An Assessment of Financial Protection Policies and Their Effectiveness in Reducing Out Of Pocket Payment for Health Care of Older Population in Vietnam

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List of acronyms

CHE	Catastrophic health expenditure
CHS	Commune health station
HI	Health insurance
HSPI	Health Strategy and Policy Institute
MOLISA	Ministry of Labor, Invalids and Social Affairs
NCD	non-communicable diseases
OOP	Out of pocket
SRH	Self-reported health
THE	Total health expenditure
VND	Vietnam dong
VSS	Vietnam Social Security
WHO	World Health Organization

Executive summary

Health care for older people in Vietnam has been put as high priority by the Government of Vietnam. To address the care needs of the aging population, Vietnam has implemented various initiatives to increase accessibility to services and protect people - including older people - from financial hardship due to health care. However, findings from national health surveys on aging in Vietnam in 2011 showed that about half of sickness older people did not receive any treatments. The most common reason is lack of money to pay for services. Vietnam Living Standard Survey in 2014 was given that 2.3% of households suffered from catastrophic expenditures, and the proportion of impoverishment was 1.7% due to health care costs. However, the limitation of these national surveys is a shortage of data on the out of pocket components to understand what older people have to pay for health care as well as long term care support, to what extent and their financial coping strategies.

Study objectives:

The study objectives are: (i) To conduct analysis of related financial protection policies for health care for older people to identify gaps in policy development and implementation; (ii) To understand what expenses that the older people have to pay for health care as well as long-term care support and identify financial burden and their coping strategies; (iii) To provide recommendations to improve effectiveness of ongoing policies and further policy options to protect older people from financial hardship due to health care.

Study methodology:

The study will be carried out in 3 provinces: one in the North (mountainous province), one in the Central (lowland province in Red River Delta) and one in the South (lowland province in Mekong Delta River). In each province, one urban district and one rural district will be selected to involve in the study. In each district, 2 communes will be randomly selected.

The study design is a cross sectional study using both quantitative and qualitative data collection techniques. A household survey was conducted in six districts of three provinces in Viet Nam to interview persons 60 years and older about their health spending and related factors. In-depth interviews and a focus group discussion were carried out among policy decision-makers to discuss and deepen understanding of health financing policies and how they are structured to protect older persons from high out-of-pocket health spending.

Findings

The social health insurance in Vietnam covers for about two third of the older population. Of which, health insurance covers 100% of premium for older people who are 80+ years old, 100% premium of the poor and ethnic minority older people, 100% premium for pensioners and 70% premium of the near poor older people, however, the health system is facing with difficulties in expanding health insurance coverage among the remaining informal older groups who are not eligible from any supporting program and most of them are self-employed with low income.

Social protection system in Vietnam exists but it is only affordable to cover for individual targeted programs such as monthly social assistance with small amount of allowance and free health insurance. This support limits to unable working people, national merit people and older people who are 80 years and older due to shortage of budget. For those who are neither eligible for any supporting program nor received a good care from family members, then they will have to face with difficulties in terms of income for daily living as well as health care expenditure.

Regarding the health services delivery system for older people, Vietnam has a wide grassroots health facilities network responsible for primary care. In terms of specialized care, in the whole country, there is a national geriatric hospital, about 40% provincial hospitals with geriatric departments; there is few long-term care institutions for the elderly; rehabilitation facilities exist. However, due to shortage of qualified human resources in disadvantaged and under-served areas, accessibility to quality health care services at the grass-root level in such areas is still limited. For hospital care, older people have many barriers in accessing health care services such as: transportation difficulty, physical mobility difficulty, financial difficulties for non-medical expenditure, depending on family members… Participations of related stakeholders in caring for older people are not actively as expected, except Elderly Association in some locations when there is a good attention from the local authority leaders.

Results from household survey show that, among 1,262 interviewed older people, 82.4% of them reported illness in the last four week prior to the interview and 18.5% reported admissions to hospitals in the last 12 months. There was 72.2% older people (841 older people) had to spent out-of-pocket money for health care (including outpatient services and self-treatment) out of those who reported illness in the last 4 weeks and the average expenditure per one ill older person was 860,000 VND (Min: 9,000 VND, Max: 13,600,000 VND; Median: 385,000 VND). There was 15% older people (226 older people) had to spent out-of-pocket money for using inpatient services out of those who reported using inpatient services in the last 12 months and the average expenditure per one admitted old person was 6,817,000 VND (Min: 27,000 VND, Max: 148,000,000 VND; Median: 1,800,000 VND). Regarding to long –term care, there was 3.5% older people (55 older persons), using long-term care services in the last 12 months. Among them, 33 persons had to pay OOP payment for long term care services, with the average OOP spending per person was around 26 million VND in a year (Min: 480,000 VND, Max: 162,500,000 VND; Median: 7,800,000 VND). There was 8.6% households facing catastrophic health expenditure(CHE) and 1.69% being pushed into poverty due to health care and long-term care for old people. These figures indicate a more severe problem among households with older persons than the average figures of households shown in a national-level report 2014 (CHE: 2.3%, impoverishment: 1.7%)[7].

Our findings are in line with studies in other countries and in Vietnam that suggest an association between household financial burden and prevalence of NCDs. Both out-of-pocket health expenditure and the incidence of catastrophic health expenditure among households with older persons reporting NCDs were significantly higher than the corresponding figures

among the households whose family members were free from NCDs. In this study, the share of out-of-pocket health expenditure for older people accounts for the majority of household total health expenditure (86.3%).This rate is higher when having older members with chronic illness in a household (88.4%) and lower when having older person without chronic disease (73%).

Regarding out-of-pocket payment structure, it showed that the share of medicine spending in total out-of-pocket payment for outpatient visits and inpatient of older people was really high (81% and 46% respectively). The reasons are due to the elderly bought medicines for self-treatment, paying extra-payment for medicines which were not included in the reimbursement list of health insurance or for doing co-pay for medicines which are on the list of prorated payments and has conditions.

In regard to financial coping strategies, among those households who had to pay for health care from out-of pocket for older persons, more than half of households have to borrow money from relatives/friends (31%) or got a loan from individuals/agents (25%) or sold properties (4%)

Conclussion

Vietnamese laws and other government policies stipulate measures to provide financial assistance for older persons, including for health care. However, the lack of consistency and coherence of policy leads to ineffective implementation of financial support policies for older people.

Despite having a health insurance card, the elderly still have to pay high out-of-pocket expenses when using health care services, leading to high proportion of catastrophic health expenditures of household with older members and higher when the household having older persons with chronic diseases. In order to copping strategy with out-of-pocket health spending, families with older members have to borrow money from relatives or friends, take loans from banks/other lenders, or sell assets.

In order to improve effectiveness of ongoing policies and further policy options to protect older people from financial hardship due to health care and long term care support, the government should strengthen responsiveness of the health care system from the central to local levels, by promoting the role of the grassroots health system in the control, management and prevention of non-communicable diseases for older people and developing the family doctor model. Developing and improving quality of geriatric hospital system to meet the health care needs of older population. Increasing stakeholder engagement in the implementation of social protection policies, health care policies, especially promoting the role of Older People Association in localities.

I. BACKGROUND AND PROBLEM STATEMENT/RATIONALE

Vietnam has a rapidly ageing population. The proportion of people aged over 60 years was 11% in 2016 and this will increase to 18.3% by 2030. The older people have high health care needs. In Vietnam, non-communicable diseases (NCD) among older people account for 88% of the burden of disease [1]. A high proportion of older people reported having diseases and on average, each older person suffered from 2.69 diseases [2, 3]. Results from the Vietnam National Aging survey in 2011 shows that more than 65% of older people reported that their health was weak or very weak while only 4.8% of the older people reported their health as good or very good. More than one third (37.4%) of the older people reported having an illnesses or injury in the last year[4]. The percentage of those aged 80+ having an illness or injury was 46.9%, which was much higher than those for the younger group of older people (30.4% among the group aged 60-69 and 40.6% in the group aged 70-79) [4]. This means that the older population have high health care needs with co-morbidities which create heavy costs for individuals, families and societies due to the need for lifelong treatment.

To address the care needs of the ageing population, Vietnam has implemented various initiatives to increase accessibility to services and protect people including older people from financial hardship due to health care. There are two main policies: (i) Health Insurance Law, where the government subsidizes 100% of the health insurance premium for people aged 80 years and above as well as for the older people in poor households and ethnic minority older people; and subsidizes 70% of the health insurance premium for the near poor older people. The pensioners are subsidized 100% of health insurance premium by the Social Insurance Fund. In 2016, 76% of Vietnamese older people have health insurance [5] and Vietnam is facing with difficulties in expanding health insurance coverage among the remaining informal older groups who are not eligible from any supporting program and most of them are self-employed with low income; (ii) Social protection policy which is only availableto cover individual targeted programs such as monthly social assistance with small amounts of allowance and providing free health insurance. However, due to budgetary constraints, the government only provides assistance to those unable to work and merit people.. Therefore, for those who are neither eligible for any supporting program nor received good care from family members, then they have to face with difficulties in terms of income for daily living as well as health care expenditure.

Vietnam has made a lot of achievements in expanding health insurance coverage and reducing out of pocket payments in recent years, however, the proportion of out of pocket payments is still high (43.3% of total health expenditure in 2014, of which 35.2% was spent at public hospitals, 21% at private hospitals and 43.7% at private pharmacies [6]). About 26.1% of the older people have not joined any health insurance scheme and

most of uninsured people are self-employed with low incomes and are not eligible from any supporting program [4]. According to the National Aging Survey 2011, among older people with sickness, approximately 54.9% did not receive any treatments and the most common reason for not having treatment was due to not having enough money to pay for services [4]. Findings from Vietnam Living Standard Survey showed that about 2.3% household suffered from catastrophic expenditure and proportion of impoverishment was 1.7% in 2014 due to health care cost [7]. However, limitation of these national surveys is that lack of data on the out-of-pocket components to understand what older people have to pay for health care as well as long term care support, at what extent and their financial coping strategies. There are some studies with small scope related to health care of the older people but these studies also lack of data on payment for using health care services.

This study is expected to answer the following research questions: (i) To what extent and for what are reasons do older people have to pay for health care out of pocket, even when they are eligible for benefits from health insurance policy? To what extent do older people have to pay for long term care support? (ii) What is the financial burden due to health care and long term care support for the older people households and what are household financial coping strategies? The evidence from this study will show gaps in policy implementation and inform policy makers on which interventions should be addressed to reduce OOP spending due to obtaining health care and long term care for older people.

II. STUDY GOALS AND OBJECTIVES

2.1. General objective

To provide evidence on effectiveness of policy implementation to reduce out of pocket payment due to health care and long term care support for the older people and recommend solutions for providing better care for the older people without financial difficulties.

2.2. Specific objectives

- To conduct analysis of related financial protection policies on health care and social protection program for the older people to identify gaps in policy development and implementation.
- To understand what expenses that the family have to pay for health care as well as for long term care support and identify financial burden and their coping strategies.
- To provide recommendations to improve effectiveness of ongoing policies and further policy options to protect the older people from financial hardship due to care.

III. STUDY SITE

Since Vietnam has different geographical areas with different models of health service provisions and health seeking behaviour, so this study was carried out in three provinces: one in the North, one in the Central and one in the South. In each province, one urban district and one rural district will be selected to involve in the study.

The study was select three following provinces:

- Province in the North: Yen Bai province (mountainous province); two districts: Yen Bai city and one mountainous district
- Province in the Central: Thanh Hoa province (lowland province); two districts: Thanh Hoa city and one rural district
- Province in the South: Tien Giang province (lowland province); two districts: Tien Giang town and one rural district.

IV. METHODOLOGY

4.1. Study target groups

- At central level: related Departments of Ministry of Health (Administrative of Medical Services, Administrative of Preventive Medicines, Health Insurance Department, Planning and Finance Department, General Department of Population); Vietnam Social Security; related Departments of Ministry of Labour, Invalid and Social Affairs; National Committee for Older People, The Central Older People Association.
- At province level: leader of Provincial Health Bureau; leader of General Provincial hospital and representatives of health care providers; leader of Provincial Social Security; leader of Provincial Labour, Invalid and Social Affairs.
- At district level: leader of District Health Center and representatives of health care providers
- At commune level: chair and members of Commune Older People Association, head of Commune Health Station, representatives of Women Association, Veteran Association, Farmer Association.
- Older people: people from three provinces, who are 60 years old and above and only those having good cognitive function.
- Household members who take care of older people.

4.2. Study design

This is a cross sectional study using both quantitative and qualitative data collection techniques.

4.3. Sampling frame

Sampling frame of this study is the older people living in the selected communes who have good cognitive function and have good hearing and speaking ability.

