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Editorial

The Implications of Accelerated Aging in Nepal

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In a remote community hospital in Far West Nepal, a 70-year-old woman with dementia was acutely ill and delirious from a urinary tract infection. She was unsteady and disoriented, yet her daughter-in-law pleaded with me to release her immediately. Women in Nepal are responsible for growing food, obtaining fodder for their animals, caring for the farm, providing food for the family, and often for earning cash income. Life is difficult in Nepal's mountainous, remote, and impoverished areas. Every day this patient's daughter in-law stayed away from her farm, her family edged closer to destitution.

The vignette above demonstrates concretely the reasons to move with speed to establish geriatric priorities in LMIC. The story illustrates the burden that increasing numbers of older persons will exert on their impoverished families. For older persons and

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[1] Ageing Nepal is a nonprofit whose mission is to build awareness of cross cutting issues of older people in Nepal, including research, training of caregivers and nurses, and to educate illiterate older persons in basic skills such as literacy and cell phone use.

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their families in LMIC, socioeconomic hurdles may have as much, or more, of an impact on health as medical conditions, particularly in situations involving dementia. The stress on family structures, a backbone of stability in rural areas, will become corrosive without urgent action. Sharing this perspective is the purpose of this article, and we use Nepal as an example.

The proportion of the global aging population in LMIC will increase from 65% as of 2015 to 76% as of 2050, an increase more than 2 to 3-fold that of wealthier countries.[1] In Nepal, in 2019 there were 2 million people over 60, or 9% of the population. By 2050, this is expected to increase to 18.6%, or 6,696,000 older persons,[2] yet the development of geriatric expertise and planning have just begun. For centuries, during their last years revered older people were cared for at home by younger family members. Over the last few decades in Nepal, as in other modernizing countries, younger generations have increasingly left rural areas for education and work in urban areas.[3] This has left an unknown number of older persons without assistance and often alone in rural areas. Yet demographics are such that in Nepal, there will be progressively fewer younger persons to care for their older relatives. In 2015 there were 11.1 working-age persons supporting one older person in Nepal. By 2050, only 5.6 working-age people will be available, and by 2060, this ratio deteriorates to 3.8. And there are not just more older people; they are living progressively longer. In 1985, the life expectancy in Nepal was 48; it was 69 in 2015.[4] The life expectancy in Nepal is projected to be 77 by 2050.[5]

In Nepal's rural areas, people live hard lives of extreme poverty, poor nutrition, and grueling work, all set in the challenges of Nepal's geography; 75% of Nepal is mountainous and roads are frequently impassable.[6] Transportation in rural Nepal is essentially limited to public buses, often in poor repair. Healthcare resources to address the needs of rural populations as a whole, and the elderly in particular, are sparse, if they can be found at all. Population aging will produce an increasing number of elderly persons whose ability to contribute to the welfare of the family will be progressively limited. In rural areas, where 80% of the population lives,[7] older persons will (increasingly) become a burden that will destabilize the livelihoods of their families. There may be other implications; the Maoist Revolution in Nepal of 1996–2006, though 20 years ago, remains a significant part of the political consciousness in Nepal.[8] This decade-long violent and traumatic armed conflict has been seen as largely the result of poor socioeconomic situations in rural areas.[9] It also contributed significantly to the migration of younger people to urban areas.[10]

Developing the capacity of Nepal's healthcare system to address geriatric issues is crucial. In rural eastern Nepal, 65% of the population older than 60 is frail, a condition that presents grave challenges for families and for clinical resources.[11,12] Malnutrition is common in the rural elderly, particularly of protein; in a recent community study, 24.8% of the older population was malnourished, with 49.6% at risk.[13] Indoor air pollution, the result of nearly universal use of biomass for cooking in rural areas, is the fourth leading cause of death in Nepal.[14,15] About 41% of Nepalis of all ages are multidimensionally poor.[16] Elder abuse is prominent. In Eastern Nepal, 61.7% of people over 60 years suffered abuse, with caregiver neglect found in 57.5%. This was associated with over four-fold odds of malnutrition.[17] Poor health literacy, which is associated with low access and demand for medical services, poor compliance, and even the awareness that treatments exist, was found in 73% of the all-age population in rural eastern Nepal.[18] Depression among older persons in rural areas is rampant, with findings ranging from 45.7% to 57.4%.[19] Shrestha found that 18.8% of her sample was severely depressed as measured by the GDS 15.[20] Depression complicates most systemic illnesses, and reduces motivation to comply, and as of 2017, depressive disorders were the third leading cause of years lived with disability. It may become the leading cause of disease burden by 2030.[21] Recurring natural disasters and now COVID 19 have added stress to all aspects of older persons' lives and livelihoods, resulting in enormous vulnerability to functional and cognitive decline as well as fundamental risks to their financial security.

