LONGEVITY IN NEPAL: HEALTH, POLICY AND SERVICE PROVISION CHALLENGES

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Abstract

Longevity is a relatively recent phenomenon in Nepal; over the past few decades the priority in Nepal has been reducing infant and maternal mortality. With an increasingly aging population and changing patterns of migration, this brings with it challenges to Nepali society in terms of meeting the needs of an aging population and creating a policy environment that ensures these needs are met. This paper explores some of the complexities of an aging population in Nepal and focuses on examining the various health and service implications to a nation that has recently been engaged in a decade long 'People's War'. Through highlighting the paucity of research in this area, this paper argues for an urgent need for research, both scientific and within the social sciences, into the complexities of meeting the needs of an aging population in the context of Nepal. It clearly demonstrates the need for new spaces of dialogue to emerge where these debates and lessons can be shared.

KEY WORDS, Nepal, longevity, aging population, health

NEPAL IN THE CONTEXT OF SOUTH ASIA - CHANGING SOCIO-POLITICAL AND ENVIRONMENTAL CONTEXT

Nepal is a landlocked nation between China and India with a population of just over 23 million, growing at around 2.4% a year (Nepal HDR, 2008). Whilst it is geographically relatively small in size, it is a nation that is socially, culturally and environmentally diverse with 64% of the land being classed as mountainous (NTNC, 2010). Divided into three ecological zones, the terai, hill and mountain regions, it has 59 indigenous ethnic groups accounting for 37% of the population (Pearson, 1999). Nepal is dominated by the Hindu caste population and DFID (2003) estimates that 15% of the population is from the Dalit community who is often landless and the most marginalized sector of the population. Rapid urbanization is also posing a challenge to Nepal, according to Portnov *et al.* (2007). In the past 50 years, the number of urban settlements has grown from 10 to 58, accounting for 14.4% of the population. Recent data suggests the urban population accounted for 18.2% of the population in 2007 (HDR, 2009). This urbanization has implications for an aging population.

Nepal is one of the poorest countries within South Asia with a per capita income of \$470 per head (World Bank 2010) and is ranked 144th on the Human Development Index (HDR, 2009). Despite four decades of development and GDP growth rates of 5% per year, inequalities within Nepal appear to have increased with two out of three Nepalese people living in poverty, with high levels of inequalities between ethnic groups, gender and geographic locations (DFID, 2003). Nepal has recently emerged from a 'Peoples War' which saw the end of the monarchy in 2007 following the 'People's Movement' and was declared a republic in 2008. The conflict has had a range of impacts including reducing access to essential services such as education and health provision (Singh, 2004; Singh *et al.*, 2005; Watchlist, 2008).

This paper will explore some of the issues related to an emerging aging population in Nepal. Whilst some recent policy changes have been made in relation to an aging population, this paper suggests that there is a need for further research to fully appreciate the complexities an aging population poses to a nation which is emerging from a decade-long conflict.

Nepal - population longevity and aging

Cook and Dummer (2009) note that for some countries in Asia, an aging population is still an exception rather than a normal component of population composition. This is especially true for the SAARC [South Asian Association for Regional Cooperation] nations with all but one having 8% or less of its population in the over 60s cohort. However, all SAARC nations except Afghanistan are expected to have over 14% of their population in the over 60 category by 2050. Singh (2003) notes that in 2002, SAARC countries had less than 6% of their population in the over 65% bracket and as a result, more focus has been on improving the longevity of the population in SAARC countries. The issue of aging in the SAARC region has been neglected in population research as well as in Nepal (Archarya. 2001; Parker and Pant, 2009; Singh 2003). The following table places Nepal in the context of South Asian Countries. Compared with previous data (HDR, 2008) Nepal's life expectancy has risen from 63 years of age in 2006 to an estimated 66.3 years of age in 2007. This in the main can be accounted for by the end of the 'People's War'.

Table 1 Comparative data on HDI. Life expectancy, literacy and probability of survival for SAARC countries.