Inclusion criteria for selection of older people: all older people living in the community at the time of the survey and they are:

- Having good cognitive function (with the total score >=4 points from Mini-Cog tool);
- Not being deaf and/or dumb (the deaf and/or dumb older people is that they are not able to hear the question or speak out their name when researcher starts asking about their name before interviewing the contents of Mini-Cog tool)

Exclusion criteria:

- Older people who have cognitive impairment with total score <4 points from Mini-Cog tool;
- Older people who are not able to communicate due to deaf and/or dumb

4.4. Methodology

The data collection methods in this study include:

- *Desk analysis:* reviewing existing policies related to health care and social protection program for older people and doing policy content analysis; conducting documentary analysis to understand policy implementation process and conducting secondary data analysis which use data set of Vietnam Living Standard Survey in 2016 to analyze average OOP for health care of older people in 2016 in three studied provinces for comparison.
- Conducting *household survey* to understand expenses that the family have to pay for care for older people and identify financial burden and their coping strategies
- Conducting *focused group discussion and in-depth interview* with policy makers, health managers, health care providers, related associations to understand policy gaps, difficulties and challenges in implementation as well as to explore solutions to address those gaps; focus discussion with older people and household member to understand factors related to decision making in seeking health care services for older people, financial barrier in health care for older people and financial coping strategies.

4.4.1. Household survey to interview older people

4.4.1.1. Sample size

Sample size of household survey to interview older people is calculated according to this formula:

$$n = \frac{Z^2_{1-\alpha/2}.p.(1-p)}{d^2}$$

In which:

- n is number of older people for interview
- $Z_{1-\alpha/2}$ = 1.96 with level of 95% confident interval
- p=37.4%, is proportion of older people who reported having illness during 4 weeks prior to the interview (this proportion showed from Vietnam National Ageing Survey in 2011 [4])
- d = 3.5%, is standard error

The total number of older people that need to be selected for interview according to this formula is 734 persons. Because the survey design is a multi-stage cluster survey, therefore, the sample size of this study needs to be adjusted with design effect of 2. It means that the sample size of this survey after adjustment is 1,468 older persons. The non-response rate among older people in another study was shown to be 4.4% [8]. Totally, sample size of this study is 1,536 older persons. In each province, 512 older people was interviewed. 128 older people was interviewed in each commune.

4.4.1.2. Sample collection

Selection of provinces: Three provinces in the three regions was purposively selected, one mountainous province, one lowland province in the Red River Delta and one lowland province in Mekong River Delta. The reason for selecting three provinces in three different geographical areas is because the population in these areas normally have different health seeking behaviour and health service provision patterns.

Selection of districts: Two districts were selected in each province. One urban district and one rural district (randomly selection).

Selection of commune: Four communes in two districts were randomly selected. In total 12 communes were selected in three provinces.

Selection of older people: Older people who participate in this OOP survey was identified as follows:

- Step 1: the researchers obtained a list of people who are 60 years of age and older. This follows the cut-off point indicated in the national Older people Law No. 39/2009/QH12 [9], in which older people are defined as those 60 years and

older. The list was obtained from the Commune Older people Association. All people 60 years and older living in the community at the time of the survey were be included in this list.

- Step 2: From the list generated in Step 1, the research team was selected randomly 128 older people in each commune (totally 1,536 older people was interviewed).
- Step 3: The researcher visited households having identified older people to conduct interview. Objective of this interview are:
  - To assess older people's cognitive function by using Mini-Cog tool. The researcher obtained "Informed consent form 1" from each older people before interviewing Mini-Cog tool.
  - To screen older people who are deaf and/or dumb. Criteria for identifying the deaf and/or dumb older people is that they are not able to hear the question or speak out their name when researcher starts asking about their name before interviewing the contents of Mini-Cog tool. These older people will be excluded from the Mini-Cog interview and out of pocket payment survey.
- Step 4: All older people who have total score >=4 points from Mini-Cog interview was assessed as having good cognitive function and was invited to participate in the out of pocket payment survey. For older people who have cognitive impairment (total score <4 points), the researchers excluded them from inviting to participate in the OOP survey.
- Step 5: The research team interviewed the older people who meet the inclusion criteria of the out of pocket payment survey (who was not deaf and/or dumb and having cognitive function >=4 points) by using structured questionnaire to assess OOP situation for health care and their coping strategies. The researcher obtained "Informed consent form 2" from each older people before interviewing OOP questionnaire.
- Step 6: For older people who was not met the selection criteria and who refused to participate in the OOP survey (the non-response rate among older people in another study was shown to be 4.4%), they would be replaced by other older people which will be randomly selected from the list in the Step 1. These older people would be followed all steps from Step 2 to Step 5. The research team would stop the selection until we have enough 128 older people in each commune for OOP survey.

4.4.1.3. Respondents

Because target group of the study is older people who have good cognitive funstion and who are able to communicate, therefore, respondents will be older people themselves.

4.4.1.4. Data collections

Interviews were conducted by researchers from Health Strategy and Policy Institute based on structured questionnaire with selected 1,536 older people in three provinces. The interview was collect following information:

- Household basic information: number of members in the household, household economic status, household expenditure in one year, health insurance status of family members;
- Basic information of older people: age, sex, marital status, occupation, education, monthly income, number of children, living with children or not, health insurance status;
- Health care needs and health service utilization of older people: self-assessment of health status, illnesses/episodes suffered during four weeks prior to the interview; utilization of out-patient services for each episode during the four weeks prior to the interview; utilization of inpatient services during the last 12 months; types of long term care support for older people.
- Information on payment for health care and long term care support of older people: total health expenditure for outpatient services per each episode during four weeks prior to the interview; what categories older people have to pay for (payment for direct medical expenses such as buying medicines, lab test, consumables; payment for direct non-medical expenses such as transportation, foods, etc…); total expenditure for buying medicines for self-treatment and using outpatient services during the last 12 months; total health expenditures for inpatient services during the last 12 months, using health insurance card and what categories older people have to pay for (payment for direct medical expenses such as buying medicines, lab test, consumables; payment for direct non-medical expenses such as transportation, foods, etc…); total health expenditure that older people spent for treatment of hypertension during the last 12 months; total health expenditure that older people spent for treatment of diabetes during the last 12 months; financial coping strategies of the household for both outpatient and inpatient services; total expenditure pay for long term care support of older people in a month/in one year and financial sources.

The survey instruments have been developed by the group of researchers of Health Strategy and Policy Institute (HSPI). Development of the questionnaire for household survey includes following steps: (i) the research team review all existing questionnaires on health status, health seeking behaviour and household expenditure on health care that have been developed in other studies; (ii) research team discuss on the questions that are appropriate with the study objectives of our new proposal; (iii) based on objectives and indicators of the new proposal, the research team develop questionnaire; (iv) group work to finalize questionnaire; (v) testing the questionnaire by HSPI researchers; (vi) finalizing the questionnaire after testing.

For data collections:

- Household survey was conducted by researchers of the Institute and population collaborators in the commune. All of them were trained carefully before going to the field. In the training workshop, role play was also applied in the combination with conducting actual interviews at the households.
- Interviewers visited all older people who was sent out the letter of invitation according to the seleted list of older people. It is regardless whether participants were expected to respond to opt in or not.
- If the older person/household member/caregiver is not available then the interviewer will come back household in another time.
- In the case if the older people do not collaborate and refuse to participate in the interview, then the interviewers will note it as non-response cases and visit another older people from the list. These non-response cases will be replaced by other older people who will be selected randomly from the remaining of the identified list of older people.

4.4.1.5. Variables for quantitative survey

Dependent variables:

- Health status of older people
- Illness during 4 weeks prior to the interview
- Utilization of out-patient services during the four weeks prior to the interview
- Utilization of inpatient services during the last 12 months
- Older people who have to pay OOP for health care
- Average out of pocket payment for outpatient services/inpatient services at the health facilities by types of health facilities during one year: commune health station, distric hospital, provincial hospital, central hospital, traditional

medicine hospital, private clinic, private hospitals and components of OOP expenditure (direct medical costs and direct non-medical costs)

- Average out of pocket payment for self-treatment during one year: at private pharmacies, private practitioners, healers.
- Average health expenditure older people spend for treatment of hypertension/diabetes during the last 12 months
- Average expenditure pay for using long term care support services for older people
- Financial difficulties when using health care services
- Coping strategies to deal with financial difficulties when using health care services
- Proportion of OOP for health care per total household expenditure
- Catastrophic health expenditure of the household
- Impoverishment of the household due to health care

Independent variables

- Family size
- Household economic status
- Age group of older people
- Sex of older people
- Marital status
- Average monthly income
- Health insurance status
- Having caregiver/living with children
- Urban/rural
- Types of health facilities

4.4.2. Qualitative study

In-depth interviews with policy makers and managers who are the director/deputy director of related departments of Ministry of Health (Health Planning and Finance Dept., Health Insurance Dept., Medical Service Dept., Administrative of Preventive Medicines, General Department of Population and Family Planning); director/deputy director of Vietnam Social Security and related Departments of Ministry of Labour, Invalid and Social Affairs (MOLISA); in-depth interviews with

director/deputy director of Department of Health, Provincial Social Security; Department of Labour, Invalid and Social Affairs; chairman of National Committee for Older People and the Central Older People Association. The purpose of in-depth interviews is to obtain information on: gaps of financial protection policies for health care for the older people, difficulties and challenges as well as to explore solutions to address those gaps from policy maker's perspectives. Totally, there was 20 persons participated in the in-depth interview.

Focus group discussions with:

- Group of policy makers who are head of related departments of Ministry of Health as well as group of health managers and health care providers in the province to understand difficulties in implementing related health care policies and social protection program, system's related challenges and supply-side bottlenecks or issues that may lead to older persons still paying OOP and how to capture this.
- Group of members of Commune Older People Association, chair of Commune People Committee, head of Commune Health Station, representatives from Women Association, Veteran Association, Farmer Association to collect information on policy implementation process, challenges and gaps in implementing existing financial protection policies and recommendations to capture those gaps.
- Group of the older people in each commune to understand which factors related to decision making in seeking health care services for older people, barriers including financial barrier in health care for older people and financial coping strategies as well as the older people's expectations.
    - Inclusion criteria: older people aged 60-85 years old who are good at communication, willing to participate in the group discussion, including both healthy older people and those suffer from chronic diseases such as hypertension and diabetes, both males and females.
    - Exclusion criteria: older people involve in the focus group discussion will not be those who involve in the household survey.
    - These older people will be selected by the head of Commune Older people Association based on the above inclusion crieria
- Group of family caregivers providing daily care for older people who are in bed and need support for activity of daily living to explore difficulties in caring for older people and financial burden due to health care and long term care support services for older people and their coping strategies as well as their expectations and recommendations.

In total, there was 28 focus group discussions in 3 provinces participated in this study.

Table 1. Summary of sample size and selection of participants participated in the qualitative study

No	Target group and Selection of participants	Number of IDI	Number of FGD
1	***In-depth interviews with policy makers and managers***	***20***	
1.1	Ministry of Health: director/deputy director of Health Planning and Finance Dept.; Health Insurance Dept.; Medical Service Dept.; General Department of Population and Family Planning	4	
1.2	Vietnam Social Security: Deputy director of VSS and head of Policy Division	2	
1.3	Ministry of Labour, Invalid and Social Affairs (MOLISA): Deputy director of MOLISA and head of Administrative of Social Protection	2	
1.4	Provincial Department of Health: director/vice director (1 person in each province)	3	
1.5	Provincial Social Security (1 person in each province)	3	
1.6	Provincial Department of Labour, Invalid and Social Affairs (1 person in each province)	3	
1.7	National Committee for Older People: director/vice director and assistant staff (2 persons)	2	
1.8	Central Older People Association: Chairman or vice Chairman	1	
2	***Focus group discussions***	***28***	
	- Group of policy makers who are head of related departments of Ministry of Health (Health Planning and Finance Dept.; Health Insurance Dept.; Medical Service Dept.; General Department of Population and Family Planning) and MOLISA's related departments	1	

No	Target group and Selection of participants	Number of IDI	Number of FGD
	- Group of health managers and health care providers in the province: director/vice director of provincial hospitals, director/vice director of district hospitals, representatives of health care providers at provincial hospitals and district hospitals (1 group in each province)	3	
	- Group of members of Commune Older People Association, head of Commune Health Station, representatives from Women Association, Veteran Association, Farmer Association (1 group in each district x 2 districts x 3 provinces)	6	
	- Group of the older people in the community (1 group in each commune x 4 communes/1 province x 3 provinces)	12	
	- Group of family caregivers (1 group in each district x 2 districts x 3 provinces)	6	

Regarding the development of qualitative instruments: guidelines for group discussion and in-depth interview have been developed by a group of senior researchers who are experienced in conducting qualitative study. Moderators of the in-depth interviews and focus group discussion were a senior researchers of Health Strategy and Policy Institute who have experiences in conducting qualitative research.

4.4.3. Data management

This activity includes the process of data cleaning and data entry before the analysis. Following is the procedure of data management:

- ✓ Two independent data entry team conducted double data entry using the same data entry form. These two teams worked independently;
- ✓ When the double data entry was completed, two teams submited the two datasets and questionnaires to the data manager (who does not belong to either of two data entry teams) to compare datasets. If any discrepancy was found out, data manager would look at the recorded questionnaires;
- ✓ The data manager conducted data cleaning to check and fix data errors, including missing information, out of range values, outliers, inconsistent information.

