Chapter 3:
OLD AGE POVERTY AND ACTIVE AGEING IN ASEAN

Ageing is an intergenerational issue with implications for everyone. Population ageing present itself with opportunity and challenges. So, the extent to which society prepare for and invest in an ageing population will determine whether it creates an additional burden or delivers demographic dividend. The shift in the age structure of the population and the growing proportion of life afflicted by non-communicable diseases raise new challenges to countries, both developing and the developed. As a result, from an economic perspective, population ageing is often associated with slower growth and the increasing burden of care (Walker, 2002), a notion that is rejected by WHO (Barret & McGoldrick, 2013). Society benefits from potentially greater contributions of older person if they could remain active (Barret and McGoldrick, 2013) and involve in social, economic, cultural, spiritual, and civic affairs (Kalache and Kickbusch, 1997). Beyond physical activity and continuing employment, many older persons are involved in pivotal roles towards family survival such as providing care and managing the household (Barret & McGoldrick, 2013; WHO, 2002).

In short, maximising the gains from longevity and minimising the costs of a greying society require a focus on healthy and productive ageing to allow older persons to remain active and productive, but without divorcing it from fundamental issues such as inequality, poverty, and cumulative disadvantages over the life course. Often, old age poverty is disguised as having poor health status. This section reviewed the concept of active ageing and its development in ASEAN countries, including the status of old age poverty in ASEAN.

3.1 Poverty in Later Life

We begin by examining the many definitions of poverty in general and the situation of old age poverty in AMS.

3.1.1 Concepts and Measurements of Poverty

Poverty is intrinsically linked to welfare. It is a complex phenomenon involving multidimensional deprivation such as basic physiological needs and social needs required to attain a basic standard of living encountered by a person, household, or community (Shaffer, 2001, Price, 2009). Notwithstanding that lack of goods and services is one of such deprivation, poverty is commonly conceptualised based on the physiological model of deprivation which emphasise need-based (Shaffer, 2001) or the ability to have adequate consumption of food and other essentials (Deonandan, 2019). In such cases, monetary indicators (low income or consumption) are used as a proxy for low material living standard (UNECE, 2016). The derived "equivalent" Income can be set in an absolute or relative term. The absolute poverty line income is determined such as using Food Energy Method and the Cost of Basic Needs (CBN) approach (Ravallion, 1998), or Market Basket Measure (MBM) (Deonandan, 2019) which represent need adequacy (Gweshengwe & Hasan, 2019). Poverty is the non-fulfilment of these essential, while the poor is defined as individuals (or household) whose consumption or income fall below the poverty line. The relative measure moves beyond absolute destitution to consider individual capacity to participate fully in the society (UNECE, 2016). In this context, poverty lines that are set in relation to the average living standard within the society (Price, 2009) such as 50% of population median income for Malaysia and Philippines (Economic Planning unit, 2021; Philippines Statistic Authority, 2019).

The 2030 Agenda of Sustainable Development Goal (SDGs) is the global shared plan to end poverty, protect the planet and ensure that all people including older person to enjoy peace and prosperity by 2030 (UN, 2017; ASEAN Secretariat, 2020). Indicative to the key objective of the SDGs is the ambitious eradication of poverty SDG 1: End poverty in all its forms everywhere by 2030. To put it in the context of AMS, the SDGs call upon every country

to achieve zero poverty at the international poverty line of USD$1.90 a day (World Bank, 2019). SDGs recognise that ending poverty must be streamlined with strategies that build economic growth and addresses a range of social needs (e.g. education, health, social protection, and job opportunities), while tackling climate change and environmental protection.

Integral to the monitoring of SGD 1 is the AMS official poverty measure - a more appropriate indicator for policy dialogue or targeting the poorest in the Society. Poverty is officially measured in each country using monetary indicators based on income (i.e. Malaysia and Philippines) or consumption (i.e. Cambodia, Indonesia, Lao PDR and Thailand) (See Annex IV). The absolute poverty line in each AMS is determined using interval surveys conducted by national statistics office over time. The most recent survey available is shown in Annex V. Considering their high GNI per capita and labour productivity, both Singapore and Brunei Darussalam do not have official measures of poverty and did not publish national poverty like other AMS (ILO and ASEAN Secretariat, 2020). Past poverty studies in Brunei Darussalam had suggested the adoption of relative poverty measures for the AMS (Gweshengwe & Hasan (2019). Meanwhile, Viet Nam that has adopted multidimensional poverty measure starting 2021.

The World Bank's Global Poverty Line (GPL) is the most widely recognised absolute measure of poverty (United Nations, 2016) to measure extreme poverty. The AMS produces report on the PPP of USD 1.90 a day to track each countries' progress towards SDG 1 elimination of (extreme) poverty by 2030. Monetary indicators of poverty are proven useful and widely used, but not without shortcomings – firstly, it does not reflect a full-scale measure of unmet basic needs in different social contexts (ADB, 2012; Price, 2009). Secondly, it homogenises the poor by assuming households with same amount of income have similar standard of living (UNECE, 2016). Thirdly, poverty is not view in context-specific such as by age (Gweshengwe & Hasan, 2020). For example, an older person with physical limitation may voluntarily opt for low level of consumption despite adequate financial resources). Therefore, monetary poverty offers a one-size-fits all solution which can be misleading policy makers (Gweshengwe & Hasan, 2019). In order to avoid a myopic view on poverty, each AMS supplemented the official poverty with other measures such as subjective poverty via Poverty Participation Analysis (PPA) and UNDP's Multidimensional Poverty Index (MPI). Few AMS such as Cambodia, Viet Nam, Philippines and Indonesia had conducted several rounds of PPA prior to developing their development plan and poverty reduction policy (ADB, 2001).

The Multidimensional Poverty Index (MPI) draws upon Sen's capability approach (Zaidi, 2014, ADB, 2012) and captures deprivation in three non-monetary aspects of human life: health, education and living standards (Alkire, Kanagaratnam & Suppa, 2020). Viet Nam had fully migrated to using MPI as its official poverty measure in 2021. The rest of AMS, such as Lao PDR, Malaysia, Philippines, and Thailand developed its own MPI and supplemented their current absolute poverty measures. Despite adapting from UNDP's MPI, each AMS opted for slightly different domains to suit to own context (please refer to Annex VI). The AMS's score on the Global Multidimensional Poverty Index is summarised in Annex VII and VIII.

Poverty in AMS

The AMS are not homogenous in their economic, demographic economies, political and social structure. Based on economic aspect and socioeconomic indicators, ILO and ASEAN Secretariat (2020), grouped the AMS into three categories: Group 1: Singapore and Brunei Darussalam; Group 2: Malaysia, Thailand, Indonesia, Philippines and Viet Nam; Group 3: Cambodia, Lao PDR and Myanmar, each with large proportion of the population are in agricultural sector. The demographic structure of AMS differs according to their respective fertility, mortality, and migration trends. Based on Coulmas (2007), the AMS can be group into three groups 1) Aged: consisting of Singapore and Thailand, whose population aged 65+ had doubled from 7% to 14% by 2022; 2) Ageing/Mature: consisting of countries with ageing population and is doubling its population aged 65 from 7% to 14% in 2022, namely Viet Nam (2034), Indonesia (2051) and Malaysia (2046); 3) Young: the AMS in this category are Brunei Darussalam, Cambodia, Lao PDR, Myanmar and Philippines. Philippines would take around 48 years more to reach aged nation status, while the rest in the group are expected to experience rapid ageing (ILO & ASEAN Secretariat, 2020). Table 3.1 maps the AMS according to their demographic structure and economic development level. Ageing at lower levels of development means that a majority of AMS have less resources to address population issues and challenges.

Table 3.1: Mapping of ASEAN Member States by Economic Development Level and Demographic Structure, 2022

Variable		Country Income Classification (World Bank, 2022)		
		High-income	Upper Middle-income	Lower Middle-income
Demographic Structure (Coulmas, 2007)	**Aged**	Singapore (2019)	Thailand (2022)	
	Ageing		Malaysia (2046)	Indonesia (2051) Viet Nam (2034)
	Young	Brunei (2037)		Cambodia (2057) Lao PDR (2058) Myanmar (2055) Philippines (2068)

Source: Author tabulated

The AMS have been characterised by high level of economic growth and outstanding progress in poverty alleviation (ILO, 2020), despite it remains uneven among AMS. Prior to 2020 or before the COVID-19 pandemic, AMS especially countries such as Indonesia, Malaysia, Thailand, and Viet Nam significantly show reduction in poverty headcount ratio or the percentage of the population living below the national poverty line(s). As shown in Table 3.2, the reduction in poverty is significant in many AMS and this is a testament to the economic progress and growth in the region. The poverty headcount ratio indicator is not applicable in Singapore as the country does not have an official national poverty line. However, the eligibility criteria for Singapore's public assistance eligibility criteria (i.e., ComCare) for household with monthly income of SGD1,900 and below per month [or per capita income of SGD650 and below per month] may indicate related points of reference, albeit requiring further cross references. Similarly, Brunei Darussalam also has no official poverty line. The country set a Zero Poverty 2035 target but what constitutes poverty in Brunei Darussalam is not officially defined. As of November 2022, there are 12,649 family heads receiving assistance under the Community Development Department (JAPEM) and Brunei Darussalam Islamic Religious Council (MUIB). Indonesia, on the other hand, calculates its poverty rate twice a year, namely in March and September, as a weighted average of 67 local poverty lines - the amount of money required to obtain 2,100 calories per day, along with other basic non-food items. In September 2020 the poverty line per capita per month for rural and urban areas in Indonesia is IDR437,902 and IDR475,447 respectively. In Indonesia, a more inclusive economic growth had successfully lowered poverty levels from 17.8% in 2006 to about 9.7%, equivalent to 25.67 million people in poverty for 2018 (Ministry of National Development Planning (MNDP), 2019; 2017).

Table 3.2: Poverty Headcount Ratio at National Poverty Lines and International Poverty Lines, AMS, 2010-2020

AMS	Poverty Headcount Ratio at National Poverty Lines (% of population)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Brunei Darussalam											
Cambodia	22.1	20.5	17.7								
Indonesia	13.3	12.5	12.0	11.4	11.3	11.2	10.9	10.6	9.8	9.4	9.8
Lao PDR									18.3		
Malaysia						7.6			5.6	8.4	
Myanmar	42.2					32.1		24.8			
Philippines			25.2			23.5			16.7		
Singapore											
Thailand	16.4	13.2	12.6	10.9	10.5	7.2	8.6	7.9	9.9	6.2	6.8
Viet Nam	20.7		17.2		13.5		9.8		6.7		

AMS	Poverty Headcount Ratio at $1.90 a day (2011 PPP) (% of population)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Brunei Darussalam											
Cambodia											
Indonesia	13.3	10.9	9.5	7.3	6.2	5.8	5.2	4.5	3.6	2.7	2.3
Lao PDR			14.5						10.0		
Malaysia		0.1		0.0		0.0					
Myanmar						4.8		1.4			
Philippines			10.4			6.1			2.7		
Singapore											
Thailand	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Viet Nam	4.0		2.7		2.6		1.8		1.8		

AMS	Poverty Headcount Ratio at $3.20 a day (2011 PPP) (% of population)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Brunei Darussalam											
Cambodia											
Indonesia	45.0	41.9	40.3	37.6	34.8	30.5	28.6	24.6	21.5	19.9	18.8
Lao PDR			46.6						37.4		
Malaysia		1.2		0.4		0.3					
Myanmar						24.6		15.0			
Philippines			33.3			25.7			17.0		
Singapore											
Thailand	2.4	1.3	1.4	1.1	0.9	0.5	0.6	0.4	0.5	0.3	0.3
Viet Nam	16.8		13.0		11.0		7.8		6.6		

AMS	Poverty Headcount Ratio at $3.20 a day (2011 PPP) (% of population)										
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Brunei Darussalam											
Cambodia											
Indonesia	75.5	72.2	71.4	68.7	66.6	64.3	59.7	55.8	53.2	52.2	50.9
Lao PDR			78.7						70.4		
Malaysia		8.6		4.0		2.9					
Myanmar						62.1		54.3			
Philippines			59.9			54.6			46.9		
Singapore											
Thailand	17.5	13.4	13.5	11.3	10.4	7.0	8.2	7.6	8.4	6.2	6.4
Viet Nam	46.8		40.8		35		27.2		22.4		

Source: World Bank, 2022

Thailand calculates its poverty statistics using data from the Thailand Socio-Economic Survey, which is conducted nationally, and the 2018 national poverty line was 2,710 baht per person per month. A sustained economic growth has catapulted Thailand into an upper middle-income country in 2011, and its poverty reduced from 19.1% in 2009 to 13.2% in 2011, and 9.9% in 2018. As for Malaysia, the national poverty line is calculated using the Household Income and Expenditure Survey (twice every five years), and Malaysia revised its national poverty line income from RM980 to RM2,208 in 2019 with an average household size of 3.9 persons. The proportion of Malaysian households living below the poverty line was reduced from 7.6% in 2016 to 5.6% in 2019, using the new PLI (Economic Planning Unit, 2021). National poverty line for Viet Nam is adjusted once every five (5) years using data from the Vietnam Household Living Standards Survey (VHLSS) that is carried out once every two (2) years. The national multidimensional poverty lines for the 2022-2025 period is set at VND1,500,000 and VND2,000,000 per month (household per capita) for

rural and urban areas, respectively, or if a person is deprived of access to six basic social services (job, healthcare, education, housing, clean water and sanitation, and information) (Decree 07/2021/ND-CP).

Cambodia has recently redefined the poverty line, using the most recent Cambodia Socio-Economic Survey for 2019/20, based on cost-of-basic need, and a common basket approach. The national poverty line in Cambodia is now KHR10,951 or equivalent to USD2.7 (market exchange rate) per person per day. Under the new poverty line, about 18% of the population is identified as poor. Lao PDR level of poverty is the highest among AMS, but this is consistent with the landlocked country's level of economic development. Myanmar's robust economic growth had halved the share of population living in poverty from 48.2% to 24.7% between 2005 and 2017 (Myanmar Central Statistic Organisation, UNDP & World Bank, 2019). Poverty incidence among Filipino families in 2019 was estimated at 16.6 % compared to 23.5% in 2015 (Philippines Statistics Authority (PSA), 2019). The poverty incidence among individual Filipino - i.e., proportion of the population living below the poverty line to the total population in 2018 was estimated at 21.0% compared to 27.6% in 2015. Viet Nam's high growth of nearly 8% in the 1990s had proportionately increased income of the poorest quintile, hence reducing the total poverty headcounts from 61% in 1993 to 37% in 1998 (Asian Development Bank, 1999) and 6.8% in 2018.

The downward trend in extreme poverty reduction based on PPP USD$1.90/day is also evident for each AMS. In summary, AMS has different perceptions of poverty, hence, the variation in the methodology of analysing and monitoring the phenomenon. Poverty lens led to differently construed poverty definitions - in terms of income, material, and capability (Gweshengwe & Hasan, 2019), that has been influential towards the understanding of poverty, its identification of the poor and the conception of relevant anti-poverty measures and interventions. Nevertheless, none of the available measure managed to capture all dimensions of poverty (Price, 2008), but trade-offs exist between having a comprehensive poverty definition and the complexity of its measure (Schelzig, 2005). Currently, AMS produce reports multiple measure of poverty (e.g. relative poverty and MPI) alongside its official poverty measure to gauge the impact of government programmes on the poor.

3.1.2 Old-age Poverty in AMS

Older persons have been identified as one of the economically vulnerable groups in AMS (e.g. Department of Statistics, Malaysia, 2020), due to certain characteristics that the older person generally shared – e.g. deteriorating health with age (Zimmer et al., 2008) and looming issues of population ageing – i.e. longevity and reduction in earning following retirement and that income security in old age become a serious challenge (Asher, 2013).

In addition, when the shortfall is inadequately offset by pension programmes (HelpAge, 2009) or family support (Wan Ahmad et al., 2017; Teerawichitchaina et al, 2015), older persons become vulnerable to poverty (Knodel, 2005). HelpAge (2009) also iterated that the older population consists of some who will be the furthest left behind – such as those who are house-bound or caught in humanitarian emergencies.

Achieving SDG 1 requires immediate attention on aged poverty and ratifying issues of inequality, hand-in–hand with population ageing in ASEAN countries (HelpAge, 2009). Poverty and social exclusion are two most significant barriers for older person to contribute to and enjoy the share of economic development (Kwan and Walsh, 2018; UNFPA and HelpAge, 2012). When older persons are deprived of the right to livelihoods, water, education and health, protection and security, a voice in public life, and/or freedom from discrimination due to poverty, these will diminish the chances of older person to age in dignity and participating actively in the society. Considering, the SDG's inclusive approach to sustainable development promise of leaving no one behind and reach the furthest behind first in the development agenda, AMS need to ensure every older person benefit from the rights and opportunities enshrined in the SDGs – i.e. by addressing the needs and rights of older person, improve their wellbeing, enhanced dignity and greater voice and participation in the development (HelpAge, 2009). In SDG 1, Older people are implicitly included in the first two targets and their related indicators – i.e. Target 1.1 to eradicate extreme poverty for all people everywhere and Target 1.2 to reduce poverty at least by half of the proportion of the living in poverty in all its dimensions, according to national definitions by 2030. Both targets specify that progress to achieving the targets must be age disaggregated (HelpAge, 2009).

This section discusses literatures old age poverty in ASEAN Member Society, covering the following aspects: (1) demarcation of old age poverty; (2) poverty profile older person in ASEAN countries; and (3) determinants of old age poverty and vulnerability.

Demarcation of Old Age Poverty

Currently, report and monitoring of aged poverty is based on the disaggregation of the existing poverty measure, including the official poverty by age to account for the cohort. The official poverty measure, through the National Statistical offices of AMS has been in use for decades to keep track on the poverty headcount to monitor their progress in alleviating poverty. Therefore, despite its limitation, disaggregating it allows the possibility of examining demographic trends in [aged] poverty when data permits.

But poverty in older years is different from that of in their younger years (Gweshengwe & Hasan, 2020). Compared to the young, the likelihood of older persons fall into poverty for a long period is higher with lower likelihood of escaping from poverty once they have fallen into it (ADB, 2014). Hence, poverty studies highlighted the need to view aged poverty from different perspective and framework with context-specific analyses. Holston and Gorman (2002) proposed the framework of receding capability and the social process that erode the high position of older persons in the society (Boentr, 2014) to assist understanding of the nature, and severity of aged poverty. Several issues highlighted by studies related to aged poverty (Price, 2009; Schelzig, 2005) on how poor older persons are identified, accounted for while ensuring the accuracy of the poverty analyses.

a. **Improvement on the national survey.** Older person in Institutional living is an important sub-group of deprived older people (Scharf et al., 2005). Currently, only households in the community are included in national studies leading to biasness in the reporting by age group of any poverty statistics, besides denying the voice of this group in the policy.

b. **Frailty, illness, disability, and long-term illness.** Due to prevalence of frailty, illness and disability in old age, poverty measure should account for suffering (of both for sufferers and their carers) make to the experience of poverty for older people. As such it would answer the questions if suffering from frailty, disability or ill-health affect older people's desire and ability to participate in the norms and customs of society, or that if frailty, disability or ill health exacerbate social and material deprivation for older people.

c. **Choice of financial resources variables.** Income alone is a poor measure of financial resources (Gweshengwe and Hasan, 2020), hence, the treatment of assets and wealth become of increasing importance to older people. So, the conceptualisation of resources for older person should consider asset [e.g. land ownership], housing and debt.

d. **Agreement on the "need".** Older population experience poverty differently than other age cohort (Gweshengwe and Hasan, 2020) Consumption pattern also changed with age in reflection of changing need which accompany transitions into poorer health (Zimmer, 2008) Consequently, the use of average consumption pattern of the population within the country as a proxy may inaccurately reflect the need of older person (e.g. Suy et al, 2018) particularly so in the case of the frail, disabled and long term ill among the older population (Muis et al, 2020) including those living in institutions.

e. **Unit of analyses.** Across AMS, co-residency is common. UNDESA, (2017) identify at least 64% of persons aged 60 years or over live with their children, share resources (income) and obtain benefit from the economies of scale. There is a call for a decision on the extent to which people should be aggregated into family, household or spending units for the purposes of poverty measurement (Price, 2008). Other studies emphasise the importance of utilising individual as a unit of analyses in all measures for aged poverty (World Bank, 2012; Deaton & Zaidi, 2002) since not all consumption is evenly distributed to members, hence older person members of a household may be much poorer than other members of the same household.

In addition, Priebe et al., (2014) highlighted a study by Deaton and Paxson (1997) which proved that age-specific poverty rates are quite sensitive to the choice of the poverty line, economies of scale and adult equivalence scales. As such, the decision on choice of measure of aged poverty must be made with caution. The review on poverty analyses in this report involve ascertaining the poverty status of older person, identifying the aged poor and the cause of poverty.

Profile of the Aged Poor

Older person is identified as one of the vulnerable groups in the AMS (e.g. Lao PDR, 2018; Department of Statistics Malaysia, 2020). But poverty among older person is monitored at a varying degree by the AMS. Philippines Statistic Authority (PSA) devoted a separate section to report on the aged poverty analyses, alongside with other segment such as child and regional and the overall poverty, while Malaysia reporting it as part of the different age cohort

poverty analyses. Therefore, knowledge about the poverty situation of the older person in the region is limited and scattered. Comparison across region is difficult as grouping of older person age cohort in the report differs across AMS. For this report, review on poverty among older person is based on available poverty analysis such as the prevalence and severity of older person poverty (in comparison to the population and/or other subgroups), and the characteristic of the older poor – e.g. who they are, where they live and how they live their lives.

Table 3.3: Poverty Status of Older Persons (60 years or over) based on National Poverty Lines, AMS

Country	Year	Poverty Rate (% of population)	Poverty Rate (% of older persons)	Related Analyses on Old Age Poverty
Cambodia[a]	2007	Absolute: 30.5%	Absolute: 65+ [25.4%] (4.3% of Population)	Poverty Gap (65+): 5.5
	2014	Absolute: 13.5%	Absolute: 60+ [10.5%] 70+ [13.3%]	
Indonesia[b]	2008	Absolute: [15.42%]	Absolute: [Individual OP] 60+ [16.82%] 65+ [18.01%] 70+ [19.04%] 75+ [20.78%]	Vulnerability: [1.2 PLI; 1.5 PLI] [60+]: [32.6%; 48.6%] [70+]: [28.3%; 44.4%]
	2010	Absolute: [13.33%]	Absolute: [Individual OP] 60+ [14.18%] 65+ [15.17%] 70+ [15.83%] 75+ [16.56%]	Vulnerability: [1.2 PLI; 1.5 PLI] [60+]: [27.4%; 42.9%] [70+]: [28.3%; 44.4%]
	2012	Absolute: [11.96%]	Absolute: [Individual OP] 60+ [12.65%] 65+ [13.81%] 70+ [14.92%] 75+ [15.42%]	Vulnerability: [1.2 PLI; 1.5 PLI] [60+]: [26.6%; 41.9%] [70+]: [27.9%; 44.1%]
Lao PDR[c]	2013	Absolute: 23.2%	Note: Household Head 60+ [22.7%] 65+ [22.3%]	
	2019	Absolute: 18.3%	Absolute: [Household Head] 60+ [16.8%] 65+ [15.7%]	Poverty Gap [60+]: 3.9 Squared Poverty Gap [60+]: 1.3
Malaysia[d]	2016	Absolute: 7.6% [525,743] Relative: [Half median] 15.9%	Absolute: 65+ [8.7%] Relative: 65+ [41.5%]	n.a.
	2019	Absolute: 5.6% [405,441] Relative: [Half median] 16.9% [1.24 mil]	Absolute: 65+ [5.7%] Relative: 65+ [41.4%]	n.a.
Myanmar[e]	2017	Absolute	Absolute: 60+ [24%] [3.306 million]	Poverty Gap [60+]: 4.8 Squared Poverty Gap [60+]: 1.4

Country	Year	Poverty Rate (% of population)	Poverty Rate (% of older persons)	Related Analyses on Old Age Poverty
Philippines[f]	2015	Absolute: 23.5% Relative: [Half Median]: 15%	Absolute: Income poor: [60+]: 13.2% [889,921] Absolute: Subsistence poor: [60+]: 4.3% Relative: [60+]: 9.2%	n.a.
	2018	Absolute: [Family population] 16.7%	Absolute: Income poor: [Note: Older person family] [60+]: 9.1% [829,200] Absolute: Subsistence poor: [60+]: 2.2% [202,400]	n.a.
Thailand[g]	2013	Absolute:10.34%	Absolute: [60+]: 13.65 %	n.a.
	2014	Absolute: 10.53%	Absolute: [60+]: 13.94%	n.a.
	2015	Absolute: 7.21%	Absolute: [60+]: 8.48%	n.a.
Viet Nam[h]	2016	Absolute: 100% Poverty line [PL] : [9.1%] Absolute: at 150% of poverty line ("near-poverty line"): [25.9%]	Absolute: 100% Poverty line: 60+ [8.6%] 70+ [10.0%] 80+ [9.0%] Absolute: 150% Poverty Line 60+ [24.3%] 70+ [28.8%] 80+ [26.7%]	At 100% Poverty line: Poverty Gap [National]: [2.4] 60+ [2.5] 70+ [2.7] 80+ [1.9] At 150% Poverty line: Poverty Gap [National]: [7.3] 60+ [7.0] 70+ [8.2] 80+ [7.3]

Note: The term 60+ includes older person aged 60. The same holds analogously for the terms 65+, 70+, and 75+

Source: a. Asian Development Bank (2012), OECD (2017));
b. Priebie and Howell (2014);
c. Lao Statistics Bureau and World Bank (2020);
d. DOSM (2020); Economic Planning Unit (EPU) (2021);
e. Central Statistics Organisation, UNDR, World Bank (2019);
f . Reyes et. al (2019); Philippines Statistics Authority (2019) - https://psa.gov.ph
g. Reyes et al. (2019);
h. Vu, L. H., & Nguyen, T. A. (2021).

Poverty is the state of being poor, while vulnerability to poverty is the risk of becoming of poor [i.e. falling below the poverty line] or worse off [i.e. falling deeper into poverty] for those already in poverty (Séverin and Blanchard, 2020). The use of multiple poverty measure – e.g. poverty headcount ratio (of the poor and near poor), poverty gap Index and squared poverty gap, to assess the welfare of the older person is not unusual and will be reported as such whenever possible, as it provides different angle and a more thorough analyses on (the general status of) older person poverty.

Table 3.3 presents aged poverty status in ASEAN countries. There is a variation in the incidence of aged poverty in the AMS. Among countries with young population such as Cambodia, Lao PDR and Philippines, the risk of older person falling into poverty is less than the population. In countries with more matured population such as Indonesia, Malaysia and Thailand, the aged poverty headcount rate is higher than the general population, or in some cases non-older person population. Viet Nam's population is ageing but indicates lesser risk of poverty among its older person compared to the population in general. Country's progress on poverty status and welfare of the poor in Viet Nam, Lao PDR and Myanmar cannot be established due to data unavailability. In general, many older persons in AMS were living marginally above the poverty line and remained vulnerable to falling into poverty as indicated by the percentage of near poor in Indonesia and the value of poverty gap among a few AMS such as Lao PDR. There are significant within country variations, and this is elaborated in the following sections.

The country specific analyses on aged poverty based on the literature are as follows: **Cambodia:** In 2007, the incidence of aged poverty is around 25.4% representing 4.3% of the poor in Cambodia (ADB, 2012). **Indonesia:** The poverty trend indicates a downward trend between 2005 and 2012, - i.e. 16.51% in 2005 to 11.96 % in 2012, but the rate is higher than rest of the population (Priebe et al., (2012). Multiplying the poverty line (PL) by a factor of 1.2 and 1.5, the poverty rates revealed that most older person are near poor and vulnerable to poverty (Priebe and et al., 2014; Adioetomo and Mujahid (2014). Based on SUSENAS 2008, 2009 and 2010, about ¼ older person aged 65-69 years old were transient poor (being poor at least once) during the course of two years, and four percent were chronically poor (Adioetomo and Mujahid, 2014).

Lao PDR: In 2019, poverty among older person aged 60-64 was at 16.8%, slightly higher than the older cohort. Older person in Lao PDR has lesser risk of falling into poverty compared the general population (Lao Statistics Bureau and World Bank (2020). **Malaysia:** In 2019, 5.7% older person household head aged 65 and above was living below (absolute) poverty, reduced from 8.2% in 2016 (Department of Statistics Malaysia, 2020), but consistently higher than the overall population. The incidence of relative poverty among the older person remained high with about 2 in 5 (41.4%), marginally increased from 41.5% in 2016 (Economic Planning Unit, 2021). **Myanmar:** In 2017, a total of 3.306 million (24%) of older person in Myanmar live in poverty. The poverty gap which indicated the depth of poverty is about 4.8.

Philippines: Based on Family Income and Expenditure Survey (FIES), in 2015, a total of 889,921 (13.2%) older persons were members of households classified as income poor, and 4.3% were members of households classified as subsistence poor (Reyes et al., (2019). By 2018, headcount ratio for income poor and subsistence poor was reduced to 9.1% and 2.2% respectively (Philippines Statistic Authority (PSA), 2019). For relative income measure, 9.2% of senior citizens aged 60 and above are from households with incomes below half the median income, reduces from 10% in 2012 (Reyes et al., 2019). **Thailand:** Between 2013 and 2015, the risk of being poor among older person was higher than the general population, despite showing a reducing trend – i.e. the headcount rate in 2015 is at 8.48% compared to 13.65% in 2013 (Royal Thai Government, 2017). **Viet Nam:** In 2016, 8.6% of older person in Viet Nam are in poverty and it progresses with age. But, most older person live marginally above the poverty line, hence easily fallen back to poverty.

In summary, aged poverty in ASEAN countries varies. The risk of older person falling into poverty is slightly lower than the general population in almost all countries with young population namely Philippines, Cambodia, and Lao PDR. Other AMS with ageing population, with Viet Nam as an exception, the trend indicated otherwise. In addition, as poverty in late years differs from poverty experienced in young segment, there is a need to track older person vulnerability to poverty over time. However, considering that the analyses of poverty dynamic require panel structure, only a handful of studies was available for AMS.

3.1.3 Factors Influencing Poverty in Later Life

Research has identified demographic and social factors to explain the common characteristic of the current older poor, hence, literature often used them to identify the likelihood of older person or household of certain characteristics to fall below the poverty line. Common socio-demographic factors identified are such as age, gender, geographical location (region and/or stratum) and living arrangement, as indicated in Table 3.12, Table 3.13 and Table 3.14 Not only that these factors often identifiable to older person who are vulnerable to poverty, but it also reflects increasing disadvantages as one grows old such as stereotyping and prevalence of chronic illness (Mugede and Ezeh, 2007) and/or what individuals go through in life which can predispose individuals to certain advantage or disadvantaged as they grow old (Knodel and Ofstedal, 2003). As such, sociodemographic factors are identified as one of the determinants of old age poverty in as well, which will be discussed in the next section.

a. Age: Poverty among Older Age Group

As older person health and Income earning capacity gradually decline with age, older person in AMS were identified as vulnerable segment to poverty (e.g. ADB, Suy et al., 2018) and risk of falling into poverty increases as their age progresses (e.g. Muis et al., 2020). The general, trend on old age poverty indicated that poverty headcount rates increase with age in all AMS which cut across other characteristics such as gender (Masud and Zainalaludin, 2018). Refer to Table 3.13.

