Chapter 19

Social Issues in Viet Nam's Ageing Society

Yuka Minagawa, Nguyen Cong Vu, Yoichi Hiruma, and Yasuhiko Saito

Minagawa,Y., N.C.Vu, Y.Hiruma, and Y.Saito (2023), 'Social Issues in Viet Nam's Ageing Society', in Kimura, F. et al (eds.), *Viet Nam 2045: Development Issues and Challenges*, Jakarta: ERIA, pp. 577-601.



1. Background and Overview

Viet Nam has experienced a social and economic transformation since the reunification of the North and South in 1975. A policy of economic reforms – known as Doi Moi – started in 1986, helping modernise the country in various spheres (Irvin, 1995).

One drastic social transformation has been the country's demographic changes. When Viet Nam became independent from France in 1954, its population numbered about 27.4 million; in 2020, it had grown to 96.2 million (GSO, 2020). A high fertility rate has contributed to this rapid population growth; in 1975, the total fertility rate was about 6.0 children per woman.¹ However, fertility control policies – as a part of Doi Moi – brought the rate down to the population replacement level by the early 2000s (Pham et al., 2012). It is now projected that Viet Nam's population will only rise to about 109.0 million in 2045 (DESA, 2019).

The lower fertility rate has been paralleled by improved longevity of the population. Total life expectancy at birth in 2020 stood at 75.5 years – a significant change from 61.4 years in 1975.² Causes-of-mortality patterns have shifted from infectious to non-infectious diseases, with strokes, ischemic heart disease, and chronic obstructive pulmonary disease (COPD) constituting the major causes of death in 2019.³ These observations suggest that – in line with the theory of demographic transition (Kirk, 1996) – Viet Nam has experienced demographic changes from high fertility and mortality to lower rates since Doi Moi.

Low fertility and mortality have resulted in changes in the age structure of the population. The median age of the population rose from 18.3 years to 32.5 years between 1975 and 2020, suggesting a shift from a younger to an older population (DESA, 2019). Indeed, continued reductions in fertility have led to declines in the young population (i.e. ages 0–14 years) as well as the working-age population (i.e. ages 15–64 years). The percentage of the working-age in the total population reached its peak at 70.5% in 2013, falling to 68.9% in 2020.⁴ Yet the older population (i.e. ages 65 years and over) has grown, from 4.9% of the population in 1975 to 7.9% in 2020; they are expected to total 18.3% in 2045 (DESA, 2019).

¹ World Bank, World Bank Open Data, https://data.worldbank.org/ (accessed 14 February 2023).

² Ibid.

 ³ WHO, Global Health Estimates: Leading Causes of Death, The Global Health Observatory, Geneva, https://www.who.int/ data/gho/data/themes/mortality-and-global-health-estimates/ghe-leading-causes-of-death (accessed 14 February 2023).
⁴ World Bank, World Bank Open Data, https://data.worldbank.org/ (accessed 14 February 2023).

Furthermore, the share of the older population is projected to increase from 7% to 14% within 18 years (i.e. 2016–2034), compared to 24 years in Japan (i.e. 1970–1994), 23 years in China (i.e. 2002–2025), and 20 years in Thailand (2002–2022) (Table 19.1).

Country	Years	Span
France	115	1864–1979
Italy	61	1927–1988
United Kingdom	46	1929–1975
Germany	40	1932–1972
United States	72	1942–2014
Spain	45	1947–1992
Russia	50	1967–2017
Japan	24	1970–1994
Korea	18	1999–2017
Thailand	20	2002–2022
China	23	2002–2025
Sri Lanka	19	2007–2026
Viet Nam	18	2016–2034
Malaysia	25	2020-2045
Myanmar	27	2023-2050
Indonesia	26	2025–2051
Philippines	36	2032–2068
India	22	2037–2059

Table 19.1. Number of Years for the Proportion of Older Persons to Increase from 7% to 14% of the Total Population, Selected Countries

Source: Hayashi (2018).

These recent demographic changes have had important implications for social policy in Viet Nam. The old-age dependency ratio has increased and was 11.4 in 2020, indicating future increases in medical and care expenditures for the growing older population.⁵ To sustain the country's welfare system, in 2021, the government revised the retirement age. According to the Labour Code (Decision No. 45/2019/ QH14 dated 20 November 2019), the official retirement ages – 60 years for men and 55 years for women – were extended to 62 years



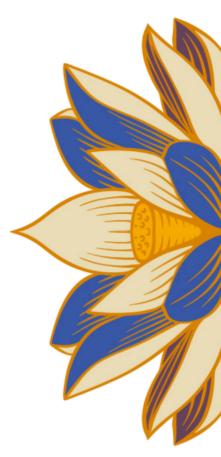
for men, with a 3-month annual increase until 2028, and to 60 years for women, with a 4-month annual increase until 2035. The logic behind this policy approach is based on an understanding that improved longevity is accompanied by improvements in the population's health status, a phenomenon known as the 'compression of morbidity' (Fries, 2005).

Empirical testing of this assumption, however, is scant, and several questions remain unanswered, including regarding the overall health status of the older population in Viet Nam, concerns over the well-being of older adults, and care options available. The remainder of this chapter aims to answer these questions, with particular attention given to the results of the baseline survey of the Longitudinal Study of Ageing and Health in Viet Nam (LSAHV) from 2018 (Vu et al., 2020).

2. Older Adults in Viet Nam

The LSAHV contains the most recent survey data on the well-being of the older population and provides a nationally representative sample of men and women ages 60 years and over. The overall objectives of the survey were to investigate the health and well-being of older people and to assess factors related to health and associated changes. The baseline LSAHV survey, based on the multistage probability sampling approach, was conducted in 2018 across 654 villages as well as urban areas from 10 provinces in 6 regions, with a total sample size of 6,050 individuals. Those ages 70–79 years and ages 80 years and older were oversampled by the factors of 2 and 3, respectively. Data were collected via in-person interviews using tablets. Questions asked included individual-level socio-demographic information as well as a range on the lives of older adults.

The baseline sample was 42.8% men (57.2% women), and the mean age was 70.6 years. Of the respondents, 62.4% were currently married, and 66.2% were out of the labour force. About 70.0% resided in rural areas. The most common living arrangement was co-residence with at least one child (61.3%), followed by living only with a spouse (19.4%) and living alone (8.6%). Educational attainment was low amongst older men and women; 78.9% had less than a secondary school education, and 20.8% had no formal education (Vu et al. 2020).



2.1. Physical Health

Self-rated health provides a summary of overall physical health status (Jylhä, Volpato, Guralnik, 2006). It is predictive of mortality, future health problems, and health-care utilisation (Idler and Benyamini, 1997; Idler, Russell, Davis, 2000). According to the LSAHV results, male respondents had better self-rated health than their female counterparts; 30.0% of men reported that they were either very healthy or healthier than average, while 21.9% of women answered similarly. In total, 47.7% of the sample rated their current health status as average (47.0% of men and 48.3% of women). Self-rated health was distributed in a graded fashion across age groups: 32.3% ages 60–69 years rated their health either as very healthy or healthier than average, 17.3% of those ages 70–79 years, and 9.3% of those ages 80 years and older. Differences between men and women – as well as across age groups – were statistically significant.

