

CHAPTER 1

INTRODUCTION

One of the most significant phenomena of the twentieth century has been Population Ageing, or the dramatic increase in the number and proportion of persons aged 60 and over. According to the 1985 - 1986 survey of population change reported by Thailand National Statistical Office, throughout the whole country there were 3,352,700 persons aged 60 and over, constituting 6.5 % of the total population. By the year 2015, this figure is projected to rise to 9,118,032, an increase of 172 %. It is quite alarming to realize that 15 years hence, the elderly may constitute 13.2 % of the country's population.

The demographic transition which was until recently mostly viewed as a phenomenon of the more developed countries has of late started becoming a feature of many developing countries. Already in 1985, 56.5 % of the world's elderly, or 241 million people, live in developing countries, many are projected to experience, during the coming three decades, remarkable increases in the number and proportion of the elderly. Unlike in many developed countries, where population aging was a gradual process spread over a long period of time, in a number of developing countries including Thailand this phenomenon is projected to occur very rapidly. By the year 2025, while the elderly population in developed countries is expected to increase by 77 % over the 1985 figure, the number of elderly persons living in developing countries will increase by almost three times at rate, or 207 %.

The aging of populations has become a major concern facing the whole world. Reliable demographic data is essential for the formulation of policies and action programs for the elderly and for the evaluation of the progress of addressing the problem. The link between demography and the study of aging can not be over emphasized. The demography of aging is an essential tool in preparation for the future. In the field of aging, much of the future is built in the present age structure. The knowledge of projected increases in the

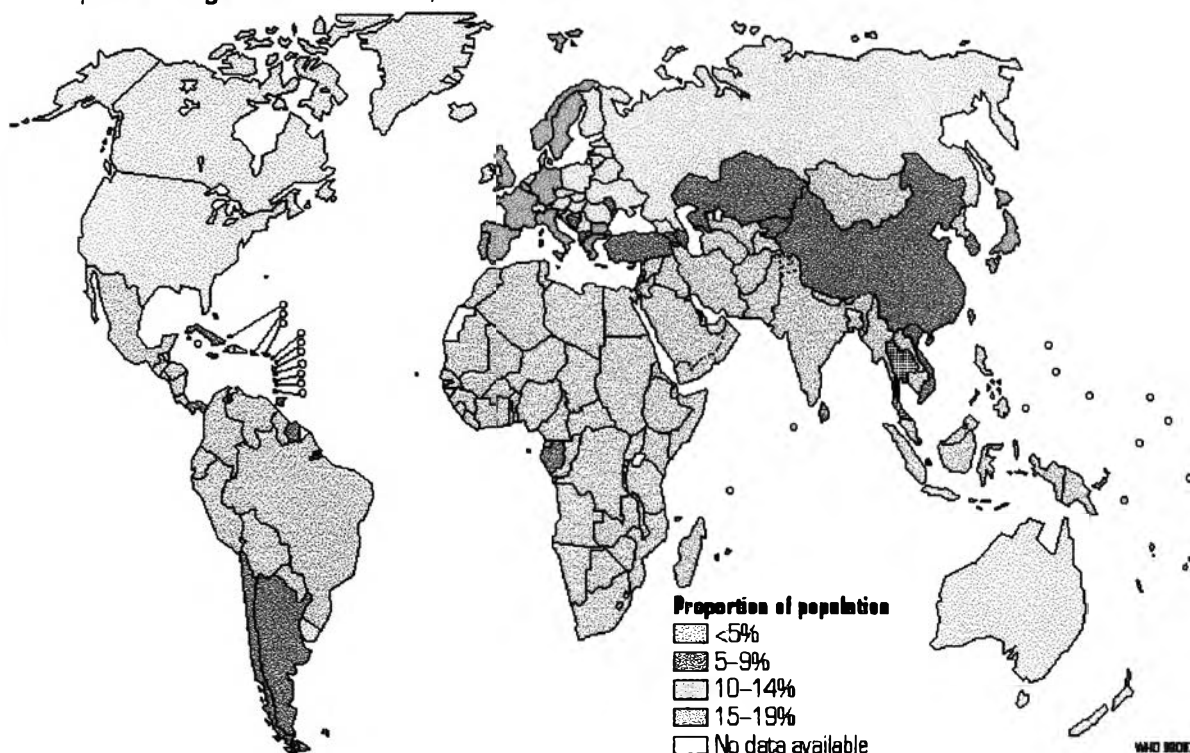
numbers, proportions, sex distribution together with an awareness of the changes in factors such as declining fertility rates and rapid gains in life expectancy are of vital importance for policy makers and decision - makers in planning their country's allocation of social and economic resources (for future health and social services, family support, housing and income security schemes etc).