In countries such as Cambodia and Viet Nam poverty among the "younger old" (60-69) is slightly less than among the older age cohort. The progression of poverty headcount with age is even lucid in Indonesia. **Indonesia:** As older person progresses in age, the poverty rates increase (Priebe et al., 2014), and those categorised as vulnerable to poverty – i.e. just living above the poverty line increases Adioetomo and Mujahid (2014). In tracking old age vulnerability over time, Adioetomo and Mujahid (2014), conclude that old-age poverty rates both in chronic and transient poverty rates seem to increase both transient and with age. Among older person persons aged 75 years and older, more than one-third have been poor at least once between 2008 and 2010. Priebe et al., (2014) estimated that about three million of older person aged at least 60s in 2012 live in poverty or are acutely vulnerable to poverty.

b. Gender and Old Age Poverty

Women in some ASEAN state members generally have higher risk than men to live in poverty. For example, for every 100 men who live in poverty in Cambodia, there are 104 women living in poverty (UN Women and ASEAN, 2021). Detail examination across the region show that the distribution of old age poverty for different sexes indicates a mixed trend. Poverty distribution across gender was not significantly different in Indonesia, lower than men in Thailand, while the rest of AMS indicated that not only female elderly experience more poverty, but their poverty condition is also more serious than male elderly. Refer to Table 3.4.

For example, in Cambodia, about one-fourth of households are headed by women (NIS, 2012). Most poor families are run by widows, illiterate adults, and grandparent who have no sources of income, so as they grow older, women experience multiple sources of vulnerability such as disabilities, health issues, social isolation, and limited opportunities to be involved (Suy et al., 2018). In a community where a large proportion of the older person live in primitive shelter with few essential items and surviving on own grown food, the lowest quintile consists of women and unmarried individuals without schooling, working in agriculture and not residing with other older adult (Zimmer, 2008).

Understanding poverty in old age requires gender perspective as men and women differs beyond their genetics. Robinson et al., (2001) explained that society have different values, belief and role expectation on individuals based on their sex, such as the hunter-and-gatherer role of men and women. By nature, women assumed the nurturing role, hence caring for their family in the domestic sphere without pay. Men's traditional role, on the other hand are the decision makers and providers of the family, hence ventures into labour force to earn a living. These gender roles, then, developed gender differences in attitude and behaviour by learning from the society leading to differences in advantages and disadvantages (earlier) in life among men and women and consequently affecting their situation in old age. In the AMS, majority of elderly women involve in unpaid work in the domestic sphere (e.g. Suy et al., 2018, Tham et al., 2003) and poverty is associated with increased care workloads for women and children (Oxfam, 2020). Among women, the care pattern indicated that the time spent increase during reproductive years and again in older age. The engagement of women even at their advanced age for care responsibilities prevented them from engaging in paid employment or work on a full-time basis (UN Women and ASEAN Secretariat, 2021; Oxfam (2020)).

For those who opted to work, they have to experience double-shift - i.e. workload in both paid employment and domestic sphere, as women carry out domestic responsibilities regardless of their employment status. And majority of women work in informal (Priebe, 2017) or low paying sectors such as agriculture (e.g. Desa et al, 2017). This means that the economic gain made in participation in paid work are likely to be offset by working in precarious positions with low pay, inadequate working conditions and absence of social security protection (ESCAP, 2021). Consequently, majority of women are without or having less sources of income (e.g Muis et al., 2020), earning less than their partners (UN Women and ASEAN, 2021), dependent upon children remittance (e.g. Utomo et al., 2018) and less experienced in managing money and making financial decision compared to men (e.g. Masud and Zainalaludin, 2018). This eventually make women more dependent on men economically (Wingood and DiClemente, 2000). Consequently, elderly women who are without spouses (e.g. due to death of husband or divorce) are more vulnerable to poverty (Priebe, 2017) in the absence of breadwinner. Refer to Table 3.5.

In addition, apart from geographic location and social strata ESCAP (2017) asserted that inequalities and discrimination through the life course are linked to gender, leading to deprivation and loss of opportunity. For example, discrimination against women can result in them experiencing poverty in old age if they were excluded from high paying jobs earlier in their lives (Mugede and Ezeh, 2007). In addition, experiencing poverty in earlier life contributes to deprivation which can expose women to poverty in old age. For example, women and girls of the poorest in Cambodia is 4 times more likely to be education-poor, while in Philippines, they are

13 times more likely to be married before the age of 18 (UN Women and ASEAN, 2021), limiting their potentials to command higher earning However, apart from being poor, women who are from ethnic minority, women with disabilities and migrant were identified as being more disadvantaged (UN Women and ASEAN, 2021).

In short, understanding poverty in old age requires gender perspective. Men and women are not only genetically different, but culturally has distinct role expectation resulting in different belief, behaviours, decision, and life trajectories, leading to advantages and/or disadvantages in women's later life. It is acknowledged from table 13.3. that older person in AMS is generally at the disadvantaged since they have low education and high illiteracy rate (e.g. Jariah et al., 2012), hence low skill (e.g. Tham et al., 2008) compared to the general population. For example, in Lao PDR, 72% of older person are without formal education, leading to high rates of illiteracy (Nambooze et al., 2014), hence limiting their opportunity to work in formal sector. In addition, the older poor generally experience poor health condition, with many having chronic health condition limiting their physical functioning (e.g. Priebe et al., 2018). The increased disability with age increases their dependency and reduce older person ability to work. However, as compared to older men, older women are worse (e.g. Priebe et al., 2017; Suy et al., 2018). Consequently, for AMS, women's experience of multiple vulnerability in old age is contributed among others by their lower education, higher illiteracy and lower labour force participation, higher likelihood of surviving the breadwinner, hence reducing her ability to have good command of financial resources, so, feminisation of ageing and poverty goes hand-in-hand.

Table 3.4a: Socio-demographic Profile of the Aged Poor in AMS [Part 1]

Author (Year)	Country	Who are they?				Where do they live?
		Age	Gender	Education Level	Health condition and behaviour	Rural/Urban
ADB (2012); HelpAge (nd.) RGCambodia (2017) RGCambodia (2007) Runsinarith (2012) Suy et al., (2018) Zimmer (2008)	Cambodia	• Listed as vulnerable segment • Risk increases with age	• Females experience more years of poverty • Feminisation of ageing (55% of the aged)	• Low education	• Poor health • functional impairment; 24% has disability • Disability increases with age – M: 6 (6064) to 10.9 (75+); F: 4.3 (6065) to 11 (75+)	• Living in rural area (70%) • Area prone to disaster • Higher proportion of OP in rural area [due to migration of young]
Muis et al., 2020; Priebe 2017; Utomo et al., 2018; Adioetomo and Mujahid (2014); (Priebe et al., 2014)	Indonesia	• More vulnerable: 65+ • Poverty increases with age	• Mixed finding • Females have higher rate • No gender difference in rates [but most women (57%) are widowed]. (Priebe et al., 2014)	• Low education (Most-primary school) • High illiteracy (28.5%) – higher among older cohort (50%), women and rural area	• Health and IADL • Reduce ability to work and • increased disability with age • seeking treatment at lower cost facilities	• Higher in rural (17.0%) than urban areas (10.5%)
Nambooze et al., 2014	Lao PDR		-	• No education level (72.22%) • High level of illiteracy	• Malnourished • Poor health • Many had limitations in carrying IADL	• Living in rural area
Ismail et al., 2015; Mohd et al., 2009; Wan Ahmad et al., 2017; Vaghefi et al., 2016; Jariah et al., 2012; Wan Ahmad et al., 2017; Evans et al., 2017; Sulaiman & Masud, 2012; Masud & Haron, 2008	Malaysia	• Listed as vulnerable segment; increases with age	• Female has higher poverty rate • Older person's female head of family • Women have limited capacity	• Without or Low education level	• Have chronic health conditions • Less physical functioning	• Living in rural area.
Teerawichitchainan & Knodel, 2015; Teerawichitchainan & Knodel, 2018 Knodel (2012)	Myanmar	• Aggressively increases with age – 60+ (37.7%), 70+ (41%)	• Mostly female (40.5%)	• Low level education	• Need help with daily living activities (66.67%)	• Living in rural area

Author (Year)	Country	Who are they?				Where do they live?
		Age	Gender	Education Level	Health condition and behaviour	Rural/Urban
Cahapay, 2021 Reyes et al., 2020	Philippines	• Grouped as vulnerable segment • Age 60 and above	-	-		-
Tham et al., 2003 William, 2001 William, 1998	Singapore	• Grouped as vulnerable segment; Mean age 70.1 years, median age 68.6% years; Grouped as vulnerable segment • Age 60 and above	• Female	• Low education (88.2%) • Low skill	• Chronic illness	-
Suwanrada, 2008; Coronini-Cronberg et al., 2007 Caffrey, 1992a Caffrey, 1992b Gray et al., 2008; World Bank (2012) Paweenawat and Liao (2021)	Thailand	-	• Vary by age and sex – higher among males especially 70+	• Low education	• Poor health • Limited functional ability [Pain] (hip, knee joints and lumbar area)	• Living in rural area
Evans & Harkness, 2008 Long & Pfau, 2009aLong & Pfau, 2009bThanh et al., 2005Pfau & Long, 2010	Viet Nam	• Listed as vulnerable segment • Risk increases with age	• Female experienced higher poverty (58.4%)	• Low level education		• Living in rural area
Teerawichitchainan, Knodel and Pothisiri, 2015	Multiple AMS			• Loss of spouse (female) • Risk increases with living alone (Myanmar, and Viet Nam)	• Health issues: ADL difficulties and needing help	

Table 3.4b: Socio-demographic Profile of the Aged Poor in AMS [Part 2]

Author (Year)	Country	How do they live?	Their livelihood Ownership		
		House condition/Facilities/ living arrangement	Employment and livelihood	Others: Assets and financial matters	Other description
ADB (2012); HelpAge (nd.); Runsinarith (2012); RGC (2017); RGC (2007); Suy et al., (2018); Zimmer (2008);	Cambodia	• large household (high dependency rate) • Lack of adult children (due to migration, HIV/AIDS, conflict) • Burdened in raising orphaned grandchildren (some with HIV) • No basic facilities (90%) • Live with children (78.7%) • Reason of losing spouse: death (older old); Younger old (marital disruption)	• Breadwinner/active working but reduced with age • Active in employment for both sexes-rural (LFPR 27.8% M; 54.8 F) • Most work in agriculture sector • Source of income: • mostly from children • work	• landless [higher risk to poverty] • Own unproductive land (30%) • Most OP sell their productive asset [land] to treat family with HIV/AIDS	• Have outstanding loan. • Higher consumption of food and non-food • Caring for adult child with HIV/AIDS-burdensome and socially stigmatised.
Muis et al., (2020); Priebe (2017); Utomo et al., 2018	Indonesia	• Large households • More likely (50%) to live with at least one child (in poor household) • Being a household head (74%)	• Most actively working • Old-age labour supply is highest among the poorest group of older persons but decline with age. Only 28.7% women work for pay and majority do domestic work • Informal sector • Source of income: children (65%) • Private financial transfer; Pension coverage: small share (8%)	-	
Nambooze et al., 2014	Lao PDR	• Living with family (89.58%)	• Agriculture • Work is the main source of income	-	• Food insecurity (consumed two or fewer meals daily)

Author (Year)	Country	How do they live?	Their livelihood Ownership		
		House condition/Facilities/ living arrangement	Employment and livelihood	Others: Assets and financial matters	Other description
Ismail et al., 2015; Mohd et al., 2009; Wan Ahmad et al., 2017; Vaghefi et al., 2016; Jariah et al., 2012; Wan Ahmad, et al., 2017; Evans et al., 2017; Sulaiman & Masud, 2012; Masud & Haron, 2008	Malaysia	• Mostly Living with family • High risk-living alone or with another older person • Widowhood (Outliving spouse) • Poor family relationship • Have dependent [30% had school going children]	• Majority no longer work. • If work – informal and agricultural sectors • Sources of income: work; remittance from children (but insufficient amount) • Less vulnerable if receive more than one income	• Lack of property income • Landless to farm • Low rate of EPF saving • Having financial issues [insufficient saving; no emergency fund; used up income] • Homeowners	• Ethnic minority tend to live in poverty
Teerawichitchainan & Knodel, 2015; Teerawichitchainan & Knodel, 2018 Knodel (2012)	Myanmar	• Living with families who are extreme poor (40%); Area: Rural (44%) • House without running water, electricity (33.33%) especially rural (50%)	• Farmer (52%) especially in rural (65.2%) • Sources of income: children (60%), work (20%)	• Own the house (86.5%), especially among men (91%) and rural (88.8%);	• Deprivation: Inadequate income (21%) & either poor housing or lack possession or lack of income (24%)
Cahapay, 2021 Reyes et al., (2020)	Philippines	-	• Less economically active (43.8% working). Those working, mostly (57%) are from the poorest group: Male (68%), Female (45.3%); World Bank	-	• About 28.1% in Bottom 40% income decile
Tham et al., 2003 William, 2001 William, 1998	Singapore	• Public housing (74.2%), living with family; Rental house (70.7%), household size 2 and 3 (57.3%)	• 9.8% active (work), 26.3% received pocket money from family, they working to support themselves or their family (47.4%). 9.5% active (work); 19.2% active (work); 85.8% from children/grandchildren sources	-	• Not enough and have to borrow money to buy food, and missed medical appointment due to lack of money, felt that income was adequate (63.2%). Female most likely to slip into poverty

Author (Year)	Country	How do they live?	Their livelihood Ownership		
		House condition/Facilities/ living arrangement	Employment and livelihood	Others: Assets and financial matters	Other description
Suwanrada, 2008; Coronini-Cronberg et al., 2007Caffrey, 1992aCaffrey, 1992bGray et al., 2008; World Bank (2012) Paweenawat and Liao (2021)	Thailand	• Unconducive neighborhood • Higher risk when living in one-generation families [not residing with adult children]	• Farming and work in an informal sector (80%) • Source of Income: 28.9% active (work); 52.3% income from children; Small % have no income from saving or property. • Lower status worker.	• Landless • Have financial debt (54%)	• Higher poverty rate than total population, but become even higher (from 10.9% to 18% in 2010) when calculated the near-poor [100-120% PLI]
Evans & Harkness, 2008 Long & Pfau, 2009aLong & Pfau, 2009bThanh et al., 2005Pfau & Long, 2010	Viet Nam	• Living with family	• 34.8% either receiving remittances directly or married to a recipient	-	• 60.5% were married, 65.1% not receiving social security Poverty was a risk factor for unintentional injuries
Bussarawan Teerawichitchainan, John Knodel and Wiraporn Pothisiri	Multiple AMS				• Not getting assistance from government, especially in Myanmar and Viet Nam

c. Location, Living Arrangement and Family Support

Identifying where older poor live is equally important as knowing who they are such as their age and gender. Most countries in AMS such as Lao PDR and Cambodia are predominantly rural, thus highlights on aged poverty in rural and remote area. For example, in Cambodia, higher proportion of older person living in rural area due to migration of the young in search of better opportunity (Suy et al., 2018). But, urban aged poor exist especially in the capital even though the poverty rates are generally lower (e.g. Indonesia) than the rural area. Cambodia, Lao PDR, and Myanmar and partly Viet Nam are facing poverty issues among ethnic minorities in remote regions and access to basic infrastructure. For example, the absence of safe drinking water, women in Thailand, Viet Nam and Philippines, are mostly tasked in water collection and often having to bear the health risk and forgo other activities including paid work time (UN Women and ASEAN Secretariat, 2021). Oxfam (2020) indicated that access to improved water sources in Philippines reduced women's time spent on care by 1 to 4 hours per day, especially among the poorest household. Similarly, the poorest household who have access to electricity reduces women time spend for care for an hour (Oxfam, 2020) These are also countries, once facing serious HIV/AIDS epidemic where the older person is affected by the burden of care which are mostly shouldered by women even at their advanced age (NIS, 2012) and loss of social and economic support.

Table 3.5: Living Arrangement of Older Persons (60+), 2000-2018

Country	Average Household Size	Living Arrangement (%)					
		Living Alone	Living with Spouse Only	Nuclear (Couple/Single P. w Children)	Extended	Non-relatives	Others
Brunei Darussalam							
Cambodia 2014	4.8	4.5	8.9	14.8	70.7	1.1	0.0
Indonesia 2017	3.9	8.5	17.0	16.3	56.7	1.5	0.0
Lao PDR 2005	6.5	1.3	3.6	15.5	79.7		0.0
Malaysia 2000	4.5	6.9	14.0	25.0	51.0	3.1	0.0
Myanmar 2016	4.5	5.0	8.8	20.9	63.5	1.7	0.0
Philippines 2017	4.2	8.4	13.4	18.8	55.8	3.5	0.0
Singapore							
Thailand 2000	4.1	6.0	12.8	20.6	58.7	2.0	0.0
Viet Nam 2009	3.9	9.3	18.0	17.6	55.2		0.0
Southeast Asia							

Source: United Nations, 2019

The core cultural values shared by the ASEAN countries is filial responsibility for the aged – i.e. a way children returning favours to their parents. Hence, despite being reported as slowly eroded by modernisation, co-residence, and provision of support to aged parent is not uncommon across AMS (Table 3.5). But, the trend across AMS such as in Cambodia and Indonesia, co-residence is mostly with adult family whom themselves are in poverty. **Cambodia:** A predominantly rural country where 80% of its population in 2008 live in rural areas (ADB, 2012), poverty among older person and their family are pervasive (Knodel et al., 2005; Suy et al., 2018). Historical background of war and conflict, social dislocation and HIV/AIDS epidemic set the stage for older person poverty in Cambodia (Borentr, 2004; Knodel et al., 2005; NIS 2012). The HIV/AIDS have increased the older person's workload (Suy et al., 2018, HAI, 2004) and needs – i.e. caring for the sick and raising the orphaned grandchildren. Death of adult children (to conflict and HIV/AIDS eroded the base of family core support for older person (NIS, 2012). But, due to high fertility, level of co-residence is high (four out of five older person) living with at least one child, especially married daughters (Kato, 2000; Knodel et al., 2005).

Indonesia: Age disaggregated poverty rates by urban-rural location was significantly higher than the urban-rural poverty rates for the general population. For example, in 2012, the poverty rates among older person aged 65+ residing in urban and rural area is 10.5% and 17% respectively, compared to 8.75% and 15.12% respectively for the overall population. Even though poverty rate increases by age in both locations, but the poverty rate of older person aged 65+ and 70+ in rural area is at least 5-percentage point higher than the urban area (Priebe et al., 2014). Older person in rural areas is significantly more vulnerable to poverty (Adioetomo and

Mujahid (2014). At least 63% of poor older person age 60+ live with at least one adult child. Priebe et al., (2012) concluded that in Indonesia, the older person wants to sustain their own household as long as their financial means are sufficient, and only merge into households with their children or other relatives once these means are exhausted. Hence, the likelihood of co-residence increases in poor household. **Lao PDR:** about 80% of Lao PDR is mountainous, and the upland population has poverty rates with least access to services (Lao PDR, 2018).

d. Poverty Status and Livelihood in Later Life

Table 3.6 summarised the economic profile of the aged poor. Evidence from the literature indicate that given the lack of or inadequate pension support (e.g. Giles et al., 2011), maintaining the livelihood or contributing to the household remain a primary responsibility (e.g. Priebe et al., 2014), that older person in ASEAN expect to work until late in their lives even in poor health (Helsop and Gorman, 2002). Hence labour force participation among older person ASEAN is driven by poverty – i.e. older person is more likely to remain in labour force out of obligation than out of choice. Therefore, understanding the reason of working among older person such as due to income need, poverty, or the need of "being useful" to families (Adioetomo and Mujahid, 2014) is vital in designing appropriate policies to improve economic participation and the wellbeing of the older person.

In addition to the absence of age limit, the majority of population in most AMS, albeit at varying degree, – e.g. Cambodia, Lao PDR, Myanmar, Viet Nam, Indonesia and Thailand resides in rural areas. Therefore, older persons are predominantly working in agricultural sector. In addition, older person especially women are mostly employed in an informal and precarious employment (Reyes et al., 2017; Paweenawat and Liao, 2021). The non-agricultural sector workers in Thailand and Philippines are mostly involved in menial jobs with low pay, due to their low education background and skill, especially among women and older age cohort (Reyes et al., 2017; Paweenawat and Liao, 2021). The share of women in rural population in what ILO's defined as vulnerable employment – i.e. unpaid family workers and own account workers are the largest among women such as 93.8% in Cambodia, 79.6% in Lao PDR and 87.4% in Myanmar in 2019 (ASEAN Secretariat, 2019). Consequently, majority of women are missing out benefits such as social security, maternity leave and other facilities provided by formal employment, making them vulnerable to poverty especially in old age.

The critical importance of intra-familial and household relationships to older people is demonstrated by a number of studies (e.g. Knodel et al., 2005). As assets in old age decline and options narrow, the family and household safety network become central (HAI, 2000), as evidenced across ASEAN region. In general, aged poverty in each country in ASEAN depend on family members for material and financial support, that it constitutes a main source of income and insurance of households against consumption shortfalls and health risks.

Cambodia: Over a third of the population age 60 and older reported that they were still economically active (Knodel et al., 2005) to support themselves, mostly in agriculture (Ministry of Planning, 2013) although remaining active decreases with age. Work participation differ by gender (50% male; 28% female) and location – i.e. higher within the provinces than in Phnom Penh (i.e. urban), reflecting their different lifetime occupation (Knodel et al, 2004). But, Most elders own some land, but most reported access to least productive land (subject to flooding or less fertile land) (Ministry of Planning, 2013). Most older person own houses – i.e. a modest home that lack facilities –e.g. clean water, toilet, equipment etc. In rural Cambodia, A large proportion of older adults live in very primitive housing conditions, subsist only on what they grow and own only a few essential items (Zimmer, 2008). They are poor health condition (e.g. joint pain) – thus, difficulty performing daily activities. Due to lack of welfare measure, older person depended on children for material and physical support (Chan and Ear, 2004), albeit not a substantial amount – reflecting pervasive poverty in both parents and children (Knodel et al., 2005).

Indonesia: A large share of Indonesian older person especially men are still active in labour market [work for pay] (Adioetomo and Mujahid, 2014). The share and number of day and hours per week is lower than younger counterpart, and reduces with age (Priebe et al., 2014). Old age labour supply is the highest among the poorest group of older persons, indicating their need to finance their living despite their preference for reducing their labour efforts. Similar trend is observed among women despite women's lower share in working-for-pay (Adioetomo and Mujahid, 2014).

Philippines: In 2017, based on the Annual Poverty Indicators Survey (APIS), senior citizens are less economically active (i.e. do not have a job or business) than younger age groups. The percentage of older person employed is the highest among the poorest group at 67.7% (male) and 45.3% (female). However, 42.1% of the senior

citizen population in 2015 are gainful workers, of which a bulk are skilled agriculture, forestry, and fishery workers (37.7%) and workers engaged in elementary occupations (15.8%). On the other hand, 22.3% were categorised as pensioners, retired, and disabled (Reyes et al., 2017).

Thailand: Paweenawat and Liao (2021) found that pension and poorer health reduce the older person's labour force participation. Older workers in Thai are mostly attached to informal sectors, having lower education level (hence the likelihood of low economic status) and lack of access to social security. The study indicated that for the lower-status worker, even if they receive pension, they may still be too poor to retire. It is also indicated that older person who are likely to withdraw from labour force participation are women living with children and poor health (Adhikari et al., 2011).

Determinants of Old Age Poverty and Vulnerability

Older person is at risk of becoming or remaining poor (ADB, 2014), hence identified as vulnerable segment e.g. DOSM (Department of Statistics Malaysia, 2020). Their vulnerability emerges because the poor are typically most exposed to diverse risk and lack of means/capability to deal with those risks, (ADB, 2012; Thang, 2016) causing them to be economically impoverished and socially dependent (Zaidi, 2014). Barrientos, Gorman and Heslop (2003) identify four multidimensional factors leading to old age poverty – i.e. poor access to paid work, basic services (e.g. healthcare) and social network (lack of family and community support), and undervaluing the contribution of older person which reinforces notions of dependence. However, gender inequalities experienced by women throughout their life as explained in earlier section had made worse women vulnerability when old. For example, as most women are in unpaid domestic sphere, death of a spouse may push an elderly woman into poverty due to loss of breadwinner. Table 3.5 summarised the factors associated with the cause and risk of aged poverty in ASEAN where gender perspective is embedded in each factor and as explained earlier section. Bearing that in mind, adverse shock such as in the form economic, political, environmental, and social and can affect a single household, a community or region or an entire country (e.g. pandemic COVID-19) (ADB, 2018), pushing the older person into poverty or deeper into poverty, especially among women.

a. Widespread Disease: COVID-19 Pandemic and HIV/AIDS Epidemic

Diseases such as COVID-19, HIV/AIDS and malaria have exacerbated the already precarious condition of the older person poor. The COVID-19 pandemic had threatened lives and livelihood across the globe, causing fear and suffering for older person especially when the fatality rates are five times the global average (United Nation, 2021; United Nation, 2020) among older persons. Among AMS, Indonesia, Malaysia, Thailand, and Philippines received the hardest hit from COVID-19 which overwhelmed the health and social protection system. The United Nation (2020, p. 4) had identified six major impacts of COVID-19 on older person – i.e. life and death, vulnerability, abuse and neglect, economic well-being, mental health, and responders (Figure 3.1).

However, it was reported that the pandemic has impacted men and women differently as it reflects gender inequality, even at old age. The UN Women and ASEAN (2021) explained that while men have higher likelihood to die from COVID-19 infection, more women are physically and mentally affected. But, only about 70% of women were able to see a doctor due to barriers that women face to medical care than men in some of the AMS such as Thailand, Cambodia, and Philippines (ASEAN, 2021). In the domestic sphere, women in AMS spend more time unpaid domestic and care works than men. For example, before COVID-19, women in Thailand spent 9.6 hours on unpaid care and domestic work compared to only 2.4 hours per day for men (UN Women and ASEAN (2021). But, during COVID19 lockdowns, care and domestic workload had increased as outsourcing of these chores halted for fear of infection. The burden of increasing chores falls almost squarely on women, creating a gender gap (UN Women and ASEAN, 2021) at the expense of their time in paid employment. Consequently, women's income and wellbeing (e.g. mental health) are affected during the pandemic.

Table 3.6: List of Determinants/Cause of Aged Poverty in ASEAN Member States

Study/Author	Country	Respondent	Cause of Poverty and Vulnerability
Runsinarith, 2012; Zimmer, 2008 Knodel et al., (2005); Suy et al., (2018)	Cambodia	Multiple source	1. ***Health issues***: Poor health [physical impairment and needing help; NCD] worsen with age; Health shock. 2. ***Widespread disease***: HIV/AID - Resorted to borrowing and selling off assets, leading to indebtedness and falling deeper into poverty; Most OP sell their productive asset [land] to obtain (HIV/AIDS) treatment for the family member Due to member's HIV/AIDS – OP was discriminated by community members. 3. ***Global economic crises*** and increased food prices, leading to joblessness and reduction of income leading to coping such as rationing of food. 4. ***Loss of land*** and impact of land development undermine the livelihood of the poor. 5. ***Natural hazard and impact of climate change*** affect the poor more severely – flood draught is the leading cause of loss of loss of agricultural productivity, increase livelihood vulnerability and food insecurity especially when they solely depend on agriculture, Natural disaster and increasing cost of farming hinder rural HH from becoming self-sufficient in food production. 6. ***Having dependent***: Still the breadwinner despite their age. 7. ***Loss of Spouse***: Death of breadwinner [female]; Marital disruption [loss of spousal support]. 8. Lack of formal social protection: Depend on self [work] and family. 9. Reduced capability to work. 10. ***Discrimination***; geographical location [remoteness]; language – upland and minorities.
Nambooze et al., (2014)	Lao PDR		***Health issues***: Only 2% have normal nutritional status; Common disease (NCDs); problems limitation in carrying out IADL. ***The limited health insurance coverage and social protection*** limit the ability of households to mitigate risks.
Shahar et al., (2019); Evans et al., 2017 Wan Ahmad et al., 2017	Malaysia	Multiple source	***Health issues***: NCD; Poor dietary habit; Have chronic conditions which increases with age. ***Household and Individual factors***: Risk increase with low education and living alone. ***Death***: older women in the oldest-old group, who have outlived their husbands. ***Sources of income***: Dependent on children [but not receiving enough].
Teerawichitchainan & Knodel (2018) Knodel et al., (2017)	Myanmar	IHLCS 2005 and 2010	***Natural Disaster***: Vulnerable to natural disasters - dampen economic and social development. Predominantly the effects of storms, floods and stagnant water, and the lack of, loss of, or inability to work. Chronically poor is linked to agriculture. ***Health issues***: Poor health [Disability-66.67% receiving assistance with daily living activities, NCD] increases with age; health system [less focus on older person]. ***Death of spouse***: Loss of breadwinner [female].

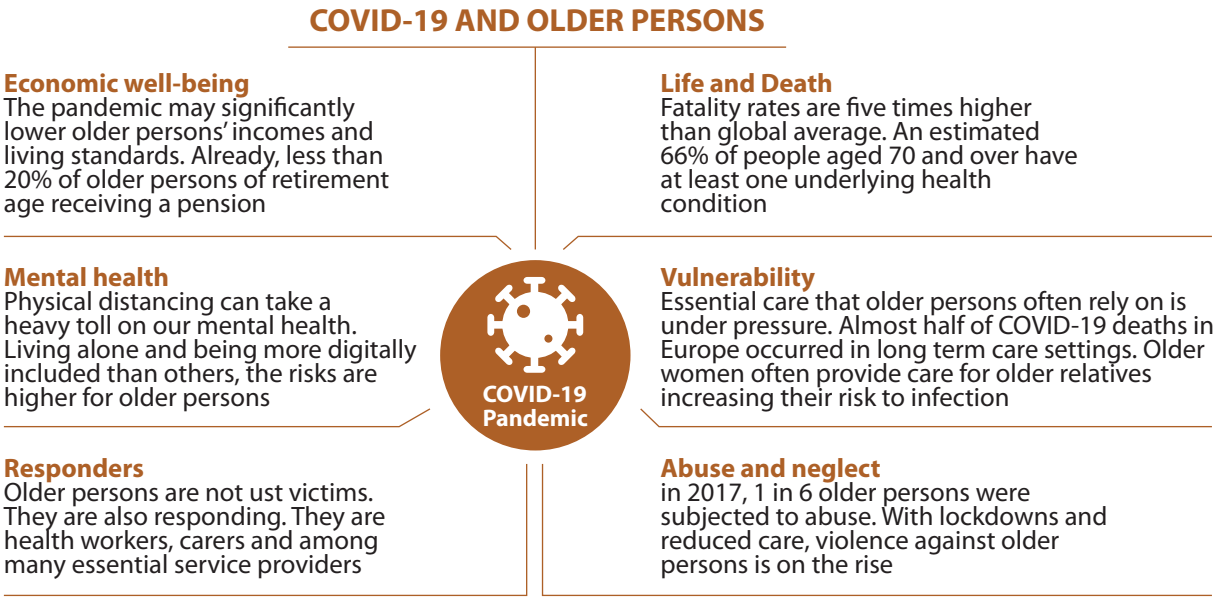
Study/Author	Country	Respondent	Cause of Poverty and Vulnerability
Cahapa (2021) Cruz et al., (2019) De Leon (2014)	Philippines	Multiple source	***Widespread disease***: COVID-19 Pandemic [disrupting one's ability to earn]. ***Natural disaster***: Hai Yen storms caused 40% deaths among older person; 2/5 OPs reported having lost at least one child to death. ***Death***: of spouse [female]. ***Health issues***: NCD [esp hypertension]; not affording care; 50.1% rely on their family to support them in their health expenses.
Lee (1999) Tham et al., 2003 William, 2001	Singapore	Multiple data (e. Labour Force Survey)	***Highlights on women vulnerability*** to poverty: feminisation of ageing (50% aged 60+) but lack of support (1) women outlived the spouses [loss of breadwinner]; (2) low or without CPF saving - 73.5% women aged 55 are without income; 50% with CPF depend on family; (3) females older person (90% in 1989) more dependent on families for support.; (4) limited public assistance. ***Health issues***: Chronic illness (NCDs); cannot afford to get care. ***Education***: low education and skills.
World Bank Group (2019) Gray et al., 2008 Coronini-Cronberg et al., 2007 Caffrey, 1992a; Caffrey, 1992b	Thailand	Multiple source	***Economic shock***: recent financial crises and economic slowdown. ***Political Conflict***: Region affected by conflict [Southern region]. ***Environmental shock***: unpredictable disaster. ***Ageing***: A rapidly aging population. ***Human development***: quality of education, 1/3 of labour force employed in low productivity agriculture. ***Health issues***: functional ability; Pain (hip, knee joints and lumbar area). ***Financial issues***: 53.2% households have financial debt. ***Family issues***: Alcoholism, marriage, and family issues [bequest etc.].
Viet Nam Academy of social Science (2011) Hanoi (2019) UNDP (2005)	Viet Nam	VHLSS 2008; Urban Poverty Survey [Ha Noi and Ho Chi Minh City] 129 Person with HIV/AIDS, aged between 13 to 50 in four provinces	***Macro-economic turbulence [2008 price shock and global financial crises] and concurrent environment calamities***. Population in the bottom income quintile [69%] felt to be more severely affected by the price shock a lot more than by other risk such as calamities, health [29%] or losing jobs [10%]. ***Health shock***: For urban poor, health shock, mentioned by almost 30 percent of respondents, is ranked the second biggest risk after inflation - Majority with NCDs.; Difficulty in ADL. ***Widespread Disease***: [HIV/AIDS]: expenditure and income effect of the disease of Person Living with HIV/AID [patient] -. Loss of income due to caregiving; older person forced to do menial jobs to generate additional income to cover cost [treatment]; some resort to borrowing at high interest rate [indebtedness]; poverty cycle due to HIV/AID poverty cycle: illness, life cycle events (e.g. funerals), drug addiction, loss of physical assets, and unemployment. ***Insufficiency*** of the health system. ***Death*** of a spouse.