The LSAHV asked respondents about their overall health condition. Major chronic illnesses included arthritis (45.8%), back pain (30.3%), and cataracts (12.3%). About 40.9% of the sample had high blood pressure, which was prevalent especially amongst those ages 70 years and older; 9.6% had had heart attacks, with the mean age of a heart attack at 64.3 years. The average number of natural teeth was 22.3, and 4.5% had no teeth. Regarding health behaviours, 15.0% were current smokers and 12.4% former smokers. About 21.8% of older individuals were current drinkers.

Functional health is particularly important for understanding the ageing process (WHO, 2015). The socio-medical framework of the 'disablement process' (Verbrugge and Jette, 1994) focusses on the experience of disability and assesses its impact on the lives of older persons. In the LSAHV, disability was assessed via activities of daily living (ADLs) and instrumental ADLs (IADLs). ADLs referred to bathing, dressing, eating, getting out of bed, moving around the home, toileting, and going outside; IADLs comprised preparing meals, using the telephone, managing money, shopping for groceries, doing light chores, taking medications, and using public transport. Results showed that 15.0% of the respondents reported at least one ADL difficulty. The most common was going outside (11.7%), followed by getting out of bed (8.3%) and bathing (7.5%). While none of the differences between men and women in terms of the prevalence of ADLs was significant, substantial differences were noted across age groups. The prevalence of difficulty in ADLs rose with age; differences across the three age groups of 60–69 years, 70–79 years, and 80 years and above were statistically significant.

Difficulty in performing IADLs was more prevalent than ADLs amongst older people, since 29.5% of the respondents reported at least one IADL difficulty. Using the telephone was the most common type of IADL difficulty for men (12.8%) and women (20.1%). Women reported greater difficulty in managing money, shopping for groceries, and using the telephone compared to men. Just like ADLs, age is related to increases in difficulty in performing IADLs. Respondents ages 80 years and older faced greater difficulty in all IADLs than their younger counterparts.

2.2. Mental and Cognitive Health

Much literature has investigated the relationship between age and mental health status. While evidence to date is mixed – with some studies showing deterioration in mental health status over the life course and others refuting them – it is a consistent finding that depression is prevalent amongst older people (Blazer, Hughes, George, 1987). Various factors are related to the heightened risk of depression in later life, including declines in functional health, a loss of valued social roles, and death of family members (Yang and George, 2005).

The LSAHV included 11 questions on the presence of depressive symptoms during the past week, based on the Center for Epidemiologic Studies-Depression (CES-D) scale. The short version of the CES-D was devised by Kohout et al. (1993), based on the full 20-item scale by Radloff (1977). In the LSAHV, respondents were asked how often they experienced each of the 11 symptoms – such as feeling sad, feeling depressed, and having trouble getting to sleep – over the past week, with responses ranging from 'rarely' to 'most of the time'. Using the baseline LSAHV data, an analysis by Tran et al. (2022) found that 31.3% of the respondents reported depressive symptoms.

The levels of depressive symptoms markedly varied by socio-demographic variables. Depressive symptoms were more prevalent amongst women (36.1%), those ages 80 years and above (44.9%), residents of the central coastal region (46.8%), those not married (42.7%), those less educated (43.4%), those without religious affiliations (34.4%), and economically disadvantaged households (40.6%). In addition, physical health status was closely associated with depressive symptoms, and major risk factors included poor self-rated health, low body mass index, and functional impairments. These results suggest that social circumstances in which older people in Viet Nam are embedded – as well as their current physical health conditions – are related to their risk of experiencing depressive symptoms.

Another key indicator of mental health in later life is dementia, i.e. a severe form of cognitive impairment (Hugo and Ganguli, 2014). Previous studies found that developing countries tend to have lower prevalence rates of dementia than developed countries, but this difference can be explained by a lack of systematic documentation and lower chances of survival into advanced ages in developing countries (Ferri et al., 2005).

The LSAHV measured cognitive impairment via the 10-item Short Portable Mental Status Questionnaire (Pfeiffer, 1975). Results showed that women had a higher prevalence of cognitive impairment than men, and the risk of poor cognitive functioning increased with age. Amongst women ages 80 years and older, the probability of cognitive impairment reached 21.6%, while the result for men was 9.0%. These results are consistent with other research on dementia prevalence in Viet Nam, which identified correlates of cognitive decline amongst people ages 55 years and older in Da Nang, including being a woman, older age, low educational attainment, and adverse living conditions (Leggett et al., 2013).

2.3. Socio-Economic Well-Being

Sociological research has established the importance of social support – or lack of thereof – for physical and mental health outcomes (Thoits, 2011). Older age is associated with limited access to support, as functional impairment makes it difficult for older people to maintain independent lives, engage in social relationships, and receive support from their networks (Yang and George, 2005; Yang, 2006). Past research has reported poor health consequences of social isolation at advanced ages, as in higher risk of mortality (Minagawa and Saito, 2015), morbidity (Seeman, 2000), depressive modes (Heikkinen and Kauppinen, 2004), and cognitive decline (Wilson et al., 2007).

The results of the LSAHV indicated high levels of social well-being amongst older men and women in Viet Nam, however. About 7.5% of the respondents attended religious services outside of the home, and 12.6% participated in religious activities, such as bible study groups. Moreover, 23.6% of older men and women belonged to non-religious organisations – amongst which groups for retired individuals were the most popular (85.6%) – and 9.8% did volunteer work. These results showed that levels of loneliness were low amongst older people in Viet Nam. Most of the respondents reported that they rarely or never felt a lack of companionship (74.8%), left out (86.0%), or isolated (87.7%), and more than 90.0% were satisfied with relationships with relatives (92.1%) and friends (90.0%).

The increased use of information and communication technology may help older people stay connected with their social networks despite geographic distance or mobility restrictions as well. While the percentage of older people with internet access was small (14.7%), 58.4% of the LSAHV sample used cell phones, with the main purpose to call friends and family. In addition, older people in Viet Nam enjoyed high levels of life satisfaction; 92.3% of the respondents said that they were satisfied with life (i.e. 'very satisfied' and 'somewhat satisfied'). Life satisfaction declined with age, but more than 90.0% of the respondents ages 80 years and above also answered that they were satisfied with life.

The results also suggested favourable economic situations amongst older persons. Despite low educational attainment and childhood poverty (e.g. 42.1% of the sample experienced poverty while growing up), about 80.0% of the respondents reported that they had enough financial resources to cover expenses. Major sources of income included children living in the country (38.5%), earnings from work (37.3%), and government pensions (23.8%), while 14.7% of the sample reported economic hardships in the household. At the time of the survey, 38.0% of male and 31.0% female respondents were in the labour force.