4.4.4. Data analysis

Quantitative study

The questionnaires were computerized using the Epi-Info software for the data entry, and then transferred into STATA programme for analyzing.

Data from older people survey provided information to respond the specific objective 2 which pointed out the results related to expenses that the family have to pay for health care as well as for long term care support for older people; describe financial burden and family coping strategies.

The statistical analysis was made with the aim to estimate proportions to summaries data as well as estimation of p-value to assess the influence of random variation in comparison between groups in terms of health care expenditure, e.g., men and women. Descriptive analyses were used for all variables. The categorical variables were summarized using percentages, for example health care expenditures figures by age group, sex, health insurance status, types of health facilities, utilization of outpatient or inpatient services. The continuous variables were grouped into presented using mean, standard deviation or median, depending on the normality of the variables. Depending on the level of analyzed contents, the data would be calculated and shown by the proper tables or charts. Bivariate tests were used to explore the relationship among variables, such as Chi-square test, t-test, Mann-Whitney test. Multiple linear regression analyses will be done to control for potential confounding factors if needed.

The way to measure health care financial burden was to compare the OOP payments with total household expenditure to classify a household as having catastrophic health expenditure or not. Another way to assess the financial burden was to see how the household manage the health care expenditures, whether they have ability to cope with illness costs or falling into impoverishment.

Qualitative study

Information from qualitative study was responded to the specific objective one which provided evidence on gaps in policy development and implementation of financial protection policies on health care and social protection program for the older people. Information from qualitative study also helped to show clearer financial difficulties and coping strategies of the households in health care for older people.

Qualitative data collected from in-depth interviews and focus group discussions were analysed based on grounded theory approach. The data was transcribed and applied open coding method to analyze and synthesized based on specific research themes. NVivo was used to analyze qualitative data. A full analysis plan was reviewed and agreed before the data are analyzed.

4.5. Quality assurance

In order to ensure the quality of the field data collection, following activities were implemented:

- Research instruments were designed carefully, easy to understand and answer. The research instruments are tested in the field before carrying out actual survey. In order to reduce recall bias problem of household in providing information on household's expenditure, the questionnaire was developed very concrete and separately by expenditure categories to help household head was able to remember the amount of money that the household spent during one year for each item including expenditure for schooling, for foods, expenditure for other non-food expenditures and for health care of every member in the household.
- Interviewers were researchers of HSPI who have experiences in conducting household survey. Totally, 10 interviewers were trained carefully before going to the field.
- Questionnaire check: Four supervisors who were senior researchers of HSPI checked 100% of questionnaires completely by all interviewers. The interviewers gave all the questionnaires to the quality control researchers for checking data at the end of the day. The supervisors checked the questionnaires for the missing information, inconsistent or illogical information, and unreliable information and ask interviewers to correct or come back to the household to fill the information.
- Daily quality control feedback: The supervisors summarized all quality issues and gave feedbacks to the data collection team within the day.

4.6. Ethical

This research proposal had been reviewed by the Scientific Committee of Health Strategy and Policy Institute to assess the following aspects: (i) quality of research; (ii) applicability of research findings into policy development; (iii) ethical issues. The proposal was also be reviewed by WHO's Research Ethics Review Committee.

V. RESULTS

5.1. An overview of policy documents and their effectiveness in reducing out of pocket payment for older people on medical visits

5.1.1. Reviewing and analysing social security policies and policies on health care for older people

Older people make up a significant proportion of Viet Nam's population structure and are surging in the coming years. According to the 2019 Census, the number of people aged 60 and over is 11.409 million, accounting for about 12% of the population, and by 2038, the figures are forecasted to account for approximately 20% of the total population of the country. Being a low-middle income country, but Viet Nam has rapidly entered a period of population ageing. Currently, Viet Nam is in the ending phase of the golden population structure period, starting to enter an ageing phase and is among the 10 fastest ageing countries in the world. Ageing population in Viet Nam poses many challenges involving social security issues, some of which are financial protection policies in health care as well as long-term care policies for older people.

In every country, policy on older people is one of the most important social security policies that the State plays the role of regulating resources to best support older people in performing their social functions. The current highest document in the law system regarding older people is the Law on Older People No. 39/2009/QH12, which was promulgated on 23/11/2009 and officially came into force on 01/7/2010, has shown the legality in protecting the rights of older people as well as the whole society and political system's obligations to take care of them. According to this, the policy on older persons has been concretized in many relevant legal documents to create a fairly comprehensive policy framework for older persons in Vietnam.

The guidelines and policies of the Party and the State on older people are always adjusted and applied flexibly for each specific stage. Recently, Resolution 21/NQ-TW on October 25, 2017 issued by Central Executive Committee on Population Work in the new stage, affirmed the view to continually shift the focus of population policy from family planning to population and development, in particular, improving people's health quality by bringing the average life expectancy to 75; in which healthy living time reaches a minimum of 68 years, 100% of older people have social health insurance cards, are managed, examined and treated, cared for at home, community, central care facility; is an important goal.

These legal documents have been institutionalised and demonstrated rather comprehensive policies for older people. However, within the framework of this study, we only focused on reviewing and analysing two major policies related to healthcare for older persons which are: i) Social Security policy for older people and ii) Financial support policy for older people's health care. Our aims are to find gaps and drawbacks

in policy making and implementation to provide more effective policy adjusting solutions.

5.1.1.1. Social security policies:

The main objectives of social security policies and programs are to reduce economic and health risks, ensure living standards and fight poverty for older people. There are three main pillars for older people: social insurance, social assistance and healthcare for older persons, to be specified as below:

Social Insurance

Since the 1960s, the government has built a social insurance system for workers, especially pension insurance, to ensure their lives in old age and working age. After more than 40 years, the pension system has changed significantly to suit the economic and social transformation, especially the transition from the subsidy mechanism of the government to the contribution mechanism of workers. There have been many legal documents promulgated for social insurance schemes in which the highest legal value is Law No. 58/2014/QH13 on Social Insurance which was passed by the National Assembly on November 20, 2014. The law and the documents under the law provide quite detailed retirement issues for workers who have reached retirement age and are expressed in 3 types of retirement: 1- Retirement regime for compulsory social insurance; 2- Retirement regime for voluntary social insurance and 3- Supplementary retirement scheme prescribed by the Government, this insurance is voluntary with the aim of supplementing compulsory social insurance.... All of these policies aim at encouraging the participation of workers in the social insurance system and ensuring the lives of beneficiaries, including older people. Among social insurance schemes, pension is a long-term social security scheme, having the greatest impact on the social insurance system financially. Most recently, the Government issued Decree No. 135/2020/ND-CP, setting the retirement age for men and women and taking effects from January 1, 2021. Accordingly, the retirement age for men and women will increase by 3 months and 4 months each year respectively until reaching 62 for males and 60 for females, starting from January 1, 2021. The extension will likely meet sustainable finance and fairness standards in ageing phase to some extent.

Social protection policy

Regulations on patron subjects, schemes for each type of patrons, funding sources and responsibilities of relevant authorities in managing, allocating budgets, and direct implementing of the patronage policy; are stipulated in Decree 67/2007/ND-CP of the Government on April 13, 2007 on assisting policies for persons entitled to social patronage (SP). Decree No. 06/2011/ND-CP on January 14, 2011 of the Government, specifying in details and guiding the enforcement of some provisions of the Law on Older People, has clearly stipulated that older persons entitled to monthly social relief

allowances managed by communes, wards and townships are lonely persons belonging to poor households or married persons who have their partners but are old, have no children, grandchildren or relatives to rely on, belonging to poor households. It is safe to say that the State's supporting policies are constantly adjusted to suit the reality. Decree No. 136/2013/ND-CP of the Government on October 21, 2013; which provides social assistance policies for subjects entitled to social patronage; have adjusted the standard social allowance or support rate VND 270,000. This document has introduced multiple new points to increase benefits for older persons, especially it has lowered the age of entitlement to social allowance for older people without pensions, social insurance allowance or monthly allowance from 85 years to 80 years old. In addition, the Ministry of Labor, Invalids and Social Affairs (MOLISA) also issued Circular No. 17/2011/TT-BLDTBXH on May 19, 2011, providing dossiers and procedures for monthly social assistance, supporting funeral costs and receiving NCT into SP establishments.

According to the report of Vietnam Committee for Elderly, by the end of 2017, the country has 10,259,500 older persons, accounting for about 10.1% of the population. Among them, the number of older persons receiving pensions and social insurance allowance is 2,035,654; the number of older persons entitled to monthly social allowance is more than 1.6 million and about 1.4 million are entitled to benefits of people with meritorious services. The rate of older persons falling into poverty is about 25% . Thus, the remaining older persons are mainly those who do not have income and live dependent on their children and grandchildren. Therefore, the role of the monthly allowance system and social patronage for older persons is very important in ensuring living and income for older persons.

The policy and legal documents always emphasize the essential role of families in the care and support of older persons. Meanwhile, older persons of vulnerable population group should be assured of needs such as food, clothing, shelter and transport ..., so the State must always play an important role in taking care of lonely older persons, persons without receding and those who are too old but have not pensions or other benefits. It is necessary to clearly define: Social policies has been promulgated to regulate the distribution of rights among groups of people in society to some extent, ensuring social fairness.

5.1.1.2. Health Care Policy

Currently, the requirements on prioritized medical examination and treatment for older persons and medical establishments' responsibilities at all levels in health care for older persons are stipulated in section 2 of the 2009 Law on Older People. Assisting aged care and financial support for aged care have been institutionalised in guiding Circular of the Ministry of Health, Ministry of Finance and MOLISA… Specifically, Ministry of Health has issued Circular No. 35/2011/TT-BYT on October 15, 2011,

guiding the implementation of health care for older persons; Ministry of Finance has issued Circular No. 21/2011/TT-BTC on February 18, 2011, stipulating the management and use of primary health care funding for older persons at their residences, longevity congratulations and celebrations, praises and rewards for older persons; while many guiding circulars have been adjusted and updated in accordance to latest conditions. For example, Ministry of Finance has issued Circular No. 96/2018/TT-BTC on October 18, 2018 replacing Circular No. 21/2011/TT-BTC with more detailed and suitable contents.Financial regulations in primary health care play a very important role in ensuring the rights and benefits of older persons. However, according to Clause 1, Article 2 of Circular No. 96/2018/TT-BTC on funding sources stipulated: "The local budget ensuring funding for the implementation of primary health care for older people at the residence;..." may cause difficulties in implementing policies for poor and economically unstable communities, especially when life expectancy keeps increasing and the percentage of older persons gradually makes up a high proportion in society. As a result, in order to make these financial support policies for local older people possible, the State needs special supportive policies for localities who are struggling financially.

One of the best financial support policies for aged care that should be mentioned is Health Insurance policy. The highest legal document for this policy is the Health Insurance Law No. 25/2008/QH12, 14/11/2008 which is now known as amended Health Insurance Law No. 46/2014/QH13, 13/06/2014 and related Decrees and Circulars mentioned important policies to support and protect the older people from financial risks when going to medical facilities. Accordingly, every Vietnamese has the right to participate in health insurance (HI) and equally get HI benefits when taking medical examination and treatment regardless of their financial capability. Regarding people aged 80 years or older; people of poor households; of ethnic minorities; living in difficult areas; people with meritorious services to the revolution; etc... , their health insurance premiums will be fully covered by the state budget. Some other groups of older people, such as people of near poverty households, the state supports 70% of health insurance premiums; for workers with average living expenses, the state supports 30% of health insurance premiums. To expand HI coverage for aged people, a number of provinces/ cities used local budget to aid older people of near poor households in buying HI card and cover HI fees for people aged from 75 to 80. In addition to this, people aged 60 years or older who are working in agencies, organizations and enterprises; and older people who are relatives of officials in the armed forces, are entitled to enjoy dependent of the insured when participating in health insurance as prescribed. Hence, it can be concluded that most older adults have been assisted by the State to buy HI card and they are financially secured when taking medical examination and treatment.

However, currently, there is still a small percentage of people aged 60-79 who do not have health insurance cards, which means that they are not protected from financial risks for health care or long term care because they are not in the above-mentioned group. Regarding HI benefits, OP have also been given certain priorities relating to primary health care and co-payment… In particular, people aged 80 or over, living in difficult area, are registered to attend medical examination and treatment initially at provincial and district level medical establishments, as well as are exempted from co-paying medical examination and treatment cost.

