

# Disability Status of Rural Elderly: A Socio-demographic Perspectives

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## Abstract

Until recently, ageing has been a neglected subject in India by both administrators and academicians. But the socio-economic scenario of the country is changing very fast. This has far reaching consequences on the lives of the aged. The life expectancy of the population at every age is also increasing very fast. The increasing health and medical facilities in the country and improved standard of living helped to add years to life with the result that the elderly are living longer than they used to in older days. The main objective of this paper was to provide some information about the socio-demographic characteristics and disability status of rural elderly. In this study conducted in Mannadipet commune out of 3 rural communes in Puducherry district. Total 530 elderly were selected using simple random sampling and were interviewed using the structured and unstructured questionnaire. It is basically seen everywhere elderly face more or less disability concerned to physical fitness. In the present study it is also revealed that majority of respondents are found to suffer from walking and memory loss. Differentials in disabilities across their gender background highlight that, by and large, the percentage of elderly women suffering from memory, visual and walking disabilities is higher as compared to their men counterparts.

**Keywords:** Rural; Elderly; Health Status; Disabilities; Gender; Ageing; ADL and IADL.

## INTRODUCTION

The world is witnessing a scenario of rapidly changing demographic conditions, pre

dominantly in developing countries. The resulting slowdown in the growth of the number of children per couple alone with the steady increase in the number of elderly persons has a direct bearing on both inter generational and inter generational equity and solidarity, which constitute the basic foundation of human society. The ageing of the world's populations is the result of the continued decline in fertility rates and increased life expectancy. This demographic change has resulted in increasing numbers and proportions of people who are over 60. As a result, the first time in history when there will be more older people than younger people is rapidly approaching. (WHO, 2010).<sup>1</sup> The number and proportion of people aged

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60 years and older in the population is increasing. In 2019, the number of people aged 60 years and older was 1 billion. This number will increase to 1.4 billion by 2030 and 2.1 billion by 2050. This increase is occurring at an unprecedented pace and will accelerate in coming decades, particularly in developing countries. (WHO, 2019).<sup>2</sup>

Population of the elderly in India has been increasing steadily since 1961 as it touched 13.8 crore in 2021, growing faster due to decrease in death rate, according to a study by National Statistical Office (NSO, 2021).<sup>3</sup> The study also stated that the elderly males have outnumbered females in the last two decades (till 2021). But it is projected that elderly females would outnumber elderly males in 2031. Elderly in study means all those people who are of the age of 60 years and above. "According to the Report of the Technical Group on Population Projections for India and States 2011-2036, there are nearly 138 million (13.8 crore) elderly persons in India in 2021 comprising 67 million males and 71 million females," the NSO study 'Elderly in India 2021' said.

Globally, the 60-plus population constitutes about 11.5 percent of the total population of 7 billion. By 2050, this proportion is projected to increase to about 22 percent when the elderly will outnumber children (below 15 years of age). The elderly constitute the fastest growing age segment while the children and working age segments reduce gradually (Fig. 1). In some regions and countries, the proportion of the elderly is however growing faster than the global average. In developed countries, the proportion of the elderly will increase from 22.4 percent in 2012 to 31.9 percent in 2050. This proportion is estimated to more than double in less developed countries with an increase from 9.9 percent in 2012 to 20.2 percent in 2050. In least developed countries, the proportion of the elderly in 2050 is projected to be below 11 percent (UN, 2015).<sup>4</sup>

In Asia as a whole, the proportion of the elderly is expected to increase from 10.5 percent to 22.4 percent during 2012–2050. In East Asia, the proportion of the elderly is expected to be 34.5 percent by 2050. Japan (41.5 percent), South Korea (38.9 percent), China (34 percent) may be expected to report the highest proportions of the elderly population in the region by 2050. The South Asian Association for Regional Cooperation (SAARC) countries, however, are likely to have only about 21 percent population above 60 years by 2050. Within the SAARC, Bangladesh (22.4 percent), Bhutan (24.1 percent), Maldives (31.2 percent) and Sri Lanka (27.4 percent) are estimated to overshoot the SAARC average for

the statistic by 2050. While India is not expected to report more than 19 percent elderly by 2050, the absolute numbers will be very large (UN, 2015).<sup>4</sup>

