# Prevalence of Chronic Diseases among Elderly: A Case of Kashmir Region

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## Introduction

Age is generally measured in chronological terms, and a person aged 65 or more is commonly referred to as 'elderly' (World Health Organization, 2018). Conventionally, elderly age has been set up as beginning from 65 years or older (Orimo, Suzuki, Araki, Hosoi, & Sawabe, 2006). Ageing is an inevitable process and differs across different populations based on the lifestyle, genetic composition, and overall healthiness (Levine, 2013). Aged and elderly issues tend to increase with age. In Kashmir, the issues of elderly population are amplified because of the factors like geography, weather extremes, regional imbalances and the toll of the protracted conflict which together create a unique set of additional health problems for the elderly population. These issues interact with income insecurities, increasing health costs, lack of dedicated healthcare facilities, the erosion of traditional support systems etc. As a result, the issues of the elderly population get exacerbated.

The world population continues to experience a change in the age structure because of increasing life expectancy and declining fertility rate resulting in the rapidly growing share and number of elderly persons in the total population. In 2020, there were 727 million persons aged 65 years or above in the world. It has been projected that the number of elderly will increase by more than double reaching over 1.5 billion in 2050 (World Population Ageing 2020 Highlights: Living arrangements of older persons, 2020). In 2017, global the population of persons aged 60 years or above numbered 962 million which was more than twice the elderly population in 1980 which numbered 382 million. In 2030, the elderly are likely to outnumber children under age 10 (1.41 billion versus 1.35 billion) and in 2050 the elderly are expected to outnumber adolescents and youth between age group 10-24 (2.1 billion versus 2.0 billion). It has been projected that the number of persons aged 80 years or above is likely to increase more than threefold between 2017-2050 rising from 137 million to 425 million. In 2017, more than one person in five was aged 60 years or above in Europe and Northern America which was higher than other regions of the world. In 2050, it is expected that the elderly will account for 35 percent of the population in Europe, 28 percent in Northern America, 25 percent in Latin America and the Caribbean, 24 percent in Asia, 23 percent in Oceania and 9 percent in Africa. The elderly population is rapidly growing in developing regions as compared to the developed regions. In 1980, 56 percent of the persons aged 60 or above lived in developing regions while in 2017 over two thirds of the world's elderly population lived in developing regions. The number of elderly living in developing regions is expected to increase more than twofold from 625 million to 1.7 billion while in developed regions there will be 38 percent increase from 310 million to 427 million between 2017 and 2050. It is expected that in 2050, 79 percent of the world's elderly population will be living in developing regions. In Asia, the number of elderly is likely to experience a two fold increase from 549 million in 2017 to nearly 1.3 billion in 2050 (World Population Ageing 2017- Highlights, 2017).

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**Literature Review**

Old age being the last stage of life makes a person weak in every aspect, affecting their physical, mental, social and emotional well-being, and the elderly people are more vulnerable to various diseases and ailments.

The existing literature highlights that there is a progressive increase in the prevalence of various diseases like arthritis, hypertension, cataract, diabetes, asthma, and heart disease with increasing age, except for heart disease and diabetes. The prevalence of arthritis, asthma and cataract is higher among the elderly in the rural areas, whereas the rest of the diseases are more prevalent among the elderly in the urban areas. Arthritis and hypertension are higher among widows/widowed, whereas the currently married elderly reported more diabetes. Arthritis is negatively associated with income, while heart disease is positively associated with it. Arthritis is higher among the elderly who live alone, while the remaining diseases are more prevalent among the elderly living with other family members (Kumar, Pradhan, & Singh, 2017).

