Aging in India: Its Socioeconomic and Health Implications

By the year 2000, India is likely to rank second to China in the absolute numbers of its elderly population

By H.B. Chanana and P.P. Talwar*

The sharp decline in mortality since 1950 and a steady recent decline in fertility has contributed to the process of population aging in India.

India currently ranks fourth among the countries of the world with a large elderly population; by the year 2000, it is likely to be second only to China.

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^{*} The authors of this article are H.B. Chanana, Research Officer, and Dr. P.P. Talwar, Professor and Head, Department of Statistics and Demography, National Institute of Health and Family Welfare, New Delhi. Their article is an output of the demographic research being carried out by the Department.

Conventionally, there are two processes considered to be involved in the aging of a population, Le. aging at the base and aging at the apex of the population. The former results from a decline in fertility; the latter, mortality reduction among the elderly. In India, both processes are recent phenomena.

The sequence of high birth rates followed by high death rates until 1951 kept the proportion of persons aged 60 or more years of age at a low level. Since 1961, a sharp decline in death rates accompanied by an increasing expectation of life at age 60 set in motion the process of aging in India; furthermore, a steady decline in the birth rate since 1971 accelerated that process (see below):

Crude birth rates (CBR), crude death rates (CDR), and expectation of life at age (e_{60}) in census years

Census year	CBR	CDR	Expectation of life at 60		
			Males	Females	
1961*	41.7	22.8	11.8	13.0	
1971*	41.2	19.0	13.6	13.8	
1981+	33.9	12.5	13.8	14.7	
1991++	29.7	10.7	14.5	15.5	
2001++	23.7	8.4	15.2	16.4	

Notes: * = Census; + = sample registration scheme; and ++ = Expert Committee on Population Projections.

Until the middle of the present century, this portion of India's population did not receive much attention. However, the situation is changing owing to changes in kinship and family organization in the wake of urbanization, industrialization and modernization.

The joint family system, which used to provide a form of social security, is disintegrating. Even in the villages where approximately three-fourths of India's population live and where the process of change has been slow, changes have been taking place which are not favourable to the elderly. However, despite the increased vulnerability of the aged, it is fortunate that this problem has not assumed serious proportions; nonetheless, it requires attention.

Table 1: Percentage decadal increase in the general population and the population aged 60 years and over

Years General population			Population aged 60 +			
	Rural	Urban	Total	Rural	Urban	Total
1951-1961	20.54	26.33	21.64	22.66	26.28	23.25
1961-1971	21.85	38.22	24.80	30.03	45.17	32.39
1971-1981	19.67	46.39	25 .00	25.93	50.75	29.97
1981-1991	15.54	44.06	22.19	23.28	52.7 1	28.94
1991-2001	8.71	41.67	17.77	29.56	68.61	38.46
1951-2001		_	170.29	_		273.89

Growth rate of the elderly population

Since 1951, the population aged 60 years or more has grown steadily (table 1). The projected populations for the decades 1981-1991 and 1991-2001 also show an increasing trend in the growth of the elderly sector of the population. When the percentage decadal variation of the general population is compared with the population 60 or more years of age, it is found that the elderly population has grown faster than the general population, mainly because of increases in the expectation of life. According to the Expert Committee on Population Projections, the decadal per cent increase in the elderly population for the period 1991-2001 would be 38.5 per cent — more than double the rate of increase in the general population.

Percentage increase in the elderly population

In 1961, the elderly population comprised 5.6 per cent of the total, increasing to 6.2 per cent in 1981. It is likely to increase to 7.7 per cent in 2001, according to the Expert Committee. The total increase in this portion of the population during the period 1961-1981 was around 10 per cent, i.e. about 0.5 per cent per year. The Expert Committee has estimated that during the period 1981-2001, the increase would be around 1.2 per cent per year (table 2)

Although the proportion of India's elderly population is small compared

Table 2: Percentage of population aged 60 +, by place of residence and old age dependency ratio

Place of	Years						
residence	1961	1971	1981	1991	2001		
Rural	5.82	6.2 1	6.53	6.97	8.31		
	(21.0)	(27.3)	(34.3)	(42.3)	(54.9)		
Urban	4.74	4.97	5.12	5.43	6.46		
	(3.7)	(5.4)	(8.2)	(12.5)	(21.1)		
Total	5.63	5.96	6.20	6.55	7.70		
	(24.7)	(32.7)	(42.5)	(54.8)	(75.9)		
Old age dependency ratio	10.6	11.4	11.5	11.3	12.6		

Notes: Figures in parentheses indicate actual population (in millions); the old age dependency ratio is defined as the population 60 or more years of age as a per cent of the population 15-59 years of age.

with that of any developed country because of the large size of India's population base, the elderly population is very large in absolute numbers. The number of persons 60 or more years of age was 24.7 million in 1961; this number increased by 72 per cent to 42.5 million in 1981. In 2001 it is expected to increase to about 75.9 million, i.e. more than three times the size of the elderly population in 1961. In other words, it will be equal to three times Canada's entire population in 1981.