Thus, in some developing countries, the old-age dependency rate could more than double in 50 years, a phenomenon that was stretched over 150–200 years in much of the developed world. The rapid ageing of developing countries is not accompanied by the increases in personal incomes witnessed in the developed world during its ageing process. Further, the governments of the rapidly ageing developing countries are slower in recognizing and responding to the demographic shift, largely due to competing development priorities. Countering ageism (the negative stereotyping of older people and prejudice against them) and age discrimination (treating someone differently because of their age) is an added issue. The percentage of the elderly in India has been increasing at an increasing rate in recent years and the trend is likely to continue in the coming decades. The share of population over the age of 60 is projected to increase from 8 percent in 2015 to 19 percent in 2050. By the end of the century, the elderly will constitute nearly 34 percent of the total population in the country (ORGI, 2011).<sup>5</sup>

Ageing will also have an impact on economic growth, through savings, investment, consumption, labour market behaviour, pensions, taxation and intergenerational transfers. In the social sphere, this phenomenon influences family composition and living arrangements, demand for housing and migration, and the need for health care services. On the political front, population ageing may shape voting patterns and political representation. The recent emphasis studies on elderly persons in the developing world is attributed to their increasing number and deteriorating living conditions in the later years of life. While increasing numbers are attributed to demographic transition, deteriorating social and economic conditions are a result of the fast eroding traditional family system in the wake of rapid modernization, internal and international migration and urbanization. Economic, social and health aspects of this fast growing segment of the population pose a great challenge to all socio-economic sectors in India.

## REVIEW OF LITERATURE

Disability of the Elderly shows that during old age, many elderly, in addition to ill-health, suffer with disabilities. While the most common disability among elderly is reported to be the eyesight, hearing problems, joint problems, teeth

problems also cannot be ruled out. Further, it is of general propensity that elderly may not be able to perform certain Activities of Daily Living (ADL) as well as Instrumental Activities of Daily Living (IADL) mainly because of the less functioning/malfunctioning of selected organs in the body like, head and neck, hands and forearms, hip, knee and ankle, tongue, etc. Though biological causes are the main reasons for such ailments, the lifestyles followed by the elderly persons during their adult ages also would cause damage to a few body organs. In the Indian context, few studies related to these aspects have been carried out at different settings.

Based on the 2001 census data analysis of disabled elderly population for India, Audinarayana (2010)<sup>6</sup> came to the conclusion that the elderly were suffering with different disability conditions. Among the disabled elderly, persons with visual impairment constitute more than fifty percent followed by movement disability and hearing. The magnitudes of all the five disability under consideration were much higher in rural areas (hearing and seeing are still more large, about 82 percent) than their rural counterparts, whereas gender differentials were marginal in the case of all disabilities. However, the magnitudes of majority of the disabilities were much higher among married men as against women; the reverse pattern was true in the case of widowed women as compared to elderly men. Likewise, among main workers the levels of majority of the disabilities were higher among men than their women elderly counterparts. All these findings lead to the conclusion that aged persons who belong to lower strata of the society (rural and scheduled castes/tribes) as well as socially disadvantaged (widowed) were more vulnerable to various types of disabilities.

The number of older people is projected to increase in both developed and developing countries. The incidence and prevalence of functional disability are higher among older people and is higher at older ages (Kovar, 1991).<sup>7</sup> By Dillip (2001)<sup>8</sup> in Kerala found that visibility was the most prominent form of disability among elderly followed by locomotors, hearing, senility and speech disability. Sex wise differentials showed that the conditions like visual, hearing and speech disabilities were predominant for females than males.

Dilip (2003)<sup>9</sup> noticed the prevalence of different physical disabilities in the following order: visual, locomotor, hearing, amnesia and speech. With a few exceptions, the prevalence rates of physical disabilities were higher among old (70-79 years),

females, currently unmarried, rural areas, belonging to less monthly per capita consumer expenditure of households and economically fully dependent on their counterparts. Rao's (2007)<sup>10</sup> study in rural Andhra Pradesh showed that slightly more than one-third of the respondents had reported having difficulty in seeing and one-fourth with hearing problems; women's proportions were significantly more than men in both these difficulties. In the case of their ability to perform certain physical work, they had difficulty in bathing, dressing and going to toilet. However, these proportions were slightly higher among women as compared to men elderly in the case of latter two activities, whereas the opposite pattern was noticed in the case of bathing.

