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**Centre for  
Ageing and  
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老齡化和醫療管理研究中心



# Health service utilization and financial burden among people suffering from NCDs in Vietnam

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**Mahidol University**  
*Wisdom of the Land*

# Biography



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**Background and  
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# Background and Rationale

*“Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all”*

(SDG Target 3.8)

**Reducing out-of-pocket expenditure  
is the key to reduce the financial burden!**



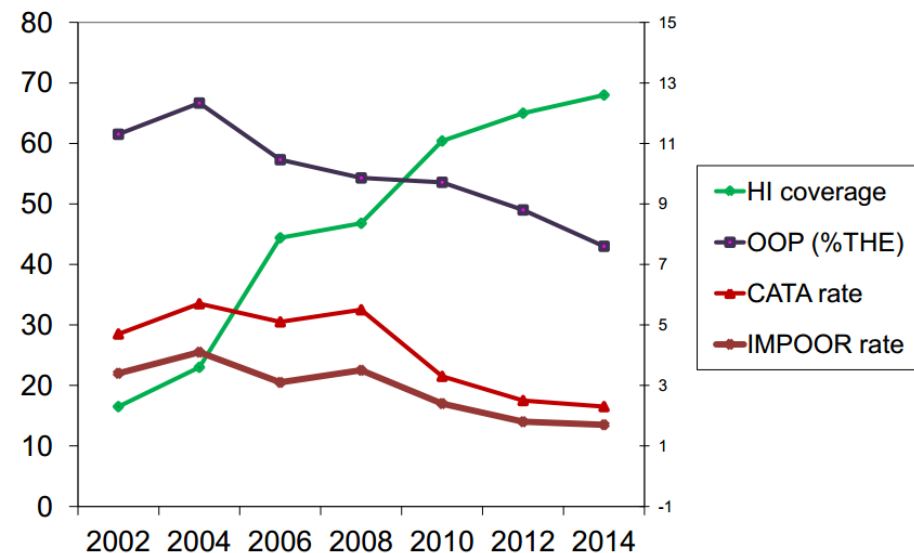
# Vietnam situation

- Government and Ministry of Health issued policies to reduce the OOP proportion

2008: Health Insurance Law

2014: Revised HI Law

## The financial protection in Vietnam



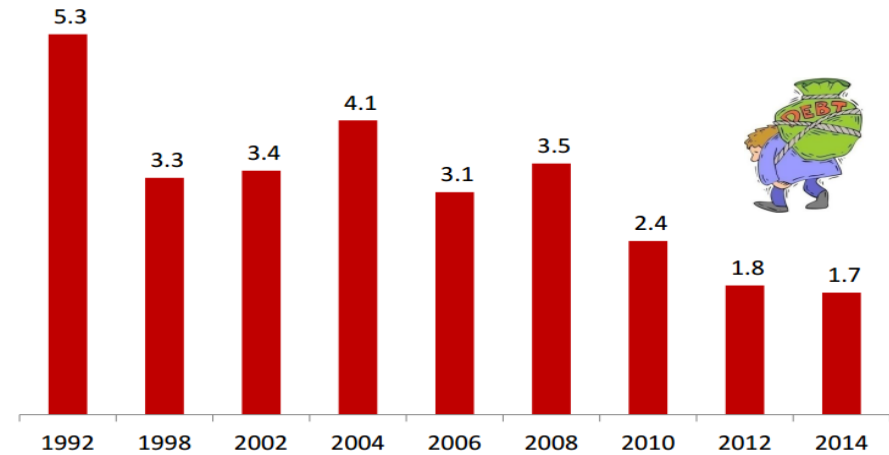
*Financial burden due to OOP in Vietnam, Hoang Van Minh, 2016*



