



# Demographic Shift and Health Care Services for Ageing People in Nepal

Bidhya Shrestha<sup>1</sup>, Padma Prasad Khatiwada<sup>1\*</sup>, Prajna Maharjan<sup>1</sup>,  
Tara Lal Shrestha<sup>2</sup>

**Submission:**  
Nov 25, 2025

**Acceptance:**  
Dec 10, 2025

**Published:**  
Jan 31, 2026

<sup>1</sup> Central Department of Population Studies (CDPS), Tribhuvan University, Nepal

<sup>2</sup> Central Department of English (CDE), Tribhuvan University, Nepal

\*Corresponding Author: padma.khatiwada@cdpl.tu.edu.np

<https://doi.org/10.3126/ed.v35i1.90364>

## Abstract

This paper analyses changing age structure in terms of aged society, using the data from the National Population and Housing Census 2021. It assesses the changing aged population through aging indices, support ratios, and life expectancy among different socio-economic groups. With increasing Nepal's life expectancy, driven by a shift observed in fertility and mortality rates, the proportion of the population aged 60 and above has increased from 5.8 percent in 1991 to 10.2 percent in 2021. This growth demands a crucial preparedness in the existing health care system, particularly addressing the rising health demands, long term care, geriatric wards with special care. Additionally, the increasing aged population has brought about not only the challenges but also provides opportunities. It warns policymakers to focus the situation on time. The rising out-migration of the working-age population on other hand further creates pressure to the household dynamics in Nepal which causes greater impacts on the healthcare of the older population, largely affecting the availability of essential geriatric care services. The findings further divulge differences in health outcomes mainly on gender, location, and socio-economic status. This suggests the need of a more equitable approach to healthcare provision dedicated to the ageing population. Recognizing the reality of the growing number of aged populations, this study suggests that the government can play a crucial role for improving the well-being of the aged population through music-based interventions. The music approach, which is deeply rooted in traditional cultural values, is both effective and meaningful to enhance the integrated community health system. Converting the demographic challenges into opportunities for adaptability and sustainable development, Nepal can coordinate inclusive healthcare reforms with creative approaches that promote not only the healthy aging but also preserve our cultural music practices.

**Keywords:** Ageing, demographic shift, healthcare services, disparity, health inequalities, geriatric care

## To cite this article:

Shrestha, B., Khatiwada, P. P., Shrestha, T. L., & Maharjan, P. (2026). Demographic shift and health care services for ageing people in Nepal. *Education and Development*, 35(1). 41–47. <https://doi.org/10.3126/ed.v35i1.90364>

## Introduction

Population aging is one of the most significant socio-demographic changes of the 21st century, widely recognized as both an achievement of public health and a challenge for social and healthcare system worldwide (Ismail et al., 2021; Gianfredi et al., 2025).

Globally, declining fertility and mortality rates have increased life expectancy, reshaping population structure and creating new demands for geriatric care. These changes can also be seen in Nepal, where fertility and mortality rates are declining, and increasing life expectancy is steadily moving towards an ageing society. At the same

time, increasing out-migration of the working-age group (2.6% in 1981 to 7.5% in 2021) is also reshaping Nepal's demography (NSO, 2025a). This trend shows the country's transition towards an ageing society. Together, these two domains pose a double burden on Nepal's healthcare system. The increasing older population demands geriatric-related long-term medical care, while the outmigration of health professionals and family caregivers makes it difficult to meet those needs.

The existing studies highlight both opportunities and challenges. Dhakal et al. (2024) also stated that the demographic shift with the growth of the old population, shows growing challenges for policymakers in Nepal

**Copyright:** The Author(s) 2026. This is an open access journal distributed under the terms and conditions of the Creative Commons Attribution (CC BY NC). <https://cerid.tu.edu.np/>



while Khatiwada (2023) showed Nepal in the rise of youth migrant labourers abroad taking risk of potential human risks like trafficking, human smuggling and similar health related issues (The Asia Foundation, 2017).

