# Chapter 14 Aging in Asia

... the increase in the number of older persons will be greatest in developing countries. This is the most important observation. Over the next 50 years, the older population [aged 60 and over] of the developing world is expected to multiply by four. This is an extraordinary development that bears implications for every community, institution and individual – young and old. Ageing is definitely no longer just a "first world issue". What was a footnote in the twentieth century is on its way to becoming a dominant theme in the twenty-first century.

(Kofi Annan, in United Nations 2002: 66)

# 14.1 A Significant Issue?

This chapter discusses population trends in Asia and illustrates contrasts between aging in developing and developed countries. It provides the setting for Chap. 15, which focuses on policy responses to aging in Asia. In 2009, 46% of governments of developing countries identified population aging as a major concern, compared with 79% of the governments of developed countries. Far more prevalent concerns for developing countries were HIV/AIDS, infant, child and maternal mortality, and adolescent fertility (United Nations 2010: 7–10). Their leading age structure issue was the size of the working age population and associated high levels of unemployment. Yet much of the increase in the numbers of older people in the world is occurring in developing countries. Asia's share of the world's aged grew from 44% in 1950 to 51% in 2000 and may reach 61% in 2050 (see Table 1.1). The numbers of people aged 65 and over in Asia could rise from 278 million in 2010 to 906 million in 2050. Much of the increase will occur after 2025, because of the delay before Asia's largest generations reach the older ages. The future pace of change will magnify difficulties in meeting welfare needs in countries that are already unable to provide adequately for their populations.

Despite the magnitude of the numbers, opinion has long been divided over the question of whether aging is a significant issue for Asia. There are strong negative and affirmative arguments about this, with the former predominant until relatively recently. The negative case contends that aging is mainly a matter for developed countries. As the Chief of the Population Estimates and Projections Section of the United Nations Population Division commented: "the current issues of aging relate mostly to the more developed regions" (United Nations 2004: 6). The negative case also emphasizes that the principal indicator of population aging, the percentage in older ages, is low in the developing countries of Asia and will remain so until the second quarter of this century. For example, in many Asian countries less than 5% of the population was aged 65 or more in 2010 and their projected percentages for 2025 are only a little higher (Table 14.1). For decades the relatively low percentage of older people in developing countries was interpreted as indicating that population aging, and with it heightened concern about the welfare of the elderly, was not of particular significance in much of Asia, as well as in Africa and Latin America. Meanwhile, other aspects of population change were often critical considerations.

A further basis for the negative argument is the expectation that the family will continue to assume its 'traditional' responsibilities for the care of dependents, young and old. The notion of the 'demographic dividend', discussed later, also identifies advantages rather than disadvantages in current age structure trends. Thus, rather than viewing aging as a significant issue, some regard concern about aging as a "luxury" for rich countries: rapid population growth, urbanization and economic and social development are more pressing national issues. Poverty, malnutrition and lack of shelter and health care are the most prevalent problems besetting those who grow old in developing countries, but these problems are often indistinguishable from the problems of the population at large (Schade 1982: 99; Heisel 1984: 55). For this reason, there has been resistance to making special provision for older people.

In contrast, the affirmative case focuses especially on the total numbers of the aged and their vulnerability, arguing that relatively low percentages in older ages disguise problems and their severity. As emphasized in the quotation at the start of this chapter, the predominant trend in aging in developing countries is the inevitability of great increases in the numbers of older people. The main issue is the already precarious existence of expanding multitudes of the aged. Many of the personal predicaments of individual older people remain the same whatever the percentages. This is because of widespread poverty and disease in conjunction with inadequate pension systems and low resource levels per capita. Also, although the growing numbers of the aged is the dominant issue, demographic aging itself is occurring much more rapidly in parts of Asia than in it did in Western countries. While the greatest impacts of growing numbers and percentages lie ahead, adequate responses require a long lead time to secure real benefits from many initiatives – including promoting health, improving income support and fostering attitudinal changes that combat ageism and facilitate social participation.

Affirmative arguments also include skepticism about the efficacy of traditional family support: (i) because urbanization and other social changes are weakening the family's ability to provide care; (ii) because the proportion of families with aged

