inextricably linked, with the reduction in birth rates driving the ageing of the population, they are typically viewed quite differently by government planners and policy makers. In Thailand, as in most Asian countries, lower fertility was not only welcomed but actively encouraged through government supported family planning programs and related measures. In contrast, population ageing and associated increases in the numbers of older persons are viewed less favorably, typically as posing growing burdens for economic support and health care, and even as a "crisis" to be averted (World Bank 1994). Moreover, there is growing concern about how different segments of the population are affected with considerable attention being paid to how age groups within the elderly age span, men and women, and urban and rural residents may fare differently as population ageing proceeds.

The United Nations and other organizations concerned with older persons have been making a concerted effort to place population ageing in a more balanced or even positive light by encouraging the view of older persons as resources rather than burdens for society and promoting concepts such as "productive ageing" and "a society for all ages" (e.g. UNFPA 1998; HelpAge International 1999). This is reflected in various forums sponsored by the United Nations, most notably at the Second World Assembly on Ageing in Madrid in 2002 (United Nations 2002) but also in regional initiatives for east and south-east Asia that resulted in the Macao Plan of Action and the Shanghai Implementation Strategy (Mujahid 2006).

The present report provides a situation analysis of population ageing in Thailand. Section 2 examines the demography of ageing both at the national and regional level including attention to rural and urban differences. Section 3 provides an extensive profile of the older population in terms of their social and economic characteristics. Section 4 provides information on health status. Section 5 examines family support and intergenerational exchanges. Section 6 focuses attention on the impact of the AIDS epidemic on older persons particularly in their role as parents of HIV infected adults. Section 7 describes policy and program responses to population ageing by the government and other organizations. Section 8 draws some conclusions regarding the current well-being of Thai elderly, summarizes the future challenges posed for Thailand by population ageing and provides some recommendations based on the findings of the report.

B. Defining old age

Generally in this report the terms older population or elderly refer to persons age 60 and above. This is in accordance with the practice followed in most research and as incorporated in most official policies and programs in Thailand.[1] It corresponds to the officially mandatory retirement age for civil servants, the age at which persons can qualify for old age allowances, and is embodied in the 2003 Elderly Persons Act (Kanchanachitra et al. 2007). Moreover, 60 marks the end of the fifth cycle and the beginning of the sixth in terms of the 12 year traditional animal calendar which also probably reinforces the popular view that old age starts at 60 (Cowgill, 1986). Age 60 is also often the age often used by the United Nations and other key international organizations when tabulating statistics on older persons and has been adopted by both the first and second World Assemblies on Ageing as the start of the older age span (Mujahid 2006).

When examining the situation of the older population in Thailand or elsewhere, it is important to recognize that regardless of what age is used to define the start of old age, the elderly age-span, includes persons who are at different stages of their lives. Important life course transitions including marital dissolution, disengagement from economic activities, and the onset of chronic health problems and functional impairments often occur during this period of life but the ages at which they occur typically differ considerable among individuals. Thus while chronological age is a convenient way to define ageing, there is considerable variation in the situation and needs of persons at any given age.

C. Availability of data and research

Although interest in issues related ageing is relatively recent in Thailand as elsewhere in Asia, government agencies and academics in both social and health sciences have been quick to recognize the need for adequate information to develop appropriate policies and programs to insure the wellbeing of Thailand's elderly population. Thus our ability to examine population ageing in Thailand is greatly facilitated by the extensive amount of relevant data and research that has been generated during the last two decades. This includes extensive analyses of issues related to gender and aging, living arrangements and family support.[2] The present report draws on a variety of sources but primarily on nationally representative surveys which provide extensive quantitative information on the situation of older age population.[3] There are also numerous other surveys that provide quantitative data from non-representative samples as well as qualitative research related to elderly Thais which also provide useful information and to which we occasionally refer although on a far more limited basis.[4]

The first nationally representative survey of older persons, entitled Socio-economic Consequences of the Aging Population in Thailand or SECAPT, was conducted in 1986 (Chayovan, Wongsith & Saengtienchai 1988). The National Statistical Office conducted three national surveys of older persons (age 50 and older) with the first taking place in 1994, the second in 2002, and the most recent in 2007 (NSO no date, 2002 and 2008). An unusually detailed national survey of older persons, known as the Survey of Welfare of Elderly in Thailand or SWET, took place in 1995 (Chayovan & Knodel 1997). In this report we make extensive use of the 2007 National Survey of Older Persons presenting results for the population aged 60 and older based primarily on original tabulations.[5] Information from these surveys is in addition to the demographic data provided by traditional sources such as censuses and labor force surveys.

Section 2. The Demography of Ageing

A. Sources of population estimates and projections

The first step in exploring population ageing and its implications is to examine its demographic dimensions. Every two years, the United Nations Population Division publishes assessments of national populations including estimates by age and sex. The assessments include estimates of current and past levels as well as projections of the future population. Three projections series are provided based on a single set of morality assumptions but differing assumptions concerning the future course of fertility resulting in low, medium and high variants. In this report we rely primarily on the 2006 revision as the source of most national level information presented concerning the demography of ageing in Thailand.[6] When dealing with projections, we utilize the medium variant. The 2006 UN assessment covers a 100 year span from 1950 until 2050 thus enabling examination of combined actual and projected trends over an entire century. The detailed UN estimates of various measures related to population ageing based on the 2006 assessment for Thailand are provided in Appendix A.

Estimates of internal variation in population ageing within Thailand must rely on other sources. The 2005-2006 Survey of Population Change conducted by the National Statistical Office provides recent estimates at the regional level as well as rural-urban differences (NSO 2005). In addition, two recent sets of projections have been published, one by the National Economic and Social Development Board (NESDB 2003) and the other by the Institute of Population and Social Research (IPSR 2006). Although at the national level, both sets of projections extend to 2025, at the regional level the NESDB projections stop at 2020. As with the UN projections, both sets of regional projections include low, medium and high variants based on differing assumptions concerning fertility combined with a single set of mortality assumptions.

Table 2.1 compares the UN estimates of the Thai population age 60 and over and the percent it represents of the total population with those from the two Thai sets of projections. Since the three variants for each set differ only with respect to assumptions concerning fertility and not mortality, the size of the population 60 and older does not differ by variant for the time span covered. However, since the different fertility assumptions lead to different total population sizes among the three variants for each set, the percent that older persons represent of the total population varies. For all years shown, the UN estimates of the size of the population are highest and those produced by IPSR are the lowest. For example, the older age population in 2005 ranges from 7.1 to 6.4 million among the projections. By 2025 there are almost 2 million more older persons projected by the UN than by IPSR.

With respect to the proportion of the total population that is age 60 or older, only modest differences emerge among the three UN variants by 2025. Because lower fertility results in smaller total population estimates, the low (fertility) variant shows the most rapid ageing while the high variant indicates the slowest pace of ageing. Nevertheless there is little difference by 2025 between these three variants. In general the estimates and projections of the two Thai organizations indicate somewhat lower levels of ageing based on the percent who are age 60 and over. Nevertheless, regardless of variant or source, all projections suggest that persons age 60 or older as a percent of the total Thai population will more or less double in the two decades

between 2005 and 2025 and that by 2025 will represent close to or somewhat more than a fifth of the total population.

Table 2.1. Estimates and projections of the Thai population age 60 and over, by source

	2000	2005	2010	2015	2020	2025
Population 60 and older (1000s)						
UN 2006 (all variants)	6130	7122	8463	10396	12611	14782
NESDB (all variants)	5877	6693	8142	9559	11888	14452
IPSR (all variants)	n.a.	6422	7523	9034	10954	12901
% of total population						
UN 2006						
low variant	10.1	11.3	13.1	15.9	19.3	22.7
medium variant	10.1	11.3	13.0	15.6	18.5	21.5
high variant	10.1	11.3	12.9	15.2	17.8	20.4
NESDB						
low variant	9.4	10.4	11.8	14.0	17.2	20.7
medium variant	9.4	10.3	12.5	13.8	16.8	20.0
high variant	9.4	10.3	11.6	13.7	16.5	19.4
IPSR						
low variant	n.a.	10.3	11.8	14.0	16.8	19.9
medium variant	n.a.	10.3	11.8	14.0	16.8	19.8
high variant	n.a.	10.3	11.8	13.9	16.6	19.4

Sources: United Nations 2007b; NESDB 2003; IPSR 2006
Note: Low, medium and high variants refer to the level of fertility assumed to prevail during the projection period.

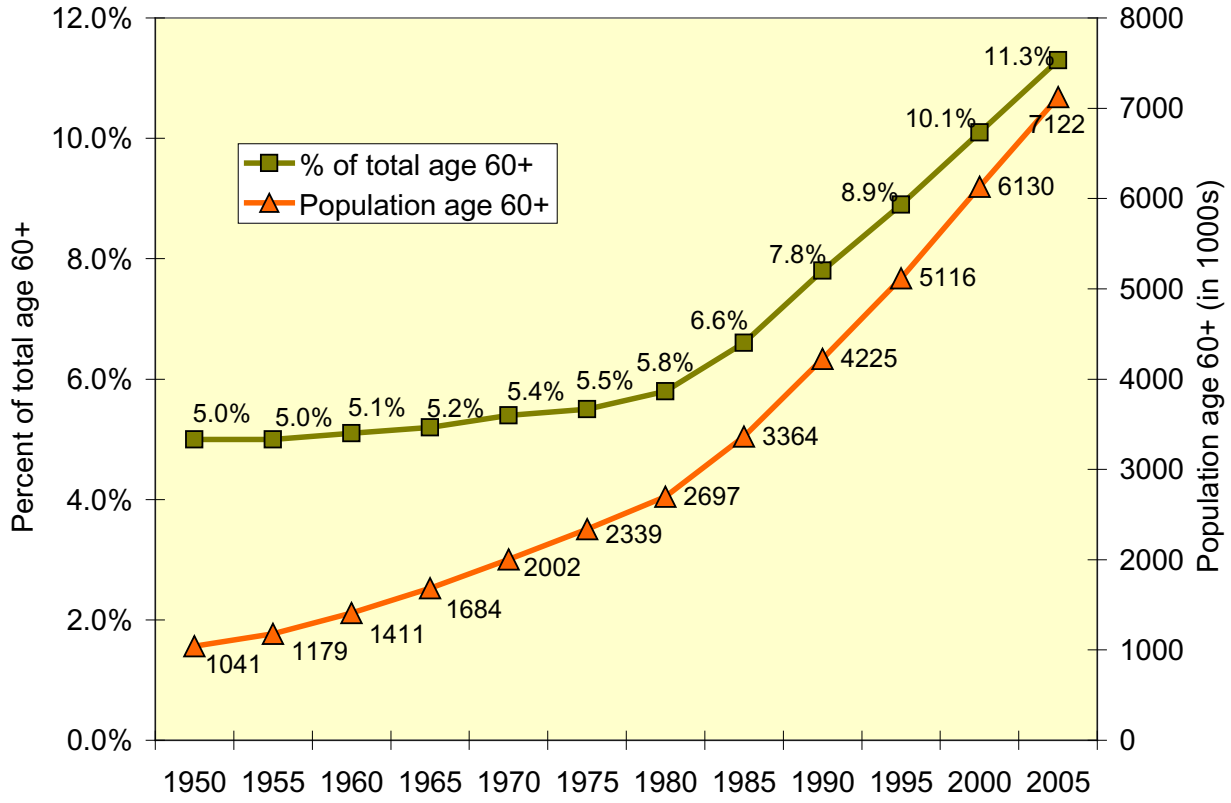
Regardless of the source of population projections, it is important to recognize that they are based on estimates of the current population that are not be completely accurate and more importantly on assumptions about the path of fertility, mortality and migration in the future which can not be predicted with certainty. The differences between the three sources underscore this. Thus the extent to which the future demographic dimensions of ageing presented in this report will correspond to the actual situation that will emerge depends both on the validity of these assumptions and the accuracy of the data representing the base population that forms the starting point for the projections. Clearly the extent to which the actual future demographic situation is likely to differ from the projected one increases the further into the future the projections extend. Hence the projected dimensions of population ageing presented in this section are illustrations of what might occur rather than predictions of the future.

B. Pace of population ageing

As noted in the introduction, population ageing refers to increases in the older population as a proportion of the total population. This is distinct from increases in the number of older persons. The high level of fertility in Thailand over much of the twentieth century and the substantially improved survival rates to older ages together account for the steady increase in the number of

older persons that has been taking place for well over half a century and is expected to continue into the foreseeable future. Population ageing, however, only occurs when the growth rate in the numbers of older persons exceeds that of the total population, a situation that has prevailed to any great extent only in recent decades but is anticipated to be even more pronounced in the coming decades as discussed below. Thus substantial increases in the numbers of the older persons can occur in the absence of population ageing if the overall population growth rate is high. For example, as figure 2.1 shows, the population age 60 and over more than doubled in Thailand between 1950 and 1975 even though the percent of the total population in these older ages increased only from 5.0 to 5.5 percent. Starting in 1980, however, as overall population growth slowed but the rate of increase in older persons remained high, indeed even increased, population ageing and the size of the older population increased hand in hand.

Figure 2.1. Population ageing and growth of the older population, Thailand 1950-2005



Source: United Nations 2007b (medium variant)

Population ageing as it is occurring in much of Asia, including Thailand, is taking place at a far faster pace than historically has been true for developed countries in the West. This is illustrated in table 2.2. Since historical trends of population ageing in developed countries typically refer to the percent of the population 65 and over, we use the this definition for comparison with Western countries. The table examines the amount of time it took for the percent of the population in ages 65 and over to double from 7% to 14%. Note that once the percent of the population age 65 and over reaches 7%, population ageing is well on its way. As the results show, a shift in the age structure of this magnitude took many decades in each of the developed countries included in the

table while the UN projections indicate in Thailand it will take just a little over two decades. In Southeast Asia, Singapore is ageing at an even faster pace but in general for the region as a whole the pace of ageing in Thailand is rather typical. In eastern Asia rapid ageing is also occurring similar to that in Southeast Asia. Clearly Asian societies will need to adapt much more rapidly to the transformation to a older population than has been the case for Western societies in the past. At the same time, however, this adaptation will be occurring in a very different social, economic and technological environment than characterized Western societies at the time that there levels population ageing were equivalent.

Table 2.2. Years in which the proportion of population age 65 and older reached 7% and 14% respectively and the number of years for the increase to occur, various countries

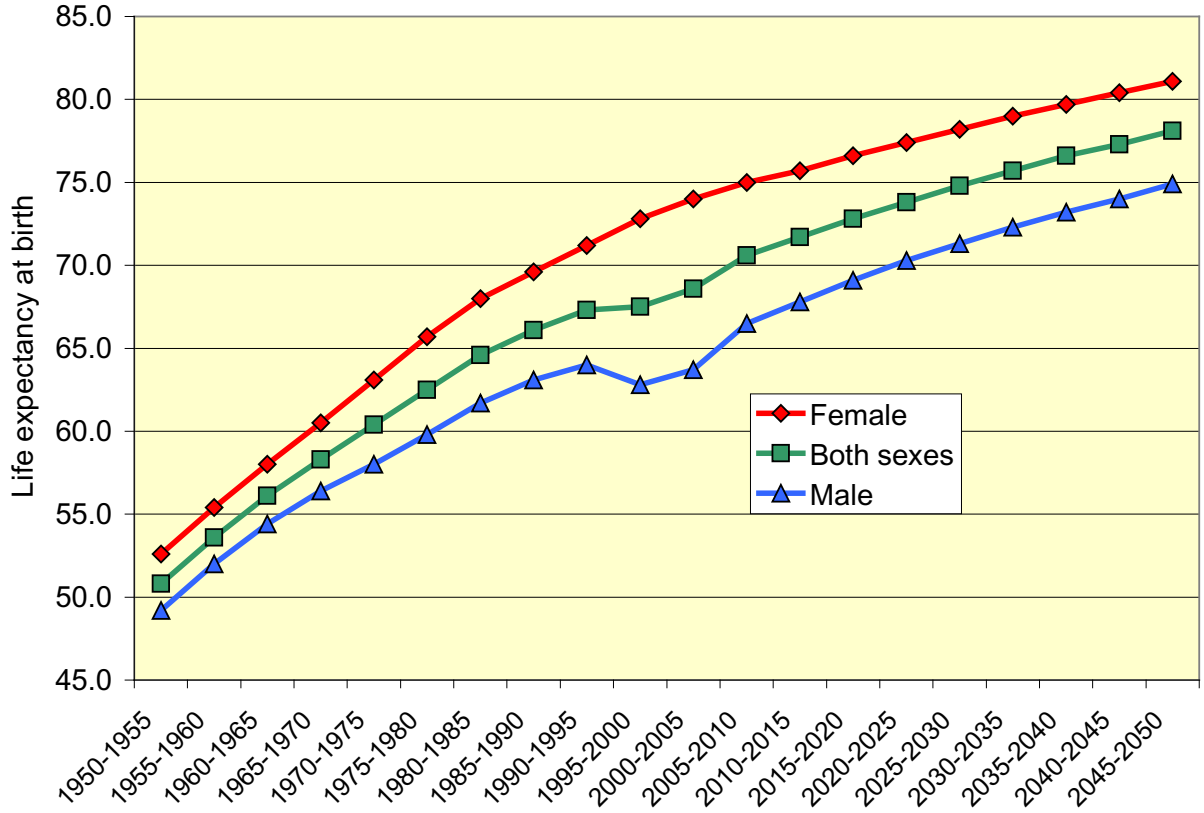
	Year 7% reached	Year 14% reached	Years for increase in %65+ to occur
Developed Countries			
France	1865 [1]	1980 [2]	115
Sweden	1886 [1]	1971 [2]	85
USA	1941 [1]	2015 [2]	74
Italy	1924 [1]	1988 [2]	64
South East Asia			
Entire region	2018 [2]	2039 [2]	21
Singapore	1999 [2]	2016 [2]	17
Thailand	2001 [2]	2023 [2]	22
Eastern Asia			
Entire region	1996 [2]	2022 [2]	26
Japan	1969 [2]	1994 [2]	25
China (exc. Hong Kong)	2001 [2]	2026 [2]	25
South Korea	1999 [2]	2016 [2]	17

Sources: United Nations 1956, p.12; United Nations 2007b

C. Determinants of population ageing

Changes in the age structure of a population, including population ageing, is determined by the past trends in fertility, mortality and migration. For Thailand at the national level, migration has been a relatively minor influence at least for the legally resident population. Declining fertility (as shown above in Figure 1.1) has been sharply reducing the share of children within the total population and is the driving demographic determinant of the population ageing that Thailand has recently been witnessing. Improving survival rates, reflected in increasing life expectancy at birth, have also characterized the last half of the twentieth century and are anticipated to continue during coming decades as indicated in figure 2.2. The increased mortality associated with the AIDS epidemic disproportionately affected men in Thailand and accounts for the reduction in male life expectancy at the turn of the 21st century. The anticipated resumption of improvement in life expectancy for men reflects Thailand's success in combating the AIDS epidemic and in providing widespread antiretroviral therapy to persons who need it as discussed in section 6 of this report (Revenga et al. 2006; UNDP 2004).

Figure 2.2. Life expectancy at birth, by sex, Thailand 1950-2050



Source: United Nations 2007b (medium variant)

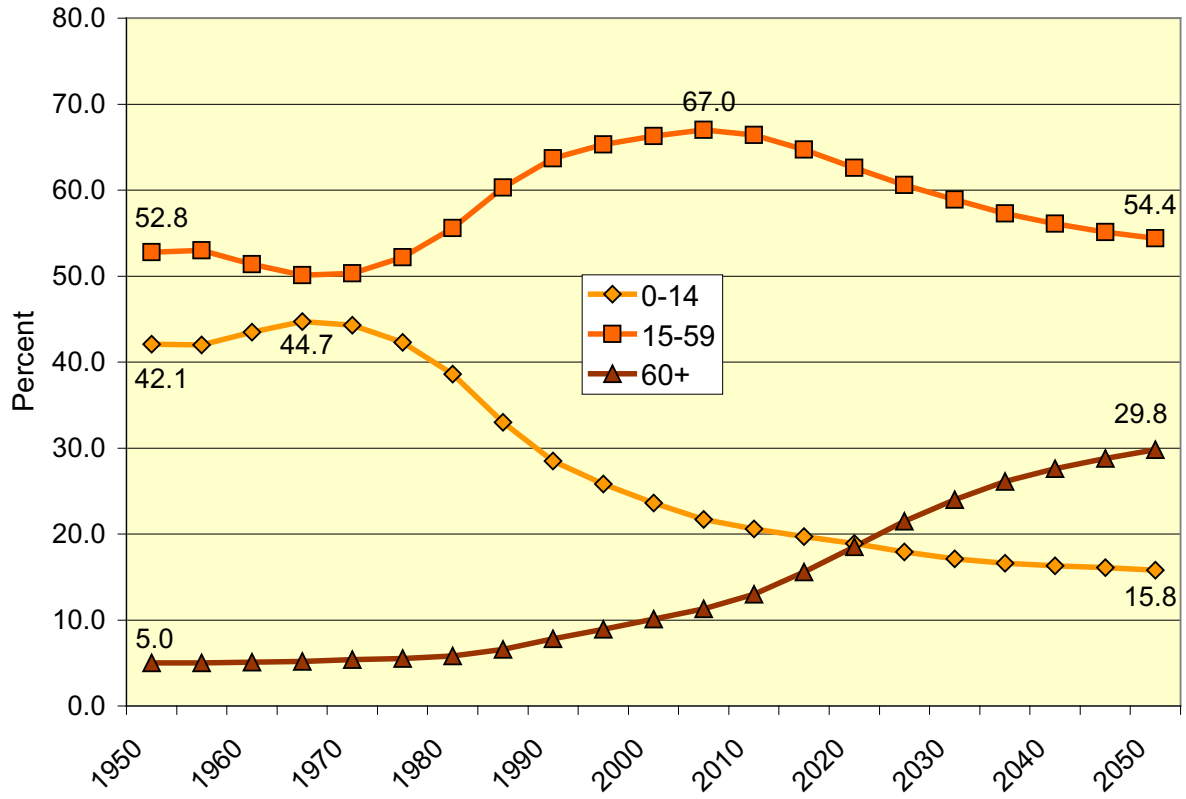
While improving survival rates contributed to the increase in the number of older persons, the role of mortality decline in population ageing is more complicated (Coale 1964). Increases in life expectancy at birth reflect improvements in survival at all ages and not just at older ages. In fact, much of the increase in life expectancy before the 1980s is attributable to improved survival rates at infancy and young childhood ages and thus disproportionately increased the population at young ages. As a result mortality improvements prior to the 1980s actually slowed population ageing rather than contributed to it, in contrast to its contribution to increases in the size of the older population. However, generally once survival rates at young ages improved sufficiently to a level where there only minimal room for further improvement remains, further increases in life expectancy are largely driven by improvements at older ages. This has been the situation in Thailand for recent decades although it has been somewhat compromised by the AIDS epidemic. Thus in recent years and in the foreseeable future, improving life expectancy disproportionately contributes to the share of older persons in the population and hence reinforces the effect of fertility decline on increased population ageing.

D. Age structure changes

Thailand is well along in what is often referred to as the demographic transition, i.e. the shift from high to low levels of fertility and mortality. These changes in fertility and mortality affect not only the share of the population in older age groups but the entire age structure. Both the

magnitude of changes and the speed with which they occur are likely to have substantial socioeconomic implications. Figure 2.3 shows the anticipated changes in the proportionate share of the population accounted for by three major age groups, 0-14, 15-59, and 60 and over. These correspond roughly to dependent aged children, the working age population, and the older age population. A sizable share of the population 60 and over, although by no means all, is likely to have ceased productive economic activity and thus also be dependent . Although population ageing is already evident as signified by the modest increases in the proportion in the older ages, during the past several decades, more dramatic changes have occurred with respect to the other two main age groups. The percent of the population in the dependent childhood ages has decreased noticeably and the share in the working age population has increased significantly. Indeed, during the period 2000-10 approximately two-thirds of the population is estimated to be in the working ages 15-59, the highest level that has been or is projected to be during the entire century represented by the data.

Figure 2.3. Percentages of total population in major age groups, Thailand 1950-2050

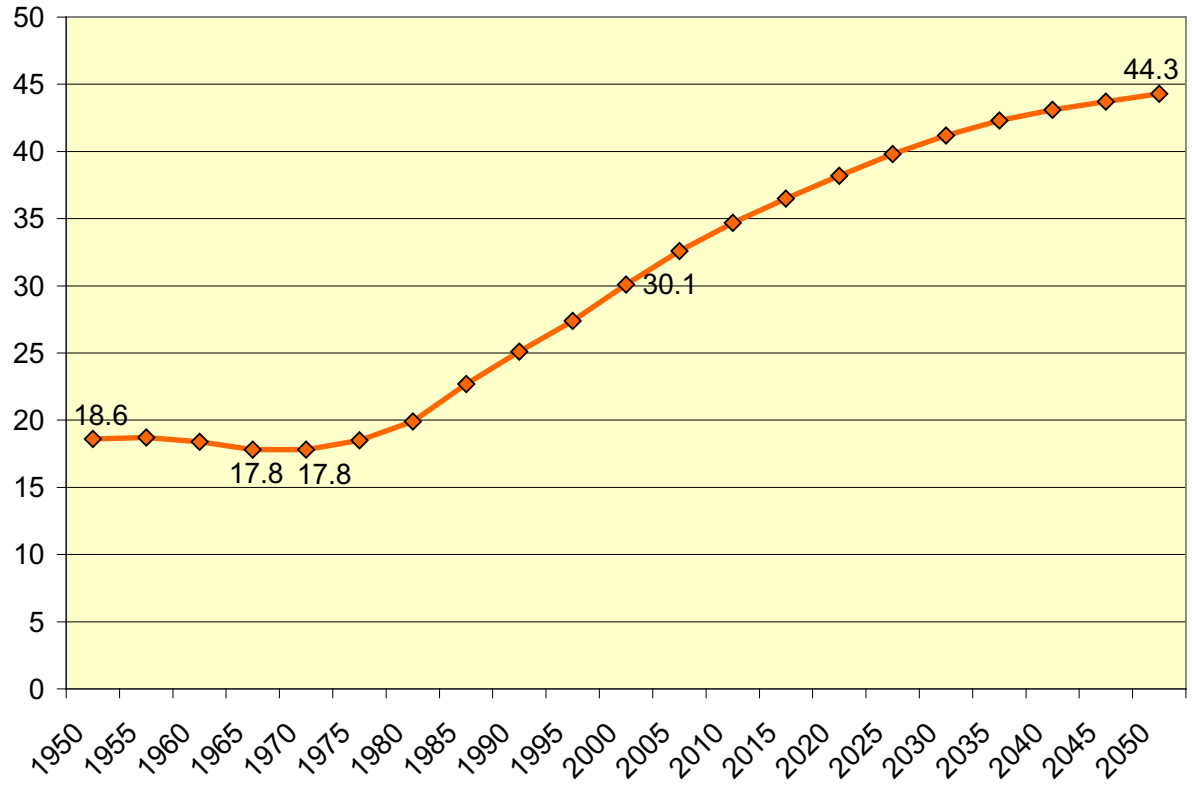


Source: United Nations 2007b (medium variant)

Such a temporary period during which the percentage of the population in the working ages is unusually high is an inevitable result of a transition from high to low fertility and is sometimes referred to as the "demographic dividend" associated with fertility decline. It is viewed as a time when the economy benefits most from demographic change because the number of dependents is low relative to the number of providers (Kanchanachitra et al. 2007; Wongboonsin 2004). This period will pass as the share of older persons rapidly increases and more than compensates for

the decline in the share of the younger population in dependent ages. Indeed it is anticipated that after 2020, older persons in Thailand will outnumber those under age 15 and by the end of the projection period in 2050 will constitute almost double the share of the population that persons age 0-14 represent. The net result of the shifting age structure is a substantial rise in the median age of the population. As evident from Figure 2.4, since 1975 the median age has been steadily increasing and is projected to continue to do so throughout the period covered, more than doubling by 2050. Prior to the decline in fertility, well over half of the population was under age 20. Currently well over half are over age 30 and by 2050, according to the projections, half of the population will over age 44.

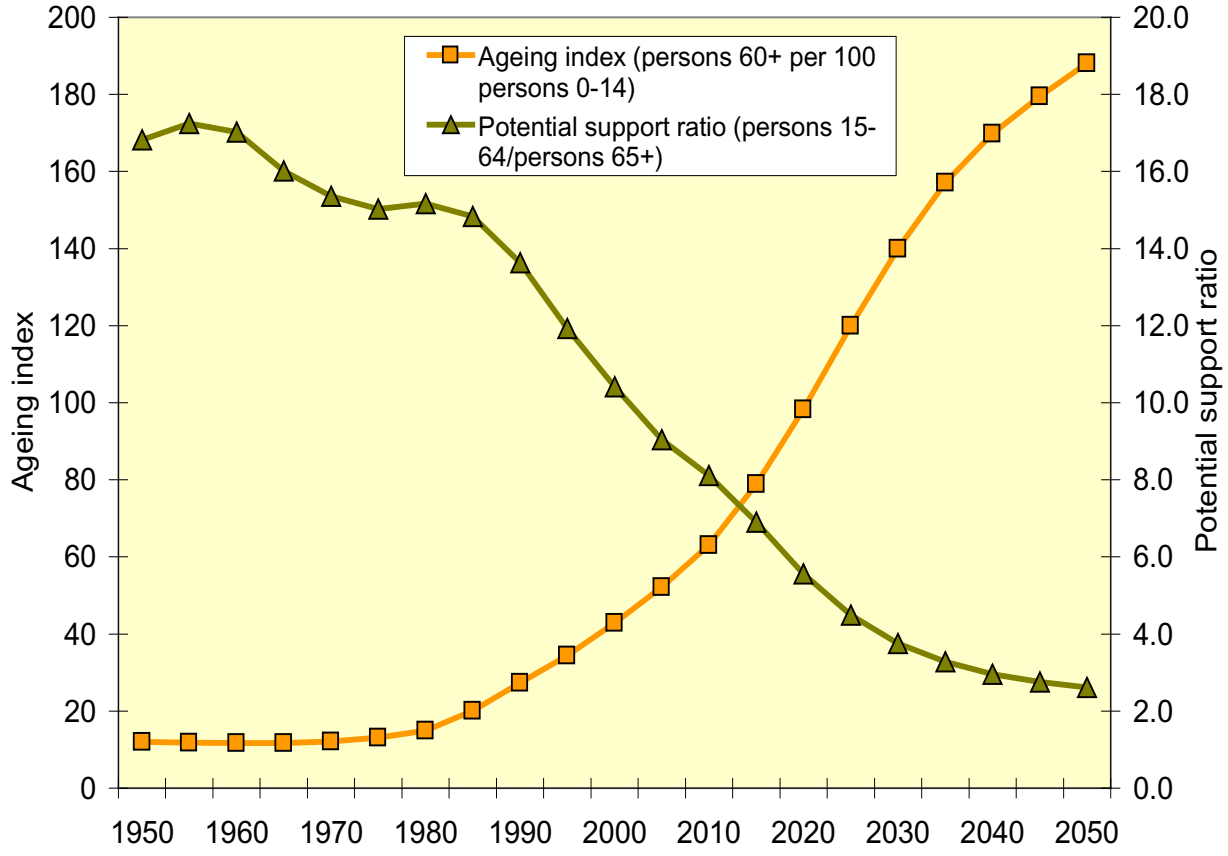
Figure 2.4. Median age of the population, Thailand 1950-2050



Source: United Nations 2007b (medium variant)

As evident in Figure 2.3, the increasing proportions of older persons in the Thai population has been accompanied by steady declines in the proportion of young persons, a feature anticipated to continue for some time. A common measure of age structure intended to highlight this change is the ageing index, defined as the number of older persons (aged 60+ in this report) per hundred persons under age 15. If the number of persons age 60 and over exactly equals the number of persons under age 15 in the population the ageing index equals 100. Values under 100 signifies the number of older persons is less than the number of young persons while values above 100 indicate the reverse. As Figure 2.5 reveals, the ageing index rises steadily after 1980 but remains under 100 until shortly after 2020. Thereafter the index continues rising signifying the ever greater excess number of the older age population compared to the population under age 15.

Figure 2.5. Ageing index and potential support ratio, Thailand 1950-2050



Source: Calculated from United Nations 2007b (medium variant)

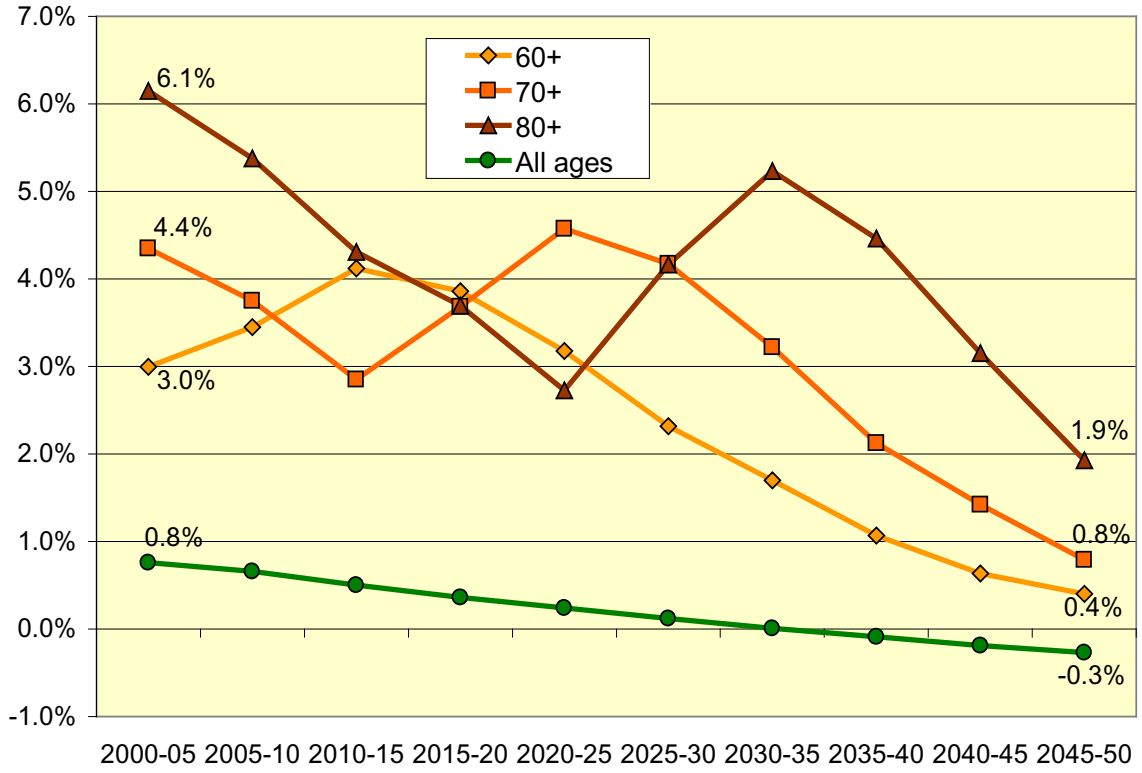
Another common age structure measure related to population ageing, and one that has implications for the impact that population ageing has for older persons, is the potential support ratio, defined as the ratio of the population aged 15-64 to that aged 65 and older. The measure is intended as an indication of the support base of persons in ages most likely to be economically productive and hence available to support those in older ages. Although in most of this report we refer to the older population as age 60 and above, for the purpose of calculating this measure those 60-64 are grouped together with productive age adults to conform with the standard definition of this measure (UN 2007a). A falling potential support ratio reflects a shrinking support base of adults on whom the old age population can depend. Of course the ratio is only an approximate measure of this issue since some persons age 65 or older are still working or self-supporting and thus not dependent on others and not all persons in ages 15 to 64 are economically active, especially among those still attending school at the low end of this age range.

Nevertheless, the very dramatic decline in the support ratio, from a high of almost 17 in the 1960s to a low of less than 3 after 2040 is clearly significant in its implications. There can be no doubt that older age Thais in the future will have far fewer productive age persons per capita available to provide their support.

E. Age and sex structure of the older population

As noted above, the increasing share of older persons in the Thai population is due to the fact that the growth rate of the older-aged population in Thailand exceeds that of the overall population. Within the older population, however, growth rates vary, as they are sensitive to fluctuations in the birth rates in the past, particularly if they are pronounced. Thus there is some variation in the ordering of the growth rates of older persons in different age groupings. Nevertheless, as Figure 2.6 shows, for most five year periods within the first half of the 21st century as assessed and projected by the UN, the oldest old, defined as those age 80 and above, are growing the fastest while the growth rate of those 70 and over is intermediate compared to the total older population age 60 and over. The dip in the growth rate of the 70 and older population during the period 2010-15 as well as the dip in the growth rate of the 80 and older population 10 years later is attributable to the sharp decline in births associated with World War II. All age groupings of the older population, however, show substantially higher growth rates than of the overall population which is anticipated to become negative following 2030-35.

Figure 2.6. Annual population growth, all ages and older age groups, Thailand 2000-2050



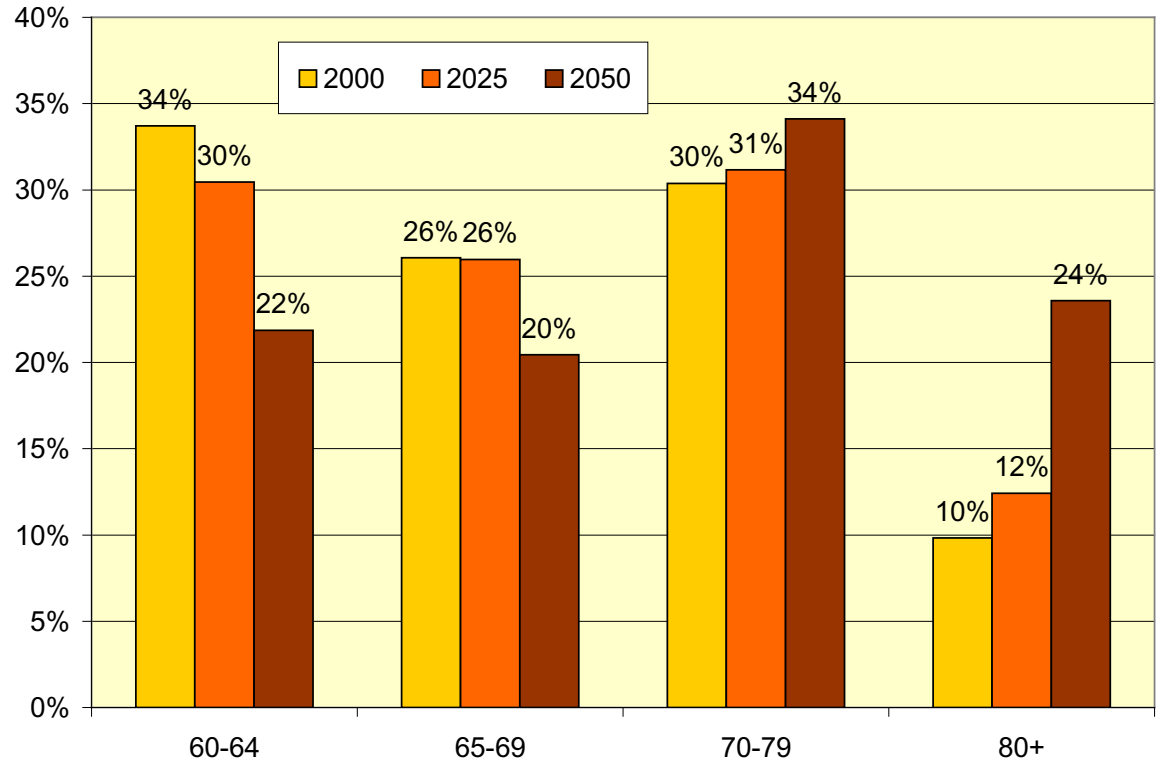
Source: United Nations 2007b (medium variant)

As Figure 2.6 also shows, the overall annual population growth rate was already below 1% by the turn of the 21st century as a result of the rapid transition to low fertility. Since fertility is assumed to remain below the replacement level in the UN medium variant projections for the coming decades, and since net migration is assumed to be negligible, the overall population growth rate is projected to decline steadily, reaching zero by 2030-35 and then enter negative

territory. As a result, the growing numbers of older persons will constitute an increasing share of all population growth and eventually represent a counteracting influence to the extent of negative growth. Although in the three decades following 1950, growth in the older population represented less than 10% of total population growth, by 2000-2005, it already accounted almost 30% of total growth. According to the UN medium variant projections, by 2010-2015 increases in the population age 60 and older will account for more than half of total population growth and by 2035-40, it will remain positive while the size of the total population declines.

An important result of these differing growth rates within the older age range is the ageing of the older population itself. Thus not only is the share of older persons among the overall population increasing within the older population but the oldest age groups are representing a greater share. Figure 2.7 shows the age distribution of the older population itself as estimated by the UN for the year 2000 and as projected for the years 2025 and 2050. During the first quarter of the 21st century, the ageing of the older population is anticipated to be relatively modest. However in the second quarter very substantial ageing will occur. Thus the share of the oldest old, those 80 and above, is anticipated to increase from 10% to 12% between 2000 and 2025 but then double to 24% of the older population by 2050. In terms of absolute numbers, the size of the population age 80 and over is anticipated to more than triple from just over 600 thousand to over 1.8 million between 2000-2025 and then increase again by more than two and half times to 5.3 million by 2050. This of course would be a significant development with important implications for health care given the substantially higher rates of chronic illness and disability among the oldest old.