Study/Author	Country	Respondent	Cause of Poverty and Vulnerability
Giang and Pfau (2008)	Viet Nam	Viet Nam Household Living Standard Survey (VHLSS) 2004	***Vulnerability to poverty: Urban poor***: Higher likelihood: non-married, working [imperative for livelihood], older person in more advanced age; from Northwest region [***remote region***]; not co-residing with children, non-recipient of social security benefit. ***Vulnerability to poverty: Rural poor***: Higher likelihood: older person in advanced age, being female, not married, ethnic minority [due to their living in remote areas where economic and physical infrastructure are lagging]; non-recipient of social security benefit. North central coast and south-central coast. ***Regional difference*** – due to communal factors in the region [infrastructure development or incidence of natural disasters].
Teerawichitchainan, Knodel and Pothisiri (2015)	Thailand, Myanmar and Viet Nam		***Health issues***: ADL difficulties and needing help. ***Death***: Loss of spouse [female]. ***Social protection***: Not getting assistance from government, especially in Myanmar and Viet Nam. ***Living arrangement***: Risk increase with living alone [Myanmar and Viet Nam].

COVID-19 pandemic has also triggered a profound economic impact. The International Labour Organization (ILO) (2021) indicated that the economy in the Southeast Asian Region economy contracted from 4.5% in 2019 to a negative rate of -3.3 in 2020 due to factors such as a dramatic decline in tourism, domestic consumption, and global supply chain. Hence, the income and employment impact of COVID-19 is profound. Compared to the last quarter of 2019, COVID-19 has caused working hours loss of 8.4% in the first quarter 2020, equivalent to the working time of 24 million full time workers, working eight hours a week. (ILO, 2021). Both men and women are experiencing downward changes on sources of income of at least 50% of the population (UN Women, 2021). It is reported that 58% of women and 52% of men who are subsistence farmers reported drops in food production, hence 66% women and 57% men noted a decline in income from farming and fishing (UN Women, 2021). For those in formal sectors, 63% reported income losses from paid work as the pandemic has pushed people out of paid work and shrunk their earnings and wages (UN Women, 2021). As older persons are mostly living with their children, the impact of COVID-19 to older persons due to restrictive movement and sectoral opening of the economy can be considerable (United Nations, 2020). COVID-19 also reported to have had reversed the decreasing trend on absolute poverty, causing each AMS to experience a spike in the poverty rate among its population.

The strain on incomes resulting from the decline in economic activity is especially devastate workers close to or below the poverty line and older persons who are part of socially marginalised populations (United Nation, 2020; ILO, 2020). And, as most older persons live with adult family members, the increase in poverty among family also indicates rising poverty among the older persons. Since, studies indicated that majority of older persons in AMS are just living above the poverty line (e.g. Priebe et al., 2014), hence the risk to fall into poverty due to the pandemic is higher. Diseases increases expenditure on health and sreduces effective working time and labour productivity (Knodel, 2005). For HIV/AIDS epidemic, older persons in specific AMS such as Cambodia and Viet Nam are especially affected. Older persons especially women are burdened with caring for the HIV infected children (Knodel, 2005), often stigmatised and found themselves stretched thin and in debt for having to support dying children and orphaned grandchildren (Boentr, 2004).

Figure 3.1: The Impact of COVID-19 on Older Person



Source: United Nation (2020, p.4)

b. Macroeconomic Shock and Performance

The integration of AMS into the global economy increases the risk of a more frequent impact of economic shock such as the 2008-2009 food price shock, and the Global financial crisis and jeopardising the wellbeing of the older person poor in each AMS. For example, as food consumption account for a large share of the household budget of the poor, evidence indicated that commodity price shock has caused food insecurity and malnutrition in Cambodia (ADB, 2012), Indonesia (Suriyanti et al., 2010). In Thailand, economic slowdown has been identified as one of the causes of increasing poverty due to limited employment (World Bank, 2019). The COVID-19 pandemic has also caused macroeconomic shock as explained above.

c. Environment Circumstances and Emergencies

The Southeast Asian region is prone to natural disaster. Philippines is prone to both geological and hydro meteorological hazards (National Economic Development Authority), and together with Indonesia, they have been listed as top ten "High exposure" volcano countries in the world (UNISDR, 2015). The relationship between disaster risk and poverty is bidirectional – i.e. the impoverished are more likely to live in hazard-exposed areas and are less able to invest in risk-reducing measures, hence increasing the disaster risk (UNISDR, 2015; ADB 2012). For example, in 2009, Typhoon Ketsana that hit Viet Nam, Philippines and Cambodia had caused death and destroyed homes and livelihood of approximately 49,000 families or 180,000 people in Cambodia (ADB, 2012). The livelihoods of rural households are vulnerable to climate and environmental shocks such as flooding and draught. It can directly reduce agricultural produce and increase livestock mortality, hence reduced income of farmers (UNISDR, 2015) and made worse by the low productivity and diversification of their income-generating activities (ADB, 2012), making them vulnerable to poverty. As environmental shock caused migration and displacement, hence, as ASEAN population is ageing, it means the increasing share of people affected by natural calamities will be the aged (Knodel, 2015). UN Women and ASEAN (2021) noted that women in ASEAN region depend largely on natural resources and are significantly employed in agriculture – i.e. 64% of employed women in Lao PDR, 39% in Viet Nam and 34% in Cambodia. In addition, about 28% of ASEAN women live in households that primarily used wood as cooking fuel. Hence, climate-related hazard has a disproportionate impact on these women especially in rural areas. Therefore, building women resilience to climate-related shocks and promoting their participation to prevent climate-related disaster are crucial steps to mitigate and reduce risks and vulnerabilities.

d. Conflict and Warfare

The material and human destruction caused by warfare is a major development problem. It leads to damages to the infrastructure and social services such as healthcare and access to clean water. Persistent civil wars have contributed significantly to impoverishing those conflicting countries (UN, 2002; Phillips and Rauhan, 2004; UN, 2019). Older women are most vulnerable due to their inability to leave their homes during times of armed conflict and high susceptibility to abuse, with greater risks of displacement and violence (DORCAS, 2022).

e. Social Inequality and Exclusion

Older persons deprived of his right to basic needs due to lack of material means is a serious hindrance to their wellbeing. But, the profoundly disadvantages older people is its consequent inability to participate effectively in economic, social and political life that (Walsh et al., 2017; 2016; Heslop and Gorman, 2002). High poverty among ethnic minority is still a challenged for Viet Nam (Ha Noi, 2018) Cambodia and Myanmar's poverty concentrated geographic location, partly due to language barriers and remoteness of the area, especially older persons who are left behind in villages. In Malaysia, 33.6% of Orang Asli (the indigenous) in the Peninsula live below poverty line with many are malnourished. The lack of food security and accessibility to medical facilities, coupled with loss of income, continues to pose a threat to Orang Asli especially the elders. As explained in previous section, majority of older person co-reside with who themselves are poor, high poverty among these minority groups indicates that the prevalence of poverty among older person within the group is not low as well.

f. Access to Basic Services and Social Network

The opportunity to use the critical assets of physical strength (i.e. own labour) to earn a living and makes the end meet may be more restricted as older person age progresses. In the absence of or limited coverage of social pension, the older poor continue to scrape through at subsistence levels. The older person may also turn to their family members for material support, albeit receiving insufficient amount – indicating the prevalence of poverty in both older person and the co-residence children. But, a reliance on informal assistance networks to support the older person will be problematic as the population ages leaving older person to be economically in difficulty. Poverty eradication has been relatively successful among developing AMS, but the prevalence of informal employment especially among older cohorts of the aged pose significant challenges (ASEAN, 2021). Many AMS cannot afford costly pensions and face longevity risks.

g. Life Trajectory and Lifetime Influences

Life trajectory - a combination of life transitions (e.g. the onset of disability or the death of spouse), life course experiences (e.g. work and family history) and personal qualities have long-term impact of on older person vulnerability to poverty. (Price, 2009; Zaidi, 2014). Labour force participation among female older person in AMS is generally low, therefore death of a spouse for women, means losing the family breadwinner, hence disruption of the family livelihood. In addition, health shock and disability – i.e. a sudden deterioration in health caused by illness and/or injury (Novignon et al., 2012) can result in large medical bills or expensive long-term services and supports. Thus, it is among the most important factors associated with poverty (Leive and Xu, 2008).

h. Correlates of Poverty

Some older persons with certain socio-demographic characteristic make them vulnerable to poverty. For example, pervasive illiteracy among older poor posed a big challenge in improving their livelihood, for their limited opportunity of making use of new technologies or preventive health services (Nambooze et al., 2014). Specific to poverty among women, the discussion earlier on gender and poverty revealed men and women experience poverty differently. Gender inequality experienced by women such as gender wage and wealth gap, occupational segregation into low paying jobs, lack of caregiving supports, domestic violence and disability makes women more vulnerable to poverty and reacted differently to poverty status (Boudet et al., 2018).

In summary, older persons in AMS are faced with multiple and overlapping vulnerability leading to poverty or fallen deeper into poverty. Vulnerability assessment allow policy makers to distinguish between ex-ante poverty prevention interventions and ex-post poverty alleviation strategies such as mitigation and coping arrangements, (Haq, 2014).

The Impact of Poverty in Old Age

Older person is at risk of becoming or remaining poor (ADB, 2014), hence identified as vulnerable segment e.g. DOSM (Department of Statistics Malaysia, 2020). Their vulnerability emerges because the poor are typically most exposed to diverse risk and lack of means/capability] to deal with those risks, (ADB, 2012; Thang, 2016) causing them to be economically impoverished and socially dependent (Zaidi, 2014). Barrientos, Gorman and Heslop (2003) identify four multidimensional factors leading to old age poverty – i.e. poor access to paid work, basic services

(e.g. healthcare) and social network (lack of family and community Poverty deprives of older person of their needs especially physiological (material) and social needs (Shaffer, 2001) which includes access to health services and participation in social life. Among the highlights on the impact of poverty on older persons are:

a. Poverty and Health

As indicated in Table 3.6, older poor in AMS generally are in poor health condition and majority with chronic illness (e.g. Wan Ahmad Desa et. al., 2017), functional impairment and disabilities (Runsinarith, 2012; Teerawichitchainan. et al 2015) that dependency increases with age as they have limited ability to carrying out ADL and IADL (e.g. Suy et al., 2018; Teerawichitchainan and Knodel, 2018). There is some established evidence in the literature that poverty negatively affects health and other outcomes – i.e. living in poverty increases an individual's probability of deterioration of health (Youn, Lee, Lee, & Park, 2020). The poor conditions such as poor nutrition (Sahar et al., 2019) and unhealthy behaviours (e.g. alcoholism) earlier in life (Singh & Singh, 2008) place older people at risk of serious health problems and adversely affect their health and vitality (Zhang et al., 2019). Those who experience poverty transitions, enter poverty, and remain in poverty persistently are at higher risk of frailty (ADB, 2001), more so for women over a lifetime of cumulative disadvantages.

In Lao PDR, the limited insurance coverage hindered older person will illness from getting access to health care (Nambooze et al., 2014). In seeking treatment, the incurred health cost can push them deeper into poverty and impoverishment (Somkotra & Lagrada, 2009). Several studies have shown that the poorest households face economic losses because of health shocks (Ataguba et al., 2011; Atake, 2018; Vuong, 2015). Vuong et al. (2018) showed in Viet Nam, 58% of severely ill low-income patients face high health costs end up abandoning treatment due to lack of income. Knodel et al., (2005) reported that older person in rural Cambodia who resorted to selling their productive land to get medical help for their adult children who suffered from HIV/AIDS. In short, Health and poverty has reciprocal causality – i.e. poverty due to lack of income hinder older person to access health treatment. Yet, older person poor health reduces their work productivity and consequently their income. The aged poor thus find themselves trapped in a vicious circle in which poverty breeds ill health, and ill health, in turn, maintains poverty.

b. Poverty and Social Exclusion

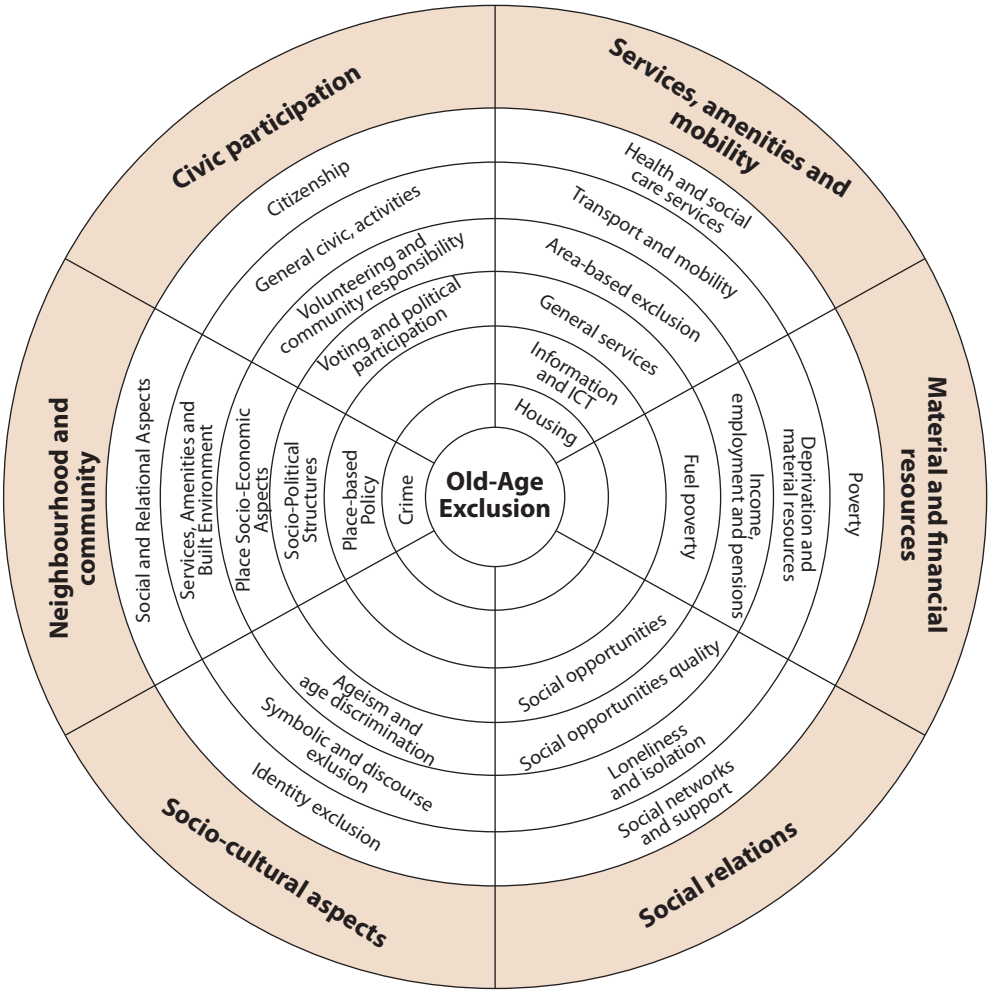
Social Exclusion in various forms – e.g. economic, social, political and psychological is a situation when participation in one's neighbourhood or community is denied, leading to marginalisation or separation from mainstream society. Older person may experience multiple social exclusion such as exclusion from material resources (i.e. poverty); exclusion from social relations (e.g. older person loneliness); exclusion from civic activities (e.g. participation in decision making); exclusion from basic services (employment and health care); and neighbourhood exclusion (social network and community support) (Scharf et al., 2005). The link between poverty and social exclusion is established where poverty is incorporated one of the six domains in social exclusion (Walsh et al., 2017).

Social exclusion may be self-imposed or caused by external factors such as discrimination – i.e. policy difference in the act of oppression to limit or deprive one of basic services and so on. Heslop and Gorman's (2002) suggested that socio-economic structural change (e.g. migration and urbanisation, labour market mechanism) progressively marginalising the older persons, hence making them vulnerable to poverty. So, it jeopardises the older person chance to actively contributing to the society. In remote region in Cambodia, where food insecurity and hunger were rampant, the poor indicated that as looking for food consumed a lot of their time, they sacrifice their desire to participate in the community activities (ADB, 2001).

c. Poverty and Livelihood

As previously discussed, except for Philippines, a high percentage of older person in AMS, such in Cambodia, Indonesia, and Thailand still economically active. Adhikari et al., (2011) indicated that labour force participation among those over 60 years old is not uncommon in Thailand which is significantly influenced by older person place of residence, functional status, and number of chronic diseases. Consequently, improving the health status of the older person is necessary to encourage employment among older persons. In addition, the lack of incentives for senior entrepreneurs means that their livelihood is often marginalised compared to other adults. Evidence shows that labour force participation of older person in AMS is mostly driven by poverty – i.e. in the absence or limited of social protection, older person supports themselves by continue to work out of necessities besides being depended on their family members for financial and material support. Since, most of them live in rural area, and in the absence of age restriction, older person is mostly work in agricultural and informal sectors. In addition, due to their low education, older person is faced with less opportunity, hence older workers (e.g. in Philippines and Thailand) were mostly distributed in low paying jobs.

Figure 3.2: Old-age Exclusion Framework Depicting Interconnected Domains and Sub-domains



Source: Walsh et al., (2017), p. 92

In summary, as the nature of poverty is multidimensions, so does its impact on various aspect of older person's life such as social isolation. Poverty may also disguise itself as poor health which increase the risk of older person to be trapped in the vicious cycle of poverty. Hence intervention through poverty eradication programme is necessary but keeping in mind that poverty in later life is different from poverty experience in early life and that older person – even among the poor - are not a homogenous group. The next section is review on national policy associated with active ageing, poverty and old age poverty alleviation policy and programme.

It is evident that rapid population ageing, combined with a lack of adequate social security, increases the vulnerability of poverty in old age. As a result of inadequate pension coverage and low levels of benefit, older persons need to remain in the labour force. In most AMS, older persons' participation in the labour force is driven by necessity (to survive), as most remain in the informal sector in particularly agriculture work and menial jobs. Poorer older persons often live with adult children who are themselves living in poverty, hence a coresidential living arrangement does not shelter them from economic deprivation. The feminisation of old age and ageing is a life course matter as older women did not participate in formal sector work and therefore have poorer access to retirement savings and pensions. While most of the current older population are highly dependent on their adult children, the more developed economies will see the rise of wealthier new generations. Nevertheless, older person is more vulnerable in emergencies and crisis (man-made or natural disasters), especially those living in poverty as they have inadequate protection and resources to withstanding or weathering the calamities. Older persons with disabilities face barriers to participate in economic, social, and cultural activities, and access to care is hampered by issues of availability, affordability, and quality. The unique nature of old age poverty differs from general poverty experienced by the younger population but there is a lack of longitudinal or panel studies understanding the phenomenon in AMS.

3.2 Active Ageing Pillars

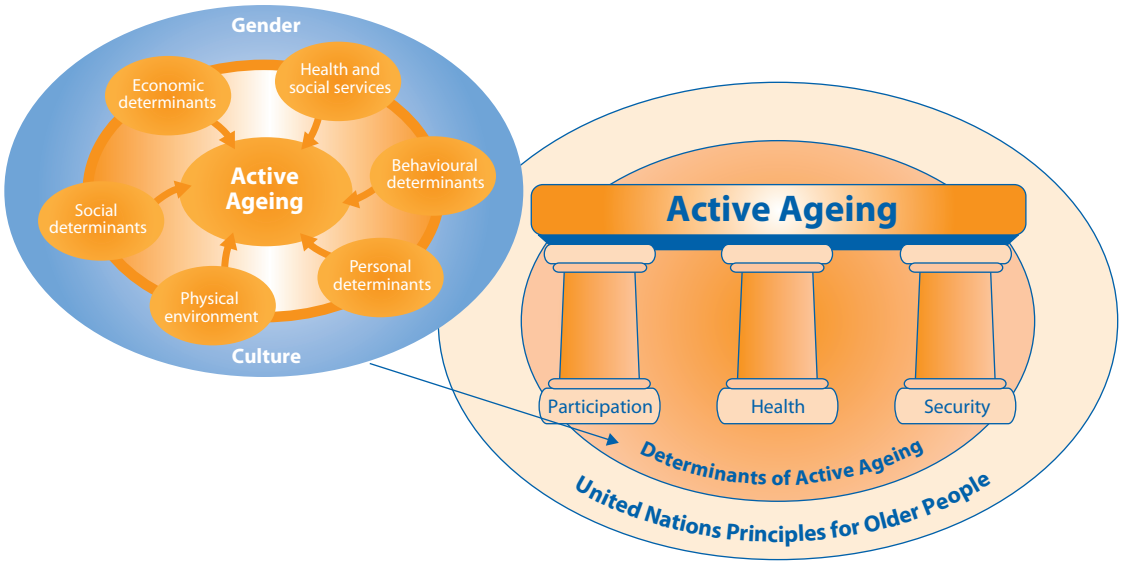
Review of Active Ageing Concept

Active ageing is nebulous concept, defined from many aspects and rooted in activity theory developed by Havighurst (1961) who concluded that older persons who are active and maintain social interaction have more satisfaction in life than those otherwise – i.e. a positive perspective of ageing. Industrialised countries adopted this view when the proportion of their older populations soared, and governments were concerned on its impact on the social security system (Walker, 2002). Then, active ageing was defined as the desire and ability of many older adults to remain engaged in both and socially productive activities. A narrow perspective of active ageing focuses on labour, care, and traditional activities of daily living, catering only the young-old and missing out on the old-old age cohort (Boudiny & Mortelman, 2011). Thus, a broader perspective of active ageing was suggested.

WHO (2002, p.2), defined active ageing as "continuing participation in social, economic, cultural, spiritual, and civic affairs, and not just the ability to be physically active or to participate in the labour force with the goal of optimising opportunities for health, participation, and security to enhance the quality of life as people age". The definition explains or implies the following: (1) a life course perspective and preventive aspect to maintain health (Walker, 2002, Boudiny & Martelmans, 2011); (2) individual, community, and country responsibility in promoting its cause to achieve quality of life in later life; (3) description of active ageing framework with six determinants, namely health and social services, personal, behavioural, physical, social, and economic determinants (Figure 3.1). In addition, WHO (2002) recognised gender and cultural context in the realisation of active ageing and the importance of attaining healthy ageing. Since then, governments of the world have adopted and adapted this framework into their planning and preparation for an ageing society. However, there is still no broad consensus in the definition of active ageing in the policy (Walker & Maltby, 2012).

Active ageing depends on a variety of factors that exist in the many domains of human activity. Walker (2002, p. 124), identified seven key principles in active ageing for policy development in response to population ageing – i.e. active ageing (a) activity should consist of all meaningful pursuits which contribute to well-being of the individual, family, local community, or society at large and should be concerned only with paid employment; (b) must encompass all older people, even those who are frail and dependent; (c) should be primarily a preventive concept, involving all age groups in the process of ageing and emphasis should be on preventing ill-health, disability, dependency, loss of skills and so on; (d) maintain intergenerational solidarity; (e) embody both rights and obligations; (f) the strategy should be participative and empowering, a combination of top-down and bottom-up; (g) respect national and cultural diversity. These principles should be based on partnership between citizen and society and the state's role is to enable, facilitate and motivate citizens and where necessary provide high quality social protection.

Figure 3.3: The Determinants and Three Pillars of a Policy Framework for Active Ageing



Source: WHO, 2002

Lak et al., (2020) suggested a 5P - framework for active ageing which accentuate the multidimensional nature of active ageing at micro level (person; personal characteristics and behavioral attitude), meso (process; social, economic, and cultural environment), and macro system (place; land use, access, physical form, city space/city image, public open space and housing and policy making; good governance) based health environment (prime; physical health, mental health, and social health). The personal characteristics, sociocultural and economic environment, place and policymaking lead to more health and active life for older persons.

Measuring Active Ageing

In Europe the Active Ageing Index (AAI) was developed as formal tool that allows comparison across countries. This initiative was developed by the United Nations Economic Commission for Europe based on the WHO active ageing framework (Zaidi et al., 2013) – i.e. The European Active Ageing Index (EU_AAI). The index measure untapped potential of older persons for active and healthy ageing across countries (Zaidi and Stanton, 2015) by assessing older person life domain and its enabling environment. It has four domains and 22 indicators: (1) **Employment** (four indicators); (2) **Participation in Society** (four indicators); (3) **Independent, Healthy, and Secure Living** (eight indicators); and (4) **Capacity and Enabling Environments for Active Aging** (six indicators). The index is a composite score of macro, individual, household, and community data. Since its inception in 2013, the AAI has been used to measure level of active ageing in 28 European nations and to assist development of policies and programmes on ageing in Europe. The European Active Ageing Index has been applied to countries outside of Europe including Asia, such as Taiwan (Hsu et al., 2019) and South Korea (Zaidi & Um, 2019). The development of AAI for Taiwan and South Korea were adapted to the availability of comparable indicators in the European Index. The index proof useful to place the Taiwan and South Korea in the league table against European nations, although caution is needed in the interpretation of the results. Nonetheless it is still useful.

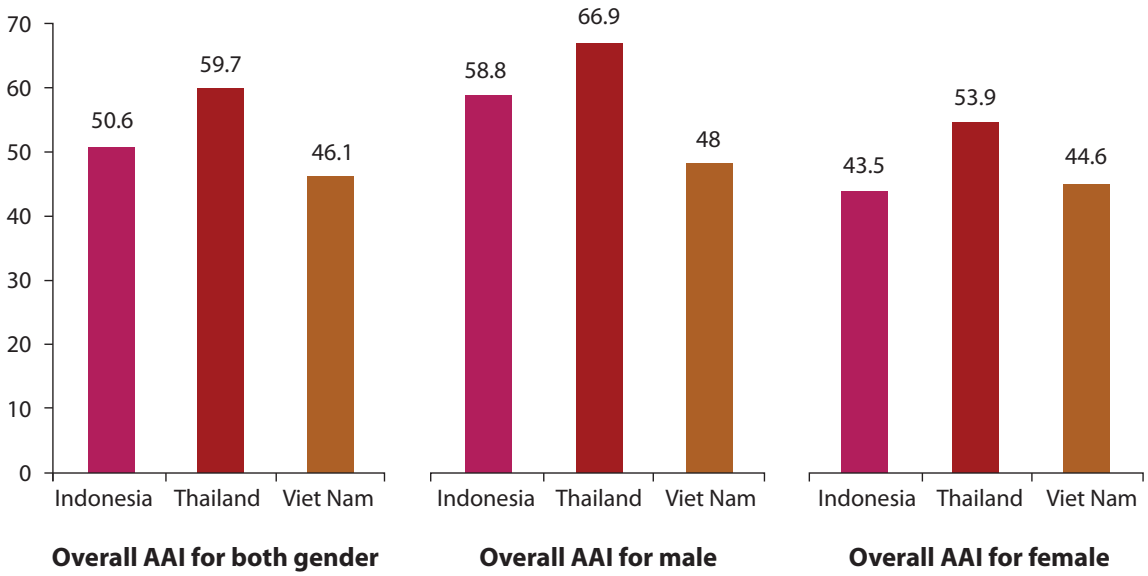
Measuring level of active ageing of a country is a new development in developing countries such as the Southeast Asian region. Previous studies indicated variations in measurement of active ageing and level of active ageing. The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) is mandated to conduct periodic regional reviews of MIPAA, the last of which was held in 2017 and the upcoming review meeting is planned for 2022 (UNESCAP, 2019). Before each reporting, UNESCAP would request information from member countries. However, inconsistencies around national reporting impede meaningful comparisons between countries and assessment of individual country progress in supporting ageing societies (Parry et al., 2018). In addition, review process around the MIPAA lack of clearly defined appraisal criteria, leading to a disproportionate submission of anecdotal, descriptive, and self-defined information, and little deeper evaluation of the relationship between outputs and policy impact (Sidorenko & Zaidi, 2018). Hence, after 15 years of MIPAA implementation, UNESCAP has called for consistent and coherent mechanism (Parry et al., 2018) and explored the development of the Active Ageing Index like the EU-Active Ageing Index for Asia Pacific (Zaidi et al., 2018). Parry et al., (2018) recognised the issues of lack of comparable international data amongst countries in Asia Pacific and offer suggestions to address the issues. First, clusters of countries along their developmental level and availability and comparability of age-disaggregated data must be identified to allow development of a dashboard indicators and index. Second, a reduced form of index may be developed as a baseline monitoring tool for countries where population ageing is less pronounced.

The Asian AAI was developed based on EU_AAI and adopted similar methodology (Zaidi and Um, 2018). Among ASEAN countries, Thailand, Indonesia, and Viet Nam have estimated their AAI. The overall modified Asian AAI score for Thailand was 59.7 and 50.6 for Indonesia, based on available data from both countries in 2014 and 2015. Zaidi and Um (2018) compare the overall score of Thailand and Indonesia against the AAI league table of Europe. The overall score of 59.7 puts Thailand at number 10 against a total of 32 countries, while Indonesia occupies 19th position. Based on the overall Asian AAI, gender differences were apparent in both Thailand and Indonesia – i.e. 58.8 and 43.5 for males and females respectively in Indonesia and 69.9 and 53.9 for Thai male and female respectively. Gender differences were also noted in all domains. Interestingly, among older male and female Indonesian, small gender difference was noted in the domain independent, healthy, and secure living, where Indonesian males scored 22.6% and female scored 21.7% respectively. The results for Thailand and Indonesia, reflect activities that older persons in Thailand and Indonesia are involved in and at the aggregate level the pattern is indicative of the need to improve certain domain in life to enhance active ageing. Nevertheless, when analysing the employment domain, Indonesia scored 71.5 and occupy a second position after Sweden (75.8) and Thailand (66.8) occupy 4th position.

