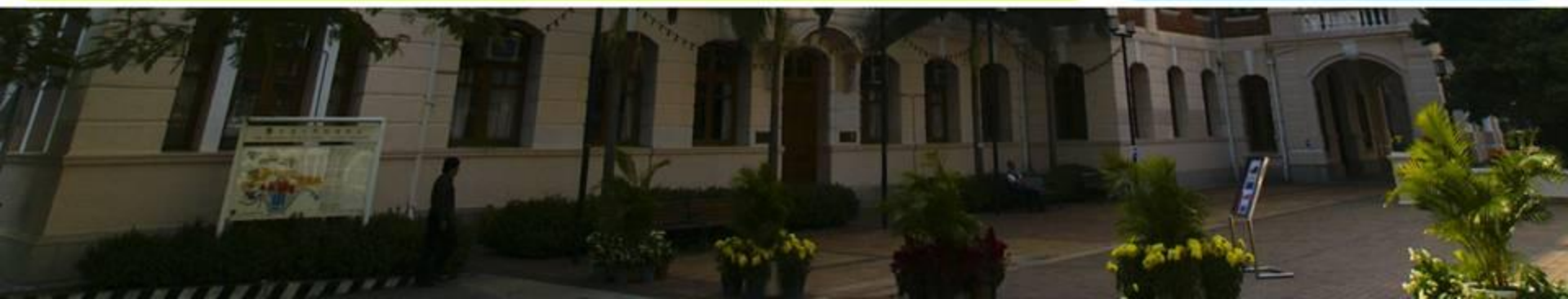**Practice and Research For Social Service Excellence Conference**

Auditorium, Duke of Windsor Social Service Building
11st October 2012

Evidence-based Gerontology: What Hong Kong Centenarians can tell us?