# Financial burden due to OOP health expenditure



*Catastrophic health expenditure*



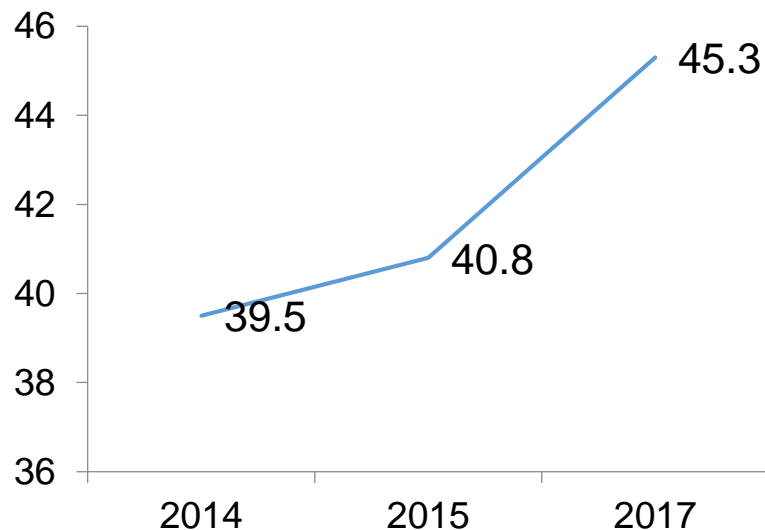
*Impoverishment*

*Financial burden due to OOP in Vietnam, Hoang Van Minh, 2016*

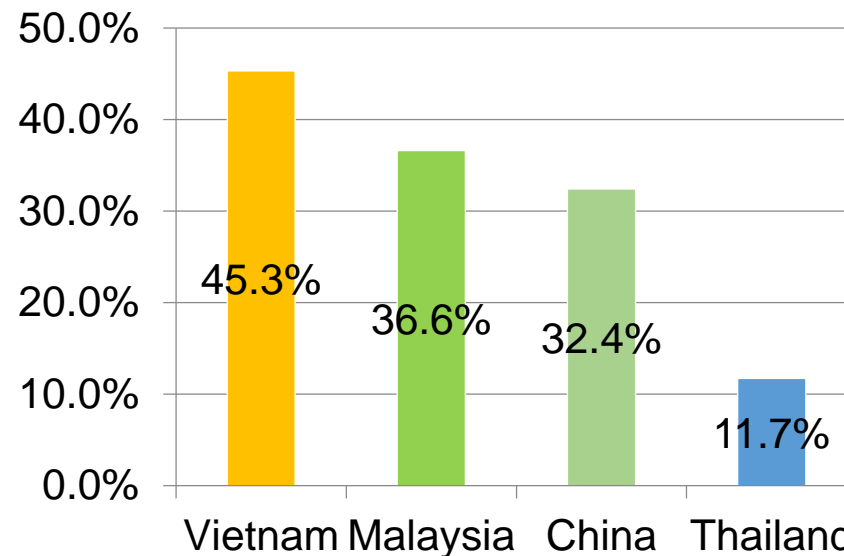


# Financial burden due to OOP health expenditure

OOP proportion in THE  
in Vietnam



OOP propotion in THE in 2017



*World Bank, 2017*



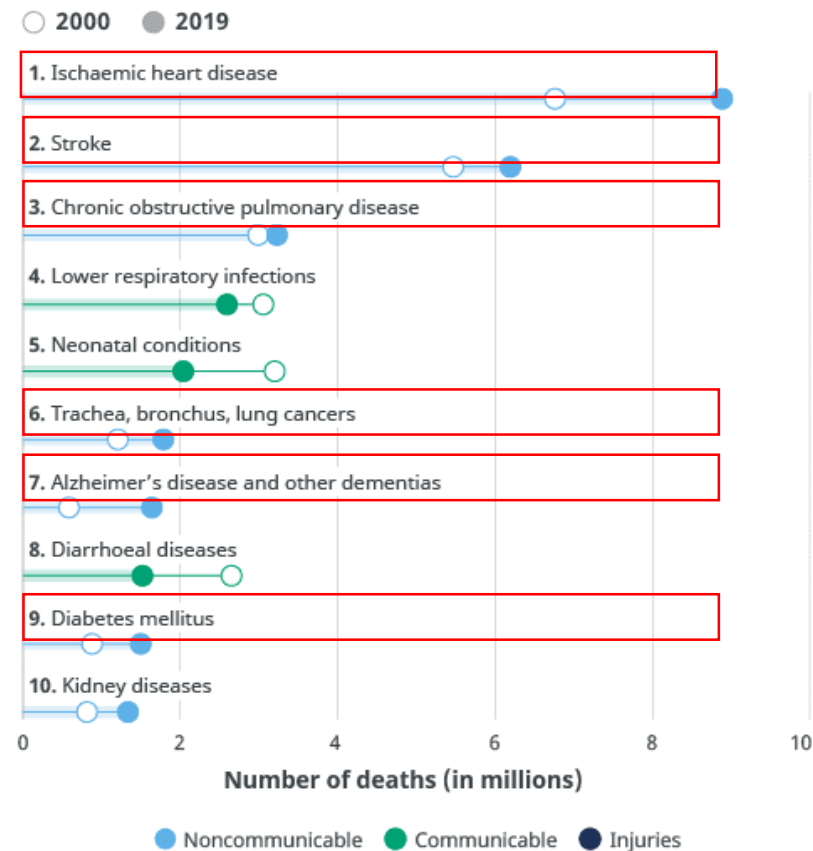
# Why study about NCDs?

## NCD situation

- In SEA: top killer (8.5mil deaths/year)
- Higher household expenses

## Health care cost for NCD drain household resources

- Lengthy treatment
- Direct medical
- Direct non-medical cost



Source: WHO Global Health Estimates.



# Research objectives

To describe the health service utilization of patients with NCDs in Vietnam

To examine the magnitude of financial burden due to out-of-pocket expenditures among households with NCD patients



# Research methodology

**Data source and characteristics:** Secondary data “*The difference in health, accessibility to health, health service utilization and related factors in Vietnam*”

## Study design of secondary data

- Cross-sectional study
