## **GLOBAL AGING**

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**Keywords:** Population aging, millennium, health sector, social support systems

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### **Summary**

Aging is not a new phenomenon and history abounds with stories of individuals who lived to a great age. But they were rare and the miracle of the twentieth century was the survival of so many to the end of the life span. The *average* expectation of life at birth was only 30 years in the days of the Romans and around 40 at the beginning of the twentieth century, to reach the present world average of 65. Two things that happened during the twentieth century, and particularly during its last 50 years, have speeded up the process of demographic transformation. Fertility has fallen so that there are fewer children and a greater *proportion* of older persons. Deaths in infancy have dropped and, with them, deaths at almost every age so that the survivors have themselves grown older. Changes have been fast, historically speaking, in the industrialized countries, but have been much slower in poorer countries and almost absent in the poorest. The differences between rich and poor countries in health and survival of populations will persist well into the twenty-first century and although many countries will begin to catch up the inequalities will increase.

Aging of populations, like health itself, is driven by the processes of social development and by very many of the factors that affect the whole of society. The capacity of health-

directed activities alone to relieve the infirmities of old age is limited unless they can be made part of the movement to social progress.

This article describes the aging process in individuals and population groups and the interactions between the elderly and the societies of which they form part.

## 1. The Elderly

The increase in the number of old people in the world will be one of the most profound forces affecting the development and organization of societies for many decades to come[1].

Elders of all nations are a diversified group all of whom have survived the forces of mortality in their own countries and have been exposed to the many environmental and social influences for 65 years or more. The result of these influences, combined with each individual genetic template, is an older individual, different in very many ways from others in her own cohort and, markedly, from those in other cohorts. Generalizations based on age or gender or cross-country comparisons must thus be examined critically.

The definition of aging itself is arbitrary. The widely used cut-off point of 65 was decided as the age of benefit in the first public social security legislation in Germany in 1873 and perpetuated in the retirement regulations of other countries that followed. There was never any physiological basis for the decision, nor for the cut-off of 60 that United Nations (U.N.) demographers adopted for a time. Those over 65 are a very heterogeneous group, ranging from the increasingly healthy "young old" under 75 to the more frail and disabled, aged 90 and more.

Aging has been defined as a progressive loss of adaptability with the passage of time so that the individual is less and less able to react adaptively to challenges from the external or internal environment[2]. With time, the individual becomes progressively more frail and in need of increasing support to maintain her autonomy[3].

Each population group and each country proceeds along the path of demographic transition at its own speed, driven by the forces of social development. Change is at first slow, as fertility drops and more infants survive, and then quicker as disease is controlled and mortality at higher ages falls. "Older" countries, those that have been changing for some time, continue to grow older slowly but will need to accommodate to further aging during the coming decades. Those, however, who began the transition more recently, will "age" at a much faster rate in the twenty-first century as larger groups of middle aged cross the barrier of 65. At the beginning of the century, a higher proportion of their elderly will be "young old" (i.e. under 75), after which the balance will slowly shift.

Life expectation at birth has increased globally by 17 years, from 48 in 1955 to 65 in 1995 and is projected to reach 73 by 2025. By then, there should be no country with an expectation of life less than 50 and the difference between countries with the highest

(Japan) and lowest (Sierra Leone) expectations of life should decrease from 42 in 1997 to 31 in 2025 (Figure 1).

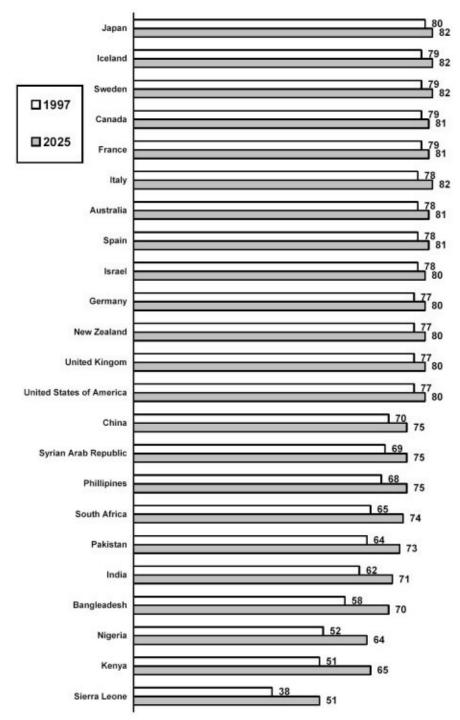


Figure 1. Life expectancy at birth for selected countries, 1997 and 2025 (*Source*: WHO, *World Health Report 1998* (Geneva: WHO, 1998))

In the more developed countries, women live as much as 7.6 years longer than men, the gender differences in less developed areas being only 2 years[4] and zero or less in the very poorest nations[5]. Women thus make up the majority of the older populations.

