

Intergenerational Living Arrangements in Myanmar and Thailand: A Comparative Analysis

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Abstract The present study compares living arrangements and related intergenerational support in Myanmar and Thailand based on recent national surveys of older persons in both countries and prior surveys in Thailand. The countries share relatively similar cultural contexts but differ radically in economic development. Substantially higher percentages of older persons in Myanmar currently coreside with their children and are considerably more likely to have non-coresident children living in the same locality. They are also less likely to live with a spouse and to have children living at a substantial distance. Older persons in Myanmar are much less likely to have phone contact with children living away and less likely to receive visits. Thai elders are considerably more likely to provide custodial care to grandchildren with absent parents and to live in skip generation households. Older Thais are also considerably more likely to receive substantial remittances from non-coresident children. The living arrangements of older age Thais in the past, however, more closely resembles the current situation in Myanmar. It appears that current differences are largely attributable to the more advanced Thai economic development through its associated impacts on migration, fertility and mortality. Contrasting political situations and government priorities also likely play a role. The results provide insights into the implications of development for older persons and suggest that if the recent course of political transformation and opening to the global economy continues in Myanmar, living arrangements there may well follow the trends in Thailand over past decades.

Keywords Myanmar · Thailand · Aging · Living arrangements · Filial support · Old age support · Wellbeing of older persons · Intergenerational support · Impact of development · Migration · Grandchildren · Material support · Assistance with ADL · Phone contact

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Introduction

That economic development and associated social and normative change impact the status of older persons and their intergenerational relationships has been an important tenet of the study of aging for some time (Aboderin 2004; Hashimoto 1991; Treas and Logue 1986). Moreover, globalization of economic relationships and access to mass media are sometimes mentioned as further exacerbating the effects (Wilson 2007). In addition, the composition of the older population is constantly evolving for example with regards to health status, educational achievement, occupational histories and entitlement to pensions all of which can affect relations between older age parents and their adult children and other family members. The nature of the impacts, however, is a matter of debate and is likely to be conditioned by cultural settings. Nevertheless, a common theme in much of the literature as well as proclamations by international forums concerned with advocacy for older persons is that modern development has a negative impact on the traditional system of family support and intergenerational relations (World NGO Forum 2002; United Nations 2002; UNESCAP 2004). Of particular concern is the impact on intergenerational living arrangements and altered household structure (Croll 2006). Demographic changes associated with development including reduced fertility, improved mortality and increased migration of young adults seeking employment are often presumed to undermine traditional arrangements especially where coresidence of aged parents and adult children traditionally served as a lynchpin of the familial system of old age support as in much of Asia (e.g. Hendricks and Yoon 2006; Knodel et al. 1995; Tout 1989; UN 2005).

The view that development inevitably leads to a worsening position of older persons including undermining family support networks has been widely criticized in the academic literature on both theoretical and empirical grounds (e.g. Aboderin 2004; Hermalin 2003). An important alternative perspective, initially proposed in the context of economically advanced Western societies, focuses on how family relations and structure are responsive to changing contexts resulting in a ‘modified extended family’. In this view, aided by technological advances especially in transportation and communications, parents and their adult children adapt to the alterations of their social and economic environment brought about by economic development. In so doing they are able to maintain family relationships and support exchanges although in modified forms (Litwak 1960; Litwak and Kulis 1987; Smith 1998). A related argument has been elaborated by Croll (2006) and others with respect to the how intergenerational relations are evolving in Asia. According to Croll, a trend away from coresidence to nuclear households does not necessarily equate with a reduction in resource flows between generations. She cites numerous studies that emphasize intergenerational linkages between nuclear families as forming embedded networked, or spatially extended families much along lines similar to those as conceptualized in the ‘modified extended family’.

The goal of the present study is to compare living arrangements and associated aspects of intergenerational support in Myanmar and Thailand based on national surveys of older persons. The cultural contexts are relatively similar given the importance of Theravada Buddhism for the majority populations in both countries while economic development differs radically. Thus a comparative analysis holds considerable promise for providing insights into the implications of development for older persons. The analyses compare the recent situation of older persons in both countries as well as the recent situation in Myanmar with earlier situations in Thailand. Several key questions guide our analysis. What accounts for differences in the recent situations between the two countries? Do past living arrangements in Thailand resemble the recent situation in Myanmar more closely than the recent Thai situation? How likely is it that future changes in living arrangements in Myanmar will follow trends experienced in Thailand over the past decades?

Following a description of data and methods, a comparison of the socioeconomic and demographic settings in Thailand and Myanmar are briefly described. The presentation of results compares sample characteristics, household composition, the location of children relative to parents, contact with children that live at a distance, presence and care of grandchildren in relation to absence of their parents, material support from children, and association of help with activities of daily living with the presence of spouses and children. The final section provides discussion and conclusions.

Country Contexts

A combination of similarities and differences between Myanmar and Thailand provides an interesting setting to address the objectives of our study. First, filial respect and support for aged parents prevails in both countries, as elsewhere throughout South East Asia (Asis et al. 1995). Following a sense of filial obligation, adult children have played a crucial role in providing care and support for older parents, including coresidence. Myanmar and Thailand are also similar in terms of gender patterns in relation to family support. As in much of Southeast Asia, both are characterized by flexible bilateral family systems in which daughters have an even more prominent role than sons in providing care and support for older parents and matrilocal residence is common (Mason 1992; Zimmer and Kim 2001). These similarities are partly related to the predominant influence of Theravada Buddhism in both Myanmar and Thailand which in contrast to Confucianism, does not stress the overarching importance of sons in family life (Engelmajert and Izuhara 2010; Hirschman and Loi 1996). At the same time, there is more ethnic diversity in Myanmar where majority Bamar constitute approximately two thirds of the population and the remaining third are officially classified as minorities. In contrast ethnic Thais and Thai Chinese comprise about 90 % of the population in Thailand.

As Table 1 indicates, the two countries share somewhat similar demographic trends with respect to fertility decline and improved mortality although Myanmar lagged behind in both respects in terms of timing and extent. In the 1960s, the total fertility rate in both countries was above six (United Nations 2013). The recent rates are at or below replacement levels. The 2.1 total fertility rate of Myanmar during 2005–2010, however, was already almost reached in Thailand by the latter half of the 1980s. Likewise, mortality improvement in Thailand has progressed considerably further than in Myanmar as evident in the substantial differences in recent values of both life expectancy at birth and at age 60. The 2005–2010 level of life expectancy at birth of 64.2 in Myanmar was already reached considerably exceeded in Thailand by the latter half of the 1980s. Due to the earlier and faster pace of demographic transition, the Thai population aged 60 and over is already a markedly larger proportion of its total population and will reach almost one-third of the total population in two and a half decades. For Myanmar, even though the pace of population aging is slower, the share of older population is projected to increase by two and a half times to 18.2 % by 2040.