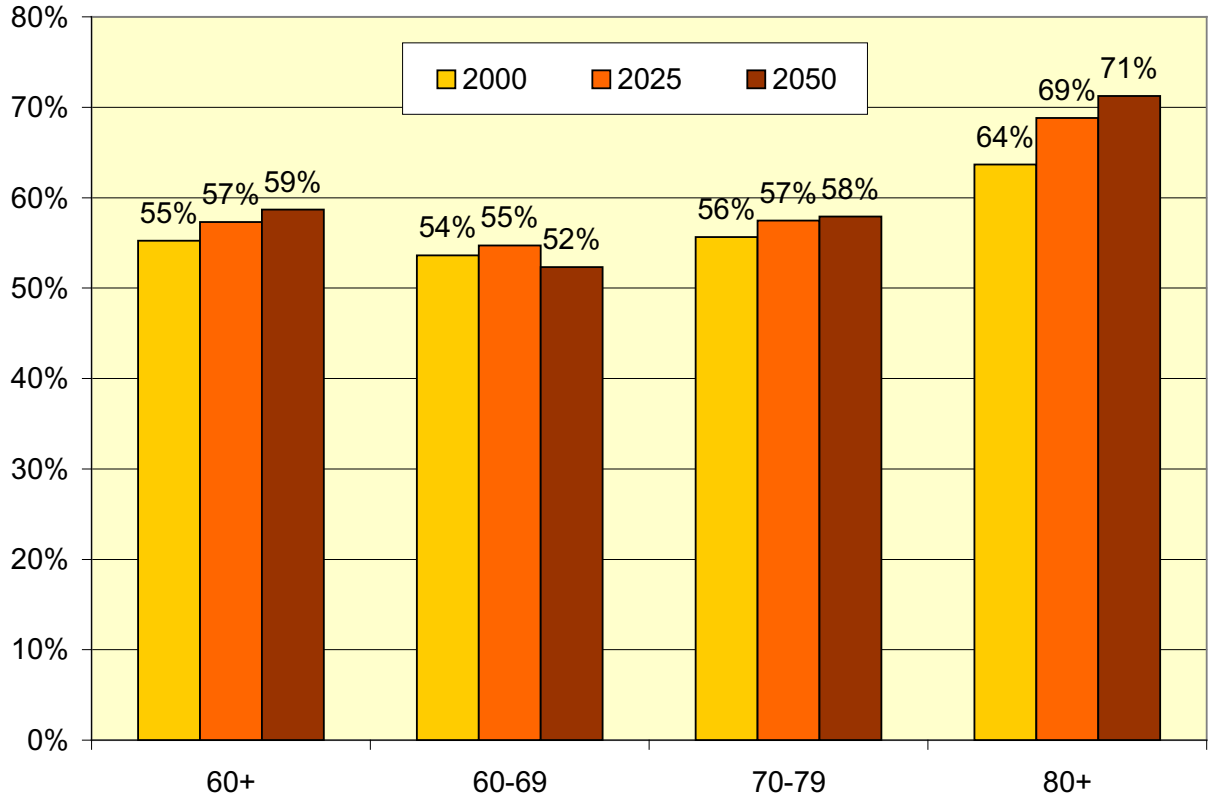
Figure 2.7. Percent distribution of persons age 60 and older, by age group, Thailand



Source: United Nations 2007b (medium variant)

Although more males are born than females, the almost universal advantage women have over men with respect to mortality results in more women than men surviving to older ages and thus older populations are typically disproportionately female. Moreover, since the female mortality advantage continues through older ages, the predominance of women tends to increase with age within the older age span. This predominance of women among older persons is sometimes referred to as the "feminization of the elderly". Figure 2.8 provides an overview of the percent of women within the older population of Thailand as estimated by the UN in the year 2000 and projected for the years 2025 and 2050.

Figure 2.8. Percent of females in the older population by age group, Thailand



Source: United Nations 2007b (medium variant)

In the year 2000, women constituted 55% of the total Thai population age 60 and over. This is projected to increase during the next half century reaching 59% by 2050. The excess of older women over older men is more pronounced among the older groups within the older age span. Thus in the year 2000, women are estimated to constitute almost two-thirds of the population aged 80 and over and this is anticipated to increase substantially to over 71% by the year 2050. Given that older women tend to have more health problems than men as discussed in section 4 of this report, the increasing feminization of the oldest old as projected by the UN will add to the challenge of providing adequate health care posed by the increasing numbers of persons in the oldest age group.

Although the majority of the older population are women, it is important to keep in mind that still a substantial share are men. This tends to be overlooked in numerous discussions of population ageing which typically emphasize the feminization of the elderly and as a result focus only women when considering gender specific needs of older persons (Knodel & Ofstedal 2003). Thus while the number of older women in Thailand will grow faster than the number of older men, the projections still anticipate that the absolute number of older men will increase quite substantially as well. For example, between 2000 and 2050, the number of men aged 60 and over is projected to increase by 5.5 million. This is a very substantial number even if smaller than the 8.4 million increase projected for women age 60 and over. Even among the population 80 and over, the number of men is projected to increase by over a million.

F. Internal variation

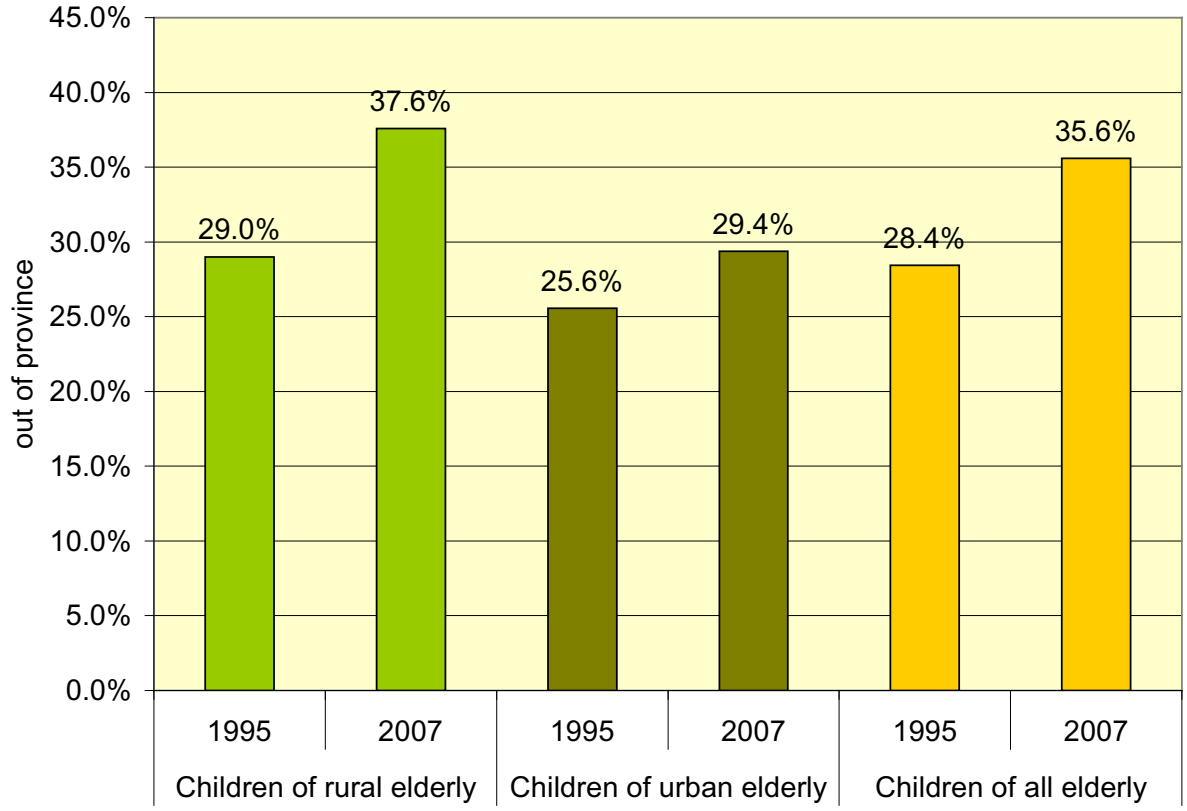
Within Thailand there is some internal variation in population ageing, both with respect to rural-urban and regional differences. As throughout the entire East and Southeast Asian region, population ageing is typically more extensive in rural than urban areas (Mujahid 2006). Although differences in fertility and mortality play some part, the main source of this difference is likely the migration of working age adults from rural areas to seek employment and other opportunities in towns and cities and their surrounding areas.

In Thailand, rural to urban migration has been extensive for decades as evidenced by the steady urbanization that has occurred (UN 2006). Evidence from national surveys of older persons reveals not only that migration of their adult children is extensive but also that it has increased substantially in recent years. Figure 2.9 shows the percentage of children of persons aged 60 and older who live outside the parents' province in 1995 and 2007.[7] In both years, substantial proportions of children of elderly Thais lived outside the province of their parents. Moreover, in both years the percentage of children of rural elderly who lived outside their parents' province was higher than the percentage of children of urban elderly who did so. This likely reflects the better employment opportunities available in urban areas and thus the greater need for rural compared to urban young adults to migrate to take advantage of them. Among the children of all parents, the percent who live outside the province where the parents reside increased. The increase was particularly striking among children of rural elderly.

While many rural migrants are single when they leave, others are already married or marry in their place of destination after migrating. In addition, young children of migrants to urban areas sometimes are placed under the care of the grandparents in the rural areas as discussed in more detail in section 5. As a result of the net flow of young adults from rural to urban areas and the care of young grandchildren rural areas whose parents are absent, rural areas tend to be characterized by higher proportions of both young and old persons than are urban areas while the latter tend to have higher proportions of working age adults within the population.

Table 2.3 provides both rural-urban and regional estimates for the year 2005 of measures related to ageing based on the latest Survey of Population Change conducted by the National Statistical Office (2005). In Thailand the urban population is defined as persons living within officially designated municipal areas (*tetsabaan*) while the rural population refers to persons who live outside municipal areas. Bangkok, by far the largest city in Thailand, is shown as a separate category distinguished from provincial urban areas.

Figure 2.9 Percent of children of persons age 60+ who live outside their parents' province



Sources: 1995 Survey of Welfare of Elderly in Thailand; 2007 Survey of Older Persons in Thailand

Rural-urban differences in age structure in Thailand conform to the general pattern described above. The proportion of the population under age 15 is highest in the rural areas and lowest in Bangkok. This in part reflects higher rural than urban fertility levels although it is also influenced by the fact that some young children of adult migrants to urban areas are cared for by their rural grandparents. Likewise, the share of the population age 60 and over is also highest in rural areas and lowest in Bangkok reflecting the fact that migrants are concentrated in working ages. Thus while the working age group 15-59 represents less than two thirds of the rural population, they constitute almost 70% of the provincial urban population and three-fourths of the Bangkok population. However, because rural-urban differences in the proportions of both young and old persons are in the same direction, rural or urban differences in the median age and in the ratio of old to young persons as measured by the ageing index are modest.

For regional comparisons, we consider the four main regions as typically defined in official statistics but treat Bangkok separately from the remainder of the central region because of its unique character and large population size. The Survey of Population Change reveals some regional differences in the age structure of the population as of 2005. Bangkok's age structure is distinctive in having the lowest proportion of the population in young and old ages and the highest proportion in the working ages compared to all other regions. Ageing is most advanced in the northern region as indicated by the highest percent of the population age 60 and above as

well as distinctively higher values of the ageing index and median age compared to the other regions. This reflects the earlier and more rapid fertility decline that characterized the north, especially upper northern provinces, when the transition from high to low fertility got underway in Thailand a number of decades ago (Knodel, Chamratrithirong & Debavalya 1987). The proportion of young persons is considerably higher in both the northeast and south compared to Bangkok and the other two regions reflecting in large part the later start of fertility decline in those regions and the relatively higher levels of fertility that prevailed there during recent decades (NSO 2007). With the exception of the North, the ageing index for 2005 varies only modestly across regions. The median age, however, is clearly lowest in the south.

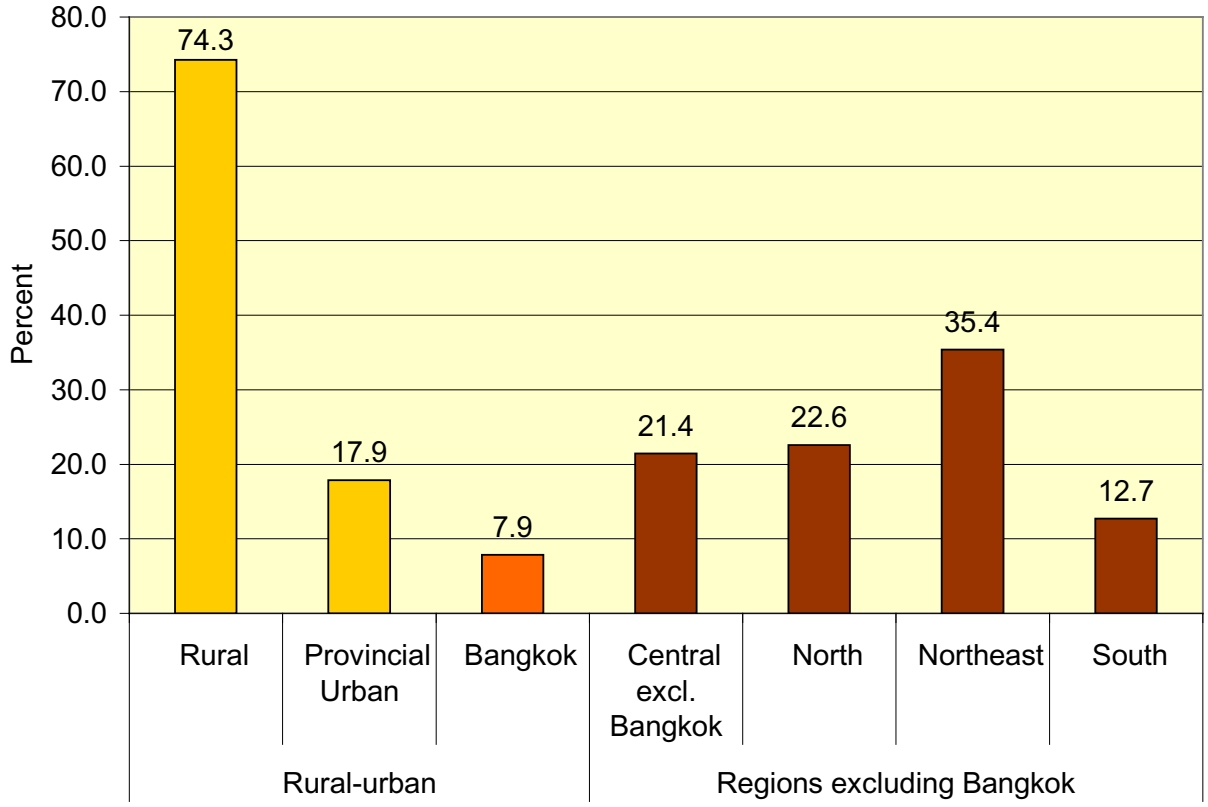
Table 2.3. Percent in main age groups, ageing index and median age, by rural-urban residence and region, Thailand 2005

	Percent distribution				Ageing	Median
	0-14	15-59	60+	Total	index	age
Total	23.1	66.0	10.9	100	47.3	33.9
Rural-urban area						
Rural	24.7	63.7	11.6	100	47.0	34.0
Provincial Urban	20.6	69.5	9.9	100	48.0	33.9
Bangkok	16.8	75.1	8.2	100	48.8	33.1
Region						
Central excl. Bangkok	21.3	69.0	9.7	100	45.4	33.0
North	21.2	65.2	13.7	100	64.6	38.1
Northeast	26.5	62.1	11.4	100	43.2	33.8
South	25.1	64.7	10.2	100	40.7	30.8

Source: NSO 2005.

Also of interest is how the elderly population is distributed with respect to rural- urban areas and regions. Figure 2.10 provides this information for 2005 based on the Survey of Population Change.[8] Despite rapid urbanization, Thailand is still predominantly a rural nation with almost 70% of the total population living outside of municipal areas. Rural areas account for an even greater share of elderly accounting for almost three-fourths of all Thais aged 60 and over. In contrast, although Bangkok accounts for 10.5% of the total population, under 8% of elderly reside there. Thailand's largest region in overall population is the northeast which accounts for over one third of the elderly population. In contrast, less than one out of eight elderly Thais are found in the southern region.

Figure 2.10. Distribution of population age 60 and older by rural-urban residence and by region, Thailand 2005



Source: NSO 2005.

Table 2.4 shows measures of population ageing at the regional level as projected for 2020 based on the medium variants of the NESDB and IPSR projections. Results of the two sets of projections differ considerably from each other reflecting their substantially different sets of assumptions. For all three measures of ageing included in the table, the NESDB projections show greater variation than the IPSR projections. Nevertheless some common features are evident between the two sets of projections. They largely agree that by 2020 population ageing will be least advanced in the South where fertility in certain areas, particularly those with substantial Muslim populations, has been far higher than the rest of the country (Knodel et al. 1999). Both projections also agree that the median age and the ageing index will be least advanced in the South. The NESDB projection also shows the lowest percent age 60 and above for the South in 2020. While the IPSR projection indicates that the lowest percent age 60 and over will be in Bangkok in 2020, the difference between Bangkok and the South (as well as the Central region excluding Bangkok) in the IPSR projections is minimal. Both projections also agree that the highest proportion aged 60 and over will be in the northern region in 2020.

The differences in the two sets of regional projection highlight that caution is called for when interpreting projections. At the same time, both sets leave little doubt that very substantial ageing is anticipated in all four regions and Bangkok. Thus compared to the situation in 2005, as

represented in the Survey of Population Change, both projections show clear increases in all three measures of ageing by 2020 regardless of regional location.

Table 2.4. Projected measures of population ageing 2020, by region, Thailand

Source, year and measure	Region				
	Bangkok	Central excl. Bangkok	North	Northeast	South
% 60+					
NESDB	17.7	14.8	21.2	17.3	14.0
IPSR	15.0	15.4	19.8	18.1	15.4
Median age					
NESDB	41.7	37.0	39.8	35.7	32.8
IPSR	39.1	37.4	40.3	37.3	34.9
Aging index					
NESDB	133.3	87.1	119.6	81.5	59.3
IPSR	90.0	89.9	132.6	101.4	82.8

Sources: NESDB 2003 and IPSR 2006

G. Summing up

The foregoing review of the demography of ageing in Thailand reveals a number of prominent features that merit the attention of persons concerned with the formulation of social, economic and health policies for the country. Despite uncertainties that necessarily underlie population estimates and particularly projections into the future, there is no doubt that population ageing in Thailand is occurring at a very rapid rate, largely reflecting the rapid decline in fertility that occurred in the last third of the twentieth century. Changes in the age structure will be profound and pervasive. In the recent past, and almost certainly throughout virtually all of Thailand's history, children and youth under age 15 exceeded old persons age 60 and over by many fold. Yet within little more than another decade, it seems virtually certain that the number of older people will exceed the number of young persons and that this excess will continue to increase for the foreseeable future. From a situation prior to the fertility transition when older persons constituted only 5% of the population, within just a few decades more than one in four Thais are likely to be age 60 or older. This pace of population ageing is many times faster than experienced historically by the more developed countries in the West. Moreover, the older population itself is also ageing with the growth rate of the oldest old substantially exceeding that of persons in the younger elderly ages. In addition, the predominance of women among older persons, and especially among the oldest old, is projected to become even more pronounced. Within Thailand, the flow of young adults from rural to urban areas combined with rural grandparents taking responsibility for their young grandchildren whose parents migrated to cities has resulted in higher concentrations of both children and elderly in the rural compared to urban areas.

These changes have important implications for Thai families as well as Thai society as a whole including for social and health services. Among the most dramatic shifts examined in this section is the relentless decline in potential support ratio. The number of persons in the most economically productive ages relative to persons in older ages is virtually certain to decline to but a small fraction of what it has been in the recent past. Thus issues related to the material support for older persons will take on quite a different dimension than has been or currently is the case. Likewise, given the far greater likelihood of serious health problems among older persons compared to the rest of the population, pressures on health facilities and services will increase enormously.

Compared to other major changes in society, population ageing is very predictable. Since its rough dimensions can be foretold well in advance the government can plan for it ahead of time. Clearly actions are urgently needed now to prepare for the rapid ageing that is all but certain to occur in the not very distant future. In section 7, we review the plans and programs that have been and are being developed to deal with the present and future population ageing in Thailand.

Section 3. Demographic, Social and Economic Profile

Understanding older persons' potential to contribute to their families, communities and society at large as well as for effective planning and implementation of policies and programs to help meet their needs requires information well beyond mapping the demographic contours of their situation. This section provides a profile of the older Thai population with respect to their social and economic characteristics as documented primarily from original tabulations of the nationally representative 2007 Survey of Older Persons conducted by the National Statistical Office. We also draw on original tabulations from the 2007 first round of the Labor Force Survey and several published and unpublished results from other researchers.

A. Social and demographic characteristics

Household headship status. Thailand maintains an official household registration system that designates a member of the household as its head. It is difficult to precisely specify the broader perceived social significance of such a designation which is likely to vary from family to family. At a minimum, household members are virtually certain to acknowledge the status for official purposes when dealing with the government bureaucracy. It may also convey some degree of respect. Table 3.1 shows the household headship status of older persons in Thailand as reported in 2007. The large majority of older persons, more than four out of five, are either the household head or spouse of the head. At the same time, older men are far more likely to be acknowledged as the household head than older women, particularly for currently married persons. Thus while almost two-thirds of unmarried older women are designated as household heads, this is the case for only 15% of married older women. Headship status varies little with age for either sex except for a somewhat lower percent for the oldest men (aged 80 or more).

Table 3.1. Household headship status by age, gender and marital status, Thailand 2007

	% head of household			% spouse of head of household			% head of household or spouse		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Total	59.8	81.9	42.0	23.5	8.6	35.4	83.3	90.5	77.5
Age									
60-64	60.6	84.9	39.3	30.0	9.5	48.0	90.6	94.4	87.2
65-69	61.6	84.0	42.9	26.5	8.8	41.2	88.1	92.9	84.1
70-74	60.4	81.9	43.6	21.4	7.0	32.6	81.8	88.9	76.2
75-79	59.9	79.1	44.9	16.8	6.9	24.6	76.7	86.0	69.5
80+	53.2	68.6	43.1	8.4	5.9	10.0	61.5	74.6	53.0
Marital status									
currently married	55.4	83.5	15.2	37.4	10.3	76.3	92.8	93.7	91.5
not married	67.1	74.5	65.2	0.2	0.5	0.1	67.3	75.0	65.3

Source: 2007 Survey of Older Persons in Thailand

Marital status. An elderly persons' marital status has important implications for many aspects of their well-being. Spouses can be primary sources of material, social and emotional support and providers of personal care during times of illness or frailty. Thus living together with a spouse typically has advantages for an older person. As table 3.2 shows, only 3% of Thai elders were never married. Over 60% remain married and reside with their spouse while almost a third are widowed. Almost all who are married live together with their spouse with only a little over 2% of older age Thais being married but living separately. Likewise a similar small share are separated or divorced. At the same time, pronounced age and gender differences are apparent. The percent who are currently married declines sharply with age while the percent widowed increases commensurately with age reflecting the impact of mortality dissolving marriages and a likely decline in chances of remarriage with advancing age. Over recent decades in Thailand there has been a trend towards higher proportions of adults remaining unmarried during their lifetime (Jones 2008). There is only a modest suggestion in the age pattern of proportions who never married that the trend has affected marital status distributions among the current old age population. However as discussed below, this will change in the near future. Although the proportion divorced and separated is quite low, the decline with age may reflect a rising trend over time. [9]

Table 3.2. Marital status distribution by age, gender and area of residence, Thailand 2007

	Single	Married live together	Married live apart	Widowed	Divorced/ separated	Total
Total	2.7	60.1	2.4	32.4	2.4	100
Age						
60-64	3.0	72.1	2.9	18.7	3.2	100
65-69	3.2	65.8	2.1	26.4	2.4	100
70-74	2.1	55.3	2.2	38.2	2.3	100
75-79	2.5	47.0	1.8	47.0	1.7	100
80+	2.1	29.4	2.1	65.1	1.2	100
Gender						
Male	1.5	79.8	2.7	14.3	1.7	100
Female	3.8	44.2	2.1	46.9	3.0	100
Area of residence						
Urban	4.2	55.4	3.2	34.0	3.2	100
Rural	2.2	61.9	2.0	31.7	2.2	100

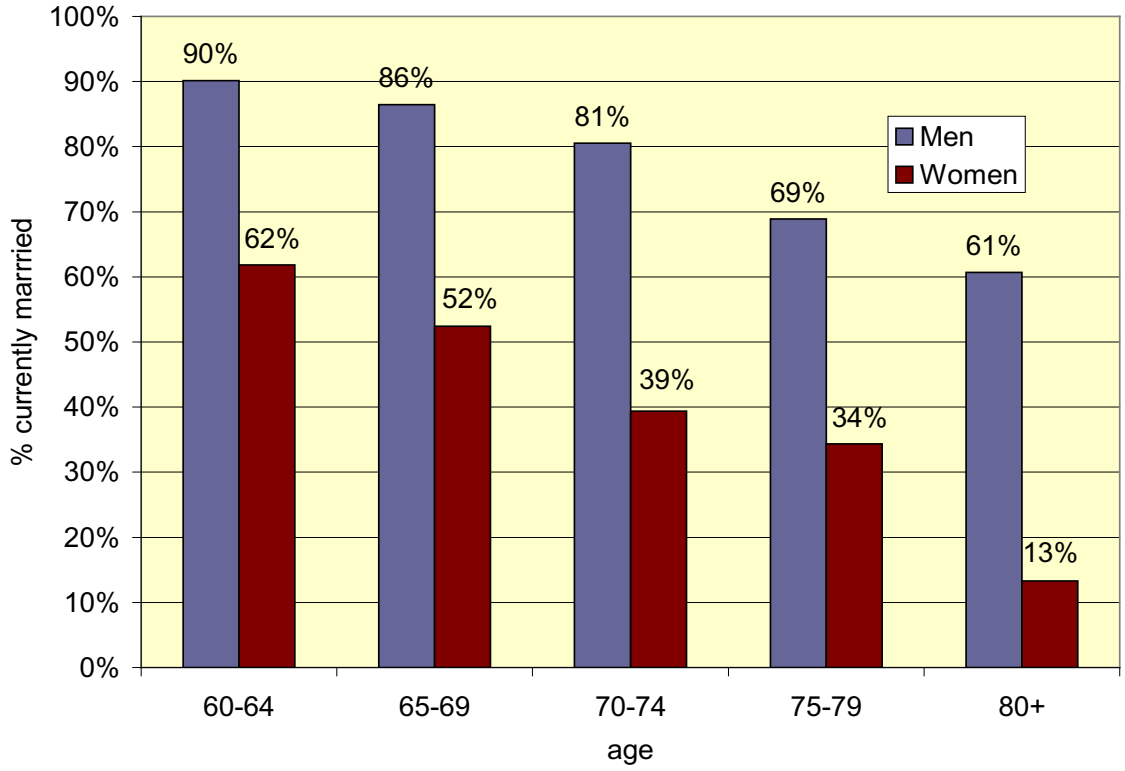
Source: 2007 Survey of Older Persons in Thailand

Differences in marital status distributions between elderly living in urban (municipal) and rural (non-municipal) areas are modest. A somewhat higher portion of urban compared to rural residents have never married. This corresponds to a general pattern evident throughout adult ages (Jones 2005). In contrast, gender differences in marital status among older persons are far more pronounced. While 80% of elderly men are currently married and living with a spouse, this is so for less than half of elderly women among whom the number who are widowed actually

exceeds the number who remain in a marital union. This gender difference reflects a combination of higher male mortality, a tendency for men to marry women who are younger than themselves, and higher remarriage rates among men than women in case of marital dissolution (Sobieszczyk, Knodel & Chayovan 2003).

Figure 3.1 highlights the gender differences in the percent currently married. Even among the younger elderly in their early sixties a substantial difference is apparent with 90% of men being currently married compared to only just over 60% of women. However, the gender gap increases successively with age. Thus among the elderly in their 80s, the gender gap in marriage is most pronounced with only 13% of women having a current surviving spouse compared to over 60% of men in this age group.

Figure 3.1. Percent currently married, by age and gender, Thailand 2007



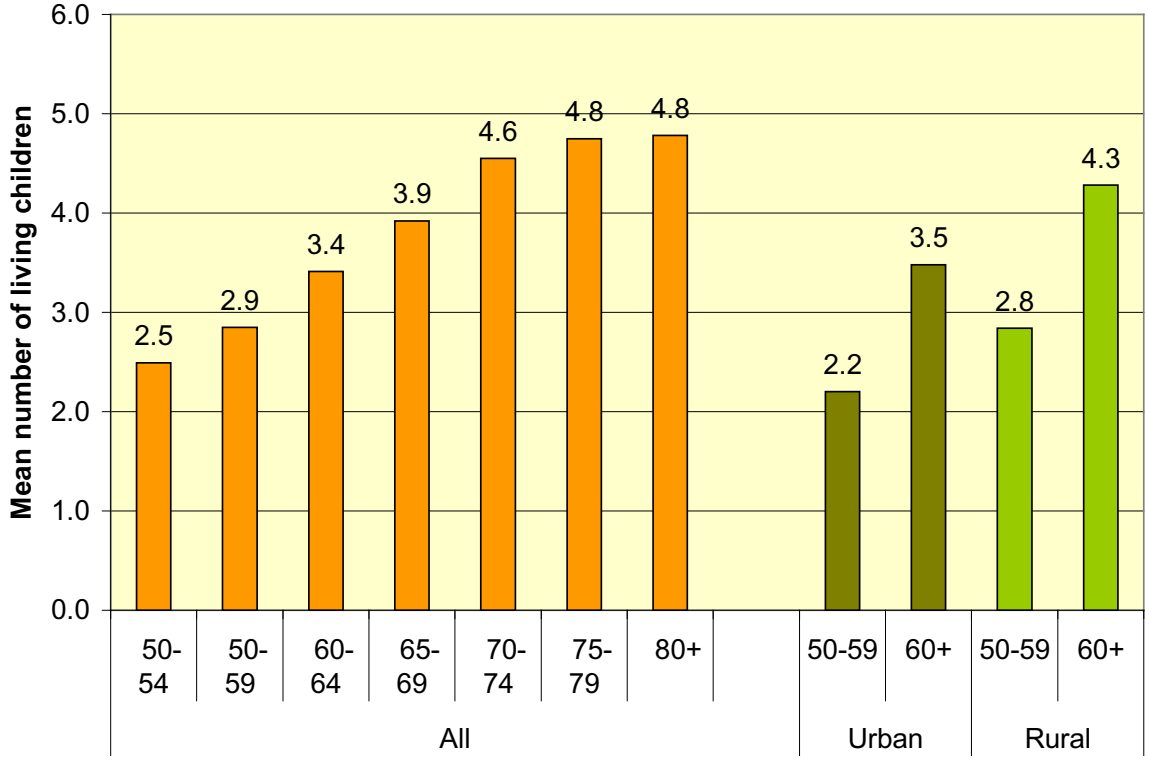
Note: Currently married also includes those who live apart from their spouse (see Table 3.2).
Source: 2007 Survey of Older Persons in Thailand

Number of living children. As documented elsewhere in this report, adult children remain important providers of material support as well as other forms of assistance to their older age parents. At the same time, family sizes of older persons are destined to change rapidly. Obviously older persons who have no children must rely on others for these forms of assistance. Beyond this, however, previous research in Thailand as well as findings presented in section 5 of this report suggest that coresidence with children as well as the likelihood and amount of support from non-coresident children depends in part on the number of children available to provide such support (Knodel, Chayovan & Siriboon 1992b; Knodel, Saengtienchai and Obiero 1995). The

2007 Survey of Older Persons asked respondents about the number of their step and adopted children as well as the number of their own biological children.[10] Since step and adopted children can serve similar functions as own biological children, for the purpose of this report, they are included in counts of the number of living children for a respondent.

Figure 3.2 indicates the mean number of living children according to respondents' age and area of residence. Since the source of these data, the 2007 Survey of Older Persons, also included persons aged 50-59, results for this age group are also provided to represent persons who will be entering the elderly ages during the coming decade. Most persons age 70 and over in 2007 were having their families at a time when fertility was still high. In contrast, the reproductive years of persons in their 60s (i.e. younger elderly) and far more so persons in their 50s, overlapped with the period of rapidly falling birth rates. The steady rise in number of living children with each successive five-year age group is a clear reflection of this history of fertility decline in Thailand. As a result, persons in their early 50s average only 2.5 living children compared to almost double that number for persons in their later 70s or older. The later start of fertility decline among residents in rural areas is reflected in their somewhat larger average number of children compared to urban residents. Nevertheless, it is clear that the past history of fertility decline will sharply affect family sizes of elderly in both rural and urban areas in the coming years. Moreover this trend towards smaller families among future generations of older persons will continue for at least some decades into the foreseeable future, a point discussed further below.

Figure 3.2. Mean number of living children by age and residence of respondent, Thailand 2007



Source: 2007 Survey of Older Persons in Thailand
Note: numbers of children include adopted and step children in addition to own biological children

Table 3.3 provides the percent distribution of the number of living children of age cohorts who are currently in the elderly ages and those who will enter the elderly age span in the next decade. Among persons age 60 and above overall only 4.6% are childless.[11] An additional 6.9% have only one child while almost exactly a third have two or three children and over half (56%) have at least four surviving children. Thus for the vast majority of today's older persons in Thailand, children remain a potential source of support in old age. While childlessness or even a one child family is not common among today's elderly the results for persons in their fifties suggest that the number of older persons with no children or only one child will both increase in the future. At the same time in the next decade there will be a sharp drop in the share of persons entering the elderly age span of 60 and over who will have four or more children.

Table 3.3. Percent distribution of number of living children by age, gender and area of residence of respondent, Thailand 2007

	Number of living children					
	0	1	2	3	4+	Total
Age						
50-54	8.4	11.8	35.7	25.7	18.5	100
50-59	6.8	9.3	29.5	26.9	27.6	100
60-64	5.3	8.1	19.9	23.6	43.1	100
65-69	4.7	7.1	15.3	18.5	54.5	100
70-74	3.8	5.6	11.9	13.2	65.5	100
75-79	4.2	5.5	9.5	13.4	67.4	100
80+	4.6	6.8	9.3	12.7	66.6	100
50-59	7.7	10.7	33.0	26.2	22.4	100
60+	4.6	6.9	14.9	17.9	55.6	100
Men						
50-59	4.6	8.8	27.5	23.2	35.9	100
60+	3.3	6.9	17.3	19.6	52.9	100
Women						
50-59	7.5	8.9	20.8	21.1	41.7	100
60+	5.7	7.0	12.9	16.6	57.8	100
Urban						
50-59	9.7	12.3	28.1	21.5	28.4	100
60+	6.9	9.8	19.2	20.0	44.2	100
Rural						
50-59	4.7	7.4	22.2	22.3	43.5	100
60+	3.7	5.8	13.1	17.1	60.2	100

Source: 2007 Survey of Older Persons in Thailand

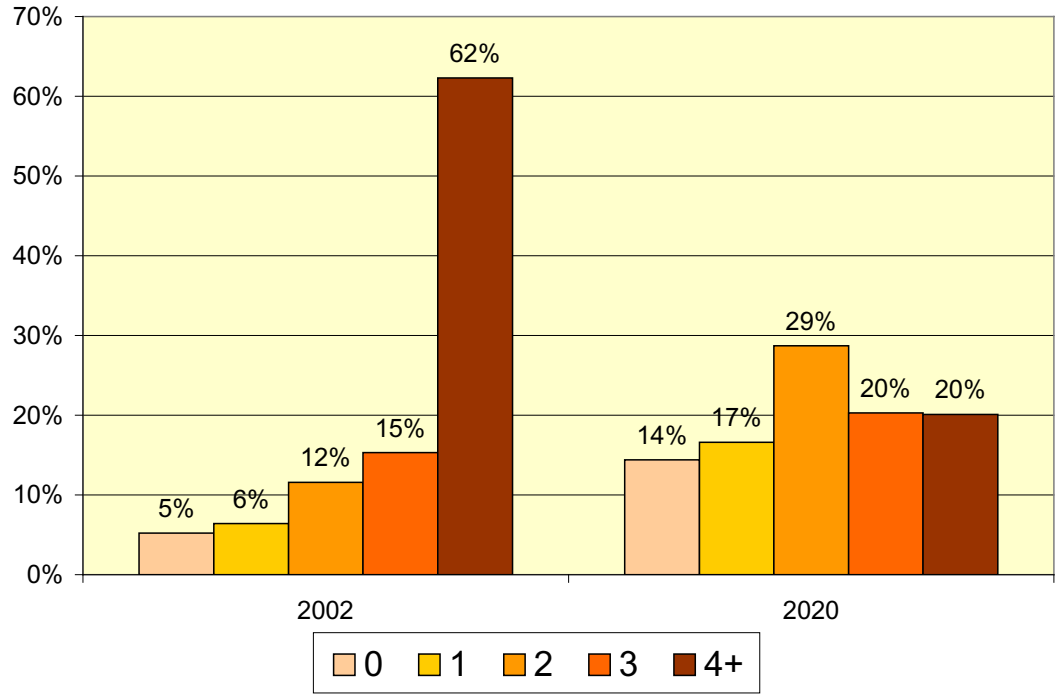
Note: numbers of children include both adopted and step children in addition to own biological children

Childlessness is somewhat higher among women than men and among urban than rural residents. This holds for both those who are currently age 60 and over and those in their fifties who will enter the elderly ages in the next decade. Nevertheless, levels of childlessness exceeding 10% do not appear to be imminent for age cohorts reaching the elderly ages in the next 10 years.

However, large families that consisted of four or more children that have characterized Thai elderly for at least the last half century will soon be on their way to becoming uncommon. This is clearly evident from the fact that in 2007, two thirds of the age cohorts among those age 70 and older have four or more living children compared to less than a fifth of persons age 50-54. Moreover the decline in large families in the next decade among those who will enter the elderly age range of 60 and older will be particularly pronounced in urban areas.

The very dramatic changes that will occur in the number of living children that will characterize older aged women in Thailand in the near future is illustrated by comparing the situation in 2002 and projections for 2020 provided by Bryant (2005), as shown in Figure 3.3. In 2002, over 60% of women age 60 and older had at least four living children and only 23% had two or fewer. By 2020, the situation is virtually the reverse with only 60% of women age 60 and older having two or fewer children and only 20% having four or more living children. Clearly in the coming years there will be fewer children available to coreside and provide support to elderly parents in Thailand. How this will impact the well-being of the older population will depend on many other changes that will be occurring concomitantly. For example, if economic growth continues, adult children will be financially better off and thus in a better position to provide material support. In addition, formal channels of financial support including the government social security system and welfare allowances to older persons may broaden thus reducing dependency of informal support from adult children. Thus the impact of declining family size on the welfare of coming generations of older persons in Thailand remains an open question but very important issue to monitor and incorporate in policy and program responses to populations ageing.

Figure 3.3. Percent distribution of women age 60 and over according to the number of living children, Thailand, 2002 and 2020



Source: Bryant 2005

Educational attainment and literacy. Table 3.4 provides an overview of the current educational distribution of Thai elders based on the first round of the 2007 Labour Force Survey.[12] Substantial differences are apparent according to age, gender and area of residence. The distribution progressively shifts towards lower levels of educational attainment with each successive age group. This pattern reflects the expansion of the educational system and the concomitant secular trend towards compulsory basic schooling at the time these elders were of school age (Knodel 1997; Wongsith and Knodel 1989). The percent with no formal education increases from 9% among those in ages 60-64 to well over a third among those age 80 and above. This is matched by a steady decline with age in the proportion who had completed primary school. The results also make evident that most elders who entered primary school completed the basic compulsory level of four years that prevailed at the time but only a small proportion continued to secondary or higher levels. Thus only among those age 60-64 have more than 10% attained an education higher than the primary level and among those 80 and older barely 5% had any secondary or higher education.

Table 3.4. Educational attainment by age, gender and area of residence, Thailand 2007

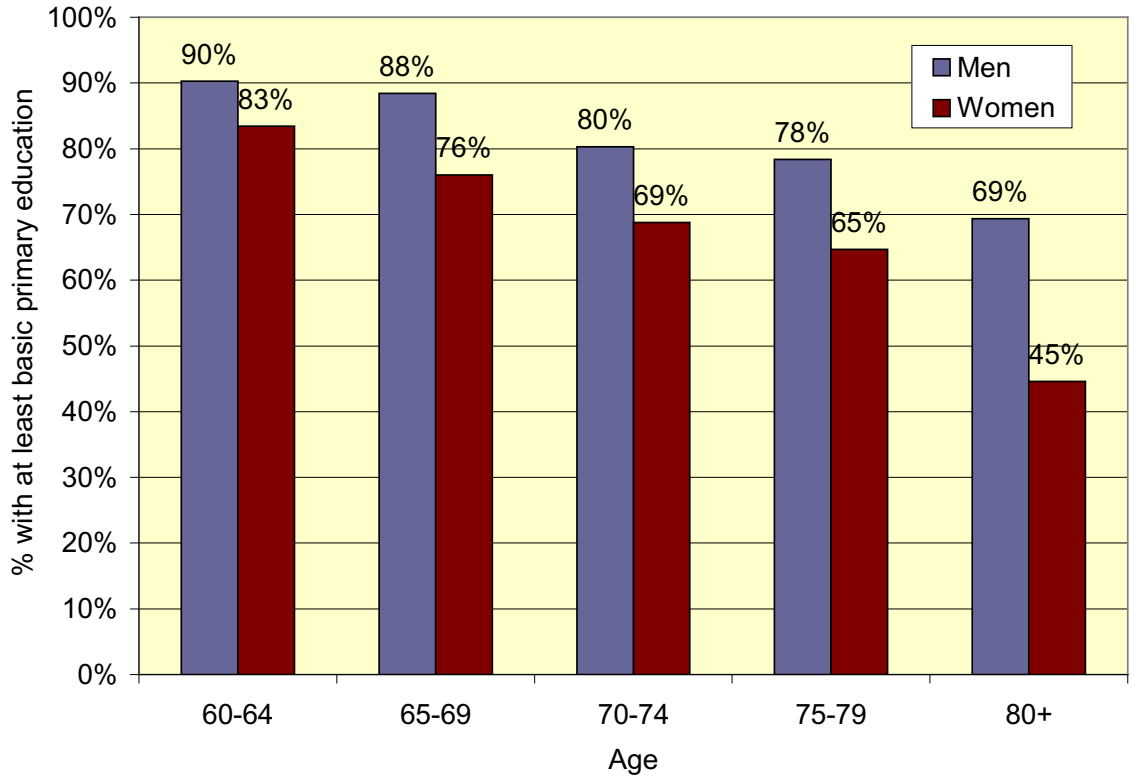
	Percent distribution					
	None	Less than grade 4	Basic primary	Lower secondary	Beyond lower secondary	Total
Total	16.5	6.8	68.3	3.2	5.2	100
Age						
60-64	9.0	4.4	74.5	4.8	7.3	100
65-69	12.0	6.4	72.8	3.1	5.8	100
70-74	17.6	8.6	67.5	2.4	3.9	100
75-79	20.6	8.7	65.0	2.2	3.4	100
80+	37.3	8.4	49.5	2.0	2.8	100
Area of residence						
Urban	15.2	5.1	58.9	6.7	14.1	100
Rural	17.1	7.4	72.0	1.9	1.6	100
Gender						
Male	9.8	6.2	71.8	5.0	7.1	100
Female	21.9	7.2	65.4	1.8	3.6	100

Source: Labor Force Survey, Round 1, 2007

Elderly in urban areas are somewhat better educated than those outside of municipal areas. Although differences in the proportion with no education or less than primary are relatively minor, elders in municipal areas are substantially more likely to have gone beyond the basic primary level than those who lived outside municipal areas. While the current area of residence does not necessarily reflect where the older persons lived when they were school age, there is likely to be some degree of correspondence. Thus to a substantial extent the currently observed difference between educational levels with respect to area of residence may be attributable to better access to schooling in urban than rural areas.

Gender differences in education among the older age population are also pronounced. Overall, men received more formal education than women as indicated by the are far lower percent of men with no schooling and the higher percent who progressed beyond the primary level. Figure 3.4 highlights gender differences with respect to attaining at least a basic primary education of four years of schooling. The difference is substantially more pronounced for those in the most advanced ages compared to younger elderly reflecting a general long-term trend in the past towards greater gender equality in education, Indeed in recent years, the gender gap reversed and now girls attain more formal schooling than boys in Thailand (Knodel 1997).