An analysis of morbidity patterns by age clearly indicates that the elderly experience a greater burden of ailments (which the National Sample Survey Organisation defines as illness, sickness, injury, and poisoning) compared to other age groups (National Sample Survey Organisation, 2006, Figure 15-1), across genders and residential locations. The elderly most frequently suffer from cardiovascular illness, circulatory diseases, and cancers, while the non-elderly face a higher risk of mortality from infectious and parasitic diseases (Dey, Nambiar, Lakshmi, Sheikh, & Reddy, 2012).
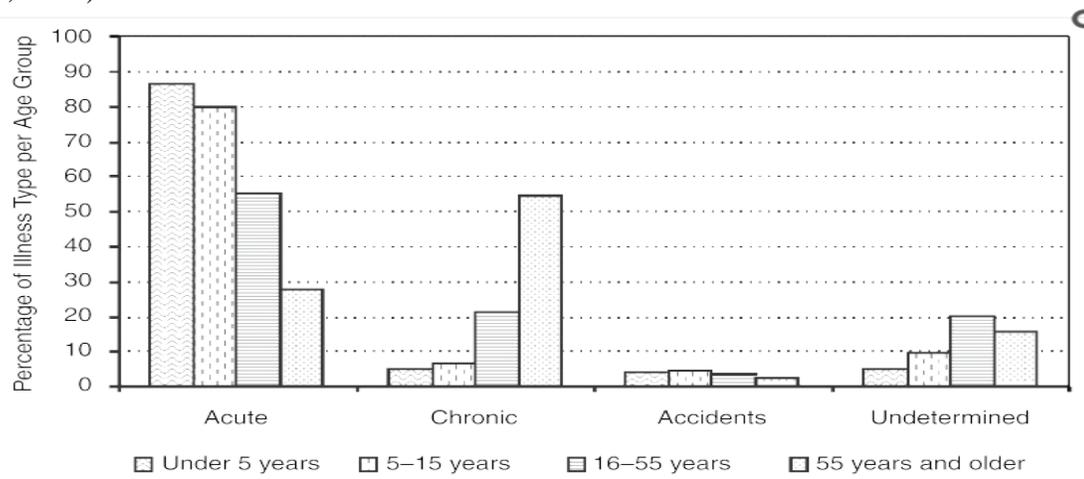


FIGURE 15-1    Burden of illness type among Indians
SOURCE: Dror, Putten-Rademaker, and Koren (2008).

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Another study among the elderly in the rural area of Tamil Nadu, India has highlighted a high prevalence of morbidity and identified common existing medical problems such as like anaemia, arthritis, cataract, hypertension, and diabetes mellitus (Purty,  Bazroy, Kar, Vasudevan, Zacharia, & Panda, 2006).

The burden of chronic diseases and disability is notably high among the elderly, although there are differentials by socio-economic and demographic characteristics. Chronic diseases have a significant association with the prevalence of functional and physical disability among the elderly (Kumar, Pradhan, & Singh, 2017).

Another study showed that the most prevalent chronic NCDs reported by elderly across the study sample were arthritis, High blood pressure followed by Cataract, Diabetes, Asthma and Angina (Talukdar, & Himanshu, 2017).

A comprehensive review of the literature finds that there is a scarcity of data on the distribution of chronic illnesses and multi morbidity in India based on socioeconomic and demographic characteristics. Female elderly were more prone to morbidity, according to a Chandigarh study conducted by Swami et al (2002). Multi morbidity was evenly distributed among the elderly, both men and women, according to a study conducted in Karnataka (Shraddha et al., 2012). In India, a research indicated that 83 percent of the elderly have more than three morbidities (Joshi, Kumar, & Avasthi, 2003), and that rural India has an average of 2.77 morbidity (Purty et al., 2006), Multi morbidity is more prevalent in older people, according to a study conducted in the Bargarh District of Odisha. Multi morbidity is more likely to be predicted by age, economic independence, and lifestyle characteristics in the research group (Banjare & Pradhan, 2014). Multi morbidity was found to be prevalent in 54 percent of the sample population in rural Bangladesh (Khanam et al., 2011).