Goswami et al. (2005)<sup>11</sup> in their rural study observed that a large majority of the elderly had vision related disabilities closely followed by other disabilities. Large number of aged, though not using, felt the need for the respective aids. Further, the most common reason for not using these aids was non-availability followed by carelessness, especially in the case of vision, hearing and walking. The other reasons mentioned were fear, wrong belief and shyness. An examination of mental status (cognitive impairment) among the rural elderly in Faridabad district, Haryana by Goswami *et al.* (2006)<sup>12</sup> highlighted that about one-fifth of sample respondents had cognitive defect. On screening, such proportion was found to be higher among females than among males.

## METHODOLOGY

One of the major problems during old age is disability status. To a major extent disabilities occur among elderly because of biological reasons, but the role of socio-economic status and lifestyle patterns adopted during adult ages cannot be ruled out. While a large number of elderly likely to be affected by different disabilities, in fact with an increase in age the likelihood of cropping up disabilities would be higher, some would not be. Keeping this in mind, in this research paper takes the agricultural setting of rural Puducherry elderly persons suffer with physical disability with regard to socio-demographic perspectives. It has been carried out by taking descriptive research design and a semi structure interview schedule with 530 respondents in Mannadipet Commune of Puducherry. An attempt is made to analyse the patterns of disability status among the sample elderly, differentials in their disability status across their selected demographic and socio-economic.

For all these purposes, information about the disabilities from which elderly are suffering has been collected in this study and analysed here. The exact measurement of the disability status variables at each stage of analysis is given in the concerned sections.

## DATA ANALYSIS

### *Patterns of Disability Status among the Elderly*

Data given in panel 1 of Table 1 shows that overwhelming percentage of the elderly are suffering from walking and memory disorder, whereas slightly more than three-fourth of them are suffering from visual disability. More than two-fifth of the elderly is suffering with hearing and some have disability of speech. Differentials in disabilities across their gender background highlight that, by and large, the percentage of elderly women suffering from memory, visual and walking disabilities is higher as compared to their men counterparts. Moreover, speech and hearing disabilities is higher among men elderly. However, the chi-square results turned out as highly significant in the case of hearing disability, whereas such results are moderately significant in the case of speech and walking and not-significant in the case of memory and visual disabilities. But across their age wise, it is conspicuous to note that

the percentage of elderly suffering from various disabilities is invariably higher among old-old than their young-old counterparts. The chi-square results between the age groups and disabilities have been emerged as highly significant ( $p < 0.001$ ) in the case of walking, and moderately significant ( $p < 0.05$ ) in the case of visual, speech and hearing.

When the data on disabilities of elderly is analysed as cumulative score (for details see Appendix), elderly suffering from overall disabilities (panel 2 of Table 1 and Fig. 1), it can be seen that nearly three fourth suffer with more than three disabilities. On the other hand, slightly more than one-fifth are suffering from at least one-two of the disabilities condition under consideration and rest only few do not suffer with any disabilities. As gender wise differentials in this regard show that the percentage of elderly who have three or more disabilities is almost equal among men and women counterparts, whereas more than one-fifth of the men elderly suffer from one-two disability as against nearly one-fifth of women. As expected, comparatively higher percentage of men elderly do not have any disability as against less of women elderly. Such patterns are more conspicuous across their age-wise under consideration. Obviously, the chi-square results too turned out as highly significant ( $p < 0.001$ ) across their gender as well as age categories.