3. Burden of Mental Disorders

3.1. Mental Health Care in Viet Nam

The evidence reviewed to this point suggests improvements in the population's welfare in Viet Nam, but public health challenges remain, such as the increased prevalence of mental disorders. Indeed, the high burden of mental disorders has become evident worldwide. In 2019, mental disorders contributed to 4.9% of disability-adjusted life years worldwide, up from 3.1% in 1990 (Ferrari et al., 2022). Mental disorders have also become predominant in developing countries; researchers now

argue that they are no longer 'diseases of affluence' (Desjarlais et al., 1995). An analysis by Lund et al. (2010) reported associations between mental disorders and various dimensions of poverty – such as low education, low incomes, poor housing conditions, and unemployment – in low- or middle-income countries. Issues of poverty – including financial worries, worsened physical health statuses due to lack of economic resources, exposure to crime and violence, childhood poverty, and social isolation – may yield deleterious effects on mental health status (Ridley et al., 2020). It is also likely that mental disorders reduce one's ability to work, making upwards social mobility difficult.

While causality needs to be explored, past evidence has established the strong association between mental disorders and socio-economic adversity, indicating that populations in developing countries may be at greater risk of experiencing mental disorders compared to their more affluent counterparts. Moreover, mental health services tend to be underfunded in developing societies. According to Ridley et al. (2020), high-income countries, on average, spent more than 3% of total health expenditures on mental health services, whereas the result for low- and lower middle-income countries was less than 1%. Inadequate budgets for mental health services may lead to a situation in which persons in need of care do not receive appropriate treatment, a phenomenon known as a 'treatment gap' (Lund et al., 2012).

Viet Nam is no exception, as the need for mental health care services remains high yet largely unmet. Common mental disorders in the country include substance abuse, depression, and anxiety, and the number of people with these conditions has gradually increased (Vuong et al., 2011). Suicide attempts occur frequently amongst the population, especially amongst young people in urban areas (Thanh et al., 2005). Anxiety and depression – also common in Viet Nam – are closely linked to suicidal thoughts and plans (Thanh et al., 2006).

Since Doi Moi, the government has worked to reform the health care system by, for example, introducing a user fee system, legalising private medical practices, and commercialising the pharmaceutical industry (Dao, Waters, Le, 2008). A mental health policy was included in the National Health Target Program, with a special focus on strengthening the capacity of community-based health facilities in this area nationwide (Vuong et al., 2011). As a result, these facilities are responsible for the scanning, early detection, and treatment of schizophrenia, depression, and epilepsy in communities (Vuong et al., 2011).

The government has further invested in improving Viet Nam's mental health care sector. For instance, there were 4.16 mental health workers per 100,000 population in 2020, up from 3.91 in 2014, as well as 4,015 mental health professionals, including 951 psychiatrists, 2,791 mental health nurses, and 102 psychologists (WHO, 2021). There were 43 mental hospitals for inpatient care, and 4 facilities focussed on such treatment for children and adolescents. In addition to mental health care facilities managed by the Ministry of Health, there are long-term care facilities for severely mentally ill patients managed by the Ministry of Labour, Invalids and Social Affairs (MOLISA). According to MOLISA, Viet Nam has 45 such centres that can host 20,000 patients nationally. Most of these patients have severe schizophrenia and dementia, are unresponsive to regular medical treatments, and have no familial caregivers. These centres are in 35 provinces, and the government plans to expand this network in the next 10 years by one to two centres each year, depending on the state budget.⁶

Despite the government's commitment, several important issues remain unaddressed, however. First, there are inequalities in access to health care services across regions and income groups, and out-of-pocket payments make a significant contribution to health care costs (Vuong et al., 2011; Witter, 1996; Niemi et al., 2010). Second, mental health services remain underresourced. Moreover, there is a lack of human resources in the mental health care sector. In 2020, there was less than 1.0 psychiatrist per 100,000 population in Viet Nam, compared to 12.6 in Japan, 7.9 in Korea, and 4.3 in Singapore; figures were also low for mental health nurses, clinical psychologists, and social workers (Table 19.2). Although there are educational programmes in psychiatry in Viet Nam, it is one of the least popular concentrations for post-graduate training (Vuong et al., 2011).

Table 19.2. Mental Health Care Workers, Selected Countries, 2020(per 100,000 persons)

Country	Psychiatrists	Mental Health Care Nurses	Psychologists	Social Workers	Total
Japan	12.55		27.81	71.56	111.92
Rep. of Korea	7.91	13.96	1.89	9.70	45.00
China	2.55	5.68	0.37		8.60
Thailand	0.94	5.54	0.61	0.19	7.87
Malaysia	1.21	2.88	0.56	1.08	5.86
Singapore	4.27	21.86			26.14
Philippines	0.22	0.78	0.08	0.48	1.68
Viet Nam	0.99	2.89	0.11	0.04	4.16

Source: WHO (2021).

⁶ See Decision No. 1929 (1929/QD-TTg, dated 25 November 2020) on the National Programme to Support People with Mental Disorders in Viet Nam.

3.2. Implications for the Future

These observations indicate that – although the infrastructure of mental health care services in Viet Nam have improved over time – a substantial gap still exists between the demand for care and available resources. This has an important bearing on future social policy in Viet Nam, given its rapidly ageing population. Based on the assumption that the current prevalence of depressive symptoms in older LSAHV respondents will remain unchanged, it is expected that, in 2045, about 8.9 million older people in Viet Nam will be suffering from depression, versus about 3.8 million in 2020 (Figure 19.1).

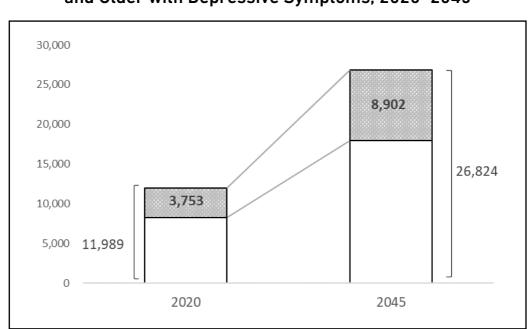


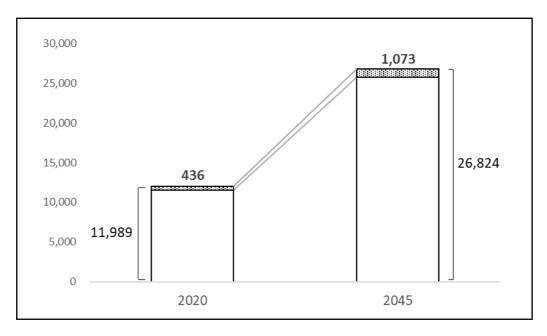
Figure 19.1. Expected Changes in the Number of Those Ages 60 Years and Older with Depressive Symptoms, 2020–2045

Source: Authors' calculations based on the data from DESA (2019) and Vu et al. (2020).

While these estimates indicate expected increases in demands for mental health care services, given the current state of mental health care infrastructure, a treatment gap for mental disorders may further widen – especially for older adults. Also, inadequate budgets in the mental health sector may accelerate the practice of informal or out-of-pocket payments for mental health care, exacting a high toll on the financial welfare of the older population (Niemi et al., 2010).

Many studies have indicated that late-life depression is co-morbid with dementia (Green et al., 2003; Jorm, 2000; Steffens and Potter, 2008). The number of older people with cognitive impairments is expected to increase between 2020 and 2045, as well, reaching about 1.1 million in 2045 (Figure 19.2). These estimates raise the possibility that the increase in cognitive impairments in Viet Nam's older population will come with an even larger prevalence of depression.