- 6 provinces that are representative of six distinct geographical regions
- n = 6150 households
- Conducted by Health Strategy and Policy Institute in 2015

## How were data collected?

- Collected by trained researchers
- Tool: Structured interview questionnaire
- The interviews were conducted in respondents’ homes
- 30-60 minutes to complete



# Research methodology

## Population for this study

- Sub-group of households in the HSPI survey in 6 provinces in 2015
- Selection criteria: Households with at least one member suffering from NCDs

## Data analysis

- Using WHO guideline (2005) as reference

*Catastrophic health expenditure (CHE) occurs when a household's OOP spending on health care is equal or exceeds 40% of the household's capacity to pay*

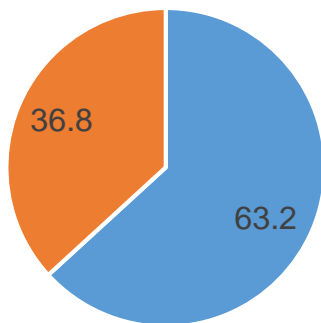
- Use Stata/IC 15.1 to analyze



# Results

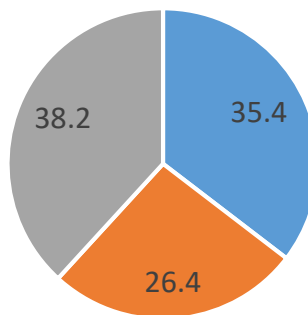
## Socio-demographic characteristics of households with members suffering from NCDs

Living areas (%)



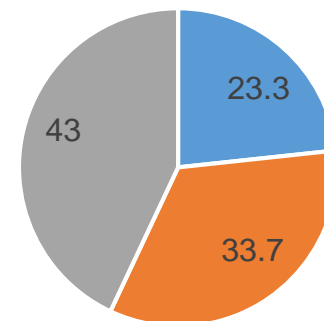
■ Urban ■ Rural

Geographical region (%)