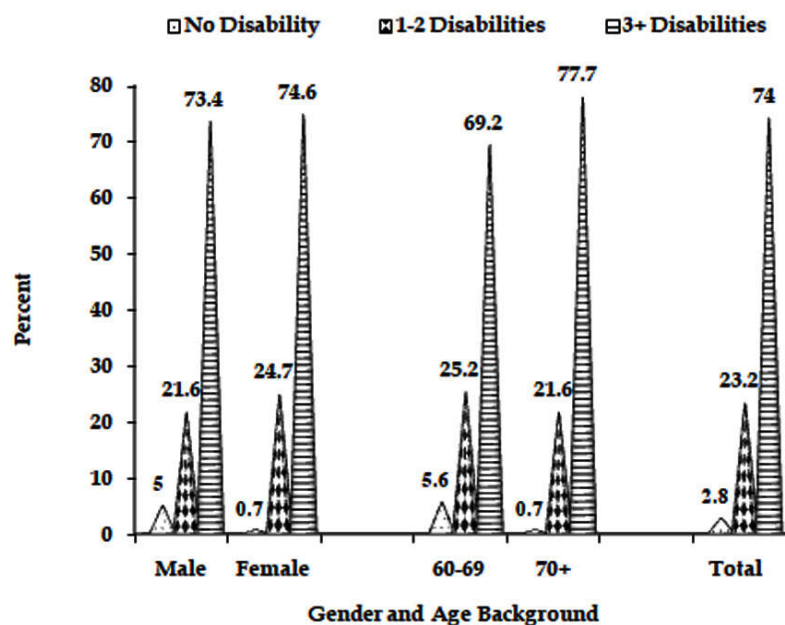


Fig. 1: Percentage Distribution of the Elderly who are Suffering with Overall Disabilities across their Gender and Age Background.

**Table 1:** Percentage Distribution of those Elderly who are Suffering with Types of Disabilities across their Gender and Age Background.

Type of Disability	Gender								Age								Total			
	Male				Female				60-69				70+							
	Good		Poor		Good		Poor		Good		Poor		Good		Poor		Good	Poor		
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%		
Memory <sup>NS/NS</sup>	35	13.5	224	86.5	27	10.0	244	90.0	33	14.1	201	85.9	29	9.8	267	90.2	62	11.7	468	88.3
Visual <sup>NS/*</sup>	62	23.9	197	76.1	64	23.6	207	76.4	67	28.6	167	71.4	59	19.9	237	80.1	126	23.8	404	76.2
Speech <sup>/*</sup>	149	57.5	110	42.5	186	68.6	85	31.4	161	68.8	73	31.2	174	58.8	122	41.2	335	63.2	195	36.8
Hearing <sup>***/*</sup>	124	47.9	135	52.1	168	62.0	103	38.0	141	60.3	93	39.7	151	51.0	145	49.0	292	55.1	238	44.9
Walking <sup>/*</sup>	36	13.9	223	86.1	18	6.6	253	93.4	38	16.2	196	83.8	16	5.4	280	94.6	54	10.2	476	89.8

Note: NS, \* and \*\*\* = Chi-square results are Significant at Not-Significant, 0.05 and 0.001 respectively.

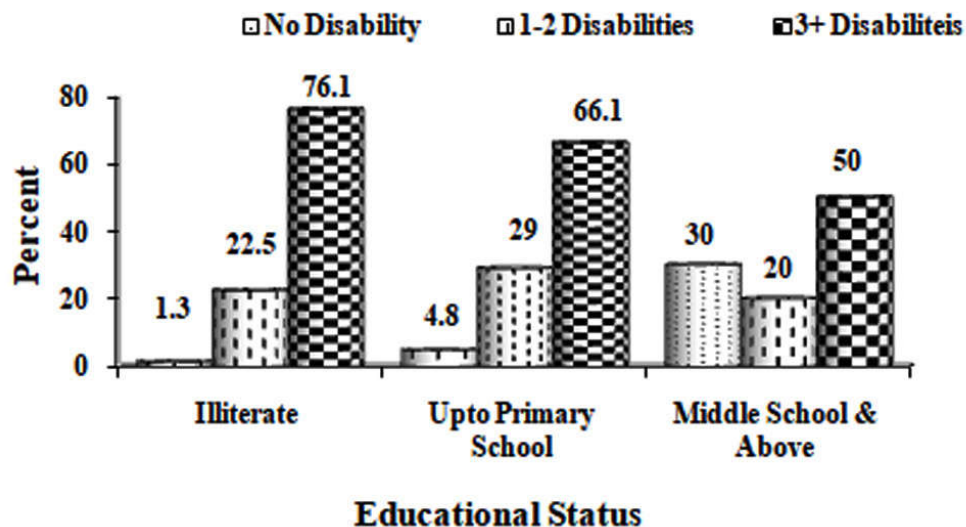
Overall Disabilities (Index)	Gender				Age				Total	
	Male		Female		60-69		70+			
	No.	%	No.	%	No.	%	No.	%	No.	%
No Disability	13	5.0	2	0.7	13	5.6	2	0.7	15	2.8
1-2 Disabilities	56	21.6	67	24.7	59	25.2	64	21.6	123	23.2
3+ Disabilities	190	73.4	202	76.6	162	69.2	230	77.7	392	74.0
$\chi^2$ - Value; Sig. Level	9.151; 0.01				12.991; 0.001					

