

# Health Problems among Elderly in An Urban Community in Imphal.

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## ABSTRACT

**Background:** An 'ageing population' means a group characterized by higher average life expectancy and increasing proportion of the elderly in the total population. With chronic disease problems, which develop gradually, the changes that arise are not so readily reversible. Elderly persons accumulate chronic pathologies as they age. The study is an effort to understand the magnitude of the health problems faced by this group of population living in Kshetrigao, Manipur. **Methods:** A Cross-sectional study was conducted on elderly 60 years and above living in urban field practise area of Community Medicine Department, RIMS, Imphal. Elderly persons living in the study area for at least one year were included in the study. **Results & Conclusion:** In this study, most of the elderly (46%) were between 60 to 69 years of age. Most of the elderly were female (52.1%). A little more than half 173 (53%) of the elderly said they had health problems. Hypertension (52.7%) was the major health problem among the elderly; this was followed by visual impairment (16.8%) and musculoskeletal disease (11%). Presence of health problem was more in the least income family, not being engaged in any economic activities (58.5%) and lower educational status. Unlike in other studies prevalence of some diseases propped up to be different and so regarding gender. With this background of prevalent diseases in elderly, health programs and activities can be planned accordingly.

**Keywords:** Ageing, Elderly, Health Problem, Hypertensive.

## INTRODUCTION

Ageing is a complex development process involving loss of resilience or reserve capacity to respond to stressor, and this acquired vulnerability means that ageing is associated with some great susceptibility to illness and some decline in function.<sup>[1]</sup>

Elderly population has increased during the last few decades. Worldwide, during 1950, 1 in every 12 individuals was 60 years old or more, and 1 in every 20 was 65 or older. There were 205 million persons aged 60 or more worldwide and India contributing 20 million in the year 1950. This number increased about three times to 606 million 50 years later with India contributing 77 million.<sup>[2]</sup>

Population ageing and extension of life are significant by-products of the demographic transition. Ageing is primarily the result of two different factors, reductions in fertility and mortality. The reduction in mortality

rates implies a longer life span for the individual and the reduction of fertility implies a decline in the proportion of the young in the total population. Thus an 'ageing population' means a population characterized by higher average life expectancy and increasing proportion of the elderly in the total population.<sup>[3]</sup>

With chronic disease problems, which develop gradually, the changes that occur are not so readily reversible requiring social and other support interventions to complement the treatment of the disease.

Elderly persons accumulate chronic pathologies as they age. Multiple symptoms due to multiple pathologies are a common among the elderly.<sup>[4]</sup> Several chronic conditions comprising mostly degenerative diseases often occur in elderly with various grades of severity. The life span of elderly is shortened by health problems relating to smoking, alcohol consumption and eating habits too. Various functional, psychological and social disabilities may result from health problems in the elderly. Functional disabilities may cause reduced vigorous physical exercise, drop in activity tolerance, weakened muscles, bone loss, restricted activity days, work loss days (if working), bed disability days, social

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isolation and feeling of physical incompetence. Psychological disability can lead to loss of confidence, exaggerated withdrawal from unusual activities, feeling of physical incompetence, depression, anxiety, hypochondriasis, sleep disturbances, suicidal tendencies. Social disabilities because of these chronic problems affect family relationships, more so in nuclear families and living alone in widowhood. Health problems may lead to hospitalisation or long term care in old age homes too.<sup>[5]</sup>

The study is an effort to understand the magnitude of the problems faced by this group of population living in Kshetrigao, Manipur especially on their health aspects. The study outcome is expected to provide a better understanding of the status and bring out the issues that need intervention and advocacy.

## MATERIALS AND METHODS

This Cross sectional study was conducted from October 2011 to February 2014 at urban field practice area of Community Medicine Department, RIMS, Imphal. According to RIMS urban family folder its total population is 5100. It was estimated that 403 persons are of 60 years and above, taking 7.9 as percentage of urban elderly persons according to census 2011. The population mainly consists of Hindus and Christians. In this study we included all elderly persons who are residing in the study area for at least one year. Elderly who refused to give consent, cannot be contacted on two consecutive visits, mentally unsound, very ill and completely deaf were excluded from the study.