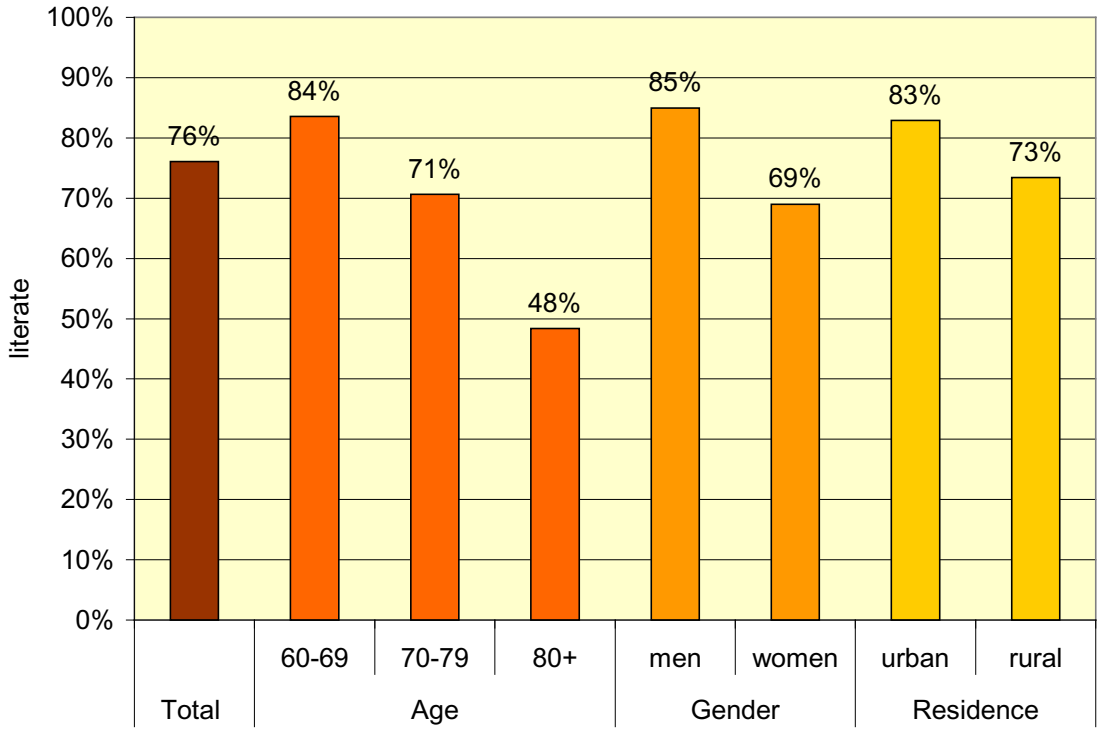
Figure 3.4. Percent with at least basic primary education by age and gender, Thailand 2007



Source: Labor Force Survey, Round 1, 2007

Formal education does not necessarily equate with literacy. Those with only very modest schooling in the past may lose their ability to read and write while others who never attended school when they were of school age may have learned to read and write outside the formal school system including through special programs designed for this purpose.[13] Figure 3.5 indicates the percent literate among older persons in Thailand according to the 2007 Survey of Older Persons in Thailand. In general the findings parallel those with respect to educational attainment. Overall just over three fourths of the population age 60 and above are able to read and write. This differs sharply however by age and fairly substantially by gender and area of residence. Compared to four fifths of older persons in their 60s who are able to read and write, less than half of those who are 80 and older can do so. Elderly men are substantially more likely to be literate than women and urban elderly are more likely to be literate than rural elderly.

Figure 3.5. Percent literate by age, gender and type of area, Thailand 2007



Source: 2007 Survey of Older Persons in Thailand

B. Changing composition through cohort succession

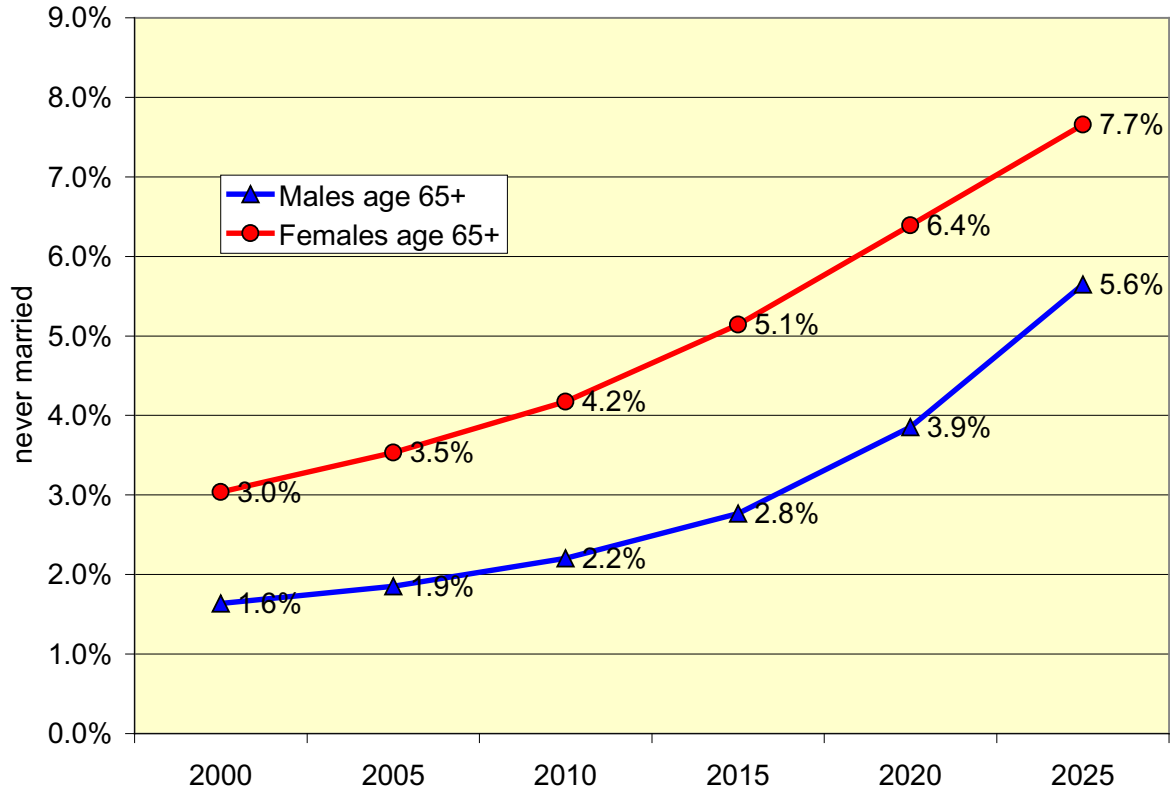
Considerable attention has been devoted to the potential impact on the well-being of the future elderly from social and economic change associated with development in Thailand and the developing world generally (Kanchanachitra et al. 2007). Less widely recognized is that, through the process of cohort succession, the elderly of the future who will experience these impacts will differ considerably in their characteristics from the elderly of today. Cohort succession refers to the replacement of persons making up any particular age group in a given year by persons currently younger than them as time passes. For example, after five years the persons who now constitute the age group 60-64 will be 65-69 while those who at present are 55-59 will constitute the new 60-64 age group. Successive cohorts differ from each other not only in numerical size, but also in their socio-economic and demographic composition. Thus the characteristics of age groups change as time passes. Since some characteristics such as education, ever having married, and number of children ever born are largely "fixed" at an earlier stages of life, projecting the changing composition in these respects of persons who will be in the elderly age range in the future based on information for the current adult population below the elderly ages is a relatively straightforward exercise.

A recent study has projected the three characteristics mentioned above for the population age 65 and over for a number of developing countries including Thailand using census data from 2000 (Hermalin, Ofstedal & Tesfai 2007). All three characteristics under examination are related to well-

being in older age and thus need to be taken into account by policymakers when designing appropriate programs. The tendency to marry during earlier decades will affect the proportion of older persons who have a spouse available to assist them later in life. Likewise the changes in fertility as reflected in the number of children ever born has implications for the number of adult children who will be available to help parents in old age. Education can facilitate older persons well-being in numerous ways. For example, education influences employment opportunities and thus financial status later in life. Literacy provides much greater access to information. Better education enables older persons to deal more effectively with government agencies and health services. Moreover, as recent analyses have shown, higher levels of education are associated with better health status in Thailand as elsewhere (Zimmer and Amornsirisomboon 2001).

Because the study uses the 65 and older population as reference age group (rather than the 60 and older population), the results presented here likewise do.[14] Figure 3.6 shows the projection of the percent of Thais age 65 and older who will have never married during their lifetime. A steady rise in the percent for both men and women reflects the decline in marriage that has been steadily occurring for a number of decades in Thailand as in numerous other countries in Asia (Jones 2008). Between 2000 and 2025, the share of men 65 and over who had never married will rise from less than 2% to close to 6% while the equivalent share of women will increase from 3% to close to 8%.

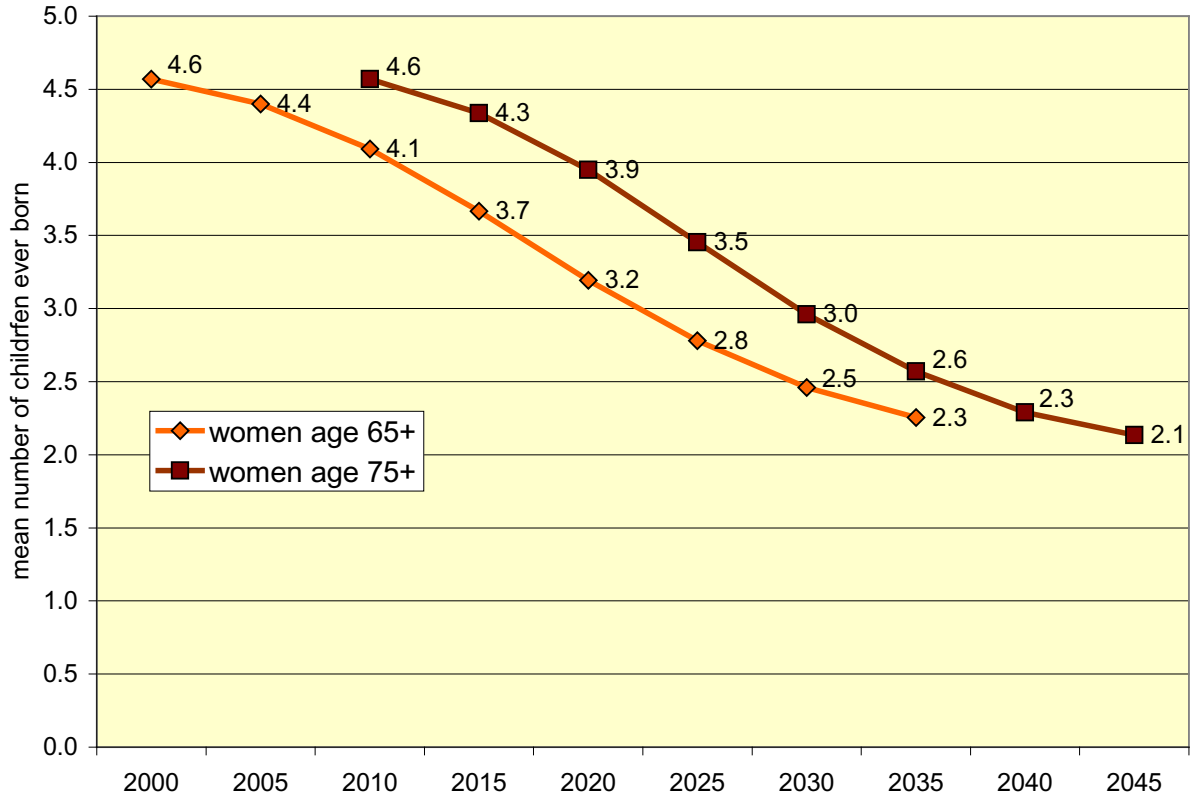
Figure 3.6. Projection of percent never married among persons age 65 and older, by gender, Thailand, 2000-2025



Source: Hermalin, Ofstedal and Tesfai, 2007

As discussed above, fertility decline in the past is resulting in a decline over time in the average number of living children characterizing the Thailand's older population and projections of the distribution of living children for the population 60 and were presented in Figure 3.3. Figure 3.7 shows the projection of the mean number of children ever born to ever married women age 65 and over and age 75 and over. Steady declines are evident with the mean number of children ever born to ever married women 65 and over falling by half from 4.6 in 2000 to 2.3 in 2035. An even greater decline is evident between 2010 and 2045 for women in the more advanced ages of 75 and older. Since some of these children will have died before their mothers reach old age, the mean number of living children will be even lower.

Figure 3.7. Projection of mean number of children ever born to ever married older aged women, Thailand, 2000-2045



Source: Hermalin, Ofstedal and Tesfai, 2007

Table 3.5 shows educational characteristics of Thais age 65 and over by gender as projected from 2000 through 2045. Two indicators are provided. The first shows the percent who have no more than primary education including those lacking any formal education. The second shows the percent who have at least some upper secondary or higher education. In general, men have more education than women. This is reflected by the fact that, through the entire period covered by the projection, higher percentages of older women are characterized by no more than a primary education and a lower percentage by upper secondary or higher education. Overall, the educational profile of the older population in Thailand will improve considerably by 2045. Still, for the next few decades, a large majority of both older men and women will have had at most only a primary

level education and just a small minority will have attained upper secondary or higher level education. By 2030, however, the educational composition of the population 65 and older starts to show significant improvements reflecting the major expansion of secondary education in Thailand that began around 1990 (Knodel 1997).

Table 3.5. Projections of the educational characteristics of the Thai population age 65 and over (based on the 2000 census), 2000-2045

	% with primary or less education		% with upper secondary or higher education		Index of dissimilarity between educational distributions by gender
	Men	Women	Men	Women	
2000	90.1	96.7	4.5	1.6	0.194
2005	88.5	95.9	5.6	2.2	0.167
2010	85.0	94.0	7.5	3.5	0.140
2015	81.9	91.4	9.4	5.1	0.109
2020	78.8	88.7	11.8	7.2	0.100
2025	73.6	84.2	15.1	10.6	0.106
2030	68.4	78.8	18.4	14.3	0.104
2035	63.3	73.0	21.0	17.5	0.097
2040	58.0	66.3	23.4	20.9	0.090
2045	49.6	55.8	26.2	25.4	0.083

Source: Hermalin, Ofstedal and Tesfai 2006 (original data provided by authors)

Gender differences in educational attainment decrease throughout the period covered by the projection. Table 3.5 includes the index of dissimilarity to summarize the extent of differences in the educational composition of older men and women during the period of the projection. The index is equal to half the sum of the absolute differences in proportions of men and women at each level of education (using five categories of education: less than primary, primary, lower secondary, upper secondary, and at least some tertiary). The index indicates the minimum proportion of either sex that would have to be shifted for the compositions of men and women to be identical.

The consistent decline in the index of dissimilarity in the educational distributions signifies decreasing educational inequality between older men and women as time progresses. Thus although male advantage is still evident in 2045, it is considerably reduced compared to the situation in 2000.

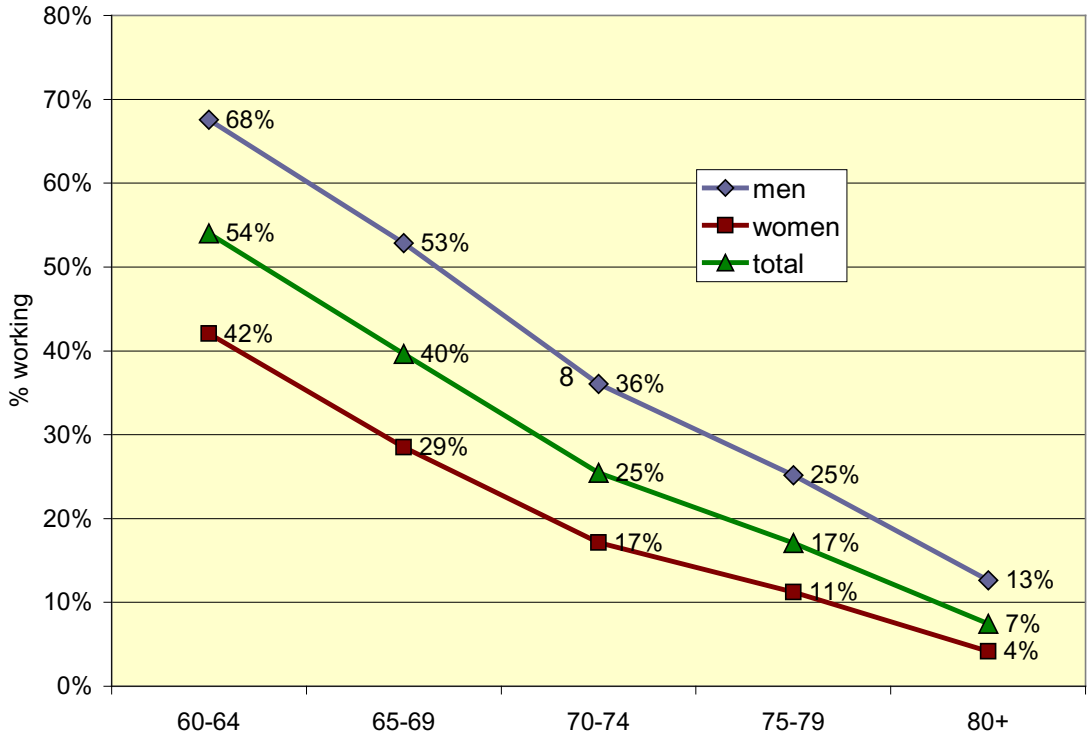
These projections make clear that the elderly Thais of the coming decades will be quite different than their counterparts in recent years. They will be better educated but will have fewer adult children to provide material support or personal care and more will have never married than the current generation of elderly. These changes in composition will affect the demands the elderly will pose for health care and formal and informal support independent of just their changing numbers.

C. Economic activity and sources of income

Economic activity. The official retirement age in Thailand is 60 for government employees and workers in state enterprises. Employees of some private sector firms are also subject to a compulsory retirement age. For the majority of the population who are engaged in agriculture or the informal sector of the economy, the concept of some discrete point at which retirement occurs is ambiguous. Even among those who must leave their job at some specific age, retirement does not necessarily mean cessation of economic activity, as they can still find alternative work that has no compulsory retirement age. Still, for a variety of reasons including changes in physical strength and health, most Thais disengage from economic activities as they progress to older ages.

According to the 2007 Survey of Older Persons, 36% of all respondents age 60 or older reported that they worked during the previous week.[15] As Figure 3.8 indicates, this overall level obscures major differences by age and gender. Two clear patterns are evident. First, the percent who worked during the previous week declines steadily with age among the older population. Just over half of persons age 60-64 worked compared to less than one fourth of those 70-74 and only 7% of those aged 80 and older. Second, at all ages within the older age span, men are more likely to have worked than women with the relative difference pronounced for each age group. Thus among those 60-64, just over two-thirds of men but only modestly more than two-fifths of women worked in the prior week . By ages 80 and over, although only 13% of men were still working this is still more that three times the 4% of women whom were still economically active.

Figure 3.8. Percent who worked in previous week, by age and gender, Thailand 2007



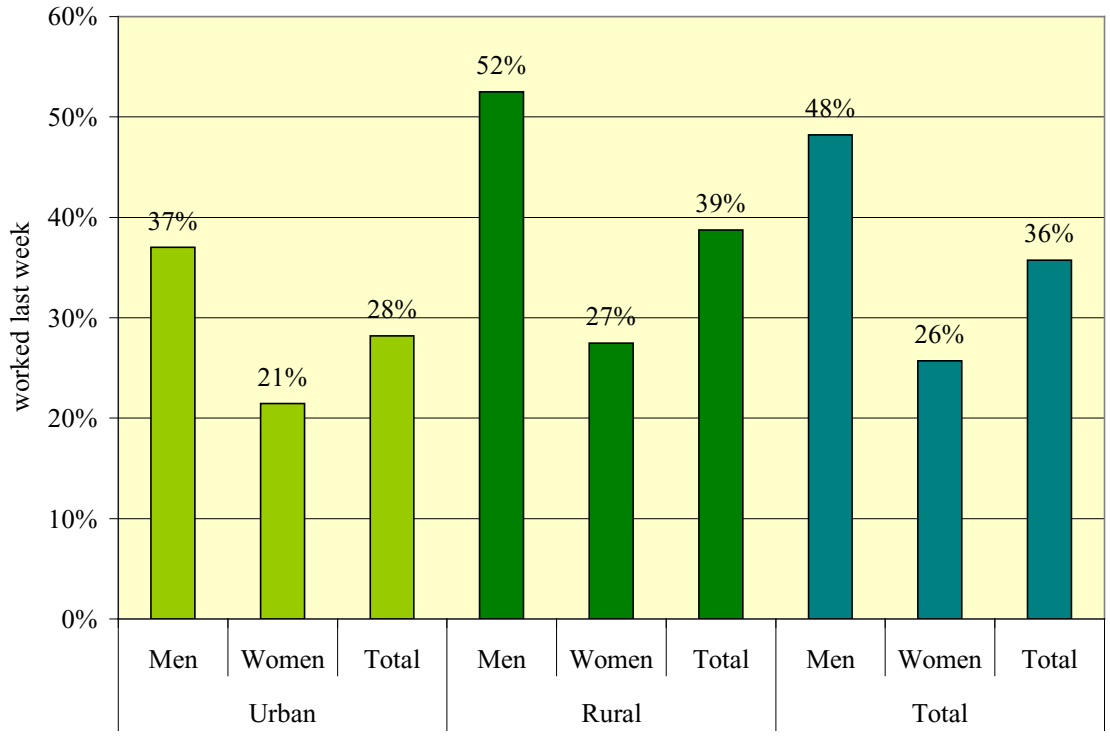
Source: 2007 Survey of Older Persons in Thailand

The percent of older persons who worked in 2007 resemble closely results from the 1980 census, which also refers to activity during the prior week, indicating that little change has occurred in this respect (Chayovan, Knodel & Siriboon 1990). For no age group among the 60 and older population, do the shares of men or of women who work during the prior week according to the 1980 census differ by more than a few percentage points from those found in the equivalent age and gender groups in the 2007 Survey of Older Persons.

Not only is there a pronounced gender difference in the percent who worked during the prior week but there also is a substantial difference between rural and urban elderly. As figure 3.9.A indicates, this is true for both men and women although the difference is more pronounced among men. The higher proportion still working in rural areas likely reflects a greater tendency in agriculture compared to the formal sector to reduce work rather switch from a situation of full activity to no activity. An additional contributing factor is likely an absence of externally imposed retirement ages for persons in agriculture, most of whom are self employed.

Figure 3.9.A . Work status of population age 60+ by area of residence and gender, Thailand 2007

Percent who worked in previous week

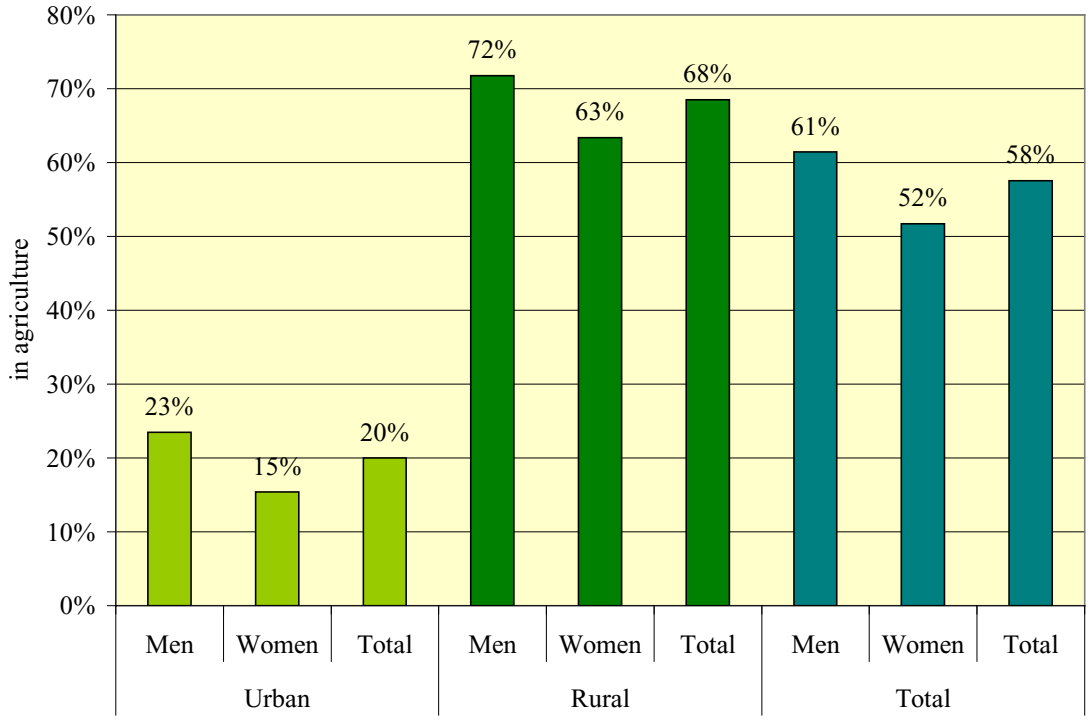


Source: 2007 Survey of Older Persons in Thailand

As shown in figure 3.9.B, among those who did work during the prior week, just over half of the women and over 60% of the men were active in agriculture (including fishing). Not surprisingly, involvement in agriculture is far higher among older persons in rural than urban areas, accounting for almost two-thirds of rural elderly workers compared to only a fifth of urban workers. Moreover, according to the first round of the 2007 Labor Force Survey, agricultural pursuits are far more common among older age workers than among economically active persons at younger ages. For example, engagement in agriculture among workers under age 50 is only modestly more than half the level found for workers age 60 and older.

Figure 3.9.B. Work status of population age 60+ by area of residence and gender, Thailand 2007

Percent in agriculture among those who worked in previous week



Source: 2007 Survey of Older Persons in Thailand
Note: agriculture includes fishing

Sources of income. Although important, work is but one of a number of possible sources of income for older aged Thais as table 3.6 indicates. Among all persons age 60 and above, by far the most common source of income are their children. Over 80% in 2007 reported at least some income from children during the prior 12 months. One's own work is the second most reported source although less than 40% overall report such income and thus appears to be a far less common source than children. To some extent, these results likely understate the extent that work contributes to older persons income. This is so because presumably responses refer to the respondent's own work and do not take account of income from their spouse's work which

married couples are likely put to mutual use. Indeed, almost a fourth of respondents cite their spouse as a source of income. This category presumably includes all contributions from the spouse including ones resulting from economic activity. Almost a third of respondents report some income from interest, savings or rent and almost a fourth report receipt of government elderly welfare allowances, a noteworthy increase from the 5% who reported such allowances earlier in the 2002 round of the survey (Knodel et al. 2005). Income from relatives is considerably less common and pensions are reported by only 5% of all older persons.

Table 3.6. Sources of income during the previous 12 months, by age, gender and area of residence, Thailand 2007

Percent receiving income from the following sources	Total	Age		Gender		Type of area	
		60-69	70+	Men	Women	Urban	Rural
work	37.8	50.2	20.1	51.0	27.2	28.7	41.4
pension[(a)]	5.4	6.2	4.2	8.5	2.9	12.2	2.6
elderly allowance	24.4	17.7	34.0	23.1	25.5	14.1	28.6
interest/savings/rent	31.7	33.7	29.0	33.8	30.1	36.8	29.7
spouse	23.3	30.0	13.7	24.8	22.1	20.3	24.5
children	82.7	79.0	87.9	79.5	85.3	77.6	84.8
relatives	11.0	9.7	12.9	9.5	12.3	11.0	11.1
other	1.5	1.2	2.0	1.3	1.7	1.7	1.5

Source: 2007 Survey of Older Persons in Thailand

[(a)] Includes lump sum payments on retirement

The percent of older persons reporting particular sources of income varies with age, gender and area of residence. Consistent with the decline in economic activity with age discussed above, persons age 70 and over are far less likely to report work as a source of income than those in their sixties. The decline in economic activity with age, together with increases in widowhood, likely accounts for the lower percentages of persons 70 and above reporting their spouse as a source of income compared to those in their sixties.[16] Other noticeable differences associated with age are the higher percentages of older than younger elderly who report elderly allowances as an income source. Although older elderly are also more likely than younger elderly to report children as a source of income, the difference is modest. Even among those in their sixties almost 80% report children as a source of income.

Several gender differences are striking. Far more men than women report their own work as a source of income, a pattern consistent with the higher levels of economic activity among older men than women. The fact that men and women differ only minimally with respect to the percent who report a spouse as a source of income is a result of two counteracting influences. On one hand, women are more likely to be widowed than men and thus less likely to have a spouse available as a possible source. On the other hand, among those currently married elderly, women are considerably more likely than men to report a spouse as a source of income, presumably largely because of the higher level of economic activity among men.[17] Women are modestly more likely than men to report children and relatives as sources of income but the differences are quite small. There is also little gender difference in the percent who report elderly allowances.

Several differences among rural and urban elderly are also pronounced. Rural elderly are considerably more likely to report work as a source of income reflecting the tendency to remain economically active longer into life among persons engaged in agriculture where retirement is more likely to be a gradual process and not subject to a prescribed retirement age. At the same time, urban elderly are far more likely than their rural counterparts to report pensions as a source of income although even for urban elderly only a modest 12% receive pensions. This contrast undoubtedly reflects differences in lifetime occupational histories with urban elderly more likely than those in rural areas to have had jobs in the formal sector and particularly in the government civil service. Urban elderly are also somewhat more likely than rural elderly to report interest and savings as a source of income. In contrast rural elderly are more likely than those in urban areas to report receiving an elderly allowance probably reflecting the greater poverty in rural areas and the tendency of the government program to target those who are in greater need.

Although quite a few elderly have more than one source of income in most cases they differ considerably in their importance. For example, although children may be a very pervasive source of income in some cases their contributions are little more than of symbolic value and not a meaningful component of overall income. Table 3.7 examines the main source of income reported by older persons in 1994 and 2007.

Table 3.7. Main source of current income among persons 60 and older, Thailand 1994 and 2007

	Total		Urban		Rural	
	1994	2007	1994	2007	1994	2007
work	31.5	28.9	23.3	23.3	34.9	31.1
pension[(a)]	4.0	4.4	9.2	10.1	1.8	2.1
elderly allowance	0.0	2.8	0.0	1.4	0.0	3.3
interest/savings/rent	1.7	2.9	3.4	5.1	1.0	2.0
spouse	4.6	6.1	5.9	6.7	4.0	5.9
children	54.1	52.3	53.9	49.9	54.2	53.2
other relatives	2.4	2.3	2.3	2.9	2.5	2.0
other	1.7	0.5	1.9	0.6	1.6	0.5
total	100	100	100	100	100	100

Sources: 1994 and 2007 Surveys of Older Persons in Thailand

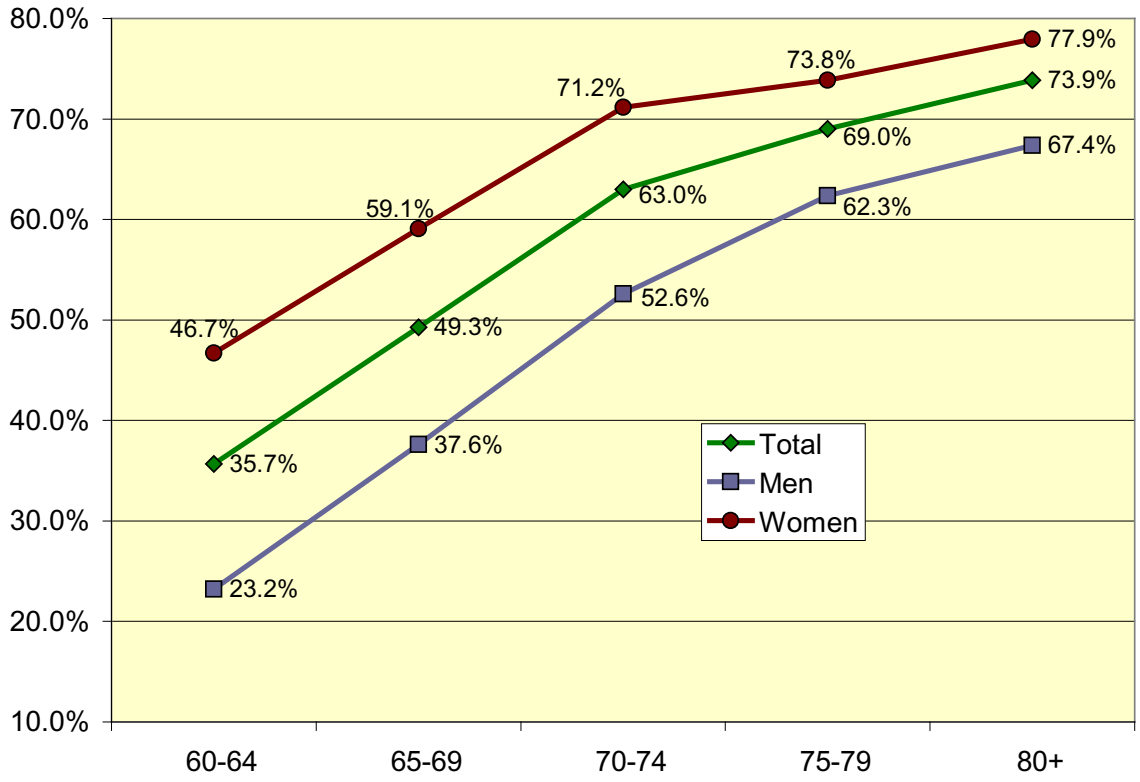
[(a)] 2007 includes lump sum payments on retirement

Perhaps the most striking finding from this comparison is that both in 1994 and 2007 children are by far the most common main source of income for older persons accounting for about half of older persons in both years. This holds for both rural and urban elderly. Of particular interest is the minimal change between 1994 and 2007 despite considerable social and economic change in the intervening years. In Section 5 the role of children in the material support of their parents is explored further. In second place as the main income source is clearly older persons' own economic activity. This also changed little between the two surveys. Moreover, even if spouse's support also reflects economic activity, the combined percent of the two sources is still considerably less than the percent who report children as their main source. Other sources of income are only rarely reported as being the main one. A very small percentage of respondents

report pensions or retirement payments as a main source although this is higher among urban that rural elderly. The monthly elderly allowances program was only nascent in 1994 and thus absent as a main income source. Even by 2007, only a few percent of elderly cited allowances as a main income source, undoubtedly reflecting the modest size of allowances.

Given the importance of children as the main source of income for elderly persons, Figure 3.10 examines how this differs by age and gender. There is a clear increasing dependence on children as the main income source with older ages for both men and women. Overall, children are the main income source for only just over a third of Thai elderly age 60-64 but rises steadily to almost three-fourths of elderly age 80 and older. In addition, at each age, women are more likely to depend on children as their main source of support than are men.

Figure 3.10. Percent for whom children are the main source of income among persons age 60 and older, by age and gender, Thailand 2007



Source: 2007 Survey of Older Persons in Thailand

D. Material Well-being

Poverty reduction and income security, together with access to health care, are the top concerns of national governments in developing countries in relation to population ageing (UN 2007c). Concerns about the material well-being are also prominent in the 2002 Madrid International Plan of Action on Ageing (UN 2002). As described in some detail in section 7, Thailand is making

some progress in expanding formal provision of pensions and other social protection measures for the elderly but is still in a relatively early stage of this process. Thus, coverage of the current generation of older persons is relatively limited and reliance on traditional informal sources of support, primarily the family and in particular adult children, remains the overwhelming predominant mode for those who can not support themselves. Assessing the current material well-being of the older persons provides crucial information for judging how adequately the familial system of support combined with modest formal support is fulfilling their material needs.

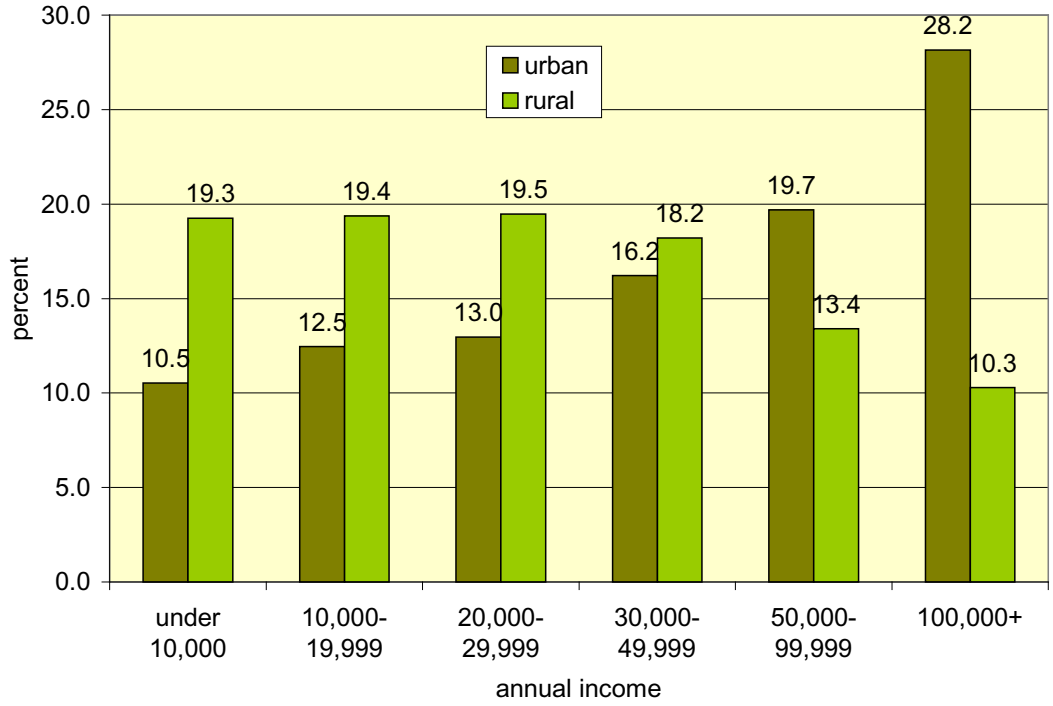
To assess the material well-being of older persons we examine income, the value of major assets, indications of the quality of housing, and the presence of various household possessions. Each of these dimensions has limitations that require care when interpreting results. This is especially so in the case of older persons who often live in households shared with younger members who may be the main source of household support. Under such circumstances the direct income of the elderly members may be less important for their material well-being than the income of other members of the household. Also in cases where older persons coreside, specific possessions often belong to the other members or to the household overall rather than to the elderly themselves. Nevertheless, the possessions at least reflect the overall wealth status of the household and in many cases the older person typically benefit from them. Additional issues arise when interpreting gender differences in the personal income for married elderly since spouses are likely to share incomes with each other. Likewise with ownership of assets, both partners in a married couple may benefit from the asset regardless of which spouse owns it. These caveats need to be considered when interpreting the results concerning income, assets, household wealth and household possessions presented below.

Income, assets and debts. Figure 3.11 presents measures of income and wealth of persons age 60 and above by area of residence. Panel A shows the percent distribution of the reported average annual income in Thai baht (approximately 33 Baht = US $1 at the time of the survey). Clearly older age urban residents have a more favorable income distribution then their rural counterparts with the urban distribution far more concentrated towards higher levels of income than rural distribution. While almost a fifth of rural residents reported under 10,000 baht as their annual income this was the case for only just over 10% of urban residents. In contrast, almost half of urban residents reported incomes of 50,000 baht or more compared to less than a fourth of rural residents. The relative difference is even more striking for the share whose income is 100,000 baht or more, a group that accounts for only 10% of rural residents but almost 3 times this share for urban residents.

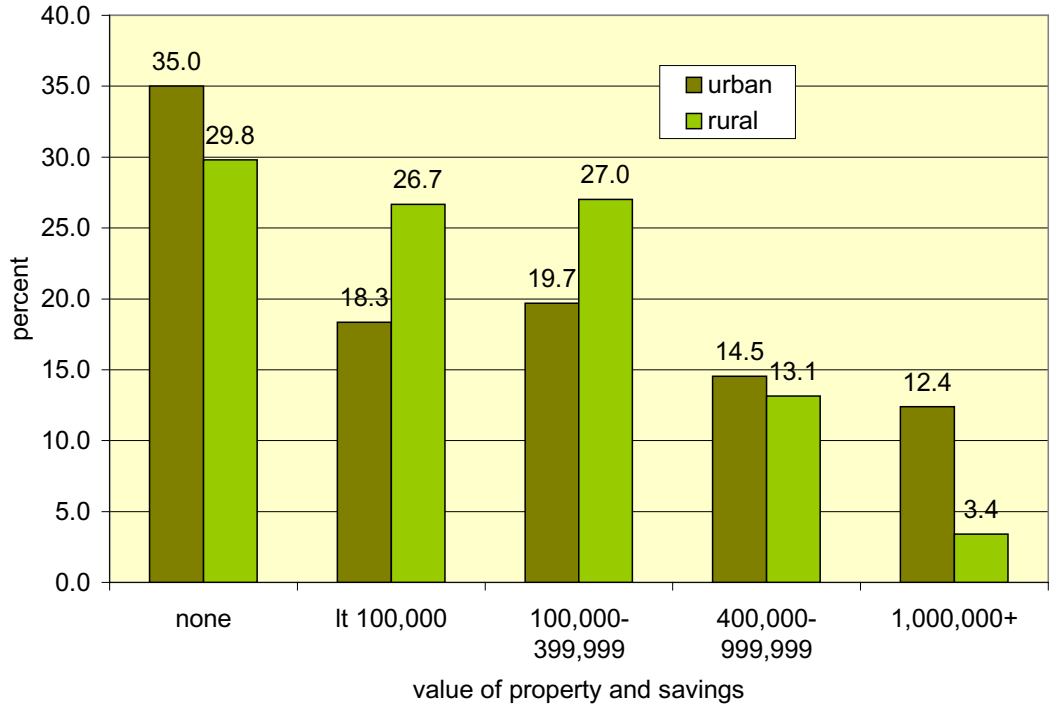
Panel B of figure 3.11 shows the percent distribution of older persons with respect to the total value of their property and savings. Property was defined broadly to include gold, expensive possessions such as a car, house, or land. This measure of wealth shows a more complicated relationship with area of residence. Urban elderly are both somewhat more likely than their rural counterparts to have no such assets but also more likely to report having property and savings in the highest category shown, i.e. those valued at one million or more. This likely reflects the greater availability of land in rural areas and thus more widespread land and home ownership among elderly rural than urban residents.[18]

Figure 3.11. Percent distributions of income and wealth of persons age 60 and older, by area of residence, Thailand 2007

A. Average annual income



B. Total value of property and savings



Source: 2007 Survey of Older Persons in Thailand

Table 3.8 examines gender differences in the average annual income, the value of property and savings, and debt. As noted above, interpreting gender differences in income among married persons is complicated since spouses likely share benefits from each other's incomes. For this reason we show gender differences separately for those currently married and those who are not married. While access to income does not necessarily does not imply decision making and control over resources, in Thailand within the family wives have considerable power and typically control the household finances.[19] Among the unmarried, gender comparisons are far less ambiguous since there is no spouse who may be sharing income with the respondent. Overall, older men have a more favorable distribution of income than do women, with more women than men concentrated in the lower income categories and more men than women concentrated in the higher income categories. However this does not unambiguously document a disadvantage for women since it only holds for currently married persons who may be sharing the benefits of their spouses income. When the income distribution of unmarried men and women are compared, there is far less difference and men are actually more likely to fall into the lowest income category than are women.

