

## ORIGINAL ARTICLE

# Impact of Ageing-Related Health Conditions on Elderly Care Home Residents in Zambia's Copperbelt Province

Victoria Chuni\*, Hastings Shula, Geoffrey Moyo, Loveness Anila Nkhata

*The University of Zambia, School of Health Sciences, Department of Physiotherapy, P.O. Box 50110, Lusaka*

## ABSTRACT

**Background:** Ageing at biological level is marked by molecular and cellular damage which increases susceptibility to non-communicable diseases (NCDs) resulting in an overall decline in individual capacity. Therefore, vulnerabilities in older adults with NCDs highlight the need for a comprehensive understanding of their well-being, particularly in care home settings in Zambia.

**Objective:** This study aimed to explore the impact of ageing-related health conditions on elderly residents at the Mayo Mpapa Project for Old People (Cicetekelo Homes), Mitanda, and Chibote Old People's Homes in Zambia's Copperbelt Province.

**Methods:** A qualitative phenomenological approach was employed to collect data through in-depth interviews with 19 participants, comprising 5 key informants and 14 elderly residents. Data were analysed using inductive thematic analysis with Atlas.ti version 24.2, and the findings were presented through narrative and verbatim descriptions.

### Corresponding author:

Victoria Chuni

Email: [chunivictoria93@gmail.com](mailto:chunivictoria93@gmail.com)

**Results:** Key findings identified low caregiver staffing levels, lack of transport and finances, and negative societal attitudes as challenges affecting care homes. Common ageing-related health conditions included hypertension, diabetes, joint pain, blindness, and mental health problems. These conditions limited activities of daily living, contributed to depression and social isolation, and reduced income-generating capacity. Insufficient family support further exacerbated the residents' challenges.

**Conclusion:** Ageing-related health conditions significantly impact the quality of life and well-being of the elderly in care homes. Recommendations include recruiting trained medical personnel, supporting informal caregivers through training programs, enhancing family involvement, and addressing societal attitudes through public awareness campaigns.

**Keywords:** Ageing, elderly care, non-communicable diseases, geriatric health, Zambia.

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## INTRODUCTION

The definition of old age, as accepted by most developed countries, typically begins at the age of 65 years.<sup>1</sup> However, while chronological age provides a standard measure, it is the loss of roles and the accompanying physical decline that most significantly characterises the onset of old age.<sup>2, 3</sup> The ageing process, a biological reality, involves complex dynamics largely beyond human control.<sup>1</sup> It is characterised not only by the physical decline but also by the progressive loss of capacity and the increasing vulnerability to a range of diseases. The changes that constitute ageing are multifaceted and complex, particularly at the biological level. Ageing is associated with various forms of molecular and cellular damage, leading to a gradual decrease in physiological reserves and an increased risk of non-communicable diseases. As a result, there is an overall decline in individual capacity, including physical, mental, and social functioning.<sup>2</sup> Human ageing is typically characterised by a variety of physiological changes that limit normal functions, increasing susceptibility to numerous health conditions such as hypertension, diabetes mellitus, cancer, osteoarthritis, osteoporosis, cardiovascular disease, dementia, depression, and hearing loss. These conditions often necessitate comprehensive healthcare services that address both acute and long-term care needs.<sup>4,5,6</sup>

While well-being encompasses many dimensions, physical health remains a primary concern for older individuals. Mortality risk, driven by biological processes, steadily increases with age, accompanied by progressive physical limitations and a higher prevalence of ageing-related illnesses. These challenges can severely affect the quality of life for elderly populations, which are already more susceptible to social and healthcare vulnerabilities.<sup>7, 8, 9</sup> The global ageing population poses significant societal and economic implications. With the increasing prevalence of ageing-related non-communicable diseases, there is an urgent need to promote research focused on ageing and ageing-

related conditions. Such research aims to enhance the prospects of healthy and productive longevity, facilitating better care and support for elderly individuals and helping to address the broader economic and societal impacts of an ageing demographic.<sup>10,11</sup>