■ North ■ Central ■ South

Household size (%)

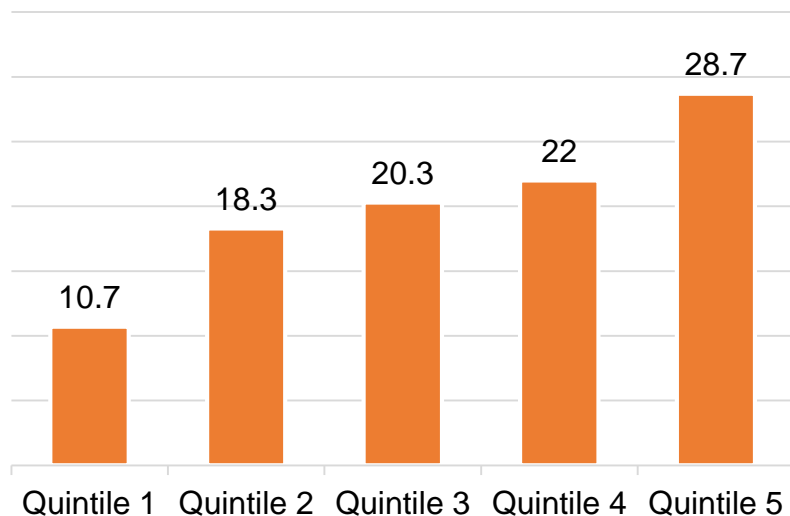


■ 1-2 members ■ 3-4 members ■ >=5 members

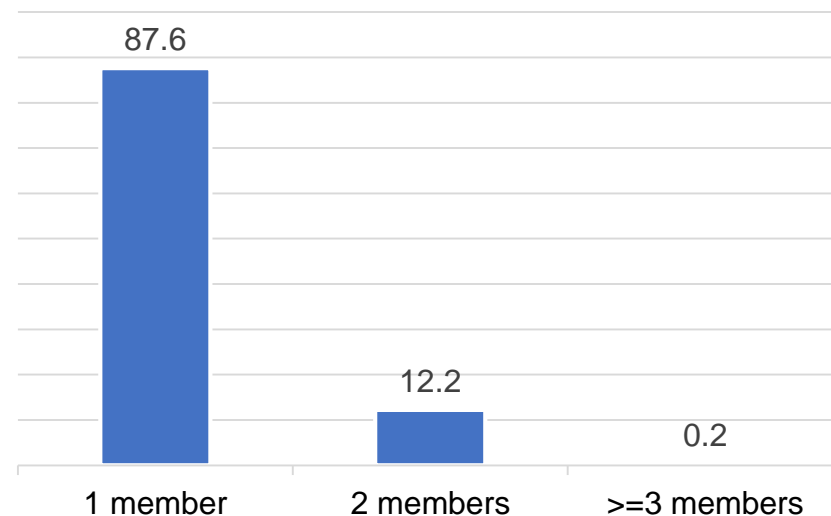
# Results

## Socio-demographic characteristics of households with members suffering from NCDs (cont.)

Household wealth index (%)



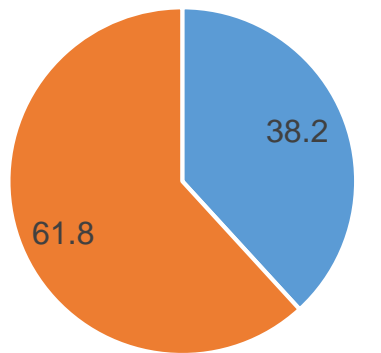
Number of NCD members (%)



# Results

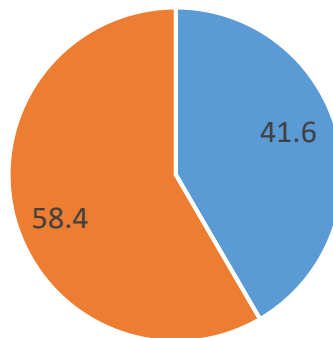
## Socio-demographic characteristics of patients with NCDs