Table 3.8. Percent distributions of average annual income, value of property and savings (in baht) and debt of persons age 60 and older, by gender and marital status, Thailand 2007

	All marital statuses			Currently married		Not married	
	Total	men	women	men	women	men	women
Annual income							
under 10,000	16.8	13.9	19.1	10.8	14.5	28.3	23.1
10,000-19,999	17.4	15.1	19.2	14.9	18.2	16.2	20.2
20,000-29,999	17.6	17.2	18.0	17.6	18.9	15.0	17.1
30,000-49,999	17.6	18.4	17.0	19.4	18.5	13.5	15.8
50,000-99,999	15.2	17.4	13.4	17.9	15.3	15.1	11.8
100,000+	15.4	18.0	13.3	19.4	14.6	11.8	12.1
Total	100	100	100	100	100	100	100
Value of property and savings							
none	31.3	26.6	35.0	24.5	32.4	36.7	37.3
under 100,000	24.3	23.6	24.9	23.3	24.5	24.8	25.2
100,000-399,999	24.9	26.8	23.4	27.9	24.8	21.5	22.2
400,000-999,999	13.5	16.0	11.6	16.7	12.4	12.6	10.8
1,000,000+	6.0	7.0	5.2	7.5	5.9	4.4	4.5
Total	100.0	100	100	100	100	100	100
Debt in household							
self only	10.4	14.6	7.1	15.5	5.1	10.2	8.9
other member only	25.9	19.7	30.9	18.0	29.6	27.6	32.0
self and other	11.6	14.7	9.1	16.6	13.4	5.7	5.5
no one in debt	52.1	51.0	52.9	49.9	52.0	56.4	53.7
Total	100	100	100	100	100	100.0	100.0

Source: 2007 Survey of Older Persons in Thailand

Somewhat similar patterns are evident with respect to the combined value of property and savings. Overall, men tend to show a more favorable distribution in this regard than do women. But again, this pattern of female disadvantage is limited solely to currently married older persons and thus could be misleading. Since among couples, spouses likely benefit from each other's assets, it is difficult to know if these findings truly reflect a disadvantage with respect to material well-being among married women compared to married men. Again evidence of female disadvantage is not present when consideration is restricted to unmarried persons, among whom the distributions of the total value of property and savings for men and women are similar.

Income and wealth can be moderated by debt. As Table 3.8 shows, almost half of the older Thais live in households where there is current debt. In addition where household debt exits, the older person is directly involved in less than half of the cases. Thus among Thai elderly about one fifth are themselves in debt either by themselves or collectively with other members. Although older men and women are about as likely to live in households with debt, older men are distinctly more likely than older women to be in debt themselves. The gender difference with respect to debt, however, is largely limited to married older persons. Given that married couples typically function largely as economic units, the lower frequency of debt among married women compared to men may not signify a particular advantage for them as a result. More over among unmarried elderly, men are only slightly more likely to be in debt themselves than are women.

Housing quality and household possessions. The quality of one's dwelling is another reflection of wealth and hence economic well-being. Several aspects of housing quality are shown in table 3.9. A clear trend toward living in better constructed houses is evident over the 13-year period covered. This is indicated by the decrease in the share that live in dwellings made of reused or nonpermanent material and the increase in the percent who live in dwellings made mainly of cement or brick. Even in 1994 only about 6% of older persons lived in housing made of very inferior material and by 2007 this was reduced to just over 1%. At the same time the percent of older persons who lived in dwellings made of cement or brick more than doubled from just 14% in 1994 to over one third by 2007.[20]

Table 3.9. Indicators of housing quality of persons age 60 and older, by area or residence, Thailand 1994, 2002 and 2007

	Total			Urban areas			Rural areas		
	1994	2002	2007	1994	2002	2007	1994	2002	2007
% in dwellings made of reused/non-permanent material[(a)]	5.6	4.5	1.4	3.2	2.2	0.6	6.6	5.5	1.7
% in dwellings made of mainly cement or brick[(a)]	14.4	21.4	34.1	34.1	39.5	53.1	6.1	13.3	26.6
Type of toilet (% distribution)t									
flush	9.9	12.2	24.2	18.1	30.0	49.8	6.5	4.2	13.9
bucket latrine	86.4	86.2	75.3	81.3	68.8	50.1	88.6	94.1	85.4
pit or lacking toilet	3.7	1.6	0.5	0.6	1.3	0.1	5.0	1.7	0.7
% with piped water inside house	31.9	54.6	79.1	70.1	77.3	91.5	15.7	44.4	74.2

Source: 1994, 2002 and 2007 Surveys of Older Persons in Thailand

[(a)] Excluding a small number who live in single rooms or undermined dwellings

Other housing quality indicators for older age Thais likewise show considerable improvements over the 13 years covered by the surveys. The share who live in houses with a flush toilet more than doubled from 10% to almost a fourth. In contrast, the proportion who live in dwellings with only a primitive pit toilet or no toilet at all was already quite low in 1994 and has since become negligible (falling to under 1%). Finally, the availability of piped water inside the dwelling rose sharply from under a third in 1994 to almost four fifths by 2007.

Table 3.9 also makes clear that these positive changes occurred both in urban and rural areas. At the same time, higher percentages of urban than rural residents lived in dwellings with more favored characteristics at the time of each of the three surveys. In some cases the differences are striking. For example, in 2007, more than twice the percent of urban than rural elderly lived in houses made of cement or brick and almost half of urban older persons lived in dwellings with a flush toilet compared to only 14% of rural older persons.

Household possessions also reflect wealth. Table 3.10 presents results for a variety of household possessions from several surveys going as far back as 1986.[21] The results reveal a substantial increase in the household possessions of older age Thais. For example, in 1986 less than a fourth lived in a household with a refrigerator, but by 2007 only a small minority lacked one.

Table 3.10. Percent of elderly living in households with various household possessions, Thailand 1986, 1994 and 2007

	1986	1994	2007
Television	47.7	83.7	95.7
Video/DVD	--	17.3	63.0
Refrigerator	24.5	52.5	87.4
Phone (landline or cell)	--	15.4	76.0
Electric fan	49.6	86.1	97.0
Air conditioner	1.4	7.0	16.0
Washing machine	--	14.7	48.0
Rice cooker	--	73.4	87.8
Motorcycle	27.8	45.9	67.2
Car/truck	7.1	16.7	30.9

Sources: 1986 Survey of Socio-economic Consequences of Aging of the Population in Thailand; 1994 and 2007 Surveys of Older Persons in Thailand

One of the most striking changes that has particularly important implications for older persons is with respect to telephones. In 1994 only 15% of older persons lived in households that had a telephone available compared to over three fourths of older persons by 2007. This was largely due to the spread of mobile phones which for all practical purposes were nonexistent in 1994 among the general Thai population. However considerable increases in landline phones also occurred.[22] While in many cases the mobile phone may not have belonged to the elderly themselves, they would at least have potential access to the cell phones of other household members. Thus such phones could be used in urgent situations such as health emergencies. As discussed below in section 5, the spread of phones, and particularly mobile phones, has radically altered the ability of older parents to keep in contact with migrant children.

Table 3.11 compares urban and rural elderly with respect to household possessions in 2007. Since a somewhat longer list of household possessions was included in the 2007 survey than in the earlier surveys, additional items are also shown. Older persons in urban areas are more likely than their rural counterparts to live in households that had each of the items shown although televisions, refrigerators, electric fans, and rice cookers are close to universal even in rural areas. At the same time, some items, such as air conditioners, microwave ovens, and computers are still largely limited to urban households.

Table 3.11. Percent of elderly living in households with various household possessions, Thailand 1986, 1994 and 2007

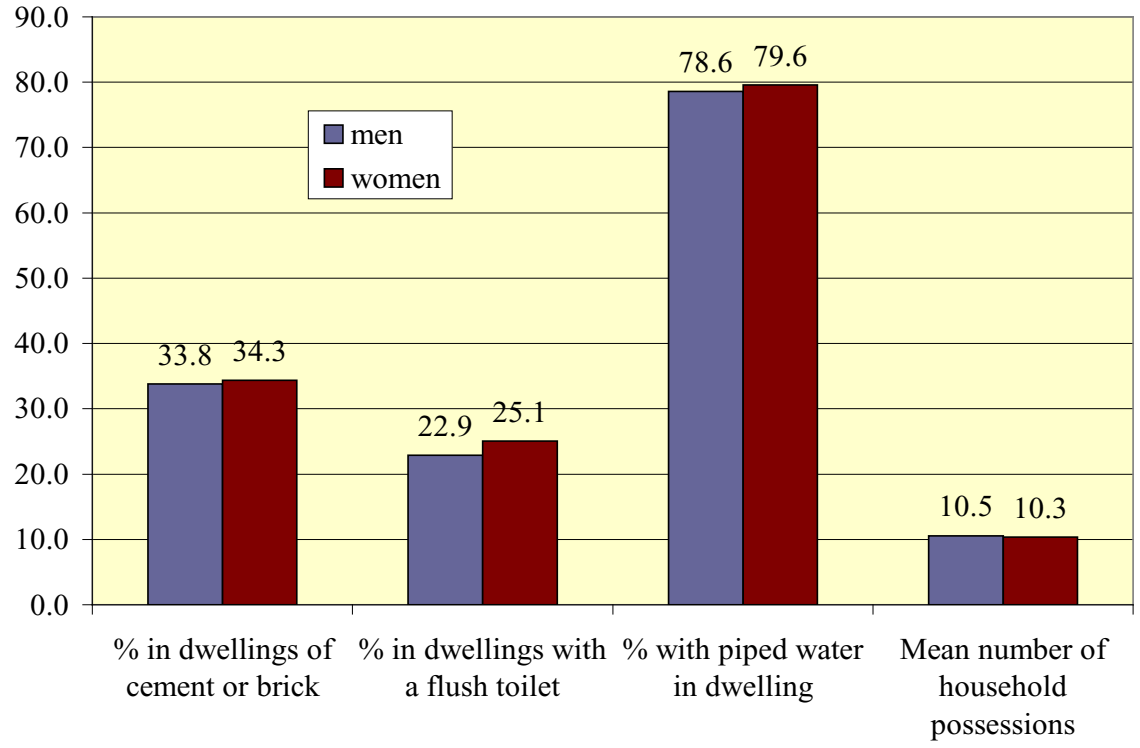
	Total	Urban	Rural
Television	95.7	98.0	94.8
Video/DVD	63.0	74.5	58.5
Refrigerator	87.4	95.0	84.3
Phone (landline or cell)	76.0	89.5	70.6
Electric fan	97.0	99.1	96.2
Air conditioner	16.0	39.2	6.7
Washing machine	48.0	69.6	39.3
Rice cooker	87.8	94.5	85.1
Motorcycle	67.2	56.1	71.6
Car/truck	30.9	48.6	23.8
Gas or electric stove	81.1	93.9	77.4
Microwave oven	16.9	37.4	8.7
Electric thermos	69.4	81.7	64.4
Iron	76.0	89.5	70.6
Computer	17.1	35.0	9.9

Source: 2007 Survey of Older Persons in Thailand

Gender differences among older Thais with respect to wealth as indicated by the quality of housing and household possessions are minimal. As figure 3.12 shows, there is very little difference in the percent of older men and women who live in dwellings made a brick or cement, that have a flush toilet, or that have piped water within the house. Likewise, older men and women live in households with roughly the same number of possessions.[23]

Income sufficiency and financial satisfaction. The 2007 Survey of Older Persons in Thailand asked respondents to judge the sufficiency of their income and the satisfaction with their financial situation. Results are shown in table 3.12. Overall just over a fifth of older persons indicated that their income was insufficient and another fifth gave a qualified answer indicating that only sometimes was their income sufficient. Almost all of the remainder indicated their income was sufficient with 2% indicating their income was more than sufficient. Most older persons said that they were either satisfied with their financial situation with a few indicating they were very satisfied. However 28% expressed dissatisfaction.[24]

Figure 3.12. Gender differences among persons age 60 and over in housing quality and household possessions, Thailand 2007



Source: 2007 Survey of Older Persons in Thailand
Note: Household possession score based on a total of 19 items

Table 3.12. Income sufficiency and financial satisfaction, by age, gender and area of residence, Thailand 2007

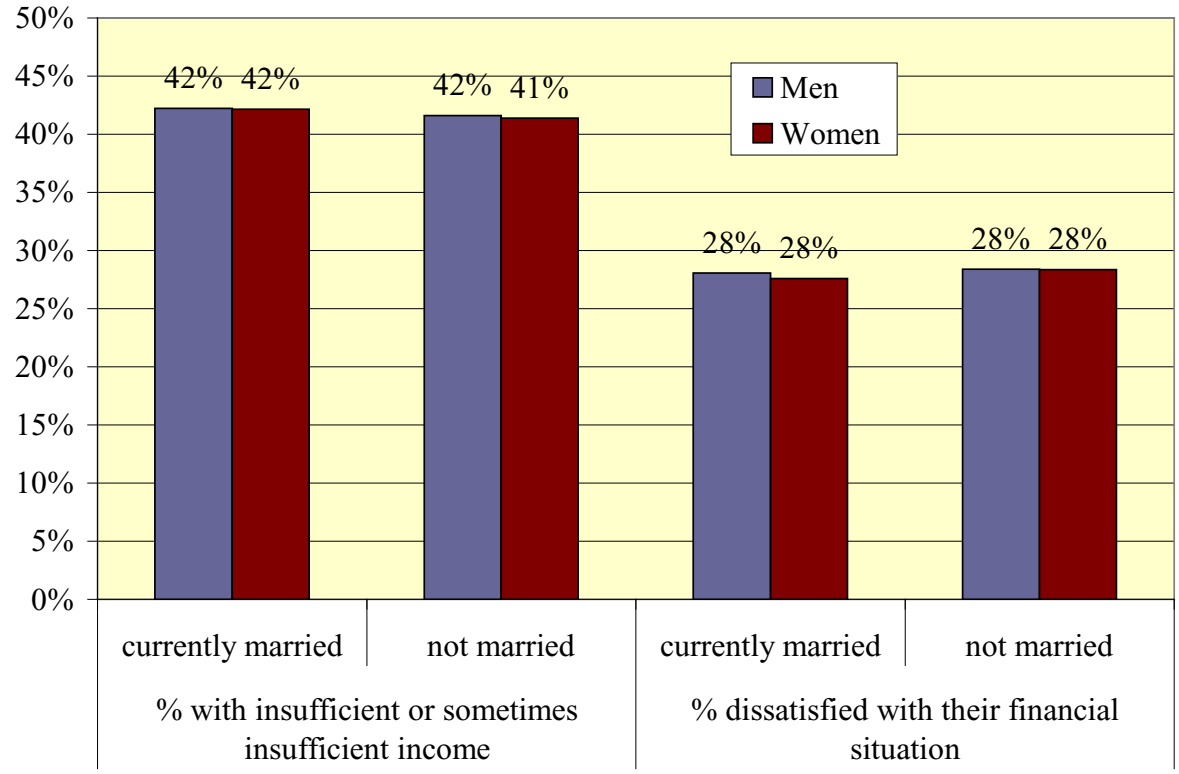
	Total	Age		Gender		Type of area	
		60-69	70+	Men	Women	Urban	Rural
Sufficiency of income (% distribution)							
more than sufficient	1.6	1.4	1.9	1.8	1.4	2.7	1.2
sufficient	56.5	54.7	59.0	56.0	56.8	67.5	52.1
sometimes sufficient	20.7	22.5	18.3	20.9	20.6	15.1	23.0
insufficient	21.2	21.4	20.9	21.3	21.1	14.7	23.8
total	100	100	100	100	100	100	100
Satisfaction with financial situation							
very satisfied	3.9	3.8	4.0	4.0	3.8	5.7	3.2
satisfied	68.1	66.9	69.7	67.9	68.2	74.2	65.6
not satisfied	28.1	29.3	26.3	28.1	28.0	20.1	31.2
total	100	100	100	100	100	100	100

Source: 2007 Survey of Older Persons in Thailand

There is little difference between persons in their sixties and those age 70 and above in terms of responses concerning income sufficiency and financial satisfaction. Likewise, gender differences are almost nonexistent. However a reasonably clear contrast is evident between urban and rural older persons. The latter are noticeably more likely to indicate that their income is either insufficient or only sometimes sufficient and more likely to indicate dissatisfaction with their financial situation. Both the gender and rural-urban comparisons accord reasonably well with the more objective measures of material well-being reviewed above.

Figure 3.13 examines whether gender and marital status is associated with income insufficiency and financial dissatisfaction. Neither gender nor marital status show an association with either of these measures. Analyses of national surveys conducted in 1994 and 1995 produced quite similar findings with respect to perceived economic well-being (Sobieszczyk, Knodel & Chayovan 2003). Thus while being in an intact marriage is likely to provide important social support for an elderly persons and may be critical for meeting caregiving needs, it appears to confer little advantage with respect to the self perceived material well being of elderly Thais.

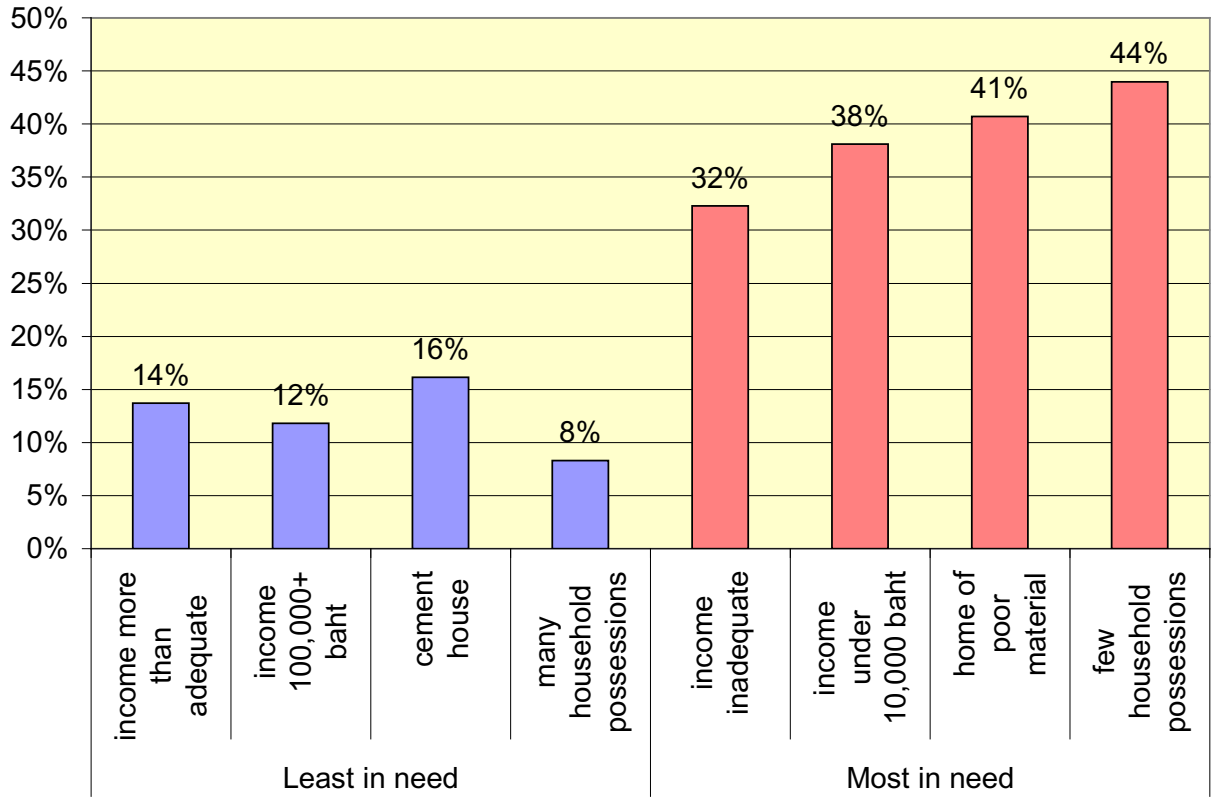
Figure 3.13. Income sufficiency and financial satisfaction, gender and marital status, Thailand 2007



Source: 2007 Survey of Older Persons in Thailand

Welfare allowance and financial need. As discussed in greater detail in section 7 and as noted above, the government program to provide modest allowances to elderly persons in Thailand expanded considerably since its founding over a decade ago. Although its original purpose was to assist the most indigent of elderly, the program has expanded substantially. Some local administrations have liberalized qualifications and use local funds to supplement the program and provide broader or even universal coverage to all elderly residents. Nevertheless it is important not to lose sight of the original purpose of the program, namely to target those most in need of financial assistance. Figure 3.14, examines the extent to which those most in need receive government allowances compared to those least in need.

Figure 3.14. Percent who receive a government allowance for elderly, by indicators of economic status, Thailand 2007



Source: 2007 Survey of Older Persons in Thailand
Notes: Judgments of the adequacy of income are self-assessed; many household possessions refers to 15 or more of the 19 items considered; few household possessions refers to less than 5; home of poor material refers to homes made of reused or impermanent material.

Several different indicators of the socioeconomic status are used. Rather than showing the full range of each of the indicators, only categories representing the most and least favorable socioeconomic situations are presented. Persons in the most favorable categories are considered to be least in need and those in the least favorable most in need. The results clearly show that those most in need are far more likely to receive government allowances than those least in need. At the

same time, it is also true that modest shares of those who would appear to be least in need also receive such allowances. This may in part be a function of expanded programs that target all or most elderly in some localities. Also for none of the categories that would appear to indicate greatest need, do a majority receive an allowance. Thus while the results are encouraging in showing that the program disproportionately helps elderly most in need, there are likely still large numbers who sorely need financial assistance but do not receive it.

E. Summing up

Thailand is particularly fortunate in having extensive nationally representative survey data concerning the older-aged population. They permit constructing a relatively detailed and up to date profile of the social and economic situation of today's elderly as well as trends over the recent past. The results reviewed above are encouraging in a number of respects but also serve as warnings that there are multiple challenges that need to be addressed by policy and programs aimed at ensuring the security and well-being of the elderly as population ageing proceeds.

Among the most encouraging findings are those that document the significant improvement in the material well-being of the older population in recent years as measured by housing quality and household possessions. Compared to just a little over a decade ago, the households of older Thais in 2007 have far more appliances, convenient amenities and vehicles available for transportation. The very dramatic spread of telephones, especially mobile phones, has greatly improved the ability of elderly and their children and relatives who live elsewhere to communicate with each other. This both provides a convenient means of maintaining social contact and of reaching the appropriate parties at times of urgent need such as during health crises or other urgent situations.

Also reassuring is the finding that material assistance from adult children has not diminished despite the extensive social change that is often assumed to undermine filial responsibility. Not only do the vast majority of elderly receive at least some income from children but the percent who indicate that children are their main source of support has changed little during the last decade or so. In addition, a substantial share of older persons receive government welfare allowances. Moreover, older persons in greatest financial need are far more likely to receive government allowances than those in least need. Still significant shares of those in quite poor circumstances are not yet included in the program.

An important concern of the Madrid International Plan of Action is promotion of gender equity among older persons with emphasis on rectifying disadvantages that older women might be incurring (Knodel & Ofstedal 2003). The situation among Thai elderly is relatively encouraging in this respect also. It is true that among the current older Thais, women have received less education than men and in this sense are disadvantaged. However, projections of the educational attainment of the future older population reveal that this disadvantage will decline steadily over the next few decades through a process of cohorts succession reflecting the increased access to education that women experienced over the last half century in Thailand. Indeed because among the school-aged population in recent years, women are receiving more education than men, in several generations the gender gap in education among the elderly is likely to reverse. One very striking difference between older men and women is with respect to marital status with far more older women than men being widowed. This likely is a disadvantage for many widowed women in terms of

psychological and social support and physical care they would otherwise expect from a spouse. But at least with respect to perceived income sufficiency or financial satisfaction, our findings show little difference for either men or women whether currently married or not. Also it is important to recognize that this disadvantage stems in part from women's distinct advantage with respect to mortality as discussed in the next section.

Particularly encouraging with regard to gender equality among the older Thai population is that little difference exists between men and women with respect to housing quality or household possessions. Findings with regards to gender differences in personal income and wealth show that women are disproportionately represented among the lower categories and underrepresented among the highest. However, this is only the case among older persons who are currently married and who are likely to share in the benefits of their spouse's income and wealth. Hence for married persons, gender differences income and wealth do not necessarily correspond to advantage and disadvantage. With respect to unmarried older persons, where interpretation of gender differences is less ambiguous, there are only minimal differences between men and women. Also, although older men are substantially more likely than older women to be currently gainfully employed, it is not clear whether continuing to work in old age is an advantage or disadvantage.

More compelling for a matter of government concern than gender inequality among older age Thais are the pervasive rural-urban differences in most social and economic characteristics. Compared to urban elderly, rural elderly are less educated, less literate, more likely to work, more dependent on their own work for support, and have substantially lower average incomes. Although rural elderly are more likely to have at least some property and savings they are considerably less likely than urban elderly to have assets worth large amounts. Not surprisingly rural elderly are substantially more likely to indicate that their income is insufficient or only sometimes sufficient and to express dissatisfaction with their financial situation than their urban counterparts. One positive finding in this connection, however, is that rural elderly are somewhat more likely to receive government welfare allowances.

While projections regarding the characteristics of elderly in the coming decades indicates that they will be better educated, the relative difference in education between the older and younger population may worsen given the recent and continuing efforts to increase access to higher levels of education to the school age population. Projections also show that a larger share of elderly will have never married although this will remain a small minority for the foreseeable future. The most important implications for the future elderly, however, are likely to arise from the inescapable fact that they will have substantially smaller family sizes and thus fewer children on whom they can depend for material support and personal care. Moreover, as shown in section 2 and documented elsewhere, migration of adult children in Thailand is not only very substantial but increasing (Knodel et al. 2007). This combination of smaller family size and increased migration of adult children makes it seem likely, as discussed further in section 5, that in the future, older age parents will increasing not have an adult child living in close proximity. While it is difficult to know just what the implications of small family size coupled with substantial migration of adults children will mean for future elderly, the situation clearly requires careful monitoring.

Section 4. Health Status

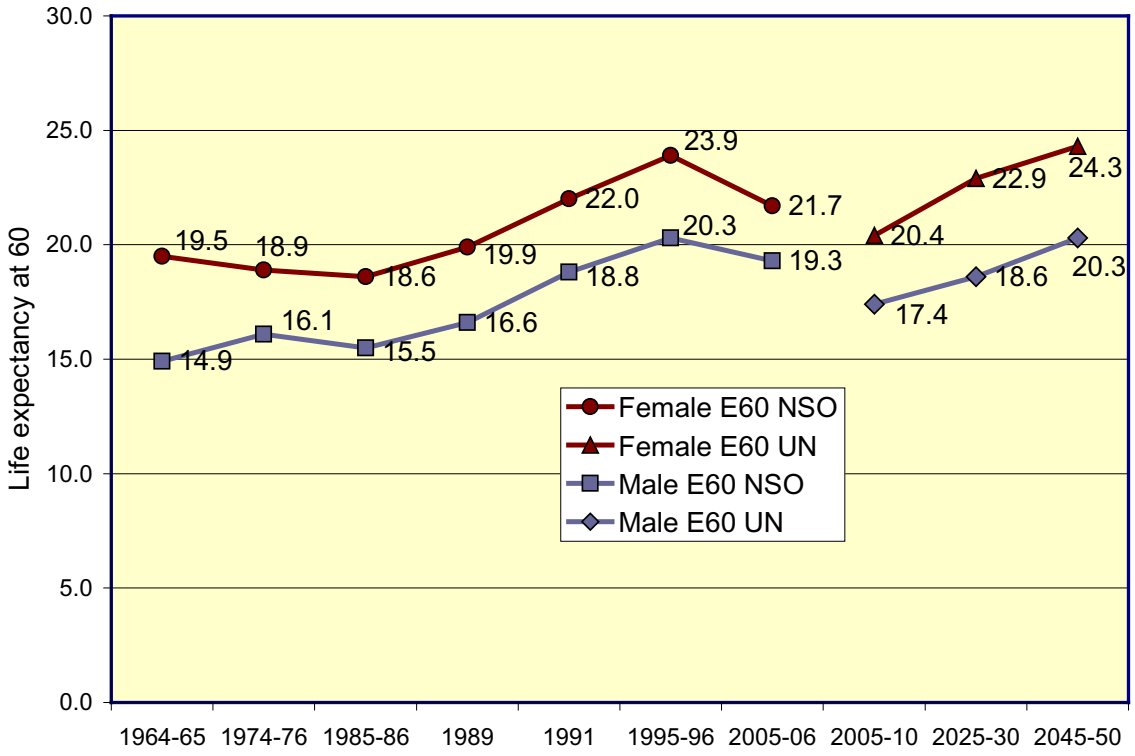
While the concept of well-being incorporates many different dimensions, perhaps none is of more central concern to older persons than their physical health. In virtually all populations, biological processes ensure not only that the risk of mortality increases steadily with age but so do functional limitations and chronic illness. Thus population ageing has critical implications for the demand for medical and related services within the formal health care system and for more general caregiving at the level of the family and community. At the same time, the impact of the biological processes that lead to an inevitable deterioration of health at some point in old age are affected by advancing medical technologies and changing environments in which people live out their lives. Thus there is considerable variation in mortality, morbidity, and other aspects of health across settings and over time. In this section we start by presenting trends in older age mortality, which in a sense is the ultimate measure of health, and estimates of active life expectancy. This is followed by discussions of self assessed health, selected health problems and illness, and finally functional limitations in activities of daily living. Much of the evidence presented is based on the recent 2007 national Survey of Elderly in Thailand.

A. Older age mortality

Vital registration in Thailand is incomplete although presumably improving. In order to estimate mortality and fertility levels, the National Statistical Office (NSO) has periodically conducted Surveys of Population Change since the mid-1960s. The methodology and quality have varied over time. In addition, estimates of older age mortality are particularly sensitive to the accuracy of age-reporting, something that is potentially an issue in Thailand as in most other countries (National Research Council 2001). To the extent that age tends to be overstated at older years, estimates of older age mortality will be understated and as a result life expectancy at older ages exaggerated. Nevertheless, the Surveys of Population Change provide the only empirically based estimates of life expectancy at older ages in Thailand. More recently, the United Nations published projections to 2050 of life expectancy at older ages for Thailand but estimates for the past are not provided (UN 2007a).

Figure 4.1 presents estimates of life expectancy of older persons based on these sources The NSO estimates indicate substantial improvement in life expectancy at age 60 for both men and women between the mid-1980s and the mid-1990s. The most recent Survey of Population Change, however, shows a decline in life expectancy at age 60 for both men and women based on data for the years 2005-06. Moreover, the UN projections of life expectancy at age 60, which begin at the period 2005-10, start at even lower levels than indicated by NSO estimates for 2005-06. Closer examination of age specific mortality rates provided in the 2005-06 Survey of Population Change suggest that there may be some data quality problems and hence that the decline in older age life expectancy relative to earlier surveys may be an artifact of differing levels of accuracy.[25] The lower projected levels of life expectancy at age 60 from the UN assessment suggests that those producing the estimates consider the Survey of Population Change estimates too high. In any event, while firm conclusions are not possible given the uncertainties in the estimates, it seems reasonable to assume that the trend has been towards improved survival at older ages even if the precise levels of survivorship remain in question.

Figure 4.1. Life expectancy at age 60 by sex for Thailand, estimates from the National Statistical Office (NSO) and the United Nations (UN) Population Division

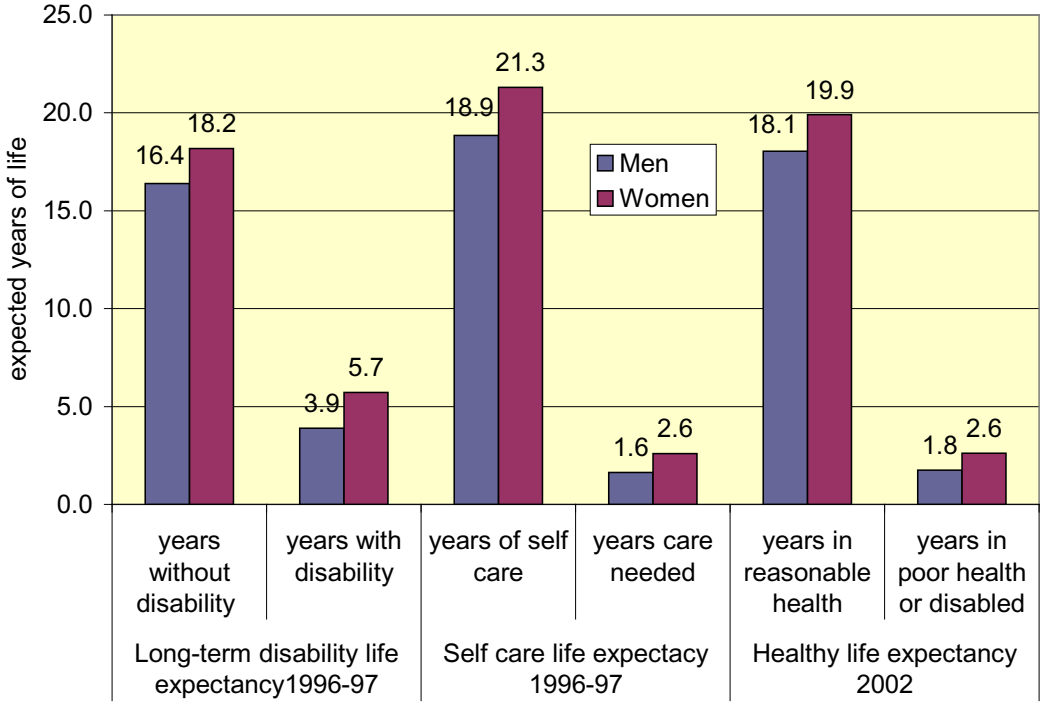


Sources: Surveys of Population Change conducted by the National Statistical Office, Thailand and UN (2007a).

Measures of overall life expectancy reflect mortality but do not take into account that some of the years lived may be in poor health or in a state of disability. Thus the concept of active life expectancy has been developed to measure expected years of life in a healthy state (Katz et al. 1983). Moreover, differences between active life expectancy and overall life expectancy indicate the number of years that can be expected to be lived in poor health or with disability. Estimates of active life expectancy, especially at older ages, need to be considered with caution since they are even more subject to error than overall life expectancy. They depend not only on the same often questionable mortality data that determine the total years of life expected but also on accurate reporting of disability and health conditions by age. Moreover, they will vary with the particular definitions of good health used.

Several estimates of active life expectancy at age 60 using different definitions and data sources are presented in figure 4.2. Although the estimates differ in the exact magnitudes they yield, several key aspects are quite consistent. They all indicate that at age 60 women can expect to live longer active lives than men but also to experience longer periods poor health or disability when they may not be able to function without some personal assistance. At the same time, on average for both men and women, a large majority of their older years will be in reasonable health and not require hands-on long term care.

Figure 4.2. Estimates of Active life expectancy at age 60 by gender for Thailand



Source: (Jitapunkul 2003; Rakchanyaban 2004 as reported in Kanchanachitra et al. 2007)

B. Self-assessed health

Obtaining objective measures of health in a large scale survey poses numerous difficulties. In contrast, it is very easy to ask respondents to subjectively assess their own health, typically using a global assessment of overall health during the recent past. Self assessed health appears to be a reasonably valid indicator of overall health and relates well to other more objective measures as well as being a reasonably effective predictor of mortality (Idler and Benyami 1997). Table 4.1 provides the distribution of self assessed health in 2007. Only modest numbers of Thais report their health as being at the extremes of either very good or very poor. Overall more older Thais rate their health as at least good than as poor or very poor.

Clear associations of self assessed health with age and gender are apparent. The percent who say their health is good and very good declines with each successive age group while the percent who rate their health is poor or very poor increases. This is true both for men and for women. At the same time for any given age group, women are less likely to report their health as being good or very good and more likely to report their health as being poor or very poor than are men. Thus gender differences in self assessed health are in the opposite direction as those with respect to life expectancy and active life expectancy. This paradox of older women experiencing better mortality but worst health status is a common finding in many populations (Verbrugge 1989). One important part of the explanation is that older men are more prone to fatal accidents and diseases while women are more prone to non-life-threatening illnesses.

Table 4.1. Self-assessed health status by age and gender, Thailand 2006

Total	total	60-69	70-79	80+
very good	3.8	4.9	2.5	1.5
good	43.0	50.2	34.8	26.5
fair	28.9	26.5	32.8	30.7
poor	21.5	16.7	26.3	34.6
very poor	2.8	1.7	3.6	6.8
total	100	100	100	100
Men				
very good	5.3	6.7	3.6	2.0
good	47.8	54.3	40.2	28.2
fair	26.7	24.4	30.5	29.4
poor	17.9	13.2	22.7	34.6
very poor	2.2	1.4	3.0	5.8
total	100	100	100	100
Women				
very good	2.6	3.4	1.7	1.2
good	39.2	46.6	30.6	25.4
fair	30.7	28.3	34.6	31.5
poor	24.4	19.8	29.1	34.6
very poor	3.2	1.9	4.1	7.4
total	100	100	100	100

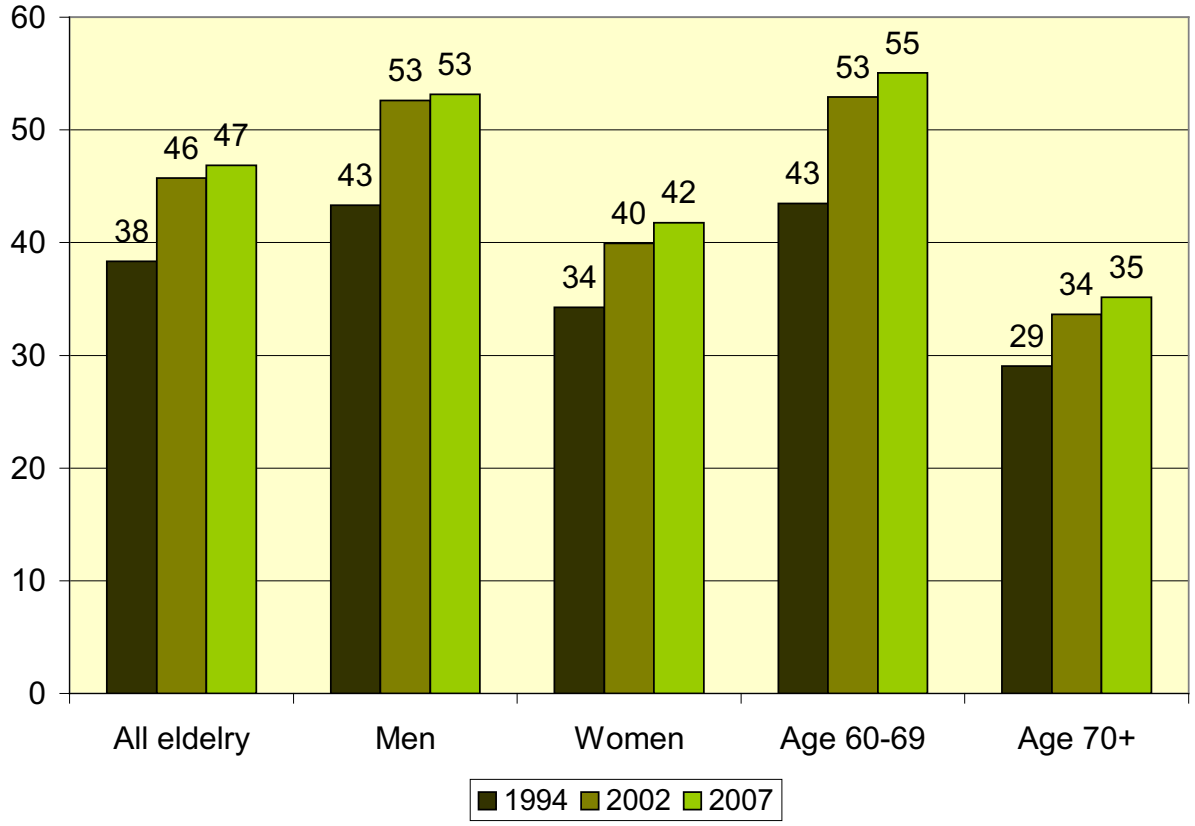
Source: 2007 Survey of Older Persons in Thailand

Figure 4.3 shows the percent who reported their health as good or very good in each of the three round of the Surveys of Older Persons in Thailand. The most striking finding is that, according to this measure, self assessed health has improved steadily for both men and women as well as for both younger and older elderly persons. The results also confirm that in each survey women are less likely to report their health as good or very good than are men and older elderly persons are considerably less likely to do so than younger elderly persons.

C. Health problems and illness

Table 4.2 presents some of the relevant information on health problems among older aged Thais as assessed in 2007. Almost a fourth judge themselves to be in poor or very poor health. This increases substantially with age with less than a fifth of persons age 60-69 compared to over 40% of those 80 and older saying their health is poor or very poor. Women and rural elderly are more likely to say their health is poor or very poor than men or urban elderly.

Figure 4.3. Percentage of population age 60 and older reporting good or very good health, Thailand 1994, 2002 and 2007



Source: 2007 Survey of Older Persons in Thailand

Problems with vision are relatively common among older persons. Although less than half a percent indicate that they cannot see at all, one fifth indicate they do not see clearly (and presumably either have no eyeglasses or eyeglasses cannot correct their situation). Hearing problems are somewhat less common. Again very few elderly cannot hear at all but 14% indicate they do not hear clearly (and apparently do not have a hearing aid to correct the problem). Both vision and hearing problems increase substantially with age and are more common among older women than men and more prevalent in rural and urban areas. This is especially so for vision problems and in terms of the urban-rural contrast likely reflects more untreated cataracts among the rural elderly. Problems with incontinence, either with respect to urination or defecation, are reported by 17% of older persons. These problems increase with age, are higher for women than for men, and are somewhat more prevalent in rural and urban areas. Finally, close to two thirds of older Thais report that they were ill sometime during the past five years. Again this situation increases with age and is somewhat higher for men and women and for rural than urban elderly.