		Life	GDP per	Malelife	Female life	Male adult	Female adult			
HDI		expactany	capita (PPP	expect at	expect at	lit rate (%	lit rate (%	Old age	Old age	
Rank		at birth	US\$)	birth	birth	over 15yrs)	over 15yrs)	dependency	dependency	
		2007	2007	2007	2007	2007	2007	1990	2007	
South Asia		64.1	2,905	62.9	65.4		65.4	6.5	7.4	
102	Sri Lanka	74	4,243	70.3	77.9	92.7	89.1	8.9	11.4	
132	Bhutan	65.7	4,837	64	67.6	65	38.7	6.1	7.5	
134	India	63.4	2,753	62	64.9	76.9	54.5	6.6	7.7	
141	Pakistan	66.2	2,496	65.9	66.5	67.7	39.6	7	6.9	
144	Nepal	66.3	1,049	65.6	66.9	70.3	43.6	5.9	6.8	
146	Bangladesh	65.7	1,241	64.7	66.7	58.7	48	5.6	6.1	
Low Human Development										
181	Afghanistan	43.6	1,054	43.6	43.5	43.1	12.6	4.5	4.3	

Source: HDR (2009)

The emergence of an aging population is a relatively new phenomenon in Nepal and as such has received little attention in terms of research and policy focus. The main health focus in Nepal over the past two decades has been to reduce both maternal and infant mortality. Despite the recent political unrest, maternal mortality in Nepal has decreased over the past decade mainly due to poverty reduction, an increase in accessibility of both education and health services and family planning (Barker, 2007; Khatri, 2010; UNFPA, 2008). Life expectancy has increased from 43 years of age in

1970 to 54 in 1990 to the current level of 67 years of age (UNICEF, 2010). Reductions have also been noted in the death rate as well as infant mortality rates (see table 2 below).

Table 2 Longitudinal data life expectancy and death rates in Nepal.

	1970	1990	2008
Life expectancy	43	54	67
Crude birth rate	44	39	25
Crude death rate	21	13	6
Infant mortality rate (under 1)	21	99	41
Under-5 mortality rate	21	142	51

Data: UNICEF (2010)

Help the Aged International (2009) highlighted that in 2006, 1.6 million Nepali citizens were aged over 60 and that this figure is expected to increase to around 7.2 million (14%) by 2050. However, Subedi (2006) notes that the distribution of the aged population in Nepal shows regional and to some extent gendered inequalities with the largest portion in the hill and terai areas and the least in the mountain area (see table 3). This is further evident when analysed by gender: 49% of the female elderly in the country live in the hills, whereas for males it is 47% (Subedi, 2005).

Table 2 Gender Distribution of Aged Population by Ecological Zones, 2001.

Ecological Zones	5	Size distributi	on	Proportional Distribution			
	Total	Male	Female	Total	Male	Female	
Mountain	118929	59371	59557	7.9	7.8	8.0	
Hill	715745	354294	361451	47.6	46.7	48.5	
Terai	669638	344704	324934	44.5	45.5	43.6	
NEPAL	1504311	758369	745942	100	100	100	

Source: Subedi (2005: 6)

The improvements in access to health care and education have an urban bias and this has been further compounded by the political unrest with rural areas being marginalized in the development process (Singh, 2004). Whilst the improvements in maternal mortality rates have an obvious gender dimension, what is often hidden is the general gendered differences in access to health care and education which have been exacerbated by the recent conflict (Standing and Parker, 2007; Singh *et al.*, 2006; Watchlist, 2005). It was only as recently as 2008 that women were noted to outlive men in Nepal (HDR, 2008). As women's health improves and more people live longer, new challenges will be posed to government and the service sector with respect to providing health care for the elderly. The gendered dimensions of aging are discussed in more details in Parker and Pant (2009).

Another key factor impacting on the growth of the elderly population in Nepal is migration, both internally and externally. Whilst poverty is cited as a key factor behind migration within and out of Nepal (KC 2003), increasing wealth from remittances being sent back from overseas has also exacerbated the trend to migrate away from rural areas to urban centres (Subedi, 2005; Seddon et al., 2006). Remittances sent back to Nepal from overseas make important contributions to the Nepalese economy and a recent study by Seddon et al. (2006) suggests that remittances could be ten to twenty times greater than the official data suggests. Until recently, it was the younger males who migrated out of the rural areas, leaving the elderly, women and young children remaining in the villages. However, as the trend has continued, there has been an increase in the gender and generational diversity of migrants and an increase in the elderly population migrating to urban centres has been noted (Chalise and Brightman, 2006). The proportion of elderly living in urban areas has grown from 6.4% to 13.9% between 1981 and 2001 (Subedi, 2006). Whilst the system of short-term internal migration has long been part of Nepalese culture (known locally as ghumphir), more recent migration is seen as being more permanent and has led to what Subedi refers to as the 'Empty Nest Syndrome'. The loss of both the youth and more recently elderly population in rural Nepal is leaving communities unable to farm the land. Primary research in a remote mountainous village in the Annapurna area of Nepal suggests that one of the major challenges facing rural communities, along with climate change, is the lack of labour to work the land. The loss of the elderly population also results in a loss of indigenous knowledge and cultural systems which often underpin the agrarian society in Nepal (Parker, 2005). This is an area that warrants further research.