Figure 19.2. Expected Changes in the Number of Those Ages 60 Years and Older with Cognitive Impairments, 2020–2045



Source: Authors' calculations based on the data from DESA (2019) and Vu et al. (2020).

Researchers suggest that mental health should be integrated into primary care services in developing countries, which allows for early detection and treatment of mental disorders (Lancet Global Mental Health Group et al., 2007).⁷ Support from international development agencies and donors will thus play a key role in addressing the unmet need for mental health care in Viet Nam, and cooperation should include the establishment of mental health care facilities and the development of learning and training programmes for mental health care professionals. In addition, efforts to develop mental health legislation are vital, given that Viet Nam does not currently have any mental health care laws (WHO, 2021).

More research should be directed towards the topic of mental health in Viet Nam as well. In 2019, 5.59% of research publications in Viet Nam focussed on mental health, down from 9.21% in 2016, compared to 12.76% in Singapore and 6.54% in Korea (WHO, 2021). Importantly, research findings can be translated into policy actions and practices to address the needs of people with mental disorders. Further, it is essential to provide support for strengthening the capacity of non-governmental organisations that offer mental health services. Although their numbers are limited in Viet Nam, some do organise workshops and help those with mental disorders receive mental health care services (Nguyen et al., 2019).

⁷ The Programme for Improving Mental Health Care (PRIME), for example, is targeted at scaling up care for mental disorders in primary and maternal care settings in Ethiopia, India, Nepal, South Africa, and Uganda (Lund et al., 2012).

Raising awareness about mental disorders is essential in the Vietnamese context. Van et al. (2021) found that barriers to seeking mental health care amongst older people in Viet Nam include stigma attached to mental disorders, fears of being judged by others, and emotional concerns about seeking help. These factors may further delay the detection and diagnosis of mental disorders and complicate the process of treatment. Stigma and prejudice associated with mental disorders remain strong in many Asian societies, including Viet Nam; thus, efforts to change the public's perceptions about mental disorders through education and social media are needed.

4. Care Provision in Viet Nam

4.1. Familial Care

With the rapidly ageing population, greater longevity, and increased prevalence of chronic conditions, more people in Viet Nam require care at older ages. Viet Nam provides an interesting context to examine the issue of care, given the strong influence of Confucianism, best exemplified by the norm of filial piety – expectations that adult children provide care for their parents in exchange for sacrifices previously made by the parents (Koyano, 1996). The norm of filial piety is even stipulated in the Law on the Elderly (No. 39/2009/QH12), which states that children, grandchildren, and other relatives have the duty to ensure the well-being of older adults in a family (Laguna, 2020). It is important to note, however, that in East Asian patrilineal societies, actual care is often provided by daughters-in-law rather than sons (Lan, 2006; Iwai, Emiko, Atsuko, 2022).

The LSAHV contained many questions on the needs and expectations of care in later life. Several findings emerged. First, 73.2% of respondents had primary caregivers, and the percentage increased with age, reaching 81.7% amongst those ages 80 years and older. Second, children (44.4%) and spouses (43.2%) were primarily responsible for providing care for older adults. The percentage of respondents who received care from their children increased with age, indicating the high likelihood of being widowed and reliant on children for care at advanced ages. In the LSAHV sample, 8.6% of the respondents identified their sons- and daughters-in-law as primary caregivers. Other arrangements, such as caregiving by relatives and siblings, remained at less than 1.0%. Regarding the characteristics of caregivers, the mean age was 52.4 years, and most of them were married (82.9%) and working (66.9%), and the modal educational attainment was less than high school (64.9%). Third, in terms of the content of care, household tasks constituted the bulk of the care work (49.5%), followed by assistance with mobility, such moving around the home or visiting friends (20.3%). Amongst people ages 80 years and above, assistance with household tasks occupied 70.9% of the primary caregiver's work, indicating increased difficulty in managing daily household chores at older ages. Lastly, while more than half of the caregivers (57.7%) were satisfied with the provision of care, some reported difficulty in interacting with older persons (18.1%) or experienced conflict in managing care (16.8%). These results indicate how caregiving for older adults can be a challenging task for primary caregivers.

Respondents were also asked about potential caregivers. About 26.8% of the respondents answered 'yes' to the question, 'Do you have a person in mind whom you think will take care of you when you need one?'; more than half (56.3%) identified their sons and daughters as potential caregivers,

followed by their spouses (29.1%). Adult children and spouses together constituted more than 80.0% of potential caregivers (85.4%), whereas 9.1% of the respondents expected to receive care from sons- and daughters-in-law.

Taken together, these results demonstrate how the traditional norms of filial piety remain pervasive in the Vietnamese family context. Although society has gone through a fundamental transformation during the past few decades – with profound influences on family life – the findings suggest that the ideal of familial support is unchanged amongst older people. The responsibilities of caregiving still largely fall on adult children and spouses.

4.2. Long-Term Care Needs

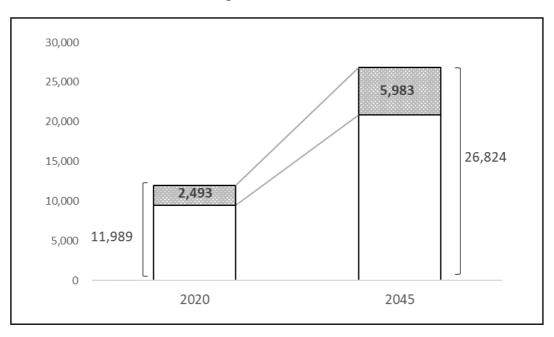
The LSAHV asked participants about their long-term care needs; 20.4% of the sample received longterm care due to ill health or disability (21.3% of men and 19.8% of women). Respondents with longterm care needs totalled 16.1% in the 60–69-year age group, increasing with age, reaching 34.3% amongst those ages 80 years and above. Spouses (44.9%), sons (31.0%), and daughters (13.7%) bore responsibility for providing long-term care, compared to sons- and daughters-in-law (6.8%). Amongst respondents ages 60–69 years, spouses (59.4%) provided long-term care, falling to 21.3% for those ages 80 years and above. Instead, sons assumed primary roles as long-term caregivers (39.5%) in this age group, followed by daughters (13.7%).

The overwhelming majority of respondents – 86.3% – received long-term care daily, and major types of assistance included preparing meals (79.9%), taking medications (46.0%), and self-care such as bathing (25.7%). The LSAHV also asked about potential long-term caregivers. Results indicated that older persons relied on their family members for the provision of long-term care, not public care options like nursing homes. About 88.8% of respondents said that they would like to receive care from immediate family members (e.g. spouses and children) even when they develop dementia, while only 0.3% cited nursing homes. Similar patterns were observed if bedridden (88.3% versus 0.6%).

These results show how older persons in Viet Nam rely on their immediate family members for long-term care provision, but this model may not be sustainable in the future. It is estimated that, in 2045, approximately 6.0 million Vietnamese people ages 60 years and older will require long-term care, significant growth from 2.5 million in 2020 (Figure 19.3). These projections imply that – even within the context of filial piety – informal family caregiving may not be sufficient to support the growing demands for long-term care.