In order to best support older persons in approaching medical establishments and getting the best healthcare service, the Prime Minister has signed Decision No. 1579/QD-TTg to approve the aged care program by 2030. Accordingly, the program is divided into two stages (from 2021 to 2025 and from 2026 to 2030) with the aim of caring for and improving the health of older people (people aged 60 years and older), ensuring the adaptation to the population ageing by setting targets and solutions as follows:

- 100% in the percentage of party committees and authorities at all levels to issue resolutions, plans and budget investments for aged care by 2025, maintained by 2030;
- The percentage of older people or relatives directly caring for them know information about population ageing, the right to aged care will reach 70% in 2025, 85% in 2030.
- The percentage of aged people who receive regular health check-up at least once a year will reach 70%, older people who are set up medical records will reach 95% in 2025, 100% in 2030; older people who are detected, treated and managed non-communicable diseases will reach 70% in 2025, 90% in 2030. 100% of older people who cannot afford self-care, will receive health care by their families and communities by 2025 and remain unchanged until 2030.
- The rate of intergenerational self-help clubs and other kinds of clubs for older people providing healthcare services is expected to increase to 80% by 2025; 100% by 2030.

To achieve the above solutions, the program also presents specific targets for party committees and authorities on aged care; promote advocacy for changing behaviours to create a social environment to support and participate in taking care of older people. At the same time, the healthcare system's responsiveness will be improved by strengthening and developing the system of providing primary health care services, medical examination and treatment; preventing non-communicable diseases for older people; and step by step building a long-term care model for older adults. Professional training for aged care workers should be provided at the following level:

National Geriatric Hospital, all hospitals excluding paediatric ones, district-level medical centers, commune-level health stations; health care facilities; population officers and volunteers at the facility. include geriatric content in the training program for undergraduate and postgraduate students in medical schools across the country. In addition, the program also aims at building and develop models: Day Care Center; communes, wards and townships for older people; Nursing centers in the appropriate form, towards socializing aged care task; application of information technology to aged care services (social networks, internet,...).

In addition, in order to specifically implement health care activities for older persons, on March 30, 2016, the Ministry of Health issued Dispatch No. 1727/BYT-KCB and 1728/BYT-KCB on the implementation of health care and regular health check-up of older persons, guided on the process of regular medical examinations for older persons based on Circular 14/2013/TT-BYT; developed and guided local implementation of the "Elderly Health Care and Counseling" model to help older people increase access to appropriate physical and mental health services, prevent the risk of non-communicable diseases, know how to take care of themselves properly; and maintained a network of volunteers to provide community-based support to older persons.

Thus, it can be seen that the legal document system on older people in Vietnam, which ensures the social securities and aged care in recent years, is relatively complete, contributing to solve difficulties of older people in terms of finance and accessing healthcare and social services… However, there are still shortcomings and challenges in the implementation of these legal documents as some regulations are not practical and need to be adjusted.

5.1.2. Some shortcomings in the supporting policies for older people

5.1.2.1. Social Security Policy

Although social security policies for older people have been enacted and concreted in many legal documents, the implementation is still faced with difficulties and inadequacy, leading to limited efficiency. The current social security system focuses only on policies on social insurance (specifically retirement and death), health insurance and social patronage.

There are differences among older people groups in the pension system: There are gender and economic sector discrimination among people participating in the pension system, and this will lead to inequality in terms of benefits and contributions between men and women, and between public and non-public sector employees. Research by the World Bank (2007) shows that both men and women working in the public sector have a significantly higher average earning rate than those working in the non-state sector even though they have the same participation time and the same level

of contribution to the system. Specifically, this study shows that female and male workers in the non-state sector should only contribute to the system for 22 and 28 years, respectively to receive the highest earning rate because after that their increased rates for each following contributing year decrease. This is why there are extremely large disparities between retirees in different industries and regions.

5.1.2.2. Social Protection Policy

Firstly: *The value of social assistance transfer for older people is too low to guarantee their minimum living standards.* Social allowance rates for older people are specified in Decree No. 136/2013/ND-CP with the lowest allowance at VND 270,000 per month. This minimum rate is only equal to 45% of the general poverty line (food) and about 22% of the non-food poverty line. According to expert calculations, the current social assistance rate for older people only equals to 21% of the average living standards and, respectively, 34% of the minimum living standards in terms of food. To overcome this issue, some provinces and cities have to use local budgets to increase the monthly subsidies for older people. However, this has led to inequality in old age allowance among provinces and cities as well as between urban and rural areas.

Secondly: *Inconsistent age group for social assistence entitlement.* One shortcoming of the current policy is that according to the regulations, only people aged 80 and over can receive social assistance, while the average age of older people is 73.2 years and 64% of them live in rural areas where life is still difficult and income is low. According to MOLISA's statistics, there are over 9 million older adults in our country, but just above 1.5 million of them are entitled to the monthly social protection policy (accounting for 17% of all older people); and about 5% of all adults aged over 80 years old have not received the social assistance as prescribed. Especially, most older people living in remote areas, ethnic minority areas, have passed away without getting any benefits from the State's social protection policy for older people.

Thirdly: *Financial security for older people is still very limited.* According to the 2011 survey on Vietnamese older people, the sources of income for them are support from children (32%), income through employment (29%), pensions (16%) and monthly allowances from the State (9%); while only 10.4% had accumulated savings from the previous working time . Therefore, financial security is one of the first needs of aged people. The more they age, the more they are likely to pay for medical services. Thus, their need for being financially secured also increases [4].

Fourthly: *Guidelines on law implementing are still lacking synchronization and comprehensiveness, while the dissemination of these documents to relevant departments is limited*. Guidelines documents issued by relevant ministries and agencies are overlapped, resulting in inefficient implementation of the Law.

Fifthly: *Lack of mechanism to inspect and supervise the implementation of the Law and guiding documents in most localities* – resulting in low enforcement efficiency and coping nature.

5.1.2.3. Health care policy for older people

Firstly: The health care policy for the elderly still has many shortcomings. As a rule, the elderly are given periodic medical examination and treatment, are monitored and managed in terms of health, given priority to medical examination and treatment at medical establishments, however, in rural, remote and mountainous areas, many older people have never had periodic health checks.

"For older people living in difficult communes, mountainous areas, islands; just getting medical examination and treatment has been difficult due to long distance commuting, not to mention attending regular health examination, having their health monitor records, leading to an imbalance between organizing medical examination and treatment for older people in urban and remote area".

Secondly: *The responsiveness of the aged care system is limited*

In addition to the need to ensure financial resources and health care, the older people also have the need to use social care services such as support for basic daily activities. This is where there is still a gap in the health care system for older adults in Vietnam. Currently, the social care service system mainly consists of social patronage centers, social houses, and volunteer care in the community; most older persons who need supports that have not been promptly met. An aged care system has initially been established from the central to local levels. By the end of 2018, the whole country had only more than 60 geriatric departments at provincial hospitals and more than 450 geriatric clinics at central hospitals. The hospital system and geriatrics department are always in a state of overload, and older adults often spend a long time waiting to be examined and treated [10]. Facilities, equipments, human resources are extremely lacking in most medical facilities of all levels. Overall, the healthcare system in general and primary healthcare system in particular currently have not met older people's healthcare need.

Thirdly: The HI coverage for older people is quite high (95% by 2020), however, about 5% of older people still do not have health insurance cards, which means that they are not financially protected when going to medical examination and treatment. On the other hand, even older people who own health insurance cards still have to pay rather high OOP payment for medical examination and treatment at medical facilities or choose self-treatment due to the limitations on the scope of benefits paid by health insurance as well as issues related to the responsiveness and capacity of current medical facilities.

Fifthly: Lack of funding to implement aged care policies in most localities. Although funding for aged care is often mentioned in legal documents and localities all have plans for their annual aged care activities, in reality, there is no budget to operate. Hence, they have remained as either being presented only on documents or being implemented but just for the sake of doing it, for example, funding for creating health records monitoring regular medical examination and treatment for older people.

Sixthly: Lack of awareness about aged care policy of some local leaders resulted in benefits for older people not being guaranteed as prescribed.

Seventhly: The lack of inspection and supervision when implementing aged care policy in most localities resulted in various shortcomings and limitations.

5.2. Current situation of out-of-pocket payments for health care and long-term care for the elderly

5.2.1. The profile of study population

Socio-economic characteristics

The study was a cross-sectional survey conducted in 12 communities of Thanh Hoa, Tien Giang, and Yen Bai provinces from November 2019 to August 2020. By the end of the survey period, data had been collected from 1,536 older people individuals. There were no participants who refused to be a part of the study. However, 182 of whom were replaced because of deaf/mute or impaired cognitive function. The new participants were chosen randomly from the un-pre-selected elderly; and matched with age group, sex, and community of unavailable participants.

The age pyramid (Figure 1) illustrates the aging population distribution in the study by comparing the age-sex structure, and between urban and rural areas. Of the 1536 individuals aged $\geq$ 60 years, the proportions of persons in different age groups were 52.5% (60-69 years), 30.5% (70-79 years), and 17% (80+ years), respectively. The mean age of female (70.9 $\pm$ 8.19 years) was slightly higher than the mean age of male (70.3 $\pm$ 7.98 years).

There were no statistical differences in the distribution by age and sex among the three studied provinces. However, the proportion of the older people population living in urban areas was significantly higher in Thanh Hoa (66%) and Yen Bai (70.8%), compared to Tien Giang (39.6%).

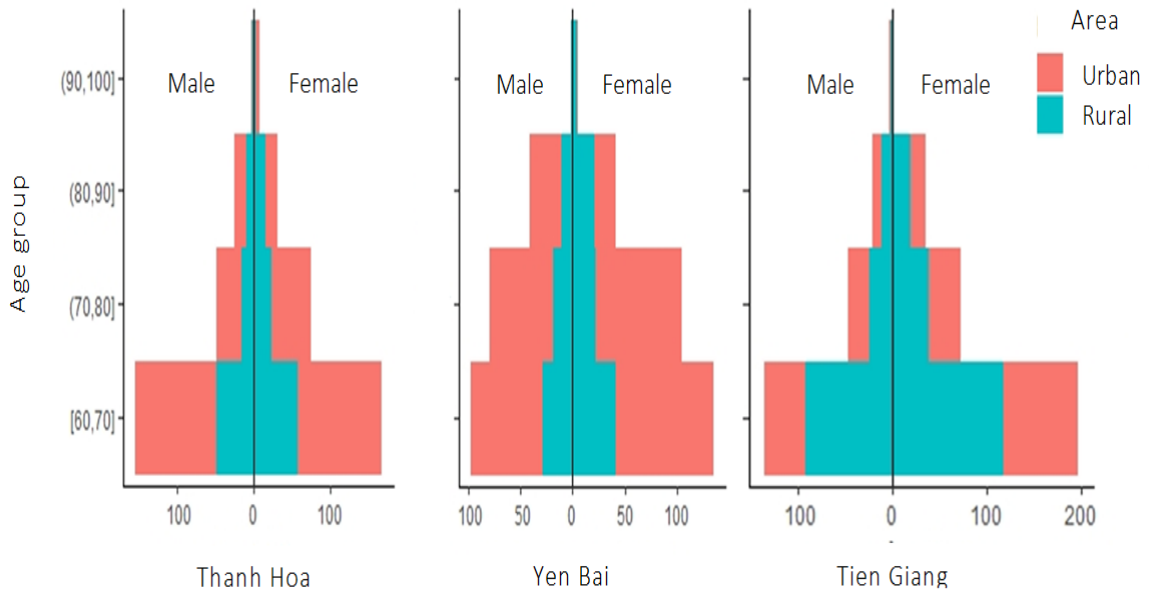

Figure 1. The older population by sex, age, and place of residence

Regarding other socio-demographic characteristics (Table 2), the study mainly included the "Kinh" population (>97%) and those who were currently married (61.6%). The proportions of participants who completed at least high school were significantly higher in Thanh Hoa and Yen Bai than in Tien Giang province (41%, 48.6% vs. 12.7%, respectively). This is possibly due to participants' residence, in which urban area is related to higher chance to access to higher education. More than 90% of participants had national health insurance.

Table 2. Socio-demographic characteristics of the study sample

Characteristics	Total	Thanh Hóa	Tien Giang	Yen Bai	P-value
	n=1536	n=512	n=512	n=512	
Ethnicity: % Kinh	98.6	99.8	98.8	97.1	0.028
Marital status: % currently married	61.7	70.0	52.7	62.6	0.191
Education level: %					
No formal schooling	22.6	14.9	46.4	6.1	< 0.001
Primary school	19.1	15.1	25.4	16.8	
Secondary school	24.3	29.0	15.5	28.4	
High school	11.1	16.1	6.2	11.1	
Higher than high school	22.9	24.9	6.5	37.5	
Having national health insurance: % Yes	96.8	96.2	94.3	100	0.020

Note: The table presents unweighted N's and weighted percentages; Significant levels: p<0.05; p<0.01; p<0.001, based on Rao-Scott chi-squared test

Table 3 and Table 4 provides detailed information on the economic situation of the older people in two aspects: (i) household wealth and (ii) the level of satisfaction of their income for daily living needs.