The majority of the elderly (85%) remain in rural areas (Geriatric Centre Nepal, 2010). This cohort of the population often depends on agriculture for a living and experiences relatively high levels of poverty and poor health along with low literacy levels and low mobility. NEPAN (2002) note that gender inequality and discrimination against women is a common social phenomenon with elderly widows suffering the most in Nepal (NEPAN, 2002). This brings with it challenges for society as a whole, including health and social well-being implications for the elderly - and also raises questions about a long term strategy for meeting the needs of an aging population in a country that remains one of the poorest in the South Asian region. This paper will consider these dimensions and highlight the lack of research that has been conducted within Nepal around these issues.

Health considerations of the changing population structure in Nepal.

The increase in the elderly population in a developing economy such as Nepal will bring challenges where resources are required to meet their health and social needs. Generally, there is a scarcity of research in the area of the elderly and their health needs in Nepal; most of the attention within health debates have focused around maternal health. Currently, the demographic health survey in Nepal only includes people up to the age of 59 which further exacerbates the lack of studies surrounding health issues of an aging population (Dahal, 2007). Whilst definite national demographic data is unavailable, a study by Shrestha and Weber (2004) highlights that the longevity of people with intellectual disability (ID) has increased in Nepal during recent decades due to improvements in nutrition, sanitary conditions and health services. This in turn has implications for the services needed in order to support these people in their old age and given the issues highlighted above, adds further pressure on service provision for the elderly at a time when family structures are changing and other forms of support have not yet been established. As noted above, there is a lack of research in this area, although the work of MICDA (2008) over the past ten years in Chitwan, is a notable exception. A few studies exist that

explore the health needs of the elderly in relation to conditions such as uterine prolapse (Bonetti *et al.*, 2004), cataract services (Kandel *et al.*, 2010), parasitic infections (Shakya *et al.*, 2006) however, overall there is a paucity of research into the health needs of the elderly in Nepal. One study examines metabolic syndrome amongst inmates of a home for the aged (Pemminati *et al.*, 2009) and another on self-reported health problems of the elderly (Kshetri and Smith, 2010). In general, there is a lack of knowledge surrounding the specific health needs of the elderly in Nepal and a lack of co-ordination of research. The rise in the elderly population and the specific health issues associated with this cohort of the population suggest this area warrants further research.

Gautam (2008) feels the problem of migration is perhaps one of the most serious challenges facing an aging population in Nepal. In his study, he highlights the negative impacts on the elderly in terms of anxiety, helplessness and loneliness. In addition to this, elderly people face the extra burden and stress of social and cultural burdens including household ones. Due to the isolation they feel, they often reluctantly migrate away from the birth home to more urban areas, despite the fact that they would rather live with their families in their original homes. Regarding mental health, due to the increase in migration noted above and 'empty nest syndrome', it has been noted that in Nepal, like in many other societies, there are more elderly today who are living alone and are vulnerable to mental problems like loneliness, depression and many other physical diseases (Geriatric Centre Nepal, 2010). In urban areas, the skills and knowledge of the elderly are often underutilized, leaving the elderly feeling less useful and adding to feelings of loneliness and depression. The emotional aspects of an aging population and the impact of being unable to remain in the family home is an area that warrants further study in Nepal.