It is worth noting that the demography of ageing is one of the most predictable demographic variables. The projections regarding the elderly carry a low margin of error due to the fact that those who will be over 60 years of age by the year 2015, have already been born. Consequently, their number will only be affected by the margin of error in the assumptions about subsequent mortality rates which, being quite low, will not significantly affect the projections.

Figure 1.1 Percentage of world population aged over 65, 1997

An ageing world

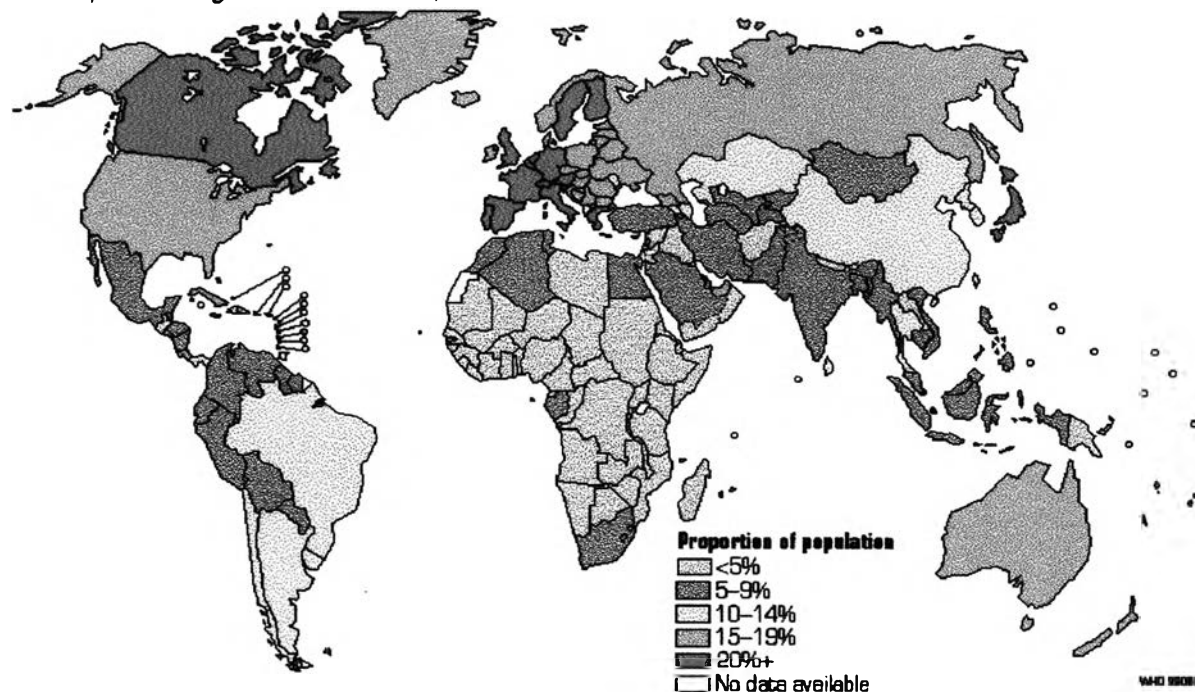
A. Population aged 65 and above, 1997



Source: Population age over 65, 2025 W.H.O; Geneva. 1999

Figure 1.2 Projected of world population aged over 65, 2025

B. Population aged 65 and above, 2025



Source: population age over 65, 2025 W.H.O; Geneva. 1999

In describing the aging of populations, various demographic indicators can be used such as

1. The relative weight of the elderly; that is, the proportion of people aged 60 and over in the population. The 10 % figure is a convenient benchmark used by demographers to establish the transition from a young to an old population structure.
2. The median age; that is the age which divides the population into two equal groups, one younger and the other older.
3. The aging of the elderly population; that is the proportion of the "old-old" or the people on 75 years old and older as related to people aged 60 and above.
4. The sex composition of the elderly population.
5. The aging index that is the proportion of elderly people for every 100 people under 15 years of age.
6. The aged dependency ratio; that is the number of elderly people for every 100 people of working age (aged 15 - 59).