### Study tool

Interview schedule using semi structured questionnaire. Instruments for measurement of blood pressure:

Mercury Sphygmomanometer (made in India by Diamond Company) having the measuring capacity upto 2 mmHg, calibrated to zero mmHg was used for measuring blood pressure.

Stethoscope was 3M Littmann Classic II S.E. made in USA.

### Procedure of measurement

Measurement of Blood pressure was done by sphygmomanometer in sitting position on the left arm. Three measurements were taken with 2 minutes gap and average BP was recorded. Hypertension was described as those people having systolic BP  $\geq$  140 mmHg and or diastolic BP  $\geq$  90 mmHg.<sup>[7]</sup>

Visual acuity was screened by finger counting test.

Blindness defined as inability to count fingers in day-light at a distance of 3 metres in the better eye after the best possible correction.<sup>[8]</sup>

Hearing difficulties were screened by Whispered voice test.<sup>[9]</sup>

### Data collection

Data was collected by house to house survey of all the households with elderly in the study area. The purpose of the study was explained to them and informed consent taken. Interview was done in local language using questionnaire.

### Operational definition

Elderly were classified:

- a) young old as 60-69 years
- b) old old as 70-79 years
- c) oldest old as 80 years and over.<sup>[10]</sup>

Health problems in this study was regarded as any disease or painful condition identified based on medical records, treatment history and also by screening with general physical examination.

### Analysis

After collection, data was checked for consistency and completeness. Then the data was entered in SPSS software version 20. Summarisation and analysis was done using descriptive statistics and Chi square test.

### Ethical issues

Ethical approval was obtained from the Institutional Ethics Committee, RIMS, Imphal before the beginning of the study. Consent was obtained from the participating individuals. A unique code number was given but no name was taken to maintain confidentiality.

## RESULTS

Out of 403 elderly, 4 elderly were excluded as one was totally deaf and three were terminally ill and bedridden. Sixty seven could not be contacted even after two visits and there were 8 refusals resulting in 328 elderly being interviewed. Response rate was 81.4%.