Age group (%)



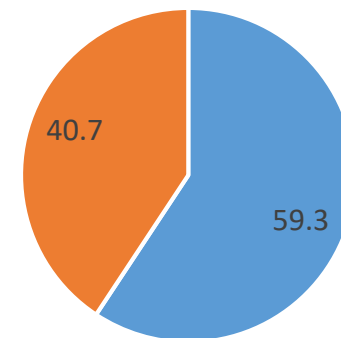
■ <60      ■ >=60

Gender (%)



■ Male      ■ Female

Employment status (%)



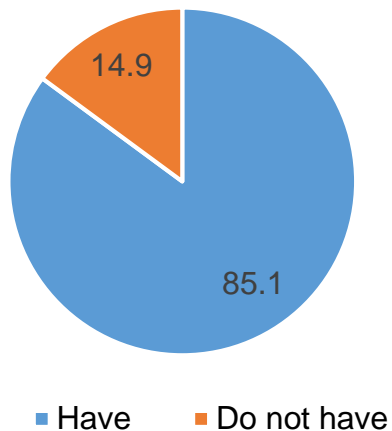
■ Employed      ■ Unemployed



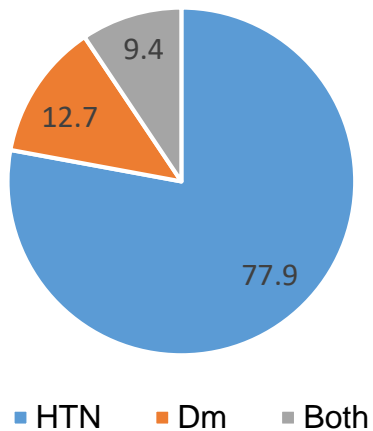
# Results

## Socio-demographic characteristics of patients with NCDs (cont.)

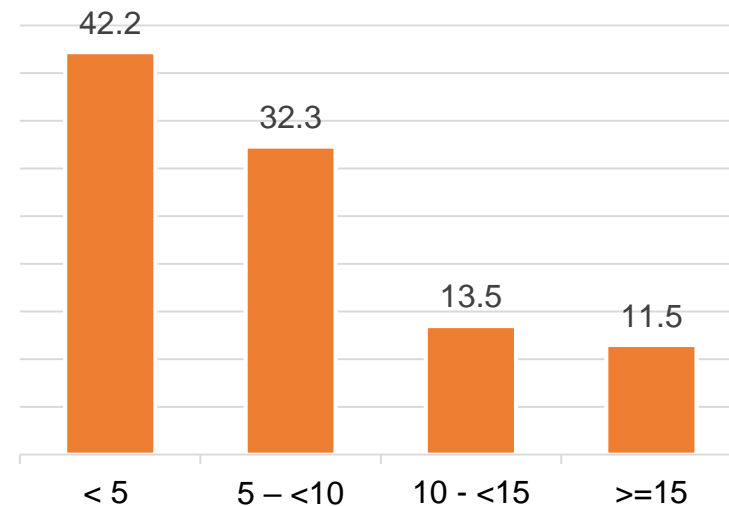
Health insurance (%)



