Chapter 3

Vietnamese Older Persons

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CHAPTER 3

Vietnamese Older Persons

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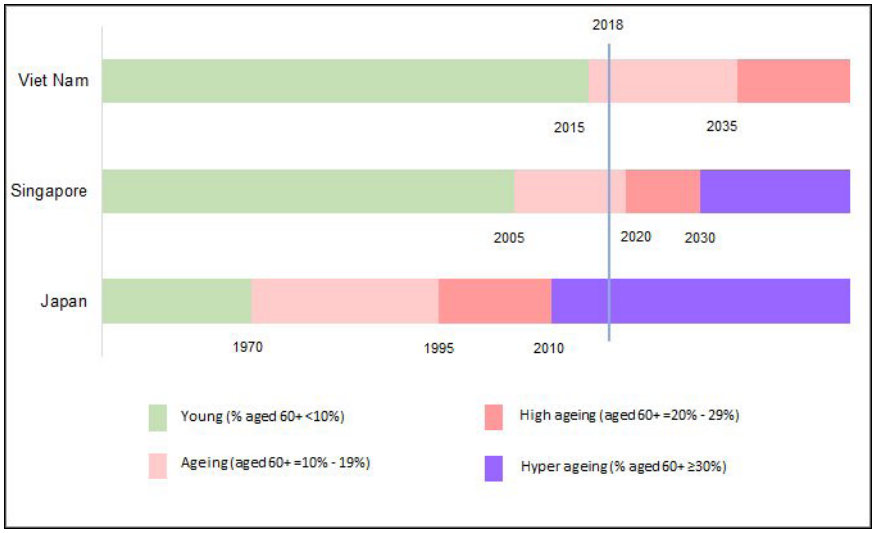
Population ageing is one of the most significant developments and important demographic trends of the 21st century, affecting labour and financial markets; demand for goods and services such as housing, transportation, and social protection; and family structures and intergenerational ties. Population ageing is specifically relevant to the Sustainable Development Goals (SDGs) on poverty eradication, healthcare, and gender equality (UNDESA Population Division, 2015a). Preparing for the economic and social shifts associated with an ageing population is, therefore, essential.

The global trends on ageing are confirmed by regular demographic structural changes in some Asian countries such as Japan, Singapore, and Viet Nam (Figure 3.1). Whilst Japan's population has been ageing since 1970 and hyper-ageing since 2010, Singapore turned into high-ageing country in 2020 and Viet Nam is ageing and expects to become high-ageing country after 2035. The number of older persons (OPs) in Viet Nam increased from 4 million (6.9% of the total population) in 1979 to 10.35 million (11.3%) in 2015 (Hoang and Duong, 2018). OPs are expected to surpass 18.6 million (17.5%) by 2030 and 32 million (28%) by 2050 (UNDESA Population Division, 2017).

This chapter presents the overall picture of OPs from the 2018 Longitudinal Study of Ageing and Health in Viet Nam (LSAHV) baseline data: characteristics of OPs' households, housing, household amenities, and transportation; and OPs' characteristics, living arrangements, and family networks.

Figure 3.1. Status of Ageing: Viet Nam, Singapore, and Japan, 1950–2045



Data source: UNDESA, Population Division (2019).

Household Population and Housing Characteristics

A household questionnaire was used to gather information on OPs' household composition and basic socio-demographic characteristics, housing amenities, poverty indicators, and family networks. Table 3.1 shows that the 6,050 sample person's households have a total of 23,409 members. Each household has at least one OP. The sample person's households have an average age of 46 years, which is higher than the national average (31 years) (www.danso.org). The sample person's household average size is 3.9 members, which is slightly higher than the national average of 3.6 (Central Population and Housing Census Steering Committee, 2019). The proportion of households headed by males (84%) is much higher than that headed by females (16%).

The experience of hunger was used as a proxy measure of poverty. A small proportion of households experienced hunger in the 3 months before the survey (0.9%); amongst them, almost a fifth (15.3%) experienced severe hunger (i.e. experienced hunger often or always for the period covered).