## DISCUSSION

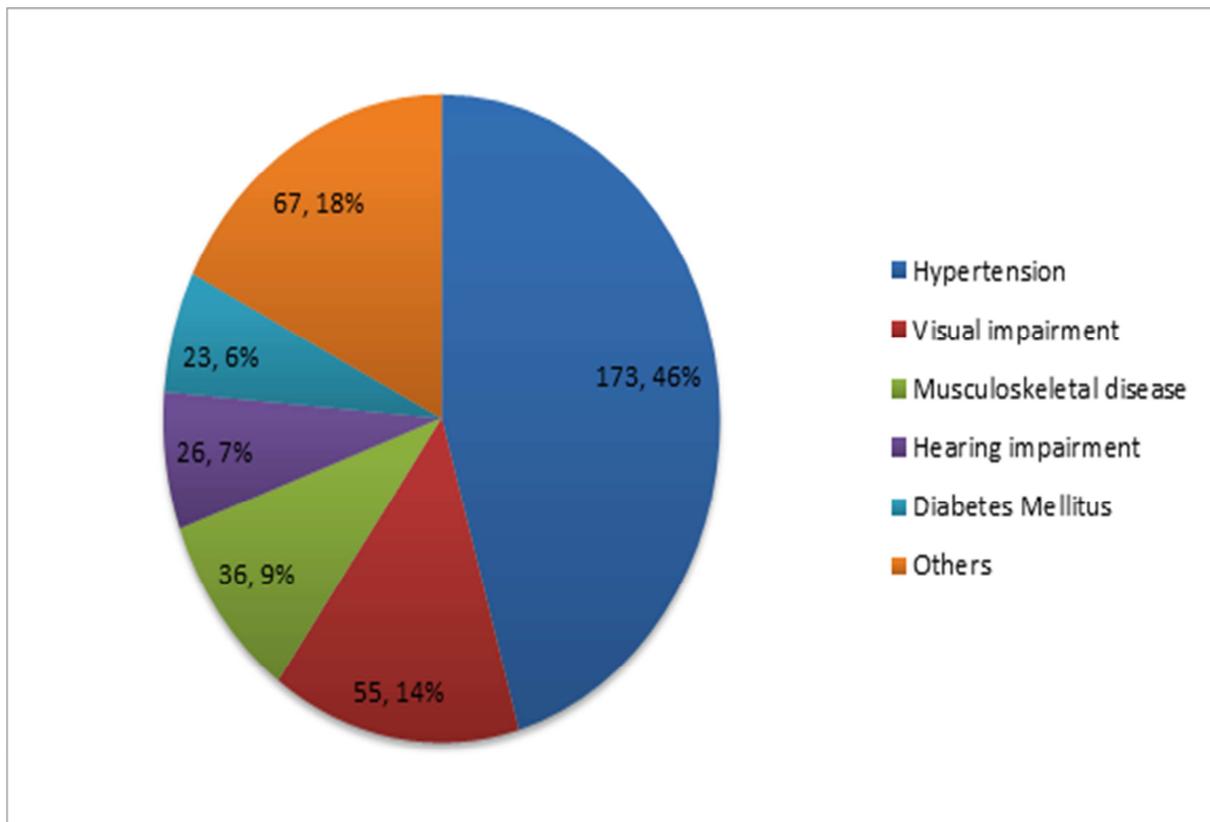
### Socio-demographic factors

In this study most of the elderly (46%) were between 60 to 69 years of age. Similar results were seen in studies done by Chandwani H et al and Lena A et al where major fraction of the population were in the age group of 60-69 years old;<sup>[11,12]</sup> Saxena V et al found that the elderly belonged to 60 to 70 years age group (74.6%);<sup>[13]</sup> Sengupta P et al saw that 60.0% were in the age group of 60-69 years;<sup>[14]</sup> B. S. Mannapur et al found majority (44.7%) were in the age group of 60-64 years.<sup>[15]</sup> This shows that more people are dying after the age of 70 years and above.

Most of the elderly were female (52.1%) as in studies conducted by SPS Bhatia et al where 59% of them were female and Sengupta P et al where women elderly (53.9%) outnumbered the men (46.1%) showing that women live longer than their male counterparts.<sup>[15,16]</sup> This may be because of the relatively riskier lifestyle and habits of the male.

**Table 1: Socio-demographic characteristics of the elderly.**

Socio-demographic characteristics	Frequency	Percent
Age distribution of the elderly		
60-69	151	46
70-79	127	39
>80	50	15
Gender		
Male	157	47.9
Female	171	52.1
Religion		
Hindu	228	69.5
Christian	82	25.0
Meitei	18	5.5
Marital status		
Married	237	72.3
Unmarried	3	0.9
Separated/ Divorced	3	0.9
Widow/ widower	85	25.9
Educational status		
Illiterate	129	39.3
upto higher secondary	150	45.7
Graduate and postgraduate	49	14.9
Income in rupees		
≤ 7000	83	25.3
7001-17000	83	25.3
17001-25000	88	26.8
>25000	74	22.6
Currently engaged in any economic activity		
Yes	92	28.0
No	236	72.0
Main earning member		
Yes	84	25.6
No	244	74.4



**Figure 1: Type of health problems and their frequencies (N=328)**

\* Others: Giddiness (4%), Respiratory problems (3.7%), Gastro-intestinal (3%), Urinary problems (2.7%), Dental problems (2.4%), Depression (1.8%), hyperthyroid (1.5%), TB (0.9%), skin problem (0.5%)