Table 4.2. Health problems, by age, gender and area of residence, Thailand 2007

	Total	Age			Gender		Type of Area	
		60-69	70-79	80+	Men	Women	Urban	Rural
% in poor or very poor health	24.2	18.4	29.9	41.4	20.1	27.5	21.4	25.4
Vision (% distribution)								
sees clearly without glasses	53.7	60.7	46.8	33.6	56.1	51.7	46.8	56.4
sees clearly with glasses	25.4	26.3	25.1	20.7	28.0	23.3	38.9	20.0
does not see clearly	20.5	12.9	27.5	44.2	15.5	24.6	14.0	23.1
blind	0.4	0.1	0.6	1.4	0.3	0.4	0.3	0.4
Hearing (% distribution)								
hears clearly without aid	84.4	91.7	79.1	57.1	85.6	83.4	86.8	83.4
hears clearly with hearing aid	1.2	1.1	1.3	1.5	1.4	1.0	1.1	1.2
does not hear clearly	14.1	7.2	19.3	39.7	12.6	15.3	11.8	15.0
deaf	0.3	0.1	0.4	1.8	0.4	0.3	0.3	0.4
% having problems with incontinence	17.0	12.3	21.2	32.3	13.6	19.8	14.6	18.0
% who were ill sometime during the past 5 years	63.5	59.5	67.0	76.1	60.5	65.8	62.0	64.1

Source: 2007 Survey of Older Persons in Thailand

D. Functional limitations

One serious consequence of declining health and increased frailty associated with ageing is difficulty of physical movement and of independently being able to carry out basic activities of daily living.[26] As functional limitations increase, assistance by caregivers becomes increasingly necessary. Table 4.3 examines measures of functioning by looking at a variety of potential disabilities that were asked about in the 2007 Survey of Older Persons in Thailand. The first three (eating, dressing, and bathing and using the toilet) are the most basic functional activities.[27] Only relatively small percentages of persons age 60 and over are unable to do these three activities by themselves. Moderately higher percentages report having difficulties squatting, climbing two or three stairs, and counting change when using money. Considerably higher proportions of older persons are unable to do on their own those activities that require most physical exertion such as lifting 5 kg or walking 200-300 meters. Likewise using transportation such as buses or boats pose difficulty for a substantial share of older Thais. Overall, more than a third report at least one of the functional limitations listed.

Table 4.3. Percent who can not do selected activities without personal assistance or without aids, by age, gender and area of residence, Thailand 2007

		Age		Gender		Type of Area	
	Total	60-69	70+	Men	Women	Urban	Rural
Eating	2.3	1.0	4.0	2.1	2.4	3.4	1.8
Dressing	3.0	1.4	5.3	2.6	3.3	4.1	2.6
Bathing/using toilet	3.4	1.6	5.9	2.8	3.9	4.8	2.8
Squatting	12.4	6.5	20.8	8.4	15.6	15.8	11.0
Lifting 5 kilos	27.0	14.8	44.2	18.0	34.2	30.0	25.7
Walking 200-300 meters	16.8	7.5	30.1	12.1	20.6	17.9	16.4
Climbing 2 or 3 stairs	13.6	6.0	24.4	9.9	16.6	15.2	13.0
Using transportation	25.8	12.2	45.2	17.6	32.4	25.3	26.0
Counting change	10.7	3.9	20.5	7.9	13.1	10.2	11.0
Any of the above	36.1	21.2	57.3	25.4	44.6	37.0	35.7

Source: 2007 Survey of Elderly in Thailand

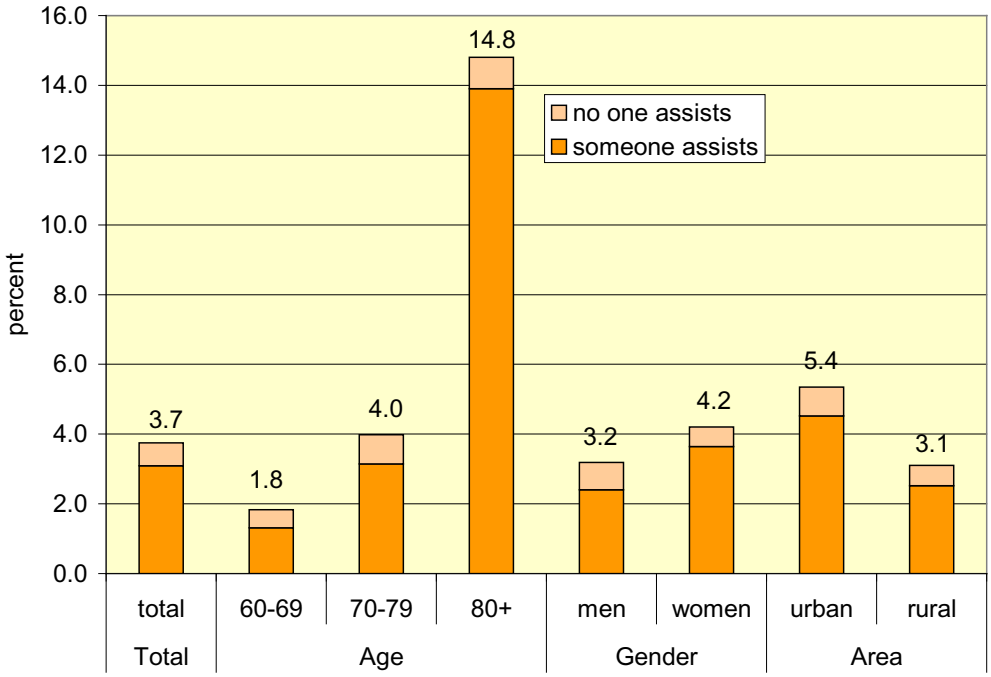
The percentages who have difficulty doing these activities independently varies considerably by age. Compared to persons in their 60s, substantially higher percentages of those age 70 and over have difficulty doing these activities without help from others or, for some of the activities, without the use of some type of aid. Higher percentages of women than men report difficulties in doing each of these activities on their own. Also, with the exceptions using transportation and counting change, urban older persons are modestly more likely to report functional problems than rural elderly.

Presumably, an inability to independently eat, dress, bathe or use the toilet by oneself signifies the most severe functional limitations and the greatest need for a caregiver to assist on a daily basis. Panel A of figure 4.4 shows the percent of elderly who indicate difficulty in doing at least one of these three activities on their own and divides them into those who report they receive assistance from someone in carrying out daily living activities and those who indicate no one assists. Overall less than 4% of older persons report limitations with respect to any of these most basic activities. However the percentage increases with age and is by far the highest for those aged 80 and over. Women are more likely than men and elderly urban residents are more likely than their rural counterparts to report at least one of these basic limitations. One consistent finding, however, across age, gender and area of residence is that a large majority of those who have one of these basic functional limitations also have someone who assists them.

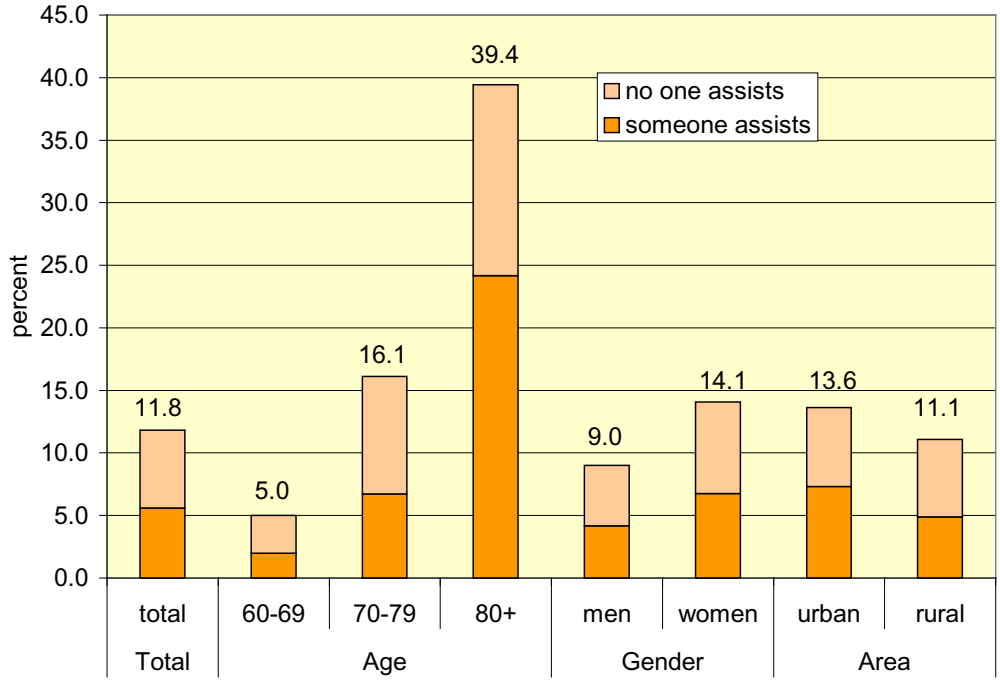
Panel B of figure 4.4 expands the definition of having a functional limitation to include not only one of the basic limitations considered in panel A but also anyone with a major mobility problem defined as both neither being able to walk to 300 meter nor to climb 2 or 3 steps of stairs. Broadening the definition more than triples the share of older persons considered to have a functional limitation to 12%. The differences related to age, gender and area of residence remains similar to those shown in panel A. However, based on this broader definition of functional limitations, the share who receive assistance from a caregiver is far lower constituting overall slightly less than half. Among the different sub-categories of elderly, only among the oldest, i.e. those aged 80 and above, and to a lesser extent among the urban elderly do more than half have a caregiver.

Figure 4.4. Percentage of population age 60 with functional problems and whether someone provides assistance

A. Can not do at least one basic activity of daily living by self



B. Can not do at least one basic activity of daily living by self and has major mobility problem



Source: 2007 Survey of Older Persons in Thailand

Note: Basic activities of daily living considered are eat, dress, bathe, or use toilet; a major mobility problem is defined as not being able to both walk 200-300 meters and climb 2-3 steps.

The large majority of older persons (almost 90%) when asked who helped them most with their daily activities responded that they did these activities by themselves and thus that no one else provided major assistance, presumably in most cases because the did not need assistance.[28] Table 4.4 indicates who serves as primary caregivers for all older persons who had someone providing care for daily activities as well as separately for the subset of older persons who were unable to do at least one of the basic daily activities by themselves. Results are also presented separately for married and unmarried respondents since a spouse could be a primary caregiver only in the case of those who are married.

Table 4.4. Percent distribution of caregivers by gender and marital status of persons who have a caregiver for daily activities, Thailand 2007

	Among all persons who have a caregiver		Among all persons who have caregiver and are unable to do at least one basic activity on own	
	men	women	men	women
All				
spouse	53.2	11.5	48.0	13.3
child or child-in-law	39.4	72.5	40.4	65.2
other relative	5.8	10.4	9.2	11.9
non-relative	1.6	5.5	2.4	9.6
total	100	100	100	100
Married				
spouse	70.6	42.4	71.0	52.2
child or child-in-law	27.0	53.2	24.0	43.3
other relative	1.3	3.1	2.3	3.8
non-relative	1.1	1.3	2.7	0.6
total	100	100	100	100
Not married				
child or child-in-law	77.2	79.7	75.0	72.7
other relative	19.8	13.2	23.1	14.6
non-relative	3.1	7.1	1.9	12.7
total	100	100	100	100

Source: 2007 Survey of Older Persons in Thailand
Note: Basic activities considered are eat, dress, bathe, or use toilet

Substantial differences are evident between older men and women with respect caregivers. For men, a wife is the most common caregiver while for women a child or child-in-law most frequently fulfilled this role. Among elderly overall, more than half of the men with a caregiver indicated that their spouse serves in this role compared to only 13% of women. A large part of this difference arises because of the higher levels of widowhood among women, a condition that obviously precludes spouses as caregivers. When restricted to elderly who are currently married, the difference in the percent of men and women who cite a spouse as the main caregiver narrows considerably. Still it is clear that even among married older persons, wives are more likely to serve as primary caregivers for the husband than the reverse. Nevertheless, husbands still account for over 40% of the caregivers of

married women in general and just over half of the primary caregivers of wives who have at least one limitation on a basic daily living activity. As for unmarried older persons, children are by far the most common primary caregiver with little difference between older men and older women.

Regardless of marital status or gender almost all caregivers are family members. In the case of married older persons only a very small minority reported a non-relative as a primary caregiver. Among non-married, non-relatives as primary caregivers are also very uncommon for men but somewhat more common for women. In most cases these non-relatives were servants.[29] Since the survey excluded institutionalized older persons, however, the extent that non-family caregivers are used is likely understated.

E. Summing Up

Based on this brief review of the health of older persons in Thailand several findings are worth highlighting. An important caveat, however, is to point out that the quality of data on older age mortality, functional limitations, and many other relevant aspects of health is such that considerable uncertainty surrounds the estimates presented in this section.

Despite these limitations, the various estimates of active life expectancy as well as the ability to carry out activities of daily living make clear that during most of their elderly years, older Thais are in sufficiently decent health to take care of themselves. Also the percent of older persons who report their health as good or very good has recently been increasing. As a result, the period during which the assistance of a coresident or nearby caregiver is needed to help with basic activities is typically only a matter of a few years. This in turn has important bearing on the implications of changing living arrangements described in the following section.

At present at least, a substantial majority of older persons who have difficulties carrying out the most essential daily activities on their own have a personal caregiver, the vast majority of whom coreside with the older person. However, those who have mobility problems but can take care of themselves in terms of the basic activities, are far less likely to have a caregiver assisting them. Also contributing to a need for a caregiver in daily activities is the considerable proportions of older persons who have problems with vision or hearing. If these problems are better addressed by the health system it could contribute to keeping older Thais independent longer.

Substantial gender differences with respect to health among older Thais are evident. Older men have a distinct disadvantage with respect to life expectancy. This in turn contributes to the far higher levels of widowhood among older women and thus to their disadvantage as well since the loss of a spouse often means the loss of an important source of material, physical and emotional support. Thus improving the life expectancy of men would not only contribute to greater gender equity in mortality but would also benefit women by reducing widowhood. The fact that older women in Thailand, as in many other countries, generally have more non-fatal health problems than men adds to the importance of reducing widowhood given that when spouses are available they can serve as primary care givers during times of illness and frailty. While men are less likely to be the primary caregiver for wives than the reverse, the proportion of primary caregivers to married women who are their husbands is still very substantial. So far, little attention has specifically focused on mortality disadvantages of older age men in Thailand or elsewhere for that matter. Thus no mention is made of this as an issue to be addressed in Thailand's National Plan for Older Persons nor in the Madrid International Plan of Action on Ageing.

Section 5. Family support and intergenerational exchanges

In Thailand, as in Southeast Asia generally and indeed much of the developing world beyond, informal systems of social and economic exchange within the family play a crucial role in determining the well being of the older age population (World Bank 1994). Of particular importance are intergenerational exchanges of services and both material and social support between elderly parents and their adult children as well as the living arrangements with which they are inextricably entwined. In this section, we examine the nature and extent of family support and intergenerational exchanges, including living arrangements, material support and social contact.

A. Cultural and Religious Underpinnings

The Thai population is relatively homogeneous in major cultural aspects. The vast majority are ethnic Thais, speak some form of the Thai language, and profess Buddhism, typically of the Theravada branch. Numerous minorities in terms of ethnicity, language or religion are also present. Muslims, over half of whom are Malay-speaking, are the most notable religious minority constituting almost 5 percent of the population according the 2000 census. As in other southeast Asian countries, the primary responsibility for the elderly in Thailand has traditionally been with the family. A strong sense of moral obligation that adult children should support and care for elderly parents has been a pervasive aspect of Thai cultural values and provides a strong normative basis for the prevailing pattern of familial support. As discussed in section 7, this responsibility is reflected in both the laws of the land and in the formulation of social policy. Focus group research in the mid-1990s indicated that both elderly parents and adult children share similar views regarding this sense of responsibility and that it transcends economic status as well as regional and rural-urban residence (Knodel, Saengtienchai and Sittitrai 1995).

Repaying parents for having borne, cared for and raised you is generally viewed by Thais as a continual moral obligation that starts when children are old enough to provide meaningful help and thus typically long before parents reach old age (Rabibhadana, 1984). However, care and support from children when their parents are frail and too old to care for or support themselves is viewed as the culmination of this process. Although Thai Muslims may describe filial piety in different terms than the Buddhist majority, they share a strong sense of obligation to parents that is deeply rooted in their religion. Indeed through out much of east and southeast Asia, there are similar cultural prescriptions related to the obligation to repay parents, especially when they reach older ages and can no longer support and take full care of themselves (Asis et al. 1995).

B. Living Arrangements

General considerations. Many aspects of well-being of older persons are influenced by their living arrangements. In Thailand, as in most of East and Southeast Asia, living with or nearby adult children has been a predominant pattern. While household composition is the most common and readily available indicator of living arrangements, the implications of particular configurations defined by such information can be ambiguous. One serious limitation is that such measures do not encompass information about others who live nearby. Thus situations in which elderly parents and children live in separate dwellings but belong to a related cluster of

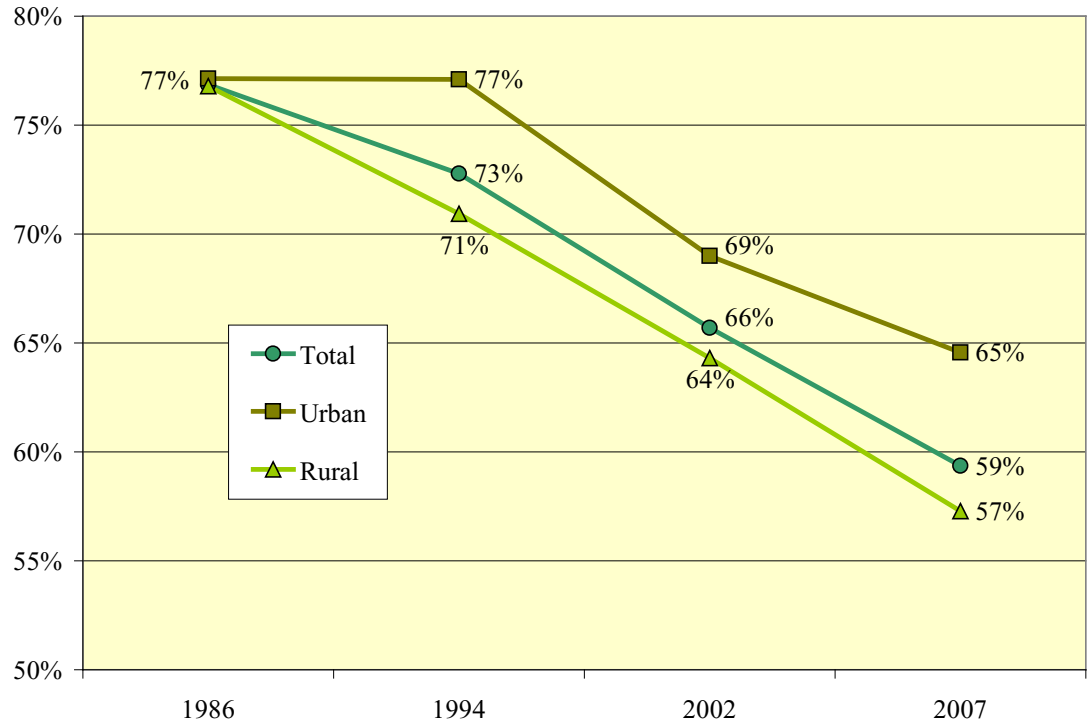
interdependent households are ignored. Yet in such situations children and others who live nearby may still play an important role in the lives of elderly (Knodel & Saengtienchai 1999). Another difficulty arises because the meaning of living arrangements can not be inferred with any certainty simply from their form (Hermalin 1997). Thus measures of composition of households in which elderly reside can be suggestive but they need to be interpreted cautiously.

With that said, it is still true that coresidence with one or more adult children, typically in a stem family configuration, is a long standing tradition in Thailand and viewed as an essential way for families to meet the needs of older dependent members. Extensive qualitative research has documented that older Thais themselves often view living arrangements that permit frequent access between the two generations as crucial to their own well-being (Knodel, Saengtienchai & Sittitrai 1995). In contrast, living alone is usually viewed as a disadvantage for several reasons. Not only is it likely to be associated with less frequent interpersonal interactions, and hence feelings of loneliness, but there is also a greater chance that urgent needs for assistance, created for example by an acute health crisis or accident, will go unnoticed longer than if others are present in the household. In some cases, living alone may even signify desertion by others. Although living only with a spouse also indicates that adult children or other younger generation kin are not present in the household, it is generally viewed as less problematic than living alone since a spouse can be a principal source of emotional and material support and personal care during illness or frailty. Coresidence can benefit both generations but the balance typically shifts over the life course until eventually parents reach ages in which their contributions are diminished and they become largely dependent on others for care and support.

Trends. Given the central role that living with children has traditionally played in the context of family support in Thailand, we start our exploration of living arrangements with an examination of trends in coresidence. As noted in the previous section, only about 5 percent of current elders have no living children. Thus childlessness is not a common limitation for coresidence. Figure 5.1 shows the percent who coresided with at least one child based on four nationally representative surveys of older Thais.[30] They reveal a clear decline coresidence during the last two decades with the overall percent of persons 60 and above who live in the same household with a child falling from 77% in 1986 to only 59% by 2007.[31] Each of the three most recent surveys indicate higher levels of urban than rural coresidence but declines are evident both among urban and rural older persons.

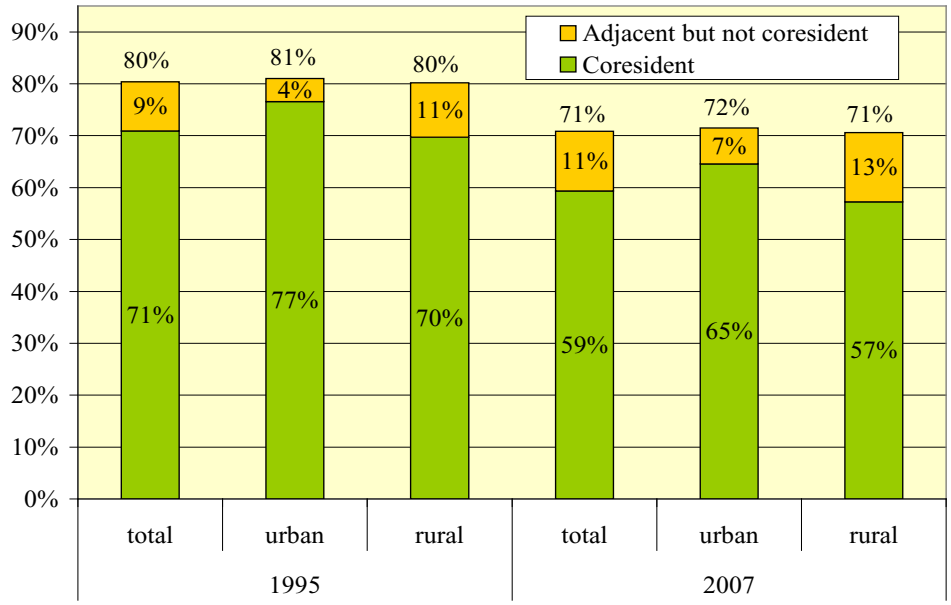
As noted above, measures of literal co-residence ignore situations in which elderly parents and their children live very near each other but in separate dwellings, an arrangement that can meet many of the same needs of the elderly as coresidence. Such situations are common in Thailand, especially in rural settings (Cowgill, 1972; Knodel & Saengtienchai, 1999). Figure 5.2 indicates the percent of persons in 1995 and 2007 who either lived with or adjacent to a child. The latter situation is more common in rural than urban areas. This difference undoubtedly reflects the greater availability of land in rural than urban areas to build separate housing for adult children nearby the parental home. Thus when this broader measure of living arrangements in relation to children is used, the urban-rural difference disappears. At the same time, there is a consistent decline between 1995 and 2007 in this measure regardless of area of residence. Nevertheless, by 2007 a large majority of both rural and urban Thais still reside with or next to a child.

Figure 5.1. Percent age 60 and older who coreside with at least one child, Thailand, 1986-2007



Sources: 1986 Survey of Socio-economic Consequences of Ageing of the Population in Thailand; 1994, 2002 and 2007 Surveys of Older Persons in Thailand; 2002 Labor Force Survey, 2nd round.
Note: % coresident in 2002 includes small number living with child-in-law but not child; See Knodel et al. 2005

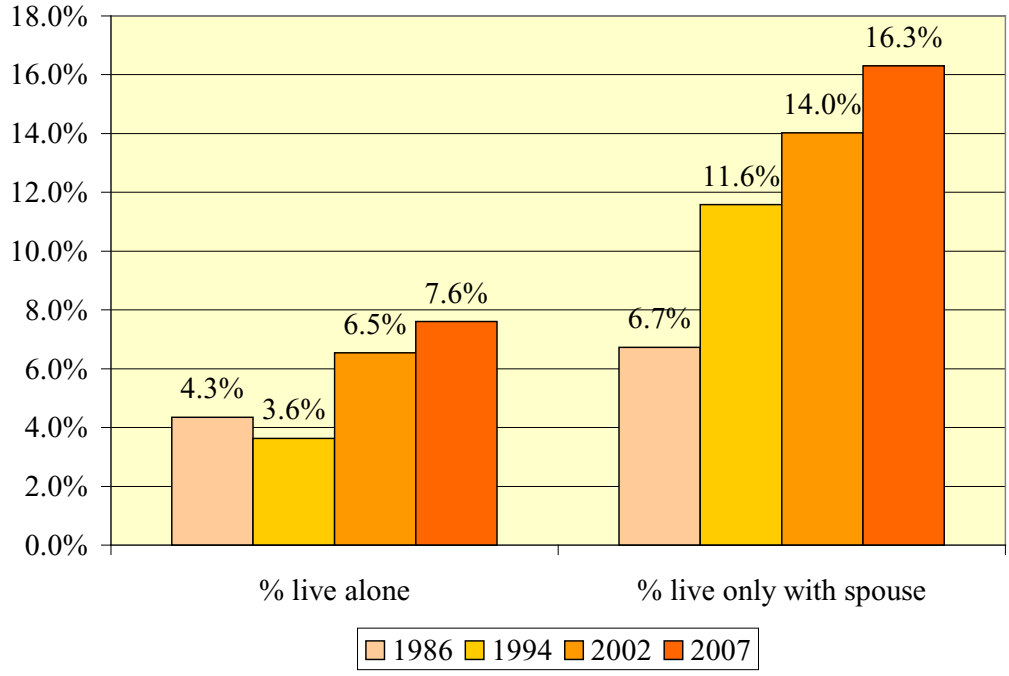
Figure 5.2. Percent age 60 and older who coreside with or live adjacent to at least one child, Thailand, 1995 and 2007



Sources: 1995 Survey of Welfare of the Elderly in Thailand; 2007 Survey of Older Persons in Thailand
Note: In 2007, living adjacent includes living very nearby.

Another aspect of the living arrangements of older persons of interest is the proportion who live independently of others, either living alone or only with a spouse. Figure 5.3 provides the relevant information based on the same four nationally representative surveys that are the source of figure 5.1. Both the percent of persons age 60 and above who live alone and, even more so, the percent who live only with a spouse have increased during the last two decades. Together, these measures indicate that by 2007 almost one fourth of Thais age 60 and over live independently, up from only 11% in just over two decades earlier.

Figure 5.3. Percent of persons age 60 and older who live alone and percent who live only with a spouse, Thailand 1986 to 2007



Sources: 1986 Survey of Socio-economic Consequences of Ageing of the Population in Thailand; 1994, 2002 and 2007 Surveys of Older Persons in Thailand; 2002 Labor Force Survey, 2nd round.

Current arrangements. Living independently does not necessarily mean geographical isolation from children (or other relatives) who may live nearby. Results from the 2007 survey presented in Table 5.1 show that about one third of both elders who live alone and who live only with a spouse have a child living next door and slightly over half have a child living locally, either next door or elsewhere in the same village or municipality. Of course in some cases independent living among the elderly is the result of being childless, especially for those who live alone among whom 8% have never married. Taken together, 30% of those who live alone have no child within the same province either due to being childless or separation by substantial geographical distance. The equivalent proportion of married elders living only with a spouse who have no children living in their province is less but still almost one fourth.

Table 5.1. Persons age 60 and over who live alone or only with a spouse, by location of nearest child, Thailand 2007

Location of	lives alone		lives with spouse only	
nearest child	% distribution	cumulative %	% distribution	cumulative %
next door	33.4	33.4	32.0	32.0
same village or municipality	18.1	51.5	21.9	53.9
same province	17.2	68.7	20.5	74.4
outside province	17.8	86.5	21.8	96.2
has no children	13.5	100.0	3.8	100.0
Total	100	--	100	--

Source: 2007 Survey of Older Persons in Thailand

Older persons who live alone or live only with a spouse are often portrayed in the Thai mass media as being in particularly poor circumstances compared to other elderly and sometimes serve as a basis for estimates of elderly who need assistance. Thus increasing percentages of older persons in these situations are potentially of concern. Table 5.2 examines whether these elderly are worse off than others. Two indicators of the economic situation of respondents are shown. The first measure is the percent of respondents who both say that their income is inadequate and that they are dissatisfied with their financial situation. Based on self-assessments, such respondents are in the worst economic circumstances and presumably most in need of material assistance. The second measure is the mean number of possessions in their households (as described in section 3). To indicate how a particular group compares to the overall population, the ratio of each measure for a particular group to the average for all older persons is also indicated in the table. In the case of self assessed difficult economic circumstances, ratios over 1.00 indicate they are worse off than average while for mean household possessions, ratios under 1.00 indicate they are worse off.

In general, neither persons who live alone nor persons who live only with a spouse are more likely than elderly overall to be characterized by poor self-assessed economic circumstances. Nevertheless considerable differences are evident within both the groups who live alone and those who live only with a spouse when they are divided into those who are childless, those who have a child but not next door, and those who live next to a child. Clearly disproportionately more of those who are childless, both among persons living alone and those living with only a spouse, fare much worse than average. This is not true, however, for those who have children regardless of whether a child of theirs lives next door to them or not.

Quite different results are obtained when examining the mean number of household possessions. Both those who live alone and those who live only with a spouse, regardless of whether they are childless or whether they have children living next to them or not have fewer household

possessions than average. However this is particularly true for those who live alone. These results regarding household possessions undoubtedly reflect the fact that having more people in a household increased the chance that some member will have a particular possession. Thus those who live alone or only with a spouse are at a distinct disadvantage in this regards.

Table 5.2. Percent assessing their economic situation as poor and mean number of household possessions, by living arrangements, among those living alone or only with a spouse, Thailand 2007

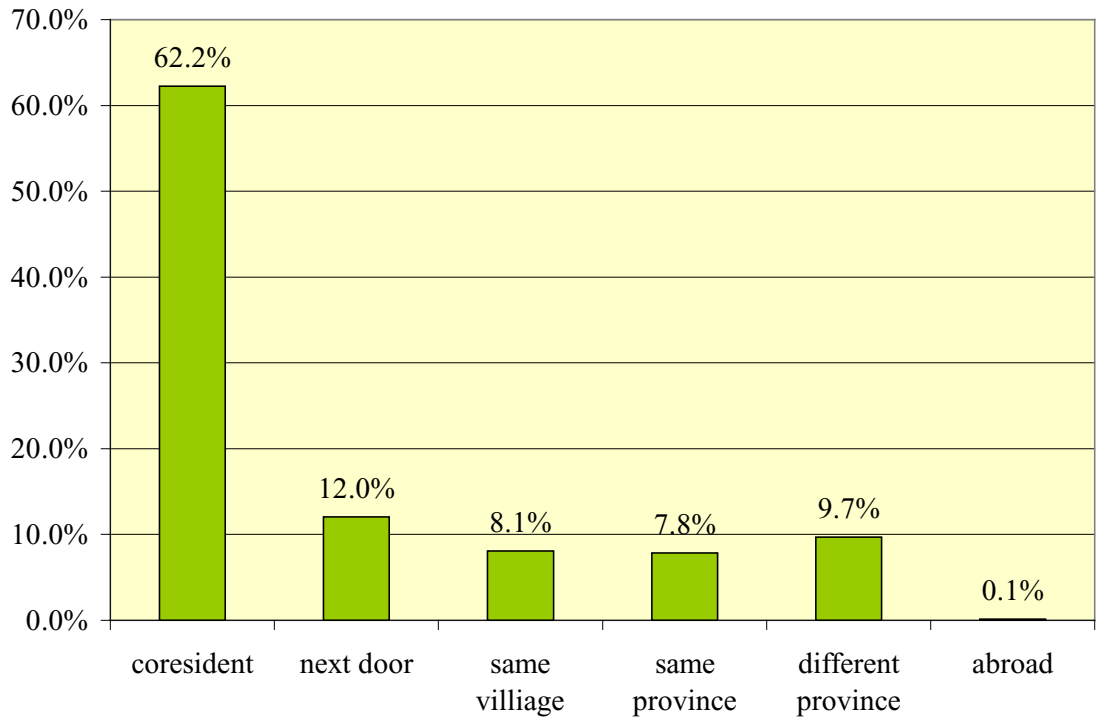
	Has inadequate income and is dissatisfied with financial situation		Mean number of household possessions	
	Percent	Ratio to average of all older persons	Mean	Ratio to average of all older persons
All persons 60 and older	18.7	1.00	10.4	1.00
Persons living alone				
total	17.8	0.95	6.7	0.64
has no children	31.2	1.67	6.4	0.62
has children but none adjacent	17.7	0.95	7.3	0.70
has child living next door	12.5	0.67	5.7	0.54
Persons living with spouse only				
total	18.4	0.99	8.7	0.84
has no children	26.6	1.43	9.1	0.87
has children but none adjacent	17.0	0.91	9.3	0.89
has child living next door	20.4	1.09	7.6	0.73

Source: 2007 Survey of Older Persons in Thailand

In brief, whether or not persons who live alone or live only with a spouse deserve special attention depends in part on how economic need is judged. The one group that very clearly seems to be at a distinct disadvantage are persons who live alone and are also childless. They fare the worst on the measure of self assessed economic difficulty and almost the worst with respect to household possessions.

Figure 5.4 examines the current situation with respect to where the nearest child lives for all older age persons who have a least one living child. Among elderly parents, less than 10% have no child in the same province in which they live and over four fifths have a child at least within the same village. Thus among older age parents, only a relatively modest proportion are geographically separated by substantial distances from all of their children.

Figure 5.4. Percent distribution of persons age 60 and older who have children according to the location of their nearest child, Thailand 2007



Source: 2007 Survey of Older Persons in Thailand

A summary of current living arrangements of older persons according to age, gender, and area of residence is provided in table 5.3. Since the traditional norm in Thai society is to eventually live with one married child in a stem family configuration, a distinction is made between living with at least one ever married child or child-in-law and living only with unmarried children.[32] Just over two-fifths of elderly live with at least one married child or child-in-law and just under one fifth live with unmarried children but no married child.[33] Persons age 70 and older are somewhat more likely to live alone but somewhat less likely to live only with a spouse than those who are in their sixties. This undoubtedly reflects the greater chance of the older elderly being widowed compared to younger elderly. Older elderly are also more likely to live with a married child than those in their sixties and less likely to live only with an unmarried child. This likely reflects in part increases in the chance of ever being married as time passes and parents get older.

Several differences are also apparent in the living arrangements of older men and women. Women are somewhat more likely to live alone and less likely to live only with a spouse than are men, reflecting the higher levels of widowhood among women. Women are more likely than men to live with married children and somewhat less likely to live only with unmarried children although the percent who live with any children or children in-law (shown in the bottom row of the table) differs little by gender. Rural elderly are somewhat more likely than their urban counterparts to live with ever married children and somewhat less likely to live with unmarried children. This may reflect an earlier age of departure from rural than urban households among single children who migrate to look for work elsewhere.

Table 5.3. Percent distribution of Thai elders according to living arrangements, Thailand 2007

	Total	Age		Gender		Area	
Living with whom:		60-69	70+	Men	Women	Urban	Rural
Alone	7.6	6.2	9.7	6.0	8.9	7.4	7.7
Spouse only	16.3	18.5	13.2	21.3	12.3	12.9	17.7
Ever married children or children-in-law (w/ or w/o spouse, single children or others))	41.6	36.9	48.4	36.5	45.7	39.3	42.5
Unmarried children (w/ or w/o spouse or others but w/o married children or children-in-law)	18.6	20.3	16.2	21.6	16.2	26.2	15.6
Other arrangement	15.9	18.1	12.7	14.7	16.8	14.2	16.5
Total percent	100	100	100	100	100	100	100
Percent with any children or children-in-law	60.2	57.2	64.5	58.1	61.9	65.5	58.1

Source: 2007 Survey of Older Persons in Thailand

Measures of living arrangements related to the age, gender and marital status of coresident children are shown in table 5.4. Given that most children of older persons are already adults, the percent of elderly Thais who live with a child of at least 18 years of age is only slightly lower than the percent who live with any child. Coresidence with at least one married child is more common than coresidence with at least one child who was still single. Overall, coresidence with single children differs only modestly with respect to the gender of the child as indicated by the ratio of the percent who live with single daughters to the percent who live with single sons. In contrast, coresidence with married children is clearly related to the gender of the child with a substantially greater tendency to live with a married daughter than son. This reflects a well-known matrilocal tendency among ethnic Thais, especially those in the northeast and upper north (Knodel, Chayovan & Siriboon 1992a). This tendency, however, is far weaker in urban than rural areas, undoubtedly reflecting the far greater influence of Chinese or mixed Thai-Chinese ethnicity (and the associated preference for residing with a married son) among older persons in urban areas.

Coresident grandchildren. Older age Thais often contribute to their adult children's well-being by providing a number of useful services including helping with household chores, minding the house, and preparing meals. In addition, as grandparents they often assist with the care of their grandchildren, from both coresident and non-coresident children. This frees the parents of the grandchildren to engage in economic activity outside the home. In the case of caring for grandchildren from migrant children, the grandparents may take virtually full responsibility for their upbringing during their formative years. One potential outcome of this phenomena is the creation of what is often labeled "skip generation" households referring to the fact that in some cases grandparents live together with dependent grandchildren but in the absence of any of their adult children who have all either migrated or died. To some extent the

AIDS epidemic contributes to the formation of skip generation households, especially where the epidemic is very severe. In Thailand, however, by far the main cause leading to skip generation households is the migration of adult children, typically to find employment. Moreover, as documented in section 2, migration of children of the elderly has increased substantially recently, especially among the children of older persons in rural areas.

Table 5.4. Selected measures of living with children among persons age 60 and older who have children, Thailand 2007

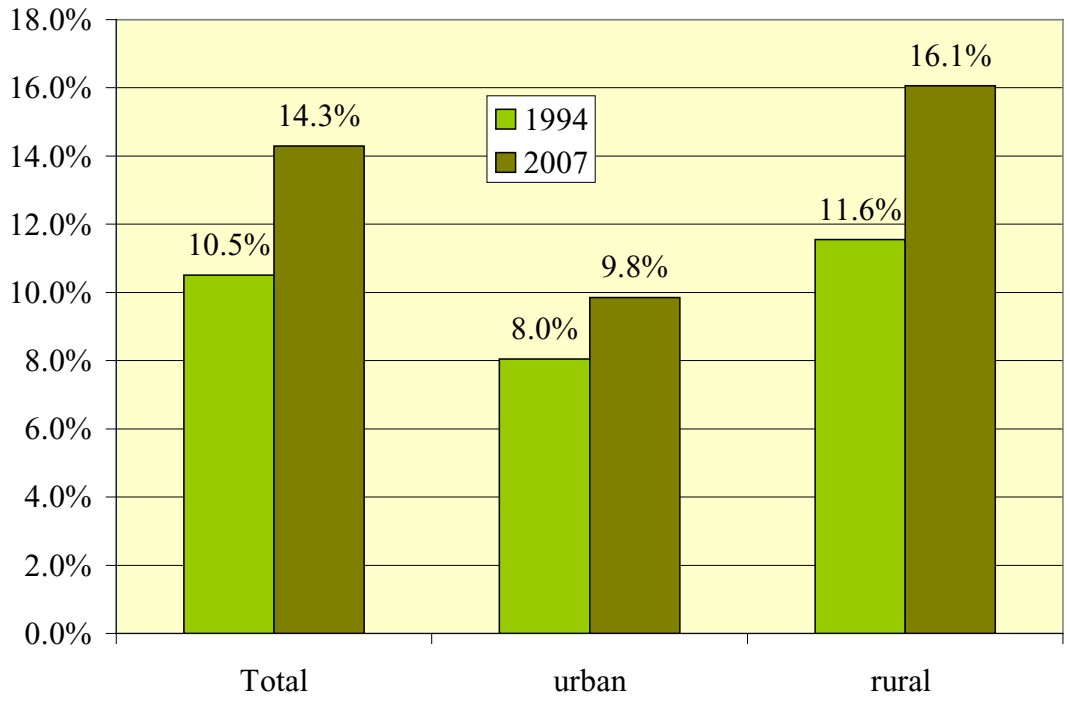
	Total	Age		Gender		Area	
Percent living with		60-69	70+	Men	Women	Urban	Rural
any child age 18+	58.2	55.0	62.8	55.4	60.5	63.6	56.1
any single child	25.6	27.7	22.7	28.5	23.3	36.6	21.3
any single son	15.8	18.1	12.4	18.3	13.8	20.3	13.9
any single daughter	13.7	14.0	13.2	14.8	12.8	22.8	10.0
any married child	40.5	36.0	46.8	35.6	44.4	38.1	41.4
any married son	15.2	14.7	15.9	13.9	16.2	17.3	14.4
any married daughter	26.8	23.0	32.2	23.2	29.7	22.8	28.4
Ratio living with							
single daughter/single son	0.87	0.77	1.06	0.81	0.93	1.12	0.72
married daughter/ married son	1.76	1.57	2.02	1.67	1.83	1.32	1.98

Source: 2007 Survey of Older Persons in Thailand

There is no standard measure of skip generation households. For the purpose of this report, we define skip generation households as those who have one or more grandchildren but no married child or child in-law in the household.[34] Figure 5.5 compares the proportion of older persons who live in skip generation households in 1994 and 2007. The results point to a substantial increase during the intervening period. At both times, elderly are more likely to be in skip generation households in rural than urban areas although the rural-urban difference has become more pronounced. This is consistent with the evidence presented in section 2 indicating a substantial increase in migration among the adult children of older aged rural Thai parents between 1995 and 2007. At the same time, however, the low fertility of childbearing adults during this period undoubtedly moderated the extent of increase in skip generation households.

The 2007 Survey of Older Persons in Thailand includes information specifically about the numbers of coresident grandchildren with a parent and the number with no parent in the household (i.e. the parents either live elsewhere or have died). For grandchildren who have no parent living in the household, information is also available on who provides care for the grandchildren and who supports the grandchildren financially. This it provides the basis for a more direct and detailed assessment of the extent to which older age grandparents are involved in raising grandchildren than estimates of skip generation households.

Figure 5.5. Percent of persons age 60 and older living in "skip generation" households, Thailand 1994 and 2007



Sources: 1994 and 2007 Surveys of Older Persons in Thailand
Note: Skip generation households have one or more grandchildren but no married child or child-in-law.