For the first aspect, household wealth was indicated using a wealth index. Following the procedure used by Filmer and Pritchett [11], we used principal component analysis to construct the asset score for each older people individual according to their household assets ownership, materials used for housing construction, water source, toilet facility, and agricultural land. After construction, the score was adjusted to reflect the relationship between living standards and properties in urban and rural areas [12]. The wealth index was categorized into quintiles (Q1, Q2, Q3, Q4, and Q5). The first quintile group represents 20% of the sample population with the lowest wealth index, and the fifth quintile group represents 20 % of the sample population with the highest wealth index. As shown in Table 4, the proportion of the older people in Q4/Q5 groups was higher in urban areas (36.2%) than rural areas (7.8%), result in the concentration of the older people with a well-off economy in Thanh Hoa (19.5%) and Yen Bai (18.6%) compared to Tien Giang (6%).

Table 3. Household wealth of the older people by residence and stuided province

Household wealth (%, cell proportions)	**Urban**	**Rural**	**Thanh Hóa**	**Tien Giang**	**Yen Bai**
	n=768	n=768	n=512	n=512	n=512
Q1 (Poorest)	4.3	13.1	4.9	8.4	4.2
Q2	7.3	11.7	5.3	9.4	4.2
Q3	10.9	8.7	3.8	9.8	6.0
Q4	17.0	4.6	7.0	4.9	9.8
Q5 (Richest)	19.2	3.2	12.5	1.1	8.8

Note: The table presents unweighted N's and weighted percentages

For the second aspect, ensuring income security for the older people is becoming an increasingly important public policy element. As shown in Table 5, 24% of older persons were still working, and two-thirds were self-employed or unpaid family workers (in the agriculture sector). There were significant differences in the working rate in terms of age and place of residence. The rate reduced dramatically from 36.6% in the 60-69 age group to 13.2% in the 70-79 age group, and 4.2% in the 80+ age group. Rural older persons had higher working rates than their urban counterparts (36.5% vs. 15.1%).

On average, the personal income of the older people was about 3.1 - 3.6 million VND per month. The amounts were only different in Thanh Hoa province, higher in

urban areas (3.56 million VND) than rural areas (2.12 million VND). When evaluating income sources, 49.4% of participants said from retirement or veteran benefits, and 25.5% said from current work. Significantly, 35.7% of the older people income in Tien Giang was from the financial support of household members, much higher than 18% in Thanh Hoa and 7.3% in Yen Bai. Self-assessment of the financial situation showed that 23.4% of participants said their income was insufficient for daily living needs. The dissatisfaction was shown clearly between rural and urban areas in Thanh Hoa province (14.5% vs. 35.5%).

Table 4. Financial situation of the elderly

Characteristics	Total	Thanh Hóa	Tien Giang	Yen Bai	P value
	n=1536	n=512	n=512	n=512	
Employment status: %					0.169
Retired/unemployed	76.1	75.0	66.1	87.2	
Agriculture	15.4	17.1	23.0	6.2	
Others	8.5	7.9	10.9	6.6	0.274
Monthy income: thousand VND	3,291.6	3,094.1	3,154.0	3,628.4	0.191
Urban	3,573.8	3,562.7	3,113.3	3,844.7	0.006
Rural	2883.4	2119.8	3025.5	3102.5	
Sources of income: %					< 0.001
Pensions/veteran benefits	49.4	59.5	15.7	73.2	0.015
Earnings from work	25.5	17.7	44.6	14.0	0.646
Social Security	4.8	4.8	4.0	5.5	< 0.001
Supporting from family members	20.3	18.0	35.7	7.3	0.001
Satisfaction of income for daily living needs: % rarely/never	23.4	21.6	30.0	18.6	< 0.001
Urban	20.5	14.5	33.7	18.7	< 0.001
Rural	27.6	35.5	27.6	18.2	

Note: The table presents unweighted N's and weighted percentages; Significant levels: p<0.05; p<0.01; p<0.001, based on Rao-Scott chi-squared test

Structure of family households

Living with others was the most common arrangement for the elderly. In this study, the classification of persons as a household member is whether they shared accommodation, meals, and a pool of incomes and expenditures over the last 6 months. According to this definition, the average household consisted of 3.3 people (3.1 in urban areas and 3.5 in rural areas). Results from Table 5 shows that only 11.9% of the older

people were living alone, 26.4% living only with their children, and 60.7% living with their spouse (with or without children).

Table 5. Distribution of household living arrangements

Characteristics	Alone	Children only	Spouse only	Children and spouse	P-value
Total (n=1536)	11.9	26.4	31.8	29.9	-----
Provinces					
Thanh Hoa (n=512)	11.7	18.3	36.0	33.9	
Tien Giang (n=512)	7.4	39.8	16.1	36.6	0.001
Yen Bai (n=512)	16.6	20.8	43.6	19.0	

Note: The table presents unweighted N's and weighted percentages; Significant levels: p<0.05; p<0.01; p<0.001, based on Rao-Scott chi-squared test

Similarly for each province (see Figure 2), older men were much more likely to live in a family with their spouse than older women (TH: 88.9% vs. 54.4%; TG: 77.4% vs. 36.5%; YB: 86.9% vs. 44.2%), while older women tended to live only with their children (TH: 27.8% vs. 6.8%; TG: 53.9% vs. 18.5%; YB: 30.1% vs. 8.5%) or alone (TH: 17.8% vs. 4.3%; TG: 9.7% vs. 4%; YB: 25.7% vs. 4.6%). On the other hand, the increasing age of the older people reversed the pattern of family structure. The percentage of the older people who were living with their spouse decreased with age. These relationships can be explained by the marital status, in which advanced age and older females are related to higher chances of widowhood. Despite this, there was no difference by residence in the structure of the family household.

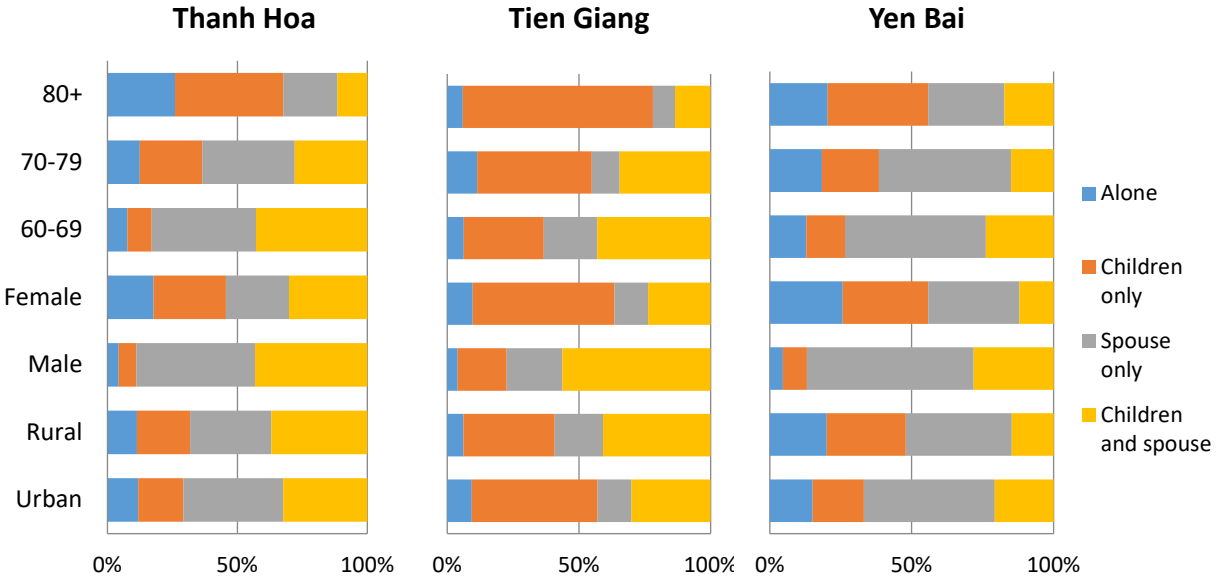

Figure 2. Distribution of household living arrangements by sex, age, and place of residence

Health status

To access the general health, self-reported health (SRH) was measured by a 5-point Likert scale and then grouped into "poor/very poor" and "fair to very good" as used in the World Health Organization survey [13]. Participants were also categorized into three groups (0, 1-2, and >2) according to their self-report of 10 common chronic conditions in Vietnam, including dementia, hypertension, diabetes, arthritis, chronic obstructive pulmonary, asthma, cardiovascular, stroke, cancer, cataract.

Generally, 42% of participants perceived their health as poor or very poor. Nearly 80% of the participants had at least one chronic condition, 42% had comorbidity. Hypertension, arthritis, diabetes, and cardiovascular diseases were the most prevalent chronic conditions among older adults, affecting 44.7%, 34.5%, 11.2%, and 11.0% of the study population (see Table 6).

Table 6. Health status of the study population

Health status	Total	Thanh Hóa	Tien Giang	Yen Bai	P-value
	n=1536	n=512	n=512	n=512	
Self-reported heath					
Fair to very good	58.0	56.3	57.2	60.4	0.277
Poor/very poor	42.0	43.7	42.8	39.6	
No. of diagnosed chronic conditions					
0 condition	20.3	19.8	22.0	18.9	
1 condition	37.4	39.4	31.0	41.9	0.074
Comorbidity	42.3	40.8	47.0	39.3	
Common chronic diseases: %					
Hypertentioin	44.7	36.5	49.7	47.8	0.004
Arthritis	34.5	37.8	29.7	35.9	0.043
Cardiovascular	14.6	11.0	22.8	9.9	0.000
Diabetes	14.3	12.7	15.2	15.0	0.255
Dimentia	3.1	3.9	2.8	2.5	0.097
Cataract	2.5	3.8	2.2	1.6	0.033
COPD	2.2	2.2	2.2	2.3	0.830
Asthma	1.4	1.3	0.8	2.1	0.172
Cancer	1.2	0.8	1.0	1.7	0.408
Stroke	1.1	1.1	1.2	0.9	0.602

Note: The table presents unweighted N's and weighted percentages; Significant levels: p<0.05; p<0.01; p<0.001, based on Rao-Scott chi-squared test

Tables 7, 8, and 9 below present details of the health status of the older people in each studied province by age, sex, and place of residence. The prevalence of worse health changed with age increased. However, there was no significant difference in SRH between urban-rural areas, and males and females.

For SRH, The percentage of adults who reported poor/very poor SRH risen from about 30% in the age group 60-69 to more than 40% of those aged 70-79. By people's late 80, over two in three older adults assessed their health negatively.

The proportion of the older people with at least one disease in three studied provinces was more than 70% and 85% in the age group from 60 to 69 and over 85 years old respectively. Most of the older people suffering from NCD was women. The older people living in urban areas also have a higher rate of chronic disease than in rural areas. Among older people with NCD, older women are more likely to be diagnosed than men (see Firgue 3).

Table 7. Health status of the study population by age

Health status	Thanh Hoa			Tien Giang			Yen Bai		
	60–69	70–79	80+	60–69	70–79	80+	60–69	70–79	80+
Self-reported heath	p=0.019			p=0.005			p=0.008		
Fair to very good	62.9	51.5	40.3	67.7	45.6	33.2	64.5	64.9	44.1
Poor/very poor	37.1	48.5	59.7	32.3	54.4	66.8	35.5	35.1	55.9
No. of chronic conditions	p=0.031			p=0.096			p=0.071		
0 condition	22.0	17.6	15.9	26.2	18.4	11.0	25.0	15.9	13.0
1 condition	41.7	31.6	45.9	32.3	31.0	25.7	38.3	44.3	44.5
Comorbidity	36.3	50.8	38.2	41.5	50.6	63.3	36.7	39.8	42.5

Note: The table presents unweighted N's and weighted percentages; Significant levels: p<0.05; p<0.01; p<0.001, based on Rao-Scott chi-squared test

Table 8. Health status of the study population by residence

Health status	Thanh Hoa		Tien Giang		Yen Bai	
	Urban	Rural	Urban	Rural	Urban	Rural
Self-reported heath	p=0.144		p=0.240		p=0.185	
Fair to very good	59.8	49.7	50.7	61.5	58.7	64.7
Poor/very poor	40.2	50.3	49.3	38.5	41.3	35.3
No. of chronic conditions	p=0.053		p=0.06		p=0.169	
0 condition	17.0	25.3	17.0	25.4	17.2	23.1
1 condition	38.7	40.9	37.7	26.6	43.0	38.9
Comorbidity	44.3	33.8	45.3	48.0	39.8	38.0

Note: The table presents unweighted N's and weighted percentages; Significant levels: p<0.05; p<0.01; p<0.001, based on Rao-Scott chi-squared test

Table 9. Health status of the study population sex

Health status	Thanh Hoa		Tien Giang		Yen Bai	
	Male	Female	Male	Female	Male	Female
Self-reported heath	p=0.967		p=0.228		p=0.99	
Fair to very good	57.1	55.7	64.2	52.6	58.6	61.8
Poor/very poor	42.9	44.3	35.8	47.4	41.4	38.2
No. of chronic conditions	p=0.143		p=0.02		p=0.245	
0 condition	19.1	20.4	28.6	17.8	20.6	17.6
1 condition	45.5	35.5	32.1	30.2	44.2	40.0
Comorbidity	35.4	45.1	39.3	52.0	35.2	42.4