Myanmar and Thailand have experienced different levels of socio-economic development during the last half century. The most striking evidence is that the GDP per capita based on purchasing power parity as of 2010 for Thailand is almost nine times higher than Myanmar. Moreover, the percentage of the economically active population engaged in agriculture in Thailand is well below that in Myanmar and urbanization has progressed more rapidly although even in Thailand less than half of the population still lives in areas officially designated as urban. Access to electricity is almost universal in Thailand

Table 1 Socio-economic and demographic indicators, Myanmar and Thailand

	Myanmar	Thailand
Total population 2010 (in thousands) ^c	51,931	66,402
Total fertility rate ^c		
1985–90	3.8	2.3
2005–10	2.1	1.5
Life expectancy at birth (e_0) ^c		
1985–90	57.8	69.8
2005–10	64.2	73.3
Life expectancy at age 60 (e_{60}) ^g	16.6	21.4
% aged 60+ ^c		
1990	6.7	7.1
2010	7.7	12.9
2040 (medium projection) ^c	18.2	33.5
% in urban areas ^f		
1990	24.6	31.4
2010	29.4	44.1
% Adult literacy rate ^b	92.3 (2010)	93.5 (2005)
Gross domestic product per capita (PPP), 2010 ^h	1,255 (est.)	9,215
% Economically active in agriculture, 2012 ^c	66.4	47.0
% Population with access to electricity ^d	49 (2010)	99 (2009)
% of main roads paved ^b	11.9 (2005)	98.5 (2000)
Human development index rank (out of 186 countries), 2012 ^b	149	103

^a International Monetary Fund, World Economic Outlook Database, April 2013

^b United Nations Development Program (UNDP), 2013 Human Development Report. New York: United Nations

^c Food and Agriculture Organization of the United Nations (FAO) Statistics Division (accessed August 25, 2013)

^d World Bank. World Development Indicators Data Bank (accessed August 8, 2013)

^e United Nations, 2013. *World Population Prospects: The 2012 Revision*. New York: United Nations

^f United Nations, 2014. *World Urbanization Prospects: The 2014 Revision*. New York: United Nations

^g United Nations, 2013. *World Mortality Report 2013*. New York: United Nations

compared to just 49 % in Myanmar, and nearly all of the main roads in Thailand are paved compared to only 12 % in Myanmar. The relative ranks in the UNDP Human Development Index in 2012 sums up the overall difference with Myanmar well below Thailand (149 vs. 103). Nevertheless, in both countries the level of adult literacy is over 90 %.

Thailand is far more advanced with respect to government policy regarding population aging and programs that benefit the older population. Such programs include effective universal health insurance providing free service and medications and the recent expansion in 2009 of the old age allowance program entitling all persons 60 and older who do not have other state support to receive modest monthly payments (Suwanrada 2012; Knodel et al. 2013). Undoubtedly Thailand's far higher level of economic development facilitates such advances in policy and programs.

The countries differ in their administrative divisions. While Thailand is divided into 878 districts which form 76 provinces, Myanmar is divided into 325 townships which constitute 14

larger administrative subdivisions called either regions or states.¹ For convenience, we refer to both as states. In general Myanmar townships and Thai districts are roughly equivalent. Townships in Myanmar consist of rural villages and urban wards while districts in Thailand are also divided into smaller rural and urban entities.

Data and Methods

Data for Myanmar come from the Myanmar Aging Survey, the first national survey of its kind for the country. It was conducted in March and April 2012 by a private survey research firm under contract with HelpAge International. The sample comprised 4,080 persons aged 60 and older and is nationally representative except for the omission of Kachin state for security reasons. The multistage sampling design involved first selecting 60 townships and then 150 rural villages and 90 urban wards within them (Knodel 2012). Although Kachin state is distinctive with most of its population belonging to the Kachin ethnic minority and being Christian, it represents only 3% of the national total population (Department of Population 2014; Wikipedia 2014). Thus the impact on the national representativeness of the survey should be minor at most.

Thailand is virtually unique in the region in having a series of nationally representative surveys over the last several decades to document the situation of older persons in private households. The first was the 1986 Survey of Socio-economic Consequences of Ageing of the Population in Thailand conducted by the Chulalongkorn University Institute of Population Studies which, together with the Health Systems Research Institute, also conducted the 1995 Survey of Welfare of the Elderly in Thailand. Information on the recent situation in Thailand relies on the 2011 Survey of Older Persons, the 4th in a periodic series conducted by the National Statistical Office (NSO) and which was preceded by NSO surveys in 1994, 2002 and 2007. Together these six cross-sectional surveys permit tracking trends over a period of a quarter century. The present analysis is restricted to persons 60 and older for all surveys although all except the 1986 survey covered persons 50 and older. Results presented in this study are appropriately weighted to yield nationally representative results with the caveat that the Myanmar survey excluded Kachin state. Detailed descriptions are available elsewhere (Chayovan et al. 1988; Chayovan and Knodel 1997; Knodel 2012; NSO no date, 2003, 2008, 2013). For convenience in the text we refer to the 2012 Myanmar and the 2011 Thai surveys as describing the current situation even though subsequent change is undoubtedly continuing.

The results presented in this analysis are estimates based on sample surveys. As such they are subject to sampling error dependent on sample size and design. The sample sizes of the two most recent Thai surveys are considerably larger than the Myanmar survey and thus the standard errors are considerably smaller than in the case of the Myanmar survey. Moreover, survey questions relating to the issues addressed in the following analyses are often not identical between the two countries or across the Thai surveys presenting a challenge for harmonizing variables. For example, the response categories for questions about location of non-co-resident children are not identical. Still, as long as the variables address similar aspects of the phenomenon under investigation, comparisons can still be informative provided

¹ Regions are ethnically predominantly Burman while states are ethnic minority dominant. In addition there is a union territory consisting of the capital area, one so-called self-administered division and 5 self-administered zones. Myanmar also has an administrative division which is translated as 'district' of which there are 63 and in this sense is similar to a province in Thailand but the Myanmar survey does not include information about the district of residence for either respondents or their children.

appropriate caveats accompany interpretation of results. In addition, when relating macro-level societal differences in development levels between the countries to explain observed differences in the survey findings, we necessarily rely on logical argument rather than direct empirical analysis.

Results

Sample Description

The key characteristics of the samples of adults aged 60 and above in each survey are presented in Table 2. In both countries women make up modestly more than half of the samples accounting for 56 % for Thailand in 2011 and 54 % for Myanmar in 2012 and reflect their majority status among the older populations. Quite similar proportions of females characterize the prior Thai surveys with the exception of the 1986 survey for which the share is noticeably higher and possibly a sign of an oversampling of women. The 2012 Myanmar sample is somewhat older than any of the Thai survey samples as indicated by the distinctly lower percentage aged 60–69 and higher percentage aged 80+ as well as a higher mean age. The mean age fluctuates by less than a year across the surveys in Thailand. The older age distribution in Myanmar may reflect sampling procedures which are hampered by the paucity of available data in that country rather than a genuine difference between the two countries (Spoorenberg 2013).

About two-thirds of elders surveyed in Myanmar in 2012 and in Thailand in 2011 live in rural areas. For Thailand, differences across the previous surveys are affected by changes in the official classification of administrative units and largely accounts for the sharp decrease from 82 to 69 % in those classified as rural between 1995 and 2002.