-	r L	2											
	Total nonulation	data				Percent	tage age	sd 65	Numbers and over	s aged 65	5	Depen.	dency
	TOTAL POPULATION	nara									( er	1 autor	670
	Total fertility	Life expe at birth 2(	ctancy 005–2010	Annual population growth rate %	Doubling								
Region/country	rate 2005–2010	M	ц	2005-2010	time in years	2010	2025	2050	2010	2025	2050	Total	Aged
ASIA	2.35	67	71	1.14	61	6.7	9.9	17.3	278.3	472.4	906.1	48	15
Eastern Asia	1.72	72	76	0.56	124	9.5	14.7	24.5	148.9	244.4	392.2	47	22
China	1.77	71	75	0.63	110	8.2	13.4	23.3	111.4	194.2	330.6	46	19
Hong Kong	1.02	79	85	0.54	128	12.9	22.1	32.6	0.9	1.8	2.8	52	34
Japan	1.27	79	86	-0.07	I	22.6	29.7	37.8	28.7	35.8	38.5	69	50
North Korea	1.86	65	69	0.39	178	9.8	11.0	18.1	2.4	2.8	4.4	43	16
South Korea	1.22	76	82	0.39	178	11.0	19.3	34.2	5.3	9.6	15.1	48	28
South-central Asia	2.82	63	99	1.51	46	4.7	6.9	13.3	84.0	147.3	331.6	49	10
Afghanistan	6.63	4	4	3.45	20	2.2	2.4	3.6	0.7	1.1	2.7	83	4
Bangladesh	2.36	65	67	1.42	49	4.0	6.1	14.9	6.5	11.9	33.2	44	6
India	2.76	62	65	1.43	48	4.9	7.3	13.7	59.7	105.0	221.8	47	11
Iran	1.83	70	73	1.18	59	4.8	7.4	19.7	3.6	6.4	19.1	41	10
Nepal	2.94	99	67	1.85	37	4.1	5.2	10.6	1.2	2.0	5.2	52	8
Pakistan	4.00	99	67	2.16	32	4.1	5.1	10.0	7.5	12.7	33.5	58	8
Sri Lanka	2.33	70	78	0.88	79	7.7	13.9	21.4	1.6	3.1	4.6	54	21
Uzbekistan	2.29	65	71	1.09	64	4.4	6.9	14.8	1.2	2.2	5.4	46	10
South-eastern Asia	2.32	68	72	1.24	56	5.9	9.0	17.3	34.5	61.4	132.3	46	13
Indonesia	2.19	69	73	1.18	59	6.1	9.0	18.6	14.1	23.6	53.6	43	13
Malaysia	2.58	72	LL	1.71	41	4.8	8.7	16.3	1.4	2.9	6.5	48	13
Myanmar	2.32	59	63	0.87	80	5.5	8.6	17.5	2.8	5.0	11.1	46	13
Philippines	3.11	70	74	1.82	38	4.3	6.6	12.7	4.0	7.7	18.5	53	10
Singapore	1.27	78	83	2.51	28	10.2	22.9	32.6	0.5	1.2	1.7	55	35
												(cont	inued)

**Table 14.1** Population growth and aging in Asia<sup>a</sup>

Table 14.1 (contin	nued)												
						Percen	tage age	ed 65	Number	s aged 6:	2	Depen	dency
	Total population	ı data				and ove	er		and over	r (millior	IS)	ratios	2025
		Life exp	ectancy	Annual population									
	Total fertility	at birth	2005-2010	growth rate %	Doubling								
Region/country	rate 2005–2010	М	F	2005-2010	time in years	2010	2025	2050	2010	2025	2050	Total	Aged
Thailand	1.81	99	72	0.65	107	7.7	12.9	20.2	5.3	9.4	14.8	48	19
Viet Nam	2.08	72	76	1.15	60	6.3	9.8	20.0	5.7	10.0	22.4	4	14
Western Asia	2.95	69	74	1.95	36	4.7	6.6	13.4	10.9	19.3	50.0	50	10
Iraq	4.11	64	72	2.17	32	3.2	4.1	8.9	1.0	1.8	5.7	58	7
Saudi Arabia	3.17	71	75	2.12	33	3.0	5.2	12.1	0.8	1.8	5.9	46	8
Syria	3.29	72	76	3.26	21	3.2	4.8	13.4	0.7	1.4	5.0	51	٢
Turkey	2.13	69	74	1.24	56	6.0	8.8	18.4	4.5	T.T	17.9	4	13
Yemen	5.30	61	64	2.86	24	2.4	3.1	6.4	0.6	1.1	3.4	68	5
Source: United Nat	tions (2009)												

<sup>a</sup>The table presents medium variant projections for countries with populations greater than 20 million in 2010, together with Hong Kong and Singapore

relatives is increasing while their status is declining; and (iii) because higher proportions of people are surviving to ages where infirmities are most prevalent. In developing countries, family care has an expanded role because of the scarcity of state-funded pensions and services. Although family support for the aged is a longestablished expectation, low rates of survival in the past meant that only a small proportion of families included older relatives. The widening prevalence during the late twentieth century of families with at least three surviving generations became a major new feature. Families now face greater responsibilities in caring for dependents. Higher labour force participation of women and the separation of relatives through migration also make family support more difficult.

Asia is a diverse region in which population trends and their implications vary considerably between countries, as well as within them. The percentage aged 65 and over is widely used as the only social indicator of the extent of welfare needs among the aged and the 'burden' of aging on economies and the societies. However, it is not sufficient in itself. Other indicators are needed to reveal the circumstances of the aged and consequences for each society – such as measures of income, health and social inequality. Even where the percentage in older ages is low, welfare needs among the elderly can be great, but neglected. Progress depends on integrating concerns for young and old, creating a society in which no age group is marginalized.

#### 14.2 Recognition of Aging

Recognition of aging as an issue for developing countries was delayed because of its identification solely with increases in the proportion in older groups. There seemed little justification for giving special attention to the welfare of the aged because children and their parents were more numerous and all age groups had pressing needs. One of the first to take issue with this position was the Duke University demographer George Myers (1982: 3) who criticized the emphasis demographic theory placed on the proportion of the population in older ages, to the exclusion of their numbers, and called for policies to give proper recognition to the well-being of all segments of the population. Although all age groups are equally deserving, their needs differ. For older people, distinctive considerations are age-related vulnerability, the effects of family change on their roles and means of support, together with their potential, beyond traditional and stereotypical expectations, to contribute to society. The relatively recent concept of 'a society for all ages' acknowledges the importance of all age groups as well as their different needs and capacities.