Like other developing countries, Nepal still has not considered having an urgent problem, but the growing number of older people has demonstrated a new socioeconomic impact on the country. The shifting pattern of demography in Nepal is different now than almost 70 years ago. There were about 5 percent of the population aged 60 and above in 1952/54, and in 2021, it is doubled which calls for a deeper understanding of aging trends and their impact on health policy in later life. As Ismail et al. (2021) argued increasing older population and its evolving influence must prepare adequate policies and resources for the growing older population. It is known fact that longer the life higher the chance of ill health or dependency; it can create not only challenges but also demands a proper health service for the society and nation as well. In this regard, Gianfredi et al. (2025) portrays that a public health approach is vital to promote healthy aging and mitigate the socio-economic impact of aged people. Coordinating aging related health strategies with public health initiative can reshape the society towards healthy aging.

This study addresses concerns by providing an overview of population ageing in Nepal, with a particular focus on the urgency of preparing the health care system to respond effectively to this emerging demographic reality. Specifically, it focuses on demographic indicators such as aging indices, support ratios and life expectancy differential, and highlights the implications for equitable geriatric care and policy reforms.

## Methods

This study employed descriptive trend analysis, which is primarily based on Thematic Reports of the National Population and Housing Census 2021, published by the National Statistics Office (NSO) in 2024 and 2025. The key focus of this study was demographic indicators applicable to the population aging in Nepal, such as age composition, ageing index, support ratios, dependency ratios, and life

expectancy differentials regarding the older population. This study limited its definition of older population to individual aged 60 years and above which was constant with the Senior Citizen Act, 2063.

This study further analysed the selected aging demography and its dynamics, based on the conceptual framework proposed by Sander et al. (2015). This framework defined aging as a process that covers all three aspects, namely, biological, social, and cultural. This lens is appropriate because it focused on the broader context of social support, cultural expectations, and health care policy priorities. In particular, the framework underscores how the ageing populations demand for health services and reshape policy agenda within Nepal's existing health care services and health system. Integrated responses that extend beyond clinical care to include community based and culturally consonant interventions. Building on this perspective, this study explored the music-based interventions as a low-cost, culturally appropriate strategy to promote the well-being of the older people in Nepal

## Results

Over the past decades, Nepal's demography has been changed drastically - the change shaped by patterns of fertility, mortality, and migration. Nepal has gradually shifted from stages of demographic transition. Right now, it is in Stage III with low death rates and birth. From 1952/54 to 2001, the proportion of the population aged 60 and above increased gradually. However, between the 2001 and 2011 censuses, there was a noticeable surge in the 60 years and above population, rising from 6.5% to 8.1%. Similarly, the growth rate of the older population increased from 1.7% in 1961 to 3.3% in 2021, indicating a faster rate of ageing compared to the national population growth rate. The doubling time of the older population also declined over the decades, showing that Nepal's ageing population is expanding more rapidly than before (Table 1).

**Table 1: Trends in Population Aged 60 plus and 65 plus and Growth Rate in Nepal**

Census year	Total Population	Age 60+ (%)	Age 65+ (%)	National population growth rate	Older population growth rates	Doubling time of older population (years)
1952/54	8,256,625	5.0	2.7	-	-	-
1961	9,412,996	5.2	3.2	1.64	1.7	41
1971	11,555,983	5.4	3.0	2.05	2.4	29
1981	15,022,839	5.7	3.3	2.62	3.2	22
1991	18,491,097	5.8	3.4	2.08	2.2	32
2001	22,736,934	6.5	4.2	2.25	3.4	21
2011	26,494,504	8.1	5.3	1.35	3.5	20
2021	29,164,578	10.2	6.9	0.92	3.3	21

Source: NSO (2025b)

The older population (aged 60 and above) in Nepal has been steadily increasing across all census years. The total

aged 60 and above population rose from about 1.07 million (5.8%) in 1991 to nearly 3 million (10.2%) in 2021, reflecting a consistent rise in both number and proportion. Within the older population, the population aged 60–64

and 65–69 continue to constitute the largest proportion, whereas the population aged 80 years and above remains relatively small but shows gradual growth from 0.5% in 1991 to 1.0% in 2021 (Table 2).