Note: Percentages for each category of the variables have been calculated by Column wise.

**Differentials in Number of Disabilities from which Elderly Suffering by their Background Characteristics**

In addition to the gender and age wise differentials in the percentage of elderly suffering from cumulative disabilities (Table 1), an attempt is also made here to analyse differentials across their background characteristics and presented the same in Table 2. The results highlight that the percent of elderly suffering from three or more disabilities tend to

decrease or found to be lower with an increase or found to be higher in their socio-economic status, viz., forward castes, educational status (Fig. 2), occupational status and monthly personal income, as well as monthly family income, three or more in total number of children, four or more in total number of family members and three or more in total number of earning members in the family and particularly, among those who living with relatives/others.



**Fig. 2:** Percentage Distribution of the Elderly by Number of Disabilities across their Educational Status

Conversely, the percentage of elderly suffering from more number of disabilities is higher among scheduled castes/tribes, single/widowed/separated/divorces, illiterates, non-working elderly, low monthly personal income, as well as low monthly family income, no children, no earning members and living alone and with spouse. Conspicuously, majority of these differentials across their background characteristics are turned

out as in statistically high significant ( $p < 0.001$  in each case and moderate significant ( $p < 0.05$ ) in the case of monthly family income and total number of earning members), expect in the case of caste, where the total number of children, total number of family members and their living arrangements. All these results to a large extent support of elderly from lower socio-economic status categories are suffering with more number of disabilities.

**Table 2:** Percentage Distribution of the Elderly by Number of Disabilities they are suffering across their Background Characteristics

Background Characteristics of the Elderly	Suffering from Number of Disabilities						
	No Disability		1-2 Disability		3+ Disabilities		Total
	No.	%	No.	%	No.	%	No.
<b>1. Caste</b>							
Scheduled Castes/Tribes	8	3.8	39	18.8	161	77.4	208
Most Backward Castes	3	1.2	69	27.0	184	71.9	256
Backward Castes	3	5.4	13	23.2	40	71.4	56
Forward Castes	1	10.0	2	20.0	7	70.0	10
$\chi^2$ - Value; Sig. Level				10.252; NS			
<b>2. Marital Status</b>							
Married	14	5.6	54	21.5	183	72.9	251
Si. / Wi. / Se. / Di. / De.	1	0.4	69	24.7	209	74.9	279
$\chi^2$ - Value; Sig. Level				13.379; 0.001			
<b>3. Educational Status</b>							
Illiterate	6	1.3	101	22.5	341	76.1	448
Primary school	3	4.8	18	29.0	41	66.1	62
Middle school & above	6	30.0	4	20.0	10	50.0	20
$\chi^2$ - Value; Sig. Level				59.996; 0.001			
<b>4. Occupational Status</b>							
No Work	8	1.9	92	21.4	329	76.7	429
Coolie	—	—	16	27.6	42	72.4	58
Agriculture	6	20.7	11	37.9	12	41.4	29
Busi. / Pvt. Com./ Others	1	7.1	4	28.6	9	64.3	14
$\chi^2$ - Value; Sig. Level				45.383; 0.001			
<b>5. Monthly Income</b>							
< 1000	6	1.6	82	21.5	293	76.9	381
1001 – 2000	5	4.1	30	24.8	86	71.1	121
2001 +	4	14.3	11	39.3	13	46.4	28
$X^2$ - Value; Sig. Level				22.997; 0.001			
<b>6. Monthly Family Income</b>							
< 3000	3	1.3	47	20	185	78.7	235
3001 – 6000	3	2.3	38	28.8	91	68.9	132
6001 +	9	5.5	38	23.3	116	71.2	163
$X^2$ - Value; Sig. Level				10.477; 0.05			
<b>7. Total No. of Children</b>							
0	—	—	5	18.5	22	81.5	27
1 – 2	5	2.8	40	22.7	131	74.4	176
3 +	10	3.1	78	23.9	239	73.1	327