According to the above indicators, Thailand is at a cross round of demographic transition where the phenomenon of the aging of Thailand' s population is beginning to emerge. Detailed rational for the occurrence is explained below:

1. The relative weighting of the elderly

Following the Second World War, which the highly improved standards of living, the accelerated progress in medicine, the human life control of communicable diseases and improvements in nutrition, have all contributed to a longer span. This is reflected in the increase in number of elderly persons throughout the world.

In Thailand, this decline in mortality rates was coupled with an increase in the birth rate or a "baby boom". The combination of these two factors resulted relatively younger population though the numbers of the elderly in the population was steadily increasing. Consequently, one is justified in saying that Thailand has not yet experienced a serious population aging, but it is facing various constraints and difficulties resulting from increase numbers of elderly.

In 1960, the developed regions of the world accounted for nearly 51 % of the world's elderly, while they contained only 31.4 % of the world's total population. The developing countries with 68.6 % of the world's total population accounted for 49 % of the world's elderly. According to the survey of population change 1964 - 1965 reported by Thailand National Statistical Office, in 1960, the relative weight of the elderly in Thailand was 4.6 %.

The 1980s marked a turning point. The numbers for the elderly in the developing countries exceeded those in the developed regions. In fact, in 1985, the developing countries accounted to 56.5 % of the global's elderly. This marked shift towards developing countries will increase to 72 % by the year 2025.

In 1985, the relative weight of the elderly in Thailand was 6.5 % (NSO, 1985-6) as compared to 6.6 % in other developing regions, and 15.4 % in the developed regions; It is projected to be 13.2 % in 2015 (NESDB, 1997). It is remarkable that the elderly population

of Thailand is projected to increase at a much higher rate than the average of the other developing regions. In 2025 , the relative weight of the elderly in the developing regions is projected to be 12.36 % while the weight in the developed regions will be 23.6 %.

2. The median age

In 1985, the median age of Thailand was 21.7. By the century's end, while the world's median age is projected to increase by 3 years, that of Thailand is projected to increase by 4.9 years and by a further 6.9 years by the year 2015 as compare to a further increase of the world's median age by 4.7 years by the year 2025 (10 years from 2015). (Health Association, 1998:188). This clearly shows that Thailand is aging faster than the world as a whole. Thailand may have a lower base so it's catching up with the rest of the world instead of aging faster.

3. The ageing of the elderly population

Accompanying the progressive aging of the population as a whole, is the emergence of the "fourth generation" of elderly. This phenomenon which is the result of the aging of the elderly is denoted in the rising proportion of the "old-old" category in the total elderly population. A number of demographers and social gerontologists speak about the "young old" to distinguish between those persons 60 to 74 years of age and those who are 75 years and older.

In 1985, Thailand had 21.5 % of the elderly concentrated in the 75 and older age group as compared to 17.23% in the developing regions and 29 % in the more developed regions. This percentage has registered a temporary decline till the century's end to 18.6 % as the people born in the 1930s reached the 60-age group, and will rise again after the year 2025 as the "baby boom" people approach the top of the age pyramid. This figure is rather similar to the more developed regions. In contrast, the figure of the less developed regions is to rise gradually by the first quarter of the 21st century. (Ministry of Public Health: 1998).

Over the year 1985 - 2015 period, in Thailand, the "young old" are expected to increase from 2,630,580 to 7,185,000 (173 %), while the "old old" will register a 166 % increase from 722,120 to 1,919,000. (Ministry of Public Health: 1998).