Arthritis, high blood pressure, and cataract are the most common chronic Non-communicable Diseases (NCDs) among the elderly. Arthritis was shown to be more common among the elderly who were illiterate, females, and elderly who lived in rural areas, as well as those who were not married. High blood pressure and diabetes have a somewhat higher prevalence among elderly men and city dwellers. Elderly residents in the states of Kerala, Punjab, and Maharashtra were the most likely to have two or more NCDs, a condition known as multi morbidity, whereas those in the states of Tamil Nadu, Odisha, Himachal Pradesh, and West Bengal were significantly more likely than the rest of the states to have no morbidity at older ages (Talukdar, & Himanshu, 2017).

The most prevalent morbidity reported in a study conducted by Barua, Borah, Deka, and Kakati (2017) in urban slums of Assam's Jorhat region was arthritis (70.4 percent), followed by visual impairment (58 percent). In India, prominent illnesses among the elderly include communicable and non-communicable diseases, as well as hearing, vision, and locomotor disorders. Heart disease is more common among elderly persons living in cities, and they are also more susceptible to mental morbidity as a result of the disintegration of social and family structures and changes associated with fast urbanization (Ingle & Nath, 2008).

Due to the ageing of the brain, issues connected with physical health, cerebral pathology, and socioeconomic variables such as the dissolution of family support structures and a loss of economic independence, elderly persons are particularly vulnerable to mental morbidity. Dementia and mood disorders are two of the most common mental illnesses seen. Neurotic and personality problems, drug and alcohol misuse, delirium, and mental psychosis are some of the other conditions that can occur (Dey, 2003).

The prevalence of depressive disorders among the geriatric population was discovered to be 21.7 percent in a study conducted in rural Karnataka by Barua, Acharya, Nagaraj, Bhat, and Nair (2007). According to the psychiatric interview based on ICD-10 recommendations, Prakash, Gupta, Singh, Singhal, and Verma (2007), the prevalence of mental disorder is 29 percent. Depressive disorders (including recurrent depression and dysthymia disorders), dementia, and anxiety disorders were the most prevalent diagnoses made during the psychiatric assessment.

The NCD epidemic, which includes mental illnesses, is on the increase in India. According to Verma et al. (2019), one out of every two senior adults with existing NCDs, such as hypertension and diabetes, suffers from depression, and one out of every three suffers from Generalized

Anxiety Disorder (GAD). The study indicates that India's older population suffers from a significant burden of co-morbid NCDs and mental disorders. According to another study, depression is the most common mental illness among the elderly. Depression lowers one's quality of life and makes them more reliant on others. Depression can have serious clinical and social consequences in the lives of the elderly if it is not treated (Grover & Malhotra, 2015). Joshi and Avasthi (2003) from Chandigarh discovered that depressive symptoms in the form of sadness were the most common symptom, reported by 70.5 percent of the patients, in a study on morbidity profile and its link with disability and psychological distress.

**Health Problems in Elderly**

Health problems are supposed to be the major concern of the society as older people are more prone to suffer from ill health than the other age groups. It is often claimed that aging is accompanied with multiple illnesses and physical ailments. Besides physical illnesses, aged are more likely to be victims of poor mental health which arises from senility, neurosis, and extent of life satisfaction. Thus, the health situation among aged occupies prominence in any study of the elderly population. Health-related issues, such as chronic diseases that cause disability and a decline in quality of life, are more common among the elderly (Tsuchiya, Shida, Tsujiuchi, & Machida, 2015). Hearing, mobility, memory, chronic disease, and exercise were all found to influence elders' perceptions of wellness in Foottit and Anderson's (2012) study of elderly living in a community in Australia. In a study of elderly people, Tomstad et al (2012) discovered that those who live alone are more likely to be malnourished. To understand the requirements of the elderly, Harris and Grootjans (2012) proposed an ecological approach.