Pham et al., (2020) adopted the EU-AAI methodology to develop Viet Nam AAI which incorporate four original domains of the EU-AAI Index. Adjustments[6] were made to a few indicators as they were not available, or use of wording considered inappropriate for the country. These changes were in line with Zaidi and Um's (2019), new [revised] Asian Active Ageing Index. The overall AAI score for Viet Nam was 46.1, ranked 11th within the of 32 country comparison. For the individual domain, Viet Nam ranked first in the employment domain among the 32 countries. This was because Viet Nam is mostly agrarian nation and people who work in agriculture has no official retirement age, hence older persons work for as long as their health permits. It also reflects high participation of Vietnamese older person in an informal employment which may not be advantageous to older people in the absence of social protection for old age. Nguyen et al., (2015) noted only 26% of older Vietnamese adults received pension. In the domain of social participation, Viet Nam was ranked fifth among the 32 countries. The contribution to child/grandchildren care alluded to a high score. Nevertheless, political participation was rather low. Viet Nam fared last in the independent, healthy, and secure living, due the culture of coresident in Viet Nam like many other countries in AMS. In addition, involvement in life-long learning was also low. For the 4th domain, the position of Viet Nam was also at the lower end, 26th out of 32. Four out of six indicators in the domain were low, but mental health and social connectedness were high.

Comparing just between the three ASEAN countries Figure 3.4 below, Thailand seems to record higher score for overall and based on gender. Viet Nam is comparatively in 3rd position for overall AAI. Same position was noted for males. However, female Indonesian comes in 3rd position in terms of level of active ageing.

Figure 3.4: Overall AAI Score for Male, Female, and both Gender for Three ASEAN



Source: (Zaidi and Um, 2019); (Pham et al., 2020)

Based on the experiences and learning regarding AAI in three ASEAN countries – Thailand, Indonesia and Viet Nam, Zaidi et al. (2019) developed a new ASIAN Active Ageing Index (ASIAN_AAI) and modified indicators of EU_AAI to make it more robust and appropriate for use in the ASIA Pacific region. The creation of the new ASIAN Active Ageing Index would contribute the standardisation and yard stick for comparative analysis of performance of national policies on ageing. Moreover, the Asian AAI for ASEAN will enhance understanding of the active ageing experiences of older persons and learnings for policymakers in the region (Zaidi & Um, 2019). The modification and changes in EU_AAI were shown and compared with the revised Asian AAI indicators as shown in Figure 3.5.

Haque (2016) developed a six-factor Active Ageing Index (AAI) in Thailand at the individual level. Based on WHO Active Ageing determinants, a 17-variable scale is developed as a proxy to active ageing concept. The AAI mean score for female and male older person were 0.66 and 0.62 –i.e. corresponding to a moderate level Human Development

[6] Pham et al 2020 reported the following changes were conducted in their study such as:
1. Assigning flat weight of 25% for each domain, like the Taiwan study.
2. Modification of indicators of physical exercise from almost daily to doing physical exercise at least three days a week.
3. Relative median income was dropped due to unavailability of data.
4. The indicator no poverty risk was replaced with 2015 poverty risk threshold for urban and rural Viet Nam (Nguyen et al., 2015).

Index. Identified barriers to active ageing are poor health, low in vision and hearing impairment, functional dependency and improvement in high health risk behaviours. For example, older persons who smoke are lower in their active ageing level compared to older persons who did not smoking. Older persons who participated in community and group activities are more likely to be higher in AAI in Thailand (Haque, 2016). Home improvement will enhance older person friendly home environment that would help overcome limitations in activities in daily living. These may help older person to maintain good health, daily living activities, participate in social activities, and economic activities as well. Haque (2016) further divided the AAI into four levels (lowest group, medium lowest, medium highest, and highest group) to measure the different levels of activeness between males and females in the different regions of Thailand. The lowest mean AAI were identified for female older persons living in Bangkok (central region) and male older person's scores is lower than female older persons in all regions. Haque (2016) suggested that indicators of AAI should be used to promote active ageing. Despite a good footing in comparing level of active ageing, it measures level of active aging at individual level, hence, limiting cross country comparison.

Figure 3.5: Modified AAI Indicators of EU_AAI in the revised Asian AAI (ASIAN_AAI)

ACTIVE AGEING INDEX

Employment		Participation in Society (Social engagement - Asian)		Independent, healthy and secure living		Capacity and enabling environment for active ageing	
Indicators		**Indicators**		**Indicators**		**Indicators**	
EUROPE	**ASIAN**	**EUROPE**	**ASIAN**	**EUROPE**	**ASIAN**	**EUROPE**	**ASIAN**
Employment rate 55-59 years	Employment rate 55-59 years	Voluntary activities	Voluntary activities (55+)	Physical exercise	Physical exercise at (55+)	Remaining life expectancy at age 55 (RLE)	Remaining life expectancy at age 60 (RLE)
Employment rate 60-64 years	Employment rate 60-64 years	Care to children + grandchildren	Care to child/ Grandchildren (55+)	Access to health services	Access to health insurance or health benefits (55+)	Share of healthy life expectancy at age 55	Share of healthy life expectancy at age 60 (SHLE)
Employment rate 65-69 years	Employment rate at 65+	Care to older adults	Care to older adults (55+)	Independent living	No ADL (65+)	Mental wellbeing	Mental wellbeing at 55+
Employment rate 70-74 years		Political participation	Civic & religious activities (55+)		No IADL (65+)		Subjective wellbeing (55+)
				Financial security (3 indicators)	Relative median income for 65+	Use of ICT	Use of ICT (55+)
					Poverty risk at 65+	Social connectedness	Social connectedness (55+)
					Home ownership (55+)		Physical safety (55+)
				Physical safety		Education	Education attainment (age 55-74)
				Life-long learning			

Source: Zaidi and Stanton (2005); Zaidi et al., (2019)

Walker and Aspalter (2015) provided an alternative categorisation of seven countries in East Asia based on the concept of active ageing, or social policies government implemented or adopted and the policies outcomes in the seven country case studies. Nevertheless, further research is needed to refine the categorisation. They labelled the categorisation as follows: First, world of active ageing which support and narrow definition of active ageing. Second, world of active ageing which support a broader definition of active ageing. Third, world of active ageing where there is some progress in policy implementation and still huge gaps in realisation of social policy on active. Finally, world of active ageing where social policy regarding active ageing is fully implemented especially at the city levels. They recognised that in country/city case studies, the conceptualisation of active ageing differs in its interpretation and application. They suggested that a comprehensive approach to active ageing which goes beyond employment, working longer and mobility in old age should be adopted.

Policy Pillars of Active Ageing

In this section, the situation of older persons is arranged according to the four pillars stipulated in the WHO Active Ageing Framework and more recently, the International Longevity Center (ILC) Brazil included lifelong learning as the fourth pillar of active ageing (Brazil International Longevity Centre, 2015 cited in Hijas-Gomez et al., (2020). Therefore, the four pillars of active ageing are used as a proxy for discussion, depending on available published literature regarding the subject matter in AMS.

a. **Pillar 1: Health** incorporates the risk factors for physical health and mental health, as well as self-care behaviour for healthy ageing and quality of life. In addition, preventive health programme or activities are also considered under this pillar.

b. **Pillar 2: Security** is concerned with the older persons' access to a safe and secure physical and social environment, as well as income security, and (when applicable) access to pension and financial assistance.

c. **Pillar 3: Participation** covers an array of activities that older people are involved in the society both paid and unpaid activities i.e. volunteerism. Activities included under this pillar are social, economic, cultural, spiritual, civic affairs and labour force participation.

d. **Pillar 4: Lifelong learning** covers a variety of learning opportunities in the community offered by formal and informal educational providers. The learning opportunities in this context does not necessarily lead to any formal award of degrees.

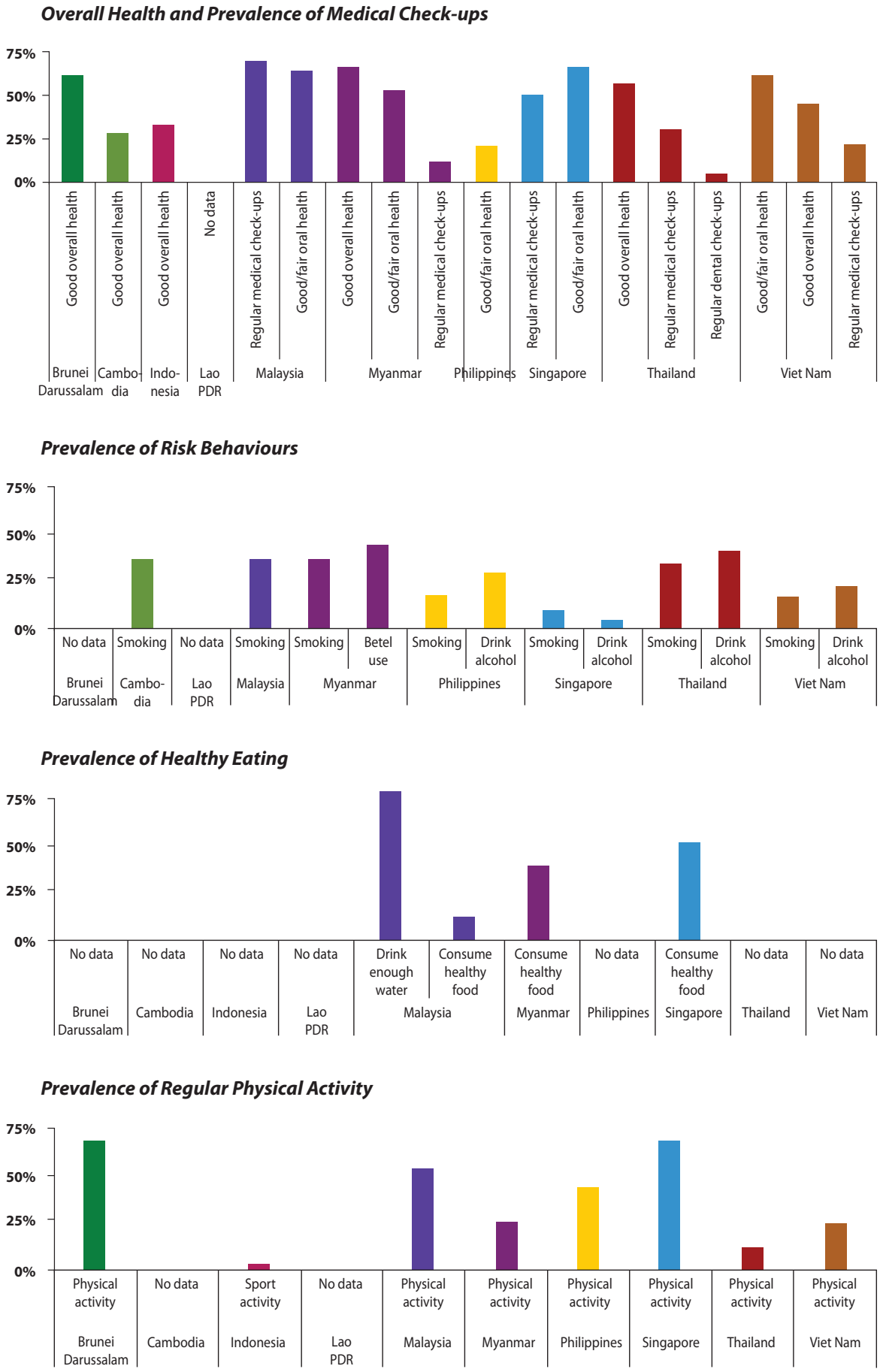
3.2.1 Health Pillar

This section deliberates on several aspect of the health pillar, namely: safe care and lifestyle behaviours, life expectancy, prevalence of selected disease, non-communicable diseases and mental health status, and long-term care of older adults. The programme and policies implemented in these areas will promote active and healthy ageing.

Safe-care behaviour. It refers to older person's adopting of healthy lifestyles such as engaging in appropriate physical activity, healthy eating, not smoking and using alcohol, and medications and regular medical check-up (WHO, 2002). Overall, older adults in AMS showed different behavioural pattern with regards to general health and healthy activities. For example, most older people in Brunei Darussalam, Malaysia, and Singapore have good health awareness as they participate in general medical check-ups, engage in regular physical activity, have good oral health, and have fewer risk behaviours (smoking and drinking) (Hock et al., 2013; NIH, 2018; Phua et al., 2019; Abdul Rahman et al., 2021). However, over 85% of older adults in Malaysia adequately don't consume fruits/vegetables daily. Malaysian older adults are less aware of participating in organised sport/physical activity (SWRC, 2021).

Singapore and Malaysia apply various practices, such as lifelong learning, enhance people education and awareness on healthy behaviours and healthy lifestyle through various forms of programmes or activities (Schwingel et al., 2009; Tey & Hamid, 2014; Brooke, 2016; MyGovernment, 2012; Ahmed et al., 2016; MOH, 2016b; Woon and Zainal, 2018; ADB, 2020). Brunei Darussalam has also established senior citizens' health promotion programmes in various cities to educate older person about live a healthy lifestyle and enjoy a good quality of life (MOF, 2018; MFE, 2020). On the other hand, older people in Myanmar, the Philippines, and Viet Nam have fair to low awareness on healthy lifestyle. For example, based on Healthy and Active Ageing baseline longitudinal study in Myanmar (JAGES, 2018), over 30% of older adults were tobacco and betel users, about 70% have unhealthy eating pattern, 21% have poor health (Win et al., 2020).

Figure 3.6: Behavioural Factors of Older Adults in Southeast Asia

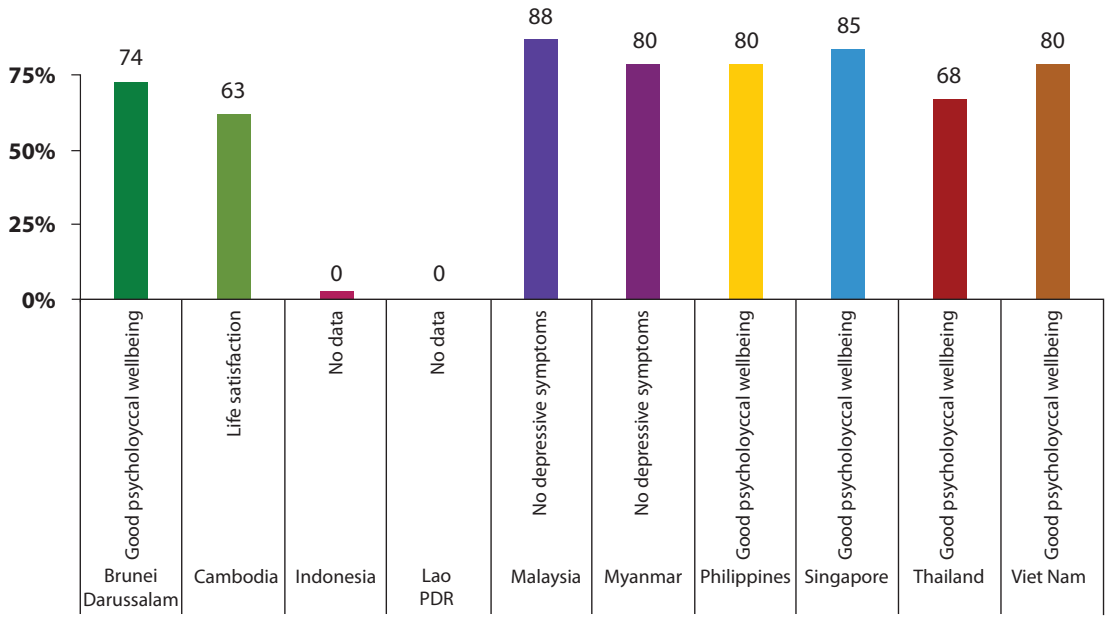


Source: Authors developed based on national surveys in each country

In the Philippines and Viet Nam, about 20% of older adults smoke, drink, and have poor oral health (Cruz et al., 2019; Figure 3.6). Myanmar and Viet Nam were reported to have lack of programmes on improving older person behavioural determinants for active ageing (Thein, 2016; Mya, 2017; Lan and Dang, 2017; CARE, 2019; Zaw Oo, 2019; VNCA & UNFPA, 2019). Older people in Indonesia, Cambodia, and Thailand have lack of awareness on good health behaviours, as many are smoking or drinking in Cambodia and Thailand; lacks regular physical activities in all three countries (Arifin et al., 2012; Adioetomo & Mujahid, 2014; Knodel and Zimmer, 2014). Over 60% of older people in Indonesia and Cambodia perceive their health status as poor. (Arifin et al., 2012; Knodel and Zimmer, 2014). Only 33% of older adults have regular general physical check-ups, and only 5% have a regular dental check-up in Thailand. However, most of the older people in most Southeast Asia (except Singapore and Brunei Darussalam) lack regular physical activities and exercises. This could be due to the lack of programmes and initiatives to enhance people education and awareness on healthy behaviours and healthy lifestyle in Indonesia and Cambodia (Tejero, 2007; Arifin, 2014; DSWS, 2014; Sunusi, 2014; RGC, 2017; Te, 2019; HelpAge Asia, 2019; HelpAge Asia, 2020). Although Thailand has some initiatives to enhance people's education and awareness on healthy behaviours and healthy lifestyles, there is a lack of concrete transformation of policies (Jitapunkul & Wivatvanit, 2008; Haque, 2016; Hayami, 2019; Larpsombatsiri, 2019). However, there is no available data on behavioral factors for Lao PDR.

Personal attribute. It refers to psychological factors (such as intelligence and cognitive capacity) and crises of ageing and self-efficacy that are strong predictors of active ageing. During normal ageing, some of these personal factors naturally decline with age, engaging in education and experience, socialisation, healthy lifestyle can compensate the personal related issues (WHO, 2002). Overall, older people in most Southeast Asian countries enjoy good psychological health. The existing older person surveys reported a low score of depression or a good score of life satisfaction in most older people referring to sound psychological wellbeing (Knodel & Zimmer, 2014, Cao & Rammohan, 2016, Teerawichitchainan et al., 2017, Vu et al., 2020, SWRC, 2021, Abdul Rahman et al., 2021; Figure 3.7). However, there is no data on psychological wellbeing from Indonesia and Lao PDR.

Figure 3.7: Psychological Health Level in Southeast Asia (various years)



Source: Authors developed from recent national surveys in each country

Most policies and strategies on ageing in Southeast Asia provided a wide range of activities and initiatives to enhance the personal factors of older adults for active ageing. For example, Singapore and Malaysia apply various practices, such as encouraging the older person workforce, volunteerism, lifelong learning, social activities to improve personal determinants and self-development for active ageing (Schwingel et al., 2009; Peng & Hamid, 2014; Brooke, 2016; MyGovernment, 2012; Ahmed et al., 2016; MOH, 2016b; Woon and Zainal, 2018; ADB, 2020. Refer to Annex A2.9. Similarly, the Philippines provided few initiatives to enhance older person personal factors, such as projects on volunteerism, older person centres, the federation of senior citizens association, and lifelong learning programmes (Tejero, 2007; WHO, 2013; DSWS, 2014; HelpAge, 2019).

Viet Nam promoted the personal determinants of active ageing by encouraging older adults to participate in various forms of practices formally under OPAs, ISHCs, older person clubs and centres; or informally under family support (Hoang, 2017; Lan & Dang, 2017; Vu et al., 2020). Brunei's Government also enhanced older person personal factors through improving their participation, well-being, and meaningful life under activity centres, organised activities, and homecare programmes for older adults (Tahir, 2015; MCYS, 2016; MOF, 2018; MFE, 2020). Ageing strategies in Thailand and Indonesian focused on enhancing healthy behaviours and activities informally through focusing on the community and family context (Jitapunkul & Wivatvanit, 2008; Abikusno, 2009; Sunusi, 2014; HelpAge Asia, 2015; Aruntippaitune, 2017; Piensriwatchara, 2017; Rahardjo et al., 2019; Annex A2.9) In Myanmar, the initiatives on the personal determinants were limited to providing social engagement in the daycare centres (Thein, 2016; CARE, 2019; Zaw Oo, 2019; Win et al., 2020). Meanwhile, Lao PDR provided some employment opportunities to the older person (Akkhavong et al., 2014; Khomphonh, 2017; Rehabilitation, 2019).

Southeast Asia countries need to further expand the programme to reach more older person to enhance older adults' health and well-being (Ambigga et al., 2011; Wen and Wong, 2013; Arifin, 2014; Mehta, 2015; Thein, 2016; Hayami, 2019; Ong-Artborirak & Seangpraw, 2019; Christian et al., 2019; Khomphonh, 2019). Refer to Annex IX(a) for details. Most of the older adults in ASEAN need more knowledge and education on active ageing (Knodel et al., 2005; Hong, 2017) and awareness of healthy lifestyle and healthy behaviours (Nuryana, 2018; Giang et al., 2020; Vu et al., 2020) (Annex IX(a) & Annex IX(b)). There is also a lack of data and research on implementing behavioural and personal determinants of active ageing in ASEAN (MOH, 2013; Akkhavong et al., 2014; Khomphonh, 2017). Besides, there is a need to promote technology and media to enhance personal and behavioural factors (Ambigga et al., 2011; Abdul Rashid, 2015). These challenges could be due to the lack of budget and financial and material resources (Adioetomo & Mujahid, 2014; Knodel & Zimmer, 2014; Siddiqui, 2014; Knodel & Teerawichitchainan, 2017; Laiphrakpam & Aroonsrimorakot, 2018, see Table 3.8).

Life Expectancy and Healthy Life Expectancy. The accumulative behavioural and personal factors in the long run contributed to improve life expectancy of older persons in AMS as discussed below. The AMS focus on improving healthcare services and delivery is translated into longer life expectancy of the general population in each country between 2000 and 2019 (Table 3.6). In year 2000, Lao PDR and Cambodia, recorded life expectancy at birth below 60 years of age, while Myanmar, Philippines and Indonesia's life expectancies at birth were in the 60s. The longest life expectancy at birth was recorded in Singapore at 78.4 years, followed by Viet Nam at 71.4 years, Thailand at 71.3 years and Malaysia at 70.6 years. In 2019 only two countries, Lao PDR and Myanmar recorded life expectancy (LE) at birth below 70 years and seven countries showed life expectancies above 70 years. Singapore's life expectancy at birth reached over 80 years old in 2019. The gains in life expectancy at birth is marred by the healthy life expectancy (HALE) data that show the gap between them. The gaps between LE and HALE in year 2000 ranges from 4.5 to 8.9 years – i.e. the duration of older person to live in unhealthy life expectancies. Interestingly, the gains in HALE showed a large range, from 1.4-year gain in the Philippines to 10.1-year gain in Cambodia. The gains reflect the efforts taken by the governments to improve the health wellbeing of the populations and improved longevity (Table 3.7). Comparatively, female LE and HALE is longer than male counterparts at birth and at age 60 years. Hence, people in Southeast Asian (SEA) countries are enjoying healthier life.

Table 3.7: Life Expectancy at Birth, at 60 and HALE by Sex in Southeast Asia, 2019

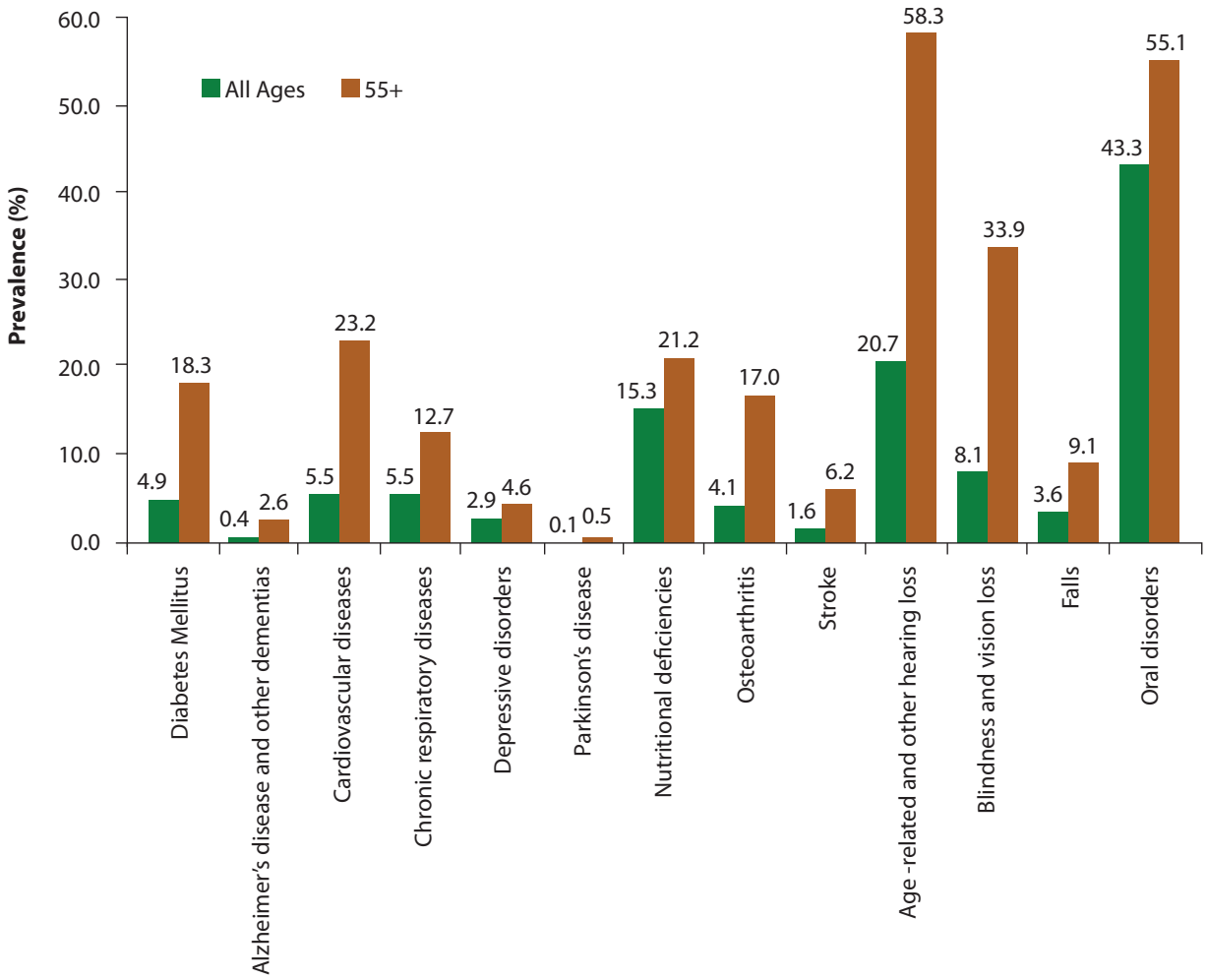
Country	Sex	Life Expectancy at Birth			Life Expectancy at 60		
		LE@birth	HALE	GAP	LE@60	HALE	GAP
Brunei Darussalam	Male	73.4	65.2	8.2	19.0	14.0	5.0
	Female	75.4	66.1	9.3	19.4	14.7	4.7
	Both Sexes	74.3	65.6	8.7	19.2	14.5	4.7
Cambodia	Male	67.2	59.8	7.4	15.9	12.0	3.9
	Female	72.7	62.4	10.3	19.1	14.1	5.0
	Both Sexes	70.1	61.5	8.6	17.7	13.2	4.5
Indonesia	Male	67.2	61.9	5.3	15.9	12.7	3.2
	Female	72.7	63.8	8.9	191	14.0	5.1
	Both Sexes	70.1	62.8	7.3	171	13.4	3.7
Lao PDR	Male	69.4	59.2	10.2	16.7	12.5	4.2
	Female	73.3	61.9	11.4	19.1	14.0	5.1
	Both Sexes	71.3	60.5	10.8	17.9	13.3	4.6
Malaysia	Male	72.6	64.5	9	18.5	14.0	4.8
	Female	77.1	66.9	7.1	20.6	15.3	5.3
	Both Sexes	74.7	65.7	8.4	19.5	14.6	4.9
Myanmar	Male	65.9	58.8	8.9	16.2	12.4	3.8
	Female	72.2	62.8	7.3	19.6	14.6	5.0
	Both Sexes	69.1	60.9	10.2	18.1	13.6	4.5
Philippines	Male	67.4	60.1	11.4	18.1	12.1	6.0
	Female	73.6	63.9	10.8	19.6	14.6	5.0
	Both Sexes	70.4	62.0	9	17.8	13.4	4.4
Singapore	Male	81.0	72.4	7.1	23.8	17.5	6.3
	Female	85.5	74.7	9.4	27.2	21	6.2
	Both Sexes	83.2	73.6	8.4	25.5	20	5.5
Thailand	Male	74.4	65.9	8.6	22.1	17	5.1
	Female	81.0	70.6	10.8	24.8	18.8	6.0
	Both Sexes	77.7	68.3	9.4	23.6	18	5.6
Viet Nam	Male	69.6	62.4	7.2	16.9	12.9	4.0
	Female	78.1	68.3	9.8	22.0	16.4	5.6
	Both Sexes	73.7	65.3	8.4	19.6	14.8	4.8

Source: WHO, 2019

Nevertheless, the gap between LE at birth and HALE at birth showed gaps between male and female. Even though women have longer life expectancy than men, they experience shorter gains in HALE. This means that women live longer but with ailment compared to men who recorded shorter life expectancy and shorter gaps between LE and HE. This pattern is also depicted among older persons aged 60 and above. The differences in life expectancies between male and female were attributed to gender specific diseases for women NCDS and differential access to health services (WHO, 2020). Interestingly, the female at age 60 years and over in Brunei Darussalam and Philippines reported shorter gap than their male counterparts, 4.7 years, and 5 years respectively. In all other countries male seems to indicate better health than females (smaller gap between LE and HALE) at age 60 years and over. Generally, all member states' older population have health issues that contributed to the gap between LE and HALE and the goal is to narrow the gap between LE and HALE. In the context of active ageing, such gap implies challenges in each country government to maximise the benefit of ageing population.

Prevalence of Selected and Non-Communicable Diseases. As age increases, degenerative diseases and chronic health conditions may set in which can lead to severe and immediate disabilities, such as hip fractures and stroke, as well as progressive disabilities that slowly diminish the ability of seniors to care for themselves, hence limiting their ability to stay active. Figure 3.8 shows the prevalence of selected diseases in Southeast Asia of all ages and for population aged 55 years and above in 2019.