This significant rapid growth in the number of the "old old" poses a heightened and more urgent demand on governments for medical facilities and extended support services for this vulnerable age group. With advancing age, not only will health problem tend to increase but the older groups are prone to chronic illness and long term disability, but tend to have a fewer number of supportive relatives, if any at all to help them.

4. The sex composition of the elderly population

In describing the various trends in population aging, it is important to take into consideration the changing proportions of females to males. In fact a distinctive feature of the elderly population throughout the world is the preponderance of women over men. In the more developed regions, the sex ratio is markedly lower than that of the less developed regions. In 1985, it was estimated that there was an average of 65 males for every 100 females within the elderly population of the more developed and 91 males for every 100 females within the elderly population of the less developed region. The projection for the year 2025 indicate that, inspite of the improvements in the sex ratio, the more developed regions will continue having a more pronounced sex ratio, than the developed regions. (Melzer D, Ely M, Brayne C.:1997)

There is no significant change in the sex composition of the Thai elderly population in 1985, 2000 and 2015, which was 83 males for every 100 males? and is projected to be 85 and 84 respectively. A distinctive factor of the elderly population in all the countries including Thailand is the higher sex imbalances among the old - old. The sex composition declines steeply with age. In Thailand, in 1985, while the proportion of men in the 60 - 74 age group stood at 87, among the old - old there were only 69 males for every 100 females. The sex composition of the old-old population in Thailand in 2000 an 2015 is projected to be 74 and 73 as compared to 88 and 87 of the young-old respectively. The data

clearly show that the preponderance of females is more pronounced in the 75 and older age group. Thailand must take heed of the problems associated with these sex imbalances especially in terms of social support. The consequences of these sex differentials are so marked that problems of the old - old women comprise a substantial share of the problems of the elderly. Women in the 75 plus age group are often widowed and, unlike men, lack the financial resources that might have been accrued from paid employment during their lifetime. (NESDB: 1997)

5. The aging index

Population aging automatically affects a population's age structure and composition. Increases in the proportion of the elderly in population are always accompanied by changes in the weight of children(0 - 14) and in that of the working age group (15 - 19). It is important to note that these shifts carry with them a number of socio-economic implications on the elderly population.

The percentage of children in Thailand is projected to undergo a significant decline of 13.7 percentage points during the year 1985 - 2015. While the 0 - 14 age group accounted for 34.54 % of the total population in 1985, it is projected to represent only 20.8 by the year 2015. On the other hand, the weight of the working age group is expected to register an increase of 7 percentage points, to 66 % of the total population in 2015, while the proportion of the elderly will increase by 6.5 to 13.2 % of the total population during the same period of time. This is a clear manifestation of the later decline of the birth rate in developing regions which after the century's end, will decline even faster. As expected, these marked decreases in the growth rates of children will initially result in significant increases in the relative weight of the working age group to be followed by substantial population aging in the twenty - first century.

The steady shift from a young to an aging population can also be seen when one takes into account the aging index of a country which shows the size of the elderly to the youngsters in the populations. The shift towards an older population will be most

pronounced during the twenty - first century when the aging index in the world as a whole will more than double. In Thailand, in 1985, there were 19 elderly persons for every 100 youngsters as compared to the rather low aging index of the less developed regions, which had nearly 17 elderly persons for every 100 youngsters and to the rather high aging index of the more developed regions, which had 71 elderly persons for every 100 youngsters.

By the century's end, the aging index of Thailand will register an increase of 89.5 percentage points (from 19 to 36). In 2015, the aging index is projected to register an further increase of 75 percentage points (from 36 to 63). (Ministry of Public Health: 1999)

6. The aged dependency ratio

The projections of the elderly population are often associated with the aged dependency ratio which relates the size of the elderly population to the number in the working age group (15 - 59). A decrease in youth will bring an increase in elderly dependency, resulting in a shift in emphasis from the support of the young to that of the elderly.

In Thailand, the old age dependency ratio is increased from 11 elderly persons for every 100 working - age persons to 14 by the century's end and is projected to 20 elderly persons for every 100 working - age by the year 2015.

Determinants of population ageing

The 2 indicators used in determining the ageing of a population are

- (1) The crude birth rate and death rate .
- (2) The life expectancy at birth.