Table 3.1. Household and Housing Characteristics

A. Household characteristics	Mean /%
Mean age of household members	
Males	43.23
Females	48.02
Both sexes	46.22
N of cases	*23.409*
Mean household size	3.87
N of cases	*6,050*
Households headed by males	84.0
Households headed by females	16.0
Households with an overseas worker	0.5
Households that experienced hunger in the last 3 months	0.9
N of cases	*6,050*
Frequency of hunger	
Only once	12.2
A few times	72.5
Often	14.0
Always	1.3
N of cases	*52*
B. Housing characteristics	**%**
Own house and lot	84.6
In dwellings with roof made of strong materials	97.2
In dwellings with floors made of cement/marble/ceramic tiles	91.9
In dwellings with walls made of concrete/brick/stone	91.6
With electricity	99.0
Main source of drinking water	
Indoor tap water	44.2
Public tap water	3.8
Drilled well	21.9
Protected dig well	4.5
Unprotected dig well	13.6
Protected slot water	1.6
Unprotected slot water	5.6
Rainwater	3.3
Protected spring water	0.6

Unprotected spring water	0.5
Others	0.4
Main source of water for other purposes such as cooking and hand washing	
Indoor tap water	43.1
Public tap water	3.7
Drilled well	23.4
Protected dig well	4.0
Unprotected dig well	14.8
Protected slot water	1.6
Unprotected slot water	5.3
Rainwater	2.2
Protected spring water	0.6
Unprotected spring water	0.6
Others	0.6
Type of toilet	
Flush toilet	50.2
Pit latrine	41.6
Other	8.2
Household amenities	
Aircon	28.9
Washing machine	46.6
Stove with oven/gas range	81.9
Refrigerator/freezer	73.3
Personal computer/laptop	13.8
Cellular phone/mobile phone	78.6
Landline/wireless telephone	7.3
Audio component/stereo set	7.5
Karaoke/videoke/Magic Sing	10.0
CD/VCD/DVD player	17.4
Television	86.4
Radio/radio cassette player	9.2
Internet access	27.0

Vehicles	
Motorized banca/boat	0.7
Car/jeep/van	4.0
Motorcycle/tricycle	57.2
N of cases	*6,050*

CD = compact disc, DVD = digital video disc, VCD = video compact disc.
Source: Calculated by the PHAD using original LSAHV data.

As for housing characteristics and amenities, 84.6% of households reported that they owned the house and lot they were living in. Most housing units are made of durable materials (97.2%); 91.9% have cement, marble, or ceramic tile floors; and 91.6% have walls made of permanent materials (concrete, brick, stone). About 1% do not have access to electricity.

In line with the SDG 6.2 – achieve access to adequate and equitable sanitation and hygiene for all and end open defecation by 2030 (United Nations, 2017) – the survey collected information on OP households' main source of drinking water and toilet facilities. The primary source of drinking water is indoor tap water (44.2%). About a one in five said they get their drinking water from a drilled well and 4.5% from a protected dig well. A substantial percentage still rely on unsafe drinking water sources: unprotected dig well (13.6%), unprotected water slots (5.6%). Water for other purposes such as cooking and hand washing mainly comes from indoor tap water (43.1%), drilled wells (23.4%), unprotected dig wells (14.8%), and unprotected water slots (5.3%).

Only half the households (50.2%) have a flush toilet, although it is not clear whether it is shared with other households; 41.6% have a pit latrine. A considerable proportion of sanitation services are not properly managed and can spread diseases, provide a breeding ground for mosquitoes, and pollute groundwater and surface water that could be sources of drinking water (United Nations, 2017).

Data on household amenities are suggestive of households' economic status. The most commonly owned appliances are television sets (86.4% of households), stoves with oven and gas range (81.9%), cellular phones (78.6%), refrigerators (73.3%), washing machines (46.6%), and internet access (27%). Generally, the most commonly owned modes of transport are motorcycles and/or tricycles (57.2%).

Characteristics of Older Persons

As in the general population, female OPs outnumber males, constituting 57.2% of the total OP sample. For every 100 females, there are 74.8 males (Table 3.2). The mean age is 70.6 years old, with not much difference between males (70.2) and females (70.8). More males, however, are married or living in (82.1%) than females (47.7%).

Table 3.2. Percent Distribution of Older Persons by Sex and Age

Characteristics	Mean /%
Sex	
Male	42.8
Female	57.2
Sex Ratio	74.8
Age	
60-69	58.5
70-79	24.6
80+	16.8
Mean age	
Male	70.24
Female	70.81
Both sexes	70.57
N of cases	*6,050*

Source: Calculated by the PHAD using original LSAHV data.