Figure 19.3. Expected Changes in the Number of Those Ages 60 Years and Older with Long-Term Care Needs, 2020–2045



Source: Authors' calculations based on the data from DESA (2019) and Vu et al. (2020).

Although women's educational attainment has increased in recent years, women still bear the brunt of domestic labour, making it difficult to navigate both family and career development (Luong, 2016). Further, Viet Nam has become a major source of international labour migration, and these upturns in labour migration reflect the country's socio-economic development under Doi Moi (Ishizuka, 2013). Since 2014, for instance, based on the Japan–Viet Nam Economic Partnership Agreement, Japan has accepted more than 1,500 trainees for nurses and care workers from Viet Nam.⁸ The agreement aims to boost economic activities between the two countries, but it also addresses the problem of a shortage of personnel working in Japan's health care sector.⁹ It is important to note, however, that Viet Nam may also soon face a lack of health care workers, due to increases in future care needs. This point further confirms the importance of establishing a mechanism through which nurses and care workers are trained domestically and contribute to the growing needs for care in their own country.

Japan introduced a long-term care insurance policy in April 2000. The traditional Japanese model of caregiving was also based on familial care provided by women, but recent increases in Japan's female labour force participation have revealed the limit of informal family caregiving (Yong and

⁸ MHLW, Acceptance of Vietnamese Nurse/Care Worker Candidates https://www.mhlw.go.jp/stf/seisakunitsuite/ bunya/0000049737.html [in Japanese].

⁹ Since 2012, Viet Nam has had a similar agreement with Germany (Peters and Braeseke, 2016).

Saito, 2012). In response, the Government of Japan implemented a long-term care insurance policy to provide home- and institution-based care services for older eligible people, moving caregiving into the public sphere (Iwagami and Tamiya, 2019). Other countries, such as Germany and Canada, also have similar long-term care programmes, and lessons from these countries may provide valuable insights to Viet Nam on dealing with the issues of long-term care (Campbell, Ikegami, Gibson, 2010; Grignon and Spencer, 2018).

4.3. Health Care Utilisation amongst Older Adults

Based on the LSAHV, slightly less than 30% of older adults reported that they received medical care for an illness/accident from any medical facility or practitioner without staying overnight in the past 12 months. As age increases, the percentage of older adults receiving medical care grew – 1 in 4 amongst those ages 60–69 years, and 1 in 3 amongst those ages 80 years and over. More than 40% of older adults received outpatient health care services at commune health centres, and another 30% visited district hospitals.

The LSAHV also showed that more than 1 in 5 older persons ages 60 years and above stayed overnight in a hospital or other health care facility over the past 12 months. As age increases, the percentage of older adults using inpatient health care also grew, reaching more than 1 in 4 for those ages 80 years and above. Amongst older adults hospitalised, 42.1% were admitted by district hospitals and 23.3% by provincial general hospitals. District hospitals seem particularly important for outpatient health care services amongst older adults, as less than 5% of older adults used private clinics/hospitals for inpatient health care services. About half of older adults paid for expenses related to the hospitalisations themselves or through their spouses. However, more than 40% relied on their children for these payments, although most of the sample reported that they received benefits from health insurance.

Although 91% of older adults in Viet Nam have health insurance, insurance type needs to be considered. Amongst older adults, 37.5% have health insurance for retired persons, veterans, and 'meritorious persons'; 11.3% because they are poor; and 11.3% because they are an ethnic minority. In total, 60.0% of older persons are covered by health insurance provided by the government. As economic development in Viet Nam continues, the percentage of older adults covered by health insurance for poor persons may decrease, as well as that due to being a veteran or meritorious person. The increased mandatory retirement ages for men and women may also lead to a slower increase in the number of retired persons.



Although the percentage is relatively small (9.0%), older adults who do not have health insurance exist. The lack of insurance coverage for this group should be examined to understand why they do not have health insurance. Moreover, as the number of older adults increases, the number of those without health insurance may also grow.

About 12.7% of older adults also reported that they did not visit health care facilities even when they felt sick over the past 12 months; 35.7% cited financial constraints as the reason. Older adults who do not have health insurance and do not visit a health care facility due to finances may become seriously ill before they are treated. Older adults' well-being will thus worsen, and medical expenditures may grow.

5. Another Side to Population Ageing¹⁰

Viet Nam's rapid population ageing has been largely caused by the rapid reduction in the fertility rate, which began in 1988 following the introduction of the Two-Child Policy (Ngo, 2020). The future population age structures discussed so far are based on population projections that assume declining fertility rates from the trends observed in Viet Nam. Further population ageing can be eased, however, if fertility rates increase in the coming years. While it is important to formulate policies maintaining or improving the well-being of older adults given their increasing absolute and relative number, the government should also consider ways to sustain the current level of fertility or to prevent it from plunging into a below-replacement level. Around the globe, many developed countries are struggling to keep fertility around the replacement level. If a country does not maintain the replacement-level fertility rate, the population in the country eventually decreases.

The total fertility rate in the 2010s in Viet Nam ranged between 2.0 and 2.1 children per woman during the reproductive ages of 15–49 years and exceeded 2.1 during the COVID-19 pandemic (GSO, 2022). Rates differed greatly between urban and rural areas and across regions. The total fertility rate for the whole country in 2020 was 2.1 children per women, and 1.9 for urban and 2.3 for rural areas. The rates in two regions in the south were very low – 1.6 children for the South-East and 1.8 for the Mekong River Delta – while they exceeded 2.3 children in other regions. The total fertility rate for Ha Noi and Ho Chi Minh City – showed an interesting contrast. The total fertility rate for Ha Noi was 2.3 children in 2020, whereas it was 1.5 for Ho Chi Minh City (GSO, 2022).

The share of the working-age population has already started to decline in Viet Nam, and unless the number of babies born increases, the decline in the working-age population will continue. Even if the country succeeds in increasing current fertility rates, the working-age population will not increase for a few decades. In 2017, the government reversed the Two-Child Policy to increase the number of births. However, a recent news report suggested that couples still do not often have more than two children – not because of the policy but because of the cost of raising children (Tomiyama, 2017).

¹⁰This section was added after a workshop conducted in September 2022. In a personal conversation with Dr. Tokuaki Shobayashi, health policy advisor to the Ministry of Health, Government of Viet Nam, he pointed out that population ageing is the flip side of the declining birth rate. He also emphasised that studies are needed to examine the factors behind the declining birth rate. The authors recognise that policies dealing with the low birth rate need to be considered for the country.

To formulate effective policies to deal with the low fertility rate, several potential factors of declining fertility need to be examined: (i) the difference between desired and intended number of children amongst couples of reproductive age, (ii) age at first marriage by sex, (iii) ages of mothers at first births, (iv) number of married couples of reproductive age, (v) number of divorces during reproductive age, (vi) number of babies born out of wedlock, (vii) number of abortions, (viii) contraceptive practices amongst those of reproductive age, (iv) labour force participation rates amongst women, and (x) educational attainment of young women.