(1) The crude birth rate and death rate.

The first set of indicators show the ratio of the number of births and deaths per year per 1,000 persons in a population during a given period of time to the average size of the population during the period.

Changes in crude birth rate and crude death rate.

The diversity of rates in population aging in the different regions of the world are an outcome of a decline the birth rate and to a lesser extent a decline in mortality.

Table 1.1 Crude Birth Rate (CBR), Crude Death Rate (CDR)
Thailand, 1965 – 2000.

| Year | CBR | CDR |
|------|------|------|
| 1965 | 41.8 | 10.9 |
| 1975 | 35.6 | 10.9 |
| 1985 | 23.9 | 6.4 |
| 1995 | 17.9 | 6.0 |
| 2000 | 17.1 | 7.1 |

Source: National Statistical Office (NSO) Report on the 1964 - 5, 1974 - 5, 1985 - 6, 1995 - 6 Survey of Population Change.

During 1965 - 1995, the Crude Birth Rate in Thailand registered a significant decline by 57.2 % as show in table 1 By the end of the century, there is still a trend towards a further decline in the Crude Birth Rate but to a lesser extent.

During 1975 - 1985, the Crude Death Rate in Thailand declined sharply, but the century's end, there is no expected change to the Crude Death Rate.

Past changes in the crude birth rate will not only effect the aging of populations but will also effect the very lives of the elderly themselves. A decline in the crude birth rate, results in a decline in the numbers of potential care carers. The average number of potentially supportive relatives is at its highest when the crude birth rate is high and the death rate is low, and at its minimum when the crude birth rate is low

(2) The life expectancy at birth

This indicator shows the mean number of year to be lived by a new born based on the assumption that the population is subject to a fixed age specific mortality rate.

Although the drop in birth rates is the most influential determinant in the population ageing process, (the declines in mortality experienced in this last century have had a dramatic effect on survival to old age). Because of advances in public health and medicine, improvements in child care nutrition and standard of living, together with the control of various communicable and infectious diseases, has resulted in a gradual and a dramatic increase in life expectancy at birth detailed in table 1.2

Table 1.2 Life Expectancy at birth, Thailand 1965 – 1995

| Year | Male | Female |
|-------------|-------------|---------------|
| 1965 | 55.2 | 61.8 |
| 1975 | 58.0 | 63.8 |
| 1985 | 63.8 | 68.9 |
| 1995 | 69.9 | 74.9 |

Source: National Statistical Office (NSO) Report on the 1964 - 5, 1974 - 5, 1985 - 6, 1995 - 6 Survey of Population Change.

It is significant to note that females have a longer life expectancy than males. The greater improvement in female life expectancy than that for males will not only result in lower sex ratios for the elderly population as a whole,(hence a predominance of females), but for the individual elderly female, greater longevity will often result in the loss of support from the spouse, economic deprivations, prolonged widowhood and greater dependence on a formal support systems.

The continuing decline in the birth rate, together with a steady increase in life expectancy will result in a faster aging of the population. Consequently, policy - makers in Thailand have not only to increase their efforts in planning support services to their already increasing number of the elderly within their population, but will have to give the matter priority since Thailand will have much less time to meet the oncoming substantial shift in the relative weight of the elderly than the more developed regions.

In the whole world there was 200 million elderly people in 1950. This increased to 580 million in 1998 and will be 1,000 million, it is projected to be by 2020. (WHO, 1998:649). According to the survey of population change 1985 - 1986 reported by Thailand National Statistical Office in 1985, throughout this country there was 3,352,700 people aged 60 or over, constituting 6.5 % of the total population. The elderly population increased from 1.6 million in 1970 to 6.1 million in 2000. (Siriwan, 1993:1). It is projected to be 12 million in 2025. (Health Department, 1998:1).

With the rise in number of the elderly, the age structure has changed. In Thailand the demographic proportion of the elderly in all age groups was 4.9 % in 1970 (Public Health Statistical 1992) increasing to 9.3 % in 2000 (National Economic and Social Development Office, 1997:8) and it is expected to be 15.7 % in 2025 (Health Department, 1998:1).