The elderly in India, in general, and their rural counterparts in particular, are reported to have health difficulties in the majority of primary surveys. According to another survey, the majority of the elderly have ailments such as cough (which includes TB of the lungs, bronchitis, asthma, and whooping cough according to the International Classification of Diseases), impaired eyesight, anaemia and dental problems (Nandal, Khatri, & Kadian, 1987 as cited in Rajan, Mishra, & Sarma, 2001). The proportion of elderly people who are sick is increasing as they become older, with blindness and deafness being the most common physical disabilities (Darshan, Sharma, & Singh, 1987). Another research of elderly people in Gujarat found that two-thirds of the elderly had deteriorating physical issues such as impaired vision, hearing impairment, arthritis, and memory loss. (Shah, 1993 as cited in Rajan, Mishra, & Sarma, 2001).

With increasing age, the prevalence of health issues rises dramatically, as do the expenditures of medical care, social services, and long-term care. As a result, when projecting future care resource needs, health trends in the elderly population are of special importance (Parker & Thorslund, 2007).

Some of the health issues that the elderly face have been brought to light in India through research. These include hearing and visual impairments, prevalence of urinary problems, falls and fractures, dental problems, mental health issues like depression, obesity, coronary heart disease, asthma, Parkinson's disease among others (Thakur, Banerjee, & Nikumb, 2013).These concerns are accentuated by the difficulties this population encounters in accessing assistance. Below are some of the health issues prevalent in elderly people in India:
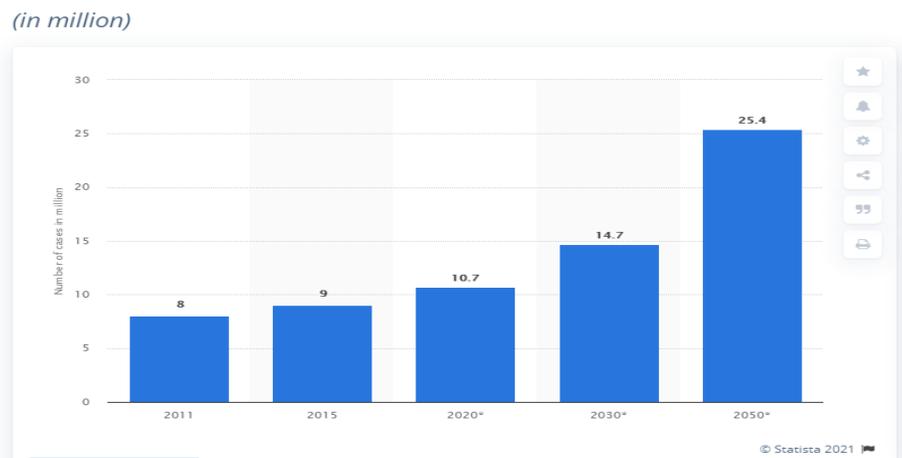
**Asthma**

Asthma is commonly thought to be a condition that only affects teenagers and young adults. Since many decades, the pediatric onset of the disease has been emphasised, but asthma in the

elderly has received little attention. Asthma in old age is frequently accompanied with difficult diagnosis as well as difficult therapy. Asthma was found to be prevalent in 16% of the elderly. Asthma in the elderly is not an unusual occurrence, and the prevalence of 16% represents a significant component of the asthmatic population that should not be overlooked (Pandya, Shah, Francis, Shah, & George, 2016).

Asthma in the elderly is frequently under-diagnosed or misdiagnosed, resulting in inadequate treatment. This is largely owing to the misconception that asthma is a childhood condition. In the elderly, a number of co-morbidities are linked to asthma, and this relationship differs from that seen in younger individuals. The word "geriatric asthma" should be used instead of "asthma in the elderly," because it implies a more comprehensive and multifaceted approach to the condition in older people, whereas "asthma in the elderly" is just descriptive of the disease's occurrence in this age group (Battaglia, Benfante, Spatafora, & Scichilone, 2016).

Number of cases of asthma in senior citizens across India from 2011 to 2050



According to Statista Research Department, the number of asthma cases among elder people in India is expected to reach 25.4 million by 2050 (https://www.statista.com/statistics/944163/india-number-of-cases-of-asthma-in-senior-citizens/).