In Zambia, as across much of Africa, the population is experiencing demographic ageing.<sup>12</sup> However, the country faces unique challenges in addressing the needs of its elderly population. Socio-economic factors and healthcare constraints have contributed to a noticeable decline in the number of elderly individuals in certain regions, suggesting underlying social and healthcare issues.<sup>9, 13</sup> The classification of older individuals in Zambia often carries negative connotations, such as associations with witchcraft, which further stigmatise the elderly. This stigma has led to their marginalisation, neglect during illness, and insufficient care from both families and the wider society.<sup>14</sup> Research on ageing in Zambia is scarce, with much of the existing literature being speculative or lacking substantial empirical evidence. The perception of ageing is often tied to poor health and the prevalence of multiple illnesses, which exacerbates the stigma associated with older age.<sup>9, 12</sup> In light of these challenges, we explored the impact of ageing-related health conditions on elderly residents at the Mayo Mpapa Project for Old People (Cicetekelo Homes), Mitanda and Chibote Old People's Homes in Zambia's Copperbelt Province. Our team sought to understand and amplify the voices of these communities, aiming to highlight their lived experiences and contribute to the ongoing dialogue on ageing and healthcare in the region.

## METHODS

### Study design and setting

This study adopted a qualitative design using a phenomenological approach, which focuses on exploring the meanings, perceptions, feelings, and lived experiences of participants to gain a deeper understanding of the phenomena under exploration.

The study also embraced an interpretive and naturalistic approach, focusing on how individuals assign meaning to the phenomena they experience. The research was conducted at three elderly care homes in Zambia's Copperbelt Province: the Mayo Mpapa Project for Old People (Cicetekelo Homes), Mitanda Home, and Chibote Old People's Home. Anecdotal data records show that the Mayo Mpapa Project, located in Ndola, is a community support initiative under Cicetekelo Homes, operating since 1999. Its main goal is to alleviate the suffering of older adults in Ndola by providing shelter, food, clothing, and, occasionally, medical assistance. This project is managed by the Catholic Church through the Association of Pope John XXIII. Likewise, Mitanda Home, established in 1948, is another long-standing care facility for the elderly in the region. It is in Kansenshi, Ndola, and is operated by the Salvation Army Church. Similarly, Chibote Home for the Aged, founded in 1987, is managed by the Franciscan Sisters under the Catholic Church and is in Walale Compound, Luanshya District.

### **Study population and selection of participants**

The study population consisted of elderly individuals aged 65 years and above residing in three care homes. At the time of the study, there was a total population of 33 elderly individuals in all the three care homes. Additionally, the population also included a total of 7 key informants in administrative roles from all the three homes. This diverse population provided a comprehensive dataset, facilitating an in-depth examination of ageing-related health conditions and their impact on the quality of life for elderly individuals in institutional care.

Taking into consideration the inclusion and exclusion criteria, the participant selection process employed a combination of sampling methods to ensure diverse and meaningful representation across the three care homes. Key informants were selected using non-probability convenience sampling, allowing for the inclusion of readily accessible and knowledgeable participants. For the elderly

residents, snowball sampling was utilized, proving particularly effective in this sensitive context where some participants were initially hesitant to be interviewed. This approach allowed for a gradual building of trust, with each interviewed participant helping to identify potential subsequent interviewees. In view of this plus adhering to the principle of theoretical saturation, a total of 19 participants were interviewed. This sample comprised 5 key informants and 14 elderly residents from all the three homes. This approach ensured a nuanced exploration of the experiences and health-related challenges faced by elderly residents and key stakeholders within these institutions.

### **Data collection procedures and piloting**

Data collection was carried out through one-on-one in-depth interviews using open-ended questions, with each session recorded on an audio device to ensure accurate data storage. An interview guide, developed in alignment with the research aims and objectives, was consistently employed for all participants. Although initially written in English, the guide included flexibility for clarification, with the researcher rephrasing questions when necessary to preserve their original meaning. Interviews lasted approximately 35 to 50 minutes and were conducted in outdoor settings deliberately chosen for their comfort and privacy, minimising distractions and encouraging open dialogue. Careful attention was paid to non-verbal cues, such as facial expressions, hand gestures, body posture, and eye movements. If a participant appeared uncomfortable or hesitant, the researcher paused to acknowledge their feelings and foster a supportive environment before resuming the interview. A pilot study was conducted at Chibolya Home for the Aged in Mufulira, Copperbelt Province, Zambia, to test the reliability of the data collection tools. This involved in-depth interviews with two key informants and three elderly participants, providing an opportunity to evaluate the clarity and effectiveness of the interview questions in a practical setting. The insights gained from the pilot study led to a crucial adjustment in the

interview guide by adding educational background when collecting the demographics.