If there is a difference between the desired and intended number of children amongst couples, reasons for the difference should be identified. If the cost of having children or raising children is a reason for limiting the number of children, effective policies can be formulated to ease burdens. However, if there is no difference between the desired and intended number of children and the desired number of children is declining, it will be difficult to deal with low fertility. Opinions and values about having babies amongst young generations may simply be changing.

The difference between the desired and intended number of children may also be affected by the cultural son preference in Viet Nam. Son preference is represented in the sex ratio of babies; in 2021, the sex ratio was 112 baby boys to 100 baby girls (GSO, 2022). The ratios in developed countries were around 105 to 100 (Orzack et. al., 2015). Couples with son preferences may try to have another baby until they have a son, but they may have only one child if their first baby is a son. Son preference may also affect the number of abortions.¹¹ Currently, the abortion rate in Viet Nam is very high (Nguyen, 2022). Although abortion for the reason of sex selection is illegal, it does occur amongst couples with very strong son preferences. Abortions also seem to be increasing amongst young females in urban areas due to unintended pregnancies and pregnancies out of wedlock (Lundberg, 2021). In addition, repeated abortions seem to be common (Ngo et. al., 2014). Sexual and reproductive health amongst women can be improved by providing family-planning services and disseminating accurate information on contraceptive practices.

The cultural values of son preference and sexual and reproductive health behaviours appear to be related to the status of women in general. Gender inequality in Viet Nam is high, as it was ranked 83 amongst 147 countries on this metric by the World Economic Forum (2022). To become a developed country by 2045, the government must address gender inequality existing in the society.

¹¹ The right to abortion is protected under Article 44 of the 1989 Public Health Protection Law.

6. Conclusions and Policy Implications

More than 45 years have passed since the reunification of Viet Nam, and since that time, the country has experienced drastic social and economic changes. Socio-economic development has yielded profound shifts in people's values, beliefs, and behaviours. The country's lower population growth rate may help Viet Nam avoid adverse consequences of rapid population expansion faced by many developing countries, such as environmental degradation, competitions for scarce employment opportunities, and political instability (Bongaarts and Sidening, 2011). However, the shift toward an ageing population requires support from international development agencies and donors, as the country is not fully equipped with the knowledge and experience necessary to face the fast pace of population ageing.

Regarding physical health, the LSAHV revealed that older people in Viet Nam suffer from various kinds of chronic illnesses; thus, the ability to function physically later in life was assessed. Roughly one in six people reported at least one ADL difficulty, while about 30% of the sample had difficulty in performing IADLs. The prevalence of difficulty in ADLs and IADLs rose with age, indicating a high burden of disability in later life.

Mental health issues have also become increasingly prevalent. In the LSAHV, 31.3% of the respondents experienced depressive symptoms over the past week, and socio-economic factors, such as sex, rural residency, marital status, and household income, as well as physical health conditions were closely linked to depressive symptoms amongst older adults.

LSAHV results did show high levels of social participation amongst older men and women in Viet Nam, characterised by dense social networks and participation in various activities, however. One key factor has been the use of cell phones. Also, despite lower educational attainment, older individuals in Viet Nam seemed to have enough financial resources, suggesting how recent socioeconomic development has contributed to the economic well-being of the population.

Mental disorders have become a pressing public health concern especially in developing countries like Viet Nam, since poverty is closely associated with mental disorders (Lund et al., 2010). In Viet Nam, a lack of human resources working in the mental health care sector is evident. International support is needed in developing the mental health care infrastructure in Viet Nam, through providing training programmes for mental health care professionals, strengthening the capacity of governmental and non-governmental agencies working on the provision of mental health services, and raising awareness about mental disorders. Given that the number of older individuals with mental disorders is expected to increase, the health care and social support systems need to be equipped with the knowledge necessary to address the challenges of mental disorders in the ageing population.

Care needs are also expected to increase. Most older respondents were currently receiving or expected to receive care from their immediate family members, and adult children tend to bear the responsibility of caregiving as parents grow older. Informal care may not be sufficient to support the growing demands for care, however, thereby suggesting the importance of expanding institutional support for caregiving.

Economic inequality still exists in the country, and the government needs to recognise that not all older adults in the country can afford to pay for adequate medical treatment. Health care expenditures for older adults who need long-term care or hospitalisation may be a significant burden for their households, too. As noted, shortly after the population of Japan became an ageing population, the Government of Japan implemented policy measures to ease the burden of medical expenditures amongst the older population.¹² Policy makers in Viet Nam may benefit by reviewing and taking lessons from such health care policies.

The levels of fertility in both Japan and Viet Nam around the time of becoming an ageing population were also similar.¹³ The Government of Japan has been trying to increase the total fertility rate but has never been able to alter it. Policymakers in Viet Nam may also learn valuable lessons from these policies, as well.

While Viet Nam has made major strides towards modernisation and socio-economic development over the past few decades, the country still faces various challenges, and population ageing is one of them. The government has instituted a wide range of programmes and policy measures to support its new population demographics, but there are distinct limitations. Major recommendations and policy implications include:

- i. Continue to reform the health care sector, with a special focus on the development of geriatric medicine. The government should establish a geriatrics department in every provincial hospital and provide associated geriatric medical training for primary health care workers as mandatory continuing education through short and online training programmes. Topics to be considered include hypertension management at the primary care level, diabetes management at the primary care level, home-based care, and support for older adults living with disabilities.
- ii. In the face of a shortage of personnel working in the mental health care sector, allocate more financial resources to develop mental health infrastructure, provide training opportunities for mental health professionals and/or professional caregivers, and raise awareness of mental disorders. The government should ensure that continuing mental health education is required for those working at primary care facilities such as district hospitals and commune health centres. Health insurance law should also be updated allowing basic mental health medicines to be prescribed at the primary health care level.





 $^{^{12}}$ The population age structures in Viet Nam and Japan were very similar when both countries exceeded 7% in their proportion of older adults ages 65 years and over in 2015 and 1970, respectively. The percentages of the three broad age groups – ages 0–14 years, 15–64 years, and 65 years and over – were 23.4%, 69.6%, and 7.0% for Viet Nam, respectively; and 23.9%, 69.0% and 7.1% for Japan, respectively.

¹³ The total fertility rate in Viet Nam in 2015 was 2.10 (GSO, 2020) and 2.13 in Japan. However, after the rate in Japan plunged to a below-replacement level in 1974 and reached the lowest level of 1.26 children per woman in 2005, it never returned to a replacement level. See MHLW, Vital Statistics, https://www.mhlw.go.jp/english/database/db-hw/vs01.html (accessed 14 February 2023).

- iii. Introduce long-term care insurance for older persons, and pilot this in Ha Noi, Da Nang, and Ho Chi Minh City. Professional caregiver services may also be tested in these areas.
- iv. Strengthen cooperation with international development agencies as well as countries that have experienced the ageing population process. Cooperation should include information exchanges about developing health care infrastructure, implementing a public long-term care insurance system, and training personnel working as nurses and caregivers.
- v. Coordinate closely with the governments of neighbouring countries to further develop regional cooperation networks to address the social and economic challenges of population ageing.
- vi. Monitor health care utilisation amongst older adults, in particular those in low-income households, as well as health care insurance types amongst older adults. In addition, health care policies implemented in Japan in the 1970s should be reviewed for best practices.
- vii. Establish a mechanism to monitor factors associated with trends in the birth rate in a centralised manner to formulate effective pro-natal policies to deal with population ageing.