**Cardiovascular Diseases**
According to the Longitudinal Ageing Study in India (LASI) Wave 1, India Report, elderly people are more likely than others to get serious illnesses. "Overall, the self-reported prevalence of documented cardiovascular illnesses among older persons age 45 and above is 28 percent in India", according to the study. CVDs are more common as people get older, rising from 22% in the 45-59 age group to 34% in the 60-74 age group, and finally to 37% in the 75-plus age group.

When the study looked at the state wise distribution of diseases, it revealed that more than half of the elderly in the states/UTs of Goa (60%), Kerala (57%), Chandigarh (55%), Andaman & Nicobar (51%) and Jammu & Kashmir (51%) had been diagnosed with CVDs.

Hypertension affects over a third of the elderly (32%) over the age of 60, chronic heart disease affects 5.2 percent, and stroke affects 2.7 percent. According to the study, diabetes mellitus affects 9% of older persons aged 45 to 59, and 14% of those aged 60 and up (LASI, 2020).

In 2001, heart disease was the leading cause of death among the people in the age group of 65 and above followed by cancer and stroke (Harris, 2007).

**Renal Issues and Chronic Kidney Disease (CKD)**

The elderly are more vulnerable to CKD. This is owing to an increase in the prevalence of conventional CKD risk factors such as diabetes, hypertension, and cardiovascular disease (CVD), as well as new eGFR classifications that have broadened the CKD spectrum. Globally, the prevalence of chronic kidney disease (CKD) is rising. Chronic kidney disease (CKD) has increased by 30% in the United States over the last decade, given the rising life expectancy and the frequency of lifestyle disorders (Coresh, Selvin, Stevens, Manzi, Kusek, Eggers, et al., 2007). In developing nations like India, where financial resources are limited and infrastructure is lacking, existing health policies are being strained by the rising prevalence of CKD. Diabetes and hypertension are responsible for more than two-thirds of CKD cases in Western countries. Diabetes and hypertension are now responsible for 40–60% of CKD cases in India as well (Rajapurkar, John, Kirpalani, Abraham, Agarwal, Almeida, & Pisharody, 2012).

**Dementia**

Dementia has been described as a delirium characterized by the disturbance of consciousness, orientation, short term memory loss, problems in critical thinking, irritability, attention and behavior. In severe cases there is loss of speech, and loss of ability to walk. It is prevalent in 5% of the population above 65 years and is expected to double in next 20 years (Kourkouta, Iliadis, & Monios, 2015).

**Depression**

Depression refers to the prolonged feelings of sadness, unhappiness or disappointment. The prevalence of depression is more in elderly.  There are mainly two factors associated with its occurrence i.e., the environmental conditions that cause stress and pressure and the biological cause in which the body produces the reduced amount of neurotransmitters necessary for the communication between brain cells. The serotonin and noradrenalin are the two substances whose absence is directly related to the depression. The unhappy events such as loss of a loved one- spouse, children or friend, financial issues, health problems, inability to care for oneself, dependence can cause depression in elderly. Also, the use some of drugs for the treatment of other diseases can lead to depression. The symptoms of depression apparent in elderly are decreased interest, feeling of fatigue, and pain in the whole body and lack of concentration years (Kourkouta, Iliadis, & Monios, 2015).

**Chronic Diseases**

Chronic diseases are found in a majority of elderly population in India, thus disproportionately affecting them. Arthritis and hypertension were discovered to be the most frequent ailments among the elderly, with more than one-fifth of those suffering from either. Chronic diseases are

proven to have a strong relationship with functional and physical disability (Kumar, Pradhan, & Singh, 2017). According to data from the Indian Council of Medical Research, the prevalence of diabetes in the adult population of India has risen to 7.1 percent (ranging from 5.8 percent in Jharkhand to 13.5 percent in Chandigarh), with a prevalence of 28 percent in the urban population, over the age of 40 years (Raman, Ganesan, Pal, Kulothungan, & Sharma,2014; Anjana, Pradeepa, Deepa, Datta, Sudha, Unnikrishnan,, ... & Mohan, 2011).