**Ethical considerations**

Ethical clearance and approval for the study were obtained from the ERES Converge Institutional Review Board, reference number: 2023-Jan-019. Permissions were secured from the Mayo Mpapa Project for Old People (Cicetekelo Homes), Mitanda, and Chibote Homes for the Aged, as well as from Chibolya Home for the Aged to conduct the pilot study. Participants provided informed consent by signing the participant information sheet. For those unable to sign, consent was given via thumbprint in the presence of a witness. To ensure anonymity and confidentiality, cryptograms (secret codes) were assigned: KI01 to KI05 for key informants and A01 to A14 for elderly participants. This rigorous ethical framework was designed to safeguard participants' rights and well-being throughout the research process.

**Study variables and data analysis**

The variable of interest in the study was the impact of ageing related health conditions on the elderly. Additionally, contextual variables such as age, gender, educational background and relevant personal experiences were also put into consideration in order to provide deeper insights and facilitate a nuanced analysis of the phenomena under study. Interview recordings were transcribed verbatim and meticulously reviewed to ensure accuracy. Inductive thematic analysis was applied to identify recurring patterns and themes within the data, with participants' responses systematically coded. To enhance the rigour of the analysis, the qualitative data analysis software Atlas.ti was utilised, enabling the efficient organisation and management of large data sets and streamlining the coding and theme identification process. Subsequently, each theme was clearly defined and named to ensure relevance and coherence, culminating in a comprehensive report that presented the findings in a structured format.

**RESULTS**

**Sample Descriptions**

As shown in table 1, a total of 19 participants took part in the study, comprising 5 key informants and 14 elderly participants. Among the key informants, there was 1 male and 4 females, aged between 50 and 65 years. The elderly participant group featured an equal gender distribution, with 7 males and 7 females, ranging in age from 69 to 97 years.

**Table 1: Study participants: Key Informants and Elderly Participants**

Category	Gender	Total Number Interviewed	Age Range (years)
Key Informants	Male	1	50 to 65
	Female	4	
Elderly Participants	Male	7	69 to 97
	Female	7	

**The Impact of Ageing-Related Health Conditions on Elderly Residents at Mayo Mpapa project for old people (Cicetekelo Homes), Mitanda, and Chibote Old People's Homes in Copperbelt Province, Zambia**

Our research findings were categorised into eight objective-based themes, derived from interviews and discussions with both key informants and elderly participants, as summarised in Table 2. The first objective, which aimed to understand ageing-related health conditions, encompassed three themes: knowledge of ageing-related health conditions, common ageing-related health conditions, and geriatric syndromes. The second objective focused on the impact of these health conditions on the daily lives and well-being of elderly residents, identifying two key themes: limitations with activities of daily living, depression and social isolation. The third objective examined the challenges faced by elderly residents as a result of these health conditions, highlighting three primary themes: the absence of medical personnel at

the care homes, the inability of elderly residents to work and generate income, and the insufficient support provided by family members.

**Table 2: Objective-based themes**

Specific Objective	Themes
To describe and categorise common ageing-related health conditions affecting elderly residents	- Knowledge of ageing-related health conditions
	- Common ageing-related health conditions
	- Geriatric syndromes
To investigate and interpret how these health conditions influence the daily lives and well-being of the elderly residents	- Limitations with activities of daily living
	- Depression and social isolation
To explore challenges faced by elderly residents due to these health conditions	- Lack of medical personnel at the old age homes
	- Inability to work and generate income
	- Insufficient family support

**Common ageing-related health conditions affecting elderly residents**

Participants revealed a range of common ageing-related health conditions affecting elderly residents. They expressed varying levels of knowledge about these conditions, with some demonstrating a strong awareness of common health issues such as hypertension, arthritis, and diabetes.

*“The sicknesses that are more common are painful legs, BP itself...and even dementia, easily forgetting...” (KI02).*

Additionally, participants reported experiencing geriatric syndromes, including frailty, incontinence, and cognitive impairments, which they identified as significantly affecting their daily lives and overall independence.

*“As they are growing, complaints about what is painful increase...some become mentally disturbed...some of them are constantly urinating...” (KI05)*

**Influence of Health Conditions on Daily Lives and Well-Being of the elderly residents**

Participants also revealed that the presence of health conditions had an influence on the daily lives and well-being of the elderly residents. Due to mobility issues, they expressed limitations with activities of daily living involving self-care activities such as bathing and dressing. Furthermore, the participants described feelings of mental distress stemming from the presence of sickness and their inability to care for themselves thereby leading to issues of depression and social isolation.