Earlier studies also note the impact of migration and the breakdown of traditional family structures that often underpin the provision of care to the elderly in Nepal. Goldstein and Beal (1986) also note the gendered dimension of migration means that it is often women who are left in rural villages to both tend to the land, children and dependents. The importance of older adults being active in relation to leisure and religious activities has been noted in the context of Nepal, suggesting the need for interventions to encourage the elderly to remain active (Gautam et al., 2007). Furthermore, Subedi et al., (2004) conclude in their work that health planners in Nepal are going to have to expand the physical and psychiatric health care systems to accommodate for the needs of an aging population. The lack of work in assessing the effectiveness of mental health and psychosocial support in Nepal is highlighted in a review of the literature conducted by Tol et al., (2010). Given the post-conflict situation Nepal now finds itself in, this is an area that needs urgent attention, not only for the elderly but throughout the whole of Nepal. With high levels of remoteness of much of the population in Nepal, mobile health camps and mobile counselling camps may be required in order to support the rural population. Practitioners and academics alike are all calling for a more detailed examination of the needs of the elderly that takes into consideration geographical as well as socio-economic and cultural disparities. This paper will explore some of the challenges facing an aging population in relation to care and service provision.

Old People's homes in Nepal: lack of provision and future challenges

A report by the Geriatric Centre Nepal (2010) estimates that more than 80% of the elderly in Nepal live with their children, usually with their son's family due to cultural taboos preventing parents living with their married daughters (approx 2.7% of the elderly are estimated to live with their daughters). With the outward migration of males from Nepal, these traditions are changing and more elderly parents will

be placed under the care of the wider family networks of those who remain in the country. Male children in particular maintain their ties to their parents by sending remittances back to Nepal to ensure that they are looked after, but as migration continues to increase and there is an increase in female as well as male members of the family seeking employment overseas, the number of elderly without a family support network in place will increase. The Geriatric Centre Nepal (2010) also noted that as younger generations move away from their birthplace for employment opportunities, more and more of the elderly are left to live alone. This leads to an increase in mental problems such as loneliness and depression as noted above. Whilst there are limited studies in this area, Gautam et al. (2007) highlight the importance of leisure and religious activities for positive mental health in older adults within Nepal. Chalise et al.'s (2008) detailed study into the issue of loneliness of the elderly in Nepal found high levels of loneliness and low levels of social well being with those over 60 years of age in the Kathmandu valley. Furthermore, the study found that men were receiving more social support than women, creating some concern about the level of social support for women. The authors felt that traditional ideals which dictate that women should be shy, patient, good, sequestered, devoted, faithful, and restrained may explain this difference. If this is the case, then research needs to be conducted with elderly females to see how they can be supported in accessing social support and asserting their rights. It has also been noted that a lack of social security and health insurance and the preference to live in a nuclear family are gradually forcing Nepali elders to take refuge in the government-run shelters (Thinley, 2002). This had led to an increase in the demand for old people's homes being established in Nepal by businesses and NGOs.

Currently there is only one old people's home run by the government in Nepal; it was established in 1973, in the premises of the Hindu temple Pashnupati Nath in Kathmandu, with a limited capacity for 230 people (Geriatric Centre Nepal, 2010). As Chalise and Brightman (2006) notes, the welfare for the elderly in Nepal often falls to their own children and as such, the government feels little obligation to providing care facilities for the elderly. This is evident by the lack of government old people's homes. Due to the fact that this is a relatively new phenomena in Nepal, there is little research being conducted into this area and also a lack of data on the establishment of old people's homes. A lack of information is further compounded by the fact that the Social Welfare Council in Nepal, responsible for the registration and monitoring of NGOs has no category for NGOs working with the elderly. There are ten categories of NGO including youth, child welfare, health, handicapped and disabled services, women's services, moral development, environmental protection, education and community development. Of these in 2007, community development accounted for 54.61%, youth services for 18.72%, environmental protection for 6.16% and child welfare for 3%. NGOs working in the field of aging in Nepal will therefore fall under community development or health depending on the work undertaken. It is difficult, therefore, to ascertain how many of these have programmes are targeted at the elderly. The past two decades has seen an increase in NGO activity, with over 30,000 NGOs being registered in Nepal working for social development and there is evidence to suggest some of these are starting to emerge to meet the needs of the elderly (NEPAN, 2008). According to NEPAN (2008), there are about 50 day care centres, 20 old people's homes and more than 100 elderly clubs being run by over 50 different organizations. GCN (2010) estimates that there are about 70 organizations, varying in status, capacity, facilities and services, with many of them being charities. GCN also estimates that 1,500 elders live in old people's homes but this does not take into consideration the increasing number of elderly people being cared for in community hospitals. As Gautam (2008) notes, the demand for this provision is bound to increase given the increasing levels of outward migration in Nepal.