Older women are more likely than men to live alone and in poverty, even in rich countries, and a higher proportion end their days in dependency and in long-term care. Life expectancies today for women at age 65 show smaller differences between poor and rich countries, once the dangers of infant and maternal mortality have been left behind. In developing countries, they may expect a further 15 years, compared with 19 years in developed countries[4].

Gains in life expectancy 1990–2020 will be greater for women worldwide and will increase the present gender gap. Expected gains in male life expectancy will be smaller, in Sub-Saharan Africa 10.2 years compared with 13.3 years for females, a female advantage of 3.1 years. Female gains in other regions will be 5 years more in India, 4 years in China, and 2.2 years in the established market economies[6]. The preponderance of women in the oldest populations is set to increase further.

As the global population over 65 increases by 800 000 or so each month, by 2025 there will be more than 800 million elderly in the world, two-thirds of them in developing countries, the majority women. As already indicated, the rate of aging will vary greatly among countries and regions. It is a dismal fact, however, that half of the world's population who will be over 65 in the year 2050 and are aged 15 or more today, have received no formal schooling and will be illiterate[4].

The world population of elderly over 65 will increase more than twice as fast as the total population of the world during the period 1996–2020. The rate of increase will be greatest in North Africa and the Near East, China, and other countries of Asia and least in Sub-Saharan Africa (Table 1).

	Total	School age (5–14)	Working age (15–64)	Elderly (65 and over)
World	1.1	0.3	1.4	2.6
Sub-Saharan Africa	2.3	1.9	2.6	2.8
Near East and North Africa	2.1	1.2	2.5	3.7
China (Mainland and Taiwan)	0.6	-0.9	0.8	3.4
Other Asia	1.4	0.2	1.8	3.4
Latin America and the Caribbean	1.1	-0.1	1.5	3.3
Eastern Europe and the New				
Independent States	0.3	-0.5	0.3	1.0
Rest of the world	0.4	-0.2	0.2	1.7

Table 1. Average annual rate of population growth (percent), 1996 to 2020 (Source: U.S. Bureau of the Census, World Population Profile 1996 (Washington, D.C.: U.S. Bureau of the Census, 1996))

In every region, however, the population over 75 will increase at an even faster rate and those over 80 fastest of all[7], as shown in Table 2.

Region	Year	65 years and over	75 years and over	80 years and over
Europe <sup>a</sup>	1990	13.7	6.1	3.2
	2010	17.5	8.4	4.9
	2025	22.4	10.8	6.4
North America	1990	12.6	5.3	2.8
	2010	14.0	6.5	4.0
	2025	20.1	8.5	4.6
Oceania	1990	9.3	3.6	1.8
	2010	11.0	4.8	2.8
	2025	15.0	6.6	3.6
Asia	1990	4.8	1.5	0.6
	2010	6.8	2.5	1.2
	2025	10.0	3.6	1.8
Latin America/Caribbean	1990	4.6	1.6	0.8
	2010	6.4	2.4	1.2
	2025	9.4	3.6	1.8
Near East/North Africa	1990	3.8	1.2	0.5
	2010	4.6	1.6	0.8
	2025	6.4	2.2	1.1
Sub-Saharan Africa	1990	2.7	0.7	0.3
	2010	2.9	0.8	0.3
	2025	3.4	1.0	0.4

<sup>&</sup>lt;sup>a</sup> Data excludes the former Soviet Union.

Table 2. Percentage of population over 65, over 75, and over 80 in different regions, 1990–2035

(Source: U.S. Bureau of the Census, An aging world II, International Data Base on Aging (Washington, D.C.: U.S. Bureau of the Census, 1992), Table 2.1)

In most regions, the proportion in the oldest group will more than double.

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