*“For me, both the left hand and the left leg do not work. I have stroke...when dressing, both the hand and leg are heavy, it's a challenge. When bathing, it's a challenge.” (A14)*

*“When you find yourself being taken care of almost all the time, you will find yourself mentally affected...” (A03)*

*“... When they are sick, they become almost like children...sometimes you find them just seated looking isolated and withdrawn, when you ask them what is wrong, they will say the body is painful...” (KI03)*

**Challenges Due to Ageing-Related Health Conditions**

The participants also narrated that due to the presence of one or more health conditions, they faced various challenges such as the inability to work and generate income thereby hindering their ability to fend for themselves. They also expressed that they lacked medical personnel in some of the old age homes, in turn affecting the close monitoring of health conditions.

*“...I fell and I had a stroke. So after that, I did not continue working...” (A14)*

*“The other challenge is, we do not know the condition of their hearts... It's easier when you are working hand in hand with health workers...” (KI03)*

Participants further highlighted that they lacked family support which further limited their access to necessary care and social connections ultimately affecting their overall quality of life.

*“Family was there a long time ago... but they cannot keep you now. That is how I have suffered...” (A11)*

**Key Informant Outcomes-Emerging themes: Challenges faced by the old age homes and Negative attitudes and perceptions towards the elderly**

Furthermore, two emerging themes and four sub-themes were identified during the key informant interviews and discussions, further offering a deeper context for understanding the experiences of elderly residents. The first emerging theme, challenges faced by the old age homes focused on low caregiver staffing levels, lack of transport, and insufficient finances and funding. The second emerging theme highlighted negative attitudes and perceptions towards the elderly, particularly the negative associations of ageing with witchcraft. Table 3 below summarizes the emerging themes.

**Table 3: Key informant outcomes-Emerging themes**

Emerging Themes	Sub-Themes
Challenges faced by the old age homes	- Low caregiver-staffing levels
	- Lack of transport
	- Lack of finances and funding
Negative attitudes and perceptions towards the elderly	- Negative association of ageing with witchcraft

**Challenges Faced by the Old Age Homes**

Participants reported that their facilities faced various challenges which impeded the quality of care provided to residents. One of the key informants narrated that due to low caregiver staffing levels, it was difficult to provide adequate care to the elderly because the caregivers were overwhelmed. They further added that they lacked transport which hampered the ability of the elderly to access quick and efficient medical care especially in cases of emergencies. This was exacerbated by a further lack of finances and funding as the key informants expressed concerns over inconsistent funding from the government, with one noting the following;

*“The challenges also include finances... the funding from government is not consistent...” (Ki01)*

**Attitudes and Perceptions towards the Elderly**

Key informants also highlighted that societal perceptions that associate old age with witchcraft significantly impact the well-being of the elderly. It was reported that the presence certain ageing related health conditions such as dementia which was sometimes characterised by forgetfulness caused some of the elderly to be accused of witchcraft.

*“...For some who have dementia, easily forgetting, when they go missing...there they are caught and are accused of witchcraft, they are beaten or are killed...” (Ki04)*

Participants further added that due to this negative association of ageing to witchcraft, the elderly are usually neglected by both family and society.

**DISCUSSION**

The insights gained from the interviews with elderly residents and key informants at Mayo Mpapa Project for old people (Cicetekelo Homes), Mitanda, and Chibote Old People's Homes revealed critical dimensions of the lived experiences of the elderly,

highlighting the complex interplay between health, social support, and societal perceptions.

The findings revealed a broad spectrum of health conditions affecting the elderly at Mayo Mpapa Project for old people (Cicetekelo Homes), Mitanda, and Chibote Old People's Homes. Participants exhibited notable awareness of common ageing-related health issues such as hypertension, diabetes, joint pain, and mental health conditions. This aligns with existing literature emphasising the rising prevalence of these conditions among older adults; for instance, hypertension is a leading cause of morbidity that intensifies with age, while diabetes increasingly affects ageing populations.<sup>15</sup>

Gender-specific trends were also reported, with women experiencing painful joints and mental health issues more frequently. Similarly, several reports have indicated that there is a higher disability rate from musculoskeletal disorders in women.<sup>2</sup> However, some informants noted that hypertension was more prevalent among male residents, supporting findings that men often show higher rates of hypertension in specific demographics.<sup>16</sup> Notably, other studies suggest that the prevalence of hypertension rises sharply among older women.<sup>17</sup> highlighting the critical need for targeted health interventions. These differences emphasise the necessity of customising healthcare strategies to meet the specific requirements of elderly men and women.