One of the most critical characteristics of OPs is their educational profile, which is relatively low. Elementary education is the modal educational attainment: 35.7% reported having at most an elementary education (32.7% for males, 38% for females) (Table 3.3); 22% received a secondary education; 20.8% have no schooling; and only 6.5% have a college education. Table 3.3 shows significant improvements in the level of education across age cohorts, especially in the proportion with at least some high school education, which improved from 3.6% amongst those aged 80+ to 11.4% amongst those aged 60–69, indicating that the educational profile is improving.

The education of OPs is related to their employment status. About one-third (33.8%) continue to be economically productive; the proportion is significantly higher amongst males and those in their 60s. Nearly two-fifths (38%) of males and close to one-third (30.7%) of females are engaged in economic activities (Table 3.3). A significant disparity exists in work status across age groups, with 47.0% of those aged 60–69, 19.9% of those aged 70–79, and only 8.4% of those aged 80 and over currently working.

Table 3.3. Sociodemographic Profile of Older Persons by Sex and Age

Sociodemographic Profile	SEX			AGE GROUP				TOTAL
	Male	Female	Sig	60-69	70-79	80+	Sig	
Marital status								
Currently married or living in	82.1	47.7	**	73.0	56.4	34.3	*	62.4
Other	17.9	52.3		27.0	43.6	65.7		37.6
Education								
No schooling/ Pre-school	12.6	27.1		14.8	24.7	39.9		20.8
Elementary school	32.7	38.0		33.6	37.8	41.1		35.7
Secondary school	27.6	18.3	*	27.3	17.0	10.4	**	22.4
High school	11.9	7.8		11.4	8.6	3.6		9.6
Vocational school	5.9	4.4		5.3	6.1	2.3		5.1
College or higher	9.3	4.3		7.6	5.9	2.7		6.5
Work status								
Currently working	38.0	30.7	n.s.	47.0	19.9	8.4	*	33.8
Not currently working	62.0	69.3		53.0	80.1	91.6		66.2
Religion								
None	69.9	66.4	n.s.	67.1	67.8	70.6	n.s.	67.9
Others	30.1	33.6		32.9	32.2	29.4		32.1
Place of residence								
Urban	32.7	33.3	n.s.	35.1	31.7	27.9	**	33.1
Rural	67.4	66.7		65.0	68.3	72.2		67.0
N of cases	*2,570*	*3,480*		*2,638*	*2,004*	*1,408*		*6,050*

Sig = Statistical significance, * $p < 0.05$, ** $p < 0.01$, n.s. = not significant.
Source: Calculated by PHAD using original LSAHV data.

Living Arrangements and Residential History

Living arrangements impact OPs' health and well-being (Feng et al., 2019; Yamada and Teerawichitchainan, 2015; Zhang, 2019; Zhang, 2015). OPs' residential history is dynamic and dependent on a multitude of reasons, such as changes in their marital status, health, and economic well-being (Kasper et al., 2010; Liang et al., 2005; Martikainen et al., 2008). Because of significant changes in urbanisation and international migration, family norms and structures, and values, these factors must be examined to see how they affect OPs' living arrangements. The information will contribute to understanding OPs' well-being and/or vulnerability, and lead to better interventions.

Survey data show that the most common living arrangement is co-residence with children (Table 3.4): 61.3% of OPs co-reside with at least one child. This arrangement is more common amongst females than males (62.6% vs. 59.6%). Those in the oldest cohort are most likely to live with their children because of deteriorating health. About 19.4% live with their spouse only, with significantly more males (26.9%) than females (13.8%) doing so. A substantial proportion (10.7%) reported other types of living arrangements, including living with siblings, other relatives, or nonrelatives such as housemaids or caregivers. A considerable proportion live alone (8.6%). A high percentage of OPs live independently but 56.7% have children living in the same village. Functionally, males and females differ in their living arrangements: more females live alone but more than half (59.5%) have children who live close by. This means that only 3.7% of OPs live alone without any child living in their neighbourhood.

Residential history should be considered. How mobile are the OPs? About 40.5% have never moved out of their place of birth. This is more common amongst females than males (48.5% vs. 34.1%) and amongst OPs aged 70–79 (46.5%). Only 3.1% moved to their current residence in the previous 5 years. Slightly more females than males reported doing so (3.5% vs. 2.7%). Most OPs claimed to have settled in their current residence for at least 5 years (54.7%). OPs not residing in their birthplace have been living in their current residence for 47.2 years on average, indicating relative stability in residence during old age. Only 1.6% said they had moved into their current residence within a year before the survey. The OPs' aversion to residential change is evident in the finding that only 0.9% expressed an intention to migrate in the next 2 years. Given a choice, most OPs (61.1%) would prefer to live in the countryside (Table 3.4).