Figure 3.8: Prevalence of Selected Diseases, SEA, 2019

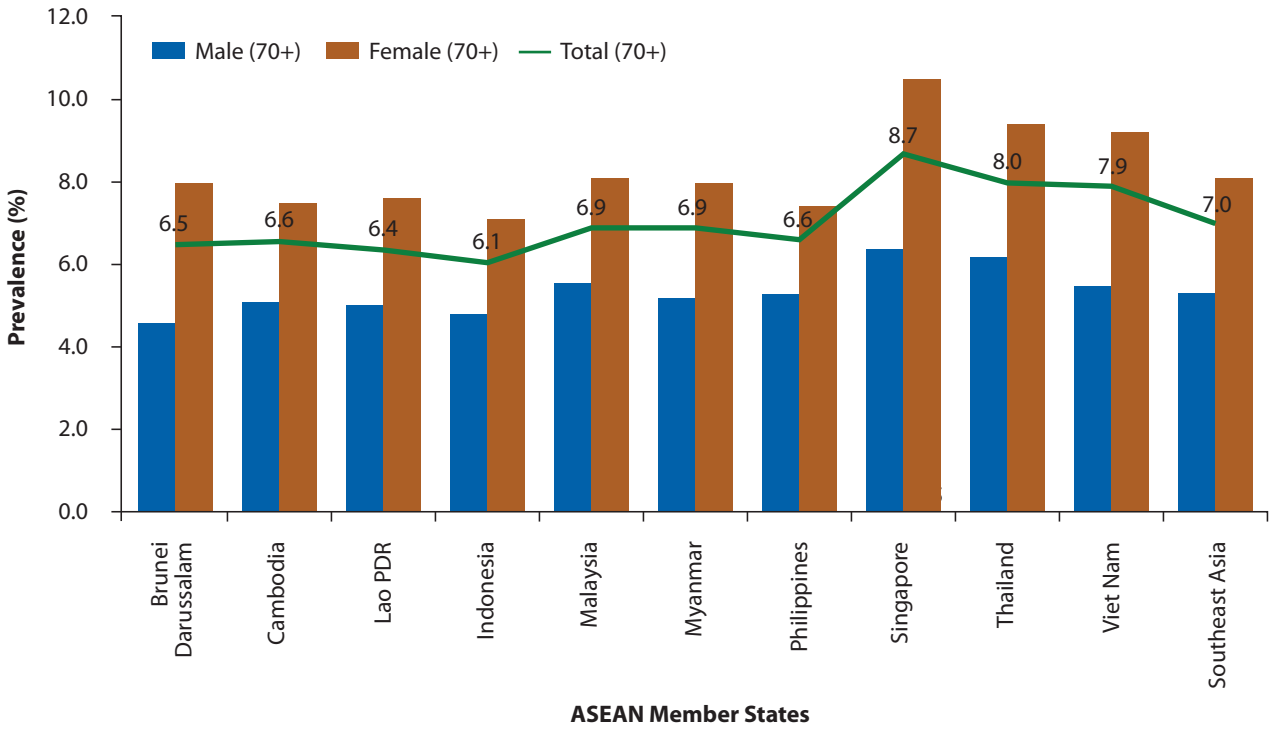


Source: Institute for Health Metrics and Evaluation - Global Burden of Disease, 2020

In 2019, the highest prevalence of disease in the Southeast Asia was oral disorders (over 40% had oral health issues), age related hearing loss (20.7%) and nutritional deficiencies (15.3%). For populations aged 55 years and above, the highest recorded prevalence was age-related hearing loss (58.3%), oral health issues (55.1%), and blindness (33.9%). These ailments will affect older persons' social and community interactions, yet they are preventable with proper public health intervention. Further, adult aged 55 years and above also suffered from nutritional deficiencies (21.2%), cardiovascular diseases (23.2%) and diabetes mellitus (18.3%). These diseases are attributed to lifestyles and age-related changes and more pronounced at older ages. The gaps in prevalence rate of diseases between all population and persons aged 55 years and over are quite big for all diseases except Parkinson. Hence, it is important to have intervention programmes in place to prevent the onset of lifestyle disease through aggressive health prevention strategies in the AMS. Annex IX contains a comparison of NCD prevalence by AMS in 2019. It is evident that not all diseases are strongly age-related, such as depression and nutritional deficiencies, but many chronic diseases become more common in later life.

Mental Health and Alzheimer's Disease. Dementia is a major mental health issue among older populations. Figure 3.9 shows the prevalence rate of dementia among male and female older persons in AMS in 2019. The regional prevalence rate is 7.0% for the total population. But, for the more advanced aged countries, the prevalence rate is higher than that of the regions - i.e. Singapore (8.7%), Thailand (8.0%) and Viet Nam (7.9%). Higher prevalence rate was observed among female compared to male older persons in all countries, hence brought upon important implications on the demand for mental health and social care systems in AMS. People with mild cognitive impairment (MCI) have greater than normal risk for developing dementia in the future. But not all MCI cases progress to greater impairment, as some show improvement with proper interventions and treatment. In the ASEAN regional context, cultural belief about mental health may have interfered older persons' health seeking behaviours.

Figure 3.9: Prevalence of Alzheimer's Disease & Other Dementias among 70+ Population



Source: Institute for Health Metrics and Evaluation - Global Burden of Disease, 2020

Mental health services for the general population in AMS countries is yet to be fully developed (Maramis et al., 2011), despite its arising needs due to ageing population. Improvement of mental health services are necessary and can be carried out as follows: built community services; redefine roles of mental hospitals; develop local-based innovative solutions; improve education and training capacity; reorient training curricula to community-based practice to prepare professionals to work in new ways and unfamiliar settings; and the need to develop evidence to monitor and evaluate programme's success (Maramis et al., 2011).

Long term Care. The decline in functional status in later life may require some form of long-term care when self-care cannot be managed. Long term care (LTC) are activities undertaken by others to ensure that people with or at risk of significant ongoing loss of intrinsic capacity can maintain a level of functioning ability consistent with their basic rights, fundamental freedom, and human dignity (WHO 2017, pg. 2). LTC is non-medical care provided to those who need continuous assistance in performing the basic activities of daily living. There are many types and providers of long-term care services in the community. Basically, LTC can be categorised as community-based long-term care services or Institutional-based long-term care services. In addition, these services can be paid or non-paid services. The demand for long term care will be dependent on care need of the older persons. Hayashi (2018) estimated the care need of older person in ASEAN countries in selected years (Table 3.8).

Table 3.8: Estimated Care Need in Southeast Asia Countries by Year (in Thousands)

Country	2020 ('000)	2030 ('000)	2040 ('000)
Brunei Darussalam	1	2	3
Cambodia	23	37	61
Indonesia	446	665	1038
Lao PDR	9	13	20
Malaysia	73	125	204
Myanmar	84	141	203
Philippines	136	249	376
Singapore	28	75	135
Thailand	296	601	936
Viet Nam	425	614	1002
Total	**1521**	**2522**	**3978**

Source: Hayashi, 2018

In 2020, the estimated older persons who needed care range from about 1,000 persons in Brunei Darussalam to 446,000 in Indonesia and around 425,000 in Viet Nam. In the next decade (2030), three countries, namely, Brunei Darussalam (100%), Singapore (167.9%) and Thailand (103%) showed over 100% increase in the demand for care. Over the next twenty years, the demand for care in all countries will double or triple in number. The largest increase in demand is shown by Singapore (383%), Thailand (216%), and Brunei Darussalam (200%) respectively (Hayashi, 2018). In relation to these emerging needs, the availability of such facilities in the country to cater for them need urgent attention. Table 3.8 below shows the varieties of home-based care services in AMS. The services are provided by private and public sectors and non-government organisations. These services can be paid, and non-paid services. Integrated home-based care is available in all Southeast Asia countries. These programmes are conducted by volunteers and paid services, family members, as well as by foreign domestic workers, especially in Singapore and Malaysia (HelpAge, 2011; Cho, 2012). Similarly, all Southeast Asia countries also providing basic home nursing services. The pattern of availability is similar for home medical, home personal care, and medical escort services. In terms of home therapy, only five countries (Brunei Darussalam, Malaysia, Singapore, Thailand, and Viet Nam) indicated availability (MOF, 2018; MOH, 2016a; Salleh, 2017, Table 3.3). Meal-on Wheels are available in Indonesia, Malaysia, Singapore, Thailand, and Viet Nam (HelpAge, 2011; Cho, 2012). Table 3.9 show a variety of daycare services found in Southeast Asia countries. The integrated care and social daycare centres (respite) are available in all countries except in Lao PDR. However, the Day Rehabilitation centres are available in only seven countries with limited availability in Indonesia and unavailable in Cambodia, Lao PDR, and Myanmar (Cho, 2012; MOF, 2018; MOH, 2016a; Salleh, 2017). Dementia day care is also available in seven countries, with limited availability in Cambodia and Indonesia. Lao PDR, Myanmar, and Viet Nam lack the availability of dementia day care centres (see Table 3.4). Hospice day care centres are also available in most Southeast Asia countries except in Lao PDR and Myanmar. However, integrated daycare services (include both home and day care services) are only available in Singapore. Taxi transport service is also provided in Malaysia, Singapore, and Thailand (Jitapunkul and Chayovan, 2001; MOH, 2016a; Salleh, 2017) (see Table 3.9).

Table 3.9: Home-based Care Services for Older Adults in Southeast Asia

Types of Service	Example	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
Integrated home-based care (Volunteer & paid)	Help older people who have lost the ability to fully care for themselves by providing social and emotional support, home help, personal care, and escorting	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available
Home Nursing	Dressing wounds, administering injections, and changing feeding tubes	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available
Home Therapy	For rehabilitation to improve or maintain their activities of daily living	Available	-	-	-	Available	-	-	Available	Available	Available
Home Medical	For frail or bedridden clients who need medical consultation and treatment	Available	Available	Available	Limited capability	Available	Available	Available	Available	Available	Available
Home Personal Care	Personal care tasks, assistance with medication and more	Available	Available	Available	Limited capability	Available	Available	Available	Available	Available	Available
Meals-on-Wheels	Meal delivery to older adults	-	-	Limited capability	-	Available	-	-	Available	Available	Available
Medical Escort	For those unable to get to medical appointments or treatments independently	Available	Available	Available	Limited capability	Available	Available	Available	Available	Available	Available

Note: The data adapted from the systematic review of the previous studies

Table 3.10: Day Care Services for Older Adults in Southeast Asia

Types of Service	Example	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
Integrated Care Centre	Integrated care services such as day care, dementia day care, day rehabilitation, etc.	Available	Available	Available	-	Available	Available	Available	Available	Available	Available
Day Rehabilitation Centre	Exercise and training programmes to improve functional abilities	Available	-	Limited capability	-	Available	-	Available	Available	Available	Available
Dementia Day Care Centre	Day care programme for persons with dementia	Available	Limited capability	Limited capability	-	Available	-	Available	Available	Available	-
Social Day Care Centre (respite)	For frail older person while their caregivers are at work	Available	Available	Available	-	Available	Available	Available	Available	Available	Available
Hospice Day Care Centre	For terminally ill older person patients, and caregivers' support	Available	Available	Available	-	Available	-	Available	Available	Available	Available
Integrated Package	Provide both home and day care services	-	-	-	-	-	-	-	Available	-	-
Taxi Transport Service	To ferry seniors going to and from day care centres	-	-	-	-	Available	-	-	Available	Available	-

Note: The data adapted from the systematic review of the previous studies

In terms of community-based mental health services, there is a limited number of services available in most Southeast Asia countries, as shown in Table 3.10 (HelpAge, 2011). Across several Southeast Asia countries, the main provider of dementia services is the Dementia Associations in each country. Mental and general health services in the community are available in Malaysia, the Philippines and Thailand (see Table 3.10). On the other hand, Viet Nam has this service but with limited capacity, and only Singapore indicated the availability of a dementia family community (HelpAge, 2011; Cho, 2012; MOH, 2016a; MOH, 2016b).

Table 3.11 shows that the government provide subsidies to eligible households to receive subsidised medical and dental care in the community. For example, Brunei Darussalam provides free medical care for citizens (MOF, 2018). Further, Malaysia also provides universal health services to citizens in public hospitals and community health centres (Salleh, 2017). All Southeast Asia countries have geriatricians, but the number of geriatricians is still limited (Table 3.6). For example, there are less than 50 trained geriatricians in public, private, and university hospitals in Malaysia. Only Indonesia (with limited capacity) and Singapore provide community general care (person-centred manner) for frail older person with multiple health and social care needs (MOH, 2016a; Nuryana, 2018). In addition to the information provided in the Tables, institutional-based care is also available in all countries except Brunei Darussalam. Officially Brunei Darussalam only recognised one residential care home. Institutional based-care facilities or nursing care are provided for older persons who need nursing care. Other institutional-based care facilities are residential care centres where the clients may or may not care services. These services can be paid or not paid and provided by NGOs and private businesses. In Malaysia, the government also provide shelter homes for poor older persons, and they may be in these home for the rest of their lives (Jitapunkul and Chayovan, 2001; MOH, 2016a; MOH, 2016b; Salleh, 2017; Nuryana, 2018).

Several activities conducted in the day centers, senior citizen clubs and at local community meetings halls can be labelled as preventive long-term care as involved the in varied activities will improve physical health and mental health ae well as promote sense of belongingness and psychological well-being.

Challenges in Health Care

The challenges in health care for older persons were noted amongst the AMS. These challenges can be discussed as below:

a. Statistics and research on ageing for policy making

As ageing is a rather new phenomena in AMS, there is a need for data and indicators as inputs for policy making. Singapore as well as Malaysia have available competitive grants for academic institutions and research entities to undertake quality policy research. While in Cambodia, the government establish a unit for older person statistics (Government of Cambodia, 2017), and Indonesia has a strong data-driven approach through its longitudinal studies. Nevertheless, there is a lack of reliable and timely local level statistics among AMS, especially the incidence of chronic illnesses, levels of disability and household socioeconomic status. Without age-disaggregated statistics, many policymaking decisions are made without the benefit of relevant facts and figures, especially at the local level.

Table 3.11: Community-based Mental Health Services for Older Adults in Southeast Asia

Types of Service	Example	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
Dementia and/or depression services	Network for older person with dementia and depression, and caregivers who need the additional support in caregiving	Available: e.g. Demensia Brunei (dB) association	Limited capability: e.g. Transcultural Psychosocial Organisation	Available: Alzheimer's Indonesia (ALZI)	Limited capability: e.g. Lao Disabled People Association (LDPA)	Available: e.g. ADFM National Dementia Caregivers Support	Available: e.g. Alzheimer's Association Myanmar	Available: e.g. Alzheimer's Association Philippines; Dementia Society Philippines	Available: e.g. Community Resources and Support Engagement Teams	Available: e.g. Alzheimer's and Related Disorders Association of Thailand	Available: e.g. Viet Nam Alzheimer Disease & Neurocognitive Disorders Association (VnADA)
Community Services	For psychosocial therapeutic intervention for people with mental issues and/or dementia	-	-	-	-	Available	-	Available	Available	-	Limited capability
Mental and General Health	General practitioners provide more holistic care to patients with chronic physical/ mental illnesses, as referred by public hospitals	-	-	-	-	Available	-	Available	Available	-	-
Dementia Friendly Communities	Builds a more caring and inclusive society that can support persons with dementia/ Discusses cases encountered in the neighborhood, identifies care needs, and refers residents to services	-	-	-	-	-	-	-	Available	-	-

Note: The data adapted from the systematic review of the previous studies

Table 3.12: Community-based Care for Older Adults in Southeast Asia

Types of Service	Example	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam
Medical and Dental Care	Enables persons from lower- and middle-income households to receive subsidies for medical and dental care from participating general practitioners and dental clinics	Available: Free medical care and services	Available	Available	Limited capability: Yearly physical checks	Available	Limited capability	Available	Available	Available	Available
Specialised physicians/ Geriatrician	Physicians for the geriatric patients	Available: Limited capability	Available: Limited capability	Available: Limited capability	Available: Limited capability	Available: Limited capability	Available: Limited capability	Available: Limited capability	Available: Limited capability	Available: Limited capability	Available: Limited capability
Community General Care	Targets frail older person with multiple health and social care needs, supports key need in a holistic and person-centred manner	-	-	Limited capability	-	-	-	-	Available	-	-
Community Health Centres	Provides health screenings and conducts health tests through a general practitioner's	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available

Note: The data adapted from the systematic review of the previous studies

b. Human resource trained on ageing

Challenges with regards to trained human resource in ageing and geriatric medicines was alluded by researchers in Indonesia (Sanusi, 2014; Nuryana, 2018; Rahardjo et al., 2019), Brunei Darussalam (Brunei Representative 2013), Thailand (Piensriwatchara, 2017; Aruntippaitune, 2019; Larpsombatsiri, 2019) Myanmar (Thein, 2016; Mya, 2017; Zaw, 2019). In addition, a lack of knowledge among the public on older persons was also noted (Rahardjo et al., 2019). Further, lack of volunteers training and facilities for exercise in rural areas were noted in Lao PDR (Khomphonh, 2017; Rehabilitation, 2019).

c. Facilities for health care

Limited availability of age friendly facilities was also voiced (Sanusi, 2014; Nuryana, 2018; Rahardjo et al., 2019). While in Myanmar lack of home care and long-term care services were noted (Thein, 2016; Mya, 2017; Zaw, 2019). On the other hand, in Philippines, there was a lack of utilisation of government Senior Citizens discount by drugstores and food establishments to benefit the older person (Tejero, 2007; in Community Services for the Elderly in the Philippines). Brunei Darussalam is challenged with quality service demand from the public (Brunei Representative, 2013) and increasing non-communicable diseases.

d. Financial constrains

Financial constrain of government to implement programme and facilities for older person was noted in Myanmar (Thein, 2016; Mya, 2017; Zaw, 2019). The challenges in health care among other AMSs were not available in the documents examined and there is possibility the same challenges may also be felt by other member states. As shown in the table below, the total health expenditure across AMS differs by amount and burden shared out-of-pocket.

Table 3.13: Current Health Expenditure 2019 by Country

Country	Current Health Expenditure (CHE), 2019				
	CHE as % GDP	Domestic General Gov. Health Exp. as % of GGE	Domestic General Gov. Health Exp. as % of CHE	OOP as % of CHE	CHE per capita PPP (current Int. $)
Brunei Darussalam	2.16	6.81	94.32	5.68	**1,401**
Cambodia	6.99	7.04	24.31	64.39	**316**
Indonesia	2.90	8.68	48.94	34.76	**358**
Lao PDR	2.60	4.71	36.93	41.83	**212**
Malaysia	3.83	8.48	52.20	34.57	**1,133**
Myanmar	4.68	3.64	15.76	75.95	**227**
Philippines	4.08	7.63	40.60	48.56	**379**
Singapore	4.08	14.54	50.20	30.15	**4,102**
Thailand	3.79	13.87	71.66	8.67	**731**
Viet Nam	5.25	10.07	43.80	42.95	**559**

Source: World Bank, 2022

3.2.2 Security Pillar

In the security pillar, the discussion is on sources of income security in old age, namely from work and employment, transfers from children, employment benefit, and from other sources.

Income Security in Old Age

Income security in later life is associated with economic activities in early life and later life. It refers to the assurance of a minimum level of income to individuals, families, and households, regardless of their participation in the labour force. Income security [or the lack of it, e.g. poverty) has a double-sword effect on active ageing. First, poverty hinders active social participation as it is linked to social exclusion (e.g. Walsh, et al., 2017) be itself imposed or due to discrimination (Heslop and Gorman, 2002); preoccupation to their time for economic survival, hence social participation becomes secondary (ADB, 2001); negative health outcome that poverty often disguised as poor health (e.g. Youn, Lee, Lee, and Park, 2020). Consequently, poverty and social exclusion are identified as two most significant barriers for older person to contribute to and enjoy the share of economic development (Kwan and Walsh, 2018; UNFPA and HelpAge, 2012). Second, in the absence of adequate social protection for older person, poverty drives older person to continue to be economically active through participation in labor market and other income generating activities. This section examines four main sources of income in old age influential to their ability to finance their old age, namely work and employment, children remittance or transfer, retirement benefit and other assets. This section is not meant to be a very detail discussion on social protection in old age, but enough to give a general picture of sources of income in old age.

Work and Employment

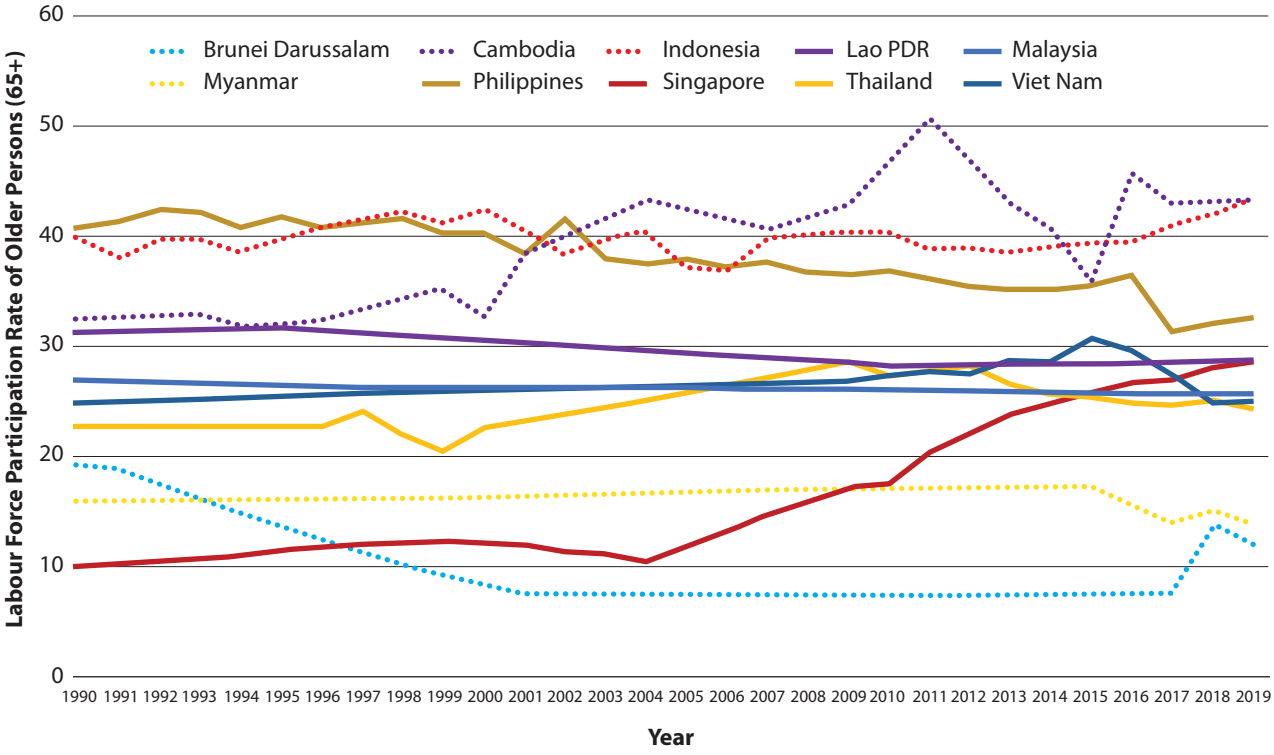
Figure 3.10 shows the involvement of older person aged 65 years and over, 1990-2019 in formal employment. The Labour Force Participation (LFP) among older person generally correspond to education and the transition of economic activities in the AMS as discussed in the demography chapter.

The participation rate for Brunei Darussalam decreased gradually from about 18% in 1990 and stabilised below 10% between 2001 and 2017. The rate peaked again in 2018 and fall sharply in 2019. For Myanmar, the participation rate hovers around 15% in 1990 and gradual increase from then onwards until 2015 when the rate decreased to about 14% and slight increase in 2018 and dip again in 2019. On the other hand, the pattern for Singapore, showed continual increment in participation across the years and reached about 28% in 2019. Malaysia's pattern showed gradual decreased from 1990 and maintain the rate at around 25% in 2019. There are great fluctuations in participation rates in Cambodia and Indonesia. Nonetheless, for both countries that rates are above 42%. In the Philippines the trend is on the declining participation rates and above 30% in 2019. Furthermore, Lao PDR showed decline across the years and matched the rate of Singaporean in 2019. Contrary, Viet Nam showed increasing rate until 2015 and there was sharp decline there onwards. This pattern may relate to accessibility of employment in older ages and exit pattern in later life.

Further analysis of employment in old age indicated that working in old is out of necessity. Majority are involved in informal sectors. Data from 2007-2014 Indonesian family life survey, 48% work for a living (Priebe et al., 2014), while a more recent data reported a higher rate of 67% in economic activities such as small business, agriculture, and service sectors (AOPR and SMERU, 2020). Similarly, 28% was recorded for Cambodia (Knodel et al., 2005) and 30% was noted among Myanmar older persons, while in Philippines, 73% of males and 56% of female are working in old age (Ofstedal et al., 2004) reported that 36% of older persons earned from working in old age. Cruz et al., (2019) noted that 57% of older persons are currently working and 23% of respondents received income from their farms. Using the data from national survey of older persons in Singapore, Ofstedal et al., (2004) found that 31.5% of older men and 8.2% of older women are still working in old age. In another study on Singaporean older person, Donaldson (2015) remarked that some older person continues to work but their incomes fall below the level necessary to meet their financial needs. Further, in Thailand older men (46%) and female (30.5%) depend on work as their source of income. Suwanrada (2008) observed that 29% older persons, mentioned work as their source of income in Thailand. About 30% are own account workers (Rodrigues & Rueanthip, 2019) and 20% of households are economically inactive. The work status of older Viet Namese revolves around 37%-45.5% (Vu et al., 2020, Teeerawichitchainan et al., 2015; Long & Pfau, 2008 and Ofstedal, 2004) and 34% of male and 26% female depend on work as their source of income (Ofstedeal, 2004) and 37% was noted by Vu et al., (2020). ILO (2015) noted that in a review of studies conducted in Brunei Darussalam, Azim (2002) noted that 66% of older Bruneian still work in the informal employment and only recently that the government rehire government retirees and they are being

paid on daily basis (Brunei representative, 2014, 2017). As for Malaysia, SWRC (2021) recorded that 9% of their older person respondents are still working and they are mostly male. In addition, ILMIA (2019) noted that about 56% older Malaysian's involvement in work in later life is motivated by the income received to support their livelihood.

Figure 3.10: Labour Force Participation Rate of Persons Aged 65 Years and Over ASEAN 1990-2019



Source: ILO, 2020

In short, analysis among AMS indicated that employment in old age not only provide the means to be actively involved in the community, but also a means to earn their livelihood. Many older persons are still involved in economic activities late in their old age but working in agricultural and informal sectors does not guarantee them with financial protection. In addition, older person involvement in work declines with age and health status (Knodel et al., 2005). There is an argument to be made about the involvement of older persons in the gig economy, as well as the impact of digital platforms that makes work more accessible to women, the disabled and the elderly (Berde & Tokes, 2019). The future of work, however, is dependent on how well the digital divide is bridged for specific populations and their ability to make use of such opportunities.

Transfer from Children

Even though many older persons continue to work in old age, their income from work is secondary to income received from children. Majority of older persons in all AMS mentioned children as their main source of income in old age. The percentage ranges from 92% female and 63% male among older Singaporean (Ofstedal et al., 2004), 59% in Myanmar (Knodel & Teerawichitchaina, 2017), 58% in Philippines (Cruz et al., 2019), 32% in Viet Nam (Ha Noi, 2019) and 90% among older person Vietnamese who co-reside with their children (Evans & Harkness, 2008). In Malaysia, 67% reported to have received financial support from children, but the contribution differs by gender (Masud et al., 2008). This transfer plays the dual role of family obligations and the limited framework in the social protection system in AMS countries. Nevertheless, this source may not be sustainable as children have their own commitment to support their family and lifestyle.

Employment Benefit

Older persons who were in formal work employment would receive employment benefits upon retirement in the form of pension or other benefit packages depending on the country's scheme (Ofstedal et al., 2004; Vu et al., 2020). For government employees in Malaysia, the monthly pension quantum will be calculated based on the last drawn basic salary before retirement and can reach to about 60% of the basic salary and pension is for life of the retirees (Ofstedal et al., 2004; Mohd et al., 2009; SWRC, 2021). For private sector employees in Malaysia, retiree will receive lumpsum value upon retirement. In Singapore the retirees would receive monthly CPF (annuitised) to support life in retirement. Similar benefit packages are also provided for formal employees in other AM States. Other AMS also provide pension for their retirees from government as well as the private sectors (Ofstedal et al., 2004; Mohd et al., 2009; Donaldson, 2015; SWRC, 2021).

Other Assets

High percentage of older persons in AMS have property assets in the form of home/housing, land and others. Home ownership is high in all AMS countries (Ofstedal et al., 2004; Knodel et al., 2005; Teerawichitchainan et al., 2015; Vu et al., 2020; SWRC, 2021). Housing can be converted into monetary assets if need in old or can be bequest to children. Nonetheless, older persons are asset rich and cash poor (Long and Pfau, 2008; Teerawichitchainan et al., 2015; Cruz et al., 2019; Rodrigues and Rueanthip, 2019).

Disaster Preparedness

As outlined in the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) Work Programme 2021-2025, there is a need to inculcate a whole-of-society approach in disaster management that leaves no one behind especially those that are most affected during disasters such as the elderly (ASEAN, 2020). Unfortunately, data is scarce on the inclusiveness of national disaster management systems and their considerations for vulnerable population such as older persons.

3.2.3 Participation Pillar

Social participation among older person can be analysed in three areas; family, organisation and community as discussed below.

Family Activities

Most of the older adults in Southeast Asia live with their families – i.e. living with at least one adult child, although most live in multiple generation families (three-generation) which provides the required social interaction. Therefore, not surprisingly, the high levels of social participation in family activities among older person in AMS as indicated in Annex IX(a). Studies indicated that over 60% of older adults in all Southeast Asia countries have strong interaction with their children, friends, and neighbours (Knodel and Zimmer, 2014, Cao and Rammohan, 2016, Teerawichitchainan et al., 2017, Vu et al., 2020, SWRC, 2021, Abdul Rahman et al., 2021). Refer to Figure 3.11. Annex IX(a) & IX(b) showed all strategies are focusing on enhancing and maintaining the role of family and community in promoting older adults' social participation. Family interaction is high in AMS but Internet face time is low. Use of telephone is much higher in AMS such as Malaysia and Viet Nam. The real challenge, however, is the migrating children who left their parents for work – i.e. while the remittance from the migrating children help them economically, but at the expense of the social interaction (Knodel and Zimmer, 2014). In addition, living alone which may increase with old age (ages 75+), contribute to social isolation among those in older age, if the older person has limited social network. As the younger population migrates to cities and towns, the elderly is usually left behind in rural areas with limited ability to initiate contact or get in touch with their children. This does not mean older persons living with their children or in urban areas are doing well. Most Asian elderly are home-bound and relegated to domestic roles due to poor access to public transport and availability of community activities in high-rise or urban housing estates. Physical mobility is constrained due to unfriendly public amenities and safety risks are perceived to be higher in compact cities.