By the mid-1980s there was wider acknowledgement that growth in the numbers of the aged was important (Heisel 1984: 50). As El-Badry (1988: 396) commented:

The static proportion of the aged poorly presents the magnitude of their problems in developing countries because the key issue is the balance between the growth in the size of that group and the speed at which the basic services needed can be provided in competition with all other demands from the whole population. Furthermore, even in the mid-1980s observers were commenting that: "the pace of aging in less developed countries seems well ahead of institutional preparedness to meet health and social welfare needs" (Treas and Logue 1986: 646). The 2002 Second World Assembly on Ageing gave recognition to the increasing significance of aging in developing countries, whereas the First World Assembly on Ageing, held in Vienna in 1982, had focused on older persons in developed nations (Andrews 2005: xvii). Other more recent conferences on aging in developing countries, together with the further refinement of policy documents, attest to the current importance of this issue.

#### 14.3 Prospects

Over their transition from high to low birth and death rates, the now more developed countries mostly doubled or trebled their total populations (McNicoll 1984: 181). By contrast many developing countries could increase their numbers six to tenfold during this transition. Also, while the numbers of the aged in more developed regions are approximately doubling in 50 years, in less developed regions they are quadrupling. The number of people aged 65 and over in less developed regions probably exceeded those in more developed regions as early as 1950. By 2000, the numbers were 46% greater than in the more developed regions, and could be 260% greater by 2050. Much of the less developed regions' population growth for decades ahead is inevitable because of the in-built momentum in their current age structures. The highest growth rates will be in the older ages. This reflects the aging of the large generations born in the 1950s and 1960s when death rates were falling while birth rates remained high. There is a parallel here with the baby boom generations born in developed countries after the Second World War, as major social and economic consequences have arisen from the shock wave due to their larger numbers advancing through successive stages of life. In comparison the Asian shock wave is a tsunami. By the year 2000, 15 countries had aged populations numbering 5 million or more, compared with a prospective 28 countries in 2025 and 42 in 2050. In 2000 only 5 of these were developing countries, but they will comprise the majority in coming years (Table 14.2).

Containment of the size of the aged population in developing countries will depend on minimizing the duration of above replacement fertility. Continuing high birth rates in some countries, in conjunction with lower death rates, are producing rapid expansion in the numbers of children. This is perpetuating a cycle of self-reinforcing growth as ever greater numbers reach the reproductive ages and ultimately the older ages. Model populations in Table 14.3 illustrate the long-run implications of different fertility and mortality rates for population growth in Asia's developing countries. In the table, female life expectancies of 65–75 cover the current range in different regions of Asia, while total fertility rates of 2–4 similarly encompass much of the range for Asia's developing countries, apart from a few high figures such as the TFR of around six children per woman in Afghanistan.