Table 3.4. Living Arrangement and Residential History by Sex and Age

Living Arrangement and Residential History	SEX			AGE GROUP				TOTAL
	Male	Female	Sig	60-69	70-79	80+	Sig	
Living arrangement								
Living alone	4.4	11.6		6.8	10.5	12.0		8.6
Living with spouse only	26.9	13.8	***	20.2	21.1	14.2	n.s.	19.4
Living with at least 1 child (exclude child-in-law)	59.6	62.6		60.9	60.4	64.0		61.3
Other types of arrangement	9.1	12.0		12.2	8.0	9.8		10.7
N of cases	*2,570*	*3,480*		*2,638*	*2,004*	*1,408*		*6,050*
Those living alone (exclude OPs with no children)								
Without children living in the same village	52.8	40.5	n.s.	51.5	39.4	33.2	n.s	43.3
With children living in the same village	47.2	59.5		48.5	60.6	66.8		56.7
N of cases	*112*	*311*		*143*	*151*	*129*		*423*
Residential history								
Number of years lived in current residence								
Since birth	48.5	34.1		39.3	39.9	46.5		40.5
Less than 1 year	1.0	2.2	n.s.	1.7	1.5	1.7	n.s.	1.6
Within the last 5 years	2.7	3.5		3.2	3.5	2.2		3.1
More than 5 years	47.8	60.3		55.8	55.1	49.7		54.7
N of cases	*2,135*	*2,662*		*2,196*	*1,570*	*1,031*		*4,797*
Mean years lived in current residence	49.67	45.14	n.s.	43.03	48.83	60.79	*	47.17
N of cases	*2,135*	*2,662*		*2,196*	*1,570*	*1,031*		*4,797*
% with intention to migrate within the next two years	1.1	0.8	n.s.	1.1	0.7	0.8	n.s.	0.9
Ideal type of place OP wants to live in								
City	24.5	24.8		27.4	22.8	17.7		24.7
Town	7.6	7.0		7.7	7.4	5.4		7.3
Rural	61.6	60.7	n.s.	58.1	64.0	67.4	n.s.	61.1
Abroad	0.6	0.6		0.8	0.6	0.06		0.6
Don't know	5.7	6.9		6.0	5.3	9.5		6.4
N of cases	*2,543*	*3,452*		*2,614*	*1,984*	*1,397*		*5,995*

Sig = Statistical significance, * $p < 0.05$, *** $p < 0.001$, n.s. = not significant
Source: Calculated by PHAD using original LSAHV data.

Older Persons and Their Families

OPs have important roles as leaders, teachers, and emotional and spiritual guides in the family network, which includes parents, siblings, spouses, children, and grandchildren who assist OPs and share resources with them. Kinship obligations are relevant to OPs' well-being. This section presents the characteristics of OPs' family networks and provides information about their size and quality.

Amongst OPs, 11.8% of them have a surviving parent. Because women live longer than men, 9.5% of OPs have surviving mothers and only 3.6% have surviving fathers (Table 3.5). The difference is significant across ages: more OPs aged 60–69 reported that their mother was still alive (14.7%) but only 0.4% of the older ones did.

Table 3.5. Characteristics of Parents and Siblings by Sex and Age

Characteristics of Parents and Siblings	SEX			AGE GROUP				TOTAL
	Male	Female	Sig	60-69	70-79	80+	Sig	
% with living parents								
Father	4.2	3.1	n.s.	5.5	1.1	0.4	*	3.6
Mother	11.1	8.4		14.7	3.6	0.4		9.5
N of cases	*2,570*	*3,480*		*2,638*	*2,004*	*1,408*		*6,050*
Highest educational attainment of father								
No schooling/ Pre-school	55.2	58.1		54.0	60.0	62.5		56.9
Elementary	20.3	13.4		19.5	13.6	9.3		16.4
High school	4.0	4.6	n.s.	5.3	4.1	1.7	n.s.	4.4
College or higher	1.0	0.6		1.0	0.5	0.5		0.8
Do not know	19.5	23.2		20.2	21.9	26.1		21.6
N of cases	*2,567*	*3,473*		*2,636*	*1,999*	*1,405*		*6,040*
Highest educational attainment of mother								
No schooling/ Pre-school	63.2	65.6		61.8	68.9	67.8		64.6
Elementary	17.0	11.6		17.7	9.7	7.1		13.9
High school	1.2	0.8	n.s.	1.4	0.5	2.8	n.s.	1.0
College or higher	0.3	0.0		0.2	0.1	0.0		0.2
Do not know	18.3	21.9		18.9	20.9	24.8		20.3
N of cases	*2,567*	*3,469*		*2,631*	*2,000*	*1,405*		*6,036*
Mean number of siblings	5.02	4.90	n.s.	5.20	4.59	4.57	n.s.	4.95
Mean number of living siblings								
All	3.80	3.61	n.s.	4.31	3.12	2.23	n.s.	3.70
Brothers	1.98	1.51	*	2.00	1.45	1.03	**	1.71
Sisters	1.82	2.11	n.s.	2.31	1.67	1.21	**	1.98
N of cases	*2,327*	*3,070*		*2,443*	*1,782*	*1,172*		*5,397*