**Table 2:** Trend and Pattern of Older Population Age Composition of Nepal, 1991-2051

Age group	1991	2001	2011	2021	2051
60-64	431,645 (2.3%)	496,652 (2.1%)	756,827 (2.9%)	955,604 (3.3%)	2,126,453(6.3%)
65-69	270,472 (1.5%)	374,473 (1.6%)	554,449 (2.1%)	771,618 (2.6%)	1,819,237(5.4%)
70-74	183,952 (1.0%)	250,738 (1.1%)	395,153 (1.5%)	609,370 (2.1%)	1,333,398(4.0%)
75-79	89,966 (0.5%)	161,578 (0.7%)	235,135 (0.9%)	353,203 (1.2%)	893,813(2.7%)
80+	95,199 (0.5%)	119,070 (0.5%)	212,846 (0.8)	287,523 (1.0%)	940,546(2.8%)
Total 60+)	1,071,234 (5.8)	1,477,379 (6.0%)	2,154,410 (8.2%)	2,977,318 (10.2)	7,113,447(21.2%)

Source: NSO (2025b), Table 4.5, NSO (2025e), Annex 10

The long-term changes in Nepal's ageing index, support ratio, and dependency ratios from 1952/54 to 2021. Over this period, the support ratio (the number of working-age individuals available to support one older person) declined sharply from 21.8 in 1952/54 to 9.4 in 2021. Meanwhile, the ageing index rose sharply from 7.0 to 24.9, and the old-age dependency ratio more than doubled, showing an increasing share of older dependents. And it is projected

to decline to nearly 48 percent by 2050 (NSO, 2025). The child dependency ratio fell from 65.8 to 42.7, reflecting lower fertility and a demographic shift toward an ageing population. Although the total dependency ratio has declined, the composition of dependents is clearly moving from children to older persons, marking Nepal's transition into an ageing society (Table 3).

**Table 3:** Ageing Index Versus Potential Support Ratio (65+), 1952/54-2051

Census year	Support ratio	Ageing index	Total Dependency ratio	Old age dependency ratio	Child dependency ratio
1952/54	21.8	7.0	70.4	4.6	65.8
1961	15.9	6.9	97.6	6.3	91.3
1971	18.4	7.4	78.8	5.4	73.4
1981	17.0	7.9	80.5	5.9	74.7
1991	15.6	7.9	87.2	6.4	80.8
2001	13.4	10.7	77.2	7.5	69.7
2011	15.1	11.3	67.2	8.8	58.4
2021	9.4	24.9	53.3	10.6	42.7
2051	-	-	47.07	-	-

Source: NSO (2024); Figure 5.2 and 5.1, NSO (2025e), Annex 7

Nationally, women live longer than men both at birth (74.3 vs. 68.7 years) and at age 60 (20.7 vs. 18.2 years). Rural older population have higher life expectancy at 60 (20.5 years) than those in urban areas (18.0 years). Likewise,

Dalits (Hill and Tarai both) have lower life expectancy than the non-Dalit caste. These differences highlight the demand for an equitable healthcare system in Nepal.

**Table 4:** Differentials of Life Expectancy at Birth and Life Expectancy at Age 60, 2021

Differential	Life expectancy at birth			Life expectancy (age 60 years)		
	Both sexes	Female	Male	Both sexes	Female	Male
Nepal	71.4	74.3	68.7	19.4	20.7	18.2
DEBURGA						
Urban	71.7	74.3	69.0	18.0	19.3	16.8
Peri-Urban	71.4	73.8	69.0	19.2	20.2	18.3
Rural	72.3	75.7	69.0	20.5	22.0	19.1
Caste/ethnicity						
Hill Caste	74.3	77.4	71.3	20.5	22.0	19.2
Madhesh/Tarai Caste	72.4	73.6	71.3	19.5	20.0	19.1
Hill Dalit	67.3	71.5	63.1	17.2	17.2	17.2
Madhesh/Tarai Dalit	68.8	70.6	67.1	17.6	18.2	17.0
Mountain/Hill Janjati	71.2	74.3	68.2	19.1	20.6	17.8
Tarai Janjati	70.6	73.3	68.1	18.1	19.1	17.2
Other/Foreigner/Not stated	75.5	80.7	70.3	22.1	26.7	17.0
Religious/linguistic groups	70.5	72.0	68.9	18.5	18.9	18.1
Wealth quintile						
Lowest	71.3	75.1	67.7	21.0	22.7	19.4
Lower	71.5	74.5	68.5	19.8	21.0	18.7
Middle	71.6	74.3	69.0	19.4	20.5	18.4
Higher	71.1	73.8	68.6	18.2	19.3	17.2
Highest	73.1	75.3	71.0	18.4	19.5	17.3