Table 5.5 shows the percent distribution of older persons with respect to the presence of coresident grandchildren, both by area of residence and by a combined measure of marital status and gender.[35] Overall, just over half of persons age 60 and older do not have any grandchildren living in the household. For another 5% the grandchildren in the household are all adults already (i.e. age 18 or over) and thus are likely to be more or less independent. The proportion of older persons with no grandchild in the household is greater in urban than rural areas. Grandchildren are also more likely to be present in households with only a grandmother than in households with only a grandfather.

Only 2% of elderly live in households where both grandchildren with parents and without parents are present. Among the remaining elderly, living with minor grandchildren without a parent present is even more likely than living with grandchildren whose parent is present. As the bottom row of table 5.5 indicates, a total of one out of four elderly persons has at least one minor age grandchild without a parent present indicating that this is a relatively common situation. In addition, rural elderly are noticeably more likely to have a minor age grandchild present without a parent than are urban elderly, likely reflecting the substantial migration of rural adult children seeking employment elsewhere, particularly to more urbanized settings where better employment opportunities are available. In situations where only one grandparent is in the household, grandmothers are more likely than grandfathers to live with a minor grandchild, especially when the grandchild has no parent present. This likely reflects the traditional division of labor in which women are more likely than men to take on childrearing including for grandchildren.

Table 5.5. Percent distribution of persons age 60 and older according to the presence of coresident grandchildren, Thailand 2007

Situation with regards to grandchild in household	Total	Area		Marital status and gender		
		Urban	Rural	Married and lives with spouse	Men without spouse	Women without spouse
None	52.0	59.7	48.9	53.2	60.4	47.1
Only adult grandchildren	4.8	5.5	4.5	2.6	6.2	8.6
Only minor age grandchildren with parent	18.3	17.7	18.5	16.3	18.3	22.1
Both minor age grandchildren with and without parent[(a)]	2.1	1.4	2.4	2.5	1.1	1.8
Only minor age grandchildren without parent[(a)]	22.9	15.8	25.7	25.5	14.0	20.4
Total percent	100	100	100	100	100	100
Percent with any minor grandchildren without parent[(a)]	25.0	17.2	28.1	28.0	15.1	22.1

Source: 2007 Survey of Older Persons in Thailand

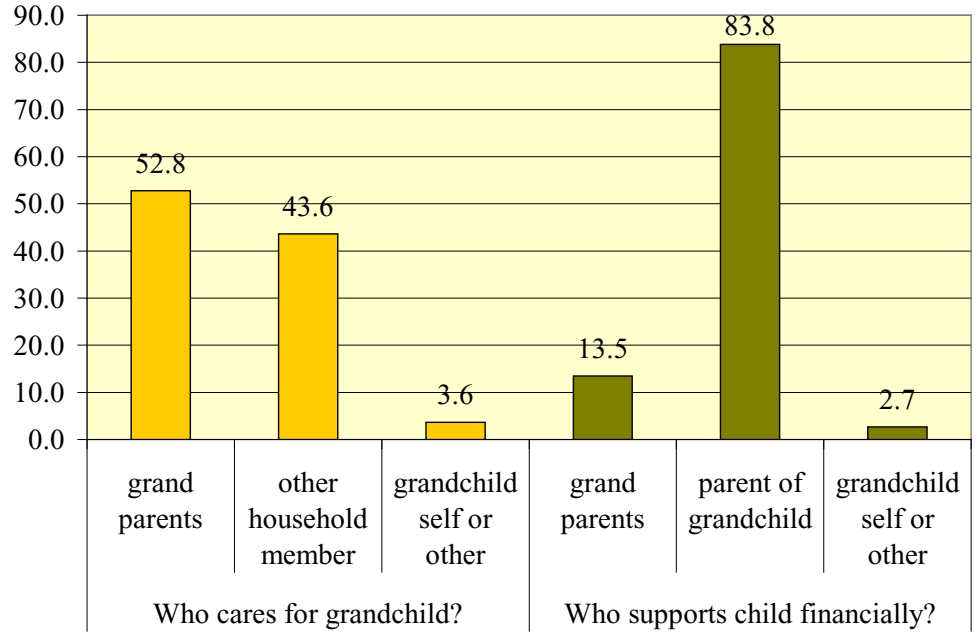
Notes: Adult grandchild are age 18 and over; minor age grandchildren are under age 18. Because of ambiguity in the survey questionnaire a small number of cases with only adult grandchildren may be included in this category.

Figure 5.6 provides information on who provides care and material support for grandchildren who live with their grandparents but whose parents are absent.[36] In slightly half of the cases, a grandparent is the main person caretaker for the grandchildren but in only a relatively small percent are the grandparents the primary providers of financial support for the child. Instead, the parents of the grandchild typically take responsibility for their children's financial support. This undoubtedly reflects an ability to send remittances by parents who migrated elsewhere to find employment. The finding that grandchildren left for care by the grandparents are often supported by their migrant parents is consistent with results from a recent specialized survey addressing the implications of migration of adult children for their older age rural parents (Knodel et al. 2007). In a small number of cases grandchildren take care of themselves and financially support themselves, undoubtedly reflecting the fact that some of the grandchildren without parents in the household are themselves adults.

C. Material Support

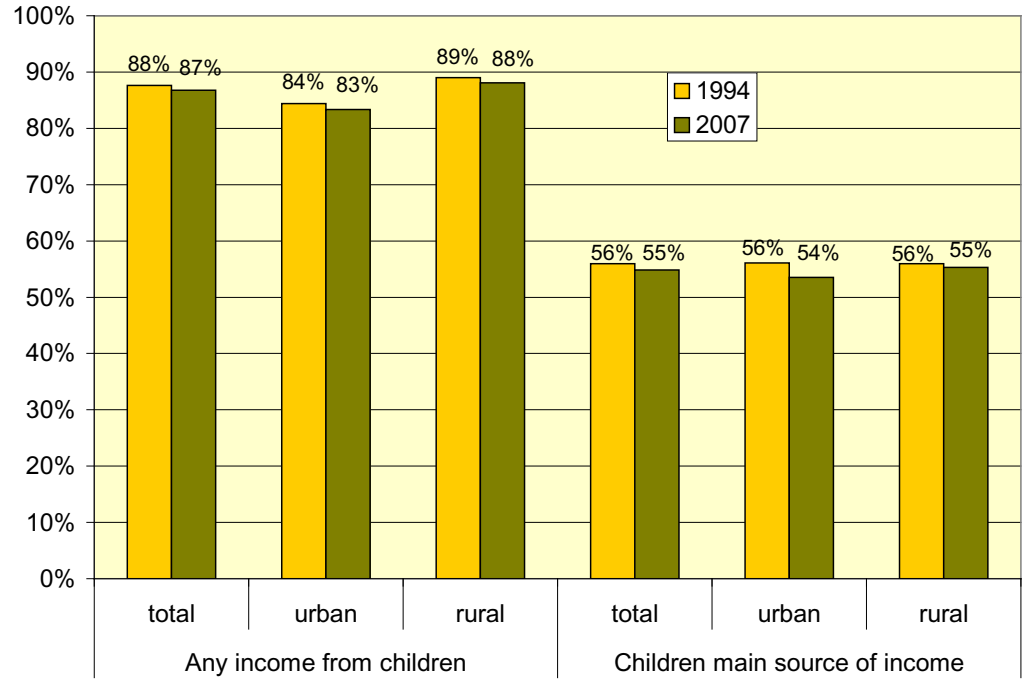
Children can be important sources of economic support to elderly parents through providing money, food, and goods. As indicated in section 3, children frequently are cited as a source of income with just over half of all older persons reporting that children are their main source of current income. Figure 5.7 compares results from 1994 and 2007 Surveys of Older Persons in Thailand with respect to children as a source of income for elderly parents. Since only those older persons with living children can receive income from children, results are limited to respondents who have at least one living child.

Figure 5.6. Percent distribution of persons who care for and who financially support grandchildren living with a grandparent age 60 and older but not with a parent, Thailand 2007



Source: 2007 Survey of Older Persons in Thailand
Notes: Grandparents refer to the respondent or spouse of respondent; minor age grandchildren are under age 18. A small number of cases with only adult children may be included.

Figure 5.7. Percent of parents age 60 and over who reported children provided income during the prior year, Thailand 1994 and 2007



Source: 2007 Survey of Older Persons in Thailand

In both surveys the large majority of parents reported they received income in the prior year from children, and over half indicated that children were their main source of income. The percent who received any income is a little higher for rural than urban parents but about the same percent of both groups in each survey report children as their main source of income. Perhaps most striking is the lack of change between the two surveys in either the percent who receive at least some income from children or the percent for whom children are the main source of income. This contradicts impressions sometimes promoted in the mass media that "an increasing number [of elderly] do not get support from their younger relatives." (The Nation 2007).[37]

Material support can flow in either direction. Results in Table 5.6 provide information on intergenerational material exchanges between parents and children during the year prior to the 2007 survey. Exchanges of money are shown separately for coresident and non-coresident children. In each case, results are limited to parents who have at least one child of the relevant type.[38] Since members of the same household typically share meals and amenities, exchanges within the same household, particularly with respect to food and goods, are difficult to interpret. For this reason, the 2007 survey asked only about exchanges of food and goods in relation to non-coresident children. In addition questions about food and goods ask only about receipt from children by older persons and not provision to children.

A substantial majority of parents coresiding with children received money during the year from children in the household and almost two-thirds received at least 1000 baht in total. Receipt of larger amounts are considerably less common with just over a third receiving at least a total of 5000 baht and only a fifth at least 10,000 baht from a coresident child. Older parents are somewhat more likely to receive money from coresident children although there is little difference with respect to age in the receipt of relatively large amounts. Elderly mothers are more likely than fathers to receive money from coresident children. There is little difference between urban and rural elderly parents in terms of receiving at least modest amounts of money from coresident children but urban parents are more likely to receive larger amounts.

The flow of money from parents to children within the household is far less common. Overall only modestly more than one in ten coresident older persons gave money to coresident children during the past year. Coresident parents in their sixties compared to those who are older as well as men compared to women were more likely to give money to their coresident children. There is little difference between urban and rural elderly in this respect except that urban parents are somewhat more likely than rural parents to give large amounts. For none of the categories shown, however, was providing money to coresident children very common.[39]

Receipt of money from non-coresident children is somewhat more common than from coresident children. This is especially true with respect to larger amounts. In some cases, however, the financial support provided to parents by non-coresident children may be in part or in total to cover expenses for the remitter's children who live with the grandparents and thus not necessarily contribute to the older age parents' own welfare.[40] There is little difference with respect to receipt of money from non-coresident children between parents in their sixties and those 70 and older. Differences by gender and urban-rural residence are at most only modest. Elderly women are a little more likely than men to receive remittances while the direction of the small differences between urban and rural elderly depend on the amounts being considered.

Table 5.6. Material support exchanges between parents and children during past year, Thailand 2007

	Total	Age		Gender		Type of area	
		60-69	70+	Men	Women	Urban	Rural
Exchanges with coresident children among parents with at least one coresident child							
% who received money							
any money	72.5	68.6	77.5	65.4	78.0	72.2	72.7
at least 1000 Baht	64.3	61.6	67.7	58.2	68.9	67.3	63.0
at least 5000 Baht	36.5	36.5	36.4	33.5	38.7	43.3	33.4
at least 10000 Baht	20.8	22.3	18.8	18.6	22.4	30.0	16.6
% who gave money							
any money	11.7	15.4	6.9	16.9	7.8	10.7	12.1
at least 1000 Baht	9.9	13.1	5.8	14.7	6.2	9.8	9.9
at least 5000 Baht	5.8	8.2	2.8	9.2	3.2	7.4	5.1
at least 10000 Baht	3.6	5.2	1.7	6.0	1.9	5.4	2.9
Exchanges with non-coresident children among parents with at least one non-coresident child							
% who received money							
any money	78.8	76.5	82.0	75.4	81.6	72.6	81.0
at least 1000 Baht	73.8	72.1	75.9	70.7	76.3	69.5	75.2
at least 5000 Baht	50.7	50.5	51.0	48.8	52.3	49.9	51.0
at least 10000 Baht	33.8	34.3	33.2	32.5	34.9	36.4	32.9
% who gave money							
any money	6.9	8.7	4.6	8.9	5.4	6.8	7.0
at least 1000 Baht	5.8	7.4	3.6	7.6	4.3	6.1	5.7
at least 5000 Baht	3.7	4.8	2.3	5.2	2.5	4.4	3.5
at least 10000 Baht	2.6	3.2	1.7	3.7	1.6	3.1	2.4
% who received food							
daily or almost daily	17.8	13.7	23.5	16.3	19.0	14.2	19.1
at least weekly	34.7	29.4	42.0	32.7	36.3	29.0	36.7
at least monthly	55.4	50.2	62.4	52.9	57.4	54.7	55.6
at least once during year	79.8	77.1	83.6	77.5	81.7	74.8	81.6
% who received clothing/goods							
at least weekly	3.0	2.5	3.7	2.7	3.2	3.9	2.7
at least monthly	17.7	15.5	20.8	16.3	18.9	23.1	15.9
at least once during year	81.7	79.8	84.2	79.7	83.2	76.2	83.5

Source: 2007 Survey of Older persons in Thailand

Receipt of food from non-coresident children at least occasionally is very common with almost four-fifths of elderly overall indicating they receive some food during the past year. In many cases however this is provided during occasional visits and is more of symbolic value than a form of meaningful material support. At the same time over a third reported at least weekly provision of food and close to one fifth received food on a daily or almost daily basis. Receipt of food, especially on a regular basis, is associated with increased age of parents and is modestly more common among elderly men than women and among rural than urban residents.

Receipt of clothing or goods at least occasionally is also very common but on far less frequent basis in comparison to receipt food. As with food, such gifts can often be more of a symbolic than a substantial material value. Older compared to younger elderly and women compared to men are modestly more likely to receive such help. Urban-rural differences in receipt of clothes and goods are also modest and depend on the particular frequency being considered.

Figure 5.8 examines how living arrangements in reference to the absence of coresident children are associated with amounts of material support to parents during the prior year. The top panel shows that receiving at least 1000 baht is not related to the location of the nearest child but the chances of receiving at least 10,000 baht increases with the distance of the nearest child.[41] Thus significant monetary support does not appear to be jeopardized by the absence of children. Rather parents appear to benefit from having children move to more distant locations. Presumably such migration leads to better employment opportunities and better ability to support parents with significant remittances. Similar findings were reported in a recent study directly examining the impact of migration on rural parents in Thailand (Knodel et al. 2007).

A very different pattern is associated with regular receipt of non-monetary material support in the form of either food or clothes and goods. Since information on these types of material support were asked only for non-coresident children, only results with respect to parents whose nearest child is outside the household are presented. As the bottom panel of figure 5.8 shows, proximity is very clearly associated with regular receipt of food and to some extent with regular receipt of clothes or goods. Given that the regular exchange of food or other goods needed for daily living is only practical when the two parties live near each other, these results are not surprising. Overall, the results in figure 5.8 underscore that children are important sources of material support for parents but that their relative location affects the type of support provided.

D. Social Support

For most parents, maintaining contact with children who move out of the household is important source of social and emotional well being, especially if they do not have children living with them or very nearby. The migration of children reduces opportunities for face-to-face interactions and thus can undermine intergenerational social support if contact is not maintained. In recent years, the dramatic increase in access to telephones, especially cell phones, compared to just a decade or so ago, as documented in section 3, has greatly expanded the ability for absent children and their elderly parents to keep in contact. In addition, improvements in the transportation system facilitate the ease of visits.

Social contact. Table 5.7 summarizes the exchanges of social support between parents and non-coresident children in terms of visits, telephone calls or e-mail messages during the past year based on the 2007 survey of older persons in Thailand. The question regarding visits refers to visits with children without out specifying the direction of visits and thus presumably includes visits in either direction. Nevertheless, previous research in Thailand indicates that it is far more common for adult children to visit parents than the reverse (Chayovan & Knodel 1997; Knodel & Saengtienchai 2007).[42]

Table 5.6. Material support exchanges between parents and children during past year, Thailand 2007

	Total	Age		Gender		Type of area	
		60-69	70+	Men	Women	Urban	Rural
Exchanges with coresident children among parents with at least one coresident child							
% who received money							
any money	72.5	68.6	77.5	65.4	78.0	72.2	72.7
at least 1000 Baht	64.3	61.6	67.7	58.2	68.9	67.3	63.0
at least 5000 Baht	36.5	36.5	36.4	33.5	38.7	43.3	33.4
at least 10000 Baht	20.8	22.3	18.8	18.6	22.4	30.0	16.6
% who gave money							
any money	11.7	15.4	6.9	16.9	7.8	10.7	12.1
at least 1000 Baht	9.9	13.1	5.8	14.7	6.2	9.8	9.9
at least 5000 Baht	5.8	8.2	2.8	9.2	3.2	7.4	5.1
at least 10000 Baht	3.6	5.2	1.7	6.0	1.9	5.4	2.9
Exchanges with non-coresident children among parents with at least one non-coresident child							
% who received money							
any money	78.8	76.5	82.0	75.4	81.6	72.6	81.0
at least 1000 Baht	73.8	72.1	75.9	70.7	76.3	69.5	75.2
at least 5000 Baht	50.7	50.5	51.0	48.8	52.3	49.9	51.0
at least 10000 Baht	33.8	34.3	33.2	32.5	34.9	36.4	32.9
% who gave money							
any money	6.9	8.7	4.6	8.9	5.4	6.8	7.0
at least 1000 Baht	5.8	7.4	3.6	7.6	4.3	6.1	5.7
at least 5000 Baht	3.7	4.8	2.3	5.2	2.5	4.4	3.5
at least 10000 Baht	2.6	3.2	1.7	3.7	1.6	3.1	2.4
% who received food							
daily or almost daily	17.8	13.7	23.5	16.3	19.0	14.2	19.1
at least weekly	34.7	29.4	42.0	32.7	36.3	29.0	36.7
at least monthly	55.4	50.2	62.4	52.9	57.4	54.7	55.6
at least once during year	79.8	77.1	83.6	77.5	81.7	74.8	81.6
% who received clothing/goods							
at least weekly	3.0	2.5	3.7	2.7	3.2	3.9	2.7
at least monthly	17.7	15.5	20.8	16.3	18.9	23.1	15.9
at least once during year	81.7	79.8	84.2	79.7	83.2	76.2	83.5

Source: 2007 Survey of Older persons in Thailand

The results indicate that it is relatively rare for elderly parents with non-coresident children not to see any of them during the year. Over half of the parents of non-coresident children see one at least monthly and almost a fourth see a non-coresident child on a daily or almost daily basis, reflecting that a sizeable share of children who move out of the parental household remain very nearby. Older compared to younger elderly parents experience more frequent visits from children but there is little difference between elderly men and women in this respect and differences in the frequency of visits for urban and rural residents do not follow a consistent pattern.

Table 5.7. Contact between parents and non-coresident children during past year, Thailand, 2007

Among elderly parents with at least one non-coresident child, % who during past year	Total	Age		Gender		Type of area	
		60-69	70+	Men	Women	Urban	Rural
Had visits with at least							
daily or almost daily	24.2	20.8	28.9	23.6	24.8	19.6	25.8
at least weekly	37.8	34.1	42.9	37.1	38.5	36.1	38.4
at least monthly	55.9	52.5	60.6	55.2	56.6	61.0	54.2
at least once during year	84.0	84.3	83.6	83.9	84.1	86.6	83.1
Telephone contact							
daily or almost daily	12.0	14.0	9.4	12.5	11.6	16.3	10.6
at least weekly	34.5	38.2	29.4	36.2	33.0	45.2	30.7
at least monthly	63.8	69.7	55.7	66.0	62.0	73.4	60.4
at least once during year	68.8	75.1	60.4	71.2	66.9	77.8	65.7
E-mail contact							
any during year	0.4	0.5	0.2	0.6	0.3	1.0	0.2

Source: 2007 Survey of Older persons in Thailand

Overall, almost two-thirds of elderly maintain at least monthly telephone contact with non-coresident children and over a third have weekly phone contact. In the case of phone contact it is the younger elderly for whom contact is somewhat more frequent than older elderly. Gender differences however are minimal while urban elderly have more frequent phone contact than their rural counterparts likely reflecting the higher proportion who have telephones available in their household (see table 3.11). At this point in time, e-mail contact is extremely rare between elderly Thais and their non-coresident children and almost nonexistent in the case of rural older age parents.

Measures of desertion. One of the most pressing issues in discussions of population ageing is the extent to which social and economic changes, particularly those associated with development, are undermining traditional sources of support for older persons. Migration of adult children, especially from rural areas, is one aspect of the development process that is often singled out as particularly threatening to the well-being of parents left behind. Concern that parents are being deserted by their children is not only frequently expressed in the mass media in Thailand but also mentioned in the Madrid International Plan of Action on Ageing. Most evidence provided when raising alarm concerning this issue, however, is only anecdotal. The 2007 Survey of Older Persons in Thailand provides representative data for assessing how commonly Thai elderly parents are deserted by their children.

For the purpose of this report, we assess the extent of desertion primarily in terms of social contact with any children. Although the quality of contact can vary, our data do not permit assessing the nature of the interactions. To examine this issue we present a cumulative index of social contact with children. Results are presented in table 5.8 and refer to older persons who have at least one living child. As noted above, a very substantial proportion of older persons in Thailand live with or adjacent to a child. Three fourths of elderly who have children are in this situation and can be considered to have daily contact with children, They are clearly not

deserted. Those who only have children who live outside their household or immediate vicinity are then categorized by the frequency of visits or phone calls with children.[43] When all parents are considered, almost 90% have at least weekly contact with a child and 97% have at least monthly contact. Older elderly parents, women and urban residents have slightly more frequent contact with at least one child than younger elderly, men and rural residents. However with respect to having at least monthly contact there is very little difference by age, gender or residence.

Table 5.8. Cumulative index and summary indicators of social contact with children during past year, parents age 60 and over, Thailand 2007

	Total	Age		Gender		Type of area	
		60-69	70+	Men	Women	Urban	Rural
Cumulative percent in hierarchical categories							
Coresides or lives adjacent to a child	74.8	71.1	80.0	71.7	77.3	77.2	73.8
At least almost daily visits or phone calls	82.0	79.1	86.2	79.8	83.9	84.3	81.2
At least weekly visits or phone calls	89.2	87.1	92.1	87.8	90.3	91.5	88.3
At least monthly visits or phone calls	96.7	96.3	97.2	96.5	96.9	97.7	96.3
At least one visit or phone call	98.7	98.7	98.7	98.7	98.8	99.2	98.6
Summary indicators							
% with less than monthly contact	3.3	3.7	2.8	3.5	3.1	2.3	3.7
% with less than monthly contact and under 5000 baht remittances	2.1	2.3	1.7	2.3	1.9	1.6	2.2
% with less than monthly contact and no remittances	1.0	1.3	0.7	1.3	0.8	1.2	1.0
% with no contact during year	1.3	1.3	1.3	1.3	1.2	0.9	1.4
% with no contact and under 5000 baht remittances	0.9	1.0	0.9	1.0	0.9	0.6	1.1
% no contact and no remittances	0.5	0.6	0.4	0.6	0.4	0.5	0.5

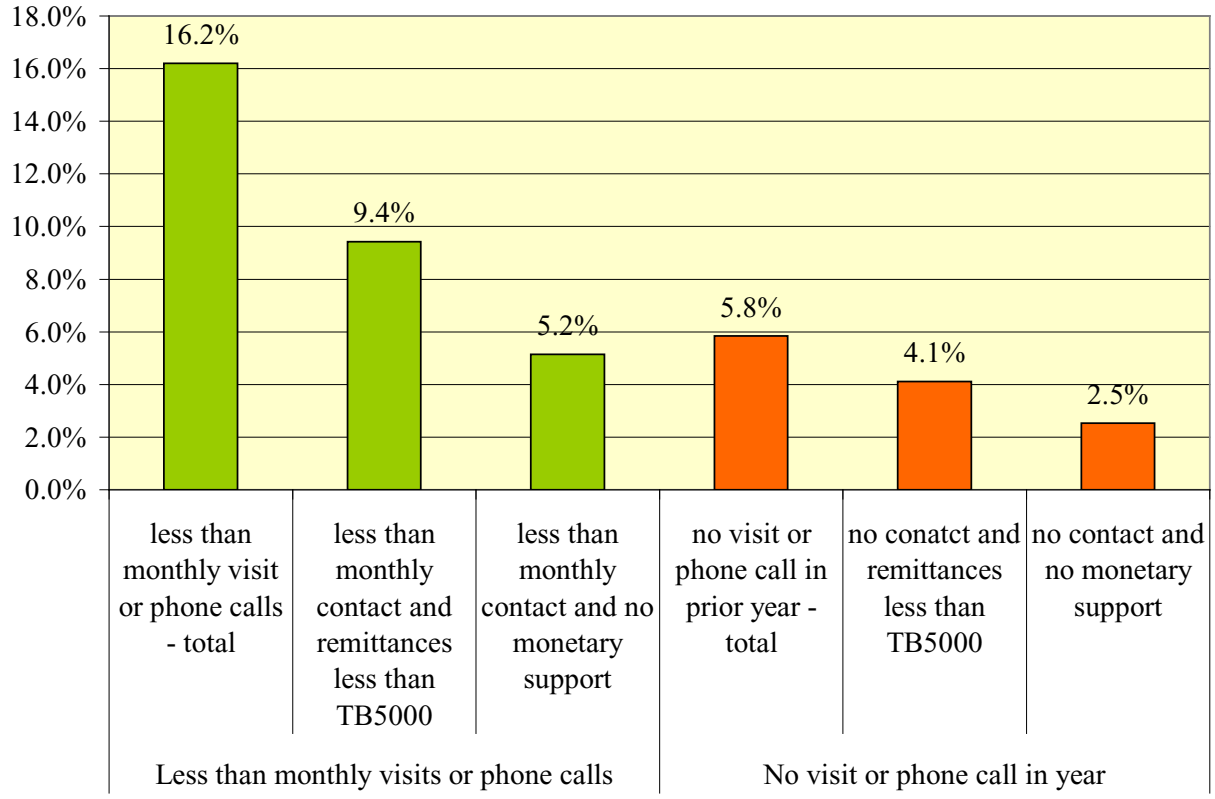
Source: 2007 Survey of Older Persons in Thailand

Note: Contact is based on coresidence, adjacent living and visits or phone calls with any child.

Table 5.8 also presents summary indicators that represent infrequent contact to assess the extent to which some elderly parents can be considered deserted by their children. Only 3% have less than monthly contact and only 1% had no contact with a child during the prior year. However among those with infrequent or no contact some still received remittances including in some cases 5000 baht or more. When receipt of remittances is also taken into consideration, only 2% have less than monthly contact and receive no substantial remittances and only 1% receive no remittances. The proportion is even lower when considering those who have no contact and either no substantial remittance or any remittance. Moreover, there is only minor variation by age, gender and area of residence for these indicators of potential desertion. These findings correspond closely with results from the 2006 Survey on Vulnerability of Thai Elderly that found only 2% of elderly said they felt deserted by their spouse and children (MSDHS no date).[44]

One reason for the very low levels of potential desertion is the high percentage of parents who live with or adjacent to a child. Even among those not living with or next to a child most have a child at least within the same village or province. Only about 10% of parents age 60 and over have all their children living outside their province, presumably in most cases because all their children migrated.[45] If migration is leading to desertion of parents this should be most evident among this group. Figure 5.9 indicates the summary measures combining contact and monetary support for parents whose children all live outside the province.[46]

Figure 5.9. Contact (visit or phone call) and monetary support from children during prior year, among parents age 60 and over whose children all live outside the province, Thailand 2007



Source: 2007 Survey of Older persons in Thailand

Although 16% of parents whose children all live outside their province did not have monthly contact with any of their children, most still receive remittances including many who receive a substantial amount indicating that these parents are not deserted by their children. Thus under 10% did not see a children at least monthly nor receive a large remittance and only 5% did not receive any remittances at all. Among parents with no child in the province, 6% had no contact during the prior year but when remittances are considered, the share who may be largely deserted by their children is reduced further with less than three percent neither having contact nor receiving any monetary support. These results are quite consistent with those of recent research focusing on the impact of migration on rural elderly parents (Knodel et al. 2007).

E. Implications of family size

One important issue regarding the welfare of the older population in Thailand that will become increasingly prominent concerns the smaller family sizes that will characterize the next generation of elderly. The key question is whether having fewer children will jeopardizes chances of receiving adequate filial support. In order to gain some insight into the implications of family size, table 5.9 shows how filial support relates to the number of adult children among the current older age population.

Table 5.9. Living arrangements and filial support, by number of adult children, Thailand 2007

	Number of adult children			
	1	2	3	4+
Living arrangements				
% who do not coreside or live adjacent to a child	37.1	33.3	27.0	21.9
% who live alone with no child adjacent	7.6	5.4	4.9	3.3
% who have no child within the province	21.9	16.2	10.8	6.3
Filial support (during past year)				
% reporting children as a source of income	72.8	79.6	84.1	91.6
% who received at least 1000 baht from children (either coresidence or non-coresident)	64.4	74.2	78.3	85.9
% who received at least 5000 baht from children (either coresidence or non-coresident)	43.6	50.7	54.9	59.8
Social contact				
% who have at least weekly contact with an adult child	81.8	84.7	88.4	90.2
% who have at least monthly contact with an adult child	94.1	95.3	96.8	96.6
% who have at least annual contact with an adult child	96.6	98.3	98.7	98.5

Source: 2007 Survey of Older Persons in Thailand
Note: Adult children are defined as children age 18 and over within the parents' household and all children who live outside of the parents' household.

The results show a fairly clear association between family size and living arrangements. Smaller numbers of children are associated with increased chances that the parents will neither co-reside with nor live next to an adult child. The small share of parents who have only one living adult child are clearly the most likely and those with four or more adult children the least likely not to live with or next to a child. Similar associations are found between the number of adult children and the percent of parents who live alone (in a one-person household) and have no child next door as well as with the percent who have no child residing within the same province. Still, only 8% of parents with one adult child live alone with no child next door although for over 20% their child lives outside their province. In contrast, only 6% of those with four or more children had no child within their province.

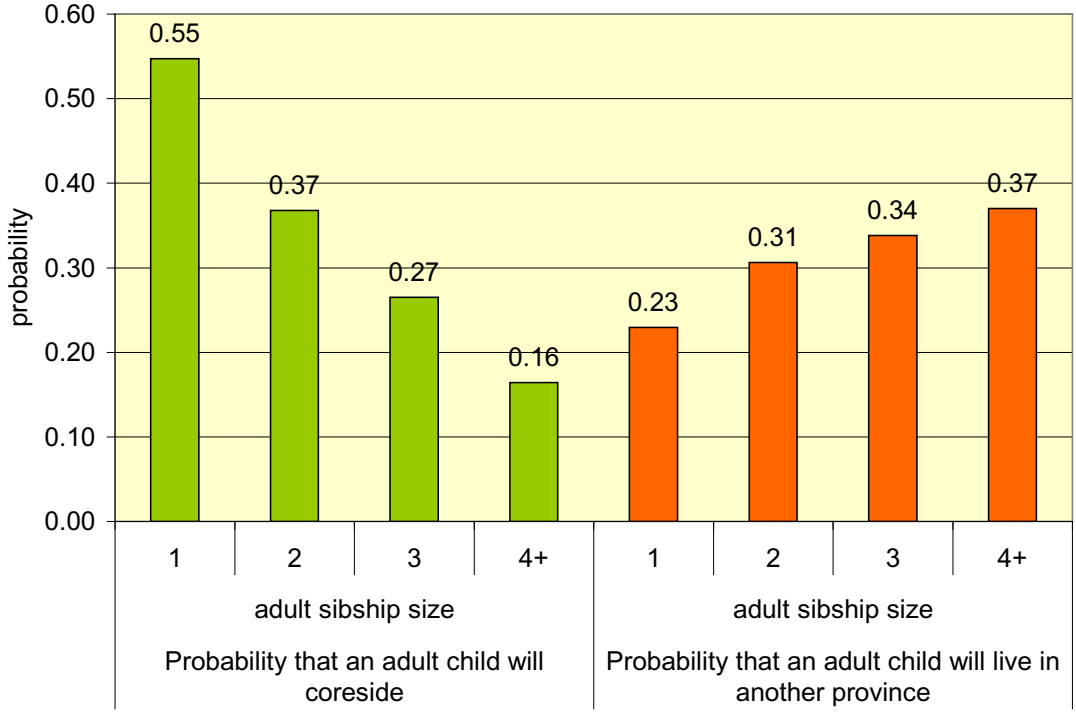
Monetary filial support is also associated with family size among the current older population. The larger the number of adult children the respondent has, the more likely children are a source of income and the more likely they are to receive the given amounts of monetary support shown. Still close to three-fourths of Thai elderly with only one child and four-fifths with two report that children are a source of income. Social contact appears to be less sensitive to the number of adult children.

Regardless of family size over four-fifths have at least weekly contact with an adult child, well over 90% have at least monthly contact, and over 95% have at least annual contact.

These results suggest that smaller family sizes among the future elderly are unlikely to lead to a substantial increase in the extent to which older age Thai parents are deserted by their children. However, reduced family size is likely to contribute to further declines in coresidence, increases in the share of elderly who are geographically separated from their children, and decreases in the extent to which elderly parents can expect to receive monetary support.

Although family size appears to have some impact on various aspects of support from children, human agency is also at play and likely moderates negative impacts. Figure 5.10 shows the probabilities that any adult child will coreside or will live in another province according adult sibship size (the number of adult children their parents have). The results make clear that decisions to leave the parental household as well as to migrate out of the province are not made independently of family size. Thus the probability of an adult child coresiding is by far the highest among adult children who are only children and decreases steadily as the number of siblings increases. Likewise, the probability of living outside the parental province is noticeably lower for those who are only children and increases with the number of siblings. The fact that those who are only children are considerably less likely to leave the parental household or to move a substantial distance away suggests that concern about leaving parents without a child nearby influences the decision to move out or to migrate. This may moderate the impact that declining family size has on leaving elderly parents on their own.

Figure 5.10. Probability that an adult child will coreside with parents or will live in another province, by sibship size of adult children, among parents age 60 and over, Thailand 2007

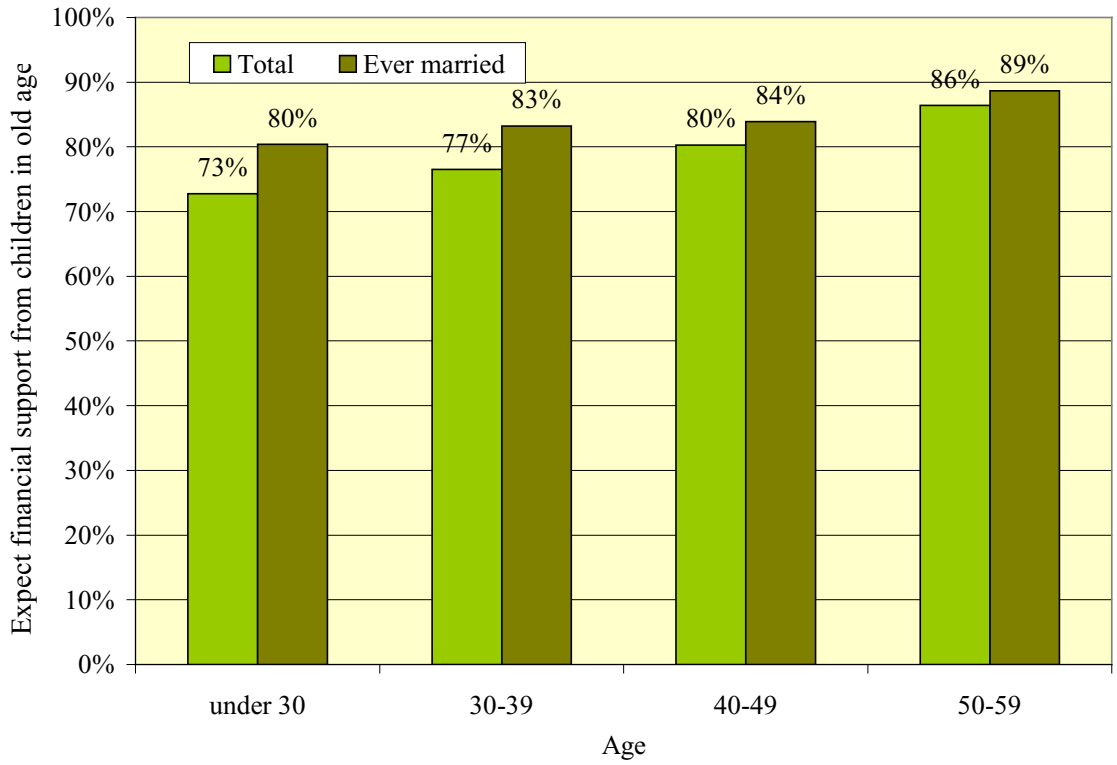


Source: 2007 Survey of Older persons in Thailand
Note: Adult children are defined as children age 18 and over within the parents' household and all children who live outside of the parents' household.

F. Future expectations of filial support

A special survey of adults aged 18 to 59 conducted in conjunction with the 2007 survey of older persons in Thailand provides evidence of the extent to which the current generation of adults continue to expect that their children will provide financial support to them when they reach old age. Figure 5.11 presents the results. Since childbearing in Thailand is limited mainly to within marriage single persons, only persons who already married, especially at older ages when marriage prospects decline sharply, are likely to have children, Thus results are shown separately for ever married adults in addition to results for the total sample.[47] The results clearly indicate that expectations of filial support are shared widely even by young adults. Thus among adults under age 30, almost three fourths expect to receive financial support from children in old age and among those who had ever married (i.e. the ones most likely to have children), four fifths expect such support. Also impressive is that almost 90% of ever married persons aged 50-59 (i.e. those who will enter the elderly age span in the next decade) expect such support.[48] Of course expectations may change in the future if older persons' abilities to support themselves increase or the sense of obligation of children to support parents decreases. Nevertheless, these results suggest that despite the major social and economic changes that have characterized Thai society, the normative foundation of family support for older persons still widely persists.

Figure 5.11. Percent who expect to receive financial support from children in old age, adults 18-59, Thailand 2007



Source: National Statistical Office, Ministry of Social Development and Human Security and College of Population Studies, Chulalongkorn University 2007, Survey of Knowledge and Attitudes on Elderly Issues among Population Age 18-59

G. Summing up

Living arrangements of older persons in relation to their children are changing. The proportion of older persons who co-reside with children has steadily declined over the last two decades. Nevertheless even as recently as 2007 just under 60% of persons age 60 and over still lived with a child and when adjacent living arrangements are taken into account, just over 70% either lived with or next to a child. At the same time, the percent of elderly who live alone as well as those who live with a spouse only have both increased. Still, in 2007 only 8% of elderly live alone and in half of these cases they have a child living within the same locality. Likewise while one in six Thai elderly lives only with their spouse, just over half of this group have a child residing in the same locality. Moreover less than 10% of elderly who have children do not have a child at least within the same province.

One type of living arrangement that has increased is the skip generation household in which grandparents and grandchildren live together without any middle generation married adults. In addition, currently a fourth of persons aged 60 and over report that they live with minor age grandchildren whose parent is not present in the household with them and in half of these cases the grandparents are the main persons responsible for care for the coresident grandchildren. However, for more than 80% of these cases the absent parents of the grandchildren remain their major financial supporters reducing the financial burden for the grandparents.

The decline in coresidence with adult children and increases in living alone or with only a spouse are likely to continue in the future. The smaller family sizes of future cohorts of older persons as well as the substantial and increasing level of migration of their children are likely to contribute to these trends as well as to an increase in the share of older persons who are geographically separated from all their adult children. These trends, however, do necessarily mean older age parents will be without sufficient material support. Despite the changes in living arrangements during recent years, the percent of older age parents who received income from children has remained essentially constant as has the proportion who report children as their main source of income. Moreover, expectations for financial support in old age from children continues to be widely shared even among young adults. Also, the widespread increase in access to telephones, particularly inexpensive cell phones, has provided a new and effective way for elderly parents and their migrant children to maintain social contact. Substantial proportions of older persons with non-coresident children indicate they have daily or weekly telephone contact and almost two-thirds report at least monthly telephone contact.

Despite frequent highlighting of examples of elderly parents deserted by their adult children by the mass media, such cases are relatively uncommon on a population basis. Only a little more than one percent of elderly parents report they had no contact with any of their children during the prior year and only half of one percent indicated they had neither contact with nor any remittances from children. Even among the minority of parents whose children all live outside the parental province, less than 3% had no monetary support or contact from any child. Thus intergenerational solidarity between older age parents and their adult children appears to be reasonably persistent in Thailand up until the present.

Section 6. The AIDS epidemic and older persons

A. The Thai AIDS epidemic

Although the AIDS epidemic in Thailand is not on the scale experienced by the worst hit countries in sub-Saharan Africa, it is still one of the severest in Asia (UNAIDS 2006). HIV/AIDS cases soared during the 1990s with adult HIV prevalence peaking at roughly 2%. Thailand has been unusually effective in confronting the epidemic with adult prevalence falling to an estimated 1.4% by 2005 and the numbers of new adult HIV infections declining by almost 85% between the early 1990s and 2001 (Peerapatanapokin 2007). Given the lag between HIV infection and progression to AIDS, however, the number of new AIDS cases and adult AIDS deaths continued to increase throughout the 1990s and peaked around 2000.

More recently, Thailand has had remarkable success in providing care and treatment for persons living with AIDS including free government provision of antiretroviral therapy (ART) that significantly prolongs the lives of HIV infected persons (Revenga et al. 2006). According to one recent estimate, by May 2006 over 90% of those in Thailand in need were receiving ART, primarily through the government funded program run by the Ministry of Public Health (World Bank 2007). From relatively few cases before 2001, the number of adults on ART passed 90,000 by the end of 2005 and is projected to approach 200,000 by 2010 (Peerapatanapokin 2007). Prior to widespread access to ART, progression to AIDS for an infected adult meant virtually imminent death, often in less than a year. In sharp contrast, now most adults who manifest AIDS have access to ART which restores their health and significantly postpones the time when fatal illnesses associated with AIDS claim their life. This resulted in sharp reductions in AIDS deaths despite a leveling off of the number of new AIDS cases since 2000 (Peerapatanapokin 2007).