Sig = Statistical significance, * $p < 0.05$, ** $p < 0.01$, n.s. = not significant.
Source: Calculated by PHAD using original LSAHV data.

The survey asked about the educational attainment of OPs' parents. About a fifth of OPs, however, did not know or could not remember their parents' level of education. More than a half reported that their father or mother had no formal schooling or preschool education, 16.4% said that their fathers had an elementary education while 13.9% reported for their mothers. The proportion of OPs who said that their father went beyond the elementary level were higher than that of mothers (5.2% and 1.2%, respectively). The generation that preceded the surveyed OPs clearly had a lower education profile than their children.

Because Viet Nam is a high-fertility regime, OPs unsurprisingly reported a mean number of five siblings, of whom about four are still alive and almost equally split by gender (3.8 for males and 3.6 for females) (Table 3.6).

Almost all (97%) the OPs have children: on average, 4.1 children ever born, reflecting the generation's high fertility, of whom about 4 are still living. Females reported a slightly higher average number of children ever born than males. The difference in number of children, by age group, is significant: 5.4 amongst OPs aged 80+ and 3.6 amongst those aged 60–69, reflecting the change in family structure. Childlessness is not common, with only 0.6% reporting that they have no child ever born. A relatively high proportion, however, experienced child mortality: almost one-fifth of OPs reported having at least one child who died.

Two percent of OPs have adopted children or stepchildren, with males and females having an average of 1.2 adopted children or stepchildren. Males have a slightly higher number of adopted children or stepchildren (1.3) than females (1.1).

Grandparenting is an almost universal experience: 9 in 10 reported having at least one grandchild from their biological children, stepchildren, and adopted children (Table 3.7), and a mean 2.8 grandchildren. On average, the OPs became grandparents at about 51.4 years old. Less than one-fifth (19.1%) are involved in the partial or full care of any of their grandchildren. Males and females reported being almost equally involved in the care of grandchildren (18.9% vs. 19.3%, respectively). Although the proportion expectedly decreases as OPs age, a notable proportion (8%) of those aged 80+ are actively involved in grandchild care.