Specific NCD



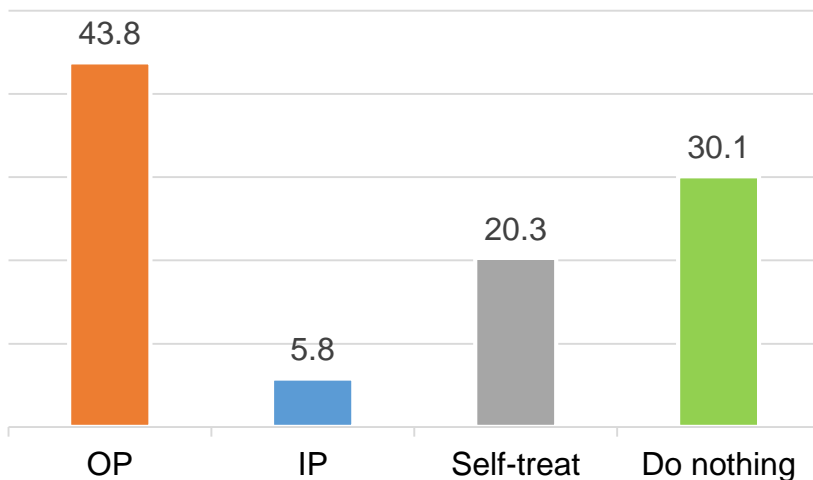
Duration of disease (years)



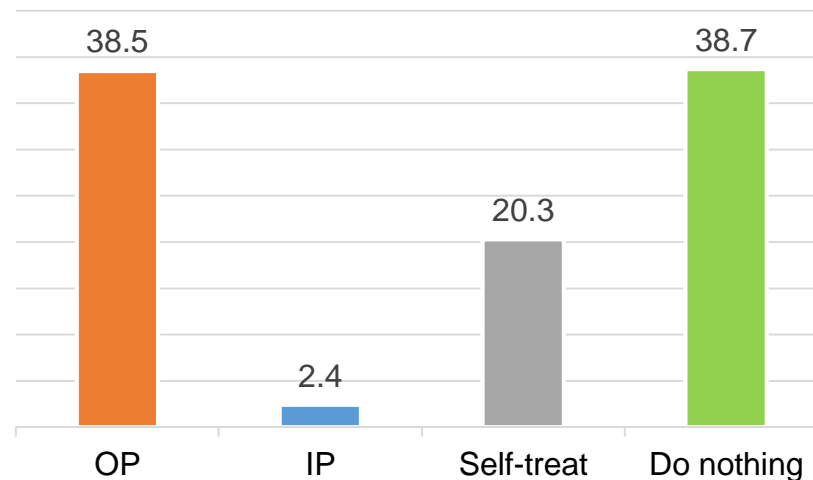
# Results

## Health service utilization of patients with NCDs in the last 4 weeks

Health service utilization  
for all sicknesses (%)



Health service utilization  
for NCD treatment (%)