20052056RowChina86China194China3311India44India105India3311United States36United States873Japan22Japan36United States873Japan22Japan36Indonesia2444Russia13Indonesia24Brazil495Russia13Indonesia24Japan386Italy11Russia23Pakistan347Italy11Russia23Pakistan347Indonesia10Germany20Bangladesh338France10Italy15Mexico299United Kingdom9Mexico13Viet Nam2710Uraine7United Kingdom13Viet Nam2212Spain7Pakistan13Viet Nam2212Spain7Bangladesh13Viet Nam2212Pakistan5Spain10Pakistan1913Mexico5Spain10Prilippines1913Mexico5Spain10Printen1014Mexico5Spain10Printen1913Mexico5Spain10Printen <th>with the</th> <th>world's largest pop</th> <th>ulations a</th> <th>ged 65 years and over</th> <th>r, 1950–2</th> <th>2050 (millions)</th> <th></th> <th></th> <th></th> <th></th>	with the	world's largest pop	ulations a	ged 65 years and over	r, 1950–2	2050 (millions)				
	1950 19	19′	75		2000		2025		2050	Я
	24 China 41	41		China	86	China	194	China	331	-
	13 United States 23	23		India	44	India	105	India	222	0
Japan 22 Japan 36 Indonesia 54 4   Russia 18 Brazil 24 Brazil 49 5   Germany 13 Indonesia 24 Brazil 49 5   Italy 11 Russia 24 Japan 38 6   Italy 11 Russia 23 Pakistan 34 7   Indonesia 10 Germany 20 Bangladesh 33 8   France 10 Hensia 20 Bangladesh 33 8   Brazil 10 Resia 23 Russia 27 10   United Kingdom 9 Mexico 13 Viet Nam 23 11   Ukraine 7 United Kingdom 13 Viet Nam 22 12   Spain 7 Pakistan 13 Viet Nam 22 12   Rexistan 5 Bangladesh 13 Viet Nam	12 India 21	21		United States	36	United States	65	United States	87	ŝ
	7 Russia 12	12		Japan	22	Japan	36	Indonesia	54	4
Germany 13 Indonesia 24 Japan 38 6   Italy 11 Russia 23 Pakistan 34 7   Indonesia 10 Germany 23 Pakistan 34 7   France 10 Germany 20 Bangladesh 33 8   France 10 France 15 Mexico 29 9   United Kingdom 9 Mexico 13 Germany 27 10   Ukraine 7 United Kingdom 13 Viet Nam 23 11   Spain 7 United Kingdom 13 Viet Nam 22 12   Spain 7 Dinited Kingdom 13 Viet Nam 22 12   Spain 7 Pakistan 13 Viet Nam 22 12   Advision 5 Bangladesh 12 Italy 13 13   Mexico 5 Spain 13 14 <td>6 Germany 12</td> <td>12</td> <td></td> <td>Russia</td> <td>18</td> <td>Brazil</td> <td>24</td> <td>Brazil</td> <td>49</td> <td>5</td>	6 Germany 12	12		Russia	18	Brazil	24	Brazil	49	5
Italy 11 Russia 23 Pakistan 34 7   Indonesia 10 Germany 20 Bangladesh 33 8   France 10 France 15 Mexico 29 9   Brazil 10 Italy 15 Russia 27 10   United Kingdom 9 Mexico 13 Germany 23 11   Ukraine 7 United Kingdom 13 Viet Nam 23 11   Ukraine 7 Dinted Kingdom 13 Viet Nam 22 12   Spain 7 Pakistan 13 Iran 19 13   Pakistan 5 Bangladesh 12 Italy 19 13   Mexico 5 Spain 10 Pritippines 19 14   Mexico 5 Spain 10 Pritippines 19 14	5 Japan 9	6		Germany	13	Indonesia	24	Japan	38	9
Indonesia 10 Germany 20 Bangladesh 33 8   France 10 France 15 Mexico 29 9   Brazil 10 Italy 15 Mexico 29 9   United Kingdom 9 Mexico 13 Germany 27 10   Ukraine 7 Nexico 13 Germany 23 11   Ukraine 7 Pakistan 13 Viet Nam 22 12   Spain 7 Pakistan 13 Kran 19 13   Absistan 5 Bangladesh 12 Italy 19 14   Mexico 5 Spain 10 Philippines 19 14   Mexico 5 Spain 10 Philippines 19 15	United Kingdom 8	8		Italy	11	Russia	23	Pakistan	34	2
France 10 France 15 Mexico 29 9   Brazil 10 Italy 15 Russia 27 10   United Kingdom 9 Mexico 13 Germany 23 11   Ukraine 7 United Kingdom 13 Viet Nam 23 12   Spain 7 Pakistan 13 Kreno 13 12 12   Spain 7 Bangladesh 12 Italy 19 13   Mexico 5 Spain 10 Philippines 19 14   Mexico 5 Spain 10 Philippines 19 14   Mexico 5 Spain 10 Philippines 19 15	France 7	7		Indonesia	10	Germany	20	Bangladesh	33	8
Brazil 10 Italy 15 Russia 27 10   United Kingdom 9 Mexico 13 Germany 23 11   Ukraine 7 United Kingdom 13 Germany 23 11   Spain 7 Pakistan 13 Viet Nam 22 12   Spain 7 Bangladesh 12 Italy 19 13   Mexico 5 Bangladesh 12 Italy 19 14   Mexico 5 Spain 10 Philippines 19 15   Mexico 5 Spain 10 Printopines 19 15	Italy 7	7		France	10	France	15	Mexico	29	6
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Ukraine 7 United Kingdom 13 Viet Nam 22 12   Spain 7 Pakistan 13 Iran 19 13   Pakistan 5 Bangladesh 12 Italy 19 14   Mexico 5 Spain 10 Philippines 19 14   Viet Nam 10 Prinippines 19 14 15 14				United Kingdom	6	Mexico	13	Germany	23	11
Spain 7 Pakistan 13 Iran 19 13   Pakistan 5 Bangladesh 12 Italy 19 14   Mexico 5 Spain 10 Philippines 19 15   Vexico 5 Spain 10 Philippines 19 15   Viet Nam 10 France 18 16				Ukraine	7	United Kingdom	13	Viet Nam	22	12
Pakistan 5 Bangladesh 12 Italy 19 14   Mexico 5 Spain 10 Philippines 19 15   Viet Nam 10 France 18 16				Spain	7	Pakistan	13	Iran	19	13
Mexico 5 Spain 10 Philippines 19 15   Viet Nam 10 France 18 16				Pakistan	5	Bangladesh	12	Italy	19	14
Viet Nam 10 France 18 16				Mexico	5	Spain	10	Philippines	19	15
						Viet Nam	10	France	18	16

e 14.2 (continued)							
1950	1975	2000		2025		2050	Row
		Sou	th Korea	10	Nigeria	18	17
		Tha	iland	6	Turkey	18	18
		Can	ada	8	Egypt	17	19
Millions aged 65 and over		Pol	nd	8	United Kingdom	17	20
China 86		Ukı	aine	8	Spain	16	21
		Phil	ippines	8	Korea	15	22
		Tur	key	8	Thailand	15	23
ted States 36		Nig	eria	8	Canada	11	24
Japan 22		Egy	pt	L	Myanmar	11	25
Russia 18		Iran		9	Colombia	11	26
10		Arg	entina	9	Ethiopia	11	27
		Col	ombia	5	Argentina	10	28
Italy 11					Poland	10	29
Indonesia 10					Algeria	6	30
France 10					Ukraine	6	31
					Morocco	Г	32
					Congo	٢	33
l Kingdom 9					Venezuela	Г	34
Ukraine 7					Australia	7	35
Spain 7					Peru	Г	36
					Sudan	7	37
					Malaysia	9	38
Mexico 5					Saudi Arabia	9	39
					Iraq	9	40
					Tanzania	9	41
					Uzbekistan	S	42