Table 3.6. Children of Older Persons by Sex and Age

Living Arrangement and Residential History	SEX			AGE GROUP				TOTAL
	Male	Female	Sig	60-69	70-79	80+	Sig	
% of older persons who have children including adopted/stepchildren	98.5	95.9	n.s.	96.2	97.9	98.4	n.s.	97.0
N of cases	*2,570*	*3,480*		*2,638*	*2,004*	*1,408*		*6,050*
Mean children ever born	4.05	4.13	n.s.	3.55	4.46	5.39	**	4.09
Children ever born								
0	0.3	1.0		0.7	0.5	1.0		0.7
1	5.3	7.9		8.0	5.7	4.3		6.8
2	18.4	16.1	n.s.	22.5	10.5	7.9	**	17.0
3	21.6	19.4		24.4	18.0	9.9		20.3
4	20.3	18.3		18.3	24.0	15.0		19.2
5+	34.4	37.4		26.2	41.4	61.9		36.1
N of cases	*2,530*	*3,325*		*2,520*	*1,952*	*1,383*		*5,855*
Mean age at first child	26.96	24.75	*	25.29	26.33	26.32	n.s.	25.8
N of cases	*2,298*	*3,002*		*2,331*	*1,779*	*1,190*		*5,300*
Mean number of living children	3.91	3.92	n.s.	3.94	4.22	4.94	**	3.92
Number of living children								
0	0.4	0.8		0.3	1.4	0.7		0.6
1	6.0	9.3		8.9	6.7	6.1		7.9
2	19.1	17.0	n.s.	23.3	11.9	8.1	*	17.9
3	22.1	20.4		24.4	19.1	12.8		21.1
4	20.0	18.9		18.3	22.9	18.0		19.4
5+	32.5	33.6		24.8	38.0	54.4		33.1
N of cases	*2,522*	*3,293*		*2,501*	*1,941*	*1,373*		*5,815*
Mean number of dead children (amongst those who experienced child mortality)	1.92	2.01	n.s.	2.21	1.87	1.78	n.s.	1.98
N of cases	*357*	*719*		*267*	*379*	*430*		*1,076*
Number of dead children								
0	86.2	79.7		88.0	78.9	69.0		82.5
1	8.6	12.2		6.5	14.0	19.5		10.6
2	1.9	3.5	n.s.	1.6	3.7	5.9	n.s.	2.8
3	2.0	2.4		2.4	1.2	3.0		2.2
4	0.4	0.9		0.4	0.1	0.9		0.7
5+	0.9	1.4		1.0	1.3	1.7		1.2
N of cases	*2,521*	*3,291*		*2,498*	*1,941*	*1,378*		*5,812*
% who have adopted or stepchildren	2.0	2.0	n.s.	1.9	1.9	2.6	n.s.	2.0
N of cases	*2,487*	*3,391*		*2,558*	*1,959*	*1,361*		*5,878*
Amongst those who have adopted or stepchildren, mean number of living adopted or step children	1.29	1.14	n.s.	1.15	1.31	1.20	n.s.	1.19
N of cases	*22*	*51*		*32*	*21*	*20*		*73*
Amongst those who have adopted or stepchildren, mean number of dead children (amongst those who experienced child mortality)	1.00	1.00	n.s.	1.00	1.00	1.00	n.s.	1.00
N of cases	*2*	*5*		*2*	*4*	*1*		*7*

Sig = Statistical significance, * p < 0.05, ** p < 0 .01, n.s. = not significant.
Source: Calculated by PHAD using original LSAHV data.

The OPs take grandparenting seriously: 70.6% of those who reported taking care of their grandchildren either fully or partially are co-residing with their grandchildren, with no significant difference across sex and age. At least 21.8% are solely responsible for the care of the grandchild. This proportion is almost the same for females and males (22.1% vs. 21.4%).

The common reasons for being solely in charge of any grandchild are that the child's mother or father or both work in another city or province (47.9%), the child's parents are separated (11%), the child's mother or father or both work abroad (4.1%), or the child prefers to live with the OP rather than with his or her own parents (7.7%).

Table 3.7. Grandchildren of Older Persons by Sex and Age

Information on Grandchildren	SEX			AGE GROUP				TOTAL
	Male	Female	Sig	60-69	70-79	80+	Sig	
% who have any grandchildren from own, step and adopted children	90.0	91.9	n.s.	88.7	94.5	94.2	*	91.1
N of cases	*2,530*	*3,326*		*1,521*	*1,952*	*1,383*		*5,856*
Mean age when older person first had biological grandchild	51.80	50.26	n.s.	49.99	52.19	52.29	n.s.	51.41
N of cases	*1,690*	*2,159*		*1,669*	*1,360*	*820*		*3,849*
% who take care of any of the grandchildren, either fully or partially	18.9	19.3	n.s.	23.1	18.2	7.9	*	19.1
N of cases	*2,280*	*3,053*		*2,210*	*1,826*	*1,297*		*5,333*
For older persons taking care of any grandchild:								
% who live with any grandchild	70.3	70.8	n.s.	72.6	65.6	69.0	n.s.	70.6
% who are solely in charge of taking care of any grandchild	21.4	22.1	n.s.	22.4	21.8	15.7	n.s.	21.8
N of cases	*364*	*528*		*509*	*298*	*85*		*892*
Reasons for being solely in charge								
Grandchild's parent is working abroad	7.1	1.8		4.9	2.5	0.0		4.1
Grandchild is orphaned	4.7	18.2		13.1	9.8	16.2		12.5
Grandchild prefers to live with older persons than with own parents	1.9	12.0		10.0	1.7	4.5		7.7
Mother/Father or both parents of grandchild is working outside the town/city but within Viet Nam	56.4	41.7	n.s.	52.7	40.0	18.6	n.s.	47.9
Grandchild's parents are separated	10.0	11.8		9.5	16.3	7.7		11.0
Grandchild's parents are not married	10.4	2.5		3.7	3.7	44.4		5.8
Other	9.5	12.0		6.1	26.1	8.6		11.0
N of cases	*77*	*102*		*104*	*60*	*15*		*179*

Sig = Statistical significance, * $p < 0.05$, n.s. = not significant.
Source: Calculated by PHAD using original LSAHV data.