The number of elderly, both in absolute and percentage terms, is larger in the rural areas of India than in urban areas. Unlike the trend in most countries, there are more males than females in the elderly population for all the years covered in this study. The usual sex ratio pattern favouring females occurs at 70 or more years of age in the case of India.

Dependency

The relatively faster increase in the elderly population will contribute to a higher dependency ratio of the population in the non-productive age group. The old age dependency ratio, which was 10.6 in 1961, is likely to increase to 12.6 in 2001. Therefore, responsibility for caring for the elderly will fall either on young wage earners or on the Government.

Table 3: Sex ratio of elderly population and general population, by place of residence

Year	Place of	Age group (years)					
	residence	60-64	65-69	70 +	60 +	All ages	
1961	Rural	975	971	1 062	1000	963	
	Urban	939	916	1072	947	845	
	Total	969	962	1 064	1000	941	
1971	Rural	926	921	957	936	949	
	Urban	908	895	978	928	858	
	Total	923	916	961	937	930	
1981	Rural	937	984	958	949	951	
	Urban	933	994	1051	1000	878	
	Total	936	986	976	950	935	
1991	Rural	904	954	1025	958	958	
	Urban	957	1 009	1084	1016	897	
	Total	916	966	1 038	971	941	
2001	Rural	956	952	1 008	968	964	
	Urban	1 005	1 000	1 060	1 039	913	
	Total	969	965	1022	987	947	

Sex ratio

The sex ratio (number of females per thousand males) of the elderly population, which was 1,000 in 1961 and decreased to 950 in 1981, is projected to be 987 in 2001 (table 3). Though comparatively higher than that of the general population in each decade, the sex ratio is not weighted in favour of females, as occurs in more developed countries.

By contrast, the sex ratio of the population in the 7-years-and-over age group favours females when compared with that of the population in the age groups 60-64 years and 65-69 years. As expected, it is also higher than that of the general population in all the decades studied.

This indicates that there will be more women than men aged 70 years and over in 2001. Their numbers will be higher in rural areas than in urban areas. Because most of them will be without income, they will need support either from their children or the Government.

Table 4: Distribution (per cent) of widowed persons aged 60 and over, by place of residence and sex

Place of residence	1961		1971		1981	
	Males	Females	Males	Females	Males	Females
Rural	27.89 (3-0)	75.15 (7.9)	22.70 (3.2)	68.18 (9.0)	20.13 (3.5)	63.86 (10.7)
Urban	25.12 (0.5)	76.52 (1.4)	17.86 (0.5)	69.23 (1.8)	16.32 (0.7)	66.56 (2.7)
Total	27.46 (3.5)	75.35 (9.3)	22.48 (3.7)	68.35 (10.8)	19.40 (4.2)	64.40 (13.4)

Note: Figures in parentheses indicate actual numbers (in millions).

Marital status

A fairly large proportion of the elderly population is single owing to the death of the marriage partner. The incidence of widowhood is much greater among females than among males (table 4) owing partly to the comparatively higher expectation of life among the older females and partly to taboos against remarriage, particularly of females.

However, since 1961, there has been a consistent decrease in the percentage of widows and widowers which is likely to continue in the future, firstly because of a relaxation of the taboos against remarriage and secondly as a result of increases in the expectation of life at age 60 and over for males and females.