With increasing life expectancy in Nepal, dementia will further complicate the lives of Nepali families. By 2040, 71% of persons with dementia will reside in LMIC[22]; in Nepal there were 78,000 persons with dementia in 2015. This will be 130,000 by 2030 and 285,000 by 2050.[23] Dementia and cognitive disorders remain largely misunderstood and underrecognized by the community and by health care professionals in

Nepal.[24] There is extensive stigma regarding psychiatric and cognitive issues, even among healthcare providers.[25] Neuropsychiatric illnesses may be considered the fault of the person, the failing of their family, or due to possession by spirits, leading to efforts to conceal these conditions rather than to seek help. In rural areas, traditional medical strategies compete heavily with modern approaches, and while they make important cultural contributions, they may delay definitive care.[26] Significant increases in the number of older people with dementia will add increased costs for medical care. Further, it will take the time of one or more of the most functional family members to provide safe care on a daily basis. There are no safety nets in Nepal for people suffering from dementia, and the demands on the healthcare system may not be sustainable. This could potentially be the most catastrophic effect of accelerated aging in Nepal.

The ability of Nepal to modernize, stabilize, grow economically, and address the needs of a growing older population will reside a robust younger population. This will depend on balancing the needs of young versus old. Should slim resources be spent on the health and education of youth, or on the care and dependent needs of older persons? The concept of the "demographic dividend" describes a space of time ("window"), in a country's hyper-growth period during which there are enough younger people to boost the economy without sacrificing the needs of older persons. During this "window," the health, educational achievement, and opportunities of younger generations must be prioritized to support the aging society. Absent strategic plans to address the increasing needs of older people, this "dividend" cannot be realized. Nepal's "window" opened in 1992 and will close in 2047. Crucial economic decisions must be made now.[4]

The government of Nepal has developed policy regarding senior citizens' rights and needs over the last 20 years, although chronic lack of resources has limited significant implementation of these measures. Nepal has been providing small amounts of financial assistance to senior citizens since 1994–1995.[27] The most prominent of the national laws passed to address the needs of senior citizens occurred in successive years from 2004 to 2006.[28,29] These laws developed policy demanding respect for older people, including monetary support for free or reduced cost for healthcare in government hospitals. They provided training for those working with older people (health and community care staff), and support for the improved nutrition of older persons. Seniors' poverty was clearly acknowledged as an enduring and grave problem. The National Plan of Action for Senior Citizens of 2005 and the Senior Citizen Act of 2006 extensively addressed the social, economic, and human rights of elderly citizens, respectfully emphasizing their value to the country and to the culture of Nepal.[28,29] Finally, the Geriatric Care Center Implementation Guidelines of 2021 established updated, broad, highly informed standards for any organization treating or caring for older persons.[30] What is unmistakable is the national commitment to the lives and welfare of revered older citizens.

Crucial geriatric expertise has been almost entirely lacking, thus the full implementation of many of these mandates has been difficult, even beyond problems with limited national resources. Per private communication, there are just 5 geriatric physicians (not all of whom have done fellowships) in Nepal. There is just one government-run elderly care home, although there has been rapid growth of more than 100 private facilities registered with the Social Welfare Council.[31]

Recent steps in Nepal may suggest an innovative way forward. On September 20–21 of 2021, a two-day national geriatrics conference was held in Kathmandu. It was made possible by a collaboration among the Nepal Ministry of Health and Population (MoHP), WHO Nepal, and the advocacy of local clinicians who understand the urgency of the need. The conference presented broad-based, up-to-date education about essential geriatric topics. A specific effort was made to include presentations on specialties such as physical therapy, long-term care, sensory impairment and assistive devices, rehabilitation, nutrition and community care (by caregivers and community health nurses), and the need for a collaborative approach. We felt the audience needed to understand the broad array of services needed to support healthy aging. Use of the WHO method of iCOPE[32] was explicitly advocated; WHO has developed significant protocols for dementia that offer methods of rapidly directing such care.[33] Over 200 people attended the conference, either virtually or in person, and several geriatric subspecialties were represented in the audience. There was significant endorsement of the conference; a follow-up survey will help clarify whether this intensive approach will have defining impact.

WHO Nepal continues to collaborate with the MoHP to address geriatric needs in Nepal. This has included direct support for geriatric curricula for nurses, who will be the mainstay of education and care in rural communities where the bulk of care for rural-residing older persons will rest. An implementation study will address the effectiveness of this collaborative effort.

The needs of Nepal's older persons and the families who revere them are extensive. Addressing them will require careful assessment and deliberate policy interventions. Capacity building to increase access to expertise about the global needs, function, and healthcare of older persons is necessary. It is our belief that frailty and dementia should be initial priorities. However, increasing capacity will not be sufficient. We have found coordination with socioeconomic and cultural factors to be essential, and we believe this will be the finding in other LMIC.

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DATA STATEMENT

The Data has not been previously presented.

DISCLOSURES

"The authors report no conflicts with any product mentioned or concept discussed in this article."

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