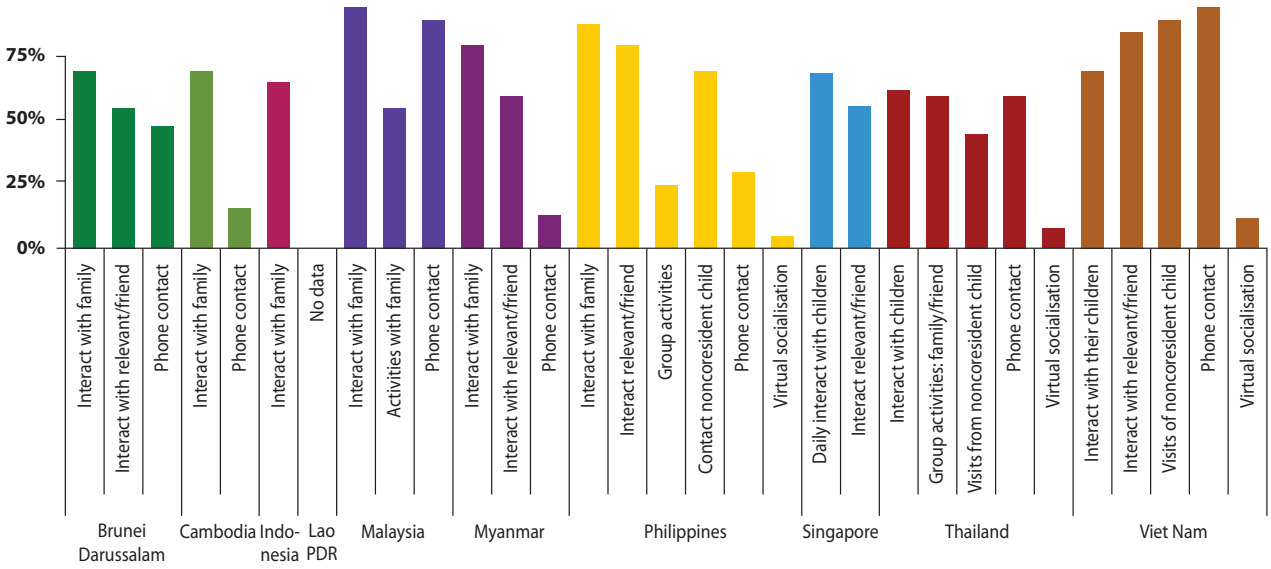
Older People Associations/Senior Citizens Organisations

Most Southeast Asian countries (except Lao PDR) provide various formal social facilities such as social clubs, day centres, activity centres, and older people social associations to promote organised formal social activities and well-being (Annex IX(b)). However, current systematic review indicated that older adults in different Southeast Asia countries have weak or minimal access to social associations and social clubs (See Figure 3.8). Perhaps, this could be due to limited coverage of these social associations. Among ASEAN, Singapore provided more than 400 Senior Citizens' Clubs under People Association; and had reached over 200,000 older adults through social-educational camping and much more, as shown in Annex IX(a) & IX(b) (Mehta, 2015; Brooke, 2016; MOH, 2016b). Viet Nam has made available a total of over 11,100 older people associations (OPA) in all communities with around 100,000 branches at the village level (Hoang, 2017; Lan & Dang, 2017; Vu et al., 2020). The OPAs under the Viet Nam Association of the Elderly (VAE) is a mass older person organisation that involve more than eight million members across the country and conduct many activities for the care, promotion, and social engagement of older adults in Viet Nam (HelpAge Asia, 2021). Over 1,600 Older People Associations (OPAs equates to one per commune) in Cambodia (RGC, 2017; Te, 2019; HelpAge Asia, 2020).

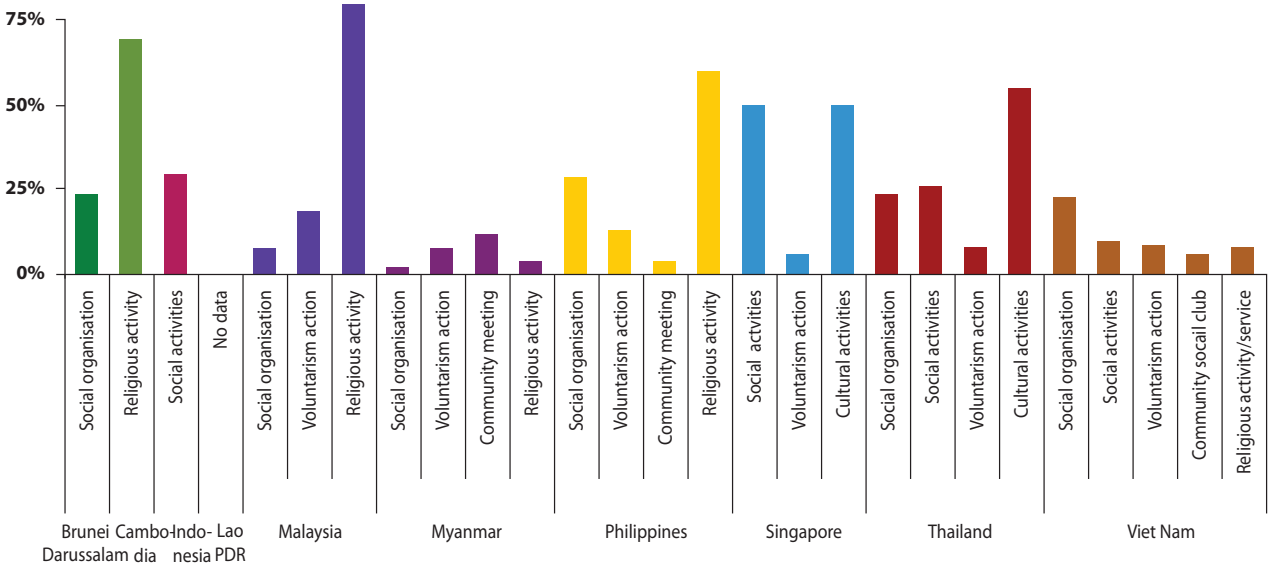
In general, older persons in AMS are not active in political activism although they might be reliable, regular voters. And, since Brunei Darussalam is based on monarchy, it has no election, hence political participation is irrelevant. Political participation of older person in Myanmar is very low as measured by attendance and involvement in political meeting. About 98% of Yangon and Bago respondents mentioned they never attended political meetings and events (Win et al., 2021).

Figure 3.11: Social Participation among Older Adults in Southeast Asia

Family-based or informal community based social participation



Organised social activity (social associations, voluntarism, etc.)



Source: Authors developed from recent national surveys in each country

Volunteerism

The majority (over 70%) of older adults in most Southeast Asia countries lack voluntary action (Knodel et al., 2005, Hock et al., 2013, Knodel, 2013, Teerawichitchainan et al., 2017, Cruz et al., 2019, Jumadi et al., 2019, SWRC, 2021). Refer to Annex IX(b). For Singapore, Malaysia, and the Philippines, volunteerism practices movements are in place to enhance older person contribution and participation, such as through the Senior Citizens Volunteer Resource Project in the Philippines, the PAWE older volunteers initiative in Malaysia and the national senior volunteerism movement in Singapore (Tejero, 2007; Schwingel et al., 2009; WHO, 2013; Tey & Hamid, 2014; Brooke, 2016; MyGovernment, 2012; Ahmed et al., 2016; MOH, 2016b; Woon and Zainal, 2018; ADB, 2020). National data on voluntarism and charitable activities are unavailable in Brunei Darussalam, Myanmar, and Lao PDR. Another factor that may have hindered older person to be actively involved in volunteerism is their lack of use of ICT. It has been reported that older adults in most Southeast Asia have very limited access to Internet and virtual socialisation (Knodel, 2013; Adioetomo & Mujahid, 2014; Cao and Rammohan, 2016; Teerawichitchainan et al., 2017; Vu et al., 2020).

In summary, older adults in Southeast Asia have a strong social engagement on a family and neighbourhood/community basis. However, the decrease in family size and an increased number of older adults who live alone (especially in older ages) weaken family interaction and resulting in a more burden on the government (Osman & Sadasivan, 2006; Mehta, 2015; Subramaniam et al., 2019). Older adults in Southeast Asia also have very limited participation in the organised community-based services and voluntarism action. But, they have a strong attendance in religious or cultural activities. Their lack of skill in ICT has limit their participation in virtual communities and e-learning activities (Ambigga et al., 2011; Siddiqui, 2014; RGC, 2017; Teerawichitchainan, 2017; Jumadi et al., 2019; VNCA & UNFPA, 2019; Vu et al., 2020). As for the adequacy of programme provided to them, Southeast Asian countries generally lack programmes and activities to enhance social environment of active ageing, most likely due to budget constraints (Ambigga et al., 2011; MOH, 2013; Adioetomo & Mujahid, 2014; Siddiqui, 2014; Knodel & Teerawichitchainan, 2017), and limited studies published in the area (Akkhavong et al., 2014; Khomphonh, 2017). Refer to Annex IX(b) & IX(c).

Social Activity Centers

Some AMS such as Brunei Darussalam, Cambodia, Malaysia, Myanmar, Philippines, and Thailand have established different social activity centres and clubs for older adults. In Malaysia, the establishment of 148 Activity Centres for older persons (PAWE), had benefit over 37,000 senior citizens. Thailand has its older person social community centres and clubs; Philippines had established over 948 senior citizen centres in 16 regions; and Brunei had developed a total of four Senior Citizens Activity Centers (Refer to Table 3.14). All these activity centres facilitate various social activities and programmes, including recreation and social participation (Abdul Rashid, 2015; Tahir, 2015; Piensriwatchara, 2017; RGC, 2017; CARE, 2019; HelpAge Asia, 2019). For Indonesia, the initiatives to support social

participation of older person is through the establishment of over 69,500 Integrated Service Centers for the Elderly (Posyandu Lansia) in several districts and cities (Rahardjo et al., 2019; Adioetomo & Mujahid, 2014). See Annex IX(a) & Table 3.14. These are one stop center for older persons to get services and to be involved in an organised activity at the centers.

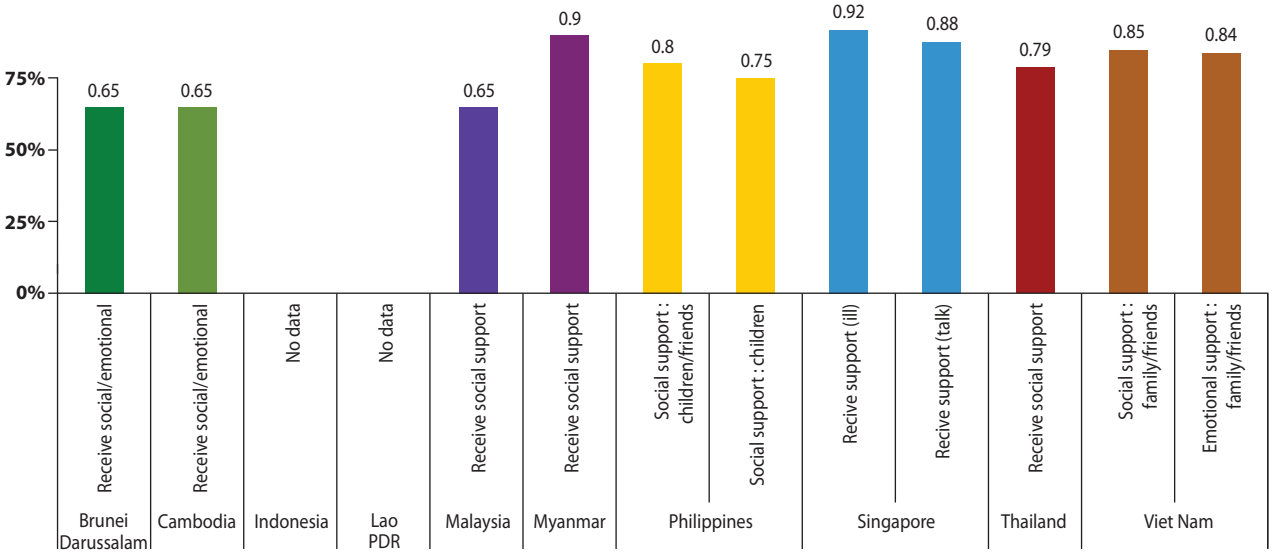
Table 3.14: Formal Associations and Centers in Southeast Asia

Country	Associations/Clubs and Centres (Organised participation/support)	Number	Capacity/ Coverage
Brunei Darussalam	Activity center for the older person	4	1184
Cambodia	Older People Associations (OPAs)	1,600	1/commune
Indonesia	Integrated Service Center for Elderly	69,500	No data
Lao PDR	NA	NA	NA
Malaysia	Activity Centres for Older Persons	148	49,675 OPs
Myanmar	Not Available*	Not Available*	Not Available*
Philippines	Senior Citizen Centres	948	1/region
Singapore	Senior Citizens' Clubs of People's Association	400	≈ 100%
Thailand	Senior Citizens Clubs	No data	No data
Viet Nam	Older People Associations (OPA)	110,700	1/community

***Note:** Myanmar only has Day Care Center for the Older Adults

Older adults in AMS have good access to participate in religious and community services, with over 50% reported to have attended organised religious, social or cultural activities, although majority tends to be older women (Knodel et al., 2005, Hock et al., 2013, Knodel, 2013, Cruz et al., 2019, Jumadi et al., 2019). See Annex IX(a). In Viet Nam, however, the Study of Ageing and Health in Viet Nam (LSAHV) indicated that only 7.5% of older adults had attended organised religious services (Vu et al., 2020). But, data on the organised religious activity in Brunei Darussalam, Indonesia, and Lao PDR were unavailable. However, one of the main issues of ageing in Southeast Asia is gender and age inequality that need more concern, especially in Cambodia, Indonesia, Viet Nam (Knodel & Zimmer, 2014; Rahardjo et al., 2019; Tabassum et al., 2019; Giang et al., 2020). Meanwhile, Lao PDR needs to apply a stricter stance to strengthen older person social determinants of active ageing (Khomphonh, 2017; Rehabilitation, 2019).

Figure 3.12: Social Support on Family/Friend Base among Older Adults in Southeast Asia



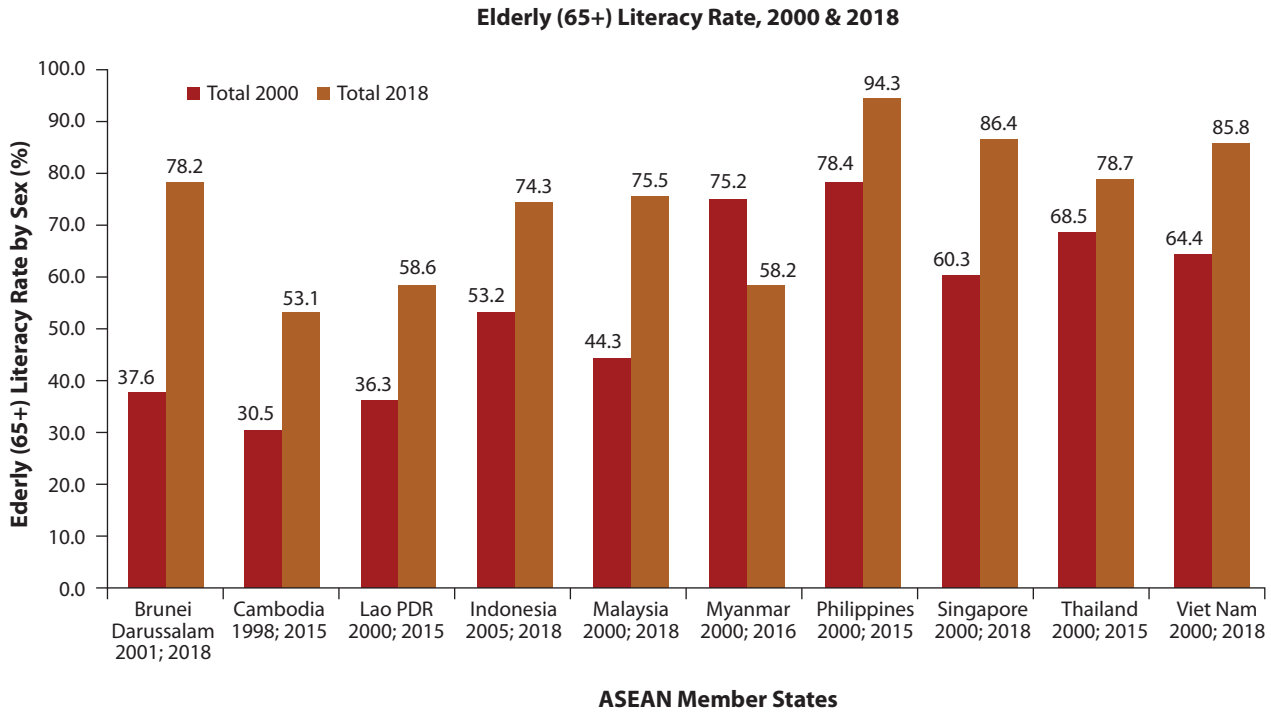
Source: Adapted from recent national surveys in each country

In summary, families in Southeast Asia are the source of social support for older adults, and those living alone are deprived of such family support (Adioetomo & Mujahid, 2014; Subramaniam et al., 2019). The strategy in enhancing social support of active ageing varies – i.e. Singapore depends on a more formal approach through the Active Ageing Centers. while other Southeast Asia countries depended on more informal framework on social support through maintain and promote the role of the family (Jitapunkul & Chayovan, 2001; Tan et al., 2005; Salleh, 2017; Tey & Hamid, 2014; Piensriwatchara, 201).

3.2.4 Lifelong Learning Pillar

Education and lifelong learning are significant indicators of a sound social environment. Power and Maclean (2013) noted that for the UNESCO Delors Commission, lifelong learning implies "*the acquisition of knowledge, skills and values throughout life, a continuous process of learning to know, to do, to live together and to be*" - the 'four pillars' of education. Lifelong learning allows older person to develop skills and confidence to adapt and stay independent as they grow older (WHO, 2002) and remain active in the society. As argued by Narushima, Liu and Diestelkamp (2016), lifelong learning has a conserving effect on wellbeing and health of the elderly. It not only keeps older persons active and engaged in later life, but also strengthens their cognitive capacity in adapting to new changes. The present older persons in AMS were born in the late 40s and 50s, where opportunities for formal education is limited, or disrupted by war and conflict (Knodel and Zimmer, 2014, Cao and Rammohan, 2016, Teerawichitchainan et al., 2017, Vu et al., 2020, SWRC, 2021, Abdul Rahman et al., 2021, Kato, 2000; refer to Figure 3.13), so lifelong learning for seniors is a compensatory strategy. A 2021 study in Brunei Darussalam indicated that majority of older person in the AMS have an upper secondary level of education (Abdul Rahman et al., 2021). This may be due to the study population, as only 400 sample of older persons were studied compared to other country studies which involved larger sample size. Therefore, the cohort effect may account for the differences in level of education.

Figure 3.13: Lifelong Learning and Education of Older Adults in Southeast Asia



Source: Authors developed from recent national surveys in each country

Two factors influence the lifelong learning pillar for active ageing, especially the level of elderly literacy rate and the access to Internet. Successive generations of older persons will improve in terms of education level and the added years to life must be meaningful and fulfilling. According to the ITU (2020), the percentage of Internet users in AMS is increasing, with a varying penetration rate between 46.9% to 95% in 2019. As the COVID-19 pandemic has shown, digital literacy of the elderly is a major issue and there is a need for AMS to develop initiatives to bridge this gap.

Formal versus informal approach. Malaysia and Singapore provide formal setting for older person lifelong learning programme – i.e. the National Silver Academy in Singapore and the University of the Third Age U3A in Malaysia that became a model for PAWE (Abdul Rashid, 2015; OH, 2016b; ADB, 2020; Woon and Zainal, 2018). In addition, over 200,000 older person Singaporean were reached out through educational camping on healthy active ageing. Activity Centres for Older Persons in both countries provide various learning activities, religious studies, skills training, and lifelong learning (Abdul Rashid, 2015; OH, 2016b; ADB, 2020; Woon and Zainal, 2018). The challenges of lifelong learning for older persons in Malaysia has been discussed by Hamid and her colleagues (Hamid et al., 2019; Rahimah et al., 2018), and the primary issue is about self-help models and ownership.

Table 3.15: Major Challenges related to Social, Behavioural and Personal Determinants of Active Ageing in Southeast Asia

Country	Challenges on Social, Behavioural & Personal Determinants																	
	Shortage of programmes and activities	No law on older person	Lack of older person value and respect	Lack of social clubs, associations	Lack of organised social activity	Lack of organised cultural/religious activity	Lack of informal social support (family base)	Lack of technology use & virtual communication (internet)	Lack of lifelong learning/learning and skills centres	Lack of education	Lack of behavioural health habits	Lack of psychological health	Lack of knowledge and awareness	Lack of volunteerism	Budget constraints prevent policy implementation	Issues in policy transform & implement	Lack of existing research and studies	Gender/age inequality
Brunei Darussalam	✓				✓	No data		✓	✓					✓	✓		✓	No data
Cambodia	✓		✓		✓			✓	✓	✓	✓	✓	✓	✓				✓
Indonesia	✓				✓	No data		✓	✓	✓	✓	No data	✓	✓	✓	✓	✓	✓
Lao PDR	✓	✓		✓	✓	No data		✓	✓	No data	No data	No data	✓	✓	✓		✓	No data
Malaysia	✓	✓			✓			✓			✓		✓	✓			✓	✓
Myanmar	✓			✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Philippines	✓				✓			✓		✓	✓		✓	✓			✓	
Singapore					✓		✓			✓				✓				
Thailand	✓				✓			✓		✓	✓		✓	✓	✓	✓	✓	
Viet Nam	✓				✓			✓	✓	✓	✓		✓	✓		✓	✓	✓

Thailand and Philippines on the other hand, depend on informal approaches to enhance older person education, such as non-formal educational programmes for older persons provided by the Department of Non-Formal Education, Ministry of Education in Thailand, and Bureau of Non-Formal Education in the Philippines (Tefera, 2007; DSWS, 2014; Piensriwatchara, 2017; Hayami, 2019; Larpsombatsiri, 2019). Brunei Darussalam also provides informal education through forums, seminars, and workshops to educate older adults. However, the ageing action plans in other Southeast Asia countries still lack programme in enhancing lifelong learning among older person (see Annex IX(a) & IX(b)). Therefore, there is a need for more programmes, activities, and policies to enhance older

adults' social environment, especially lifelong learning and formally organised social activity, in Southeast Asia. In order to enhance older person opportunity to being active, being up to date with the current situation is a must, hence, reskilling older person is necessary. Certain AMS such as Singapore, provide opportunities for older person retraining to prepare them for future jobs.

3.3 Emerging Issues and Challenges

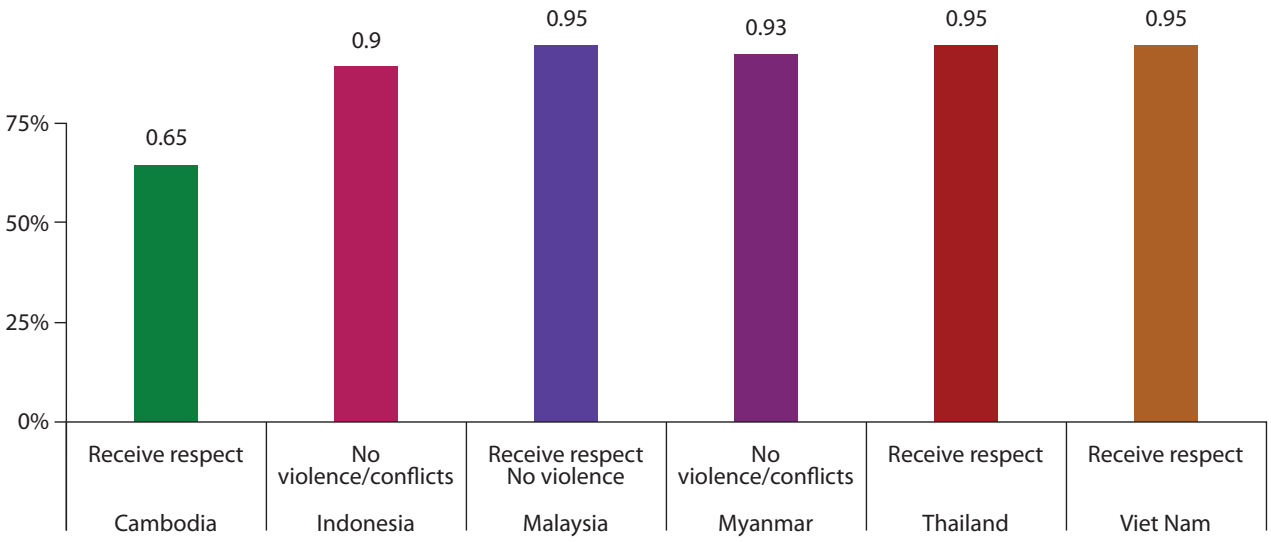
The emerging issues and challenges are not part of the active ageing pillars, but they have implications to older people and will affect their active participation in the community. The emerging issues are categorised as protection from violence and abuse and awareness of active related issues.

Protection from Violence and Abuse

Elder abuse is recognised as a public health concern and the United Nations in 2011 declared June 15 as the day for the elimination elder abuse. This initiative was developed from the early work of the International Network for the Prevention of Elder Abuse (INPEA) which established World Elder Abuse Awareness Day on June 15 each year since 2006 (Penhale, 2006). Elder abuse refers to neglect, violation, deprivation, and lack of respect of abuse persons which can lead to a significant cause of illness, injury, isolation, and depression among older adults (WHO, 2002). Thus, may limited participation of older persons in the community.

Nevertheless, in our region there is limited research in this subject matter. There were only a few studies on elder violence and abuse in Southeast Asia, especially in Brunei Darussalam, Indonesia, and the Philippines (see Annex IX(e) & IX(f)). The provided data from the content analysis showed a low level of incidence of elder abuse (less than 10%) in Indonesia, Malaysia, Myanmar, Singapore, Thailand, and Viet Nam. Besides, filial support and respect for older parents remain largely intact in Southeast Asia (Hock et al., 2013; Knodel, 2013; Cao and Rammohan, 2016; Teerawichitchainan et al., 2017; SWRC, 2021). However, the Survey of Elderly in Cambodia showed that only 27% were satisfied with the respect received from the young generation (Knodel et al., 2005; Knodel and Zimmer, 2014). The changing nature of society and the demand for familial care may contribute to elder abuse in the future when job demand and family life demand becomes overwhelming for the family to handle, especially for dependent older women. Older person abuse in familial settings triggers changes in policy action in Japan in 2000 to address issues of population ageing, encourage labour force participation among Japanese women and the development of the financing old age support system (Olansky, 2011).

Figure 3.14: Older Adults' Respect and Protection from Violence in Southeast Asia



Source: Adapted from recent national surveys in each country

Awareness of Active Ageing Related Issues

Most Southeast Asia countries addressed or aimed to address the concerns of older adults (see Table X2). For example, all of the Southeast Asian countries celebrate the International or National Older Person Day to emphasise the appreciation of the role of the older person in society (DSWS, 2014; Sunusi, 2014; Haque, 2016; MCYS, 2016; MOH, 2016b; Kiau & Meun, 2017; CARE, 2019; VNCA & UNFPA, 2019). Most ASEAN countries have already enacted local laws on older adults except Malaysia and Lao PDR. Malaysia is in the process of adopting a law to protect the older person; it also has general law on violence is the Domestic Violence Act 1994 (MyGovernment, 2012; Department of Social Welfare Malaysia, 2013; Kiau & Meun, 2017). However, a law for the protection of the rights of older persons shall be enacted in Lao PDR to guarantee older adults as the other ASEAN (Rehabilitation, 2019; Te, 2019; RGC, 2017; HelpAge Asia, 2020, see Figure 3.16).

Individually, Singapore and Viet Nam show a high level of awareness of older adults' value and protection. For example, the Singapore Action Plan for Successful Ageing provides several initiatives to enhance the older person value and rights, such as including many younger Singaporeans in talks regarding ageing and inter-generation programs and promoting several facilities and privileges through the SG50 Seniors package and Passion Silver Card under Wellness Programmes (Mehta, 2015; Brooke, 2016; MOH, 2016b). Similarly, Viet Nam provides various initiatives to enhance knowledge of the whole society for ageing and established more than 3,200 Inter-Generational Self-Help Clubs (ISHC) to enhance older person rights and entitlements (Hoang, 2017; Lan & Dang, 2017; Giang et al., 2020). The ageing policies in Malaysian, Thailand, Indonesia, and Cambodia focus on family well-being through enhancing family values from generation to generation through various actions such as the National Family Policy in Malaysia, family's day in Thailand, and the Khmer culture of family values in Cambodia (Jitapunkul & Wivatvanit, 2008; Department of Social Welfare Malaysia, 2013; Aruntippaitune, 2017; Kiau & Meun, 2017; MSAVYR, 2017; Te, 2019). The Philippines aims to enable older adults through involving them in the community and decision-making (DSWS, 2014; Christian et al., 2019). Brunei's and Myanmar's older person action plans aim to enhance older person rights through campaigns and workshops on older person rights and abuse awareness (Tahir, 2015; MCYS, 2016; Thein, 2016; CARE, 2019; Zaw Oo, 2019; MFE, 2020, see Table X1). However, the Lao PDR and Cambodia need greater effort to strengthen older person welfare.

Overall, Southeast Asia culture is based on the principles of mutual respect especially for the older person, leading to intact levels of older person support and care. Then, government of the world have adopted and adapted this framework into their planning and preparation for an ageing society. It is one thing to talk about intergenerational solidarity and quite another to talk about filial responsibility. As societies age, the compact across generations need to be reshaped and reaffirmed as changes in modern life and extended longevity may lead to new norms and conventions.

3.4 Summary

Poverty is a multidimensional phenomenon that encompasses various deprivations experienced by individuals and its measurement is linked to a number of absolute and relative measures. Six (6) AMS are lower middle-income economies while two (2) each in high-income and upper-middle income categories, each with different levels of demographic transition. The poverty headcount ratio at National Poverty Lines varies between 5% to 20% of the population, and the proportion increases correspondingly at standardised thresholds of $1.90, $3.20 or $5.50 a day (2011 PPP). Nevertheless, there is a clear downward trend in poverty rates for all AMS, and the same patterns are observed for the aged poor. In countries like Cambodia, Lao PDR, the Philippines and Viet Nam, the poverty rate of older persons is below the overall national poverty rate. In comparison, the old age poverty rate is marginally higher for countries such as Indonesia, Malaysia and Thailand. Poverty in later life is influenced by age, gender, geographical location, living arrangement and levels of family support. A number of determinants affect old age poverty including pandemics and epidemics, macroeconomic shocks, environmental disasters and emergencies, conflicts and wars, social inequality and exclusion/marginalisation, access to services and cumulative impact of life trajectories. Poverty has significant implications on the health, social inclusion and basic livelihood of older persons.

Active ageing is a construct borne out of the classic activity theory by Havighurst (1961) that posited that older persons who are more active and socially engaged enjoy greater life satisfaction. WHO (2002) defined active ageing as the "*continuing participation in social, economic, cultural, spiritual and civic affairs, and not just the ability to be physically active or to participate in the labour force*" with the goals of optimising opportunities for health, participation, security and lifelong learning to enhance the quality of life as one ages. Walker (2002) outlined seven (7) key principles of active ageing for policy development, namely that a) its activities consist of all meaningful pursuits that contribute

to wellbeing of the individual, family, local community or Society-at-large; b) it must encompass all older people, even those who are frail and dependent; c) should be primarily a preventive concept, involving all age groups with an emphasis on preventing ill-health, disability, or loss of skills; d) maintaining intergenerational solidarity; e) embody both rights and obligations; f) with a strategy that is participative and empowering, a combination of top-down and bottom-up approaches, and; g) respecting national and cultural diversity. An influential Active Ageing Index (AAI) was developed under UNECE based on WHO's active ageing framework and measures the potential of older persons for active and healthy ageing across different countries in Europe. It consisted of four (4) domains and 22 indicators on 1) Employment; 2) Participation in Society; 3) Independent, Healthy and Secure Living; and 4) Capacity and Enabling Environment for Active Ageing. In recent years, researchers have adapted and modified the AAI for Asian countries including Thailand, Viet Nam and Indonesia.