Literacy

Table 5 presents the status of literacy in the 60 and over age group and in the general population for different decades. It shows that the percentage illiterate among the elderly was higher than that of the general population during each decade. Also, illiteracy was more prevalent among elderly females than elderly males, which parallels the pattern of illiteracy among the general population. However, there was a consistent decline in the percentage of illiterate elderly males and females in succeeding decades, i.e. 70.8 per cent compared with 65.4 per cent in the case of elderly males and 95.7 per cent compared with 92.3 per cent in the case of elderly females (table 5). It has been

Table 5: Percentage distribution of population 60 years and over and the general population in census years, by education and sex

		196	61			198	1		
Education levels	-	Population aged 60+		General population		Population aged 60+		General population	
	Males	Females	Males	Females	Males	Females	Males	Females	
Illiterate	70.8	95.7	65.5	87.0	65.4	92.3	53.2	75.4	
Literate (without education)	21.4	3.5	21.4	8.5	12.1	3.4	13.7	8.4	
Primary school (below high school)	ol 5.7	0.7	10.0	3.9	17.2	3.8	22.6	12.4	
High school and above	2.1	0.1	3.1	0.6	5.3	0.5	10.5	3.8	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

estimated that in 2001 approximately 52 per cent of elderly males and 83 per cent elderly females will be illiterate.

The majority of the illiterate elderly were engaged either in agricultural pursuits in the rural areas or as unskilled or semiskilled workers in urban areas, many of whom most likely were living from hand to mouth with little or no savings. Since their employment was in the unorganized sectors, they would not be covered by social insurance schemes and thus would be in need of economic support. In the absence of support from their relatives, they would have to look towards the Government for support.

Elderly workers

In India, the majority of the population, including the elderly, is poor. However, one positive feature concerning the elderly population is that most of those 60 or more years old are economically active, presumably because they are engaged in sectors for which there is no specific age of retirement.

Table 6 gives the work participation rates for the elderly population by place of residence and sex and also the proportion of elderly workers in the

Table 6: Labour force participation for workers aged 60 or more years, by place of residence and sex

Year	Place of	Sex	X			
	residence	Male	Female	Total		
1961	Rural	79.9(8.4)	24.3(2.5)	52.0(10.9)		
	Urban	58.4(1.1)	11.4(0.2)	35.2(1.3)		
	Total	76.6(9.5)	22.4(2.7)	49.5(12.2)		
1971	Rural	77.5(10.9)	11.5(1.5)	45.5(12.4)		
	Urban	55.4(1.5)	6.5(0.2)	31.5(1.7)		
	Total	73.8(12.4)	10.6(1.7)	43.2(14.1)		
1981	Rural	67.6(11.9)	11.3(1.9)	40.1(13.8)		
	Urban	47.5(1.9)	5.8(0.2)	26.7(2.1)		
	Total	63.7(13.8)	10.2(2.1)	37.5(15.9)		
1991	Rural	58.9(12.7)	11.1(2.3)	35.3(15.0)		
	Urban	40.8(2.5)	5.1(0.3)	22.7(2.8)		
	Total	55.0(15.2)	9.8(2.6)	32.6(17.8)		
2001	Rural	51.4(14.3)	10.9(2.9)	31.2(17.3)		
	Urban	39.9(3.6)	4.6(0.5)	19.3(4.1)		
	Total	47.4(17.9)	9.4(3.4)	28.3(21.3)		

Notes: Figures in parentheses are actual workers (in millions); participation in the labour force is projected for the years 1991 and 2001 on the assumption that the trends of the years 196 1, 1971 and 1981 will continue.

total working-age population. It shows that 63.7 per cent of the elderly males and 10.2 per cent of the elderly females were workers in 1981. This means that people work until they reach a relatively advanced age because the expectation of life at birth is around 55 years in India. The proportion of workers in the elderly population was higher in rural areas than in urban areas.

Since 1961, there has been a gradual decline in the labour force participation rate among the elderly in rural and urban areas, the decline being steeper among males than females.

The majority of elderly workers were engaged in agriculture. Modernization of agriculture in the future (which would require fewer workers than currently) accompanied by increases in the number of young adults seeking

employment are factors likely to affect adversely future job opportunities for the elderly. Therefore, planning in respect of future employment opportunities for the elderly is needed urgently before this problem grows to unmanageable proportions.

Non-working elderly

Although the decline in labour force participation rates means fewer jobs in the future, it also means that the proportion of elderly people not working will increase in succeeding decades. About 72 per cent of the elderly population are not expected to be working in 2001; in absolute numbers, this portion of the population will total about 55 million, 69 per cent of whom will be from rural areas and 62.8 per cent of whom will be female.

If the percentage retired in 1981 may be assumed to remain more or less the same as in 2001, then there will be about 4.5 million elderly males and 0.9 million elderly females retired from the organized sector. Although they may not be economically dependent, they would still likely depend to some degree on their children for proper care. The remaining 15.8 million elderly males and 33.4 million elderly females will be almost entirely dependent for their livelihood on their children, charitable institutions or the Government. This would result in increased responsibility for the productive population and diversification of limited resources to provide goods and services for this portion of the population.