Ageing-related health conditions significantly impact the daily lives and well-being of elderly residents. Many participants reported limitations in activities of daily living (ADLs), struggling with basic self-care tasks due to mobility issues. Similarly, loss of functionality from chronic conditions are a primary cause of dependency among older adults.<sup>18</sup> Moreover, studies indicate that chronic diseases significantly contribute to a reduced quality of life and loss of independence among elderly individuals.<sup>19, 20</sup> This outcome illustrates the profound impact of chronic illnesses on ageing populations, emphasising the importance

of effective prevention and management strategies. However, these findings are subject to limitations, as the studies relied on systematic reviews of other empirical research, which may introduce biases or restrict the scope of their conclusions.

Feelings of depression and social isolation also emerged as prevalent issues, adversely affecting the emotional and psychological well-being of participants. This isolation exacerbates low self-esteem and mental health challenges.<sup>9</sup> The connection between inadequate social support and poor health outcomes emphasises the need for community-based interventions to enhance social connections for the elderly.

The study also identified structural challenges within the old age homes that hinder adequate care. A significant shortage of trained medical personnel was noted, limiting the ability to effectively monitor and manage residents' health conditions. Research shows that there is lack of trained staff, especially in privately owned old people's homes. There is also lack of specialised training for the care of senior citizens, which is badly needed. The absence of trained staff not only compromises care quality but also heightens the risk of neglect and adverse health outcomes.<sup>21</sup>

Logistical challenges, such as inadequate transport and insufficient funding, were also highlighted. Limited resources significantly affect residents' access to healthcare services, especially during emergencies. Research shows that transportation barriers are a persistent issue for older adults accessing necessary health services.<sup>22</sup> Financial constraints further exacerbate these challenges, as many facilities struggle to meet residents' basic needs due to inconsistent funding from government sources.<sup>21</sup>

Another critical theme identified was the lack of family support for many elderly residents. Weak family ties and infrequent visits contribute to the isolation and neglect of the elderly in care homes. Similarly, research conducted in East Africa revealed that traditional family structures are

disintegrating due to urbanisation and economic transformations, leaving older individuals without sufficient support systems.<sup>23</sup> This finding implies a growing vulnerability among the elderly, as the erosion of familial networks may lead to social isolation, financial instability, and unmet care needs. However, the study was conducted in a distinct setting with demographic and geographic characteristics that may limit the generalisability of its conclusions. Furthermore, societal attitudes toward the elderly, particularly the association of old age with witchcraft, complicate their care and well-being. Participants described how these negative perceptions stigmatise elderly individuals and deter potential caregivers from offering assistance. Such attitudes reflect broader societal issues, where older adults are often viewed with suspicion or disdain.<sup>9</sup> Public education and awareness campaigns could address these societal attitudes, fostering a more supportive environment for the elderly.

### **Limitations and Conclusion**

This study's focus on elderly residents in care homes may limit generalisation. Including elderly individuals from the broader community could have provided a more comprehensive perspective and potentially uncovered additional themes related to ageing and health. However, logistical constraints and limited funding precluded this broader scope. In conclusion, this study highlighted the multifaceted challenges faced by elderly residents in care facilities, encompassing health-related, emotional, structural, and societal dimensions. A holistic approach is essential for enhancing care quality and improving the well-being of the elderly especially in care homes. Future initiatives should prioritise raising awareness of ageing-related health conditions while enhancing family and community support systems through targeted outreach programmes. Additional efforts should address systemic challenges within care facilities, such as the shortage of trained health professionals, by recruiting healthcare workers for old age homes and implementing specialised training programmes in

geriatric care. These measures can foster a culture of respect and support for the elderly, ensuring their dignity and improving their quality of life amidst an increasingly complex social environment.

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### **Availability of data and materials**

The data from which these findings were drawn is available from the corresponding author on reasonable request.

### **Potential Biases**

The snowball sampling method used for the elderly participants may have introduced potential biases, as it likely included individuals with similar views, behaviours, or characteristics.

### **Authors' contributions**

V.C. and L.A.N. conceptualised and designed the study. Data collection was carried out by V.C. and G.M. The analysis was subsequently performed by V.C., H.S., and L.A.N. The manuscript was collaboratively written by V.C., H.S., G.M., and L.A.N.



## Competing interests

The authors declare that they have no competing interests.

## Ethics approval and consent to participate

Clearance and approval were obtained from the ERES Converge Institutional Review Board, reference number: 2023-Jan-019. Permission to conduct the study was also sought from all three care homes. Informed consent was obtained from all the informants who participated in the study. Informants were assured that their identities would be kept confidential, and privacy during the interview was maintained. Permission to record the interview was also sought from the informant, and the purpose of recording was explained.

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