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Source: United Nations (2009)

Each model has a constant age structure and a constant growth rate. Therefore the models with replacement level fertility have, from the outset, zero growth together with zero momentum in their age structures. In real populations, zero growth normally cannot occur until many years after replacement fertility is reached, because of inherent population momentum.

A key indicator of the pace of change in Table 14.3 is the doubling time of a population. This is only 30–36 years for a total fertility rate of 4, but slows substantially for each lower level of fertility. Smaller variations in doubling times arise from differences in life expectancies. Only as the birth rate approaches replacement level (which varies between total fertility rates of 2.3 and 2.1, depending on mortality levels) does population growth become more manageable. The statistics in the table also illustrate that the future numbers of the aged are closely linked to birth rates and that low percentages 65 or older belie the extent of population growth occurring both in younger and older age groups. With relatively high life expectancies in most of Asia, birth rates of 2.5 or more will result in very high increases. The statistics indicate that aging in Asia is a matter not only for responsive social welfare policies but also for proactive policies that seek to restrain population growth.

United Nations (2009) medium variant projections for Asia assume that policies and social and economic changes will ameliorate population trends. Much of the future growth of Asia's population is projected to occur in age groups 15–64, reflecting the assumption that the total fertility rate for the whole region will converge towards replacement, falling gradually from 2.4 in 2005–2010 to just below 2.0 in the 2030s and 2040s. This would maintain relatively low total dependency levels, supporting the view that trends in dependency ratios are "neutral to favourable for development in all regions" (United Nations 1990: 48). Yet the real concern remains the welfare of Asia's vast and expanding numbers of older people. Also, most of Eastern Asia, together with Iran, Singapore and Thailand, are already on a trajectory to heightened levels of aging associated with below replacement fertility (Table 14.1).

As shown in Chap. 3, Asia's age structure evolved from 'very young' to 'young' in the last quarter of the twentieth century and is projected to be 'mature' by 2025. Although age structure changes after 2025 are more uncertain, United Nations medium variant figures for the whole of Asia are consistent with an 'aging' profile emerging by mid-century. Figure 14.1 illustrates these changes, including the narrowing of the base of Asia's age structure by 2050. The latter augurs labour force decline in the second half of the century, whereas, in the first half, enormous growth in the labour force ages will accompany the rapid expansion in the size of Asia's aged population. About 80% of India's population growth 2000–2050, for example, will be in ages 15–64. The regions of Asia exhibit a similar pattern of change towards older age structures over time, except for Eastern Asia (i.e. China, Hong Kong, Macao, Japan, North and South Korea, Mongolia and Taiwan). In that region, rapid aging due to low fertility may produce an 'aging' profile in 2025 and a 'very old' profile in 2050.

At the country level there is greater variation between Asia's age structures, as illustrated in Fig. 14.2. The region has the world's oldest population – Japan – but

Total fertility rate per			2	-	Total	Aged	% growth in the total
woman (replacement	Intrinsic	Doubling time	% aged 65	% aged 75	dependency	dependency	population and the aged
TFR in bold)	growth rate %	in years	and over	and over	ratio	ratio	population after 50 years
Life expectancy 65 (fem	ules), 61.2 (males)						
4.0	1.9	35.6	5.7	1.8	69.3	9.7	165.0
3.5	1.5	47.2	7.1	2.3	63.7	11.6	108.3
3.0	0.9	74.6	8.9	3.0	58.8	14.1	59.1
2.5	0.3	244.7	11.5	4.1	54.6	17.8	15.2
2.3	0.0	I	12.8	4.7	53.3	19.6	0.0
Life expectancy 70 (fem	ıles), 66 (males)						
4.0	2.1	32.6	5.9	1.9	70.7	10.1	189.5
3.5	1.6	42.1	7.3	2.5	65.2	12.0	127.9
3.0	1.1	63.1	9.2	3.3	60.1	14.7	73.2
2.5	0.5	147.5	11.8	4.4	56.0	18.4	26.5
2.2	0.0	I	14.1	5.4	54.3	21.8	0.0
Life expectancy 75 (fem	iles), 71.2 (males)						
4.0	2.2	30.8	6.4	2.3	72.1	11.1	207.7
3.5	1.8	39.0	7.9	2.9	66.8	13.2	142.9
3.0	1.2	56.1	10.0	3.8	62.0	16.1	85.4
2.5	0.6	117.7	12.9	5.1	58.2	20.4	34.2
2.1	0.0	I	16.1	6.6	56.6	25.1	0.0
Sources: West Model Li Note: Table calculated fr	fe Tables: Coale and om stable populatior	Demeny (1983), Coa 1 models with specifie	le and Guo (19 ed TFRs and lif	90), Rowland ( e expectancies	2003: 316–319)		



**Fig. 14.2** Age structures of selected Asian country populations 2010 and 2050 (Source: United Nations 2009, medium variant projections)

also others where low fertility is leading to rapid aging, notably in Singapore, Hong Kong, South Korea, China and Iran. In contrast, high fertility in Iraq and Pakistan is maintaining youthful age structures. Between these two sets of extremes are countries such as India and Bangladesh where lower fertility is leading to moderate population aging. Nevertheless change, albeit at different scales, is pervasive. In Asia as a whole, the percentage in older ages is projected to more than double between 2010 and 2050, while the numbers of the aged more than treble (Table 14.1).