$\chi^2$ - Value; Sig. Level				<b>1.402; NS</b>			
<b>8. Total No. of Family Members</b>							
1	—	—	24	22.2	84	77.8	108
2 – 3	5	2.9	37	21.1	133	76.0	175
4 +	10	4.0	62	25.1	175	70.9	247
$X^2$ - Value; Sig. Level				<b>5.735; NS</b>			
<b>9. Total No. of Earning Members</b>							
0	2	1.2	32	19.9	127	78.9	161
1	4	3.8	16	15.4	84	80.8	104
2	3	2.1	42	30.0	95	67.9	140
3 +	6	4.8	33	26.4	86	68.8	125
$\chi^2$ - Value; Sig. Level				<b>12.940; 0.05</b>			
<b>10. Living Arrangements</b>							
Alone	—	—	24	22.2	84	77.8	108
With Spouse	3	2.7	22	19.8	86	77.5	111
With Son's Family	8	4.6	37	21.4	128	74.0	173
With Daughter's Family	—	—	15	30.0	35	70.0	50
With Unmarried Children	4	5.5	20	27.4	49	67.1	73
With Relatives / Others	—	—	5	33.3	10	66.7	15
$\chi^2$ - Value; Sig. Level				<b>12.804; NS</b>			

Note: Not Applicable; NS = The Chi-square test are Not Significant;

Si./Wi./Se./Di./ De. = Single / Widowed / Separated / Divorced / Deserted;

Buss. / Pvt. Com. = Business / Private Company;

Percentages for each category of the variables have been calculated by Row-wise;

The Chi-square test results those are significant at different levels denoted as bold and italics.

### Summary and Conclusion

An analysis of disability status of the elderly established that greater majority of the elderly are suffering from walking and memory disorders, whereas more than three fourth of them are suffering from visual disability. Around more than two-fifth of the elderly are found to suffer from hearing disability whereas, more than one-third of the elderly suffer from speech. In the case of memory, visual and walking disabilities, women and old-old suffer more than their men and young old counterparts. However, total number of disabilities indicates that nearly three-fourth of the elderly suffer with more than three disabilities. Gender and age wise differentials suggest that the percentage of elderly who have three or more disabilities is almost equal among men and women counterparts, whereas, such percentages are higher in old-old than young-old elderly. Obviously, the chi-square results too turned out highly significant across their gender as well as age categories ( $p < 0.01$  and  $p < 0.001$ , respectively).

In addition to gender and age wise differentials in disability status, the percent of elderly suffering from three or more disabilities tend to decrease or are found to be much lower with an increase or

higher in their socio-economic characteristics, viz., educational status, occupational status, monthly personal and family income, total number of children, total number of family members, total number of earning members in the family and obviously among the type of living arrangements. Conversely, the percentage of elderly suffering from more number of disabilities is higher among those who belonged to scheduled castes/tribes, single/widowed/separated/divorced/deserted, illiterates, non-earning and less earning income group, living alone and with spouse to a higher extent. Conspicuously, majority of these differentials across their background characteristics are turned out as statistically highly significant ( $p < 0.001$  in each case and moderately significant ( $p < 0.05$ ) in the case of monthly family income and total number of earning members), expect in the case of caste, total number of children, total number of family members and their type of living arrangements. Conversely, the prevalence of disability is much lower among those who belong to educated and agricultural labourers as well as to some extent among those who earning high individual monthly income.

Almost all the elderly (except 15 members) reported

that they were suffering from one or the other disability condition, viz., memory, visual, speech, hearing and walking. The percentages in these regard are relatively higher among women and old-old than their counterparts. Conversely, the prevalence of disability is much lower among those who belong to educated and agricultural labourers as well as to some extent among those who earning high individual monthly income.

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