Older people in old people's homes in Nepal are perceived by the wider society to have families who do not care for them, hence they are totally marginalized. Shakya et al.'s (2006) study on parasitic infection amongst the elderly found that there was a higher level of infection in the government's old people's home, suggesting the association between overcrowding, low levels of sanitation and a lack of care provision. Whilst this study was limited in scope, it found levels of infection to be lower in private homes than in both the government home and the community. A lack of medical care has also been noted in recent newspaper articles such as Pokharel's coverage in 2008. Questions surrounding the quality of care in homes such as the Pashupathi Briddhashram, run by the government and other old people's homes have started to emerge in the local Nepali media (CGC, 2010; Pokharel, 2008; Shreshta, 2009). It is argued by Pokharel (2008) that often only the most basic of needs are met, yet despite this low level of service, there is a high demand for these homes which currently isn't being met. The under secretary for the MWCSW in Nepal notes that the government's old people's home only has funds to meet the minimum requirements and if further funding was available, both the quality of provision and life expectancy of the residents would be improved (Shrestha, 2009). Given that this is the only government-funded old people's home, it emphasizes the severity of the problem and the need for more appropriate levels of funding. Whilst the work of different agencies in providing for the needs of the elderly is to be encouraged if important services are to be provided for an aging population, care must be taken to monitor the quality of these services and ensure the NGOs are provided with adequate financial support to provide high quality services. The MWCSW, along with the Social Welfare Council has an important role to play in supporting NGOs in this area. Furthermore, as NEPAN (2007) argues, international agencies also have a role to play in this field but the role of the government must not be overlooked and needs to be more fully explored. It has also been suggested that the government ministries and line agencies that oversee programmes on aging and population establish a network to improve communication and enable ideas and debates to be shared easily (GCN, 2010).

Challenges ahead: aging and the need for research

Given the fact that an aging population has only just become an issue in Nepal, aging has only just entered into the political arena. The Nepali Government enlisted the support of the Nepal Participatory Action Research Network (NEPAN), a member-based organization promoting participatory approaches to development, to undertake research into the policy and service provision needs in relation to the elderly. The resulting paper concluded that more work needs to be done with the elderly population in Nepal in terms of education, advocacy and service provision. NEPAN (2008) highlighted for example that although there is currently a pension system in place. it is mainly accessed by former military personnel, police officers or civil servants and only reaches an estimated 7% of the elderly population (NEPAN 2008). Whilst a minimum pension scheme is in place in Nepal, other studies suggest a lack of uptake and lack of payments being made on a regular basis (Rajan 2005). The government is currently preparing legislation that will address the basic fundamental right of the elderly, including rights to pensions and health care provision. Following the Madrid Plan of Action, the government has formulated a National Plan of Action in its Tenth Plan (2002-2007) for senior citizens (Sharma and Dahal, 2007).

What is needed now in Nepal is for the social welfare system to develop to extend this provision to the elderly population. The responsibility for disseminating pensions and implementing acts has been devolved to the local level through the Ministry of Local Development (MLD). It is vital that the MLD ensures that the elderly are receiving their due benefits. It is important that the Ministry for Women

Children and Social Welfare plays an active role in ensuring the social and cultural as well as financial needs of the elderly are met through the MLD who has been assigned the task of distributing pensions. It is vital that the roles and responsibilities of these agencies are made clear to the wider society (Parker and Pant, 2009). It is important that these policies and initiatives are monitored and that the benefits of policies promoting the rights and welfare of the elderly reach the elderly from urban to rural areas and from the Terai to the Mountains. Access by all sections of the population needs to be ensured, with particular attention being paid to the least wealthy in society to prevent further marginalization of an already marginal population.