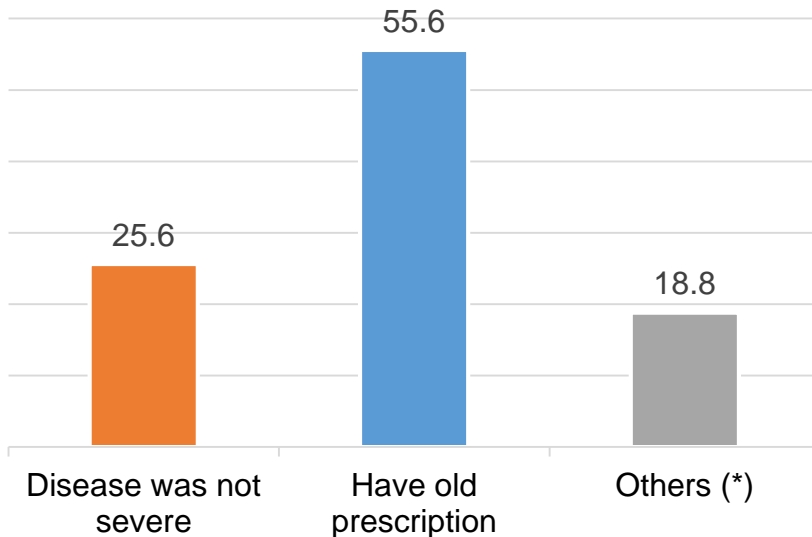




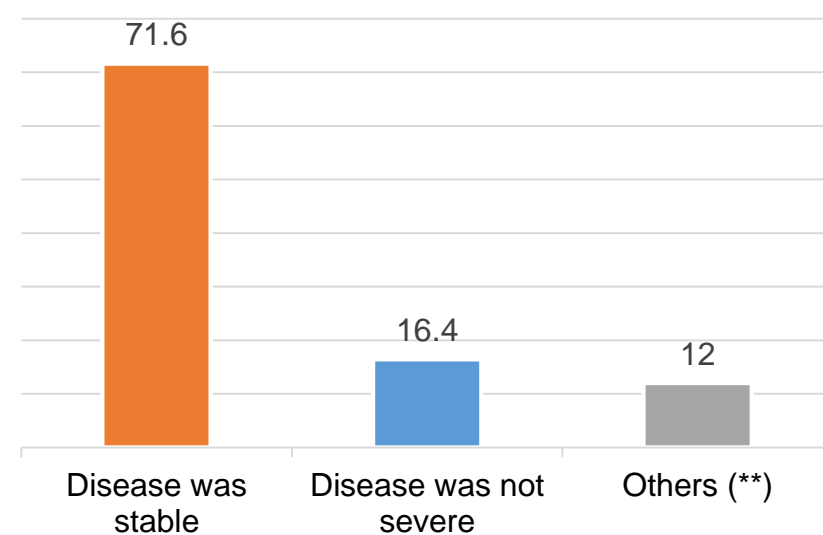
# Results

## Health service utilization of patients with NCDs in the last 4 weeks (cont.)

Reasons for self-treat (%)



Reasons for do nothing (%)



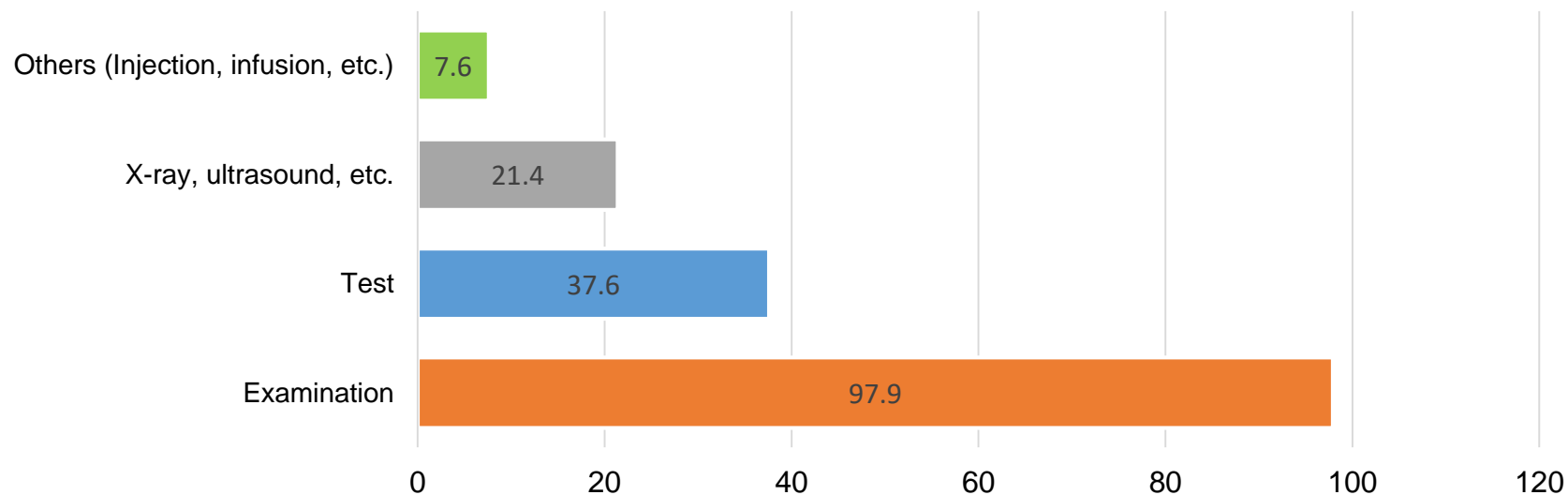
(\*) Others: Do not have HI, do not have enough money, self-search on Internet, etc..