Note: The table presents unweighted N's and weighted percentages; Significant levels: p<0.05; p<0.01; p<0.001, based on Rao-Scott chi-squared test

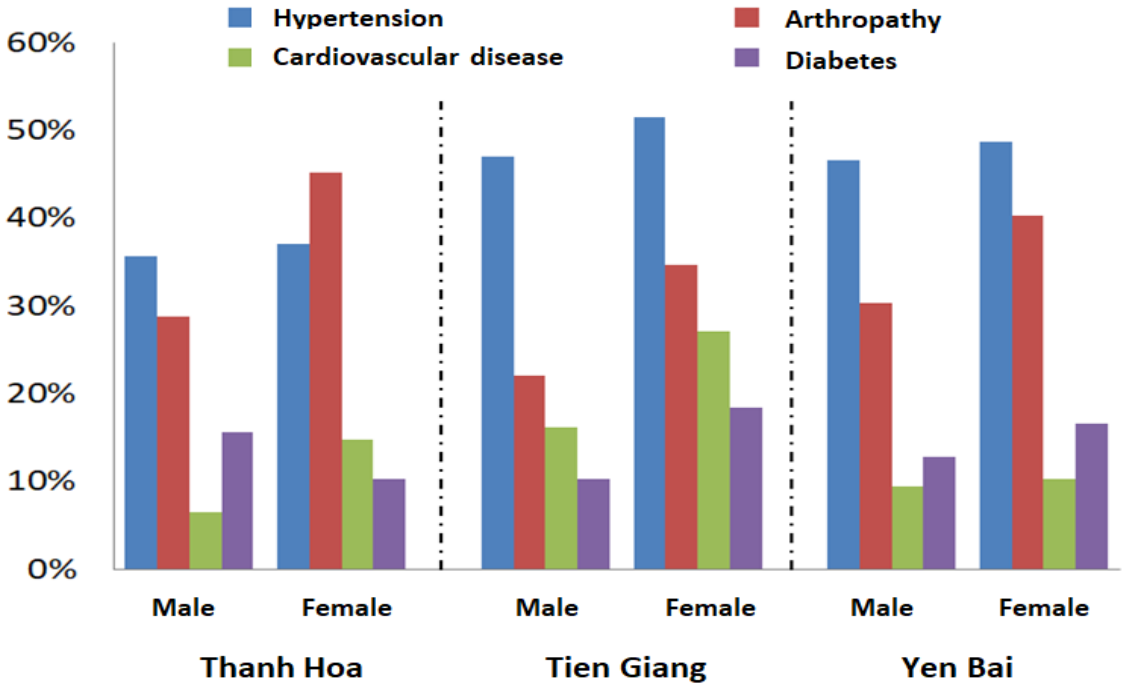

Figure 3. The prevalence of 4 common chronic diseases of the older people by sex

5.2.2. Health care utilization and out of pocket payments for helath care for elderly

Outpatient service utilization in the last 4 weeks

Of the 1536 older people interviewed, 82.4% reported having health problems last 4 weeks, including acute illnesses, injuries, and chronic conditions. The total number of illness times was 2,355 cases. Of these, 12.5% of cases did not do anything and 21% did self-medication. The proportion of cases that used outpatient medical services was 61.6%, and inpatient care was 4.9%. Using medical services varied from province to province. Tien Giang and Yen Bai provinces had significantly higher outpatient visits than Thanh Hoa province (78.2% and 72.1% vs. 34.7%), and Thanh Hoa had the highest rate of self-medication usage (35.4%). There was no difference in the proportion of using medical services by the residence and also household wealth.

Table 10. Health services utilization patterns of the older people last 4 weeks

Characteristics	Doing nothing	Self-medication	Outpatient	Inpatient	P-value
Total (n=2355)	12.5	21.0	61.6	4.9	----
Province					
Thanh Hoa (n=784)	23.5	35.4	34.7	6.4	
Tien Giang (n=812)	3.8	13.6	78.2	4.4	0.000
Yen Bai (n=759)	10.1	14.0	72.1	3.8	
Residence					
Urban (n=1233)	13.3	20.2	61.8	4.7	0.590
Rural (n=1122)	11.3	22.4	61.3	5.0	
Household wealth					
Q1 (n=426)	12.3	27.5	56.6	3.6	
Q2 (n=475)	13.6	19.1	61.0	6.4	
Q3 (n=498)	9.1	13.0	73.0	4.9	0.064
Q4 (n=485)	12.3	24.6	58.9	4.2	
Q5 (n=471)	14.9	21.8	58.1	5.2	

Note: The table presents unweighted N's and weighted percentages; Significant levels: p<0.05; p<0.01; p<0.001, based on Rao-Scott chi-squared test

The pattern of outpatient health care utilization is displayed in Table 11. The proportion of older people using outpatient services was highest at the district and provincial healthcare levels, while this figure was less than 10% at commune health stations (CHS) in all three provinces. Also, the use of private health services was more common in Thanh Hoa (14.5%) and Tien Giang (18.7%) than in Yen Bai (3.3%). The

association between outpatient care and household wealth was only shown in Tien Giang and Yen Bai provinces. The higher the living standard was, the more popular of using outpatient health services at a higher level of care or the private sector.

Table 11. Percentage of the older people using outpatient services in health facilities

Health facility	Household wealth					Total
	Q1	Q2	Q3	Q4	Q5	
Thanh Hoa	n=42	n=43	n=31	n=60	n=98	n=274
Commune health station	1.8	6.2	2.5	0	1.8	2.2
District hospital	42.8	37.9	48.4	34.9	31.9	36.5
Provincial hospital	29.0	31.2	28.6	51.6	54.7	44.6
Center hospital	0	0	0	3.5	3.8	2.3
Private sector	26.4	24.7	20.5	10.0	7.9	14.5
Tien Giang	n=124	n=170	n=231	n=103	n=31	n=659
Commune health station	20.3	9.6	9.8	2.8	0	10.4
District hospital	21.7	22.5	23.3	29.9	45.0	24.6
Provincial hospital	31.3	53.9	42.4	40.7	23.3	42.3
Center hospital	7.7	2.8	2.7	4.7	3.2	4.0
Private sector	19.1	11.2	21.8	21.8	28.4	18.7
Yen Bai	n=77	n=77	n=101	n=129	n=154	n=538
Commune health station	20.2	8.9	1.3	0.5	1.9	4.1
District hospital	54.9	69.3	65.4	49.0	36.4	50.8
Provincial hospital	17.4	19.0	27.6	42.2	58.8	39.7
Center hospital	3.8	1.0	5.2	0.4	1.8	2.1
Private sector	3.8	1.9	0.5	8.0	1.1	3.3

Note: The table presents unweighted N's and weighted percentage

Table 12 shows that the use of HI for outpatient care for the older people was high, 75% in Tien Giang and more than 95% in Thanh Hoa and Yen Bai. The proportion of using HI was more popular in the public health sector than the private sector. These rates were more than 90% at the grassroots and provincial levels, but only 50% at the central level and 39% at the private sector. Higher levels of care usage increased the proportions of outpatient visits still needed to pay out-of-pocket, 13.2% in CHSs, 48% in district hospitals, 60% in provincial hospitals, 86% at central, and highest 90% in private hospitals.

Table 12. The utilization of health insurance and out-of-pocket spending for outpatient services of the older people in four weeks

	Number of outpatient contact	The percentage of visits using health insurance	The percentage of visits that pay OOP
Thanh Hoa	274	95.5	65.0
Tien Giang	659	75.0	62.1
Yen Bai	538	97.1	47.5
Urban	803	89.7	54.8
Rural	668	83.7	60.6
Commune health station	109	95.4	13.2
District hospital	583	97.3	48.0
Provincial hospital	525	93.9	59.9
Center hospital	48	50.1	86.0
Private sector	206	39.0	90.7
Total	**1471**	**87.3**	**57.1**

Note: The table presents unweighted N's and weighted percentage

Out-of-pocket expenses per ill older person who had to spend money for health care (self-medication and used outpatient services) in the last 4 weeks are examined in Table 13. The OOP spending for outpatient services includes all expenses related to each health care visit, i.e co-payment in HI, drugs, paraclinical, indirect cost (for travel, meal, accommodation), and others (such as spending on bonus, tip for doctors). Among those who reported illness in the last four week prior to the interview, 72.2% of older people (841 persons) had to spend OOP money for health care. Of these, the average OOP expenditure per one ill older person (n=841) was 860,000 VND (Min: 9,000 VND, Max: 13,600,000 VND; Median: 385,000 VND). The average OOP spending was lowest in Thanh Hoa with 732,000 VND, and higher in Tien Giang and Yen Bai with 872,000 VND and 1,009,000 VND. However, there was no big difference in the OOP between urban and rural areas within each studied province.

Table 13. Average OOP spending per ill older person who had to spend money for health care in the last 4 weeks (unit: thousand VND)

		No. of ill persons	No. of ill persons who had to spend OOP money for health care	Average OOP spending (min, max, median)
Total		1262	841	860 (9, 13600, 385)
Thanh Hoa	Urban	224	158	765 (20, 8655, 370)
	Rural	205	150	663 (10, 10000, 250)

		No. of ill persons	No. of ill persons who had to spend OOP money for health care	Average OOP spending (min, max, median)
Tien Giang	Urban	217	135	826 (9, 9000, 355)
	Rural	194	138	901 (15, 13600, 260)
Yen Bai	Urban	216	125	1008 (12, 7560, 570)
	Rural	206	135	1011 (20, 12000, 500)

In terms of the pattern of OOP health expenditures (see figure 4), spending on medicine (both for self-medication and outpatient care) accounted for 81% of the total OOP payment for older people. There was a similarity in the expenditure structure between provinces; however, the spending on medicine was highest in Thanh Hoa (94%), while the most shares of spending in Tien Giang were medicine (68%), indirect costs (food, transportation, living for older people and their family - 12%), and lab work (11%); also in Yen Bai were medicine (75%)and indirect costs (9%).

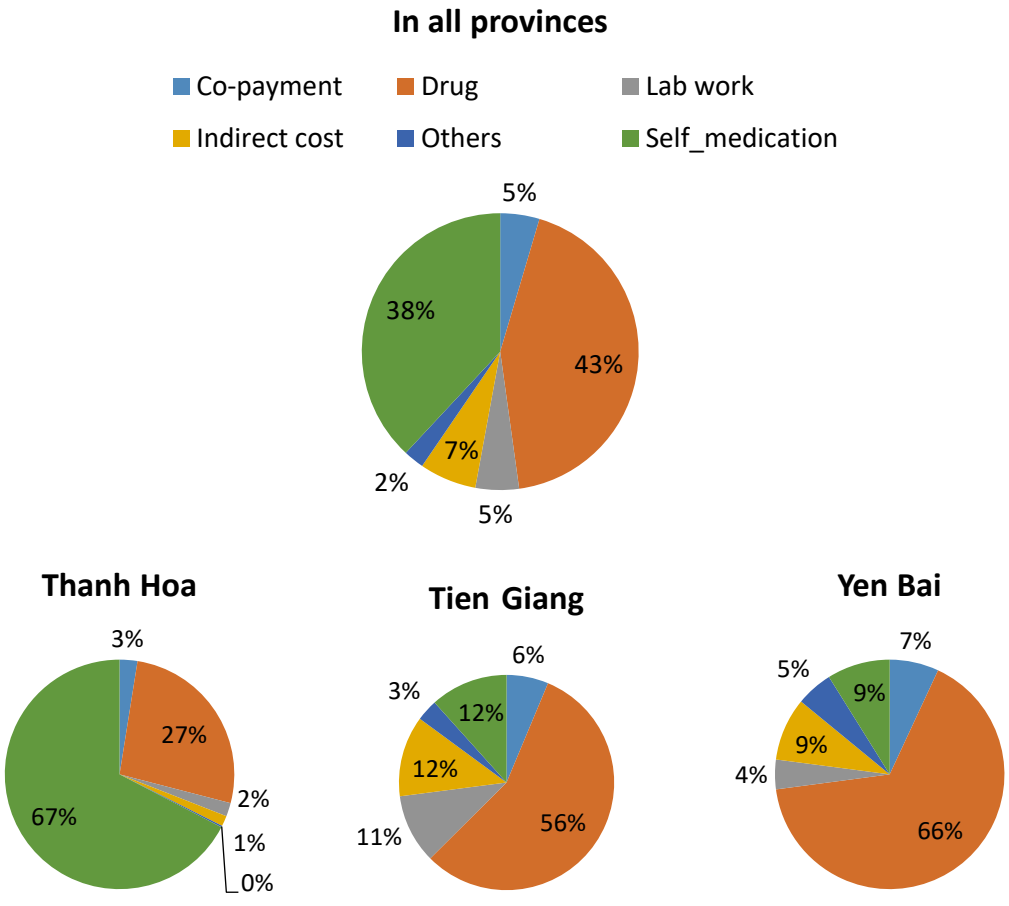

Figure 4. The pattern of OOP spending for self-medication and outpatient care

Inpatient service utilization in the last 12 months

The pattern of inpatient health care utilization is presented in Table 14. Similar to outpatient care, most of the older people used inpatient services provided by the district and provincial hospitals. The proportion of older people using inpatient services at the central hospitals ranged from 13% to 16% in the three provinces. However, using inpatient private care was exclusively in Thanh Hoa province. The difference in inpatient utilization rates among household wealth was not clear.