Conclusion and recommendations: putting aging on the agenda

This paper has provided an overview of the key issues and challenges facing Nepal as it begins to see an increase in the elderly within the population. As the percentage of the population over 60 is predicted to increase in the coming decades, along with the increasing challenges the country faces in terms of promoting stable political and economic development and the challenges it faces due to the impacts of climate change, it is essential that a holistic and multi-generational approach is taken towards addressing these challenges. It is vital that both the experience and knowledge of the older members of the population are consulted in meeting these challenges and that the work of agencies such as NEPAN is not only continued but expanded to engage the elderly fully in creating policies and developing services to meet their needs. As Chalise and Brightman (2006) noted, the elderly in Nepal are often amongst the most neglected groups in Nepalese society and calls on the younger generation to act, promote legislation and conduct research into the situation of the elderly in Nepal.

As this paper has illustrated, it is important that the aging population is also examined in the context of increasing levels of outward migration and urbanization which is predicted to increase in the coming decades. The Geriatric Centre for Nepal (2010) emphasized this lack of research and calls for a baseline study in 15 of the 75 districts in varying geographical regions to be carried out to increase the level of understanding of the complexities embedded within aging in Nepal. Further recommendations are made to improve health provision, policy development and socio-economic considerations of the elderly. GCN (2010) also calls for awareness building and education within society to increase awareness of the challenges Nepal will face with an aging population. The lack of research, from both a scientific and sociological perspective on aging in Nepal needs to be urgently addressed and a forum created whereby academics, government agencies and practitioners can share their findings (Dahal, 2007; NEPAN, 2008; Parker and Pant, 2009).

Furthermore, there is a need for scientific research into the health situation of the elderly in Nepal alongside research that focuses on the experiences and needs of the elderly. However, equally important research is needed that focuses on the socio-economic situation of the elderly within Nepal and explores the impact of factors such as caste, ethnicity and geographical location amongst the elderly. The aging population in Nepal is predicted to increase in the coming decades and it is imperative that services are provided to meet the needs of an aging population and that civil society adapts to accommodate their needs.

REFERENCES

- Acharya, S (2001) Population Aging: Some Emerging Issues in the SAARC Region With Reference To Nepal Population and Development in Nepal, Vol. VIII, December 2001 available from Central Department of Population Studies Nepal, Tribhuvan University Nepal
- Barker, C E (2007) Support the Safe Motherhood Programme in Nepal: An Integrated Approach Reproductive Health Matters 17 (33) 45-50
- Beal, C M & Goldstein, M C (1982) Work, aging and dependency in a Sherpa Population in Nepal *Social Science and Medicine* Vol 16 12 p141-147
- Bonetti, T R, Erpelding, A & Pathak, L R (2004) Listening to "Felt Needs" Investigating Genital Prolapse in Western Nepal Reproductive Health Matters Vol 12 (23) 166-175
- CBS (2007) Population profile of Nepal Central Bureau of Statistics Nepal http://www.cbs.gov.np/population profile.php accessed 02/02/2009
- Chalise, H N & Brightman, J D (2006) Aging trends: Population aging in Nepal. Geriatrics & Gerontology International, 6: 199–204.
- Chalise, H N, Saito, T, Takahashi, M and Kai, I (2008) Relationship specialization amongst sources and receivers of social support and its correlations with loneliness and subjective well-being: A cross sectional study of Nepalese older adults <u>Archives of Gerontology and Geriatrics</u> <u>Volume 44, Issue</u> 3, May-June 2007, Pages 299-314
- Cook, I & Dummer, T (2009) Introduction Aging in Asia A Contextual Opening in Powell & Cook eds (2009) ibid
- Dahal, B P (2007) Elderly people in Nepal what happened after MIPPA, 2002? A report for Economic and Social Commission for Asia and the Pacific Macao, China Oct 2007 available at www.unescap.org/esid/psis/meetings/agingmipaa2007/NEPAN.pdf accessed 25/06/2010
- DFID (2003) Country Strategy Paper accessed 12th October 2003 available online at http://www.dfid.gov.uk/Pubs/files/cap_nepal_draft.pdf
- DFID (2007) Older people around the world unite to demand action on aging 1 Oct 2007 available at http://www.dfid.gov.uk/news/files/help-age.asp accessed 5/2/2009
- Gautam, T R (2008) Migration and the Problem of Old Age People in Nepal Dhaulagiri Journal of Sociology and Anthropology Vol.2 145 146 Available at http://www.n]pjol.info/index.php/DSAJ/article/viewFile/1361/1337 accessed 01/02/2009
- Gautam, R, Saito, T & Kai I (2007) Leisure and religious activity participation and mental health: gender analysis of older adults in Nepal BMP Public Health 1-11
- Geriatric Centre Nepal (2010) Status Report on Elderly People (60+) in Nepal on Health, Nutrition and Social Status Focusing on Research Needs Report for Government of Nepal Ministry of Health and Population, Kathmandu available at http://www.globalaging.org/health/world/2010/nepal.pdf accessed 6/7/2010
- Goldstein, M C & Beal, C M (1986) Family change, caste and the elderly in a rural locale in Nepal *Journal of Cross-Cultural Gerontology* Springer Netherlands Vol. 1 N3 p305-316 available at http://www.springerlink.com/content/w186841146035531 accessed 29/01/2009
- HDR (2008) Human Development Reports Statistics available at http://hdr.undp.org/en/statistics / accessed 01/02/2009
- HDR (2009) Build your own tables Human Development Report 2009 available at http://hdrstats.undp.org/en//buildtables/## accessed 12/10/2010