The majority of Thai and Myanmar elders in the samples are married. The proportion of widowed elders in Myanmar in 2012 is substantially above Thailand in 2011 and probably reflects higher mortality in Myanmar. However, the percentage widowed according to the 1986 survey is fairly similar to the current level for Myanmar and undoubtedly reflects the higher mortality in the past. Although the percentage never married is rather uncommon in both countries, the earlier surveys of Thai older persons show that the proportions of unmarried elders increased steadily over time.

On average, Myanmar elders currently average 4.3 living children compared to only 3.5 for Thai older persons reflecting the earlier and sharper fertility decline in Thailand. A substantially greater proportion of Myanmar elders in 2012 have five or more living children than do older persons in 2011 in Thailand. Only about 6–7 % of older persons in both countries are childless. For Thailand the 2011 percentage is almost double the level found in 1986.

Overall, a higher percentage of Myanmar elders than their Thai counterparts lack any formal education although currently in both countries only modest minorities (22 % in Myanmar and just 12 % in Thailand) are in this situation. In addition, currently the share of Thai older persons that completed primary education is almost five times greater than in Myanmar (73 vs. 15 %). However, nearly one-fifth of Myanmar elders have education beyond primary level compared to only one-tenth of older adults in Thailand. In Thailand, prior surveys indicate that education among older persons has substantially improved. The proportion of Thai elders that completed primary school steadily increased from just over one fifth in 1986 to close to three fourths by 2011.

Table 2 Characteristics of survey samples, Myanmar and Thailand

	Myanmar	Thailand					
	2012	1986	1994	1995	2002	2007	2011
Unweighted N	4080	3252	7878	4486	22,835	30,427	34,173
% female	54	59.0	55.1	54.5	54.3	55.4	55.9
Age (%)							
60–69	51.8	59.9	64.3	62.0	62.7	58.8	57.8
70–79	33.9	30.4	26.7	27.5	28.3	31.7	32.0
80+	14.3	9.6	9.0	10.6	9.1	9.5	10.2
Mean age	70.5	69.0	68.3	68.9	68.6	69.0	69.2
% rural ^a	68.6	82.8	81.1	82.0	69.0	71.4	66.5
Marital status (%)							
Never married	4.5	1.2	2.2	2.2	2.4	2.7	3.9
Currently married	54.2	55.1	64.4	62.2	63.2	62.5	64.7
Widowed	39.4	42.4	31.1	31.9	34.3 ^b	32.4	28.8
Separated/divorced	1.8	1.4	2.4	3.7		2.4	2.6
Number of children (%)							
None	6.8	3.7	3.6	4.4	4.5	4.6	6.4
1–2	18.2	16.2	12.9	11.7	17.9	21.8	27.9
3–4	30.0	24.1	26.0	22.8	32.2	35.1	38.2
5+	45.0	55.9	57.6	61.2	45.4	38.5	27.6
Mean number	4.3	5.1	5.1	5.3	4.4	4.1	3.5
Education (%)							
None	22.1	57.5	32.5	31.0	20.7	16.5	11.8
Some primary	44.9 ^c	14.7	10.0	15.9	8.3	6.8	4.7
Completed primary	14.9	22.3	50.5	46.7	61.9	68.3	72.7
Beyond primary	18.1	5.6	7.1	6.4	9.1	8.4	10.8
Religion (%)							
Buddhist	95.0	90.4	94.8	96.2	95.3	95.5	94.8
Moslem	1.2	8.8	4.7	3.3	4.1	3.7	3.5
Christian etc.	3.8	0.8	0.5	0.6	0.6	0.7	1.7

^a The official classification scheme distinguishing urban and rural areas changed in Thailand after the 1995 survey

^b Combined widowed, separated and divorced

^c The educational category ‘some primary’ in the 2012 Myanmar survey includes monastic education

The vast majority of older persons in both Myanmar and Thailand adhere to Buddhism. In Myanmar, Christianity is the second-largest religion, accounting for 4 % of the sample. This percentage would be somewhat greater if Kachin State where the majority of the population is Christian had not been excluded from the sample. Islam is the second most common religion among older Thais representing around 4 % in most of the surveys. The unusually high percentage in 1986 of almost 9 % is likely is an artifact of sample design compared to the later surveys as suggested by the fact that this level is roughly twice that indicated by the 1980 and 1990 censuses.

Household Composition

Coresidence with one or more adult children, typically in a stem family configuration, i.e. situations in which parents live with only one married child although unmarried children may still remain, has been a long-standing tradition in Myanmar and Thailand and in the past has been viewed as an essential way to meet the needs of older dependent members. Thus household composition provides a crucial starting place for any investigation of living arrangements. As Table 3 shows, the current average household size for older persons in Myanmar is considerably larger than in Thailand (4.7 vs. 3.6). Prior surveys show that the mean household size of persons in Thailand declined steadily over time and in 1986 exceeded the current level in Myanmar.

Table 3 further indicates that although coresidence with children is still common in both countries, currently it is considerably more frequent in Myanmar. In 2012, 77 % of Myanmar elders lived with at least one child which is almost identical to the Thai level a quarter century earlier in 1986. However coresidence in Thailand steadily declined over time and by 2011 fell well below 60 %. In contrast to coresidence with children, having a spouse in the household is currently substantially more common in Thailand than in Myanmar (64 vs. 53 %). The current difference is undoubtedly due in main to the lower level of mortality in Thailand. Moreover,

Table 3 Living arrangements among persons 60 and older, Myanmar and Thailand

	Myanmar	Thailand			
	2012	1986	1995	2007	2011
Mean household size	4.71	5.04	4.47	3.75	3.63
Household composition (%)					
Alone	4.9	4.3	4.3	7.6	8.6
Spouse only	7.4	6.7	11.9	16.3	17.1
Children w/o spouse	34.2	36.7	28.2	25.1	33.1
Children & spouse	43.0	40.2	42.7	34.2	23.4
Others (with or w/o spouse)	10.4	12.1	12.9	16.7	17.8
Total	100	100	100	100	100
% living with at least one child	77.2	76.8	70.9	59.3	56.5
% living with a spouse	53.4	54.9	57.5	60.1	63.9
Ratio of living with daughters to sons					
Any daughter to any son	1.29	1.29	1.36	1.33	1.23
Married daughter to married son ^a	1.40	1.45	1.73	1.76	1.69
Generational composition (%) ^b					
One	14.3	n.a.	17.5	27.9	31.2
Two	40.2	n.a.	34.1	34.3	35.1
Three or more	45.5	n.a.	48.5	37.8	33.7
Total	100	100	100	100	100

n.a. not available

^a Married refers to currently married for Thailand 1986 and ever married for all other surveys

^b Two generation households include both those in which the respondent lives only with their children or other second generation relatives and those in which the respondent lives only with grandchildren

the percentage with a spouse in the household has steadily increased in Thailand over time reflecting improvements in survival rates. In 1986, when life expectancy was quite similar to current level in Myanmar, the percentage of older persons with a spouse in the household in Thailand was only slightly above that in Myanmar in 2012.