## 14.4 The Demographic Dividend

By no means all current trends in Asia's age structures are disadvantageous. The age structure of a population can have a beneficial impact on economic performance. Although high proportions of children or elderly people in a population tend to restrain the rate of economic growth, because the young and the old are usually less productive, a high proportion in the working ages can have the opposite effect (Bloom et al. 2003: xi–xii). Harvard economist and demographer David Bloom and his colleagues referred to the latter as producing a 'demographic dividend' of economic growth, provided that policies take advantage of this situation. The potential dividend arises when birth rates fall substantially and the relative size of the working age groups increases correspondingly. At the same time, smaller family sizes lead to higher labour force participation of women (ibid.: 39).

Low dependency ratios are crude indicators of age structures conducive to economic growth. Child dependency and total dependency peak in the middle of the demographic transition, at which time there may be around 90 dependants, mainly children, per 100 people in the working ages, 15–64 years (see Table 1.3). By the end of the transition, total dependency falls to around 60 workers per 100 dependants, of whom half are under 15 and half are 65 or more. In 2025, total dependency ratios for most Asian countries are projected to be less than 55 dependents per 100 people of working age (Table 14.1). The exceptions are Japan and the high birth rate countries of Afghanistan, Pakistan, Iraq and Yemen. Thus a favorable development ensuing from Asia's demographic transition is the fall in its total dependency ratios as birth rates decline. Aged dependency ratios in Asia will gradually increase as child dependency falls, but for some time they will remain well below the corresponding ratios for developed countries.

The dividend is not automatic or guaranteed; rather, it is no more than a potential economic opportunity associated with a stage in the evolution of a society's age structure. To reap the dividend, or 'bonus' as it is sometimes called, it is necessary to secure productive employment for the available labour force between the fall in the representation of children and the rise in the representation of the aged. Besides a favourable age structure other factors have an important role including education and other human capital resources, together with savings, investment opportunities, and access to global markets (Bloom et al. 2003: 39–42). Without these other advantages,

high unemployment is more likely than the dividend (Magnus 2009: 55). In Indonesia and the Philippines unemployment rates in the 3 years to 2010 were in the range of 7–8% for both sexes, compared with 4–5% in Japan, and 3–4% in South Korea and Malaysia (ILO 2011). Even with low unemployment the dividend is not inevitable if labour productivity is low and individual earnings are insufficient to prevent poverty. In India about half of all employed people in 2005 had less than US\$1 per day to live on, as did more than a quarter in Indonesia and the Philippines (United Nations 2011).

As examples of successful exploitation of the dividend, Bloom and his colleagues refer to Eastern Asian economies where, between 1965 and 1990 the region's working age population grew nearly four times faster than the dependent population. Their estimates suggest that the demographic dividend accounted for between 25% and 40% of Eastern Asia's 'economic miracle' (ibid.: 45). In Japan, however, population aging has curtailed the influence of the demographic dividend and there is little international migration supplementing the numbers in the working ages. Latin American countries have had age structures favorable to the dividend, but "weak governance and a lack of openness to trade" slowed the potential growth (ibid.: 58). Southeast Asia has recently begun to benefit from the demographic dividend, while China's is "pretty much exhausted": its working age population is expected to decline slowly 2010–2030 and more rapidly thereafter as the aging of its population gathers pace (Magnus 2009: 158ff.). In comparison, the United States has been benefitting from the demographic dividend, because of its relatively low dependency ratio and high level of immigration, while Europe's demographic dividend "is about to expire" (Bloom et al. 2003: 43ff).

The potential for the 'dividend' is present fairly late in the demographic transition – in the shift from young to mature age structures – as well as in the early years of the second demographic transition. The potential for a demographic dividend wanes when the relatively large cohorts in the working ages begin to reach older ages. The only subsequent type of age profile that retains a fairly high proportion in the working ages is one which approximates the theoretical end-point of the demographic transition, namely a rectangular age structure with near-zero growth and near-replacement fertility. It minimizes overall dependency, retains relatively large numbers in the main working ages and avoids endless population growth or decline.

Among the international agencies using the demographic dividend concept are the World Health Organization and the United Nations Population Fund (UNFPA), for instance to demonstrate the economic advantages of investing in young people (Hendrixson 2007: 18). Advocates of family planning in developing countries have also emphasized the dividend. However, this has evoked concerns that "It mobilizes family planning as a means to achieve an economic end, rather than to promote information on and access to contraceptive methods as a fundamental human right" (ibid.: 18). Also, references to population aging as an 'onus', diminishing the demographic 'bonus', risk portraying consequences of aging solely in negative economic terms, rather than recognizing the positive roles of older people and the potential to foster these further.