Summary, Conclusions, and Recommendations

This chapter discusses the characteristics of OPs' households, housing, and household amenities. The mean age of members of the household where OPs reside is higher than the national figure. The mean number of household members is slightly higher than the national figure. A tiny proportion of OP households have suffered from hunger. Few households have family members working overseas.

Almost 85% of OPs interviewed own the house and lot where they reside. The main sources of drinking water are indoor tap water (44.2%) and drilled well (21.9%). Yet, about 20% of OPs still get their drinking water from unsafe sources. Although about half of OP households have a flush toilet, 42% still use a pit latrine.

This chapter reports on the characteristics of the interviewed OPs: 43% are males with a mean age of 70.2 years and 57% are females with 70.8. The difference in marital status between males and females is significant: 82.1% vs. 47.7% are married or living in. Levels of education differ by gender, with females having lower levels of education in general. The place of residence does not differ by gender: about 33% of males and females live in urban areas.

Living arrangements are important factors in understanding the health status of OPs and provision for their care. More than 60% live with a spouse or child; the proportion living alone is only 4.4% for males and 11.6% for females. Even amongst those living alone, more than half have a child living in the same neighbourhood.

Living arrangements of OPs are closely related to their family structure. Few OPs have surviving parents but have 3.7 living siblings on average. OPs have 3.9 living children on average and less than 1% of OPs have no biological child. The mean number of living adopted children or stepchildren is 1.2.

Many aspects of OPs' lives need to be analysed further. Most OPs seem to live without hunger but some have severe economic difficulties. How do such living conditions affect OPs' health status and well-being? This needs to be explored.

On average, OPs have large social networks. How they affect OPs' mental and general health is explored in other studies (Takagi and Saito, forthcoming; Takagi and Saito, 2020; Tiedt et al., 2016; Takagi and Saito, 2015, 2013) and should be the focus of further analysis of the LSAHV data.

References

Feng, Z., J. Falkingham, X. Liu, and A. Vlachantoni (2019), 'Changes in Living Arrangements and Mortality among Older People in China', *SSM Population Health*, 3, pp.9–19. doi:j.ssmph.2016.11.009 (accessed 30 November 2019).

Feng, Z., K. Jones, and W. Wang (2015), 'An Exploratory Discrete-Time Multilevel Analysis of the Effect of Social Support on the Survival of Elderly People in China', *Social Science Medicine*, 130, pp.181–9.

Central Population and Housing Census Steering Committee (2019), *Kết quả Tổng điều tra Dân số và Nhà ở thời điểm 0 giờ ngày 01 tháng 4 năm 2019*. [Results – the Viet Nam Population and Housing Census of 00:00 Hours on 1 April 2019]. Hanoi: Statistical Publishing House.

Hillcoat-Nallétamby, S. and J.E. Phillips (2011), 'Sociological Ambivalence Revisited,' *Sociology*, 45, pp.202–17. doi:10.1177/0038038510394018 (accessed 30 November 2019).

Hoang, V.M. and H.Y. Duong (2018), 'Health and Health Care for Older People in Vietnam', Healthy Aging Research. doi: 10.12715/har.2018.7.15 (accessed 30 November 2019).

Kasper, J.D., L.E. Pezzin, and J.B. Rice (2010), 'Stability and Changes in Living Arrangements: Relationship to Nursing Home Admission and Timing of Placement', *Journals of Gerontology: Series B Psychological Sciences and Social Sciences*, 65B(6), pp.783–91. doi:10.1093/geronb/gbq023 (accessed 30 November 2019).

Liang, J., J.W. Brown, N.M. Krause, M.B. Ofstedal, and J. Bennett (2005), 'Health and Living Arrangements among Older Americans: Does Marriage Matter?' *Journal of Aging and Health*, 17(3), pp.305–35.

Martikainen, P., E. Nihtila, and H. Moustgaard (2008), 'The Effects of Socioeconomic Status and Health on Transitions in Living Arrangements and Mortality: A Longitudinal Analysis of Elderly Finnish Men and Women from 1997 to 2002', *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences*, 63B(2), pp.S99–S109. doi:10.1093/geronb/63.2.S99 (accessed 30 November 2019).