Source: NSO (2025d), Table A6.2

Older men have consistently higher mortality than women across all causes of death. The mortality sex ratio for crime-related deaths is exceptionally high, reaching 5.14.3 among men aged 60-64 and 288.9 among those aged 65-69. Similarly, suicide mortality is high among older men population, with ratios of 225.4 at ages 60-64 and peaking at 365.0 among those aged 80 and above. In contrast, deaths from communicable and non-communicable diseases show smaller sex differences, with ratios declining steadily with age (from 173.9 to 148.0 for communicable, and 125.5 to 120.4 for non-communicable diseases). The overall mortality sex ratio drops from 140.6 among these aged 60-64 to 114.0 in the 80+ group (Table 5).

**Table 5:** Mortality Sex Ratio by Cause of Death, NPHC 2021

Cause of death	60-64	65-69	70-74	75-79	80+
Communicable	173.9	166.2	155.2	163.3	148.9
Non-communicable	125.5	123.3	125.5	124.9	120.4
Road accident	164.1	167.9	143.5	169.0	149.3
Other accident	247.2	187.7	178.6	118.3	122.4
Crime	514.3	288.9	260.0	166.7	117.6
Suicide	225.4	351.4	318.2	142.9	365.0
Natural disaster	142.7	118.8	117.5	128.2	110.3
Others	149.0	122.3	118.2	112.7	101.0
Total	140.6	130.7	127.9	125.3	114.0

Source: NSO (2025b), Table A7.2

#### Geriatric Health Care Service in Nepal

Nepal has made steady progress in recognizing and responding to the health needs of its ageing population. The Senior Citizens Act of 2063 (2006) was a landmark moment, legally defining individuals aged 60 years and above as senior citizens and affirming their right to special protection and social security from the state.

It's been almost 20 years in Nepal, where the first major steps took place for senior citizens by initiating free medical services for senior citizens and establishing the Senior Citizens Health Facilities Fund in 2063, which signals the recognition of ageing in the health care system. It was further institutionalized with the Senior Citizen Act of 2063 by defining an age bar (60 years). Later in 2065, Senior Citizen Rule, 2065 was introduced which added value in the need for health services among senior citizens. Ministry of Health and Population initiated a separate geriatric ward in all hospitals that have more than 100 bed capacity and separate geriatrics OPD service in 50-bed capacity in 2070/71. After 10 years of that (FY 2080/81), the geriatric ward program expanded in 61 hospitals and more than 200 trained human resources in geriatric care in Nepal (Table 6).

**Table 6: History of Geriatric Health Service in Nepal**

Date (BS)	Provision
2061/62	<ul style="list-style-type: none"> <li>GoN initiated state funded senior citizen health care services and "Senior Citizens Health Facilities Fund"</li> </ul>
2063	<ul style="list-style-type: none"> <li>The Senior Citizens Act of 2063 defined 60 years' age bar for seniors' citizens</li> </ul>
2065	<ul style="list-style-type: none"> <li>Senior Citizens Rules, 2065 (2008)</li> </ul>
2067/68	<ul style="list-style-type: none"> <li>"Aarogya Ashram" for senior citizens introduced but it achieved limited coverage.</li> <li>Constrained financial resources with weak institutional and service delivery capacity</li> </ul>
2070/71	<ul style="list-style-type: none"> <li>MoHP started separate geriatric ward in the hospitals having more than 100-bed capacity; separate Geriatrics OPD service in 50-bed capacity</li> </ul>
2075/76	<ul style="list-style-type: none"> <li>12 hospitals across country have geriatrics services</li> </ul>
2076/77	<ul style="list-style-type: none"> <li>16 hospitals across country have geriatrics services</li> <li>Policy responsive for geriatrics services – NHP 2076, GESI Strategy</li> </ul>
2077/78	<ul style="list-style-type: none"> <li>Extended to 24 hospitals across the country</li> </ul>
2079/80	<ul style="list-style-type: none"> <li>Geriatric health service strategy 2078/79–2087/88</li> <li>Geriatric Health Service Operational Guideline</li> <li>61 hospitals provide geriatric services to senior citizens across 48 districts</li> <li>Geriatric Health Service Protocol</li> </ul>
2080/81	<ul style="list-style-type: none"> <li>200+ trained human resources (doctors, nurses, and paramedics) on geriatric care</li> <li>Geriatric ward program expanded in 61 hospitals</li> </ul>