(\*\*) Others: Do not know where to receive treatment, do not have money/ time/transport, do not trust HC facility, etc.

# Results

## Health service utilization of patients with NCDs in the last 4 weeks (cont.)

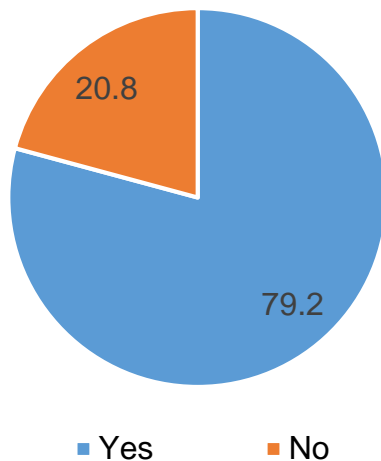
Outpatient services (%)



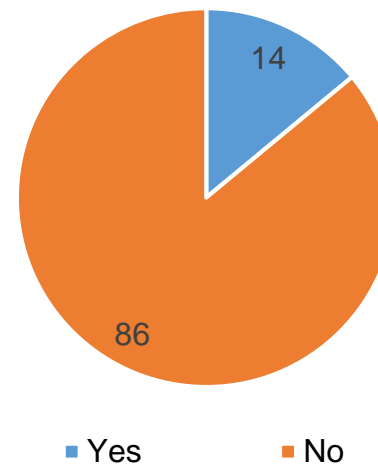
# Results

## Financial burden due to OOP expenditure for health care among households with NCD members

Pay OOP for health services (%)



Pay catastrophic health expenditure (%)



# Results

## Out-of-pocket for health care in the last 4 weeks (cont.)

	Self-treat	Outpatient services	Inpatient services
<b>OOP expenditure (average, SD)</b> Unit: thousand VND	145 (115) ~6.3\$	350 (234) ~15.3\$	2,726 (1,789) ~119.2\$



# Results

## Out-of-pocket for health care in the last 4 weeks (cont.)

		Outpatient services	Inpatient services
<b>Direct medical cost (average, SD)</b> Unit: thousand VND	Examination	13 (130) ~0.6\$	3,709 (2,640) ~162\$
	Test	20 (134) ~0.9\$	
	Medicine	92 (261) ~4\$	
	Others	13 (148) ~0.6\$	
	Total	215 (717) ~9.4\$	

# Results

## Out-of-pocket for health care in the last 4 weeks (cont.)

		Outpatient services	Inpatient services
<b>Direct non-medical cost (average, SD)</b> Unit: thousand VND	Gift	13 (30) ~0.6\$	116 (101) ~5.1\$
	Transportation	37 (178) ~1.6\$	324 (731) ~14.2\$
	Food	9 (80) ~0.4\$	958 (504) ~41.9\$
	Total	50 (243) ~2.2\$	1,493 (6,035) ~65.3\$

# Discussion

## European

- National Health Survey (Janko et al, 2019)
- 59.6% used health services provided by family physician
- 8.4% hospitalization

## Vietnam

- The proportions of people with NCDs who used at least 1 OP and IP during the last 12 months were 68.1% and 10.7%, respectively (Hoang Van Minh et al, 2018)



# Discussion

## China

- Hypertension patients in Shandong province (Zhang et al, 2020)
- CHE: 13.6%

## Vietnam

- Thai Nguyen province: CHE was 14.6% (Hoang Van Minh et al, 2012)
- Hanoi (Capital): CHE was 6.2% (Vu Duy Kien et al, 2016)





# Conclusion & Recommendations

- Self-treatment is common among patients with chronic illnesses
- Households with NCD members are likely to incur financial burdens due to OOP expenditure
- Policies and national programs should be considered.
  - Health service accessibility
  - Financial support through health insurance and basic benefit packages at primary health care

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