The situation of health, security, participation, and lifelong learning as key pillars of active ageing showed significant diversity in the situation of older persons in AMS. Older persons are living longer, and age-related diseases are on the rise. It was estimated that the demand for aged care will more than double in the next two (2) decades. A review of the residential and non-residential (community or home care) aged care services indicated new modalities but their coverage and financing are limited. Apart from challenges in research data, AMS face significant issues with trained human resources (care workers and caregivers), availability of age-friendly facilities and services, issues of low utilisation, and the financial constraints faced by healthcare system in AMS, especially the total health expenditure and share of out-of-pocket (OOP) spending on health. This is closely related to income security concerns as older persons in AMS have few sources of income, as State-funded social protection schemes or pensions are limited in reach and value. In countries like Brunei Darussalam (100%) and Thailand (89.1%) where coverage is high, the value of old age assistance is small and unsustainable. Pension reformed are needed to ensure sustainability and also make care provisions viable for all actors. The dependency on transfer for children is high, but old age employment is on a downward trend as more elderly in the future are in the formal sector with fixed retirement ages. Due to scarcity of comparable data, it is not immediately clear the magnitude and value of assets held by older persons that conform to the asset rich, income poor narrative, but it is widely acknowledged that the elderly is a vulnerable group in disaster management and preparedness.

Most SEA countries have Older Peoples Associations of Senior Citizens Clubs where the elderly gather for activities. There is a strong culture of communal spirit and the collective in AMS, but this is more common among the older generation than the younger population. Senior centres have been targeted and used as locations to promote active ageing activities and this may include places of worship and gatherings at community halls. The challenge in increasing the participation of older persons in economic, social, and cultural activities is with the institutionalisation of older volunteers and older workers, not necessarily through an extension of mandatory retirement ages but also re-training and re-employment policies. As such, the lifelong learning activities must move beyond its leisurely orientation and serve a more practical purpose, including active citizenship education. Adult education and lifelong learning for older persons should go hand in hand with social activism and improving self-independence. There is still general apathy on old age abuse, neglect and maltreatment issues as the authorities have not provided meaningful alternatives apart from familial or kinship support.

Positive narrative focused on healthy and active ageing, broadly defined beyond physical participation and employment could create compelling potentials for increased economic productivity and long-term opportunities for multiple market sectors. However, activity in older age limited by long-term ill-health and disability underpinned by poverty, poor neighborhoods, ageism, and insecure, gendered, racialised and sectarian space (Barret and McGoldrick, (2013) and policy and resource constraints which inadequately support older people's welfare (Lymbery, 2012), when older person are likely to be among societies' poorest e.g. DOSM (Department of Statistics Malaysia, 2020). Albeit recognising multiple barriers to active ageing, poverty among older person seems to be prominent factor as it negatively affects multifaced aspect of older person life. At the same time, active ageing and continual participation can be (potentially) used as- and/or to complement current strategy to combat poverty in old age.

In summary, it is evident that rapid population ageing combined with lack of adequate social security increases the vulnerability of poverty in old age. As a result of low pension coverage and low benefit levels, older person resorted to work for income. In most AMS, older person participation is driven by poverty, leaving them with little choice but to work mostly in an informal sector and menial jobs, and still unable to meet ends meet. Poor older person often lives with adult children who are themselves living in poverty, hence the common living arrangement does not shelter them from poverty. Feminisation of poverty persisted even in old age due to their lower labor force participation in the formal sectors and consequently have less access to pensions. Older persons who are poor suffers from various disability preventing them from continue to being active yet having limited access to care services. Older person is also more vulnerable in emergencies and crisis especially those in poverty as they

are likelier to live in housing that are inadequate to withstand the calamities or not having adequate protection. The nature of old age poverty differs from poverty experienced in young segment prompting the need to track older person vulnerability to poverty accurately and over time, but only a handful studies available for AMS.

Hence, in the next section, we shall discuss and suggest recommendations for action at both country and regional levels.

References

Abdul Rahman, M., Sani, N. S., Hamdan, R., Othman Z. A., & Abu Bakar, A. (2021). A clustering approach to identify multidimensional poverty indicators for the bottom 40 percent group. *PLoS ONE*, 16(8), e0255312. doi:org/10.1371/journal.pone.0255312

Abdul Rahman, H., Tengah, A., Yusof, Y.M., Slesman, L., Hoon, S.Y., & Abdul-Mumin, K.H. (2021). Predictors of life satisfaction and healthy aging in Brunei: A gender comparative study. *Research Square*. doi: 10.21203/rs.3.rs-668936/v1

Abdul Rashid, S.N.S. (2015). Active ageing in Malaysia. In A. Walker & C. Aspalter (Eds.), Active Ageing in Asia (p. 132). New York: Routledge.

Abikusno, N. (2009). Evaluation and implementation of ageing-related policies in Indonesia. In A. Ananta & E. N. Arifin (Eds.), Older persons in Southeast Asia: An emerging asset (pp. 392-414). Singapore: Institute of Southeast Asian Studies.

Adhikari, R., Soonthorndhada, K., & Haseen, F. (2011). Labor force participation in later life: Evidence from a cross-sectional study in Thailand. BMC Geriatr 11, 15. https://doi.org/10.1186/1471-2318-11-15

Adioetomo, M., & Mujahid, G. (2014). Indonesia on the threshold of population ageing. Jakarta: Monograph Series. Retrieved from https://indonesia.unfpa.org/sites/default/files/pub-pdf/BUKU_Monograph_No1_Ageing_03_Low-res.pdf

Ahmad, Y., Aziz, N. A. B., Ahmad, Y., & Zainuddin, A. (2016). Key determinants of socioemotional selectivity theory enhancing social activity to promote active ageing in Malaysia, Journal of Education and Social Sciences, 5(3), 16-22.

Albert, J. G., & Vizmanos, J. V. (2018). Poverty is multidimensional: But do we really need a multidimensional poverty index? Quezon City: Philippine Institute for Development Studies. https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1826.pdf

Alwin, D. F. (2013). Life Course, life cycle, life history, life span and life stage. Encyclopedia of Sciences and Religions, 1167-1167. doi:10.1007/978-1-4020-8265-8_201175

Ambigga, K. S., Ramli, A. S., Suthahar, A., Tauhid, N., Clearihan, L., & Browning, C. (2011). Bridging the gap in ageing: Translating policies into practice in Malaysian Primary Care. Asia Pacific Family Medicine, 10(1), 1-7. doi:10.1186/1447-056x-10-2

Arifianto, A. (2006). Public policy towards the elderly in Indonesia: Current Policy and Future Directions. Jakarta. https://doi.org/10.1355/9789812307941-008

Arifin, E. N. (2014). Active ageing in Indonesia. In A. Walker & C. Aspalter (Eds.), Active Ageing in Asia (p. 165). New York: Routledge.

Arifin, E. N., Braun, K. L., & Hogervorst, E. (2012). Three pillars of active ageing in Indonesia. Asian Population Studies, 8(2), 207-230. https://doi.org/10.1080/17441730.2012.680334

Arksey, H., & O'Malley, L. (2005). Scoping studies: towards a methodological framework. International Journal of Social Research Methodology, 8(1), 19-32. doi:10.1080/1364557032000119616

Artha, D. R. P., & Dartanto, T. (2018). The multidimensional approach to poverty measurement in Indonesia: Measurements, determinants and its policy implications. *Journal of Economic Cooperation and Development*, 39(3), 1-38.

Aruntippaitune, S. (2017). Active ageing Thailand policy response. Manila: The 3rd ASEAN - Japan Active Ageing Regional Conference.

Asher, M. G., & Nandy, A. (2008). Singapore's policy responses to ageing, inequality and poverty: An assessment. International Social Security Review, 61(1), 41-60. doi:10.1111/j.1468-246x.2007.00302.x

Asher, M. G. (2013). The future of old age income security. Lee Kuan Yew School of Public Policy Research Paper, 13-20. http://dx.doi.org/10.2139/ssrn.2357896

Asian Development Bank. (1999). Annual report 1999. Asian Development Bank.

_____ (2001). Participatory poverty assessment in Cambodia. Manila: Asian Development Bank, no. 090301.

_____ (2011). Cambodia: Country poverty analysis. Mandaluyong City, Philippines: Asian Development Bank, 2012.

_____ (2012). Cambodia: Country poverty analysis. Mandaluyong: Asian Development Bank.

_____ (2020). Aging Asia and the Pacific: Singapore's care system long-term adapting to population aging. Mandaluyong: Asian Development Bank. doi: 10.1002/rwm3.20230

Association of Southeast Asian Nations. (2017). Celebrating ASEAN: 50 years of evolution and progress. Jakarta: ASEAN Secretariat.

_____ (2020). ASEAN sustainable development goals indicators baseline report 2020. ASEAN secretariat. https://www.aseanstats.org/publication/asean-sdg-report-2020/

Ataguba, J. E., Akazili, J., & McIntyre, D. (2011). Socioeconomic-related health inequality in South Africa: evidence from general household surveys. International Journal for Equity in Health, 10(1), 48. doi:10.1186/1475-9276-10-48

Atake, E.-H. (2018). Health shocks in Sub-Saharan Africa: are the poor and uninsured households more vulnerable? Health Economics Review, 8(1). doi:10.1186/s13561-018-0210-x

Avramov, D., & Maskova, M. (2003). Active ageing in Europe. Population Studies, 1(41), 1-152.

Azim, P. (2002). The ageing population of Brunei Darussalam: Trends and economic consequences. Asia-Pacific Population Journal, 17(1), 39-54.

Aziz, N. A., Ahmad, Y. B. (2019). The evolution of government's attention towards older person: a critical review of Malaysia 5 years plan. Ageing International, 44(4), 319-330. https://doi.org/10.1007/s12126-019-09347-9

Barret, G., & McGoldrick, C. (2013). Narratives of (in) active ageing in poor deprived areas of Liverpool, UK. International Journal of Sociology and Social Policy 33(5/6):347-366

Barrientos, A., Gorman, M., & Heslop, A. (2003). Old age poverty in developing countries: contribution and dependence in later life. World Development, 31(3), 555-570.

Bashir, M. S., & Haji Ali, N. N. (2012). Analysis of zakat management in Brunei Darussalam. International Journal of Management Studies, [S.l.], 19 (2), 75-102. http://e-journal.uum.edu.my/index.php/ijms/article/view/10373

Baulch, B. (1996). Neglected trade-offs in poverty measurement. IDS Bulletin, 27(1) 36-42. doi: 10.1111/j.1759-5436.1996.mp27001004.x

Bhaktikul, K., Aroonsrimorakot, S., Laiphrakpam, M., Metadilogkul, O., & Konjengbam, S. (2019). Indicators of active ageing for sustainable development: A comparative insights of ageing elderlies from Chiang Mai (highland) and Nakhon Pathom (lowland) Provinces, Thailand. Interdisciplinary Research Review, 14(5), 39-46

Bloom, D. E., Canning, D., & Fink, G. (2008). "Population aging and economic growth." Working Paper Series, PGDA Working Paper No. 31, pp. 2-3, Retrieved from http://www.hsph.harvard.edu/pgda/working.html

Bloom, E., David, C. D., & Finlay, J. E. (2009). "Population aging and economic growth in Asia." The economic consequences of demographic change in East Asia, NBER-EASE, Vol.19, University of Chicago Press, pp. 2-24.

Booth, A. (2019). Measuring poverty and income distribution in Southeast Asia. Asian-Pacific Economic Literature. doi:10.1111/apel.12250

Borentr, K. (2004). Country paper: Development of human resources and implications of aging societies. Tokyo: 2nd ASEAN & Japan High-Level Officials Meeting on Caring Societies.

Boudiny, K., & Mortelmans, D. (2011) A critical perspective on active ageing. Electronic Journal of Applied Psychology, 7(1): 8-14.

Brooke, M. (2016). It's not how old you are, it's how you are old. State discourse on successful ageing in Singapore. Asia-Pacific Journal of Health, Sport and Physical Education, 7(3), 269-280. http://dx.doi.org/10.1080/18377122.2016.1220400

Brown, S. A., Upchurch, S. L., & Acton, G. J. (2003). A framework for developing a coding scheme for meta-analysis. Western Journal of Nursing Research, 25(2), 205-222. doi:10.1177/0193945902250038

Brunei Presentative (2013). Brunei country paper. The 11th ASEAN & Japan High Level Officials Meeting on Caring Societies: "Active Aging" (Social Involvement and Contribution of Elderly) 3rd-5th December 2013, Japan.

Cahapay, M. B. (2021). To get or not to get: Examining the intentions of Philippine teachers to vaccinate against COVID-19. Journal of Human Behavior in the Social Environment, 1-11. doi:10.1080/10911359.2021.1896409

Cao, J., & Rammohan, A. (2016). Social capital and healthy ageing in Indonesia. BMC Public Health, 16(1). doi:10.1186/s12889-016-3257-9

Centre for Ageing Research and Education. (2019). Integrating policy and research on ageing in ASEAN: Conversations across the policy and research divide. Singapore: Centre for Ageing Research & Education. Retrieved from: https://www.duke-nus.edu.sg/docs/librariesprovider3/education-docs/2)-policies-on-the-health-of-older-adults-(myanmar)-by-prof-hla-hla-win.pdf?sfvrsn=1f5dec03_4

Chan, S., & Ear, S. (2004). Towards understanding social protection in Cambodia. Cambodia Development Review, 8(4):9-13.

Chansarn, S. (2012). Active ageing of elderly people and its determinants: Empirical evidence from Thailand. Asia-Pacific Social Science Review, 12(1), 1-18. https://doi.org/https://ejournals.ph/article.php?id=5965

Cho, H. (2012). Home Care for Older People in ASEAN Member Countries. In: International Conference on Population Ageing: Issues and Challenges, Faculty of Economics and Administration, University of Malaya, Kuala Lumpur. http://familyrepository.lppkn.gov.my/266/

Christian, G. T. C., Cruz, J. P., & Saito, Y. (2019). Ageing and Health in the Philippines. Jakarta: Economic Research Institute for ASEAN and East Asia (ERIA). Retrieved from: www.eria.org

Cozza, M., De Angeli, A. & Tonoli, l. (2017). Ubiquitous technologies for older people. Personal and Ubiquitous Computing 21: 607-619

Coulmas, f. (2007). Population Decline and Ageing in Japan - The Social Consequences. Routledge.

Cruz, G. T. (2019). Philippine Aging and Health Policies. Quezon: Population Institute Regional.

Cuong, B.T., Truong, S.A., Daniel, M.G, Knodel, J.E., & Friedman, J. (1999). "Vietnameseamese elderly amidst transformations in social welfare policy." PSC Research Report, 4, 99-436. https://www.psc.isr.umich.edu/pubs/abs/1218

De Leon, A. (2014). The quality of life of the Filipino elderly in selected cities and provinces. Retrieved July 2021, from Tsao Foundation: http://tsaofoundation.org

Deaton, A., & Paxson, C. (1997). Poverty among children and the elderly in developing countries. Washington, DC: World Bank.

Deaton, Angus; Zaidi, Salman. (2002). Guidelines for constructing consumption aggregates for welfare analysis. LSMS Working Paper. World Bank. https://openknowledge.worldbank.org/handle/10986/14101 License: CC BY 3.0 IGO

Deonandan, R. (2019), Defining poverty: a summary of competing models. Journal of Social and Political Sciences, 2(1), 17-21.

Department of Planning and Cooperation. (2020). National social protection strategy: Vision 2030. Ministry of Labour and Social Welfare, Lao PDR.

Department of Social Welfare Malaysia. (2013). Active ageing in Malaysia. Putrajaya: Department of Social Welfare.

Department of Statistics Malaysia. (2020). Sustainable Development Goal (SDG) Indicators, Malaysia [www. document] accessed on 17 Aug 2021. https://www.dosm.gov.my

Donaldson, J, A., Smith, C, J.; Balakrishnan, Balambigai, K., Mumtaz, Md., & Mudaliar, S. (2015). Elderly Population in Singapore: Understanding Social, Physical and Financial Needs. Lien Centre for Social Innovation: Research. Available at: https://ink.library.smu.edu.sg/lien_reports/7

Drucker, A. M., Fleming, P., & Chan, A.-W. (2016). Research techniques made simple: assessing risk of bias in systematic reviews. Journal of Investigative Dermatology, 136(11), e109-e114. doi:10.1016/j.jid.2016.08.021

DSWS. (2014). Philippine country report. Manila: Health and Department of Labour and Employment. Retrieved from: https://www.mhlw.go.jp/bunya/kokusaigyomu/asean/2014/dl/Malaysia-1_Country Report.pdf

East Alabama Regional Planning and Development Commission. (2010). Final Report: Emergency responses in Indonesia, Philippines, and Viet Nam

Economic Planning Unit. (2021). Twelfth Malaysian Plan 2021-2025. Economic Planning Unit. Available at: https://rmke12.epu.gov.my/en

Evans, M., & Harkness, S. (2008). Elderly people in Viet Nam: social protection, informal support and poverty. The Policy Press, 16(3), 245-53

European Commission (2002). Europe's response to world ageing: promoting economic and social progress in an ageing world: a contribution of the European commission to the second world assembly on ageing. Brussels, Belgium: European Commission. https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=LEGISSUM:c11910&from=DE

Formosa, Marvin (2017). "Responding to the Active Ageing Index: Innovations in Active Ageing Policies in Malta." Journal of Population Ageing 10 (1): 87-99. https://doi.org/10.1007/s12062-016-9163-1

Feng, Q., & Straughan, P. T. (2017). What does successful aging mean? Lay perception of successful aging among elderly Singaporeans. Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 72(2), 204-213. https://doi.org/10.1093/geronb/gbw151

Foster, L. & Walker, A (2021). Active ageing across the life course: Towards a comprehensive approach to prevention. Biomed Research International, Article ID 6650414, 11 pages.

General Statistics Office of Viet Nam (2012). Well begun but not yet done. The World Bank Group. http://hdl.handle.net/10986/20074

_____ (2019). Result of the Viet Nam household living standard survey 2018. Viet Nam: Statistic Publishing House. https://www.gso.gov.vn/wp-content/uploads/2020/05/VHLSS2018.pdf

_____ (2020). Viet Nam population projection for the period 2019-2069. GSO, Ministry of Planning and Investment: Ha Noi, Viet Nam.

_____ (2021). The population and housing census 2019: Population ageing and older persons in Viet Nam. GSO, Ministry of Planning and Investment: Ha Noi, Viet Nam.

General Statistics Office of Viet Nam, United Nations Development Programme & Australian Agency for International Development. (2004). The regional poverty assessment Mekong River Region. United Nations Development Programme. www.undp.org

Giang, L. T., Chu, V.-N., & Tran, B.-T. (2020). The role of local government in protecting the rights of older people: the case of intergenerational self-help clubs in Viet Nam. Local Administration Journal, 13(3), 235-248. https://so04.tci-thaijo.org/index.php/colakkujournals/article/view/242862

Giles, J.D., Wang, & Cai, W. (2011). The labour supply and retirement behavior of China's Older Worker and elderly in comparative perspective. World Bank Policy Research Working paper, 5853. SSRN: https://ssm.com/abstract=1948991

Gill, J. & Taylor, D. (2012). Active ageing: Live longer and prosper: Realising the benefits of extended healthy life expectancy and 'disability compression' in Europe. London: University College London. https://www.ucl.ac.uk/pharmacy/documents/news_docs/ageing

Glaser, K., Nicholls, M., Stuchbury, R., Price, D. & Gjonça, E. (2009). Life course influences on poverty and social isolation in later life: a secondary analysis. Institute of Gerontology, King's College London: Department for Work and Pensions. https://www.bristol.gov.uk/documents/20182/34732/Lifecourse+influences+-Poverty+and+Social+Isolation.pdf

Gweshengwe, B., & Hassan, N. H. (2019). Knowledge to policy: Understanding poverty to create policies that facilitate zero Poverty in Brunei Darussalam. Southeast Asia: A Multidisciplinary Journal, 19, 95-104.

Hamid, T.A., Masud, J., Ibrahim,R., Zakaria, N.S., Muhammad Arif, A.M, Siedelson, L.S., Mazlan, N.S., Ashari, A., Hussin, S.R.,Mutang, J.A., Ismail. N.A., Abdullah, SFZ., Raja Adnan, R.Z., Nor Akahbar, S.A., Chai, S.T. (2017). Laporan akhir kajian kemudahan dan perkhidmatan bagi memenuhi keperluan warga emas menjelang 2030. Jabatan Kebajikan Masyarakat Malaysia. Kementerian Wanita, Keluarga dan Pembangunan Masyarakat. Putrajaya.

Hamid, T. A. (2018). National Policies on Ageing-Malaysia. Putrajaya: Institut Penyelidikan Penuaan Malaysia. Retrieved from: https://doi.org/10.1355/9789812307163-007

Haque, M. N. (2016). Active ageing level of older persons: Regional comparison in Thailand. Journal of Aging Research, 1-9. https://doi.org/10.1155/2016/9093018

Havighurst RJ. (1961). Successful aging. Gerontologist. https://doi.org/10.1093/geront/1.1.8

Hayami, Y. (2019). Between state and family: Biopolitics of elderly care and a case of emerging communality in Northern Thailand. Southeast Asian Studies, 8(3), 387-412. https://doi.org/10.20495/seas.8.3_387

Hayashida, C. T., Francis, S., System, H., & Rahardjo, T. (2018). Community services for older persons provided by families and the young in Indonesia. Innovation in Aging, 1(Suppl 1), 713. doi: 10.1093/geroni/igx004.2557

HelpAge Asia (2011). Community based homecare for older people in Southeast Asia. HelpAge International. https://www.eldis.org/document/A58108

_____ (2015). Ageing population in Indonesia. Chiang Mai: HelpAge Global Network. Retrieved from https://ageingasia.org/ageing-population-indonesia/

_____ (2019). Ageing population in the Philippines. HelpAge Global Network. Retrieved from: https://ageingasia.org/ageing-population-philippin

_____ (2020). Ageing population in Cambodia. HelpAge Global Network. Retrieved from: https://ageingasia.org/ageing-population-cambodia/

_____ (2021). Ageing population in Viet Nam. HelpAge Global Network. Retrieved from: https://ageingasia.org/ageing-population-vietnam/

Heslop, A., & Gorman, M. (2002). Chronic poverty and older people in the developing world. SSRN Electronic Journal, 10. doi: 10.2139/ssrn.1754499

Hijas-Gomez (2020). The WHO active ageing pillars and its association with survival: Findings from a population-based study in Spain. Archives of Gerontology and Geriatrics, 90(104):1-14.

Hill, H. (2021). what's happened to poverty and inequality in Indonesia over half a century? Asian Development Review, 38(1), 8, 68-97. doi:org/10.1162/adev_a_00158

Hoang, P. V. (2017). Vietnam's experience in promoting healthy ageing. Hanoi: Information and Database General Office for Population and Family Planning. Retrieved from: https://www.partners-popdev.org/docs/presentation/imc2017/Pham-Vu-Hoang.pdf

Hock, K.S., Ser, T.E., & Teng, Y.M. (2013). IPS report on national survey of senior citizens 2011. Singapore: Ministry of Social and Family Development. https://www.msf.gov.sg/publications/Pages/National-Survey-of-Senior-Citizens-2011.aspx

Huat, C. B. (2015). Singapore: growing wealth, poverty avoidance and management. Developmental Pathways to Poverty Reduction, 201-229. doi:10.1057/9781137482549_9

Hsu, HC., Liang, J., Luh, D.H., Chen, C.F. & Wang, Y.W (2019). Social determinants and disparities in active aging among older Taiwanese. International Journal of Environmental Research and Public Health. 16, 3005; doi:10.3390/ijerph16163005

Illario, M., Vollenbroek-Hutten, M. M. R., Molloy, D. W., Menditto, E., Iaccarino, G., & Eklund, P. (2016). Active and healthy ageing and independent living 2016. Journal of Aging Research. https://doi.org/http://dx.doi.org/10.1155/2016/8062079

International Labour Organization. (2020). World employment and social outlook. International Labour Organization. Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_734455.pdf

International Longevity Centre Brazil (ILC-BR) (2015) Active ageing: a policy framework in response to the longevity revolution. International Longevity Centre Brazil (Centro Internacional de Longevidade Brasil) Avenida Padre Leonel Franca, 248, Gávea – Rio de Janeiro (RJ) – 22.451-000 – Brazil. http://www.ilcbrazil.org

Institute for Health Metrics and Evaluation - Global Burden of Disease. (2020). Global burden of disease (GBD). Available at: http://www.healthdata.org/gbd/2019

Jha, R., Dang, T., & Tashrifov, Y. (2009). Economic vulnerability and poverty in Tajikistan. Economic Change and Restructuring, 43(2), 95-112. doi:10.1007/s10644-009-9079-3

Jitapunkul, S. and Chayovan, N. (2001). National policies on ageing in Thailand. Ageing Matters. https://doi.org/10.4324/9781351163248-8

Jitapunkul, S., & Wivatvanit, S. (2008). National policies and programmes for the aging population in Thailand. Ageing International, 33(1-4), 62-74. https://doi.org/10.1007/s12126-009-9027-6

Jumadi, N., Noor, N. A. M., Bujang, A. A., Maimun, N. H. A., Zulkarnain Daud, D., Wan Ismail, W. I. F., … Rahman, M. S. A. (2019). Active ageing and housing environment concept among elderly Muslims. Planning Malaysia, 17(1), 305-318. https://doi.org/10.21837/pmjournal.v17.i9.607

Kalache, A., Barreto, S. M. and Keller, I. (2005) 'Global ageing: The demographic revolution in all cultures and societies', in Johnson (ed.), The Cambridge handbook of age and ageing. Cambridge: Cambridge University Press, pp. 30-47.

Kalache, A., & Kickbusch, I.1997)). A global strategy for healthy ageing World Health, 50 (4), 4 - 5. World Health Organization. https://apps.who.int/iris/handle/10665/330616

Kato, E.U. (2000). Ageing in Cambodia tradition, change and challenges. In R. Phillips (Eds.), Ageing in the Asia-Pacific region issues, policies and future trends (p. 360). New York: Routledge.

Kautonen, T., S. Down and L. South (2008), 'Enterprise support for older entrepreneurs: the case of PRIME in the UK', International Journal of Entrepreneurial Behaviour & Research, Vol. 14, No. 2, pp. 85-101.

Khan, N., Khan, S., Leng, T. S., Chen, T. B., & Vergara, R. G. (2017). Explore the factors that influence elderly poverty. Journal of Southeast Asian Research. doi: 10.5171/2017. 938459

Kiau, H. B., & Meun, H. S. (2017). Towards active ageing – the Malaysian experience. Japan: The 3rd ASEAN-Japan Active Ageing Regional Conference.

Kinsella, K., & Gist, Y. J. (1995). Older workers, retirement, and pensions. (U.S. Bureau of the Census, Comparative International Chartbook, IPC/95-2). Washington, D.C.: U.S. Government Printing Office.

Klimczuk, A., Tomczyk, Ł., eds. (2020). Perspectives and theories of social innovation for ageing population. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88963-620-4

Klimczuk, A (2021). The silver economy as a constructive response in public policy on aging, pp. 19-35. [in:] I.B. Bojanić, A. Erceg (eds.), Strategic approach to aging population: experiences and challenges, J.J. Strossmayer University of Osijek.

Knodel, J., Kim, S. K., Zimmer, Z., & Puch, S. (2005). Older persons in Cambodia: A profile from the 2004 Survey of the Elderly in Cambodia. Michigan: Population Studies Centre, Institute for Social Research.

Knodel, John. (2013). The situation of older persons in Myanmar: Results from the 2012 survey of older persons. Yangon: HelpAge International.

Knodel, J, & Teerawichitchainan, B. (2017). Aging in Myanmar. Gerontologist, 57(4), 599-605. https://doi.org/10.1093/geront/gnw211

Knodel, J., & Zimmer, Z. (2014). Gender and well-being of older persons in Cambodia. In T. W. Devasahayam (Ed.), Gender and Ageing: Southeast Asian Perspectives (pp. 68-98). Singapore: Institute of Southeast Asian Studies.

Kwan, C., & Walsh, C. A. (2018). Ethical issues in conducting community-based participatory research: a narrative review of the literature. The Qualitative Report, 23(2), 369-386. https://doi.org/10.46743/2160-3715/2018.3331

Kwan, C. Y., & Asher, M. G. (2019). Managing shocks in Singapore's ageing and retirement arrangements. Policy Studies, 1-15. doi:10.1080/01442872.2019.1634189

Laiphrakpam, M., & Aroonsrimorakot, S. (2018). Review of indicators on active ageing towards sustainable development in Thailand. Interdisciplinary Research Review, 13(3), 41-50.

Lak, A., Rashidghalam, P., Myint, P. K., & Bradaran, H. R. (2020). Comprehensive 5P framework for active aging using the ecological approach: an iterative systematic review. BMC Public Health, 20(1). doi:10.1186/s12889-019-8136-8

Lan, N. T. N., & Dang, L. Q. (2017). population ageing in Viet Nam and responses. In The 3rd ASEAN-Japan Active Aging Regional Conference. Tokyo.

Lao People's Democratic Republic. (2018). Implementation of the 2030 agenda for sustainable development (Lao PDR 2018). Voluntary national review on the implementation of the 2030 agenda for sustainable development. sustainable development goal. https://sustainabledevelopment.un.org/content/documents/19385Lao_Final_VNR_19_June_2018_web.pdf

Larpsombatsiri, K. (2019). Policies on health of older adults in Thailand. Singapore: Regional Workshop on Integrating Policy and Research on Ageing in ASEAN.

Leive, A., & Xu, Ke. (2008). Coping with out-of-pocket health payments: empirical evidence from 15 African countries. Bulletin of the World Health Organisation, 86(11), 849-856. doi:10.2471/blt.07.049403

Li, Z., & Dalaker, J. (2021). Poverty among the population aged 65 and older. Congressional Research Service, R45791.

Long, G. T., & Pfau, W. D. (2008). The vulnerability of the elderly households to poverty: determinants and policy implications for Vietnam. Journal Article - Asian Economic Journal, 23(4), 419-437. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1521339

Long, G. T., & Thon, H. C. (2013). Cash transfers for the most vulnerable and poor elderly people in Vietnam: An ex-ante impact evaluation. Journal of Economics and Development, 15(3), 22-35. doi: 10.33301/2013.15.03.02

Maramis, A., Van Tuan, N., & Minas, H. (2011). Mental health in southeast Asia. The Lancet, 377(9767), 700-702. doi:10.1016/s0140-6736(10)62181

Masud, J., Haron, S. A., & Gikonyo, L. W. (2008). Gender differences in income sources of the elderly in Peninsular Malaysia. Journal of Family and Economic Issues, 29(4), 623-633. doi:10.1007/s10834-008-9125-8

Masud J, Hamid TA, Haron SA. (2015). Measuring poverty among elderly Malaysians. AJPS, 1(1):73-81.

MCYS. (2016). Brunei Darussalam: Increasing employment participation for elderly and disabled. Bandar Seri Begawan: Ministry of Culture, Youth and Sports.

Mayumi, F. (2018). Society 5.0: Aiming for a new human-centered society. Academia. Special Article 2. Japan Spotlight. 47-50.

Mehta, K. (2015). Active ageing in Singapore. In A. Walker & C. Aspalter (Eds.), Active Ageing in Asia (p. 152). New York: Routledge.

MFE. (2020). Voluntary national review report of Brunei Darussalam. Bandar Seri Begawan: Ministry of Finance and Economy. Retrieved from: https://sustainabledevelopment.un.org/content/documents/26410VNR_2020_Brunei_Report.pdf

Midgley, J (1996). Toward a developmental model of social policy: Relevance of the third world experience. Journal of Sociology & Social Welfare, 23(1):56-74.

Minister of National Development Planning. (2019). Voluntary national reviews (VNR) empowering people and ensuring inclusiveness and equality. sustainable development goal. https://sustainabledevelopment.un.org/content/documents/23803INDONESIA_Final_Cetak_VNR_2019_Indonesia_Rev2.pdf

Ministry of Planning. (2013). Poverty in Cambodia – A new approach: Redefining the poverty line. Phenom Penh: Ministry of Planning, Royal Government of Cambodia.