Health status of the elderly

The elderly are more vulnerable to disease because of decreased physiological reserves and defence mechanisms. Data on morbidity collected in the National Sample Survey – 28th Round in 1973 revealed that 28.8 per cent of the elderly population in rural areas and 25.6 per cent of those in urban areas were ill at that time. Also, more elderly males in rural and urban areas were ill compared with elderly females (table 7).

Table 7: Prevalence of temporary illness among the elderly, by place of residence and sex (per cent)

Place of residence	Males	Females	All
Rural	31.3	26.0	28.8
Urban	26.1	25.1	25.6

Table 8 : Prevalence of chronic diseases among the elderly, by place of residence and sex (per cent)

Place of residence	Males	Females	All
Rural	9.2	5.3	7.4
Urban	9.4	6.4	7.9

In addition, 7.4 per cent of the elderly population in rural areas and 7.9 per cent of those in urban areas were suffering from a chronic disease, the incidence being higher among males in rural and urban areas (table 8).

With regard to the overall morbidity of the elderly population, 40.5 per cent of the males and 35.5 per cent of the females in rural areas and 31.4 per cent of the males and 3 1.5 per cent of the females in urban areas were either temporarily ill or suffering from chronic disease at the time of the Survey.

If it is assumed that those rates will prevail more or less the same until the year 2000, the number of elderly people who would require medical assistance in 1991 and 2001 would be quite large (table 9).

According to this estimate, there would be around 27 million elderly people ill at any given point of time in 2001. Therefore, if the goal of "health for all by the year 2000" is to be achieved, this large section of India's population, who have health problems and requirements different from those of the general population, will have to be looked after.

Table 9: Number of elderly (in millions) requiring medical assistance, by place of residence and sex

Place of residence	1991		2001		
	Males	Females	Males	Females	
Rural	8.8	6.3	11.3	8.2	
Urban	2.2	2.0	3.6	3.4	
Total	11.0	8.3	14.9	11.6	

Currently, elderly people avail themselves of general medical and health services; no concerted effort has been made to provide geriatric medical care. However, there is an urgent need for specialists catering for the elderly.

Physical disabilities

Besides an increased level of illness, the aging process leads to certain disabilities such as blindness resulting from cataracts and glaucoma, deafness resulting from nerve impairment, loss of mobility from arthritis and a general inability to care for one's self. The data collected in the National Sample Survey – 36th Round in 1981 concerning disabilities among the elderly reveal that 10.9 per cent of the elderly population suffered from physical impairments. Approximately half of those affected were visually disabled. The remaining half were suffering from disabilities related to hearing, speech or locomotor functions.

If it is assumed that this rate of physical disability in the elderly population will continue for the next 10 to 20 years, the number of aged persons in 2001 who will suffer from some type of disability, would be about 8.2 million, or twice the number in 1981 (table 10). These people would be dependent either on their families or charitable institutions and in the absence of such support, they would look towards the Government for assistance.

Table 10: Number of elderly (in millions), by type of physical impairment, place of residence and sex

T. 6		1991			2001	
Type of impairment	Males	Females	Total	Males	Females	Total
Visual disability Rural Urban	1.00 0.20	1.48 0.31	2.48 0.51	1.29 0.34	1.93 0.53	3.22 0.88
Hearing disability Rural Urban	0.51 0.15	0.54 0.10	1.11 0.29	0.74 0.25	0.70 0.25	1.44 0.50
Speech disability Rural Urban	0.70 0.02	0.05 0.01	0.12 0.03	0.10 0.04	0.06 0.02	0.16 0.06
Locomotor disability Rural Urban	0.67 0.15	0.44 0.13	1.11 0.28	0.86 0.25	0.58 0.22	1.44 0.47

Table 11: Distribution of States and Union Territories, by eligibility criteria

Eligibility criteria	Number of States and Union Territories			
The destitute 65 years of age (Relaxation of requirements for physically handicapped destitutes)	9			
Persons 65 years of age, widows and the physically handicapped	6			
The destitute 60 years of age; widows and the infirm of any age	4			
Persons 60 years of age (Relaxation of requirements for the physically handicapped)	4			
Persons 90 years of age and invalids 60 years of age	1			
The destitute: males, 65 years of age; females, 60 years of age	2			
The destitute 80 years of age	1			
The destitute: males, 58 years of age; females, 55 years of age	1			
All disabled	2			
Total	30			

Welfare programmes

The problem of the elderly in India was not serious in the past because the numbers were small and the elderly were provided with social protection by the family network. But owing to relatively recent socio-economic changes, aging of the population is emerging as a problem that requires consideration before it becomes critical. However, a few studies indicate that family and relatives still play an important role in providing economic and social security for the elderly. But most of these studies relate to the middle and higher socioeconomic classes where the elderly own the means of production and have sufficient economic resources not to be affected adversely. Those in the lower levels of the social strata, who constitute the majority, will need social and economic support.