Although living alone is uncommon in both countries, the current level of close to 9 % in Thailand is almost twice that in Myanmar and represents an increase from levels in 1986 and 1995 that were just below that found currently in Myanmar. A similar trend can be seen in the percentage of Thai elders that live only with spouse which currently in Thailand is more than twice that in Myanmar and represents a substantial increase from percentage in 1986 which was very close to that current percentage in Myanmar. Taken together, living in independent households (alone or with spouse only) accounts for one-fourth of the Thai older population compared to only one eighth in Myanmar. The ratio of the percentage of older persons living with daughters to that living with sons are well above one in both countries, particularly when calculated based on married children, thus confirming that matrilocal residence is common in both countries.

The current generational composition of households of older persons differs between Thailand and Myanmar. This is mainly due to the steady decline in coresidence with children among Thai elders. For Thailand, only one-third of older persons lived in households with at least three generations in 2011 compared to 49 % in 1995 and 46 % for Myanmar at present. In addition, one generation households are relatively rare in Myanmar but in Thailand almost doubled between 1995 and 2011 when it reached close to a third.

Location of Children

One important determinant of the living arrangements of older persons is the extent to which children migrate out of the locality where their parents live. Figure 1 provides information reflecting the extent of migration by examining the percentage of older persons' children that live at some distance from their parents. Information on the location of children of older persons differs between the two countries. For Myanmar we show the percentage of children that live outside their parents' township while for Thailand we show the percentage of children that live outside their parents' province. While in some cases the separation may be the result of parents migrating away from their children rather than the reverse, migration is far more common among of young adults than older persons especially in developing country contexts (Bernard et al. 2014). Thus the results shown largely reflect migration of children.

One-fifth of children of persons age 60 and older in Myanmar live outside of their parents' township in 2012 compared to almost two-fifths that live outside their parents' province in Thailand in 2011. This difference is all the more striking given that provinces in Thailand are considerably larger on average than townships in Myanmar. Thus moving across a provincial boundary in Thailand typically represents a greater distance than moving across a Township boundary in Myanmar. If it were possible to calculate the percentage of children of older persons in Thailand that lived in a different district, i.e. the equivalent of a Township in Myanmar, the difference would be substantially greater. The much higher percentage of Thai older persons' children that migrated compared to Myanmar undoubtedly reflects far greater employment opportunities generated by Thailand's more advanced economic development, especially in the modern sector which serves as a major force stimulating migration of young adults.

It is also interesting to note that the results for Thailand over time indicate that migration of adult children of older persons has been steadily increasing. Nevertheless, even in 1995, the percentage of children of older persons that lived outside their parents' province in Thailand

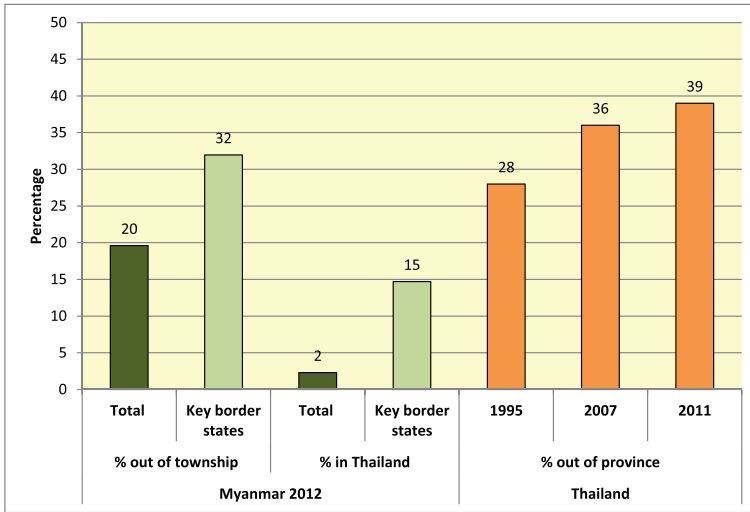


Fig. 1 Percent of children of persons 60 and older that live at a distance from parents, Myanmar and Thailand. *Notes:* A township in Myanmar is similar to a district (amphoe) in Thailand and thus implies less distance from parents. The three key border states refer to Kayin, Mon and Tanintharyi

was noticeably higher than the percentage that lived outside of their parents' township in Myanmar in 2012. Interestingly, however, for respondents in three key states in Myanmar that border on Thailand, the apparent extent of migration of children of older persons is very much higher than for the country as a whole. The higher levels of migration from these border states is almost entirely due to greater migration to Thailand rather than from greater internal migration within Myanmar. Thailand's more advanced development apparently attracts substantial labor migration from Myanmar border states and is additional evidence that low economic development in Myanmar underlies the very modest extent of internal migration of adults away from parental localities (IOM and ARCM 2013).

Living arrangements are particularly important with regards to the provision of personal care and assistance with activities of daily living as well as some types of support such as sharing meals that require proximity. However, effective provision does not necessarily require coresidence. Living nearby and especially living next door may be sufficient for adult children to be available for such assistance when needed (Knodel and Saengtienchai 1999). In both Myanmar and Thailand it is not unusual when children marry to move out of the parental household but to stay very nearby including in dwellings adjacent to their parents. As results in Table 4 show, among older persons that have at least one living child in 2012 in Myanmar almost two fifths have at least one child residing next door compared to only just over one fourth in Thailand in 2011. Moreover, in Thailand the percentage with a child living next door has declined considerably between 1995 and 2011 undoubtedly reflecting the increased migration of adult children from their parental localities. Still, even in 1995 the percentage with a child next door for Thailand is less than for Myanmar in 2012. Moreover, in Myanmar two thirds of older parents in 2012 had at least one non-co-resident child living within their locality and three fourths had one living at least within their Township. In Thailand, the figures are lower with just under half of older parents in 2011 having a non-co-resident child within their locality and just under two thirds had one living within the same province. Even in 1995, the percentage of older persons in Thailand with a child living next door is still below Myanmar in 2012.

Table 4 Percentage with at least one child living within selected distances among persons 60 and older that have at least one living child, Myanmar and Thailand

	Myanmar	Thailand		
	2012	1995	2007	2011
% with at least one child nextdoor ^a				
Total	38.7	34.4	27.4	26.0
Among non-coresident elders (all)	48.2	38.2	31.9	30.0
Among elders living only with spouse	48.5	39.0	33.2	30.1
Among elders living alone	56.1	45.5	38.6	37.5
% with at least one non-coresident child in same locality including nextdoor ^a				
Total	66.0	66.2	48.7	47.1
Among non-coresident elders (all)	73.0	68.2	53.3	52.2
Among elders living only with spouse	76.1	73.3	56.0	53.4
Among elders living alone	80.0	66.8	59.6	57.2
% with at least one non-coresident child in same township (Myanmar) or same province (Thailand) ^b				
Total	75.8	85.2	69.4	65.3
Among non-coresident elders (all)	82.4	87.6	74.0	70.9
Among elders living only with spouse	83.4	91.2	77.3	72.9
Among elders living alone	87.8	89.1	79.4	74.5

Locality refers to within the same village or ward for Myanmar and within the same village or neighborhood for Thailand

^aNextdoor includes adjacent or very close by

^bIncludes non-coresident children in same locality

In both countries substantial shares of non-coresident older persons that have living children have a child residing next door although the level is noticeably higher in Myanmar than Thailand. In both countries such quasi-coresidence among non-coresident older persons is somewhat higher than for older persons overall. The percentage of non-coresident older persons with a child living next door in Thailand has declined over time but even in 1995 the levels is distinctly below that for Myanmar in 2012.