Source: Department of Health Services (2024)

## Discussion

The demographic shift in Nepal clearly shows the increasing aged 60 and above years population from 5.8% in 1991 to 10.2% in 2021, which shapes the regional, social, economic, and healthcare landscape. As of 2021 census almost half of the 60+ population (53.6%) in Tarai which is 10 percent higher than Hill (43.8%) and 8 times higher than Mountain (6.6%). Likewise, Bagmati province has the highest 60+ population (22.0%) followed by Koshi (18.7%) and Madhesh (18.8%) (NSO, 2025b). This disparity also poses challenges as Sander et al. (2015: 187) outline in their article that is ageing offers not only biological challenges but also social and cultural challenges.

Biologically, all the aged population (60+) have almost the same health burdens and disparities in life expectancy across caste, gender, and geography which demand the quick intervention to maintain health and reduce morbidity in later life, closely what Sander et al. recognize as the biological challenge. Supporting to them, Rudolph et al. (2018) added their view on who is old and when to retire. The Productivity Commission's (2013) '3Ps' framework—

population, participation, and productivity—offers a very insightful lens to observe these demographic dynamics in this regard. In Nepal, many aged population continue working informally even after their retirement or having senior citizen allowance just because of economic insecurity. According to Shrama and Chalise (2025), in the past 12 months, about 73 percent of older people were found to be engaged in the agriculture sector. This percentage is higher in Karnali province (79.7%), Mountain zone (84.8%) and in the rural sector (84.2%). This raises the issue not only in the conventional retirement age but also calls for more flexible, inclusive definitions of ageing. When combined 3Ps help policymakers to design and manage demographic shifts effectively.

Conversely, a declining support ratio (from 21.8 in 1952/54 to 9.4 in 2021), and rising outmigration of caregivers have complicated caregiving structures in Nepali society. As of the census 2021, among the population 60+, about 70 percent of males and 45 percent of females are non-migrants. It indicates less mobility among these age groups. Furthermore, about 96 percent of the older population live in their own house and 42 percent live with their spouses and children. This shows the strong cultural attachment for aged people to live in their own home and with family, as said by William et al. (2023) who confirm a strong association between a range of place attachment dimensions and ageing-in-place preferences by older people. They state various reasons, reasons that are positively linked to their preferred place. For instance, children's love, strong social capital, ownership of home, and satisfaction with neighbourhood are all positively associated with a stronger preference to age in place. These pattern, however, highlights the significant challenges, including caregiving shortage due to adult migration, work burden on women, and risk of social isolation for those living alone. Alternatively, these issues are deeply connected with culture. These issues challenge the roles and recognition of aged people, especially women and marginalized groups. The beginning of feminization of ageing- more older women than men- shows the gender gaps in longevity and vulnerability which highlights the socio-cultural challenges. Ageing challenges are complex and multidimensional. Older women often face a double burden of exclusion. As Carme (2019) states though women have a higher life expectancy than men, they are still underprivileged in almost all dimensions of quality of life related to health, functioning and subjective well-being. Gender roles influence gender equality in health.

Although there are geriatric health policies, economic restrictions discourage the execution of these policies and the necessary development of care facilities. Thus, to meet the healthcare needs of this growing population, sustainable financing is a must (Dhakal et al, 2024). Regarding the financing, Rouzet et al. (2019) also claim the fiscal challenge of financing ageing-related services. These are particularly applicable in Nepalese society, where health insurance coverage and pension systems remain limited. In addition,

the increase in the aged population with chronic illnesses and shortage of caregivers makes worsens the demand for focused healthcare and long-term care services.