The elderly who worked in the organized sectors during their careers have been and are covered by social insurance schemes such as pensions, gratuities, leave encashment and provident fund disbursements made upon their retirement. Such systems have been in use since 1871. They cover approximately 11 per cent the population, who are likely to be economically better off compared with those who worked in the unorganized sectors; the latter constitute around 89 per cent of the elderly population. Since most worked in the unorganized sectors, the vast majority of the elderly probably worked for low wages and thus have little or no savings to enable them to meet their old-age needs.

Old age pensions have been introduced by State Governments mostly for the destitute and infirm. For example, the Government of Uttar Pradesh in 1957 became the tirst to introduce an old age pension scheme. Since then, similar schemes have been introduced by other State Governments. Such pension schemes were in operation in 16 out of 22 major States prior to 1980; all States and Union Territories, except Arunchal Pradesh, are currently providing such pensions.

Table 12: Distribution of States and Union Territories, by size of old-age pension per month

Pension (Rupees)	Number of States and Union Territories
30	4
35	1
40	2
45	1
50	5
60	17
Total	30



The aging of India's population will pose problems in the future unless they are addressed now with sound policy initiatives.

Size of pension

Table 12 provides data, by State, on the typical pension payment. The amount is small and varies among the States; 10 major States and seven Union Territories pay qualified retirees Rs. 60 per month (\$ U S 1 = about Rs. 13). Four States pay only Rs. 30 per month and the remaining eight States and Union Territories pay Rs. 40-50 per month.

Besides providing only small payments, the pension scheme covers only

a fraction of the elderly population. During the year 1984/85, only 3.7 million people were covered by the scheme; they accounted for about 7 per cent of the total elderly population of India.

Discussion and conclusions

India's demographic contours suggest a steep rise in the elderly population in the coming decades as a result of declining fertility, increasing expectation of life at birth and (partly) at later ages. Although the proportion of the elderly population in 2001 may be low, India will rank second in the world in absolute numbers. There will be about 75.9 million elderly people in India at that time; one out of every twelve persons will be aged 60 years or more in 2001. This phenomenon, coupled with rapid social changes resulting in the gradual breakdown of the traditional joint family system and ever-increasing financial constraints at the national level, is likely to pose serious problems for the elderly.

Two-thirds of the elderly males and 90-95 per cent of the elderly females are illiterate and a large number of them, particularly females, are single. Thus, the level of economic dependency is quite high. It has been estimated that about 18 million elderly males and 3.5 million elderly females would need jobs in 2001. These figures are based on the proportion currently working. This means that a huge amount of resources would be needed in order to create jobs for them in the future. Moreover, finances will also be required to maintain the 55 million not working, the majority of whom probably will not have adequate savings nor family assistance.

It has also been estimated that about 27 million elderly people would be ill at any given point of time in the year 2001 and thus need specialized medical care. In the absence of such medical facilities, large expenditures on infrastructure would be required to meet their needs.

The occurrence of physical disabilities is another important aspect of the aging process. There will be about 17 million disabled elderly persons in India in 2001, half of whom are likely to be visually disabled. The great majority of these would not be able to work and thus would be economically dependent. In the absence of family support, they would expect help from the Government. However, the Government has no old age pension scheme nor has any provision been made for granting aid to the State Governments for this purpose. Although State Governments and Union Territories have initiated schemes to provide some financial assistance to the handicapped or the destitute, the amount of such pensions ranges from only Rs. 30 to 60 per month. Moreover, owing to the paucity of funds available, the pensions cover only a fraction of the persons eligible.

Among the positive factors which have been sustaining the elderly in India is the strong attachment of family members to the elderly. Social pressure continues to be placed on persons who fail to discharge this responsibility to their elderly family members. Thus it is important to strengthen these values and the capacity of families to cope with the problems of caring for the elderly.

The elderly should be considered as human resources and their rich experience and residual capacities should be put to optimum use for the benefit of national development. Their ability to lead healthy and fruitful lives should be ensured by the Government.

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