Table 14. Percentage of the older people using inpatient services in health facilities

Health facility	Household wealth					Total
	Q1	Q2	Q3	Q4	Q5	
Thanh Hoa	n=31	n=33	n=21	n=41	n=70	n=196
District hospital	43.2	39.8	12.5	20.1	10.7	21.5
Provincial hospital	26.2	43.4	70.0	61.0	50.9	50.5
Center hospital	4.7	6.1	3.3	2.8	32.6	16.0
Private sector	25.9	10.7	14.2	16.1	5.8	12.1
Tien Giang	n=13	n=46	n=26	n=18	n=2	n=105
District hospital	9.6	10.7	7.1	6.2	0	8.8
Provincial hospital	75.2	84.7	74.8	49.7	100.0	75.9
Center hospital	15.3	4.6	18.0	44.1	0	15.3
Private sector	0	0	0	0	0	0
Yen Bai	n=33	n=29	n=36	n=33	n=30	n=161
District hospital	42.9	52.5	44.2	42.4	48.5	45.7
Provincial hospital	50.2	42.2	39.7	40.4	25.0	38.9
Center hospital	6.9	3.0	6.9	17.2	26.6	12.9
Private sector	0	2.3	9.3	0	0	2.4

Note: The table presents unweighted N's and weighted percentage

Table 15 shows that although the rate of use of NHI is relatively high (96%), the majority (80%) of cases still had to pay OOP for their treatment. As shown in Table 16, the average OOP for an inpatient treatment of the older people in Thanh Hoa was 5.88 million VND, significantly lower than the OOP cost in Tien Giang of 6.12 million VND and in Yen Bai of 8.36 million VND. In Thanh Hoa, OOP expenses for an inpatient treatment were not different between urban and rural areas. In contrast, OOP costs were significantly higher in urban areas in Tien Giang and Yen Bai provinces (see median of OOP spending).

Table 15. The utilization of health insurance and OOP spending for inpatient services of the older people in 12 months

	Number of inpatient contact	The percentage of inpatient care episodes using social health insurance	The percentage of inpatient care episodes that pay OOP
Thanh Hoa	196	97.5	82.4
Tien Giang	105	94.2	77.7
Yen Bai	161	95.9	76.9
Urban	251	96.0	79.7
Rural	211	97.0	79.5
District hospital	134	99.6	63.1
Provincial hospital	227	97.8	82.1
Center hospital	64	88.8	95.4
Private sector	36	87.4	90.7
Total	**462**	**96.3**	**79.6**

Note: The table presents unweighted N's and weighted percentage

Table 16. Average OOP spending per older person who had to spend money for inpatient services in the last 12 months (unit: thousand VND)

		No. of older person admitted to hospitals	No. of older persons who had to spend OOP money for inpatient services	Average OOP spending (min, max, median)
Total		276	226	6817 (27, 148000, 1800)
Thanh Hoa	Urban	64	53	5870 (50, 105000, 2000)
	Rural	45	39	5925 (27, 52000, 1500)
Tien Giang	Urban	31	25	13197 (250, 110000, 3000)
	Rural	33	25	1922 (40, 15600, 1200)
Yen Bai	Urban	50	38	10812 (55, 148000, 2280)
	Rural	53	46	3462 (200, 22500, 1600)

The Figure 5 shows that the OOP structure of an inpatient treatment was relatively difference among the 3 studied provinces. In Yen Bai, the percentage of OOP spending on medicine was 73%, followed by indirect costs 14% and co-payments of HI 9%. Meanwhile, the highest percentages of OOP spending in Thanh Hoa and Tien Giang were co-payments for HI, 47% and 28% respectively, followed by drug and

indirect costs. Further analysis is needed to explain why such differences across provinces.

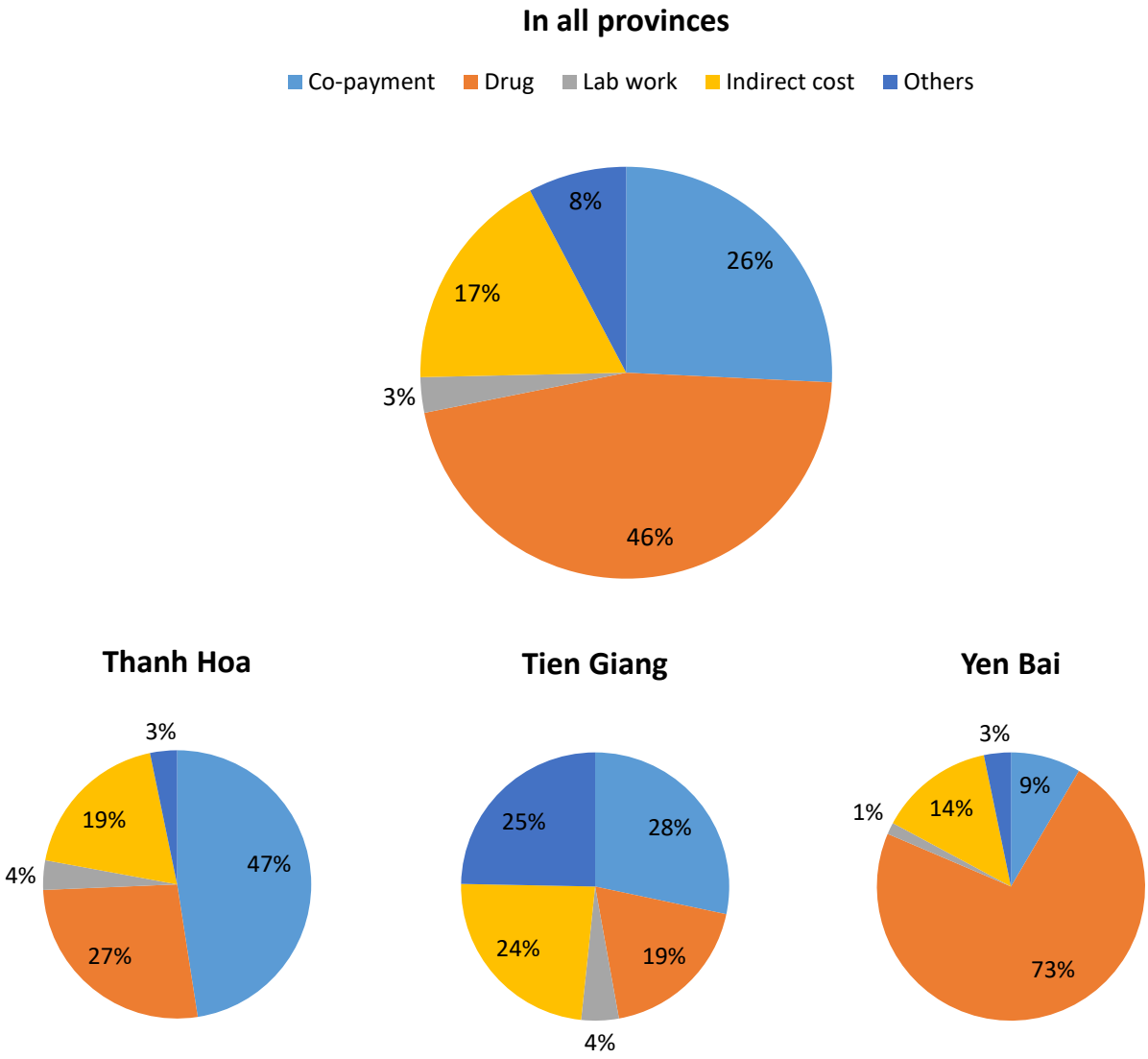

Figure 5. The pattern of OOP spending on inpatient care

Long-term care in the last 12 months

The use of long-term health care services was not popular, focusing only on a small number of the older people who need support at home with injection/infusion, support for travel, meals, and other personal activities. However, the OOP cost of these services was relatively high because there is no existing policy to cover the cost of long-term care in Vietnam now. Health Insurance Law covers the rehabilitation therapy services at health facilities, not at home. As shown in Table 17, only 3.5% of interviewed older people (55 persons) had been using long-term care services in the last 12 months. Among them, 33 persons had to pay OOP payment for services usage, with the average OOP spending per person was around 26 million VND (Min: 480,000 VND, Max: 162,500,000 VND; Median: 7,800,000 VND).

Table 17. Long-term care services used by older people and OOP spending in the last 12 months

Long-term care services	The percentage of older people using service	Average OOP spending (min, max, median)
Rehabilitation therapy at home	1.7% (25)	4,705 (0, 26000, 520)
Home health care workers	1.8% (28)	16,877 (0, 84500, 7500)
Home care for personal activities	0.9% (13)	20,287 (0, 78000, 0)
Nursing home	0	---
Using at least 1 service listed above	3.5% (55)	---
• and had to pay OOP payment	2.2% (33)	25,954 (480, 162500, 7800)

5.2.3. Financial burden associated with heath expenditure among households with the elderly

Table 18 shows the estimates of the OOP health expenditure borne by households with the elderly. On average, each household spent nearly eight million VND on health care in the last 12 months. The OOP health spending of households with more than one older peoplewas significantly higher compared to those with one senior member. Furthermore, the total health expenditure (THE) of households where there are older members having chronic NCD is considerably greater compared to the figure of those without NCD (9.54 million VND versus 1.6 million VND).

The OOP health spending for the older people memebers contributed most of the THE, accounting for 86.3% of the THE. Similarly, the health spending for the older people as share of the THE among the households with older peoplesuffering from NCD was considerably higher than that of the households without NCD elders (88.4% versus 73.2,% respectively).

Table 18. OOP heath expenditure borne by the households with the older people

	The number of older people in the household		Household with older people having NCDs		Total n=1,477
	1 person n=669	+2 people n=808	Yes n=1,191	No n=286	
Total household OOP heath expentiure in 1000 VND (mean, min-max)	6.494 (0 – 64.450)	9.226 (0 – 108.280)	9.520 (0 – 108.280)	1.611 (0 – 40.615)	7.989 (0 – 108.280)
Total household OOP health expenditure for the older people care in 1000 VND(mean, min-max)	5.905 (0 – 60.400)	8.598 (0 – 106.910)	8.816 (0 – 106.910)	1.388 (0 -61.100)	7.378 (0 – 106.910)
The OOP health expenditure for the older people as a share of the household total health expenditure (%)	80,2%	90,9%	88.4%	73,2%	86.3%

Table 19 presents the comparisons between the total household health expenditure and the total household expenditure. The household THE accounted for 6.4% of the total household expenditure while the health spending for older people contributed 5.8% of the sum. Additionally, the household THE made up one third of the total non-food expenditure (32.7%).

The OOP heath spending for the older members with NCD seemed to be responsible for the major share of the total household non-food expenditure. Notably, the OOP health payment for the older people (as a proportion of the total non-food expenditure) among households with the older people having NCD was over triple that of households where no older people suffered from NCD (34.6% versus 10.2%, respectively).

Table 19. The OOP health expenditure for the older people in comparison with the total household expenditure

	The number of older people in the household		Household with older people having NCDs		Total n=1,477
	1 person n=669	+2 people n=808	Yes n=1,191	No n=286	
The total household health expenditure as a	5.2	7.5	7.5	2.0	6.4

share of the total household expenditure (%)					
The total OOP health spending for the older peopleas a share of the total household expenditure (%)	4.5	6.9	6.8	1.8	5.8
The total household health expenditure as a share of the total household non-food expenditure (%)	28.8	36.0	37.7	12.0	32.7
The total OOP health spending for the older peopleas a share of the total household non-food expenditure (%)	25.3	33.6	34.6	10.2	29.9

Table 20 illustrates the indicators reflecting the financial burden associated with the OOP health expenditure, specifically for health payments for older people household from financial distress related to ld members. Of the sampled households, the proportion of households suffering from financial distress related to health spending was 12.2%. Moreover, the presence of senior members with chronic NCD is significantly associated with a higher possibility of households facing the financial distress. The incidence of distress financing among households with older people having NCD is significantly higher than that of the households without NCD (14.7% versus 2.1%, respectively). As shown in Figure 8, the households employed different coping strategies to pay for their health spending for the older people. Over a half of households who experienced financial distress had to borrow money from relatives/friends (31%), got a loan from individuals/agents (25%), and sold properties to pay for their health payments. Above one third of them put their savings into health spending.