Similarly, today's adult population has a reported prevalence of 17 percent hypertension (14.8 percent from rural and 21.4 percent from urban belt). Panesar et al found a 17.4 percent prevalence in a Delhi slum-resettlement colony, in the age category of 20–59 years (Panesar, Chaturvedi, Saini, Avasthi, & Singh, 2013).

**Health issues in elderly population in Kashmir**
In Kashmir, elderly people face a variety of social, psychological, and emotional issues that have had a significant impact on their health. They are mostly dealing with diseases, insufficient income to support themselves and their dependents, inability to make creative use of free time, social adjustment issues, lack of social security, lack of love and recognition, social participation issues, lack of dignity and self-respect, intergenerational voids and conflicts, loneliness, and other issues. The most difficult issue that the elderly encounter is adjusting to their new surroundings. Due to increased dependence and role loss, they require psychological adjustment. Apart from that, senior people in Kashmir confront several of the social and psychological issues, including anxiety, sadness, loneliness, heart attacks, and emotional disorders, as a result of the conflict (Warr, Akhoon, & Ahmad, 2018).

Rafiq, Yasmeen, and Shalinder (2016) conducted another study that focuses on the health issues that the geriatric population in the J&K district of Budgam experienced. It highlights that less studies have been conducted in this field, as well as the prevalent health issues that the elderly suffer.

As a result, it is evident that existing research on the health-care needs of elderly people in Jammu and Kashmir is insufficient. Examination of recent literature using the key words: health care; elderly; aged; informal care and health services highlighted the lack of research on these topics. A review of available journal articles and reports resulted in little current information on the issues surrounding access to health care services in J & K, the health needs of elderly people, or the provision of informal care services. Despite acknowledgement of health needs and particular hurdles to health care services in J&K, there remains a shortage of information. Research has been conducted on problems of elderly in selected districts. No large-scale study has been conducted regarding the issues of elderly population in Kashmir. Thus, the present study aimed at understanding the health issues prevalent in the elderly population in Kashmir.

**Methodology**
In this paper, the researchers have used a quantitative approach to collect data regarding the health issues prevalent in elderly population in Kashmir. The data was collected from the four districts of Kashmir i.e., Srinagar, Budgam, Anantnag and Bandipora with a sample size of 200 participants. For the interviews, fifty participants were chosen at random from each district who were sixty years old or older. In the quantitative approach, interview schedule and statistical published reports were used in order to get a comprehensive and holistic idea about the research problem under study. An interview schedule is basically a list containing a set of structured questions that have been prepared, to serve as a guide for interviewers, researchers and

investigators in collecting information or data about a specific topic or issue. The schedule will be used by the interviewer, who will fill in the questions with the answers received during the actual interview.

Findings

Table on Incidence of Common Disease among elderly in Kashmir:

| Disease | Percentage | Incidence in Age Group | | | |
|---|---|---|---|---|---|
| | | 60-70 | 71-80 | 81-90 | 91and above |
| Hypertension | 52.6 | 25.2 | 16 | 9.4 | 2 |
| Diabetes | 19.8 | 5.8 | 7.6 | 4.6 | 1.8 |
| Cataract and Vision Related Issues | 43.4 | 17.6 | 15.8 | 7.2 | 2.8 |
| Hearing Loss | 15.2 | 3.6 | 5 | 3.8 | 2.8 |
| Asthma | 4.8 | 1.8 | 2.4 | 0.2 | 0.4 |
| COPD | 8.4 | 3.8 | 2.2 | 2.4 | 0 |
| Cardiovascular Issues | 16.8 | 7.2 | 4.8 | 3.8 | 1 |
| Bone and Joint Issues/Arthritis | 54.8 | 28.8 | 15 | 8.4 | 2.6 |
| Immobility | 7.8 | 2 | 2.4 | 2.8 | 0.6 |
| UTI | 4.2 | 1.6 | 1.4 | 1 | 0.2 |
| Renal Issues | 6 | 4 | 1.2 | 0.8 | 0 |
| Recent Surgical Intervention | 27 | 12.8 | 7.2 | 5.8 | 1.2 |
| Other | 8.2 | 6.2 | 1.6 | 0.4 | 0 |