Shor, E., D.J. Roelfs, and T. Yogev (2013), 'The Strength of Family Ties: A Meta-Analysis and Meta-regression of Self-Reported Social Support and Mortality', *Social Networks*, 35, pp.626–38. doi: 10.1016/j.socnet.2013.08.004 (accessed 30 November 2019).

Silverstein, M., X. Chen, and K. Heller (1996), 'Too Much of a Good Thing? Intergenerational Social Support and the Psychological Well-being of Older Parents', *Journal of Marriage and the Family*, 58, pp.970–82. doi:10.2307/353984 (accessed 30 November 2019).

Takagi, E. and Y. Saito (2013), 'A Longitudinal Analysis of the Impact of Family Support on the Morale of Older Parents in Japan: Does the Parent's Normative Belief in Filial Responsibilities Make a Difference?' *Ageing & Society*, 33(6), pp.1053–76. doi: 10.1017/S0144686X1200044X (accessed 29 February 2020).

Takagi, E. and Y. Saito (2015). Older Parents' Loneliness and Family Relationships in Japan'. *Ageing International,* 40, pp.353–75.

Takagi, E. and Y. Saito (2020), 'Loneliness, Family Relationships, and Mortality: Does One's Living Arrangement Make a Difference?' *Geriatrics & Gerontology International*, 20(2), pp.156–60.

Takagi, E., A. Chan, and Y. Saito (forthcoming), 'Gender Differences in the Association between Social Relationships and Loneliness among Older Adults in Singapore', *Journal of Population Research.*

Thoits, P.A. (2011), 'Mechanisms Linking Social Ties and Support to Physical and Mental Health', *Journal of Health and Social Behavior*, 52, pp.145–61. doi:10.1177/0022146510395592 (accessed 30 November 2019).

Tiedt, A.D., Y. Saito, and E.M. Crimmins (2016), 'Depressive Symptoms, Transitions to Widowhood and Informal Support from Adult Children among Older Women and Men in Japan', *Research on Aging*, 38(6), pp.619–42. doi: 10.1177/0164027515595442 (accessed 29 February 2020).

Tucker, J.S. (2002), 'Health-related Social Control within Older Adults' Relationships', *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 57, pp.P387–P95. doi:10.1093/geronb/57.5.P387 (accessed 30 November 2019).

United Nations, Department of Economic and Social Affairs (UNDESA), Population Division (2019), World Population Prospects 2019. https://population.un.org/wpp/ (accessed 30 November 2019).

UNDESA, Population Division (2017), *World Population Ageing*. New York, NY: United Nations.

UNDESA, Population Division (2015a), *World Population Ageing*. New York, NY: United Nations.

UNDESA, Population Division (2015b), *World Population Prospects: The 2015* Revision [DVD].

United Nations (2017), Integrated Monitoring Guide for Sustainable Development Goal 6 on Water and Sanitation – Targets and Global Indicators. https://www.unwater.org/app/uploads/2017/10/G2_Targets-and-global-indicators_Version-2017-07-14.pdf. (accessed 30 November 2019).

Vietnam Women Union (VWU) (2012), *Vietnam Aging Survey (VNAS) 2011: Key Findings*. Hanoi: Women Publishing House.

Vietnam Population (2017), https://danso.org/viet-nam/ (accessed 30 November 2019).

Widmer, E.D., M. Girardin, and C. Ludwig (2018), 'Conflict Structures in Family Networks of Older Adults and Their Relationship with Health-related Quality of Life', *Journal of Family Issues*, 39(6), pp.1573–97.

Yamada, K. and B. Teerawichitchainan (2015), 'Living Arrangements and Psychological Well-being of the Older Adults after the Economic Transition in Vietnam', *The Journals of Gerontology: Series B*, 70(6), pp.957–68. doi:10.1093/geronb/gbv059 (accessed 30 November 2019).

Zhang, L. (2015), 'Living Arrangements and Subjective Well-being among the Chinese Elderly', *Open Journal of Social Sciences*, 3, pp.150–61.

Zhang, Y., Z. Liu, L. Zhang, et al. (2019), 'Association of Living Arrangements with Depressive Symptoms among Older Adults in China: A Cross-sectional Study', BMC Public Health, 19(1017). doi:10.1186/s12889-019-7350-8 (accessed 30 November 2019).