Two groups of older persons that often receive particular attention are those who live alone or only with their spouse. Sometimes such persons are assumed to be isolated from their children. However substantial percentages of both of these groups, and especially those living alone, have children living next door and the majority has at least one child living within the same locality. For example three fourths of Myanmar older age parents who live only with their spouse have a child living within the same locality as do four fifths who live alone. In Thailand the figures are somewhat lower and have declined over time but even in 2011 over half of older age parents who live only with their spouse or live alone have a child within the same locality. In addition, substantial majorities of both of these groups in Myanmar have at least one child living within their Township. Likewise substantial although declining majorities in Thailand have at least one child living within the same province.

Contact With Children at a Distance

For most parents who have children living some distance away keeping in contact through visits or phone calls is important. Table 5 summarizes the available evidence concerning visits

Table 5 Cumulative percentages of persons 60 and older that had visits from and phone contact with at least one child during the past 12 months, Myanmar and Thailand

	Cumulative frequency		
	At least weekly	At least monthly	At least once
Phone contact with children			
With any non-co-resident child (if has at least one non-co-resident child)			
Myanmar 2012	5.1	14.7	36.6
Thailand 2011	45.6	76.3	81.4
With any non-co-resident child (if has at least one living at a distance) ^a			
Myanmar 2012	8.4	24.8	62.0
Thailand 2011	48.1	82.4	87.8
Visits from children			
From any child outside locality (if has at least one child outside locality)			
Myanmar 2012	24.1	41.1	87.0
Thailand 1995	35.5	65.0	96.3
From any child living at a distance (if has at least one living at a distance)			
Myanmar 2012	8.2	17.2	76.0
Thailand 1995	9.1	33.4	91.8

Living outside locality refers to living outside the parent's village or ward; living at a distance refers to living outside the parents' township for Myanmar and living outside the parents' province for Thailand

^a Phone contact is based on all non-co-resident children including those that do not live at distance but presumably much of the phone contact is from children that live at a distance rather than closer by

and phone contact for Myanmar respondents with at least one child living in a different township and for Thai respondents with at least one child living in a different province. A comparable measure of phone contact is available from both the 2012 Myanmar and the 2011 Thai surveys. However the 1995 survey is the most recent one for Thailand that permits calculation of a comparable measure of visits. Despite the differences in survey dates, comparison of the frequency of visits from children is still instructive. Because the question on phone contact in the 2011 Thai survey referred to all non-co-resident children, measures for both countries include phone contact from all non-co-resident children. Presumably much of the phone contact reported is from children at a distance rather than from those closer by.

The results reveal that receiving at least an annual visit from one or more non-co-resident children living at a distance is almost universal regardless of country and not surprisingly that weekly visits are quite rare. Visits on at least a monthly basis are reported by substantial minorities. However, the percentages of older persons that experienced such visits in Thailand in 1995 is twice as high as in Myanmar in 2012 and visits at least annually are also noticeably more common in Thailand. This difference is all the more striking given that the Thai results refer to visits from children that live in a different province which geographically is typically larger than a Myanmar township and thus implies the Thai visits on average were from a greater distance. Undoubtedly the more developed transportation system and extensive paved roads in Thailand even in 1995 compared to Myanmar in 2012 underlie this difference.

The contrast in phone contact frequency is extremely large between Myanmar and Thailand reflecting stark differences in the availability of phones. In Thailand in 2011, 89 % of persons 60 and older lived in a household with a cell phone and if landline phones were also considered the share with a phone would exceed over 90 %. In sharp contrast, in Myanmar

in 2012, 90 % of older persons lived in households that had no phone of any type (Knodel 2014). However the majority of Myanmar respondents with no phone in their household reported that a phone was available nearby and that almost half had ever used a nearby phone. Thus despite widespread absence of private phones, over 60 % of older age parents in Myanmar with children at a distance had phone contact at least annually.

Grandchild Care

An important contribution that older persons provide their families is the care of grandchildren. This service facilitates the parents’ ability to engage in work especially outside the home (Arber and Timonen 2012; Sun 2013). Living arrangements are intimately linked with grandchild care given that living nearby and even more so living in the same household with grandchildren greatly enhances chances that grandparents provide this service. Such assistance involves both day care in cases where the parents coreside or live nearby as well as full-time if the parents migrate to more distant locations and leave their young dependent children in custodial care of the grandparents.

Results in Table 6 indicate that approximately half of persons age 60 and over in Myanmar currently live with at least one grandchild compared to 44 % in Thailand. Focusing on younger, more dependent grandchildren that require more attention than those who are older, almost a third of Myanmar elders currently live with at least one grandchild under age 10 compared to less than one fourth of Thai elders. Prior results for Thailand show that coresiding with grandchildren declined since 1995 when the percentage was even higher than the current level in Myanmar. This decline probably reflects the combined effect of reduced coresidence and declining fertility resulting in adult children of the older persons having fewer children themselves.

Limited information in the surveys on the provision of grandparental care permits comparisons with respect to care of coresident grandchildren under age 10 as well as care to grandchildren of any age but whose parents are absent. With respect to the first measure, in both Myanmar and Thailand approximately a fifth of older persons currently provide care to

Table 6 Percent of persons 60 and older living with grandchildren, Myanmar and Thailand

	Myanmar 2012		Thailand		
	Total	3 border states	1995	2007	2011
% of older persons living with:					
At least one grandchild of any age	49.1	58.0	55.0	48.3	44.2
At least one grandchild under age 10	32.3	42.3	35.1	27.8	23.0
% Providing care for coresident grandchild					
Any grandchild under 10	19.6	20.1	n.a.	n.a.	20.4 ^a
Grandchild with absent parents ^b	5.8	15.2	n.a.	10.7	10.0
% in skip generation household (only grandparent and grandchildren):					
At least one grandchild of any age	4.1	9.5	6.2	10.1	10.1
At least one grandchild under age 10	1.9	7.0	2.7	5.1	4.7

The three key border states refer to Kayin, Mon and Tanintharyi

^a Refers to care during past 12 months

^b Includes grandchildren whose parents live elsewhere or are deceased

grandchildren under age 10. The percentage of older persons that currently care for grandchildren of any age but whose parents are absent is substantially lower in both countries but at the same time is considerably higher in Thailand where the level of migration of adult children is substantially greater than in Myanmar.²

As noted above, three key border states in Myanmar are exceptional in terms of migration with considerable shares of older persons' adult children away in Thailand. Several likely consequences of the high level of cross border migration are apparent in Table 6. Coresidence with grandchildren is modestly higher in the key border states compared to Myanmar overall. Far more striking, the percentage of older persons providing custodial care for grandchildren with absent parents in the key border states is almost 3 times as high as in Myanmar overall and even exceeds the level for Thai older persons in this respect.