For instance, among many other diseases, dementia is a major concerning health issue globally, and in Nepal over 135,000 people are living with this disease (Simkhada et al., 2025). Therefore, there is a need for public consciousness and health promotion initiatives that focus on preventive activities for chronic disease among the older population. These groups need preventive measure and should have timely health screenings for early diagnosis and effective management. Furthermore, disaggregated information may deliver a deeper understanding into actual public health interventions (Shrestha et al., 2025).

Nevertheless, in Nepal, the prevalence of multimorbidity is high (one in seven) which is associated with socioeconomic and behavioural needs which can be addressed by integrating social programs with health prevention and management at multiple levels (Yadav et al., 2021). Gong and He (2019) also advocate for promoting health and sustainable work capacity among aged people. This can align with the Nepal's need to invest in healthy ageing strategies, reduce morbidity, and support aged population.

Beyond formal health service policy, socio-cultural grounded intervention can also play a transformative role. Evidence from demographic data supports aged population is less mobile and has a great attachment with their birthplace, music-based intervention is best and aligns with Nepali cultural traditions of singing and communal participation. This intervention is low in cost, no side effects, is often scalable in health care systems, and generally well accepted by the aged population. (Edwards et al., 2023). Another study of Ma & Ma (2023) also depicted that intervention of music for the aged population normally have positive effects on several health outcomes including psychological well-being, cognitive functioning, physiological responses, quality of life, and overall well-being. There are some studies that have mixed or no effect. They rather argue insightful understandings for health professionals and serves as crucial evidence to access the information on the use of music interventions in promoting health and addressing various conditions in older adults (Ma, Han, Mu, & Ma, 2024).

## Conclusion

Women in Nepal live longer than men both at birth and after the age of 60, which demonstrates biological resilience, and possibly better healthcare seeking behaviour. with a changing society and demographic scenario, a sustainable and cost-effective national response is required considering the growing older population and the international migration of both family caregivers and healthcare professionals. Because traditional family-based care models are becoming less applicable, a strong geriatric care network is necessary, one that incorporates community-based services, chronic disease management,

mental health support, and technological innovations like telemedicine to reach remote areas. Nepal is now in a transitional phase between a growing aged population and increasing international migration. Therefore, Nepal must rethink with coordinated action, strategic investment, and inclusive policy reform. The country can transform the challenges of ageing into opportunities for resilience, equity, and sustainable development. The best options is the music-based interventions which can be one of the more appropriate approaches to get prepared to an ageing society, which demands for deeper levels of research.

## Funding

This study has no funding support.

## Conflict of Interest

The author declare that there is no conflict of interest regarding this article.

## Data Availability

These data are publicly available and can be accessed from National Statistic Office website. No new data were generated in this study.

## References

- Department of Health Services. (2024). Annual health report 2080/81 <https://dohs.gov.np/content/16/nhr/>
- Dhakal, U., Briceño, E., Sharma, U., Bogati, U., Sharma, A., Shrestha, L., Ghimire, D., & Mendes de Leon, C. F. (2024). Health care systems and policies for older adults in Nepal: New challenges for a low-middle income country. *Discover Public Health*, 21(1), 256. <https://doi.org/10.1186/s12982-024-00382-9>
- Edwards, E., St Hillaire-Clarke, C., Frankowski, D. W., Finkelstein, R., Cheever, T., Chen, W. G., Onken, L., Poremba, A., Riddle, R., Schloesser, D., Burgdorf, C. E., Wells, N., Fleming, R., & Collins, F. S. (2023). NIH music-based intervention toolkit: Music-based interventions for brain disorders of ageing. *Neurology*. <https://doi.org/10.1212/wnl.0000000000206797>
- Gianfredi, V., Nucci, D., Pennisi, F., Maggi, S., Veronese, N., & Soysal, P. (2025). Ageing, longevity, and healthy aging: The public health approach. *Aging Clinical and Experimental Research*, 37(1). <https://doi.org/10.1007/s40520-025-03021-8>
- Gong, C. H., & He, X. (2019). Factors predicting voluntary and involuntary workforce transitions at mature ages: Evidence from HILDA in Australia. *International Journal of Environmental Research and Public Health*, 16(19), 3769. <https://doi.org/10.3390/ijerph16193769>.
- Ismail, Z., Wan Ahmad, W. I., Hamjah, S. H., & Astina, I. K. (2021). The impact of population ageing: A review.