- Help Age International, (2009) Older people and climate change, Briefing paper and Agenda for action available at http://www.helpage.org/Researchandpolicy/Climatechange/Background accessed-25/05/2010
- Kandel, RP, Rajashekaran SR, Gautam, M & Bassett K L (2010) Evaluation of alternate outreach models for cataract services in rural Nepal BMC Ophthalmol March 2010
- KC, B K (2003) Internal migration in Nepal Central Bureau of Statistic Publication Population Monograph Chapter 15 available at http://www.cbs.gov.np/Population/Monograph/Chapter%2015%20%20Internal%20Migration%20in%20Nepal.pdf accessed 01/02/2009
- Khatri, R (2010) Gender Mainstreaming and Maternal Morality in Nepal CERID, Nepal
- Kshetri, D B B & Smith W C S (2010) Self-reported health problems, helath care utilisation and unmet health care needs of elderly men and women in an urban municipality and a rural area of Bhaktapur District of Nepal The Aging Male online 1-5
- MICDA (2008) Michigan Centre on the Demography of Aging health and Aging Research in Nepal available at http://micda.psc.isr.umich.edu/networks/harn.html accessed 28/01/2009

 Nepal Geriatrics and Gerontology International Vol. 6 199-204
- NEPAN (2008) Nepal: NGO Report on MIPAA Progress 2002-2008. Completed Questionnaire by Nepan (February 2008) available at http://www.globalaging.org/agingwatch/events/ngos/nepal.pdf accessed 29/01/2009.
- NTNC (2010) National Trust or Nature Conservation home page http://www.ntnc.org.np/about-ntnc.php accessed 25/05/2010
- Parker, S (2005) Reflecting on REFLECT in Sikles, Nepal: a dialogical inquiry into participation, non formal education and action-orientated research Unpublished PhD Thesis
- Parker, S & Pant, B (2009) Aging in Nepal: Emerging Issues and Challenges in Powell & Cook eds (2009) ibid
- Parker, S and Standing, K (2006) 'The Impact of Conflict on Schooling in Nepal', Chapter 2 in Leach, F. and Dunne, M. (2006) *Education, Conflict and Reconciliation: International Perspectives*, Oxford: Peter Lang.
- Pearson, M (1999) *Nepal a Health Briefing Paper* produced by IHSD a Resource Centre for The Department for International Development accessed 31st Oct 2003 available at http://www.healthsystemsrc.org/publications/Country_health/Nepal.pdf
- Pemminati, S, Adhikara, P, Pai M R & Pathak, R (2009) Metabolic syndrome among inmates of a 'home for aged' using IDF 2005 criteria Nepal Medical College Journal March 2009 11 (1) 31-33
- Pokharel, Y (2008) Elderly people get new lease of life at Pashupathi Briddhashram article in Ghorkhapatra available at
 - http://www.gorkhapatra.org.np/gopa.detail.php?article_id=18196&cat_id=10 accessed 6/7/2010
- Portnov, B A, Adhikari, M & Schwartz, M (2007) Urban Growth in Nepal: Does Location Matter? Urban Studies 44 5-6 915-937
- Powell, J & Cook, I edit (2009) Aging in Asia: Themes and Issues Nova Science Publishers
- Rajan, S I (2005) Old age Allowance Program in Nepal unpublished paper available at www.cprc.anrc.co.uk/pubfiles/rajan.pdf accessed 26/06/2010
- Seddon, D, Adhikari, J & Gurung G (2002) Foreign Labor Migration and the Remittance Economy of Nepal *Critical Asian Studies* Vol 34 issues 1 p19-40
- Shakya, B Rai, S K Singh, A & Shrestha, A (2006) Intestinal parasitizes among the elderly people in Kathmandu Valley Nepal Medical College Journal available at www.nmcth.edu/nmcj articles pdf/...wise/.../Bikash Shakya.pdf accessed 21/05/2010