One aspect of grandchild care that has attracted considerable attention is the extent to which it occurs within 'skip generation households' (Timonen and Arber 2012). The defining feature of such households in the literature is that they involve households in which grandparents and grandchildren live together but the parents of the grandchildren are absent. Definitions differ however with respect to whether other persons may be present, for example aunts or uncles of the grandchildren. In the present analysis skip generation households refer to those in which only grandparents and grandchildren reside and with no one else present. In such households care for grandchildren would very likely need to be provided by the grandparents. In this sense, skip generation households are a subset of those in which older persons provide custodial care to grandchildren with absent parents. Overall, only 4 % of older persons in Myanmar compared to 10 % in Thailand live in skip generation households. When only those with grandchildren under age 10 are considered the percentages are cut by half. The substantially higher percentages in Thailand compared to Myanmar undoubtedly reflect the more substantial migration of adult children associated with the more advanced economic development in Thailand. Moreover skip generation households increased after 1995 in Thailand undoubtedly reflecting the increase in migration among adult children of older persons over the subsequent years. Interestingly with respect to current levels of skip generation households, the percentage in the three key border states of Myanmar is similar to Thailand. Moreover, skip generation households with young grandchildren in the three key border states in Myanmar exceeds that in Thailand. Quite likely this difference is attributable to higher fertility among reproductive age adults in Myanmar compared to Thailand.

Monetary Support from Children

Children can be important sources of both financial and non-monetary material support to parents. Children are cited as the main source of material support (defined as income and goods including food) by 59 % of Myanmar respondents. Among Thai respondents 60 and older in 2011, 40 % indicated that children were their main source of income, down from 52 % in 2007 and 54 % in 1994. The decline in 2011 is likely due to the 2009 expansion of the government's old age allowance program which displaced children as the main source of income for some of the new recipients even though the percentage that reported receiving substantial amounts of money from children did not decline (Knodel et al. 2013).

Table 7 summarizes the extent to which children provide material support according to living arrangements in relation to their parents and conditioned on availability. In interpreting results, it is important to recognize that the questions concerning filial material support differed

² Although grandchildren with absent parents also include those whose parents are deceased, the large majority are cases whose parents migrated and live elsewhere.

Table 7 Material support from children by living arrangements in relation to parents and conditioned on availability, Myanmar and Thailand

	Myanmar	Thailand	
	2012	2007	2011
% received material support from children overall (among persons with living children)			
Any amount	93.0	86.7	83.9
Substantial amount	55.5	56.2	56.6
% received material support from coresident children (among persons with coresident children)			
Any amount	89.6	64.4	67.6
Substantial amount	51.1	36.5	35.9
% received material support from non-coresident children (among persons with non-coresident children)			
Any amount	71.1	73.8	82.1
Substantial amount	22.7	50.7	54.0
% received material support from non-coresident children (among persons with non-coresident children but no coresident children)			
Any amount	80.1	79.4	84.4
Substantial amount	35.3	58.9	60.0
% received material support from non-coresident children (among persons with non-coresident children and care for grandchildren with absent parents)			
Any amount	79.0	88.1	89.7
Substantial amount	37.8	70.5	66.2

The Myanmar survey the question about material support referred to money and goods combined while in the Thailand surveys the question only referred to monetary support. Substantial amount is defined for Myanmar as receiving money plus goods with a total value exceeding 100,000 kyat (ca. US\$ 125 at the time); for Thailand substantial amount is defined receiving at least 5000 Baht (ca. US\$155 at the time) in money. The question for Thailand refers to all children collectively. For Myanmar, results from individual children are combined to approximate a collective result

in the Myanmar and Thai surveys as explained below. In Thailand the question refers exclusively to monetary income but in Myanmar it explicitly includes goods as well. It is also important to recognize that the interpretation of material support from coresident children is ambiguous given that household members typically share meals and amenities amongst themselves. Thus support whether monetary or in the form of food or other goods from coresident children may be for the benefit of the entire household rather than directly for the older persons themselves. This ambiguity is much less problematic with respect to interpreting material support from non-coresident children.

The results show that large majorities of older persons in both countries report some sort of material support from their children. The percentages based on support from children overall is modestly higher in Myanmar than in Thailand. However there is virtually no difference when substantial amounts of material support are considered. It is also apparent that more Myanmar older persons compared to their counterparts in Thailand report receiving material support from coresident children while the reverse is true for support from non-coresident children, particularly with respect to substantial support. It seems likely that this apparent inconsistency results from differences in the survey questions. The Myanmar survey question encompassed goods including food, a type of support coresident children are more likely to provide than non-coresident children and would often be for the entire household of which they are also members while Thai respondents only report income, i.e. monetary support. In contrast,

material support from non-coresident children would mainly be in the form of monetary remittances to parents in both countries. Given the far more advanced stage of the Thai economy, non-coresident children of older persons in Thailand would be far better positioned to provide substantial amounts of monetary support than would their counterparts in Myanmar. This likely underlies why material support from non-coresident children, especially in substantial amounts, is far more common in Thailand than Myanmar.

In two respects, however, the pattern of material support provided by children is similar in the both countries. Respondents who do not coreside with a child but have non-coresident children are more likely to receive material support from a non-coresident child than those who do coreside with a child. In addition, respondents who care for grandchildren whose parents are absent are also more likely to receive material support than are respondents who do not care for such a grandchild. Moreover, the differences are proportionately greater with respect to receipt of substantial support. With respect to the larger amounts of support received by parents taking care of grandchildren with absent parents, it is not possible to determine if the non-coresident children that are providing the greater amounts are the parents of the grandchildren being cared for by the grandparents but it seems very likely that this is the case.

Assistance in Daily Living

One major concern for older persons as they reach advanced ages is to have someone who will assist them with their activities of daily living, especially if they become too frail or ill to fully function without help. Once such a situation arises, coresidence with the older person greatly facilitates the ability to provide assistance especially when needed on a full time or daily basis. Thus living arrangements are likely to play an important role as to whether such help will be provided and who will provide it.

In both the Myanmar and Thai surveys, respondents were asked if they had difficulties with a series of activities of daily living (ADL), if they received assistance with ADL, and who was the main provider of such help. Among those with an ADL difficulty that received assistance, 51 % in Myanmar in 2012 and 45 % in Thailand in 2011 cited a daughter as the main care provider. When combined with sons, 60 % in Myanmar and 55 % in Thailand cited a child as the main care provider. Thai Spouses were cited in 15 % of the cases in Myanmar and 21 % in Thailand. Thus both surveys reveal that the large majority of providers of assistance to older persons with ADL difficulties are either children or spouses. Although information on the role of daughters-in-law is not available for Thailand, in Myanmar they were main providers of assistance in only 8 % of the cases.

Table 8 summarizes the percentage of persons among those with at least one ADL difficulty that receive assistance according to their current living arrangements defined in relation to coresident children and spouses given that they tend to be the main providers of assistance. Note that the main person providing assistance is not necessarily a child or spouse. In both countries overall at least four fifths of persons suffering ADL difficulties receive help. However there are some differences with respect to living arrangements. The patterns are relatively similar in both countries. Older persons that live alone are least likely to receive assistance followed by those who live with a spouse but without any of their children in the household. The highest percentages that receive ADL assistance are those who live with children but without a spouse followed closely by those who live with both a spouse and children. Interestingly the small share that lived with neither a spouse nor a child and do not live alone are quite likely to receive assistance. In these cases the main provider of this assistance was almost always another relative and likely coresident although this cannot be determined from the available data.