- Iranian Journal of Public Health, 50(12), 2451–2460. <https://doi.org/10.18502/iph.v50i12.7927>
- Khatiwada, P. P. (2023). International migration in Nepal: Rates, drivers and impacts. *Journal of APF Command and Staff College*, 6(1) <https://www.nepjol.info/index.php/JAPFCSC/article/view/57582/43042>
- National Statistics Office (NSO). (2025a). *International migration in Nepal: National Population and Housing Census 2021, Thematic Report VI*. National Statistics Office. <https://censusnepal.cbs.gov.np/results/files/result-folder/International%20Migration%20in%20Nepal%20Report.pdf>
- Ma, G., & Ma, X. (2023). Music intervention for older adults: Evidence map of systematic reviews. *Medicine*, 102(48). <https://doi.org/10.1097/md.00000000000036016>
- Ma, G., Zhou, C., Han, Z., Mu, T., & Ma, X. (2024). Social support and physical literacy in young and middle-aged patients with hypertension: The mediating effects of sense of coherence and self-efficacy. *BMC Psychiatry*, 24(1), 494. <https://link.springer.com/article/10.1186/s12888-024-05935-5>
- National Statistics Office (NSO). (2025b). *Ageing in Nepal: National population and housing census 2021, thematic report X*. National Statistics Office. <https://censusnepal.cbs.gov.np/results/downloads/thematic?type=report>
- National Statistics Office (NSO). (2025c). *Population composition of Nepal: National population and housing census 2021, thematic report I*. National Statistics Office. <https://censusnepal.cbs.gov.np/results/downloads/thematic?type=report>
- National Statistics Office (NSO). (2025d). *Mortality in Nepal: National population and housing census 2021, thematic report IX*. National Statistics Office. [https://giwmscdnone.gov.np/media/app/public/36/posts/1710821571\\_26.pdf](https://giwmscdnone.gov.np/media/app/public/36/posts/1710821571_26.pdf)
- National Statistics Office (NSO). (2025e). *Population projection for Nepal, 2021-2052: National population and housing census 2021, thematic report VIII*. National Statistics Office. [https://giwmscdnone.gov.np/media/pdf\\_upload/VIII-%20Population%20Projections%20for%20Nepal-Final%20Web%20Version\\_cwolhw.pdf](https://giwmscdnone.gov.np/media/pdf_upload/VIII-%20Population%20Projections%20for%20Nepal-Final%20Web%20Version_cwolhw.pdf)
- Sander, M., Oxlund, B., Jespersen, A., Krasnik, A., Mortensen, E. L., Westendorp, R. G. J., & Rasmussen, L. J. (2015). The challenges of human population ageing. *Age and Ageing*, 44(2), 185–187. <https://doi.org/10.1093/ageing/afu189>
- Shrestha, A., Sapkota, K. P., Karmacharya, I., Tuladhar, L., Bhattarai, P., Bhattarai, P., & Kafle, B. (2025). Chronic morbidity levels and associated factors among older adults in western Nepal: A cross-sectional study. *Journal of Multimorbidity and Comorbidity*, 15. <https://doi.org/10.1177/26335565251325920>
- Simkhada, B., Thapa Magar, S., Simkhada, P., Tamang, P., & Stephenson, J. (2025). Risk of dementia in Nepal: A cross-sectional survey in mountainous, hilly, and lowland regions. *PLOS One*, 20(8), e0328720. <https://doi.org/10.1371/journal.pone.0328720>
- The Asia Foundation (2017). New study examines labour migration impact on social, political dynamics in Nepal. 2017. <https://asiafoundation.org/2017/03/22/new-study-examines-labour-migration-impact-social-political-dynamics-nepal/>
- Yadav, U. N., Ghimire, S., Mistry, S. K., Shanmuganathan, S., Rawal, L. B., & Harris, M. (2021). Prevalence of non-communicable chronic conditions, multimorbidity and its correlates among older adults in rural Nepal: A cross-sectional study. *BMJ Open*, 11(2), e041728. <https://doi.org/10.1136/bmjopen-2020-041728>