#### 14.5 The Status of the Aged

Besides realization of the demographic dividend, a vital aspect of future social and economic change in developing countries is an improvement in the status of older people. Little is known about shifts in the political power and status of the elderly over time, but such changes are thought to accompany social and economic modernization manifested in the demographic transition and the transformation of national age structures. A perceived later commencement of old age is sometimes associated with modernization because of increased longevity and improvements in health. An influential hypothesis about changes in the status of the aged is that the allocation of resources and honour to older persons declines as modernization occurs (Cowgill 1972; Palmore 2005):

Modernization is declared to be associated with later onset of old age, increased use of chronological criteria, increased longevity, an aging population, increased proportions of females and widows in the population, increased proportions of grandparents, lower status of the aged, decline in leadership roles of the aged, decline in power and influence of the aged, increased ambiguity of the role of widows and an increase in the extent of disengagement of older people from community life. (Cowgill 1974, cited by Driedger and Chappell 1987: 19).

Proposed mechanisms responsible for loss of status are: (i) the break up of the extended family as the household unit together with increases in the spatial separation of generations, which reduces family interaction and interdependence; (ii) rising standards of education and shifts in the knowledge base of society leading to a devaluation of the knowledge and experience of the aged; and (iii) a decline in death rates leading to older people becoming more numerous. Eventually the status of the aged may rise as the impact of some changes recede, for example if generations become more similar again in terms of literacy, educational and occupational backgrounds and family values. Trela and Sokolovsky (1979: 121–122) suggested that the status of the aged is maximized under a number of conditions, including when useful and valued functions are continued as long as possible, and when the extended family is a viable residential or economic unit.

Early testing of modernization theory suggested that the aged lose status during initial rapid changes – for instance as the young become literate – but later, as change becomes slower, their relative status improves (Maddox and Wiley 1976: 10). Exceptions include the apparent continuation of high status for the aged in Japan, Ireland, and Russia, reflecting adherence to earlier cultural values (McPherson 1990: 43). A comparison of 31 countries concluded that it is important to distinguish between short-run and long-run outcomes of social change (Palmore and Manton 1974). Studies of traditional societies have found that in cultures where deference or honour is paid to the old, they nonetheless may have limited access to food or other material resources (Neugarten and Hagestad 1976: 38). Also, since the elderly are a diverse group, not everyone necessarily experiences a change of status as they grow older (McPherson 1990: 44). Importantly, their standing in their own family and community may differ from that in the broader society.

References

Much of the research on aging and modernization has focused on ethnic minorities in developed countries. Hence findings and criticisms of the theory are not necessarily transferable to developing countries. Rosenthal (1983) and others have presented critiques of modernization theory, and Driedger and Chappell (1987: 23–27) and Markides and Mindel (1987: 29) have summarized this literature. A firm defence of the theory appeared in its originators' later work: Cowgill (1986) and Holmes (1987). Key criticisms of modernization theory are that it fails to differentiate between ethnic groups and assumes that modern families are unsupportive of the aged (Ujimoto 1983: v). More recent commentaries have described modernization theory as an oversimplification which ignores cross-cultural differences in the values and belief systems that influence responses to socio-economic development (Löckenhoff et al. 2009: 941; Fry 2009: 518). The well-being of Asia's future aged will depend considerably on the extent to which their society accords them status and resources equal to that of other age groups.

### 14.6 Conclusion

Core issues for Asia are the pace of growth and change in its total population and in its aged population. The peak in the growth rate of the aged population will occur about 60 years after the late 1960s peak in the growth rate of the total population. At mid-century, more than 60% of Asia's elderly will be in China and India. Although older age structures bring to the fore the need for greater attention to the circumstances of the elderly, the same is true in younger age structures when the numbers 65 and over are growing rapidly. Asia's low overall level of demographic aging long encouraged dismissive attitudes to it, with the unintended consequence of marginalizing the needs of older people. More recently, opposite views have brought forth growing national and international efforts to address this situation. Asian governments have adopted their own major policy documents setting agendas for reform, one of which predated the 2002 Madrid Plan of Action. These initiatives are the subject of the next chapter.

### References

- Andrews, G. R. (2005). Foreword. In M. L. Johnson (Ed.), *The Cambridge handbook of age and ageing* (pp. xvii–xix). Cambridge: Cambridge University Press.
- Bloom, D. E., Canning, D., & Sevilla, J. (2003). *The demographic dividend: A new perspective on the economic consequences of population change*. Santa Monica: Rand.
- Coale, A. J., & Demeny, P. (1983). *Regional model life tables and stable populations*. New York: Academic Press.
- Coale, A. J., & Guo, G. (1990). New regional model life tables at high expectation of life. *Population Index*, 56, 26–41.
- Cowgill, D. (1972). A theory of aging in cross-cultural perspective. In D. Cowgill & L. Holmes (Eds.), *Aging and modernization*. New York: Appleton.