**Table 2: Association of health problem with socio-demographic variables.**

Variables	Health problem		P value
	Yes n(%)	No n(%)	
Gender			
Male	88(56.1)	69(43.9)	0.250
Female	85(49.7)	86(50.3)	
Age (completed years)			
60-69	79(52.3)	72(47.7)	0.090
70-79	74(58.3)	53(41.7)	
>80	20(40.0)	30(60.0)	
Presence of spouse			
With spouse	144(60.8)	93(39.2)	0.000
Without spouse	29(31.9)	62(68.1)	
Income			
≤ 7000	50(60.2)	33(39.8)	0.028
7001-17000	49(59.0)	34(41.0)	
17001-25000	35(39.8)	53(60.2)	
>25000	39(52.7)	35(47.3)	
Engaged in any Economic activity			
Yes	35(38.0)	57(62.0)	0.001
No	138(58.5)	98(41.5)	
Educational status			
Illiterate	66(51.2)	63(48.8)	0.020
Upto higher secondary	89(59.3)	61(40.7)	
Graduate and postgraduate	18(36.7)	31(63.3)	

**Table 3: Association between gender and different health problems.**

Health problems	Gender n(%)		P value
	Male	Female	
BP			
Hypertensive	98(62.4)	75(43.9)	0.001
Normotensive	59(37.6)	96(56.1)	
Vision			
Normal	122(77.7)	151(88.3)	0.008
Impaired	35(22.3)	20(11.7)	
Musculoskeletal disease			
Absent	140(89.2)	152(88.9)	0.664
Present	17(10.8)	19(11.1)	
Hearing impairment			
Absent	146(93.0)	156(91.2)	0.351
Present	11(7.0)	15(8.8)	
Diabetes Mellitus			
Absent	149(94.9)	156(91.2)	0.139
Present	8(5.1)	15(8.8)	

**Table 4: Association between age and different health problems.**

Health problems	Age n(%)			P value
	60-69 years	70-79 years	≥ 80 years	
BP				
Hypertensive	83(55.0)	68 (53.5)	22(44.0)	0.393
Normotensive	68(45.0)	59 (46.5)	28(56.0)	
Vision				
Normal	132(87.4)	26 (20.5)	40(80.0)	0.172
Impaired	19(12.6)		10(20.0)	
Musculoskeletal disease				
Absent	135(89.4)	111 (87.4)	46(92.0)	0.664
Present	16(10.6)	16 (12.6)	4(8.0)	
Hearing impairment				
Absent	145(96.0)	15 (11.8)	45(90.0)	0.046
Present	6(4.0)	117 (92.1)	5(10.0)	
Diabetes Mellitus				
Absent	139(92.1)	10(7.9)	49(98.0)	0.321
Present	12(7.9)		1(2.0)	

**Health problems**

A little more than half 173 (53%) of the elderly said that they had health problems. Shalika Sharma et al saw that 73.3% were having one or other health problems.<sup>[17]</sup> Agrawal S et al had 88.8% with one or more than one morbidity.<sup>[18]</sup> SPS Bhatia et al reported 86.1% with one or more health-related complaints.<sup>[19]</sup> All these studies show that most of the elderly were having some form of health problem even though these numbers varied because of the difference in the lifestyle of the different regions.

Hypertension (52.7%) was the major health problem among the elderly; this was followed by visual impairment (16.8%) and musculoskeletal disease 36 (11%). Hearing impairment was seen in 26 (7.9%) of the elderly, diabetes mellitus 23 (7.0%), giddiness 13 (4.0%), respiratory problems 12 (3.7%), gastro-intestinal problems 10 (3.0%), urinary problems 9 (2.7%), dental problems 8 (2.4%), depression 6 (1.8%), hyperthyroid 5 (1.5%), TB 3 (0.9%) and skin problem 1 (0.3%).