Table 8 Percentage that receive assistance with activities of daily living (ADL) among persons 60 and older that have at least one ADL difficulty, Myanmar and Thailand

Living arrangement	Myanmar 2012	Thailand 2011
Total	83.5	80.2
Alone	46.6	62.8
With spouse but not children	62.5	68.9
With children but not spouse	90.5	86.9
With spouse and children	84.9	76.9
Other	82.7	83.7

The categories concerning presence of spouse and children do not exclude other persons that may be household members

Discussion and Conclusions

The comparison between living arrangements of older persons and associated intergenerational support reveals important differences between the current situations in Myanmar and Thailand. Among the most striking are substantially lower percentages that live with their children and higher percentages that live with a spouse in Thailand in 2011 compared to Myanmar in 2012. The average number of household members as well as the number of generations living in the same household is also lower in Thailand. Moreover, older persons in Myanmar are considerably more likely to have a non-coresident child living in the same locality including next door and less likely to have one living at a substantial distance. Among those with children living away, older persons in Myanmar are much less likely to have phone contact with them and probably less likely to receive visits. Although Myanmar elders are more likely than those in Thailand to live with a grandchild, especially ones under age 10, Thai elders are considerably more likely to provide custodial care to grandchildren with absent parents and to live in skip generation households containing only grandchildren and grandparents. Older persons in Thailand are also considerably more likely than their counterparts in Myanmar to receive substantial amounts of remittances from non-coresident children.

Underlying all of these differences is the far more advanced state of economic development in Thailand compared to Myanmar and associated impacts on migration, fertility and mortality. In countries such as Myanmar and Thailand in which the majority of the population live in rural areas, the process of economic development generates jobs including many in the modern sector and typically located in or near urban centers. This spurs employment related migration of prime age adults whose older age parents remain in the area of origin sometimes together with grandchildren left in their care. Only in three key Myanmar states that border Thailand does migration of adult children approach Thai levels. In these states, however, much of the migration is to Thailand in response to low level jobs generated by Thailand's robust economy but left vacant as Thais fill more preferable work opportunities. In addition, development typically contributes to the forces that promote declines in both fertility and mortality. Lower fertility results in reducing the number of adult children of older age persons. It also reduce the number of children that their children have thus moderating the effect of increased migration on the number grandchildren left in their care. At the same time, increasing survival rates reduce widowhood thereby increasing coresidence of elders with a spouse.

A series of surveys of older persons in Thailand starting in 1986 document the changing situation of older persons as rapid economic development took place. During the quarter

century covered by the surveys per capita GDP based on purchasing power parity increased more than fivefold (IMF 2013). At the same time coresidence with children among persons 60 and over declined from 77 to 56 % while living with a spouse increased from 55 to 64 %. In addition, the migration children of older persons increased substantially, the percentage with a non-coresident child living nearby declined, and the mean number of living children of older persons decreased from 5.1 to 3.5. In brief, as rapid economic growth proceeded, increased migration and declining family size resulted in fewer children living in close proximity to their older age parents.

The consequences of the changing living arrangements in Thailand for older persons' well-being, however, were not necessarily adverse but depended on which aspect of well-being is under consideration. During the past several decades the material well-being and standard of living of older persons improved considerably along with that of the general population as evidenced by major increases in a whole range of appliances in their households and improved housing quality (Knodel et al. 2013). Although increased migration of adult children undoubtedly reduced face-to-face contact, the remittances they provided contributed to their parents' material well-being. In addition, the recent spread of cell phones has radically increased the ability of migrant children to maintain social contact and improved transportation made visiting easier (Knodel et al. 2010). At the same time, development contributes to declining family sizes and fewer children living with or in close proximity to older age parents thus reducing availability of children to provide personal care, an aspect of well-being that requires physical presence. The increased presence of spouses mitigates this problem to only a limited extent. In both countries the percentage of older persons with ADL difficulties that receive personal assistance is substantially lower for those that live with a spouse but not with children compared to those that live with a child regardless if a spouse is present.

Clearly changing living arrangements pose serious challenges for the provision of needed personal care once frailty and disability set in given the traditional reliance on children in providing such care. At the same time, Thailand's substantial economic development contributed to the ability of the government to provide better and essentially free professional health services and likely improved older persons' health thus delaying the need for long term care. Nevertheless, given that fertility has fallen to very low levels and migration of adult children will continue, ensuring adequate long term care for the growing numbers of older persons is a key issue that families, communities and the national government will need to confront.

The changes that have taken place in Thailand started from levels considerably closer to the current situation in Myanmar than the current situation in Thailand. Widowhood and mean household size among older persons in Thailand in 1986 is modestly above the current level in Myanmar while the level of coresidence with children is virtually identical. In 1995, the generational composition of households and the proportion living with at least one young grandchild closely resemble those in 2012 in Myanmar. This raises the intriguing question of whether changes in the living arrangements and associated intergenerational relations in Myanmar over in the coming decades are likely to follow the path that Thailand experienced during recent decades.

Given the recent ongoing transformation of the political system in Myanmar and the opening up of the country to the world economy and foreign investment, the potential for rapid economic growth and other changes is very high (Park et al. 2012). Already cell phones are spreading rapidly (Fuller 2013). Unless the course of political change in Myanmar reverses, migration in response to expanding employment opportunities is likely to increase and standards of living to improve. Fertility already reached replacement and may well continue to decline to even lower levels. Of course, economic

development and associated demographic trends are not the only forces that influence living arrangements. The far more extensive government programs and services in Thailand that benefit the older population reflect differing political priorities than prevailed in Myanmar during the past. However, concerns about the seriously deficient health system and even population aging and the well-being of older persons now appear to be attracting concern within Myanmar government circles (HelpAge 2013; Risso-Gill et al. 2013). If this continues, government programs benefitting older persons may start to resemble those in Thailand. In brief, if the changes recently set in motion continue, future trends in living arrangements and family support of older persons in Myanmar may well be foreseen in the past changes in Thailand. Moreover, given the common cultural contexts supportive of filial responsibilities in both countries, the Thai experience also suggests that families are likely to adapt to new circumstances in ways that minimize negative impacts and maximize potential benefits for the wellbeing of older persons.