- Sharma, I & Dahal, B (2007) Elderly people in Nepal: What happened after the MIPPA 2002 Country Report
- Shrestha, S & Weber, G (2002) The situation of older people with intellectual disability in Nepal: pilots study *Journal of Intellectual & Development Disability* Vol. 27 Issue 4 Dec 2002 p242-254
- Shrestha, S (2009) Lack of Doctors, funds plague old peoples home The Global Press Institute available at http://www.globalpressinstitute.org/global-news/asia/nepal/lack-doctors-funds-plague-old-aqe-home accessed 5/7/2010
- Singh S, (2004) Impact of long-term political conflict on population health in Nepal *Canadian Medical Association* Journal Vol. 171 (12) 1499-1501
- Singh S, Bøhler E, Dahal K, Mills E (2006) The State of Child Health and Human Rights in Nepal PLoS Med 3(7) e203 doi:10.1371/journal.pmed.0030203 accessed 28/01/2009
- Singh S, Dahal K, Mills E (2005). Nepal's war on human rights: A summit higher than Everest. *International Journal for Equity in Health* 2005, 4:9 Available: http://www.equityhealthj.com/content/4/1/9 accessed 28/01/2009
- Singh, M L (2003) Aging of the population of Nepal Central Bureau of Statistic Publication Population Monograph Chapter 19 available at http://www.cbs.gov.np/Population/Monograph/Chapter%2019%20%20Aging%20of%20the%20Population%20of%20Nepal.pdf accessed 01/02/2009
- Standing, K and Parker, S (2006) 'School in Nepal: 'zones of peace' or sites of gendered conflict?' Chapter 10 in Leach, F. and Mitchell, C. (2006)., *Combating Gender Violence in and Around Schools*, Stoke on Trent: Trentham.
- Subedi, B P (2005) The Aged and the Marginal: Social Geography of Older People in Nepal The Himalayan Review 35-36 (2004-2005) p1-18
- Subedi, S Tausig, M Subedi, J, Broughton, C L & Willaims-Blangero, S (2004) Mental Illness and disability among elders in developing countries: the case of Nepal Journal of Aging Health 16 (1) 71-87
- Thinley, T D (2002) Government to take elderly's plight to the world assembly The Kathmandu Post April 3rd 2002 available at http://www.nepalnews.com.np/contents/englishdaily/ktmpost/2002/apr/apr03/index.htm accessed

nttp://www.nepainews.com.np/contents/englishdaily/ktmpost/2002/apr/apr/o3/index.ntm accessed 2/02/2009

- Tol, W A, Kohrt, B A, Jordans, M J D, Thapa S B, Pettigrew, J, Upadhaya, N & de Jong J T V M (2010) Political violence and mental health A Multi-disciplinary review of the literature on Nepal Social Science and Medicine Vol. 70 (1) 35-44
- UNICEF (2010) Nepal Statistic available at
 - http://www.unicef.org/infobycountry/nepal_nepal_statistics.html_accessed 15/10/2010
- UNFPA Nepal (2008) Gender Overview available at
 - http://www.unfpanepal.org/en/programmes/gender.php accessed 25/01/2009
- Watchlist (2005) Watchlist Caught in the middle: Mounting violations against children in Nepal's armed conflict. New York: Women's Commission for Refugee Women and Children. Available: http://www.watchlist.org/reports/nepal.report.php. Accessed 28/01/2009
- World Bank (2006) Poverty Reduction Poverty in Nepal available at http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/EXTSAREGTOP POVRED/0.,contentMDK:20574069~menuPK:493447~pagePK:34004173~piPK:34003707~the SitePK:493441,00.html
- World Bank (2010) Nepal Country overview available at www.worldbank.org