SPS Bhatia et al also saw that 41.6% of the elderly were suffering from hypertension,<sup>[16]</sup> followed by those of the musculoskeletal system and connective tissues disorders. Agrawal S et al reported major morbidities belonging to the diseases of the eye,<sup>[18]</sup> musculoskeletal and respiratory systems, hypertension, and dental. Chandwani H et al in a study had most common disease to be hypertension,<sup>[11]</sup> arthritis, diabetes, or constipation. Lena A et al reported most common disease as hypertension,<sup>[12]</sup> osteoarthritis, diabetes. B. S. Mannapur et al had 46.3% of the study population having hypertension,<sup>[15]</sup> next major health problem being locomotors (32%) in the form of joint pain, myalgia and musculoskeletal problems and 13.5% of aged were suffering from diabetes. The other health problems in the elderly were diminished vision, respiratory problems and hearing problems. Shraddha K et al reported most common disorder among elderly as diseases of the eye (51.7%) followed by endocrine,<sup>[19]</sup> nutritional and metabolic diseases (38.4%), diseases of circulatory system (33.1%), disorders of oral cavity (32.3%), musculoskeletal disorders (30.2%) and diseases of respiratory and digestive system were reported about 10% by the geriatric people. Shalika Sharma et al saw that 38.2% were suffering from locomotive disorders,<sup>[17]</sup> followed by respiratory disorders (25.5%), hypertension (24.5%) and visual impairment (21.8%). Sengupta P et al saw ophthalmic problems as the most commonly reported morbidity (83.6%),<sup>[14]</sup> followed by musculoskeletal disorders (63.6%); 40 per cent of the elderly were hypertensive. Diabetes mellitus was reported in 21.9 per cent of the respondents.

Comparisons from the above diseases show that prevalence of chronic diseases were high in this age

group, with hypertension as the most common health problem diagnosed.

Gender and age were not associated with having health problem. Those staying with spouse (60%) were significantly more associated with health problems. This may be due to the fact that they were more health conscious when staying with their spouse.

Presence of health problem was significantly more in the lowest income family. Those whose income was between Rs. 17001-25000 had the least health problem as compared to the other groups. Lowest income group lacked money for treatment and highest income group must have been diagnosed even when the complaint was a minor one.

Health problem was significantly more in those not being engaged in any economic activities 138 (58.5%) and lower educational status. Lack of timely or proper treatment during the initial phase of the disease could be the reason for the gap and as a consequence of lack of finance or ignorance.

Hypertension and impaired vision were significantly more among males. Gender had no significant relation with having musculoskeletal disease, hearing impairment or diabetes mellitus. On the contrary SPS Bhatia et al<sup>[16]</sup> reported that hypertension was significantly more in females (46.4%) than in males (34.9%), diabetes mellitus was also significantly more in females (18%) than in males (6.4%), musculoskeletal system and connective tissue were also higher in females (49.4%). Chandwani H et al<sup>[11]</sup> saw that osteoarthritis and diabetes were common among females. Lena A et al<sup>[12]</sup> found osteoarthritis more common among females. Environmental and socio-demographic factors must be playing an important role in this difference according to region.

Hearing impairment was significantly more among higher age group. Age was not associated with hypertension, impaired vision, musculoskeletal disease or diabetes mellitus. This must be due to the fact that all the respondents were above 60 years of age and that they have nearly equal chances of having hypertension.

CVA and skin disease were seen in only single elderly male each. Nine of the males complained of giddiness while only six females complained of the same. Glaucoma and gastritis was seen in one female each and TB in only three females. Three of the females each were suffering from cataract and hyperthyroid, while in males only one and two of the males suffered from cataract and hyperthyroid respectively.

CVA was present in an oldest old, giddiness was a complaint in eight old old and five oldest old, cataract was seen in three young old and one old old. Glaucoma and gastritis were present in one each and hyperthyroid in five of young old. Skin problem was present in an old old. Two young old and one old old were suffering from TB.

There magnitude of health problems must be even more than the above findings. These may be limited by inability to diagnose certain diseases which needed laboratory confirmation and lack of thorough examination of all the systems and lack of expertise.

Unlike in other studies prevalence of some diseases propped up to be different and especially so with respect to gender.

With this background of diseases in elderly, health programs and activities can be planned accordingly focussing on the more prevalent ones.

Further studies need to be conducted with the help of some specialist in different fields and facilities of laboratory test. A larger sample size covering a wide area including the rural Manipur is required in order to probe further into the health problems of the elderly in Manipur.

## CONCLUSION

With this background of prevalent diseases in elderly, health programs and activities can be planned accordingly.

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