Table 20. The financial burden associated with the OOP health spending for the older people among the households

	The number of older peoplepeople in the household		**Households with older people having NCDs**		**Total n=1,477**
	1 person n=669	**+2 people n=808**	**Yes n=1,191**	**No n=286**	
The incidence of financial distress related to OOP health expenditure for the older people borne by the households with eldelry (%) *	12.5 (84)	12.0 (97)	14.7 (175)	2.1 (6)	12.2 (181)

	The number of older peoplepeople in the household		Households with older people having NCDs		Total n=1,477
	1 person n=669	+2 people n=808	Yes n=1,191	No n=286	
The incidence of catastrophic health expenditure borned by the household when the THE excludes the OOP health spending for the older member (%)	2.7 (18)	1.4 (11)	2.1 (25)	1.4 (4)	1.96 (29)
The incidence of catastrophic health expenditure borned by the household when the THE including OOP health spending for the older people(%)**	8.4 (56)	8.7 (71)	9.9 (119)	2.8 (8)	8.6 (127)
The incidence of impoverishment due to the OOP health expenditure net of the OOP health spending for the older people (based on the Vietnam Poverty Line 2019)	n/a	n/a	n/a	n/a	0.27 (4)
The incidence of impoverishment due to the OOP health exenditure that includes the OOP health spending for the older people (based on the Vietnam Povervty Line 2019)	n/a	n/a	n/a	n/a	1.69 (25)

* Financial distress was defined as financial activities employed by households to pay for health spending on inpatient and outpatient services, for example, borrowing money from friends or relatives, taking loans from banks/other lenders, or selling assets.

** According to the WHO's definition: Households were identified as experiencing CHE when a household's OOP health care spending equaled or exceeded 40% of the total nonfood household

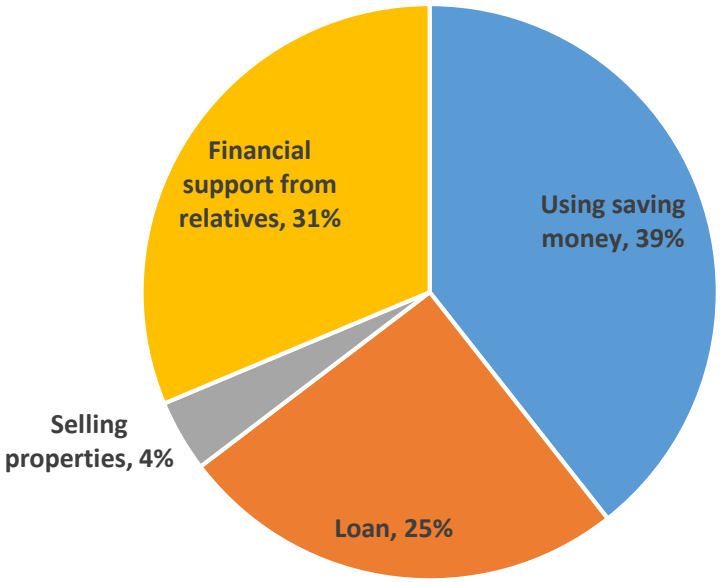

Figure 6. Coping strategies employed by households to finance health payments

An important result is that the proportions of households experiencing catastrophic health expenditure (CHE) is 8.6%. These figures was larger than the average households showing at national-level report 2014 (CHE: 2.3%). Given the health spending for the older people is removed from the household THE, only 1.96% of the households with catastrophic health expenditure. In addition, the incidence of CHE among the households having older people members with NCD is much higher than that of household having no older people member diagnosed with NCD (10% versus 2.8%, respectively).

In the sample, the proportion of households impoverished by OOP health expenditure is 1.69% (the figure was similar with national –level report in 2014 – 1.7%). If the OOP heath spending for the older people was eliminated from the THE, the figure would be 0.27%.

V. DISSCUSSION

Research results have shown that, older people when going to medical facilities for medical examination and treatment still have to pay quite high out-of-pocket expenses (on average, one outpatient visit is about VND 366,000 each; one inpatient visit is VND 3,593,000) and the higher the level (provincial/central), the higher the out-of-pocket amount. Most older people, 95% of them to be specific, have health insurance cards and the usage rate of health insurance cards among older people is quite high (> 95%). Some previous studies have shown that not just older people but patients in general, have to pay out-of-pocket when using high-level inpatient or outpatient services at provincial and central level health facilities [14-16]. At the conference to review 3 years of implementation of the Law on Health Insurance, Vietnam Social Security (VSS) also emphasized that in addition to the limited and unsynchronized quality of medical examination and treatment under health insurance, the holders of health insurance cards still have to pay a relatively high out-of-pocket (over 40% of the total health expenditure) for costs within the scope of benefits covered by health insurance.

Out-of-pocket expenses, including regulatory co-payments at 5% and 20% depending on subject group [5]; if bypassing, patients have to pay high rate of co-payment 40% and 60% at provincial and central hospital respectively; expenses for some specific technical services and medicines covered by health insurance ranges from 30% to 70% under certain conditions, meaning the rest paid by patients can get as high as 70% of the cost [17, 18]; some technical services/medicines not covered by health insurance; the difference price services/medicines between health insurance and healthcare services on demand/joint venture [19]...Moreover, when patients come to private health facilities for medical examination and treatment, even if they are covered by health insurance, they still have to pay the difference in expenses for service/ medicine of the private health facility compared with the price listed by health insurance (balance billing). Because at present, health insurance expenditure for services has not been calculated in a correctness and full cost, only met five out of seven factors. On the other hand, the research also shows that OOP expenses that older persons have to pay when going to outpatient care are mainly spent on medicines, accounting for 73% of the total older people's OOP expenses, inpatient services make up 42% and the remaining percent is spent on: co-payment; costs for subclinical services; indirect expenses (meals, travel) and other expenses incurred. This result is quite similar to the study of the Health Strategy and Policy Institute "OOP expenses for inpatients are mainly on medicine (40.81%) ..." [14]. The reason for high expenses on medicine, according to participants of our in-depth interviews and focus group discussions, is likely because various shortcomings in the provision of health insurance medicine at health facilities, medicine shortage and discontinuing supply as the winning companies

could not guarantee adequate amount; or because some specific medicine are not in the list of items covered by health insurance, resulting in older people having to buy medicine by themselves at the hospital's pharmacy or at private retail pharmacy. Others do not trust the quality of drugs provided through SHI because they are mainly domestically produced, with low effectiveness, long recovery, so they ended up buying foreign or expensive brand-name medicine on their own. This leads to a high proportion of out-of-pocket expenses for medicine. This finding is similar to some previous studies [15, 16].

A rather crucial finding in this study involves the financial burden households spend on aged care, as on average, each household with an older member spends nearly eight million VND out of pocket money for healthcare each year, households with 2 older people even pay much more, and especially for households with older people suffering from chronic diseases, their healthcare expenses also escalate. This is much higher than that of households without older people suffering chronic diseases (9.54 million versus 1.6 million VND). This results in the percentage of CHE was high (8.6%) and nearly 1.7% of households suffering from poverty due to health expenditure. The CHE rate in this study is significantly higher than the national CHE in 2014 (8.6% vs 2.3%) while the rates of household succumbing to poverty due to healthcare expenses in this study is similar to the national data (1.7%) [7]. While the national CHE followed a downward trend, from 8.2% in 1992 to 2.3% in 2014; the poverty rate also decreased from 5.3% in 1992 to 1.7% in 2014. The explaination is that our study actually focused on the target population of a household with older person. On the other hand, from 2014 till now, medical expenses in Vietnam have continuously increased due to the development of health science and technology; some impacts of health financing policy such as hospital autonomy and fee-for-service payment mechanism, leading to the designation of many unnecessary services in order to maximize revenue and as a result older people have to pay high OOP expenses [20]; due to the people's habit of buying medicine without prescription; older people often suffer from multiple diseases (3-4 diseases), their medical needs rise, resulting in increases in health expenses for older people and also in the CHE rate of households with older people. And the analysis also indicates that health care expenses for older people without and with chronic diseases are quite high, accounting for over 80% and 88.4% of the total household expenses respectively.

Thus, our findings, in line with several studies in other countries and Vietnam, also suggested a potential relationship of household financial burdens suffering from NCDs. Both OOP health expenditure and the incidence of CHE among households with older persons reporting NCDs were significantly higher than the corresponding figures among the households whose senior members were free from the NCDs. Although HI coverage was relatively high for older people, it might not be effective enough to protect their household from the financial distress as the result of OOP healthcare payments.

Health insurance coverage increased in recent years to reach over 90% by 2020, but the out-of-pocket rate remains high (44.9% in 2018) [21]. To promote the role of health insurance, strengthen financial protection for Vietnamese people, Resolution No. 20-NQ/TW of the 12th Central Executive Committee, dated October 27, 2017 set out a goal that by 2025, the health insurance participation rate will reach 95% and the household out-of-pocket rate will decrease to 35% [22] towards the goal of universal health coverage.

Regarding the coping strategies of households in financial distress due to out-of-pocket payments for aged care, the study also shows that: Among the households managing external financing to pay for aged care, more than half have to borrow money from relatives (31%) or external individuals / organizations (25%), and 4% have to sell properties, which is especially common for households with older people suffering from chronic illnesses. It is necessary to have appropriate financial policies to support aged care in reducing the financial burden when using health care and long-term care services.

The results of reviewing and analysing legislation show that the current financial support policies for aged care have been stipulated rather sufficiently in the two highest legal documents, namely the Law on the Older people, Health Insurance Law and guiding documents. However, the process of implementing some provisions of the Law has revealed impracticable aspects as well as various shortcomings that need to be adjusted and revised. Guiding documents are still lacking synchronization, unity, and not up to date, leading to inefficient implementation. On the other hand, facilities, equipment and human and financial resources for the implementation of policies are also limited. Some methods to enhance the effectiveness of policies for older people like monitoring mechanisms of policy implementation as well as the propaganda and dissemination of policies to all relevant agencies to raise awareness and social responsibility toward aged care, are still lacking.

Strengths and weaknesses of the research

This is the first research assessing the effectiveness of financial support policies for aged care. By using a case study approach, it was able to collect rich data on the situation of OOP expenses and the financial burden carried by households because of aged care in Viet Nam, as well as the gaps in policy development and implementation. The findings of this study will become the base to develop and adjust policies accordingly and effectively to reduce out-of-pocket expenditure for aged care. However, the study was only conducted in three provinces with a limited sample size, so it is not representative of the entire population. On the other hand, the research design is cross-sectional, so it did not point out the cause and effects of policies on household financial burdens. The interviewees in this study are older people, who are likely to have more illnesses and hence, higher needs for healthcare services, resulting in higher

OOP payment than other groups. The results of the study may also have been influenced by a recall error on the part of the responders, so the recorded OOP expenses can be higher or lower than the actual cost.

VI. CONCLUSSION AND RECOMENDATION

6.1. Conclussion

Vietnamese laws and other government policies stipulate measures to provide financial assistance for older persons, including for health care. However, high out-of-pocket spending for health care among older persons persist due to a lack of consistency and coherence of policies guiding implementation and delays in revising them.

The coverage of social health insurance for older people is high now. However, the system is still facing with difficulties in expanding health insurance coverage among the remaining informal older groups who are not eligible from any supporting program and most of them are self-employed with low income.

Social protection system in Vietnam exists but it is only affordable to cover for individual targeted programs such as monthly social assistance with small amount of allowance and free health insurance. This support limits to unable working people, national merit people and older people who are 80 years and older due to shortage of budget. For those who are neither eligible for any supporting program nor received a good care from family members, then they will have to face with difficulties in terms of income for daily living as well as health care expenditure.

Regarding the health services delivery system for older people, Vietnam has a wide grassroots health facilities network responsible for primary care. In terms of specialized care, in the whole country, there is a national geriatric hospital, about 40% provincial hospitals with geriatric departments; there is few long-term care institutions for the elderly; rehabilitation facilities exist. However, due to shortage of qualified human resources in disadvantaged and under-served areas, accessibility to quality health care services at the grass-root level in such areas is still limited. For hospital care, older people have many barriers in accessing health care services such as: transportation difficulty, physical mobility difficulty, financial difficulties for non-medical expenditure, depending on family members… Participations of related stakeholders in caring for older people are not actively as expected.

Despite having a health insurance card, the older people still have to pay high out-of-pocket expenses for health care due to self-treatment, buying medicines which not covered by health insurance or implementing co-payment policy when using health care services at health facilities, leading to high proportion of catastrophic health expenditures of household with older members and higher when the household having older persons with chronic diseases. In order to cope with out-of-pocket health spending, families with older members have to borrow money from relatives or friends, take loans from banks/other lenders, or sell assets.

6.2. Recomendation

Vietnam is still in the long journey with many challenges towards sustainable universal health coverage and it requires multi-stakeholder engagement to provide better care for people in general and specifically the elderly population. In order to improve effectiveness of ongoing policies and further policy options to protect older people from financial hardship due to health care, there is a need to continue strengthening grassroots service delivery system to be better responsible for management of non-communicable diseases for older people at the community. In addition, it is also necessary to strengthen geriatric hospital system to meet the specialized health care needs of older population. Increasing stakeholder engagement for more effective implementation of social protection policies, health care policies, especially promoting the role of the Elderly Association in localities are very critical to ensure the better care for older people in Vietnam.

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