References

- Blazer, D., D.C. Hughes, and L.K. George (1987), 'The Epidemiology of Depression in an Elderly Community Population', *Gerontologist*, 27(3), pp.281–87.
- Bongaarts, J. and S. Sinding (2011), 'Population Policy in Transition in the Developing World', *Science*, 333(6042), pp.574–76.
- Campbell, J.C., N. Ikegami, and M.J. Gibson (2010), 'Lessons from Public Long-Term Care Insurance in Germany and Japan', *Health Affairs*, 29(1), pp.87–95.
- Dao, H.T., H. Waters, and Q.V. Le (2008), 'User Fees and Health Service Utilization in Vietnam: How to Protect the Poor?' *Public Health*, 122(10), pp.1068–78.
- Desjarlais, R., L. Eisenberg, B. Good, and A. Kleinman (1995), *World Mental Health Problems and Priorities in Low-Income Countries*, Oxford: Oxford University Press.
- Ferrari, A.J. et al. (2022), 'Global, Regional, and National Burden of 12 Mental Disorders in 204 Countries and Territories, 1990–2019: A Systematic Analysis for the Global Burden of Disease Study 2019', *The Lancet*, 9(2), pp.137–50.
- Ferri, C.P. et al. (2005), 'Global Prevalence of Dementia: A Delphi Consensus Study', *The Lancet*, 366(9503), pp.2112–17.
- Fries, J.F. (2005), 'The Compression of Morbidity', The Milbank Quarterly, 83(4), pp.801-23.
- General Statistics Office of Viet Nam (GSO), (2020), Completed Results of the 2019 Viet Nam Population and Housing Census, Ha Noi.

—— (2022), Statistical Yearbook of Viet Nam 2021, Ha Noi.

- Government of Japan, Ministry of Health, Labour, and Welfare (MHLW), Vital Statistics, https://www.mhlw. go.jp/english/database/db-hw/vs01.html (accessed 14 February 2023).
- ——Acceptance of Vietnamese Nurse/Care Worker Candidates https://www.mhlw.go.jp/stf/seisakunitsuite/ bunya/0000049737.html [in Japanese].
- Green, R.C. et al. (2003), 'Depression as a Risk Factor for Alzheimer Disease: The MIRAGE Study', Archives of Neurology, 60(5), pp.753–59.
- Grignon, M. and B.G. Spencer (2018), 'The Funding of Long-Term Care in Canada: What Do We Know, What Should We Know?' *Canadian Journal on Aging/La Revue Canadienne du Vieillissement*, 37(2), pp.110–20.

- Hayashi, R. (2018), 'Demand and Supply of Long-Term Care for Older Persons in Asia', *Economic Research* Institute for ASEAN and East Asia (ERIA) Research Project Reports, No. 08., Jakarta: ERIA.
- Heikkinen, R.L. and M. Kauppinen (2004), 'Depressive Symptoms in Late Life: A 10-Year Follow-Up', *Archives of Gerontology and Geriatrics*, 38(3), pp.239–50.
- Hugo, J. and M. Ganguli (2014), 'Dementia and Cognitive Impairment: Epidemiology, Diagnosis, and Treatment', *Clinics in Geriatric Medicine*, 30(3), pp.421–42.
- Idler, E.L. and Y. Benyamini (1997), 'Self-Rated Health and Mortality: A Review of Twenty-Seven Community Studies', *Journal of Health and Social Behavior*, 38(1), pp.21–37.
- Idler, E.L., L.B. Russell, and D. Davis (2000), 'Survival, Functional Limitations, and Self-Rated Health in the NHANES I Epidemiologic Follow-up Study, 1992 – First National Health and Nutrition Examination Survey', American Journal of Epidemiology, 152(9), pp.874–83.
- Irvin, G. (1995), 'Vietnam: Assessing the Achievements of Doi Moi', *The Journal of Development Studies*, 31(5), pp.725–50.
- Ishizuka, F. (2013), 'International Labor Migration in Vietnam and the Impact of Receiving Countries' Policies', Institute of Developing Economies (IDE) Discussion Papers, No. 414, Chiba: Japan External Trade Organization (JETRO), https://www.ide.go.jp/library/English/Publish/Reports/Dp/pdf/414.pdf
- Iwagami, M. and N. Tamiya (2019), 'The Long-Term Care Insurance System in Japan: Past, Present, and Future', *JMA Journal*, 2(1), pp.67–9.
- Iwai, M., N. Emiko, and T. Atsuko (2022), 'Ageing and Care in Vietnam: Focusing on Reviews of ERIA Report', *Global Communication Studies*, 11, pp.211–35, https://kuis.repo.nii.ac.jp/?action=pages_ view_main&active_action=repository_view_main_item_detail&item_id=1952&item_no=1&page_ id=13&block_id=17 [in Japanese].
- Jorm, A.F. (2000), 'Is Depression a Risk Factor for Dementia or Cognitive Decline?' *Gerontology*, 46(4), pp.219–27.
- Jylhä, M., S. Volpato, and J.M. Guralnik (2006), 'Self-Rated Health Showed a Graded Association with Frequently Used Biomarkers in a Large Population Sample', *Journal of Clinical Epidemiology*, 59(5), pp.465–71.
- Kirk, D. (1996), 'Demographic Transition Theory', *Population Studies*, 50(3), pp.361–87.
- Kohout, F.J., L.F. Berkman, D.A. Evans, and J. Cornoni-Huntley (1993), 'Two Shorter Forms of the CES-D (Center for Epidemiological Studies Depression) Depression Symptoms Index', *Journal of Aging and Health*, 5(2), pp.179–93.
- Koyano, W. (1996), 'Filial Piety and Intergenerational Solidarity in Japan', *Australian Journal on Aging*, 15(2), pp.51–6.