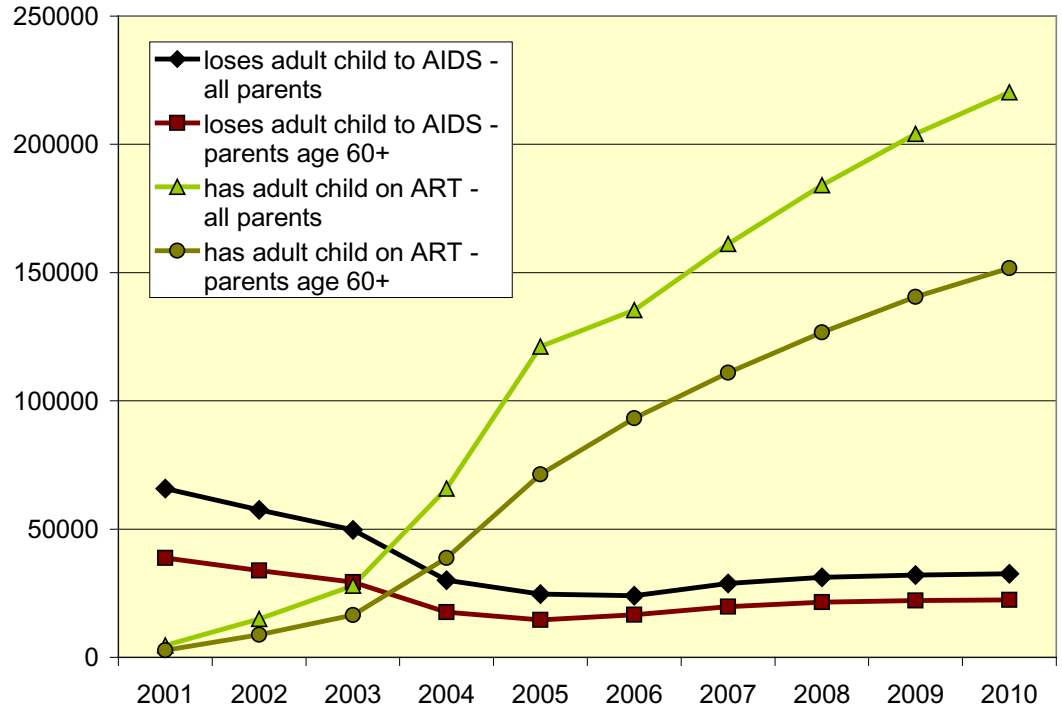
Adults who become infected and ill with HIV/AIDS are typically in their prime working ages. Although not immune, older persons, especially those age 60 and above, have relatively low levels of infection. According to the Ministry of Public Health, from the start of the epidemic in the mid 1980s through 2006 only 1.6% of recorded AIDS cases were age 60 and older (National Commission of the Elderly 2007). These percentages are likely to grow as increasing numbers of persons infected at younger ages receive effective treatments that extend their survival to older ages. Nevertheless the vast bulk of infected adults will still remain below age 60.

B . Estimates of affected older persons

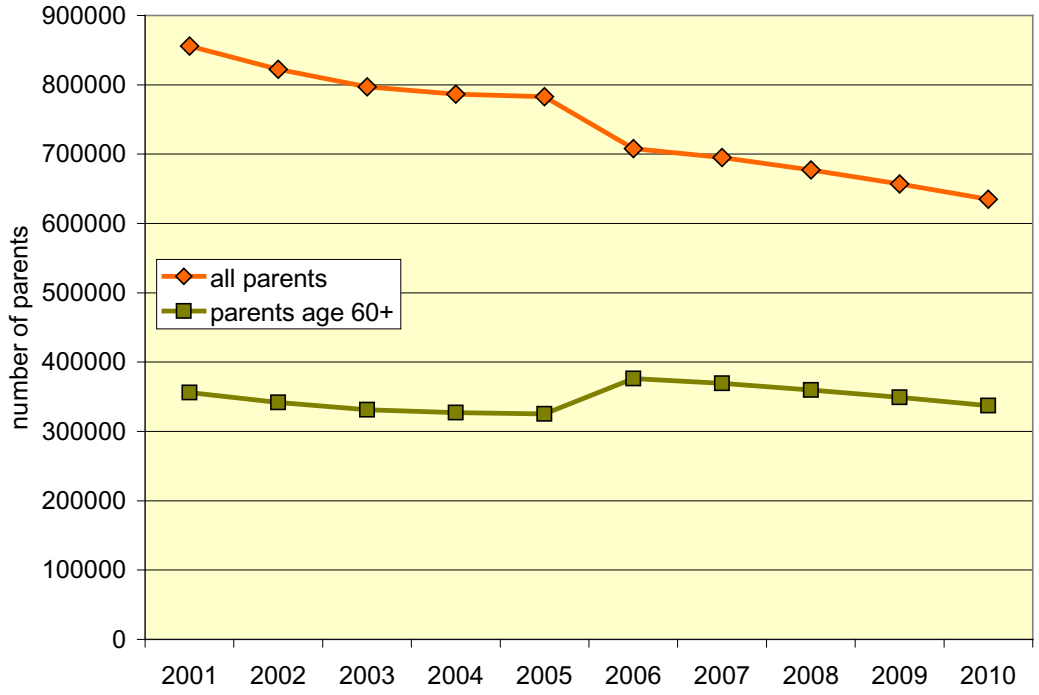
Since HIV infected adults are predominantly in their 20s, 30s and 40s, most have surviving parents, many of whom are relatively old. As a result, not only is the number of parents in general who experience the illness or death of an adult son or daughter (or a grandchild) due to HIV/AIDS quite substantial but so is the number who are elderly. Thus although relatively few older persons are *infected* with HIV/AIDS in Thailand, far greater numbers are at risk of being *affected* through having an infected adult son or daughter, including increasing numbers on ART, or losing an adult child to an AIDS related illness. For these parents, the usual intergenerational caregiving situation is reversed, with adult children being the ones requiring care while their older age parents are in the position of being a potential caregiver.

Figure 6.1. Estimated number of AIDS parents, Thailand 2001-2010

A. Number of parents with an adult child who died of AIDS or is currently on ART



B. Number of parents with an adult child living with HIV/AIDS at end of year



Source: Knodel 2007

Figure 6.1 presents annual estimates for 2001-10 of the number of parents in Thailand who are potentially impacted by the epidemic through infections of their adult children. The estimates are based on preliminary new projections of the epidemic that take into account the spread of effective treatments, particularly ART. The methodology behind these estimates is described in Appendix B. Panel A shows both the number of parents who have an adult child currently on ART during the year and the number who have an adult child who died of an AIDS related condition. The number of parents who have an adult child on ART rises sharply during the decade reflecting the rapid increase in access in Thailand throughout the decade. Thus by 2010, approximately 220,000 parents of all ages and over 150,000 parents age 60 and older are expected to have at least one adult child on ART.

Panel A also shows that the annual number of parents who will experience an adult child dying of AIDS is substantial. While the numbers are estimated to decline during the first half of the decade they are expected to increase modestly during the second half and by the end of the decade will exceed 30,000 for all parents and 20,000 for parents age 60 and over. The increase is due to the fact that while ART can prolong life, it does not do so indefinitely. Thus some of the deaths that are postponed by ART earlier eventually occur later in the decade leaving parents with the loss of these children to AIDS.

During the decade covered, new adult HIV infections are projected to decline by more than 50% (Peerapatanapokin 2007). However, as panel B indicates, the overall number of parents with an adult child living with HIV/AIDS at yearend declines only modestly and the number of elderly parents (aged 60 and over) with an HIV infected adult child remains relatively stable. The fact that trends in the number of parents of infected adults does not decline in the same proportions as new HIV infections reflects the expansion of effective treatment during the decade. Moreover, because the average age of those infected is increasing, higher shares of infected adults have parents who are at more advanced ages. Thus virtually no decline is evident in the number of old age parents who have an infected adult son or daughter during the decade. The absolute numbers of parents with an infected adult child declines from over 850,000 in 2001 to 633,000 by 2010 while the number of parents age 60 and over with an HIV infected adult child fluctuates around 350,000 during the decade. Thus the numbers of Thai parents, including many who are elderly, who are at risk of being impacted by the AIDS epidemic though their grown children, and who could potentially contribute to caregiving and assisting with treatment is very substantial.

C. AIDS related knowledge and attitudes

In order to assess older persons knowledge and attitudes related to the AIDS epidemic in Thailand, the 2007 Survey of Older Persons in Thailand included several questions related to AIDS. The results are summarized in table 6.1. Given that these results are intended to measure the knowledge and attitudes of older persons themselves, results from proxy respondents are excluded. Overall, almost 90% of older persons said that they had ever heard of AIDS.[49] Awareness of AIDS was considerably more common among younger than older elderly. Moderately higher levels of awareness are evident among men than women and among urban than rural residents.

Table 6.1. Knowledge and attitudes about AIDS among persons age 60 and over, Thailand 2007

		Age			Gender		Area	
Percent who:	Total	60-69	70-79	80+	men	women	urban	rural
Ever heard of AIDS	88.3	91.4	85.5	75.1	91.2	86.1	90.8	87.3
Correctly believe you can not get AIDS by sharing food with PWA [(a)]	55.6	61.7	49.0	35.6	62.7	50.4	60.9	53.6
Correctly believe there is no traditional/herbal medicine that can cure AIDS [(a)]	37.1	40.4	33.0	27.9	41.5	33.8	38.8	36.4
Have heard of medicine to prolong life of PWA [(b)]	29.2	29.6	28.6	28.1	29.6	28.8	23.6	31.3
Are willing to care for a family member ill from a disease other than AIDS [(c)]	88.1	89.5	86.6	81.5	89.0	87.4	86.4	88.7
Are willing to care for a family member ill from AIDS [(c)]	83.7	85.1	82.3	76.3	84.8	82.8	82.6	84.1

Source: 2007 Survey of Older Persons in Thailand
Notes: PWA= person with AIDS.
All results in table exclude proxy respondents
(a) Persons who never heard of AIDS are assumed not to have correct knowledge
(b) Persons who never heard of AIDS are assumed not to have heard of life prolonging medicine
(c) Excluding persons who never heard of AIDS

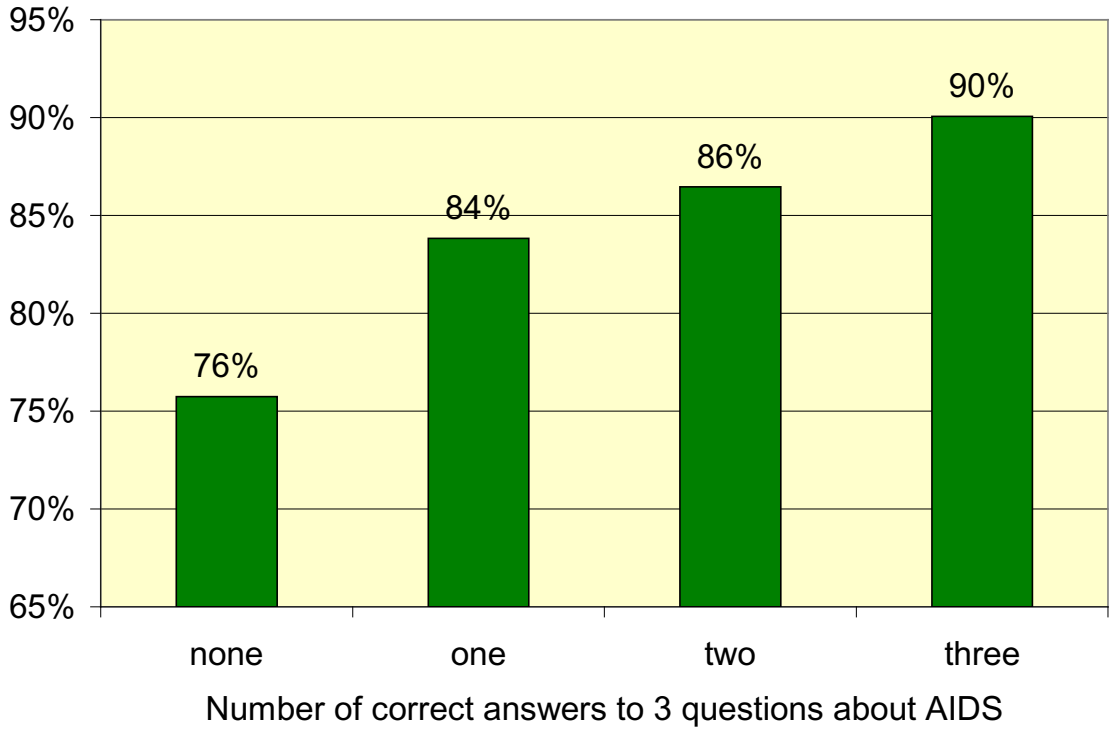
The survey asked three questions related to knowledge related to the AIDS epidemic to those who indicated that they had ever heard of AIDS.[50] The first concerned casual transmission through sharing food with someone who had AIDS. More than half correctly indicated that AIDS is not transmitted through sharing food. The second question asked if there was a traditional or herbal medicine cure for AIDS. Only modestly more than a third correctly stated that none exists. Correct knowledge concerning these two questions is strongly related to age with persons over 80 far less likely than those in their sixties to answer correctly. Men and urban residents were also more likely than women and rural residents to respond correctly. The third question asked about awareness of medicines such as ART that could prolong the life of someone infected with HIV/AIDS. Less than a third of respondents appear to know that such medicine exists with little difference by age or gender although awareness is somewhat higher among rural than urban respondents.

Respondents were also asked two questions about willingness to caring for an ill family member. One question referred to illnesses not related to AIDS and the other question to AIDS related illness. The large majority of older persons indicated willingness to care for an ill family

member regardless of the cause of their illness although a slightly lower proportion indicated willingness in the case of AIDS. In general there is at most only modest differences in the percent expressing willingness to provide care in either situation according to age, gender, or area of residence.

As figure 6.2 shows, a willingness to care for a family member with AIDS is related to correct knowledge about AIDS. There is a distinct association between higher proportions being willing to care for an ill family member with AIDS and the number of correct answers to the three knowledge questions. This finding is consistent with a study in Cambodia which also showed that among older persons, better AIDS knowledge is associated with increased willingness to provide care to a family member ill from AIDS (Knodel & Zimmer 2007).

Figure 6.2. AIDS knowledge and willingness to care for a family member with AIDS, Thailand 2007



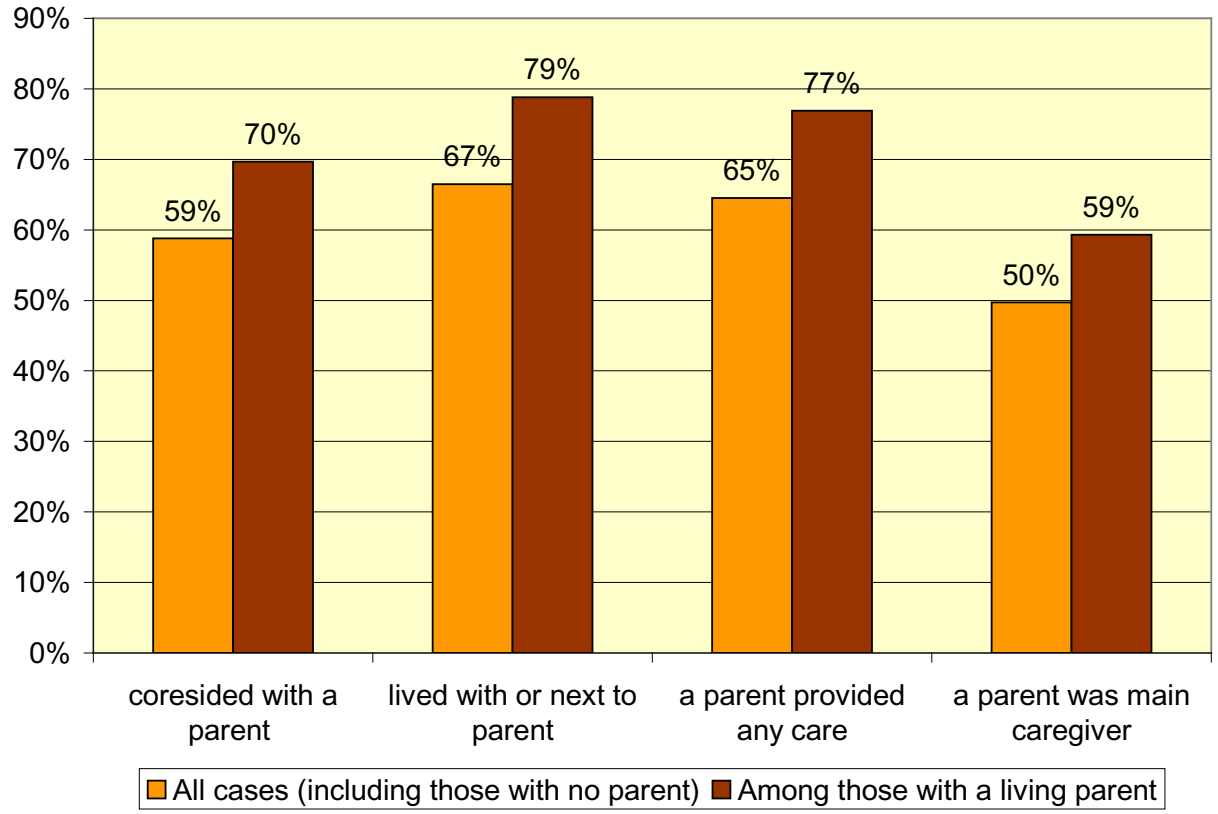
Source: 2007 Survey of Older Persons in Thailand

D. Contributions as parents and grandparents

Living arrangements and caregiving. Probably the most extensive research on the role of older persons in the AIDS epidemic so far has been conducted in Thailand. This includes several qualitative research efforts (e.g. HAI 2005; Saengtienchai and Knodel 2003) as well as numerous quantitative studies (e.g. Knodel et al. 2000a and 2002). Most of this research refers to the period prior to the rapid spread of ART and focuses on parents of those who become ill and die due to the disease. The results make clear that older-age persons contribute in important ways to the care and quality of life of their adult children or their grandchildren with HIV/AIDS.

As figure 6.3 shows, during the late 1990s, older Thais were extensively involved with their infected adult children though both living and caregiving arrangements. The majority of adults who died of AIDS (59 percent) co-resided with a parent at the terminal stage of their illness and fully two-thirds either co-resided with or lived next to a parent. Moreover, parents assisted in personal caregiving for almost two-thirds of adults who died of AIDS and were main caregivers for half. If consideration is limited to adults who had at least one living parent, the results are even more striking. For example, coresidence at the terminal stage rises to almost 70 percent and for almost 60 percent a parent was a main caregiver.

Figure 6.3. Living and caregiving arrangements at the terminal stage of illness for adults who died of AIDS, Thailand, late 1990s



Source: Knodel et al. 2000

Care for AIDS orphans. The high prevalence of parental terminal stage caregiving is related to the fact that many adult children in Thailand normally live with or nearby parents thus facilitating parental involvement in case of illness. Also, return migration of seriously ill adult children is common (Williams et al. 1996). Between a third and two-fifths of adult children with AIDS who were cared for by their parents at the terminal stage had returned home from elsewhere, typically at an advanced stage of illness (Knodel & VanLandingham 2003). Given that the period of serious debilitating illness was usually short, parental caregiving averaged only 2.9 months regardless of migration status. However, because caregiving occurs during the most disabling stage of the illness, it is emotionally and physically draining for parents (Kespichayawattana & VanLandingham 2003; Saengtienchai & Knodel 2001).

Caring for grandchildren who become orphaned because of AIDS is another important contribution older persons make in connection with the AIDS epidemic. In Thailand, however, a substantial share of adults who die of AIDS do not have children of their own thus moderating the extent of grandparental fostering of AIDS orphans. For example, two different studies indicated that less than half of all parents (44%) whose adult children died of AIDS had grandchildren who were orphaned as a result (Knodel & Saengtienchai 2004). A main reason why the proportion is relatively low is that about 30 percent of the adult children who died of AIDS had never married and a substantial minority of those who married were childless. Moreover, most of the deceased adult children who were themselves parents had only one child, reflecting the recent low fertility in Thailand. In addition, since orphaned children typically have both maternal and paternal grandparents and only one set can adopt them, when *all* parents of adults who die of AIDS are considered, only a minority report ever caring for an AIDS orphan. At the same time, when grandchildren did exist, grandparents were commonly involved in raising them. This was particularly true in the case of grandchildren whose both parents had died.

E. Consequences for older persons

There are many different ways in which emotional, economic, physical and social well-being of older-age persons can be impacted by an adult child who is infected with HIV and develops AIDS (Knodel, Watkins and VanLandingham 2003). The illness and death of an adult child from AIDS can have significant economic repercussions for older-age parents, the most immediate of which are likely to stem from expenses associated with costs of daily living, treatment and caregiving. If parents sell property or possessions or go into debt to cover expenses, or if the deceased child had been contributing to the parents' household income, the effect may be a sustained reduction in economic well-being. In addition, supporting orphaned grandchildren can be a significant expense that lasts for years.

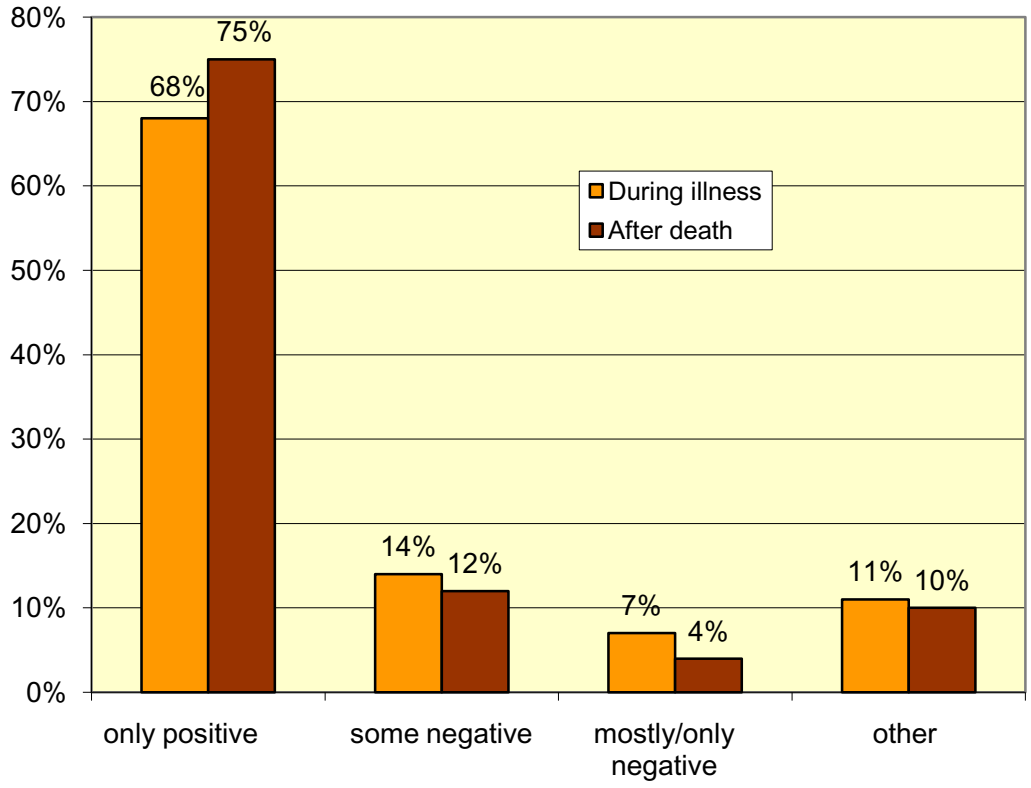
Among parents who played a main role in caregiving, over half said it interfered with their economic activity (Knodel & Im-em 2004). However only a little over a third of these said that the curtailment of economic activity caused a lot of financial hardship, likely reflecting the fact that the period of intensive caregiving was typically short.

Direct expenses that parents incurred for food, care, treatment and funerals for adult children with AIDS could be substantial. Only about one third of the parents interviewed, however, said the combined expenses were a serious burden for them. To some extent, the financial impact on families has been mitigated by government health insurance and social welfare programs as well as informal community funeral societies. The form of government programs has changed considerably over the course of the epidemic. Most recently, the free provision of ART by the government has made effective treatment accessible to almost all HIV-infected persons in need of the therapy. Earlier in the epidemic, low cost government health insurance and welfare assistance to indigent families helped pay medical expenses of HIV positive persons. For example, a survey in 2000 of parents who lost an adult child to AIDS revealed that health insurance was used to assist with medical expenses in 60% of the cases and for almost a fifth some form of welfare assistance was provided (Knodel et al 2002). Most said that the health insurance helped very much in easing their financial burden. At the time of the survey, the fact that health insurance did not cover ART did not affect the expenses of the vast majority of families since few were even aware of the existence ART.

Parents can moderate the economic impact of losing an adult child to AIDS by adjusting their spending to their financial circumstances. Indeed, parents of little means have few resources they can mobilize once they exhaust their own funds. Thus they spent much less than wealthier parents in connection with their child's illness and death. Yet at the same time, poorer parents were substantially more likely than those better off to indicate that the expenses were a serious burden for them (Knodel & Im-em 2004). Thus despite their far lower expenses, the amounts were more devastating for the poorer parents, presumably because the expenses were a larger *relative* burden in relation to their economic resources. This suggests that interventions intended to help older age parents in Thailand deal with financial strains associated with losing an adult child to AIDS should take into account the considerable differences in susceptibility to resulting financial hardship that exists and target those who are particularly vulnerable.

Stigmatization of AIDS appears to have declined substantially in Thailand since the start of the epidemic (VanLandingham et al. 2005). As a result, while negative community reactions towards parents of adults with AIDS are not absent, sympathetic and supportive reactions from neighbors are far more common than stigmatizing ones. As figure 6.4 indicates, in a survey of parents who had an adult child die of AIDS, fully two-thirds reported that they experienced only positive reactions such as expressions of sympathy or offers of help, during the time their adult child was ill and three-fourths said the reactions following the child's death were only positive. Most who reported negative reactions indicated that their experience was mixed and only a small minority indicated reactions were solely or mainly negative.

Figure 6.4. Community reaction to AIDS parents, Thailand 2000



Source: Knodel et al. 2002

Widespread educational campaigns that have resulted in relatively accurate knowledge among much of the population and allayed fear of casual transmission likely help account for the generally positive nature of community reaction. Also commercial sex, a major route of transmission, has relatively little social stigma associated with it in Thailand and thus those who become infected as a result of patronage or even the provision of sexual services for pay do not evoke widespread moral condemnation. This predominance of positive community reaction suggests that programs designed to build on community support to assist families affected by AIDS would meet little resistance. It also may lower barriers to home care by increasing the willingness of an ill adult child to return home and the willingness of parents to accept caregiving responsibility.

E. The impact of ART

The recent dramatic extension of access to ART is prolonging the lives of many persons with HIV/AIDS who would otherwise have died. Unfortunately almost no research is available on how this affects the role of older persons in the epidemic in Thailand (or anywhere else). One likely result is that parents will change how they help—instead of mainly providing terminal stage care, they may help ensure adherence to demanding regimes of medications. As estimates presented earlier in this section show, large numbers of Thai parents, including those in elderly ages, now have an adult child on ART and far more will be in this situation in the near future. This is important to recognize because of their potential to contribute to the success of their adult child's treatment.

Most parents have strong emotional attachments to their grown children and, as previous research in Thailand illustrated, are willing to go to almost any length to reduce the suffering and to improve the health of those who become ill from AIDS (Saengtienchai and Knodel 2001). A similar motivation is likely present concerning grandchildren who are infected with HIV. At the same time, the success of HIV/AIDS treatment programs requires not just medical attention but also social and psychological support to sustain strict adherence to drug regimens. The large number of parents (and grandparents), including those in elderly ages, represent a largely untapped resource to contribute to treatment programs, especially through providing encouragement for testing and adherence to medications by their adult children or grandchildren. Recent research in Cambodia clearly shows that older age parents or grandparents of persons on ART have the ability to understand the necessity and details of ensuring strict adherence to medications despite low education (Williams et al. 2008). Moreover, parents of HIV infected adults often played a pivotal role in care and treatment if they were provided with proper resources and training There is little reason to believe that parents or grandparents in Thailand would not have the same ability.

More research is also necessary to develop effective programs and policies to address the needs of older people in the context of the AIDS epidemic. Particularly important is determining how best to harness their potential in encouraging treatment and monitoring adherence to treatment regimes for their infected adult children and grandchildren. In addition, research is needed to assess how increased access to these drug regimes alters the consequences of having an HIV-infected son or daughter or grandchild. Future studies would do well to focus on developing interventions to help the elderly in their caretaking roles. The elderly have made and continue to

make a large contribution in the fight against AIDS. Providing resources to support them in their caregiving role is important for their own well-being and for their families and the larger communities in which they live (PRB 2007).

G. Summing up

Although Thailand has been unusually successful in combating the AIDS epidemic and new infections have declined significantly after peaking in the early 1990s, the substantial lag between infection and serious illness means that there are still very significant numbers of HIV infected adults in Thailand, most of whom have living parents in older ages. Although infection among older persons is relatively low, large numbers are affected through AIDS related illness and death of adult children. The number of older age parents who experienced the loss of a son or daughter to AIDS has decreased. However, the recent increase in access to effective antiretroviral therapy to prolong lives of those infected is leading to rapidly increasing numbers of older persons with adult children who are being treated for HIV/AIDS with ART.

Research conducted prior to widespread access to ART revealed that older age parents contributed significantly to the ability of Thai society to cope with the epidemic through caregiving and sharing living quarters with their adult children in the terminal stages of AIDS. This research also revealed that community reaction is largely supportive to families in which a member has AIDS thus bodes well for community-based programs designed to deal with the epidemic. To what extent widespread ART has altered these circumstances is an open question needing systematic research. Given the high level of motivation to ensure their children's well-being, parents could potentially play a useful role in encouraging adherence to complicated treatment regimes. To do so, however, would require appropriate knowledge. Recent survey results reveal relatively poor knowledge among older persons related to AIDS and at the same time suggests that better knowledge increases the willingness to care for a family member ill from AIDS. Thus it is important to incorporate older persons as part of the target group of informational campaigns intended to increase AIDS knowledge among the general population.

Section 7. Policy and Programme Responses

The Thai Government's concern about the emerging challenges posed by population ageing can be judged from several sources: formal statements presented to the parliament at the time a new government assumes office that outline the policies they wish to pursue; national five-year plans for social and economic development; a national declaration and long-term plans for the elderly; and laws and regulations enacted concerning older persons and their implementation in terms of associated programmes. This evidence suggests that Thailand's response to population ageing is recent and can be broadly divided into two periods: 1980s through the mid 1990s and from the mid 1990s until the present. Early responses were relatively slow and passive, while responses in the latter period have been far more active and progressive. Particularly impressive are the various forms of responses in very recent years within the public sector. These include formulation of a new national plan on ageing, enactment of laws and regulations concerning elderly well-being, and the establishment of organizations specifically in charge of managing elderly related issues in relation to the implementation of government programmes. With respect to the private sector the main response has been the establishment of the private nursing homes.

A. Increasing saliency in Thai government planning

The Thai government's response to population ageing started in the early 1980s, but the focus was primarily on problems that would be faced in the longer term rather than on immediate problems of the growing number of elderly. Although calls for attention to the consequences of rapid fertility decline in the 1970s -1980s and the increase in longevity were discussed, these concerns did not gain serious attention during this earlier period.

Government policy statements. The various governments in power during the 1980s and early 1990s largely ignored ageing issues in their formal policy statements presented to the parliament at the time they assumed the office. When reference was made to the elderly population, it was typically grouped together with other segments of the population thought to be especially vulnerable or disadvantaged (children, the poor, and disabled or handicapped people) and the focus was welfare oriented. Emphasis was placed mainly on the provision of health care for elderly. By 2005, however, the Administrative Plan of the Government under former Prime Minister Taksin included an explicit policy regarding older persons which spelled out the preparation of Thailand as an ageing society and recognized the value of elderly as human resources for the country's social and economic development.

National five-year plans. Since the early 1960s, the National Economic and Social Development Board (NESDB) routinely formulates five year plans to serve as a guide for government agencies to plan their work activities in line with the national development goals. Until recently elderly issues were not given much attention in these plans. As with statements to the parliament, the elderly were usually included together with the broader set of vulnerable groups mentioned above. Starting with the Eighth Plan (1997-2001) which included a section on the 'isolated indigent elderly' and mentions a number of services benefiting older persons, more attention to issues related to population ageing is evident. By the time preparations for the current Tenth Plan (2007-2011) were under way, the NESDB organized a series of meetings to

discuss strategies to prepare Thailand for an ageing society (NESDB 2004a and 2004b). Immediate, mid-term and long-term plan strategies were proposed and four aspects of development were outlined, namely, human resources, social protection, income security and community participation (NESDB 2005). As a result the current Plan includes extensive recognition of the implications of the rapid change in the age structure of Thai population and encourages collaboration within and between the public and private sectors of Thai society to prepare for the coming population ageing. The 10th Plan thus represents a significant step forward in integrating issues related to population ageing into the mainstream national development agenda.

National declaration and long-term plans for elderly. Thus far Thailand adopted two major national plans for its older persons. The first plan, known as the Long-Term Plan for the Elderly in Thailand (1986-2001), was developed following the 1st World Assembly on Ageing organized by the United Nations in 1982 in Vienna. The Plan outlined policies and strategies in five areas: health, education, income stability and employment, social and cultural integration, and social welfare (MSDHS 2007). It emphasized efforts to enable the elderly to be self reliant and the family to provide support and care for its elderly members. Community support of elderly was also encouraged. Subsequently, a Working Committee on Policy and Action for the Elderly was established to formulate the Essence of the Long-term Policies and Measures for the Elderly (1992-2011) to help accelerate welfare actions of state organizations (Mujahid 2006).

During the latter 1990s, government concern about rapid population ageing in Thailand increased and led to further measures to address the issue. In 1999 the government issued the "Declaration on Thailand's Older Persons" to coincide with the International Year of Older Persons. The Declaration stated the rights of older persons and measures of protection and asserted the value and contribution of older persons to Thai society. In so doing it represented a commitment of the government to ensure the well-being of Thai older persons with respect to health, quality of life, and social integration through collaborative efforts within and between the public and private sectors (MSDHS 2007).

Also in 1999, the Government established the National Commission on the Elderly on an ad hoc basis. The Commission formulated the Second National Plan for Older Persons covering the period 2002-2021. The final version was issued in 2002. The plan has five main objectives: 1) to increase recognition of the value of older persons to society; 2) to promote preparations for quality ageing; 3) to assure the dignity, independence, quality of life and security of older persons; 4) to encourage individuals, families, communities, and public and private entities to participate in tasks concerning the elderly and 5) to establish practical criteria, guidelines and documentation to foster effective collaboration among societal sectors in their efforts related to the elderly. To achieve these goals, the Plan incorporates a number of strategies including the development of a social protection system for elderly, research to support policy and programmes, and monitoring and assessing the national plan implementation. The Plan, together with the Act on Older Persons 2003 (see below) provide the current policy framework for welfare promotion, protection and empowerment of older persons throughout the country.

Enactment of laws and regulations concerning older persons**.** Provision of care and support for elderly parents as the duty of children and modest punishments for persons who abuse older persons are incorporated into Thai civil and criminal law respectively. Enforcement of these laws thus far have been quite lax. A major legal advancement to guarantee support and welfare for the elderly was provided by the former 1997 Constitution. Article 54 explicitly states that persons age 60 and over with insufficient income shall be entitled to state assistance and article 80 further stipulates provision of government welfare for elderly and other vulnerable groups to ensure their quality of life and self-reliance.
The most recent government response to population ageing is embedded in the 2007 Constitution which replaced the 1997 Constitution. Section 9, Article 53 states that persons age 60 years or older who have no sufficient income for living have the right to receive welfare, public amenities and appropriate assistance from the State.

In pursuance of the 1997 Constitution's prescription and the 2002 Act on Modification of Ministries and Divisions to re-organize the Thai bureaucracy, the Bureau of Empowerment for Older Persons under the Office of Welfare Promotion, Protection and Empowerment of Vulnerable Groups of the Ministry of Human Resources and Social Development was established. The Bureau serves as the focal point on population ageing in Thailand and is responsible for co-ordination of activities related to older persons.

In an effort to safeguard the social protection and rights of the elderly, parliament passed the Act on Older Persons in 2003 which became effective since January 1, 2004. The Act officially establishes the National Commission on the Elderly as a permanent body for the first time with the Bureau of Empowerment for Older Persons serving as the Secretary of the Commission. The main function of the Commission is to set policy and guidelines to oversee elderly-related matters. It also has a mandate to monitor implementation of the 2nd National Plan for Older Persons. The Act also establishes a specific Elderly Fund to cover expenses related to the promotion and support of activities related to elderly.

The provisions of the 2003 Act on Older Persons state that persons age 60 and over shall be entitled to protection, promotion and support in the following areas:

1. convenient and expedient health services;
2. education, religious activity and information beneficial for older persons lives
3. suitable occupational opportunities and training;
4. self-development, participation in social activities, and the formation of network groups;
5. facilities and safety in buildings, places, vehicles or other public services;
6. concessions on public transport;
7. exemption of entrance fees to government parks and facilities;
8. aid for those facing abuse, exploitation or abandonment;
9. legal or family counseling;
10. accommodation, food and clothing if necessary;
11. monthly allowances according to need;
12. subsidies for funerals.

Systematic data collection at the national level. The 2003 Elderly Act mandates that an annual report on the situation of elderly in Thailand must be submitted to the Cabinet by the National Commission on the Elderly. To ensure the availability of up-to-date data, the National Statistical Office is to continue conducting periodic surveys on older persons. The first such National Statistical Office survey took place in 1994. Two subsequent surveys were conducted in 2002 and 2007. Current plans are now to conduct national surveys on Thai elderly every three years. These data permit monitoring changes in the situation of Thai elderly.
The main policy responses and measures related to elderly taken by the Thai government in the last decade or so as described above clearly reflect the country‘s active concern for the potential consequences of population ageing.

B. Elderly plan in context of Madrid Plan of Action

It is notable that the driving forces behind policy development regarding older persons in Thailand have shifted from primarily external influences, mainly United Nations recommendations, during the earlier period to concerns emanating internally within in Thailand (Jitapunkul, Chayovan & Kespichayawattana 2002). Nevertheless, although the 2nd National Long-Term Plan for Older Persons was drafted prior to the 2nd World Assembly on Ageing held in Madrid in 2002, most of the contents are in line with the International Plan of Action on Ageing adopted by the Assembly. The Madrid Plan designates three broad directions for action along with associated strategies: ensuring that older persons both participate and benefit from development; promoting health and well-being into old age; and ensuring an enabling and supportive environment for older persons. The strategies of Thailand’s 2nd National Plan for Older Persons have been designed to prepare the country for an ageing society and the individuals for quality ageing with respect health, income security and social well-being. The Thai plan also includes provisions for data collection, monitoring and assessment of its implementation and specifies a number measures to serve as indicators of progress for each of the Plan’s five strategies. In this respect the Thai plan is also consistent with the Madrid Plan’s call for countries to review and appraise their implementation of its recommendations. Moreover, many indicators set forth in the Plan are similar or consistent with indicators proposed by UNESCAP for the countries in Asia and the Pacific region (MSDHS 2007).

C. Social security system and pension plans

Until recently, government and state enterprise employees, who constitute about 9 percent of the labor force in 2007, were the only sector of the Thai population that had government guaranteed retirement benefits. The first state-supported pension system was established in 1892 as part of welfare provisions for public servants (Ruengsakul 2003). The 1951 Official’s Gratuity and Pension Act and its several subsequent modifications provided a generous pension and other retirement benefits for government officials and state employees based on a defined benefit system funded by the fiscal budget. Civil servants who worked at least 25 years can chose a pension or lump sum payment after leaving the service. The amount of the pension could be as high as 70% of the last month salary. Those who worked for 10 years or more but less than 25 years receive only a lump sum payment. State enterprises’ employees generally receive a lump sum payment upon their retirement. The amount of the lump sum payment is equal to the number of years the retirees have been in service times the last month salary. Government

retirees who choose to receive a monthly pension, but not those who chose a lump sum payment, also enjoyed life time health care benefits.

In recognition of future trends towards population ageing, both the government and private sector are working towards developing broader based pension and social security systems to reduce long term financial uncertainty for the older age population. In 1997 the Government Pension Fund (GPF) was established to replace the prior system for public servants. It is a defined contribution system. Public servants who joined the government in 1997 or later are required to be a member of this fund. Those who were civil servants before the establishment of this fund could choose either to remain with the old system or switch to the new GPF. Since some choose to remain in the old system, the government in actuality runs two systems concurrently. GPF provides the same benefits as the 1951 Pension Acts does to the government retirees. The conditions to receive a pension or lump sum payment upon retirement are similar in both systems. However, retirees under the new system receive a lower monthly pension but also receive a lump sum of their contribution at retirement.

A national social security system, enacted in 1990, was launched in 1991 to cover the private sector. However, the Old Age Pension Fund was not set up until 1999. The fund mandates contributions by employees, employers and the state for all workers in private sector enterprises. To receive a pension, however, subscribers must have contributed for at least 15 years. Thus the first payment of old age pension and benefits will not be until 2014. The pension and old age benefits provided by this system are relatively limited. Under the existing system, members are eligible to receive pension after leaving work at age 55. The amount of the pension starts at 20 percent of the average salary of the last 60 months for those who contributed for 60 months and reaches a maximum of about 42.5 percent of the average last five year salary as the length of the contribution period increases. As of 2006, a total of 8.86 million workers are members of the social security system.

Besides personal savings, other types of old age insurance for the private sector include the Private Sector Provident Fund (PVD) and Retirement Mutual Funds (RMF). The Provident Fund was first established by the 1987 Provident Fund Act and later under went several modifications. It is a privately managed, voluntary savings, defined contribution type of pension scheme. As of the end of 2005, there were 542 provident funds in existence, covering 1,665,709 employees. In terms of benefits, the employees will receive tax exempt lump-sum payments at the time of their resignation or retirement (Krongkaew 2007). The RMF was established in 2001 by Securities and Exchange Commission licensed mutual fund management companies. In an effort to encourage private savings for retirement, the government provides tax benefits for the investment in the RMF of up to 300,000 Baht per year. However, investors must invest at least once a year for five years with at least three percent of earnings or 5,000 Baht which ever is lower and are not allowed to withdraw these funds before reaching the retirement age of 55 without tax penalty.

Given that two-thirds of the labor force, who are mostly farmers and own account workers, do not have any old age financial security and the weaknesses of the existing pension systems, the Thai government is in the process of developing the so called National Pension Fund (NPF) to cover the majority of the Thais (Krongkaew 2007).

D. Welfare allowances and tax breaks

Allowances. In 1993 the Department of Public Welfare initiated a financial assistance programme to provide monthly subsistence allowances for indigent old persons in rural areas. Since then the programme has expanded and the amount of the allowances has increased from 200 to 500 Baht. At the start of the programme, about 20,000 elderly received the monthly allowance. According to official statistics, the number who received the monthly allowance increased steadily to 440,000 in 2003 and 1,755,666 in 2007. The latter figure would account for almost one-third of Thai elderly which is somewhat above the 25% who reported receipt of allowances in the 2007 Survey of Older Persons. The substantial increase in the number of monthly allowance recipients is in part due to the rapid growth of the elderly population. Even more important, however, has been a shift towards a more populist policy that relaxed the criteria for eligibility. This has been facilitated by the supplementation of central government funds by the local organizations administering the programme. Although the original intention was to provide allowances only for those who are indigent, some local administrations have broadened eligibility criteria considerably and a few even aim for near universal coverage.