- Cowgill, D. (1974). Ageing and modernization: A revision of the theory. In J. Gubrium (Ed.), *Later life: Communities and environmental policy*. Springfield: Charles C. Thomas.
- Cowgill, D. O. (1986). Aging around the world. Belmont: Wadsworth Publishing Company.
- Driedger, L., & Chappell, N. (1987). Aging and ethnicity: Toward an interface. Toronto: Butterworths.
- El-Badry, M. A. (1988). Aging in developing countries: One more population problem? In United Nations (Ed.), *Economic and social implications of population aging* (pp. 389–398). New York: United Nations, Department of International Economic and Social Affairs, ST/ESA/ SER.R/85.
- Fry, C. L. (2009). Out of the armchair and off the veranda: Anthropological theories and the experiences of aging. In V. L. Bengtson, D. Gans, N. Putney, & M. Silverstein (Eds.), *Handbook of theories of aging* (pp. 517–528). New York: Springer Publishing Company.
- Heisel, M. A. (1984). Aging in the context of population policies in developing countries. *Population Bulletin of the United Nations*, (17), 49–63.
- Hendrixson, A. (2007, Spring). What's wrong with the 'demographic dividend' concept? *Population Policy Initiative (Babies, burdens and threats: Current faces of population control)*, 17–20.
- Holmes, L. D. (1987). Cultural values and cultural change: A cross-cultural analysis of aging and age status. *Journal of Cross-Cultural Gerontology*, 2, 195–200.
- ILO. (2011). Short term indicators of the labour market. LABORSTA Internet. ILO Department of Statistics. http://laborsta.ilo.org/sti/sti\_E.html. Accessed May 2011.
- Löckenhoff, C. E., et al. (2009). Perceptions of aging across 26 cultures and their culture-level associates. *Psychology and Aging*, 24(4), 941–954.
- Maddox, G. L., & Wiley, J. (1976). Scope, concepts and methods in the study of aging. In R. H. Binstock & E. Shanas (Eds.), *Handbook of aging and the social sciences* (pp. 3–34). New York: Van Nostrand Reinhold.
- Magnus, G. (2009). *The age of aging: How demographics are changing the global economy and our world*. Singapore: Wiley (Asia).
- Markides, K. S., & Mindel, C. H. (1987). Aging and ethnicity. Newbury Park: Sage Publications.
- McNicoll, G. (1984). Consequences of rapid population growth: Overview and assessment. *Population and Development Review*, 10(2), 177–240.
- McPherson, B. D. (1990). Aging as a social process. Toronto: Butterworths.
- Myers, G. C. (1982). The aging of populations. In R. H. Binstock, W. S. Chow, & J. H. Schultz (Eds.), *International perspectives on aging: Population and policy challenges* (Policy development studies, no. 7, pp. 1–37). New York: United Nations Fund for Population Activities.
- Neugarten, B. L., & Hagestad, G. O. (1976). Age and the life course. In R. H. Binstock & E. Shanas (Eds.), *Handbook of aging and the social sciences* (pp. 35–55). New York: Van Nostrand Reinhold.
- Palmore, E. B. (2005). Modernization theory. In E. B. Palmore, L. G. Branch, & D. K. Harris (Eds.), *Encyclopedia of ageism* (pp. 231–232). New York: Haworth Press.
- Palmore, E. B., & Manton, K. (1974). Modernization and status of the aged: International correlations. *Journal of Gerontology*, 29(2), 205–210.
- Rosenthal, C. J. (1983). Aging, ethnicity and the family: Beyond the modernization thesis. *Canadian Ethnic Studies*, *15*(3), 1–16.
- Rowland, D. T. (2003). Demographic methods and concepts. Oxford: Oxford University Press.
- Schade, B. (1982). Aging and old age in developing countries. In H. Thomae & G. Maddox (Eds.), New perspectives on old age: A message to decision makers (pp. 98–112). New York: Springer.
- Treas, J., & Logue, B. (1986). Economic development and the older population. *Population and Development Review*, 12, 645–673.
- Trela, J. E., & Sokolovsky, J. H. (1979). Culture, ethnicity, and policy for the aged. In D. E. Gelfand & A. J. Kutzik (Eds.), *Ethnicity and aging: Theory, research and policy* (pp. 117–136). New York: Springer.

- Ujimoto, V. K. (1983). Introduction: Ethnicity and aging in Canada. *Canadian Ethnic Studies*, 15(3), 3–8.
- United Nations. (1990). *World population monitoring 1989*. Population Studies No. 113, New York: Department of International Economic and Social Affairs.
- United Nations. (2002, April 8–12). *Report of the second world assembly on ageing*, Madrid. New York: United Nations.
- United Nations. (2004). *Policy responses to population decline and ageing* (Population bulletin of the United Nations, special issue nos. 44/45). New York: Department of Economic and Social Affairs, Population Division.
- United Nations. (2009). World population prospects: The 2008 revision population database. New York: Population Division of the Department of Economic and Social Affairs. http://esa. un.org/UNPP/index.asp?panel=2. Accessed Apr 2010.
- United Nations. (2010). *World population policies 2009*. New York: Department of Economic and Social Affairs, Population Division.
- United Nations. (2011). Millenium development goals indicators: The official United Nations site for the MDG indicators. United Nations, Department of Economic and Social Affairs. http:// mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm. Accessed May 2011.