Ministry of Women. (2010). Poverty alleviation with a focus on vulnerable people through strengthening collaboration between the social welfare and health service. Tokyo: the 8th Japan high level official meeting on caring societies. https://www.mhlw.go.jp/english/policy/affairs/asean/8th.html

Ministry of Finance. (2018). Brunei Darussalam Country Report 2014. In the 12th ASEAN & Japan High Level Officials Meeting (hlom) on Caring Societies. Japan. Retrieved from: https://www.mhlw.go.jp/english/policy/affairs/asean/12th_summary.html

Ministry of Health. (2013). Country report: Brunei Darussalam. In The 11th ASEAN & Japan High Level Officials Meeting on Caring Societies: Active Aging. Tokyo, Japan. Retrieved from: http://www.mhlw.go.jp/bunya/kokusaigyomu/asean/2013/dl/Brunei_CountryReport.pdf

_____ (2016a). Action Plan for Successful Ageing. Singapore: Ministry of Health of Singapore. Retrieved from: https://www.moh.gov.sg/ifeelyoungsg/about/what-is-the-action-plan-about

_____ (2016b). Action Plan for Successful Ageing 2. Singapore: Ministry of Health of Singapore. Retrieved from: https://www.moh.gov.sg/ifeelyoungsg/about/what-is-the-action-plan-about

Ministry of Health and Sports. (2018). National health plan 2017–2021. Naypyitaw: Ministry of Health and Sports.

Ministry of Social Affairs, Veterans and Youth Rehabilitation. (2017). Cambodia. In The 3rd Asean-Japan active ageing. Tokyo, Japan. Retrieved from: http://aging-asia.info/active-aging

Mohd, S., Mansor, N., & Ku Ahmad, S. (2009). Social pension, aging and poverty in Malaysia. Penang: USM. Retrieved from: http://familyrepository.lppkn.gov.my/393/

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA Statement. PLoS Medicine, 6(7), e1000097. doi:10.1371/journal.pmed.1000097

Mya, D. R. (2017). Targets and indicators for active ageing. Myanmar: Department of Social Welfare.

MyGovernment. (2012). Country Report Malaysia. Putrajaya: The Malaysian Administrative Modernisation and Management Planning. Retrieved from http://www.mhlw.go.jp/bunya/kokusaigyomu/asean/2013/dl/Malaysia_CountryReport.pdf

Nambooze, J. Fujimura, M., & Inaoka, T. (2014) Nutritional status and functional capacity of community-dwelling elderly in Southern Laos. Environ Health Prev. Med. 19:143-150.

Nguyen, N., Nguyen, T., Nguyen, T., Trinh, T., & Nguyen, V. (2015). Labour market transitions of young women and men in Viet Nam. Work4Youth Publication Series No. 27. Geneva, Switzerland: International Labour Office.

National Institutes of Health. (2018). National Health and Morbidity Survey 2018: Elderly Health. Volume Two: Elderly Health Findings. Shah Alam: Institute for Public Health, National Institutes of Health, Ministry of Health, Malaysia. https://iku.moh.gov.my/images/IKU/Document/REPORT/NHMS2018/NHMS2018ElderlyHealthVolume2.pdf

National Institute of Statistics. (2012). Demographics of population ageing in Cambodia. Phnom Penh, Cambodia: National Institute of Statistics, Ministry of Planning.

Noi, H. (2018). Vietnam's voluntary national review nn the implementation of the sustainable development goals. Retrieved from: https://sustainabledevelopment.un.org/content/documents/19967VNR_of_Viet_Nam.pdf

Nordic Centre for Welfare and Social Issues (2010). Focus on welfare technology. www.nordicwelfare.org

Novignon, J., Nonvignon, J., Mussa, R., & Chiwaula, L. S. (2012). Health and vulnerability to poverty in Ghana: evidence from the Ghana Living Standards Survey Round 5. Health Economics Review, 2(1), 11. doi:10.1186/2191-1991-2-11

Nuryana, M. (2018). INDONESIA: Targets and indicators for active ageing policy and action. In 3rd ASEAN-Japan Active Aging Regional Conference ADB Headquarter. Manila. Retrieved from http://aging-asia.info/sites/default/files/presentations/s4p3-indonesia.pdf

Oanh, T. T. M. (2013). The Role of Government in "Active Ageing" in Viet Nam. Hanoi: Health Strategy and Policy Institute. Retrieved from: https://www.mhlw.go.jp/english/policy/affairs/asean/dl/11th_26_Presentation_Vietnam.pdf

Open Development Thailand. (2017). Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development. Open Development Thailand. https://data.thailand.opendevelopmentmekong.net/library_record/2030/resource/3423b6d1-dbd0-4b7d-8777-139c0a47ddac

Ofstedal, M., B., Gwenith, G., F., & Regula, A. H. (2005). Documentation of Cognitive Functioning Measures in the Health and Retirement Study. Ann Arbor, MI: Survey Research, University of Michigan.

Olshansky, S. J., Biggs, S., Achenbaum, A., Fried, L., Gutman, G., Kalache, A., Fernandez, A., Rattan, S.I.S., Guimarães, R.M., Milner, C., Butler, R.N (2011). Global Policy, 2(1):97-105.

Ong-Artborirak, P., & Seangpraw, K. (2019). Association between self-care behaviors and quality of life among elderly minority groups on the border of Thailand. Journal of Multidisciplinary Healthcare, 12, 1049-1059. https://doi.org/10.2147/JMDH.S227617

Organisation for Economic Co-operation and Development (1998). Maintaining Prosperity in an Ageing Society. Organisation for Economic Co-operation and Development, Paris, France.

_____ (2014). "The silver economy as a pathway for growth - Insights from the OECD-GCOA Expert Consultation."

_____ (2015). Social impact investment: Building the base evidence. OECD Publications, 2 rue Andre_pascal, 75775 Paris, Cedex, France.

Osman, M. M., & Sadasivan, B. (2006). Committee on ageing issues report on the ageing population. Singapore: Ministry of Social and Family Development. Retrieved from: http://app.msf.gov.sg/portals/0/summary/research/cai_report.pdf

Ouadika, S.A.B. (2020). Health shocks and vulnerability to poverty in Congo. Humanit Soc Sci Commun, 7, 182. https://doi.org/10.1057/s41599-020-00674-w

Özsoy, Ö., & Gürler, M. (2021). Poverty and social exclusion of older people in ageing European Union and Turkey. J Public Health (Berl.). doi.org/10.1007/s10389-021-01525-x

Parry, J., Um, J., & Zaidi, A. (2018). Monitoring active ageing in the Asia-Pacific region: Recommendations for future implementation of the MIPAA. International Journal on Ageing in Developing Countries, 2018, 2 (2): 82-98.

Paweenawat, S. W., & Liao, L. (2021). Labour supply of older workers in Thailand: the role of co-residence, health, and pensions. ADBI Working Paper 1224. Tokyo: Asian Development Bank Institute. https://www.adb.org/publications/labor-supply-olderworkers-thailand-role-co-residence-health-pensions

Penhale, B. (2006). World elder abuse awareness day. Journal of Adult Protection. 8(3): 33

Pension Watch. (2016). Philippines. Pension Watch: Country Fact File. Available at: http://www.pension-watch.net/country-fact-file/philippines/ [Accessed 5 August 2019]

Philippines Statistical Authority. (2020). Updated official poverty statistics of the Philippines: Full year 2018. Philippines: Philippines Statistical Authority. https://psa.gov.ph/poverty-press-releases

Pham, L. T., Lai, T. Q., Nguyen, M. T. T., & Nguyen, T. V. (2015). Relationship between body mass index and percent body fat in Vietnamese: Implications for the Diagnosis of Obesity. PLOS ONE, 10(5), e0127198. doi:10.1371/journal.pone.0127198

Pham, T., V., Hsu, H.C., Zaidi, A & Chen, Y.M. (2020). Active ageing index in Viet Nam relative to China, South Korea, Taiwan, and 28 European Union Countries. Research on Ageing, xx (x):1-14.

Phua, K.H., Goh, L.G. & Yap, M.T. (2019). Ageing Asia in Contemporary Trends and Policy Issues editors PHUA Kai Hong Lee Kuan Yew School of Public Policy, National University of Singapore. World Scientific Publishing Co. Pte. Ltd. 5 Toh Tuck Link, Singapore 596224

Piensriwatchara, E. (2017). Thailand's progress on active ageing: Demographics 2017. Thailand: Department of Health.

Pothisiri, W., &Teerawichitchainan, B. (2019). National survey of older persons in Thailand. In Gu, D and Dupre (Eds). Encyclopedia of Gerontology and Population Aging. https://doi.org/10.1007/978-3-319-6989-2_974-1

Prata, N., Fraser, A., Huchko, M. J., Gipson, J. D., Withers, M., Lewis, S., … Upadhyay, U. D. (2017). Women's empowerment and family planning: a review of the literature. Journal of Biosocial Science, 49(06), 713-743. doi:10.1017/s0021932016000663

Price, D. (2006). The poverty of older people in the UK. Journal of Social Work Practice, 20(3), 251-266. doi.org/10.1080/02650530600931724

Price, D. (2009). Measuring the poverty of older people: A critical review. Institute of Gerontology, King's College London: Economic and Social Research Council. doi: 10.13140/2.1.3055.6486

Priebe, J., Howell, F., & Sari, V. A. (2014). Poverty and the labour market in Indonesia: Employment trends across the wealth distribution. (TNP2K Working Paper; No. 17-2014).

Rahardjo, T. B. W., Maliki, Mulan, E., Suratmi, T., Nugraha, S., & Agustin, D. (2019). 6.7. Healthy aging policy and programme in Indonesia. Universitas Respati Bappenas Kemenkes. Jakarta. Retrieved from https://ahwin.jcie.org/wp-content/uploads/2020/06/8.Session1_TribudiWahyuniRahardjo.pdf

Rammohan, A. (2004). Fertility Transition in South and Southeast Asia. ASEAN Economic Bulletin, 21(2), 183-197.

Ravallion, M. (1998). Poverty lines in theory and practice, Living Standards Measurement Study Working Paper No. 133. Washington, DC: World Bank.

Razak, A., Firdaus, M. M., & Abdul, M. A. R. (2017). Ageing phenomenon: Malaysia towards 2030. Putrajaya: Ministry of Women, Family and Community Development. Retrieved from: http://familyrepository.lppkn.gov.my/708/1/POP INFO JUN-DEC2017_Final.pdf

Reyes, C.M., Arboneda, A.A., Asis, R.D. (2019). Silver linings for the elderly in the Philippines: Policies and programmes for senior citizens. PIDS Discussion Paper Series, 2019-09. http://hdl.handle.net/10419/211083

Royal Government of Cambodia (RGC). (2017). Cambodia national ageing policy: To further improve well-being of older persons of Cambodian people. Phnom Penh: Council of Ministers in the Plenary Cabinet. Retrieved from http://ir.obihiro.ac.jp/dspace/handle/10322/3933

Royal Government of Cambodia (2019). Cambodia' voluntary national review 2019 on the implementation of the 2030 Agenda for Sustianable Development. [www.document] c=accessed on 16 September 2021. https://sustainabledevelopment.un.org/content/documents/23603Cambodia_VNR_PublishingHLPF.pdf

Rodrigues, I., P., & Rueanthip, K. (2019). Does being old mean being poor? Evidence from Thailand. DLSU business & economics review. Manila, 29(1), 165-177.

Rosmino, (2019). Japan's technology leads the way in caring for the elderly. Euronews.com/NEXY/NEXT?NEXT-SCI-TECH

Runsinarith, P. (2012). Determinants of poverty: the case of Cambodia. Cambodian Institute for Cooperation and Peace working paper; no. 44.

Russell, C. K. (2003). Evaluation of qualitative research studies. Evidence-Based Nursing, 6(2), 36-40. doi:10.1136/ebn.6.2.36

Salleh, M. F. M. (2017). Ageing in an inclusive society: Social support system for older persons in Malaysia. Putrajaya: Malaysia Social Welfare Department. Retrieved from: https://www.kpwkm.gov.my/kpwkm/uploads/files/Muat Turun/MOST/S4_P1_Tuan Hj_ Fazari.pdf

Saunders, P. (2007). Comparing poverty among older people in urban China internationally. The China Quarterly, 190, 451-465. doi:10.1017/S0305741007001282

Satsanasupint, P., & Chamaratana, T. (2019). Active aging: Social network of community-dwelling Thai elderly. The Journal of Social Sciences Research, 5(10), 1480-1486.

Scharf, T., Phillipson, C., & Smith, A. E. (2005). Social exclusion of older people in deprived urban communities of England. European journal of ageing, 2(2), 76-87. https://doi.org/10.1007/s10433-005-0025-6

Schelzig, K. (2005). Poverty in the Philippines: Income, assets, and access. Asian Development Bank.

Schwingel, A., Niti, M. M., Tang, C., & Ng, T. P. (2009). Continued work employment and volunteerism and mental well-being of older adults: Singapore longitudinal ageing studies. Age and Ageing, 38(5), 531-537. https://doi.org/10.1093/ageing/afp089

Shaffer, P. (2001). New thinking on poverty: implications for poverty reduction strategies. University of Toronto: Centre for International Studies. https://www.un.org/esa/socdev/social/papers/paper_shaffer.pdf

Shahar, N., Moran, R., Hauser, T. U., Kievit, R. A., McNamee, D., … Moutoussis, M. (2019). Credit assignment to state-independent task representations and its relationship with model-based decision making. Proceedings of the National Academy of Sciences, 201821647. doi:10.1073/pnas.1821647116

Siddiqui, M. S. (2014). Macroeconomic consequences of potential population ageing in Brunei. CSPS Strategy and Policy Journal, 5, 31-58. doi: 10.18356/f356c493-en

Sidorenko, A., & Zaidi, A. (2018). International policy frameworks on ageing: Assessing progress in reference to the Madrid International Plan of Action on Ageing. The Journal of Social Policy Studies, 16(1): 141-154.

Sinn, Hans-werner (2000). Why a funded pension system is useful and why it is not useful. International Tax and Public Finance, 7, 389-410

Singh, P. (2007). Social protection in ASEAN: Issues and challenges for ASEAN and its member countries. International Council on Social Welfare (ICSW), Southeast Asia and Pacific Region (SEAP). Available at https://www.icsw.org/index.php/regions/south-east-asia-and-the-pacific (accessed August 29, 2021)

Social Wellbeing Research Centre. (2021). Malaysia Ageing and Retirement Survey (MARS) Wave 1 - 2018/2019: A SNAPSHOT. Kuala Lumpur, Malaysia: Social Wellbeing Research Centre (SWRC). doi: 10.1007/978-3-319-69892-2_344-1

Somi, M. F., Butler, J. R. G., Vahid, F., Njau, J. D., & Abdulla, S. (2009). Household responses to health risks and shocks: A study from rural Tanzania raises some methodological issues. Journal of International Development, 21(2), 200-211. doi:10.1002/jid.1555

Somkotra, T., & Lagrada, L. P. (2009). Which households are at risk of catastrophic health spending: experience in Thailand after universal coverage. Health affairs (Project Hope), 28(3), w467-w478. https://doi.org/10.1377/hlthaff.28.3.w467

Suryahadi, A., Yumna, A., Raya, U. R., & Marbun, D. (2010). Review of government's poverty reduction strategies, policies and programme in Indonesia. Jakarta: The Smeru Research Institute.

Subramaniam, M., Abdin, E., Vaingankar, J. A., Sambasivam, R., Seow, E., Picco, L., … Chong, S. A. (2019). Successful ageing in Singapore: Prevalence and correlates from a national survey of older adults. Singapore Medical Journal, 60(1), 22. doi:10.11622/smedj.2018050

Sunusi, M. (2014). Inter-generational family and community support: implication to social participation and contribution of older person. the 12th ASEAN & Japan High Level Officials Meeting on Caring Societies. TOKYO. doi.10.1017/S0144686X0400234X

Suy, R., Chhay, L., Chatterjee, R., Reyad, Md A.H., & Chakriya, C. (2018). An overview of the social protection policy on wellbeing of the elderly in Cambodia. Research on Ageing and Social Policy, 6(2), 148-171. doi: 10.447/rasp.2018.3280

Suwanrada, W. (2008). Poverty and financial security of the elderly in Thailand. Ageing International, 33(1-4), 50-61. doi:10.1007/s12126-009-9030-y

Tabassum, N., Afzal, T., & Tabassum, H. (2019). Ageing population in Indonesia and Pakistan: Lessons to be learned and challenges to be faced. Asia Pacific-Annual Research Journal of Far East & South East Asia, 35(16). https://sujo-old.usindh.edu.pk/index.php/ASIA-PACIFIC/article/view/5036/3168

Tahir, D. M. (2015). Social participation and contribution of elderly. Bandar Seri Begawan: Department of Community Development Ministry of Culture, Youth and Sports.

Tan, P.C. Tey, N.P., & Chang, T. P (2005). PJCC—A model for community participation and active ageing in Malaysia. Journal of Intergenerational Relationships, 3(2), 125-131. https://doi.org/10.1300/J194v03n02

Tang, K.L. (1996). The marginalisation of social welfare in developing countries: The relevance of theories of social policy development. Journal of Sociology & Social Welfare, 23(1):41-56.

Tejero, A. (2007). Community Services for the elderly in the Philippines: A Collaboration of the Department of Social Welfare and Development and the Department of Health. Tokyo: The 5th ASEAN and Japan High Level Officials Meeting on Caring Societies (Vol. 67). Retrieved from: https://www.academia.edu/35094860/PHILIPPINE_COUNTRY_REPORT_Community_Services_for_the_Elderly_in_the_Philippines_A_Collaboration_of_the_Department_of_Social_Welfare_and_Development_and_the_Department_of_Health

Tey. N.P., & Hamid, T. A. T. (2014). Gender differentials in work and income among older Malaysians. In T. W. Devasahayam (Ed.), Gender and Ageing: Southeast Asian Perspectives (pp. 267-287). Singapore: Institute of Southeast Asian Studies.

Thang, L. L. (2005). Experiencing leisure in later life: A study of retirees and activity in Singapore. Journal of Cross-Cultural Gerontology, 20(4), 307-318. https://doi.org/10.1007/s10823-006-9010-6

Thang, L. L. (2014). An "active ageing" approach to living alone: Older men and women living in rental flats in Singapore. In T. W. Devasahayam (EdS.), Gender and Ageing: Southeast Asian Perspectives (pp. 198-220). Singapore: Institute of Southeast Asian Studies.

Thang, V. T. (2018). Household vulnerability as expected poverty in Viet Nam. World Development Perspective, 10-12, 1-14. doi:org/10.1016/j.wdp.2018.04.002

Te, V. (2019). Regional workshop on integrating policy and research on ageing in ASEAN: Conversations across the policy and research divide. Singapore: Centre for Ageing Research and Education Duke-NUS Medical School. Retrieved from http://www.ghbook.ir/index.php

Teerawichitchainan, B., Pothisiri, W., & Long, G. T. (2015). How do living arrangements and intergenerational support matter for psychological health of elderly parents? Evidence from Myanmar, Viet Nam, and Thailand. Social Science & Medicine, 136-137, 106-116. doi:10.1016/j.socscimed.2015.05.019

Teerawichitchainan, B., & Knodel, J. (2017). Long-term care needs in the context of poverty and population aging: The case of older persons in Myanmar. Journal of Cross-Cultural Gerontology, 33(2), 143-162. doi:10.1007/s10823-017-9336-2

Teerawichitchainan, B., Knodel, J & Pothisiri, W (2015) What does living alone really mean for older persons? A comparative study of Myanmar, Viet Nam, and Thailand, Demographic Research, 32 (48), 1329-1360, doi: 10.4054/DemRes.2015.32.48

Teerawichitchainan, B., Pothisiri, W., Knodel, J., & Prachuabmoh, V. (2017). Thailand's older persons and their well-being: An update based on the 2017 survey of older persons in Thailand. HelpAge International. doi: 10.13140/RG.2.2.25499.28962

Thein, S. (2016). Action needed for healthy and active ageing in Myanmar. Rakhine State: Sittwe General Hospital, Ministry of Health and Sport.

Tkalec, I (2017). The interplay between active ageing and silver economy – a QCA Analysis. Cahiers RESuME, 2017. DOI: 10.25517/RESuME-7a5wfzd-2018

_____ (1982). World Assembly on Ageing. Vienna International Plan of Action on Ageing (VIPAA) Vienna: United Nations Department of Economics and Social Affairs, New York.

_____ (1995). United Nations Principles for Older Persons. Vienna: United Nations Department of Economics and Social Affairs, New York.

_____ (2001). World Population Prospects: The 2000 Revision.

_____ (2002). Madrid Plan of Action and its Implementation. Vienna: United Nations Department of Economics and Social Affairs, New York.

_____ (2002a). "World Population Ageing: 1950-2050." Department of Economic and Social Affairs, Population Division, Chapter I, IV and VI, pp. 5-9, 23-27, 33-34, Retrieved from http://www.un.org/esa/population/publications/worldageing19502050/countriesorareas.htm

_____ (2007). World population ageing 2007. New York: United Nations, Department of Economic and Social Affairs.

_____ (2012). United Nations E-Government Survey 2012 E-Government for the People. United Nations Department of Economic and Social Affairs, New York

_____ (2017). Addressing the Challenges of Population Ageing in Asia and the Pacific: Implementation of the Madrid International Plan of Action on Ageing. Bangkok: United Nations publication. https://www.unescap.org/sites/default/files/publications/Addressing%20the%20Challenges%20of%20Population%20Ageing%20in%20Asia%20and%20the%20Pacific.pdf

_____ (2017). Living arrangements of older persons: A report on an expanded international dataset. United Nation: Department of Economic and Social Affairs, Population Division. https://www.un.org/en/development/desa/population/publications/pdf/ageing/LivingArrangements.pdf

_____ (2020). World populations prospects revision 2019. https://population.un.org/wpp/

United Nations Development Programme. (2016). Ageing, older persons and the 2030 agenda for sustainable development. United Nations. https://www.un.org/development/desa/ageing/wp-content/uploads/sites/24/2017/07/UNDP_AARP_HelpAge_International_AgeingOlderpersons-and-2030-Agenda-2.pdf

United Nations Economic and Social Commission for Asia and the Pacific. (nd). Report Advancing Enabling Policy Environments for Inclusive Businesses in the Association of Southeast Asian Nations (ASEAN).

_____ (1998). UN Principles for Older Persons 1991. United Nations Economic and Social Commission for Asia and the Pacific.

_____ (2017). Addressing the challenges of population ageing in Asia and the Pacific. Bangkok: United Nations publication. https://www.unescap.org/sites/default/files/publications/Addressing%20the%20Challenges%20of%20Population%20Ageing%20in%20Asia%20and%20the%20Pacific.pdf

_____ (2020). 2020 Older persons in ASEAN in numbers.

United Nations International Strategy for Disaster Reduction (2015). Global assessment report on disaster risk reduction (2015), making development sustainable: the future of disaster risk management. UNISDR. https://www.preventionweb.net/english/hyogo/gar/2015/en/gar-pdf/GAR2015_EN.pdf

United Nations Population Fund. (2017). Old age income security in Thailand: Work, family and social protection. Helpage International. https://www.refworld.org/pdfid/5a8a8aea7.pdf

United Nations Population Fund and HelpAge. (2012). Ageing in the twenty-first century: A celebration and a challenge. UNFPA and HelpAge International. Available at: https://www.unfpa.org/publications/ageing-twenty-first-century

Um, J., Zaidi,A., & Choi, S.J. (2019). Active ageing index in Korea – comparison with China and EU countries. Asian Social Work and Policy Review. 1 (1). DOI:10.1111/aswp.12159

Uy, R., Chhay, L., Chatterjee, R., Reyad, Md A. H., & Chakriya, C. (2018). An Overview of the Social Protection policy on Wellbeing of the Elderly in Cambodia. Research on Ageing and Social Policy, 6(2), 148-171. doi: 10.447/rasp.2018.3280

Vejjajiva, A. (2017). The critical importance of socio-cultural community for the future of ASEAN, pages 346-357. In Baviera, A and Maramis , L (Edited). ASEAN@50. Volume 4. Building ASEAN Community: Political–Security and Socio-cultural Reflections. ERIA.

Viet Nam Academy of Social Science. (2011). Poverty reduction in Viet Nam: Achievements and challenges.

Viet Nam National Committee on Ageing & United Nations Population Fund. (2019). Towards a comprehensive national policy for an aging Viet Nam. Hanoi: Vietnam National Committee on Ageing's Office. Retrieved from: https://vietnam.unfpa.org/en/publications/towards-comprehenstive-national-policy-ageing-viet-nam

Von Elm, E., Altman, D. G., Egger, M., Pocock, S. J., Gøtzsche, P. C., & Vandenbroucke, J. P. (2007). The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. Lancet. https://doi.org/10.1016/S0140-6736(07)61602

Vu, N. C., Tran, M. T., Dang, L. T., Chei, C.-L., & Saito, Y. (2020). Ageing and Health in Viet Nam. Jakarta: Economic Research Institute for ASEAN and East Asia. Retrieved from: https://www.eria.org/publications/ageing-and-health-in-viet-nam/

Vuong, Q. H., Ho, T. M., Nguyen, H. K. & Vuong T.-T. (2019). Healthcare consumers' sensitivity to costs: a reflection on behavioural economics from an emerging market. Palgrave Commun, 4(70). https://doi.org/10.1057/s41599-018-0127-3

Vuong, Q.-H. (2015). Be rich or don't be sick: estimating Vietnamese patients' risk of falling into destitution. Springer Plus, 4(529). https://doi.org/10.1186/s40064-015-1279-x

Walker, A (2002). A strategy for active aging. International Social Security Review. 55(1):121-139.

Walker and Maltby (2012). Active ageing: a strategic policy solution to demographic ageing in the European Union. International Journal of Social Welfare. 21(1): S117-S130

Walker, A & Aspalter, C (2015). Chapter 11 Conclusion: The way forward. Pages 189-198. In Asplater, C & Walker, A. (Ed). Active ageing in Asia.

Wan Ahamd, W.I., Desa, D., Muhamad Addin, N., Safiar, A. H., & Wirahadikusumuh, A. (2017). Money remittance from children to older person in FELDA Bukit Tangga Kedah, Malaysia. Research on Humanities and Social Sciences, 7(22):1-7.

Warr, P. (2005). Road development and poverty reduction: The case of Lao PDR. Tokyo: ADB Publishing, Research Paper No. 64. http://hdl.handle.net/11540/3613

Walsh,K., Scharf, T., & Keating, N. (2017) Social exclusion of older persons: a scoping review and conceptual framework. European Journal of Ageing, 14:81-98.

Wen, W. K., & Wong, K. (2013). Futures of ageing in Singapore. Journal of Futures Studies, 17(3), 81-102. https://jfsdigital.org/wp-content/uploads/2013/10/173-A05.pdf

Win, H. H., Nyunt, T. W., Lwin, K. T., Zin, P. E., Nozaki, I., Bo, T. Z., … Shobugawa, Y. (2020). Cohort profile: healthy and active ageing in Myanmar (JAGES in Myanmar 2018): a prospective population-based cohort study of the long-term care risks and health status of older adults in Myanmar. BMJ Open, 10(10), e042877. https://doi.org/10.1136/bmjopen-2020-042877

Wongsala, M., Anbäcken, E.-M. M., & Rosendahl, S. (2020). Perspectives on health, participation, and security related to active aging among older adults in North-eastern Thailand–a qualitative study. BMC Geriatrics, 21(1), 1-19. https://doi.org/10.1186/s12877-020-01981-2

Woon, T. Z., & Zainal, K. (2018). Successful ageing: progressive governance and collaborative communities. Singapore: Civil Service College Singapore. Retrieved from: https://www.csc.gov.sg/articles/successful-ageing-progressive-governance-and-collaborative-communities

World Bank. (2012). Reducing elderly poverty in Thailand: The role of Thailand's pension and social assistance programmes. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/26767

_____ (2019). Taking the pulse of poverty and inequality in Thailand. The World Bank Group. https://www.worldbank.org/en/country/thailand/publication/taking-the-pulse-of-poverty-and-inequality-in-thailand

_____ (2021). Viet Nam: adapting to an aging society. JICA & World Bank: Washington. https://documents1.worldbank.org/curated/en/544371632385243499/pdf/Vietnam-Adapting-to-an-Aging-Society.pdf

World Health Organisation. (2002). Active ageing: a policy framework. World Health Organisation, Switzerland: Geneva.

_____ (2009). Whole-of-society pandemic readiness who guidelines for pandemic preparedness and response in the nonhealth sector. World Health Organisation, Switzerland: Geneva.

_____ (2013). Informal experts' consultation on ageing and health in the Western Pacific Region. Manila: WHO Regional Office for the Western Pacific.

_____ (2015). World report on ageing and health. Geneva, Switzerland.

_____ (2017). Final evaluation of the WHO country cooperation strategy Thailand: 2012-2016. Madrid: World Health Organisation. Retrieved from: www.searo.who.int/thailand

_____ (2020). Noncommunicable diseases. Available at: https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases

_____ (n.d.). Indicator metadata registry details. World Health Organisation. Retrieved from https://www.who.int/data/gho/indicator-metadata-registry/imr-details/66

Yodmani, S. (2001). Disaster risk management and vulnerability reduction: Protecting the poor. ADB: The Asia and Pacific Forum on Poverty. https://www.adpc.net/V2007/IKM/ONLINE%20DOCUMENTS/

Youn, Hin Moi; Lee, Hyeon Ji; Lee, Doo Woong; Park, Eun-Cheol (2020). The impact of poverty transitions on frailty among older adults in South Korea: findings from the Korean longitudinal study of ageing. BMC Geriatrics, 20(1), 139–. doi:10.1186/s12877-020-01522-x

Yusof-Kozlowski, Y. M., & Mumin, K. (2018). Demography and population ageing in Brunei Darussalam. Centre for Advanced Research (CARe).

Zaidi, A., Gasior, K., Hofmarcher, M.M., Lelkes, O., Marin, B., Rodrigues, R., et al. (2013) Active Ageing Index 2012. Concept, Methodology, and Final Results, Research Memorandum, Methodology Report, European Centre Vienna.

Zaidi, A. and Stanton, D. (2015) 'Active Ageing Index 2014: Analytical Report', Report Produced at the Centre for Research on Ageing, University of Southampton, under contract with UNECE (Geneva), co-funded by European Commission, Brussels, available at http://www.southampton.ac.uk/assets/sharepoint/groupsite/Administration/SitePublisherdocument-store/Documents/aai_report.pdf

Zaidi, A. (2014). Life cycle transitions and vulnerabilities in old age: A review. UNDP Human Development Report Office, Occasional Paper. http://hdr.undp.org/en/content/life-cycle-transitions-and-vulnerabilities-old-age-review

Zaidi, A., & Um, J (2019). The new Asian active ageing index for ASEAN+3: A comparative analysis with EU member states. Journal of Asian Sociology. 48(4):523-557.

Zaidi, A. & Um, J (2019). The ASIAN active ageing index: Results for Indonesia and Thailand. Social Development working papers no. 5. UNESCAP.

Zaw Oo, M. (2019). Current situation of elderly people in Myanmar and active and healthy ageing. Yangon: University of Medicine. Retrieved from http://www.mohs.gov.mm/

Zimmer, Z. (2008). Poverty, wealth inequality and health among older adults in rural Cambodia. Soc Sci Med. 66(1): 57-71. doi: 10.1016/j.socscimed.2007.08.032.