Tax breaks. Although government policy as well as the first and second national plans on older persons emphasize the family as the primary source of support and care for its elderly members, the government has implemented measures specified in the second national plan for older persons to promote and facilitate children to provide care support for their elderly parents through tax incentives as well as assistance from the health service programme (described below). Starting in 2004, adults who care or support their parents or parents in-law are entitled to the income tax deduction of up to 30,000 Baht for each elderly parent under their care and support (National Commission of the Elderly 2005). Health insurance policies bought by children for their elderly parents or parents in-laws are also tax deductable.
Since January 2005, persons aged 65 years and over who live in Thailand for at least 180 days are entitled to an income tax exemption of 190,000 Baht. To encourage financial preparation for old age, persons aged 55 years, interest of less than 30,000 Baht from saving accounts are tax exempted (National Commission of the Elderly 2006).

E. Health programmes and free services for elderly

A free medical care programme for disadvantaged elderly was initiated in 1989 and extended to cover all elderly in 1992. Under this programme, all government hospitals and health stations provide free medical services to persons aged 60 and over with an 'elderly card'. It operated on a referral system from lower level to higher level health facilities. Following the introduction of the 30-Baht Health-care Scheme in 2001 which provided very low cost health care to all who lacked other health insurance, elderly were exempted from the 30 Baht fee provided they applied for a "golden card" which entitled them to the free medical care. In 2007, the scheme was modified to be a universal health care system with no minimum premium payment for each visit. Thus free government health care is currently universal in Thailand regardless of age.

Civil servants and state enterprise employees, their spouses, minor children and parents have been entitled to health care benefits for a long time. These benefits are superior to those available through the various government coverage for the general public and do not depend on a

referral system. Of significance for older persons, the health benefits also extend to employees' spouses and parents (as well as up to three minor children) and as noted above are continued in some cases after retirement from the civil service. Retirees, active employees and their dependents can freely seek inpatient care at public or private facilities with some ceiling applied to private outlets on the reimbursement.

In recognition of the increasing demand for quality health care provision for elderly, the Ministry of Public Health established the Institute of Geriatric Medicine in 1992. The Institute serves as a focal point to develop and transfer new knowledge and technologies on gerontology as well as to develop new effective models of health care for older persons. The first Elderly Clinic in a government hospital was set up in 1963 (www.agingthai.org). By 2007, all government hospitals have an elderly clinic to provide health services specifically for older persons. In addition, government hospitals are to have especially designated fast lanes for older persons using medical services of outpatient sections as well as announcements and notices explaining services that are readily understandable to older persons.

The Ministry of Public Health launched the Home Health Care Project in 2005 as a proactive health care service for the elderly at the community level. It is directed at older persons who are discharged from hospitals and need continuing care at home or who are chronically ill or with disabilities and need monitoring. As of 2006, the project was underway in all regional central hospitals and provincial hospitals as well as 65% of the community hospitals. In addition, several other projects exist designed to provide home and community health care integrated with social services e.g. the Bangkok 7 Model and the Community Based Health Care and Social Services Model (MSDHS 2007).

F. Other social services and projects

Homes for the aged. In line with the emphasis of the family as ultimately responsible for elderly members, long term institutional residences for the aged are considered only as a last resort by the Thai government as a way of dealing with elder care. Moreover, there has traditionally been widespread aversion among the public to such long term care facilities (Knodel, Saengtienchai and Sittitrai 1995). Thus the number of government supported institutional homes for older persons is very small with only a few thousand residents. The first such home for the aged was set up in 1953 by the Department of Public Welfare. The home was intended for older persons who are poor, homeless and have no one to care for them.

Although originally all 20 of the government homes for the elderly were operated by the central government, recently 12 have been transferred to local administration organizations to operate and supervise. In 2006, the role of the eight that are still operated by the central government was expanded so that they provide day care services to nonresident older persons who stay with their families. To reflect with the expanded role, the homes are now called Social Welfare and Development Centers for the Elderly. Also, four additional such centers were established bringing the total number to 12 with an estimated 36,000 persons accessing services annually (MSDHS 2007).

Several charitable organizations mostly religious-related, also operate old-age homes. There are 7 residential homes operated by the non-governmental organizations. Since most private nursing homes are registered under private health care service units without specifically indicating that they are primarily functioning as nursing homes for elderly patients, the actual numbers remain unknown but have surely been increasing in recent years (Jitapunkul, Chayovan & Kespichayawattana 2002; TGDRIF 2007).

Social service centers. The first social service center for elderly was opened in 1979 by the Department of Social Welfare. At present there are 19 social service centers operated by the central and local government administrations (National Commission on the Elderly 2005). The centers provide in-house services and emergency shelter for older persons. The in-house services provided include day-care, therapeutic and rehabilitation services, medical screening and treatment, counseling, religious and recreation activities.

Multi-Purpose Senior Citizen Centers. In 2006 a pilot project to establish Multi-Purpose Senior Citizen Centers was approved by the Bureau of Empowerment for Older Persons. The project is intended to involve both the family and community in the activities of the centers and to encourage older persons to contribute and manage their own problems. Services are provided both at the center and at home with the intention to strengthen both the physical and mental well-being of older persons in the community. The project is being launched in 8 areas of the four regions and Bangkok (TGDRIF 2007, MSDHS 2007)

Community Volunteer Caregivers. This project has the objective to train and sponsor people to serve as community-base volunteers to provide care and assistance to local older persons. It is initiated by the MSDHS and is in an advanced pilot stage. It started on a very modest scale in 4 provinces in 2003. By 2006 the project is functioning in some districts in 48 provinces and has since been approved by the Cabinet to expand to all provinces. The latest statistics indicated that here are approximately 5,000 volunteer caregivers who service their care-giving to approximately 50,000 older persons. (MSDHS 2007).

Elderly associations The first elderly club/association was officially established in 1962 at PhyaThai Neurological Hospital. With the support of the Ministry of Public Health and the Department of Public Welfare, the number of the senior citizen clubs grew steadily. The goal was to facilitate the formation of self-help organizations of older persons that provide as well as receive assistance or services. A study in 1994 identified about 3,500 elderly clubs all over the country (Siripanich et al. 1996). The number of elderly clubs has increased to 12,437 by 2007 (personal communication from the Office of the National Senior Citizen Council). Most clubs are located in the state health facilities, mainly the district health offices and sub-district health stations. Nearly all sub-districts of all provinces in Thailand have an elderly club and about 50 percent of Thai elderly are members of these clubs (MSDHS 2007). The clubs represent groupings of older persons who have worked at the same place/organization or live in the same neighborhood or community. They are intended to facilitate sharing experiences and emotional support as well as to contribute to the community. Elderly clubs are registered with and supervised by the National Senior Citizen Council.

National Older Persons Day. In recognition of the contribution the older persons have made to development of the county, in 1982 the Cabinet set April 13 the National Older Persons Day corresponding to the start of the three day celebration of the Thai New Year. Since then government and private organizations have been celebrating the National Older Persons' Day. Elderly are given special treatment and honors on April 13 every year.

Emergency assistance. The Ministry of Social Development and Human Security in collaboration with the Ministry of Public Health and Justice Ministry provide temporary shelter, food, clothing, medical treatment, legal advices and other necessities for older persons who face social problems either from abuse, poverty, or other difficulties (MSDHS 2007). The number of older persons who received housing and other basic necessity assistance was 7,633 in 2005 and 5,950 in 2006, while there were 1,039 and 1100 elderly received legal counseling services.

G. Role of Organizations besides the Thai Government

UNFPA and other UN agencies. UNFPA Thailand has been working closely with both government and private agencies responsible for work of elderly in Thailand including funding workshops, research and exploratory implementation projects (UNFPA 2006). For example, UNFPA has been collaborating with the Faculty of Nursing, Chiang Mai University to support older persons affected by HIV/AIDS in Northern Thailand. It also provided technical assistance to a research project entitled "The Impact of Migration of Adult Children to Older Persons". In the past year, UNFPA has collaborated with the Bureau of Empowerment for Older Persons, the Office of Welfare Promotion, Protection and Empowerment of Vulnerable Groups, the Ministry of Social Development and Human Security in organizing a series of workshop to address measures contained in the Second National Plan on Older Persons. An objective of these workshops is to come up with prioritized sound action programmes for the measures addressed. The United Nations Partnership Framework (UNPAF), 2007-2011 has included older persons as one of the vulnerable groups. UNFPA proposes to increase its involvement in ageing issues including older persons and development, advancing health and well-being into old age, and developing an enabling and supportive environment for older persons (UNFPA, 2006).

Non-governmental organizations (NGOs). In addition to governmental programs related to older persons, there are several NGOs that play a role in providing care and support to the elderly including the Senior Citizen Council of Thailand, the Thai Red Cross Society, and HelpAge International (HAI). The National Senior Citizen Council of Thailand was founded in 1989 under the Royal Patronage of Her Royal Highness the Princess Mother. The Council coordinates, promotes and supports work on older persons. It has 81 branches in 75 provinces and supervises the operation and management of elderly clubs nationwide. To be recognized as an informal association, elderly clubs must register with the National Senior Citizen Council. The Thai Red Cross Society has set up a working committee on older persons and developed its own working plan that corresponds to the Second National Plan (National Commission of Older Persons 2005 and 2006). The Society also runs several programmes related to elderly including an elderly residence intended for independent older persons. However it appears to be underused, as judged from only modest occupancy rates (Jitapunkul et al. 2008). In 2004 the Thai Red Cross launched a project to help older persons in slum communities who have difficulties accessing preliminary health examinations and physical therapy due to mobility problems. The Thai Red Cross Society Nursing College has been conducting a series of training programmes on elderly

caregiving for nurses and volunteer field workers to improve their knowledge and understanding of special health care needs of frail elderly in the community. HelpAge International (HAI) has its regional office in Thailand through which they run a Thailand country programme. They work with local NGOs including religious organizations. They have been a main organizations calling attention to the impact of the AIDS epidemic on older persons and have been involved in several studies of the issue and small-scale projects that address it. Several charity foundations, mainly ethnic Chinese and Christian churches, operate small homes for the aged, health promotion and home visit programmes for elderly in the community (National Commission of the Elderly 2006).

H. Private sector

In recent years, private sector in Thailand has been actively involved in providing assistance and welfare to older persons. As noted above, the private sector operates a number of nursing homes for profit. Some State Enterprise companies such as the State Railways of Thailand, the Thai Airways International PCL, Bangkok Mass Transit Authority, the Transport Company Limited, and the Mass Rapid Transit Authority of Thailand provide reduced fares for older persons. Many state enterprises and private companies celebrate the National Elderly Day (April 13) by organizing a ceremony to pay respect and gratitude to older persons. Some NGOs provide community care and welfare to older persons in the poor or remote areas. National Housing Authority and Bangkok Metropolitan Administration have provided exercise space and facilities for older persons at various parks. The Institute of Private Organization Development (a public organization) supports “the welfare system for older persons at the provincial level” by providing a one million Baht to each province. The Senior Brain Bank Association provides an on line consultation, disseminates information about ageing, promotes physical and psychological health programme for elderly and provides free lunch for poor elderly in a slum community (National Commission on the Elderly 2005).

Academic community has also played a major role in the development of the knowledge and services provided to the elderly population. For example, Thai Society of Gerontology and Geriatric Medicine founded since 1999 has organized an annual multidisciplinary national conference on ageing as a platform for scholars and researchers exchange information and knowledge related to elderly issues. The Society also publishes a quarterly Journal of Gerontology and Geriatric Medicine since January 2000. The knowledge and research findings from academic community have been used to formulate and modify the national plan.

I. Summing up

Recognition of the speed of ageing that Thailand is facing and the short time the country has to prepare itself to cope with the ageing population has recently prompted the government to substantially increase its efforts to develop relevant policies and responses to the emerging challenges. In addition, some organizations outside the government have also shown concerned about the potential consequences of population ageing. However, given the magnitude of the task ahead, only government efforts are likely to be at the scale that can adequately confront the challenges that the population ageing will pose. Thus the increased seriousness with which the Thai government is now treating ageing issues is most welcome.

Section 8. Key findings and recommendations

A. Introductory comments

Although still at a relatively early stage, Thailand's population is ageing rapidly reflecting the extensive and sustained decline in fertility that started in the 1960s. At the same time, long term improvements in mortality combined with the high fertility of the more distant past are resulting in rapid increases in the numbers of older persons. These developments merit celebration as they signify the success of government programs both to improve the health of the population and to lower previously high population growth rates through voluntary use of family planning methods. Nevertheless, population ageing also poses new challenges to families, communities, and the country as a whole. Not only will the future elderly live longer but they will average far few children available to support them during old age. At the national level, this translates into a dramatic decline in the ratio of the working age population to the population in older ages in which economic activity is reduced or absent.

Beyond taking into account the demographic facts, appropriate policies and programs in response to population ageing need to be based on solid evidence concerning the economic, social and health situation of the older population. Treatment of these issues by the popular media typically focuses on selective accounts portraying older persons in dire circumstances thus promoting an impression of widespread desertion of the elderly by their families and an alarmist view of population ageing. In contrast, news of positive developments receives little publicity. There are of course ample situations in which elderly are in great need and deserve urgent attention, But by themselves, such accounts are hardly an adequate basis for sound evidence-based public policy. Instead what is needed is a comprehensive accounting of the current circumstances of older persons based on representative data and accurate assessments of how these circumstances are changing. The goal of the present report is to help meet this need. In so doing we hope to contribute to an informed discussion of issues surrounding population ageing in Thailand. In this concluding section of the report, we highlight key findings from our review and propose some recommendations for consideration.

B. Some key findings

Demography of Ageing

- The size of the population 60 and older is projected to more than triple between 2000 and 2050; at the same time the oldest old (persons 80 and over) are projected to increase by almost eight-fold among whom 71% will be women.
- Persons age 60 and over who represented only 10% of the total population at the turn of the 21st century are expected to constitute 30% by mid-century.
- The potential support ratio (persons 15-64/persons 65+) is projected to fall from over 10 in 2000 to less than 3 by mid-century.
- Within just a little more than a decade, for the first time in Thailand's history there will be more persons age 60 and over in the population than under age 15.

Demographic characteristics

- More than half (55%) of Thais age 60 and older in 2007 have 4 or more living children. However this will change rapidly in the future with 60% of elderly in 2020 projected to have two or fewer children.
- Over three-fourths of elderly in 2007 are literate but only 8% have schooling beyond the primary level; educational levels of the elderly, however, will increase considerably in the future through cohort succession.
- Rural elderly are less educated, less literate, and more likely to continue working into older ages than those in urban areas .
- Older women have less schooling than men but the gender gap in educational levels will decline steadily over the next few decades. Older women are less likely to work and far more likely than men to be widowed.

Health

- During most of their elderly age span, the large majority of older Thais are sufficiently healthy to take care of themselves; thus the period of dependence when daily, hands on caregiving is needed is relatively short, typically only a few years.
- A substantial majority of older persons who have difficulties with essential daily activities have a personal caregiver; those whose problems are limited to poor mobility, however, are far less likely to have someone assisting them.
- Caregivers for elderly are almost exclusively family members; wives are the most common caregivers for men while children or children-in-law are for women.
- Distinctive gender differences are present with respect to health; older women report more non-fatal health problems than men but older men are distinctly disadvantaged with respect to life expectancy.

Economic well-being

- Material well-being of the older Thaïs improved significantly in recent years. In 2007 they live in better constructed housing and in households with far more appliances and amenities as well as motorized vehicles than just over a decade ago.
- Telephone availability in the households of elderly increased from 15% in 1994 to 76% in 2004, primarily through the spread of mobile phones, thus greatly improving the ability of elderly parents and children living elsewhere to keep in contact.
- Despite economic improvements, 21% of the older population in 2007 indicate that their income is inadequate and 28% expressed dissatisfaction with their financial situation.
- Almost a fourth of older persons report receipt of government welfare allowances; those in greatest need are far more likely to receive an allowance than those least in need. Still, significant numbers of the poorest elderly are missed by the program.
- Rural elderly are considerably worse off economically than urban elderly on all measures of economic status.
- Elderly men and women are similar with respect to housing quality and household possessions, reports of inadequate income and financial dissatisfaction, and, among the unmarried (mostly widowed), reports of income and asset values.

Living arrangements

- The share of older persons who coreside with children declined from 77% to 59% over the last two decades although even in 2007, 70% still either lived with or next to a child.
- At the same time, elderly who live alone increased to 8% and those who live with only a spouse increased to 16%. However, half who live alone or only with a spouse have a child living in the same locality.
- Except for those who are childless, elderly who live alone or only with their spouse are not more likely than average to report inadequate income and financial dissatisfaction although they generally have below the average number of household possessions.
- Migration of adult children of elderly, especially those in rural areas, is substantial and increasing. Overall, in 2007 36% of the children of persons age 60 and over lived outside their parents' province, up from 28% in 1995. Still only less than 10% of elderly parents have no child living within the same province.
- In 2007, 14% of elderly lived in "skip generation" households (grandparents and grandchildren without middle generation married adults), up from 10.5% in 1994.
- One in four elderly live with a minor age grandchild whose parents live elsewhere or are deceased; in half of the cases the grandparent is the main care-taker of the grandchild but in over 80% of the cases the absent parents cover the financial costs.

Intergenerational exchanges

- Children as a source of income of elderly persons has remained virtually unchanged between 1994 and 2007; currently 87% of elderly parents report receiving some income from children and 55% report children as their main income source.
- Substantial proportions of older age parents and non-coresident children speak daily or weekly on a telephone and almost two-thirds report at least monthly telephone contact.
- Material support is common from non-coresident children. In 2007, almost three-fourths of older persons who have a non-coresident child received at least 1000 baht in remittances, half received at least 5000 baht, and a third received at least 10,000 baht during the prior year; in addition just over a third received food on at least a weekly basis.
- Only a small share of elderly parents in 2007 report providing money to their children during the prior year
- Smaller family sizes are associated with lower chances of coresiding with a child or receiving significant monetary support from a child.
- Desertion of older age parents by their children is rare; only one percent of elderly parents report no contact with any of their children during the prior year and even fewer had neither contact nor received remittances from any child.
- Most Thai adults age 18-59 in 2007 expect to receive financial support from children during old age; younger adults are only modestly less likely to expect such support than those closer to old age.

AIDS epidemic and older persons

- HIV infection is low among older age persons but large numbers are affected through the illness and death of HIV positive adult children.
- Older age parents have contribute significantly to the ability of Thai society to cope with the AIDS epidemic by providing care and shelter to their HIV infected adult children, especially at the terminal stages of AIDS.
- Although deaths of adults to AIDS are decreasing, recent widespread access to effective antiretroviral therapy is leading to rapidly increasing numbers of older parents with adult children under treatment.
- AIDS knowledge among older persons is deficient; at the same time better knowledge is associated with an increased willingness to care for a family member ill from AIDS.

Policy responses

- The Thai government's response to population ageing is relative recent but increasingly vigorous.
- Recent responses include the formulation of a new national plan on ageing and enactment of laws and regulations to promote elderly well-being.
- Government facilities for long term care are minimal. Private nursing homes are increasing although systematic information about them is lacking.
- Both universal free health care to persons 60 and older and government welfare allowances for indigent elderly have been in effect since the early 1990s.
- Both government and private sectors are working to develop broader based pension and social security systems to reduce financial uncertainty for the older age population.
- Pilot projects are underway to establish home and community based care programs for older persons.

C. Recommendations

Recommendations for effective policies and programmes to address the needs of an older population and maximize their contributions to society, as well as to minimize potential negative impacts of population ageing, need to be based on more than just the social demography of the older population as presented in this report. Among other considerations, they need to take into account budget realities and a thorough understanding of how the government bureaucracy actually operates. Fortunately the Thai government has established working groups and committees of leading academics, policy makers, bureaucrats charged with implementation, and other stake holders to deal with these issues. Such groups constitute the most appropriate forum for developing policy and programme recommendations. Hopefully critical use of the findings of this report will assist these endeavors. Here we offer some general recommendations to stimulate the ongoing deliberations. We note that many of the concerns that our findings raise are already under consideration and in some case even being acted upon.

General policy

- Given the speed of population ageing in Thailand, the issue of ageing should be given high priority in government agendas and taken into account at all levels from local to national.
- All sectors of the society should be involved in adjusting current programs to accommodate the rapid growth of older persons and relative balance of age groups within the population. Particularly crucial is for the health sector to increase services oriented towards geriatric issues.
- Organizations responsible for elderly matters should coordinate activities in a coherent manner to increase the efficiency of the overall response.

Long term and personal care issues

- Increased attention should be given to ways to assist families in providing hands-on assistance to members with functional limitations and sustained care for those who are frail or chronically ill, especially in light of reduced family sizes and extensive migration of adult children.
- Community based programs to provide personal assistance and home care to elderly by non-family members and local health personnel should be developed to help fulfill needs of elderly for whom family based care is impractical or insufficient.
- Educational campaigns geared towards increasing the acceptability of personal care by non-family members may be necessary for the success of such programs.
- Efforts by the health system to improve the physical ability of older persons to live independently should be expanded to help minimize the period that long term hands-on caregiving is needed. Such measures could include efforts to reduce poor vision (by expanding eye testing, providing eyeglasses, and expanding cataract surgery programs) and to provide equipment aids such as walkers and wheelchairs to improve mobility.

Social protection and poverty reduction

- Poverty eradication among impoverished elderly should be given high priority. Measures of poverty and vulnerability specific to the situation of the elderly should be developed to better estimate the size of the problem for planning and to better identify persons in need.
- The existing programmes of free government health insurance for older persons as well as elderly welfare allowances should be maintained. The latter should be fine tuned to improve its effectiveness in reaching the most vulnerable.
- Expanded coverage of the basic pension scheme should be implemented to reduce poverty in old age among the future generation of elderly.
- Employment of older persons should be promoted in both private and public sectors as a means to reduce poverty and encourage active ageing. The official retirement age should be raised and part time employment made available for older persons.
- Efforts to inform older persons about suitable employment opportunities are needed.

AIDS epidemic

- Given the high level of motivation to ensure their children's well-being, the potential for older age parents in encouraging the adherence of their HIV infected children and grandchildren to treatment regimes should be explored.
- Efforts to inform public about AIDS and its treatments should include older persons in their targeting.

Monitoring and research

- Capacity building to conduct high quality research on issues related to ageing in multiple disciples thru appropriate training programs and collaborative international research opportunities should be encouraged.
- Representative statistical data on the changing situation of older persons should be periodically collected. Particular attention should be given to assuring good data quality.
- Pilot projects and existing programs related to older persons should be carefully evaluated to assess their success and identify barriers to their effectiveness.
- Careful assessment needs to be made of the extent to which adult children will no longer be able to meet long-term care needs of their elderly parents. Given that women are more dependent than men of children for both care and support, such assessments will need to pay special attention to gender differentials.
- Research is needed to assess the impact of the AIDS epidemic on older persons and their role in caregiving and treatment in the context of widespread availability to ART.
- Analyses of relevant existing data, especially from surveys sponsored by the National Statistical Office and other government agencies, should be encouraged in order to expand the knowledge base on issues related to ageing in Thailand.

Endnotes

[1] Occasionally we use age 65 and above when findings we refer to are available only for persons in this age span.

[2] On gender and aging see Sobieszczyk, Knodel & Chayovan (2003) which provides a framework for interpreting gender differences including a review of relevant policies and laws and socio-cultural setting. More general framework for examining gender and aging are available in Knodel & Ofstedal (2003) and Ofstedal, Reidy & Knodel (2004) . Additional studies specific to Thailand include Knodel (2004) and Soonthorndhada et al. (2008).

[3] Although, some of these surveys cover the population age 50 and above we focus on the population age 60 and older.

[4] Examples of major non-representative surveys include the a quasi-national survey in 1990 sponsored as part of a multiple country effort by the World Health Organization (Andrews undated). More recently, in 2006, the Survey on Vulnerability of Thai Elderly and the Health Status Survey of Elderly in Four Regions were undertaken (MSDHS no date; Institute of Geriatric Services 2007).

[5] The 2007 National Survey of Older Persons is a nationally representative sample and included information for over 30,000 persons age 60 and older. For 27% of these respondents information was provided by a proxy respondent. Just over 90% of the proxy interviews were provided by another household member. In three fourths of the cases in which proxy respondents were questioned, the older person was absent. Health related problems of the older person accounted for almost all of the rest. In this report we generally base results on responses provided by either the older person or a proxy. The main exception is with respect to questions related to knowledge or attitudes regarding AIDS in section 6. Also for convenience we use the term respondent to refer to either the older persons to whom the responses apply regardless of whether or not a proxy actually provided the information. In addition, results presented in this report from the two earlier rounds of the Survey of Older Persons in Thailand, SWET and the first round of the 2007 Labor Force Survey are also based on original tabulations and thus are not available in earlier publications.

[6] If new information is available since the previous assessment, assumptions underlying the projections are adjusted as in the case of the 2006 projections for Thailand which differ considerably from those in the 2004 assessment.

[7] In some cases the parents are the ones who migrated but in the vast majority of cases it is undoubtedly the children who moved away. The 1995 survey clearly includes information about children who live in a different province as well as those who live outside the country; the 2007 asked about children who lived in another province and thus may not include children who live abroad. Thus the extent of the increase between the two surveys in the percent who live outside the province may actually be slightly underestimated.

[8] Note that since Bangkok can be considered both a category in the rural-urban classification as well as a region, it needs to be added to both for the sum of the rural-urban categories and the sum of the regional categories to account for 100% of the older population.

[9] Additional possible influences that may account for the observed pattern are changes in the remarriage probabilities or a possibility that some divorced or separated persons report themselves as widowed once their former spouse dies.

[10] Overall respondents age 60 and over average just 0.09 step and adopted children compared to 3.97 own biological children. Thus including step and adopted children in the total only raises the average number of living children to 4.06 overall. However among those who have no biological children of their own, 28% have at least one step or adopted child compared to only 7% of those who have at least one biological child of their own.

[11] If only own biological children were considered 5.5% would be childless.

[12] We draw on this source when examining educational attainment rather than the 2007 Survey of Older Persons because it provides more detailed information on educational attainment and thus permits groupings into more appropriate categories for our purposes. Since the first round of the Labor Force Survey was conducted just a few months before the 2007 Survey of Older Persons results refer largely to the same target population.

[13] Among persons 60 and older in the 2007 Survey of Older Persons in Thailand who had no education, only 5.7% are literate suggesting that informal education programs to teach literacy to adults who lacked reading and writing skills had at most only modest effect.

[14] The results in this report are based on the original calculations for the projections for Thailand that were kindly provided by the original authors. For a fuller accounting of the methodology used and the associated qualifications see the original full report (Hermalin, Ofstedal and Tesfai 2006).

[15] In NSO surveys, work refers to employment, work for pay or profit, and work as an unpaid family worker but does not include domestic chores within the household, an aspect of the definition that has bearing especially for activity rates of women. Since some types of work are seasonal, estimates of economic activity during the previous week will exclude some persons who work at other times of the year but are inactive at the time of the survey.

[16] For example even when limited to only currently married respondents, 41.6% of those 60-69 compared to only 27.9% of those 70 and above report their spouse as a source of income. This indicates that not just higher levels of widowhood but also lower levels of economic activity among spouses of currently married older persons reduces their ability to be a source of income.

[17] Among currently married respondents, 47.4% of women compared to only 30.1% of men reported the spouse as a source of income.

[18] For example, 84% of rural older persons or their spouse own their home compared to only 70% of urban older persons.

[19] See (Knodel, Chamratrithirong & Debavalya 1987, p.158) for references to a series of studies documenting the role of wives and husbands within the family.

[20] In 2007 the remaining 64% of respondents were evenly divided between those who lived in wooden dwellings and those who lived in dwellings made of both cement and wood.

[21] Information on household possessions was not collected in the 2002 Surveys of Older Persons in Thailand.

[22] Between 1994 and 2007, the percent of older persons living in households with a landline phone increased from 15% to 32% overall. In urban areas the increase was from 56% to 66% compared to an increase of 3% to 19% in rural areas. By 2007, 27% of elderly overall lived in households which had both a landline and a mobile phone, 5% in a household with only a landline phone, and 44% in a household in which there was only a mobile phone. Of those living in households with any phone, only 26% of urban elderly were in households with only a mobile phone compared to 73% of rural elderly thus underscoring the particular importance of the spread of cell phone technology for providing access to telephones for rural elderly.

[23] The particular items used to calculate the mean number of household possessions is the same as indicated in table 3.10 except that mobile phones and cell phones, cars and trucks, and gas and electric stoves are treated as separate items thus raising the maximum total number of possible household possessions to 19.

[24] Not surprisingly, there is a considerable correlation between responses to the question on income sufficiency and financial satisfaction. The large majority (88%) of those who indicated their income was sufficient express dissatisfaction with their financial situation. Among those who gave a conditional response with respect to their income sufficiency about two fifths express dissatisfaction. At the same time very few (less than 2%) of those who indicated their

income was sufficient or more than sufficient expressed dissatisfaction with their financial situation.

[25] For example, the life table shows under 5 mortality for boys to be more than seven times that for girls, a very unlikely finding.

[26] For each of the activities in table 4.3, respondents were coded as not being able to perform the activity, being able to perform with some assistance from others or with an aid, and being able to perform without any assistance or aid. In this report we consider both those who cannot perform the activity or can only perform the activity with assistance or an aid as having a functional limitation with respect to the activity.

[27] The question used in the survey asked collectively about being able to bathe, wash one's face, brush teeth and use the toilet as a single item.

[28] Among all respondents age 60 and over, only 1% were coded as needing assistance but not receiving it while 88% were coded as doing these activities by themselves with no qualification.

[29] Overall 81% of non-family member caregivers were servants.

[30] Because of data problems, estimates of living arrangements at the time of the 2002 Survey of Older Persons in Thailand are estimated primarily from the concurrent round of the Labour Force Survey (see Knodel et al. 2005).

[31] In the vast majority of cases, coresidence involves at least one adult child, For example, in 2007, less that 2% of coresident elderly lived with children who all were under age 18.

[32] Since a child in-law can serve many of the same functions as an elderly person's own married child and in this table we include the 1% of cases in which an older person lives with a child in-law but not with a married child in the same category as living with a married child. In addition, while the wording of the question about unmarried children in the household in the 2007 survey clearly specifies single (i.e. never married) children, the wording of the question about the married children is potentially ambiguous with respect to widowed, divorced and separated children. We assume that responses encompass all ever married coresident children although possibly some respondents interpreted the question to refer only to currently married children.

[33] Among those living with unmarried but no married child, 95% live with an adult unmarred child (age 18 or over).

[34] In some of these households there will be single children of the grandparent and thus in fact there is not a total absence of the middle generation. It is highly unlikely, however, that any of these single children would be the parents the grandchildren. At the same time, situations in which a married child is present but grandchildren from a non-coresident child are also present will not be included.

[35] The purpose of the latter measure is to determine if the gender of the grandparent affects the presence of grandchildren without parents. This is not possible to determine if both grandparents are present but should be apparent from comparisons of situations where only one is present.

[36] The questions refer collectively to all such grandchildren in the household and do not allow for differentiating situations when multiple grandchild coreside.

[37] The lack of change in dependence on children as a main source of income is confirmed by the results of both the 1986 Socio-Economic Consequences of the Aging of the Population in Thailand survey and the 1995 Survey of Welfare of Elderly in Thailand which find similar proportions of older persons saying that children are their main source of income (Knodel et al. 2000b)

[38] Thus results for monetary exchanges between parents and coresident children are limited to the 59% of parents with at least one coresident child and results for exchanges between non-coresident children are limited to the 88% of parents with at least one non-coresident child.

[39] The survey question asked about exchanges within the past year and thus mainly referred presumably to routine exchanges of money intended for every day use. A recent study found that while older age parents rarely give routine monetary support to their adult children, it is not unusual for parents to occasionally provide substantial monetary assistance when special circumstances call for such assistance (Knodel et al. 2007).

[40] For example, among elderly parents with at least one non-coresident child, 65% who live in skip generation households receive remittances of 5000 baht or more compared to only 48% who are not in a skip generation household.

[41] Note that the question in the survey does not specify which children are providing money and thus in the cases of parents who live with coresident children the money may be provided by a non-coresident child; also for each category of non-coresident children, the nearest one is not necessarily the child who is providing the money.

[42] In addition the question asks collectively about visits from non-coresident children. We assume that for parents with multiple non-coresident children, responses refer to highest frequency of any of the children although it is possible that some respondents state an average frequency for all their non-coresident children.

[43] E-mail contact is not taken into account since the very few respondents who had e-mail contact with children also had phone contact and in only two cases was the e-mail contact more frequent. Some elderly who do not have visits or phone contact may correspond through letters but relevant information is not available in the survey.

[44] Based on table 39 which shows that a about a third of the 6% who said they felt deserted in general, said the reason was because they were deserted by their spouse and children

[45] It is possible that in some cases the parents were the ones who migrated but generally it is the children who have done so (see Knodel et al. 2007).

[46] Among those with no child in the same province 1% have all their children living abroad.

[47] For example, among never married adults, the percent who expect support declines from 69% among those under 30 to only 30% for those aged 50-59.

[48] Only modest differences are evident between urban and rural residents. Overall 75% of urban adults compared to 82% of rural adults expect financial support from children in old age but

even this difference is in part attributable to the higher proportion of urban residents are single. Among ever married adults, 82% of urban residents and 87% of rural residents expect support.

[49] The percent who said they ever heard of AIDS is low compared to what would be expected from previous surveys. For example, the 1993 Social Attitudes Survey, which covered reproductive age women and their husbands, found that among men age 50-59 at the time (and who would be 64-73 in 2007), 96% ever heard of AIDS and among women age 45-49 (who would be 59-63 in 2007) also 96% ever heard of AIDS (original tabulations). Moreover, in a survey about AIDS knowledge in four provinces and Bangkok, that included older persons conducted in 1999, 99% of both men and women age 60-74 ever heard of AIDS (Im-em et al. 2001). Since we would expect the percent who ever heard of AIDS to increase rather than decrease over time, the 2007 survey likely underestimate awareness for unknown reasons.

[50] For the purpose of calculating the percent of older persons with correct knowledge, respondents who never heard of AIDS as well as those who indicated they were not sure or did not know the answer are assumed to lack correct knowledge and are treated as such in the results by including them in the denominator.

Appendix A. Detailed estimates from *World Population Prospects: The 2006 Revision* (medium variant)

Table A1. Selected population statistics related to ageing (based on Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision* (medium variant)

Year	Population age 60+ (in 1000s)	Population age 60+ as % of total	Population age 0-14 as % of total	Population age 15-59 as % of total	Median age	Ageing index (population 60+/0-14)	Potential support ratio (population 15-64/65+)	Population age 80+ (in 1000s)
1950	1041	5.0	42.1	52.8	18.6	12.0	16.8	85
1955	1179	5.0	42.0	53.0	18.7	11.8	17.2	90
1960	1411	5.1	43.5	51.4	18.4	11.7	17.0	95
1965	1684	5.2	44.7	50.1	17.8	11.7	16.0	117
1970	2002	5.4	44.3	50.3	17.8	12.1	15.4	138
1975	2339	5.5	42.3	52.2	18.5	13.1	15.0	166
1980	2697	5.8	38.6	55.6	19.9	14.9	15.2	215
1985	3364	6.6	33.0	60.3	22.7	20.0	14.8	272
1990	4225	7.8	28.5	63.7	25.1	27.3	13.6	343
1995	5116	8.9	25.8	65.3	27.4	34.4	11.9	428
2000	6130	10.1	23.6	66.3	30.1	42.9	10.4	602
2005	7122	11.3	21.7	67.0	32.6	52.1	9.0	820
2010	8463	13.0	20.6	66.4	34.7	63.1	8.1	1073
2015	10396	15.6	19.7	64.7	36.5	78.9	6.9	1329
2020	12611	18.5	18.9	62.6	38.2	98.3	5.6	1603
2025	14782	21.5	17.9	60.6	39.8	120.0	4.5	1836
2030	16596	24.0	17.1	58.9	41.2	139.9	3.8	2259
2035	18069	26.1	16.6	57.3	42.3	157.1	3.3	2936
2040	19059	27.6	16.3	56.1	43.1	169.8	3.0	3669
2045	19675	28.8	16.1	55.1	43.7	179.5	2.8	4298
2050	20071	29.8	15.8	54.4	44.3	188.1	2.6	4732

Table A2. Selected population statistics related to ageing by 5 year periods from Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision* (medium variant)

Period	Total fertility rate	e0 Both sexes combined	e0 Male	e0 Female	Annual growth rate (%)		
					all ages	ages 60+	ages 80+
1950-1955	6.40	50.8	49.2	52.6	2.84	2.49	1.14
1955-1960	6.40	53.6	52.0	55.4	3.04	3.59	1.08
1960-1965	6.39	56.1	54.4	58.0	3.10	3.54	4.17
1965-1970	5.90	58.3	56.4	60.5	2.85	3.46	3.30
1970-1975	4.96	60.4	58.0	63.1	2.49	3.11	3.69
1975-1980	3.76	62.5	59.8	65.7	2.08	2.85	5.17
1980-1985	2.85	64.6	61.7	68.0	1.64	4.42	4.70
1985-1990	2.27	66.1	63.1	69.6	1.32	4.56	4.64
1990-1995	2.00	67.3	64.0	71.2	1.16	3.83	4.43
1995-2000	1.90	67.5	62.8	72.8	1.06	3.62	6.86
2000-2005	1.83	68.6	63.7	74.0	0.76	3.00	6.15
2005-2010	1.85	70.6	66.5	75.0	0.66	3.45	5.38
2010-2015	1.85	71.7	67.8	75.7	0.50	4.12	4.31
2015-2020	1.85	72.8	69.1	76.6	0.36	3.86	3.69
2020-2025	1.85	73.8	70.3	77.4	0.24	3.18	2.73
2025-2030	1.85	74.8	71.3	78.2	0.12	2.32	4.17
2030-2035	1.85	75.7	72.3	79.0	0.01	1.70	5.23
2035-2040	1.85	76.6	73.2	79.7	-0.09	1.07	4.46
2040-2045	1.85	77.3	74.0	80.4	-0.19	0.63	3.15
2045-2050	1.85	78.1	74.9	81.1	-0.27	0.40	1.93

Appendix B. Estimates of the number of parents potentially impacted by an adult child with HIV/AIDS, Thailand 2001-2010

This appendix describes the calculation of annual estimates for 2001-2010 of the number of parents potentially affected by HIV/AIDS in Thailand. Estimates are made for three categories of parents:

1) those who have an adult child living with HIV/AIDS at year end
2) those who have an adult child on ART at year end
3) those who lose an adult child to AIDS during a year

In addition, separate estimates are made for:
a) for all parents
c) parents age 60+.

The estimates utilize the following information:
1) Projected annual numbers of adults dying from AIDS, adults living with HIV/AIDS at year end, and the number of adults on ART at year end for the period from 2001-10. This information comes from preliminary results of the new projections for Thailand being prepared by the Analysis and Advocacy Project in Thailand for the Thai Working Group on HIV/AIDS Projection. The preliminary projections do not provide this information by age.
2) The age distribution of adults dying of AIDS during the years 2001-10. This information comes from the Projections for HIV/AIDS in Thailand 2000-2020 published by the Thai Working Group on HIV/AIDS Projection in 2001 (TWG 2001).
3) The mean number of living parents (all ages and age 60+) for persons aged 10 and older by age. This information comes from the 1994 Survey of Elderly in Thailand (SET) conducted by the National Statistics Office (the only nationally representative survey that provides such information).

In order to make the estimates, the age distribution of adults who are living with HIV/AIDS. are on ART, and who die of AIDS is needed. Since the new projections do not provide this information, the age distributions of adults dying of AIDS and of those on ART are assumed to be the same as that for those projected to die of AIDS during the years 2001-10 produced in TWG projections issued in 2001 . The age distribution of persons on ART is assumed to be similar to that of persons who were projected to die of AIDS because for the period covered people most who start ART are likely to do so after progressing to AIDS. This would be about a year or so of before when they might have died had they not taken ART. At the same time people who continue to live on ART become older than they would have been had they not taken ART and died. For the period covered, these two factors probably more or less cancel each other out. In contrast, the age distribution of adults who are living with HIV/AIDS, will be lower than those who die of AIDS. For the present exercise their age distribution is assumed to be on average five years younger than those who die of AIDS in the 2001 projections.

The mean number of living parents (of all ages and age is 60+) of adults who are living with HIV/AIDS, who are on ART, and who die of AIDS, is assumed to be the same as for persons of the same age in the general public as calculated from the 1994 SET. Based on the assumed age

distributions (as described in the preceding paragraph), an age-weighted average of the mean number of living parents is calculated for adults living with HIV/AIDS, adults on ART and adults who of AIDS. Estimates of the number of living parents of adults in each of the three categories are then calculated in two steps. First, the numbers of adults in each of the there categories as provided by the new preliminary projections is multiplied by the respective age-weighted mean number of living parents. A second step then adjusts the results for the fact some proportion of adults in each category are siblings and thus have the same parents. Thus without adjustment for this, some parents will be double counted. To adjust for this, 2% of adults dying of AIDS in a particular year, 4% of adults on ART in a particular year, and 8% of adults who are living with HIV/AIDS are assumed to be siblings. These adjustment factors are based on the following reasoning. Only a very small proportion of adults dying of AIDS in a particular year are likely to b siblings. A somewhat higher proportion of adults on ART at the end of any year are likely to be siblings because someone can be expected to live on ART for some years (thus increasing the chance that siblings could be on ART at overlapping times). Also the trajectory of a rapid spread of ART during the period being covered (i.e. 2001-10) means that the average duration of being on ART during this period will be relatively short. The proportion of siblings will be highest among adults living with HIV/AIDS since persons can survive with HIV/AIDS for an average of about 7 years and longer if treated with ART thus providing longer periods for siblings to be living with HIV/AIDS simultaneously. While these assumptions are largely arbitrary they seem in line with simulations published earlier indicating that multiple losses constitute 12-33% of lifetime losses of adult children to AIDS by parent (Ken Wachter et al. 20030).

Results of these estimates are provided in Table B1.

Table B1. Annual estimates of the number of parents potentially affected by HIV/AIDS in Thailand, 2001-2010

	Parents with adult child living with HIV/AIDS at year end		Parents with adult child on ART at year end		Parents losing adult child to AIDS during year	
Year	all parents	parents 60+	all parents	parents 60+	all parents	parents 60+
2001	855841	355825	4607	2712	65836	38764
2002	822316	341887	14913	8781	57521	33868
2003	797037	331377	27991	16481	49724	29277
2004	786725	327090	65808	38747	30022	17677
2005	782794	325455	121113	71310	24681	14532
2006	708023	376120	135420	93250	24094	16591
2007	694964	369183	161230	111022	28766	19808
2008	677092	359688	184050	126736	31205	21488
2009	656887	348955	204049	140507	32068	22082
2010	634881	337265	220312	151706	32581	22435

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