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References

- Aboderin, I. (2004). Modernisation and ageing theory revisited: current explanations of recent developing world and historical western shifts in material family support for older people. *Ageing and Society*, 24, 29–50.
- Arber, S., & Timonen, V. (2012). *Contemporary grandparenting: Changing family relationships in global contexts* (pp. 51–70). Bristol: The Policy Press.
- Asis, M. M. B., Domingo, L., Knodel, J., & Mehta, K. (1995). Living arrangements in four Asian countries: a comparative perspective. *Journal of Cross-Cultural Gerontology*, 10, 145–162.
- Bernard, A., Bell, M., & Charles-Edwards, E. (2014). Life-course transitions and the age profile of internal migration. *Population and Development Review*, 40(2), 213–239.
- Chayovan, N., & Knodel, J. (1997). *A report of the survey of the welfare of the elderly in Thailand*, IPS Publication 248/97. Bangkok: Institute of Population Studies, Chulalongkorn University, March 1997.
- Chayovan, N., Wongsith, M., & Saengtienchai, C. (1988). *Socio-economic consequences of the ageing of the population in Thailand: Survey findings*. Bangkok: Institute of Population Studies, Chulalongkorn University.
- Croll, E. (2006). The intergenerational contract in the changing Asian family. *Oxford Development Studies*, 34(4), 473–491.
- Department of Population. (2014). *The population and housing census of Myanmar, 2014: Summary of the provisional results*. Yangon: UNFPA and Ministry of Population and Immigration.
- Engelmajert, P., & Izuhara, M. (2010). Spiritual debts and gendered costs, chapter 7. In M. Izuhara (Ed.), *Ageing and international relations: Family reciprocity from a global perspective*. Portland: The Policy Press.
- Fuller, T. (2013). Antiquated trades endangered in a rapidly changing Myanmar. *New York Times*, November 19, 2013.
- Hashimoto, A. (1991). Living arrangements of the aged in seven developing countries. *Journal of Cross-Cultural Gerontology*, 6(4), 359–381.
- HelpAge. (2013). *Introduction to social protection benefits for old age*. Yangon: HelpAge.
- Hendricks, J., & Yoon, H. (2006). The sweep of age and aging: Changing mores, changing policies. In J. Hendricks & H. Yoon (Eds.), *Handbook of Asian aging* (pp. 1–22). Amityville: Baywood Publishing.
- Hermalin, A. (2003). Theoretical perspectives, measurement issues, and related research. In A. Hermalin (Ed.), *The well-being of the elderly in Asia: A four-country comparative study* (pp. 101–141). Ann Arbor, Michigan: University of Michigan Press.
- Hirschman, C., & Loi, V. M. (1996). Family and household structure in Vietnam: glimpses from a recent survey. *Pacific Affairs*, 69, 229–249.
- International Monetary Fund (IMF) (2013). *World Economic Outlook Database, April 2013*.

- International Organization for Migration (IOM) and Asian Research Center for Migration (ARCM), Chulalongkorn University. (2013). *Assessing potential changes in the migration patterns of Myanmar migrants and their impact on Thailand*. Bangkok: IOM Country Mission in Thailand.
- Knodel, J. (2012). *The situation of older persons in Myanmar*. Yangon: HelpAge International.
- Knodel, J. (2014). The situation of older persons in Myanmar—an overview. *BOLD*, 24(3), 9–16.
- Knodel, J., & Saengtienchai, C. (1999). Studying living arrangements of the elderly: lessons from a quasi qualitative case study approach in Thailand. *Journal of Cross-Cultural Gerontology*, 14(3), 197–220.
- Knodel, J., Saengtienchai, C., & Sittitai, W. (1995). The living arrangements of elderly in Thailand: views of the populace. *Journal of Cross-Cultural Gerontology*, 10, 79–111.
- Knodel, J., Kespichayawattana, J., Wiwatwanich, S., & Saengtienchai, C. (2010). How left behind are rural parents of migrant children: evidence from Thailand. *Ageing and Society*, 30(5), 811–841.
- Knodel, J., Prachuabmoh, V., & Chayovan, N. (2013). *The changing well-being of Thai elderly: An update from the 2011 survey of older persons in Thailand*. Chiang Mai: HelpAge International.
- Litwak, E. (1960). Geographic-mobility and extended family cohesion. *American Sociological Review*, 25(3), 385–394.
- Litwak, E., & Kulis, S. (1987). Technology, proximity, and measures of kin support. *Journal of Marriage and the Family*, 49(3), 649–661.
- Mason, K. O. (1992). Family change and support of the elderly in Asia: what do we know? *Asia-Pacific Population Journal*, 7(3), 13–32.
- National Statistical Office (NSO) (2003). *Report on the 2002 Survey of Older Persons in Thailand*. Bangkok: National Statistical Office.
- National Statistical Office (NSO) (2008). *Report on the 2007 Survey of the Older Persons in Thailand*. Bangkok: National Statistical Office.
- National Statistical Office (NSO) (2013). *Report on the 2011 Survey of the Older Persons in Thailand*. Bangkok: National Statistical Office.
- National Statistical Office (NSO). No date. *Report of the 1994 Survey of Elderly in Thailand*. Bangkok: National Statistical Office.
- Park, C.-Y., Khan, M. E., & Vandenberg, P. (2012). *Myanmar in transition: Opportunities and challenges*. Manila: Asian Development Bank.
- Risso-Gill, I., McKee, M., Coker, R., Plot, P., & Legido-Quigley, H. (2013). Health system strengthening in Myanmar during political reforms: perspectives from international agencies. *Health Policy and Planning*, 29, 1–9.
- Smith, G. C. (1998). Residential separation and patterns of interaction between elderly parents and their adult children. *Progress in Human Geography*, 22(3), 368–384.
- Spoorenberg, T. (2013). Demographic changes in Myanmar since 1983: an examination of official data. *Population and Development Review*, 39, 309–324.
- Sun, J. (2013). Chinese older adults taking care of grandchildren: practices and policies for productive aging. *Ageing International*, 38, 58–70.
- Suwanrada, W. (2012). Old-age allowance system in Thailand. 2013 *Poverty in Focus* 25:14–16.
- Timonen, V., & Arber, S. (2012). A new look at grandparenting. Chapter 1. In S. Arber & V. Timonen (Eds.), *Contemporary grandparenting: Changing family relationships and global contexts* (pp. 1–24). Bristol: The Policy Press.
- Tout, K. (1989). *Ageing in developing countries*. Oxford: Oxford University Press.
- Treas, J., & Logue, B. (1986). Economic development and the older population. *Population and Development Review*, 12(4), 645–673.
- UNESCAP (2004). Population ageing, focus of regional seminar in Macau. *Population Headliners* No. 302, p1.
- United Nations (UN) (2002). *Report of the second world assembly on aging: Madrid, 8–12 April 2002*. Document A/CONF.197/9. New York: United Nations.
- United Nations (UN). (2005). *Living arrangements of older persons around the world*. New York: United Nations.
- United Nations (UN). (2013). *World population prospects: The 2012 revision*. New York: United Nations.
- Wikipedia (2014). Kachin State. Retrieved from http://en.wikipedia.org/wiki/Kachin_State. Accessed 31 Aug 2014.
- Wilson, G. (2007). Globalisation and support in old age. *Education and Ageing*, 16(2), 121–134.
- World NGO Forum on Ageing (2002). Final declaration and recommendations of the world and GOP forum on aging. Global Action on Aging at www.globalaging.org.
- Zimmer, Z., & Kim, S. K. (2001). Living arrangements and socio-demographic conditions of older adults in Cambodia. *Journal of Cross-Cultural Gerontology*, 16, 353–381.