## Description

- The most common disease prevalent among the elderly was bone and joint issues which accounted for 54.8% of the total number of respondents. It was more prevalent among those belonging to the age group of 60-70 years (28.8%). It was followed by hypertension prevalent among 52.6%, cataract among 43.4% respondents, recent surgical intervention was found among 27%, diabetes among 19.8%, cardiovascular issues among 16.8%, hearing loss among 15.2%, COPD among 8.4%, other diseases among 8.2%, Immobility among 7.8%, renal issues among 6%, Asthma among 4.8% and UTI was prevalent among 4.2% of the respondents.
- The most common disease prevalent among the elderly in the age group of 60-70 years was issue related to bone and joint accounting to 28.8% of the respondents, followed by hypertension among 25.2%, cataract among 17.6%, recent surgical intervention among 12.8%, cardiovascular issues among 7.2%, other diseases among 6.2%, diabetes among 5.8%, renal issues among 4%, COPD among 3.8%, hearing loss among 3.6%, immobility among 2%, Asthma among 1.85 and UTI was prevalent among 1.6% respondents.
- The most common disease prevalent among the elderly in the age group of 71-80 years was issue related to hypertension accounting to 16% of the respondents, followed by cataract and vision related issues among 15.8%, bone and joint issues among 15%, diabetes among 7.6%, recent surgical interventions among 7.2%, hearing loss among 5%, cardiovascular issues among 4.8%, asthma and immobility among 2.4%, COPD among 2.2%, others among 1.6%, UTI among 1.4% and renal issues were prevalent among 1.2% of the population.
- The most common disease prevalent among the elderly in the age group of 81-90 years was issue related to hypertension accounting to 9.4% of the respondents, followed by bone and joint related issues among 8.4%, cataract and vision related issues among 7.2%,

recent surgical interventions among 5.8%, diabetes among 4.6%, hearing loss and cardiovascular issues among 3.8%, immobility among 2.8%, COPD among 2.4%, renal issues among 0.8%, others among 0.4% and asthma among 0.2% of the population.

- The most common disease prevalent among the elderly in the age group of 91 years and above was Cataract and vision related issues and hearing loss accounting to 2.8% of the respondents, followed by bone and joint related issues among 2.6%, hypertension among 2%, diabetes among 1.8%, recent surgical intervention among 1.2%, cardiovascular issues among 1%, immobility among 0.6%, asthma among 0.4% and UTI was prevalent among 0.2% of the population.
- Other refers to the diseases not specified in the list and included thyroid abnormalities, hemorrhoids etc.
- Renal issues were described as the issues related to the kidneys while the UTIs as common urinary problems and infections of the urinary system.
- Immobility was used to describe the person's inability to move due to a number of diseases like arthritis, osteoporosis, hip fracture, stroke, Parkinson's disease or other reasons like accidents etc.

**Conclusion**

The elderly population brings with it an unprecedented set of issues and challenges. This study highlights the health issues prevalent in elderly in Kashmir are numerous ranging from hypertension, cardiovascular diseases, cataract and vision related issues, bone and joint issues, renal issues and immobility to depression and other mental health issues.

Though the elderly issues prevailing in Kashmir are similar to those found among the elderly in other parts of the world, nevertheless living in this part of the world aggravates it further because of the factors like topography, extreme weather conditions, the prolonged conflict, income insecurities, increasing health costs, lack of dedicated healthcare facilities and the changing family patterns. Owing to these additional burdens, there exists a need of fulfilling these demands by the healthcare system of Kashmir.

There is a substantial need to focus on the area and fill the existing gap in research. In order to ensure that the needs of elderly population are met, it is important to acknowledge that the loopholes exist and focus on framing elderly friendly policies and interventions. There is an utmost need to focus on conducting dedicated research in this area so as to cater more appropriately to the needs of the elderly population.

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