- Laguna, E. (2020), 'Caregiving in Vietnamese Families', in N.C. Vu et al. (eds.), *Ageing and Health in Viet Nam*, Jakarta: Economic Research Institute for ASEAN and East Asia (ERIA), pp.146–62.
- Lan, P.C. (2006), *Global Cinderellas: Migrant Domestics and Newly Rich Employers in Taiwan*, Durham, NC: Duke University Press.
- Lancet Global Mental Health Group et al. (2007), 'Scale up Services for Mental Disorders: A Call for Action', *The Lancet*, 370(9594), pp.1,241–52.
- Leggett, A., S.H. Zarit, C.N. Hoang, and H.T. Nguyen (2013), 'Correlates of Cognitive Impairment in Older Vietnamese', *Aging & Mental Health*, 17(8), pp.915–23.
- Lund, C. et al. (2010), 'Poverty and Common Mental Disorders in Low- and Middle-Income Countries: A Systematic Review', *Social Science & Medicine*, 71(3), pp.517–28.
- Lund, C. et al. (2012), 'PRIME: A Programme to Reduce the Treatment Gap for Mental Disorders in Five Low- and Middle-Income Countries', *PLOS Medicine*, 9(12), e1001359.
- Lundberg, P.C. (2021), 'Contraception Practices among Young Unmarried Women Seeking Abortion Following Unintended Pregnancy in Ho Chi Minh City, Vietnam', *Culture, Health & Sexuality,* 23(9), pp.1241–54.
- Luong, H.V. (2016), 'Gender Relations in Vietnam: Ideologies, Kinship Practices, and Political Economy', in A. Kato (ed.), Weaving Women's Spheres in Vietnam: The Agency of Women in Family, Region, and Community, Leiden: Brill.
- Minagawa, Y. and Y. Saito (2015), 'Active Social Participation and Mortality Risk among Older People in Japan: Results from a Nationally Representative Sample', *Research on Aging*, 37(5), pp.481–99.
- Ngo, A.P. (2020), 'Effects of Vietnam's Two-Child Policy on Fertility, Son Preference, and Female Labor Supply', *Journal of Population Economics*, 33(3), pp.751–94.
- Ngo, T.D. et al. (2014), 'Risk Factors for Repeat Abortion and Implications for Addressing Unintended Pregnancy in Vietnam', *International Journal of Gynecology and Obstetrics*, 125(3), pp.214–46.
- Nguyen, L.D.H. (2022), 'What the Roe Reversal Means for Abortion Rights in Vietnam', *The Diplomat*, 13 July, https://thediplomat.com/2022/07/what-the-roe-reversal-means-for-abortion-rights-in-vietnam/
- Nguyen, T. et al. (2019), 'Challenges in Integrating Mental Health into Primary Care in Vietnam', in S.O. Okpaku (ed.), *Innovations in Global Mental Health*, Berlin: Springer, pp.1–21.
- Niemi, M., H.T. Thanh, T. Tuan, and T. Falkenberg (2010), 'Mental Health Priorities in Vietnam: A Mixed-Methods Analysis', *BMC Health Services Research*, 10, 257.
- Orzack, S.H. et al. (2015), 'The Human Sex Ratio from Conception to Birth', *Proceedings of the National Academy of Sciences*, 112(16), pp.E2102–11.

- Peters, V. and V. Braeseke (2016), 'Migrant Nurses from Viet Nam First Experiences in the German Long-Term Care Sector', *Pflege*, 29(6), pp.315–21.
- Pfeiffer, E. (1975), 'A Short Portable Mental Status Questionnaire for the Assessment of Organic Brain Deficit in Elderly Patients', *Journal of the American Geriatrics Society*, 23(10), pp.433–41.
- Pham, B.N., P.S. Hill, W. Hall, and C. Rao (2012), 'The Evolution of Population Policy in Viet Nam', *Asia-Pacific Population Journal*, 27(2), pp.41–46.
- Radloff, L.S. (1977), 'The CES-D Scale: A Self-Report Depression Scale for Research in the General Population', *Applied Psychological Measurement*, 1(3), pp.385–401.
- Ridley, M., G. Rao, F. Schilbach, and P. Vikram (2020), 'Poverty, Depression, and Anxiety: Causal Evidence and Mechanisms', *Science*, 370(6522).
- Seeman, T.E. (2000), 'Health Promoting Effects of Friends and Family on Health Outcomes in Older Adults', *American Journal of Health Promotion*, 14(6), pp.362–70.
- Steffens, D.C. and G.G. Potter (2008), 'Geriatric Depression and Cognitive Impairment', *Psychological Medicine*, 38(2), pp.163–75.
- Thanh, H.T.T. et al. (2005), 'Attempted Suicide in Hanoi, Vietnam', *Social Psychiatry and Psychiatric Epidemiology*, 40(1), pp.64–71.
- Thanh, H.T.T., T.N. Tran, and G.X. Jiang (2006), 'Life Time Suicidal Thoughts in an Urban Community in Hanoi, Vietnam', *BMC Public Health*, 6, 76.
- Thoits, P.A. (2011), 'Mechanisms Linking Social Ties and Support to Physical and Mental Health', *Journal of Health and Social Behavior*, 52(2), pp.145–61.
- Tomiyama, A. (2017),'Vietnam's Declining Birthrate Spells End of Two-Child Policy', *Nikkei Asia*, 17 November, https://asia.nikkei.com/Politics/Vietnam-s-declining-birthrate-spells-end-of-two-childpolicy#:~:text=HANOI%20%2D%2D%20The%20Vietnamese%20government,how%20many%20 children%20they%20want.
- Tran, K.V. et al. (2022), 'Factors Associated with High Rates of Depressive Symptomatology in Older People in Vietnam', *American Journal of Geriatric Psychiatry*, 30(8), pp.892–902.
- United Nations Department of Economic and Social Affairs (DESA), Population Division (2019), *World Population Prospects 2019 Highlights*, New York.
- Van, N.H.N. et al. (2021), 'Perceived Barriers to Mental Health Services among the Elderly in the Rural of Vietnam: A Cross-Sectional Survey in 2019', *Health Services Insights*, https://doi. org/10.1177/11786329211026035

Verbrugge, L.M. and A.M. Jette (1994), 'The Disablement Process', *Social Science & Medicine* 38(1), pp.1– 14.

Vu, N. C. et al. (eds.) (2020), Ageing and Health in Viet Nam, Jakarta: ERIA.

- Vuong, D.A. et al. (2011), 'Mental Health in Vietnam: Burden of Disease and Availability of Services', Asian Journal of Psychiatry, 4(1), pp.65–70.
- Wilson, R.S. et al. (2007), 'Relation of Cognitive Activity to Risk of Developing Alzheimer Disease', *Neurology*, 69(20), pp.1911–20.
- Witter, S. (1996), "Doi Moi" and Health: The Effect of Economic Reforms on the Health System in Vietnam', *The International Journal of Health Planning and Management*, 11(2), pp.159–72.

World Bank, World Bank Open Data, https://data.worldbank.org/ (accessed14 February 2023).

World Economic Forum (WEF) (2022), Global Gender Gap Report 2022, Geneva.

- World Health Organization (WHO), Global Health Estimates: Leading Causes of Death, The Global Health Observatory, Geneva, https://www.who.int/data/gho/data/themes/mortality-and-global-healthestimates/ghe-leading-causes-of-death (accessed 14 February 2023).
- ------ (2015), World Report on Aging and Health, Geneva.
- ------ (2021), Mental Health Atlas 2020, Geneva, https://www.who.int/publications/i/item/9789240036703
- Yang, Y. (2006), 'How Does Functional Disability Affect Depressive Symptoms in Late Life? The Role of Perceived Social Support and Psychological Resources', *Journal of Health and Social Behavior*, 47(4), pp.355–72.
- Yang, Y. and L.K. George (2005), 'Functional Disability, Disability Transitions, and Depressive Symptoms in Late Life', *Journal of Aging and Health*, 17(3), pp.263–92.
- Yong, V. and Y. Saito (2012), 'National Long-Term Care Insurance Policy in Japan a Decade after Implementation: Some Lessons for Aging Countries', *Aging International*, 37, pp.271–84.