Dr. Karen Cheung

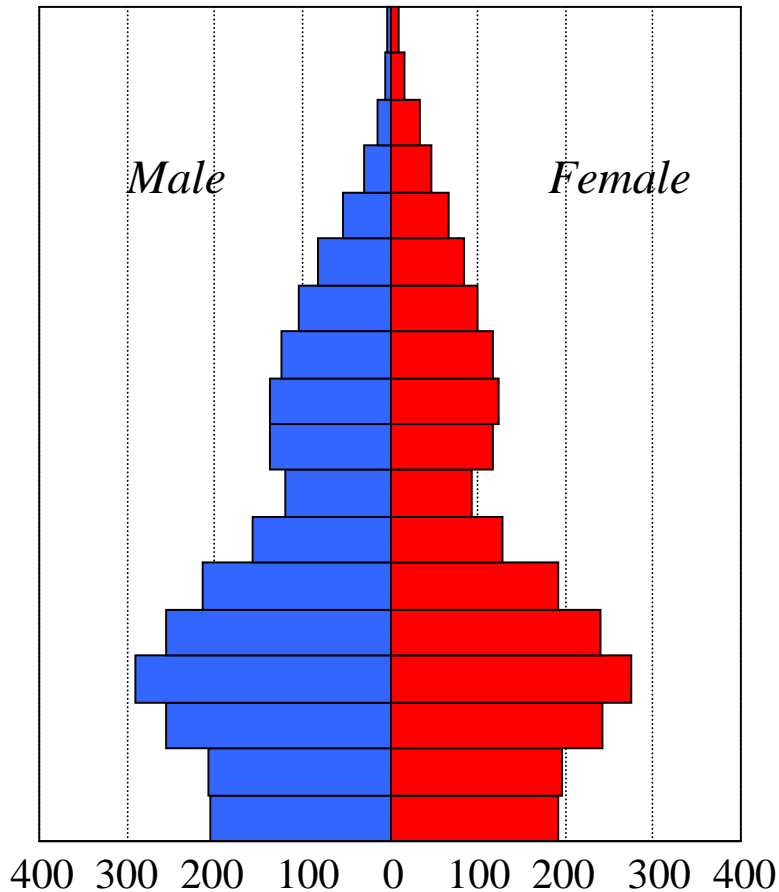Honorary Assistant Professor
HKU

Population pyramids

1978

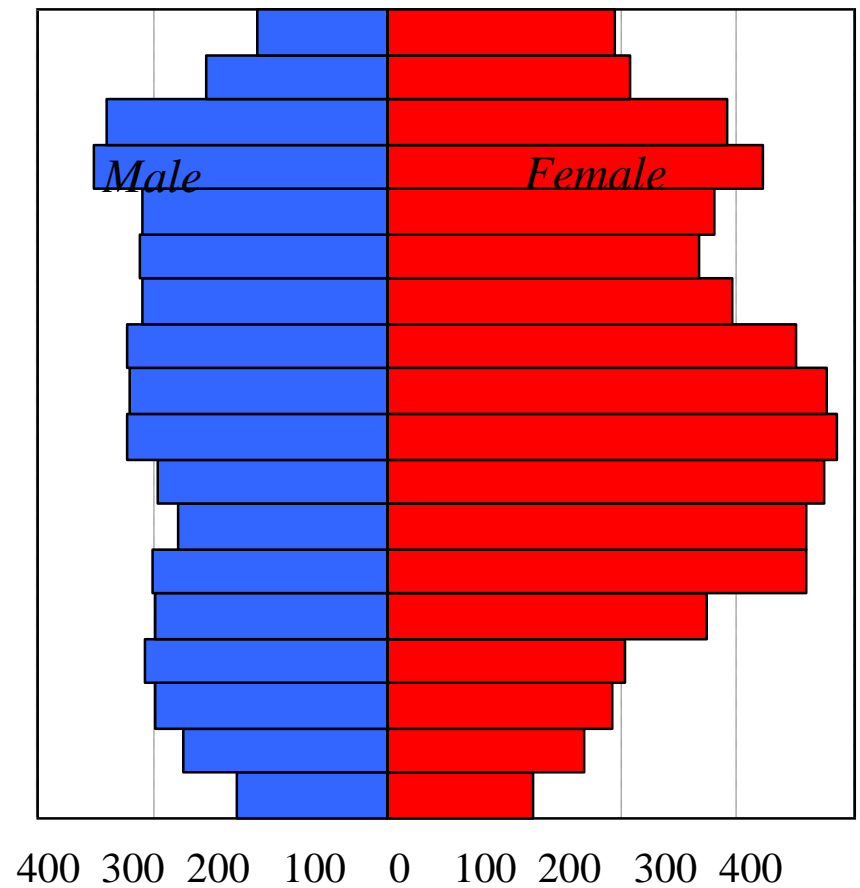Age Group

2036

Male — Female

85+
80 - 84
75 - 79
70 - 74
65 - 69
60 - 64
55 - 59
50 - 54
45 - 49
40 - 44
35 - 39
30 - 34
25 - 29
20 - 24
15 - 19
10 - 14
5 - 9
0 - 4

400 300 200 100 0 100 200 300 400

400 300 200 100 0 100 200 300 400

Thousand persons

Thousand persons

Number of Elderly Population in Future

Year	Aged 65+	All population
1981	344 300 (6.6%) **(1 in 15 Persons)**	5 183 400
2011	937 700 (13.2%) **(1 in 8 persons)**	7 120 200
2021	1 450 800 (18.9%) **(1 in 5 persons)**	7 662 000
2041	2 558 000 (30.3%) **(1 in 3 persons)**	8 469 000

Source: HKCSD Pop Projections 2012-2041

Rapidly Growing Number of Oldest-Old in Future

Year	Aged 80+	All population
1981	46 300 (0.9%) **(1 in 112 Persons)**	5 183 400
2011	270 500 (3.8%) **(1 in 26 persons)**	7 120 200
2021	381 600 (4.4%) **(1 in 20 persons)**	7 662 000
2041	956 800 (11.3%) **(1 in 9 persons)**	8 469 000

Living longer: better or worsening health?

Challenge: Compression or Expansion of Disability?

Observed Distribution of Life Table Deaths for women, HKSAR, 1971-2006 and Projected 2036
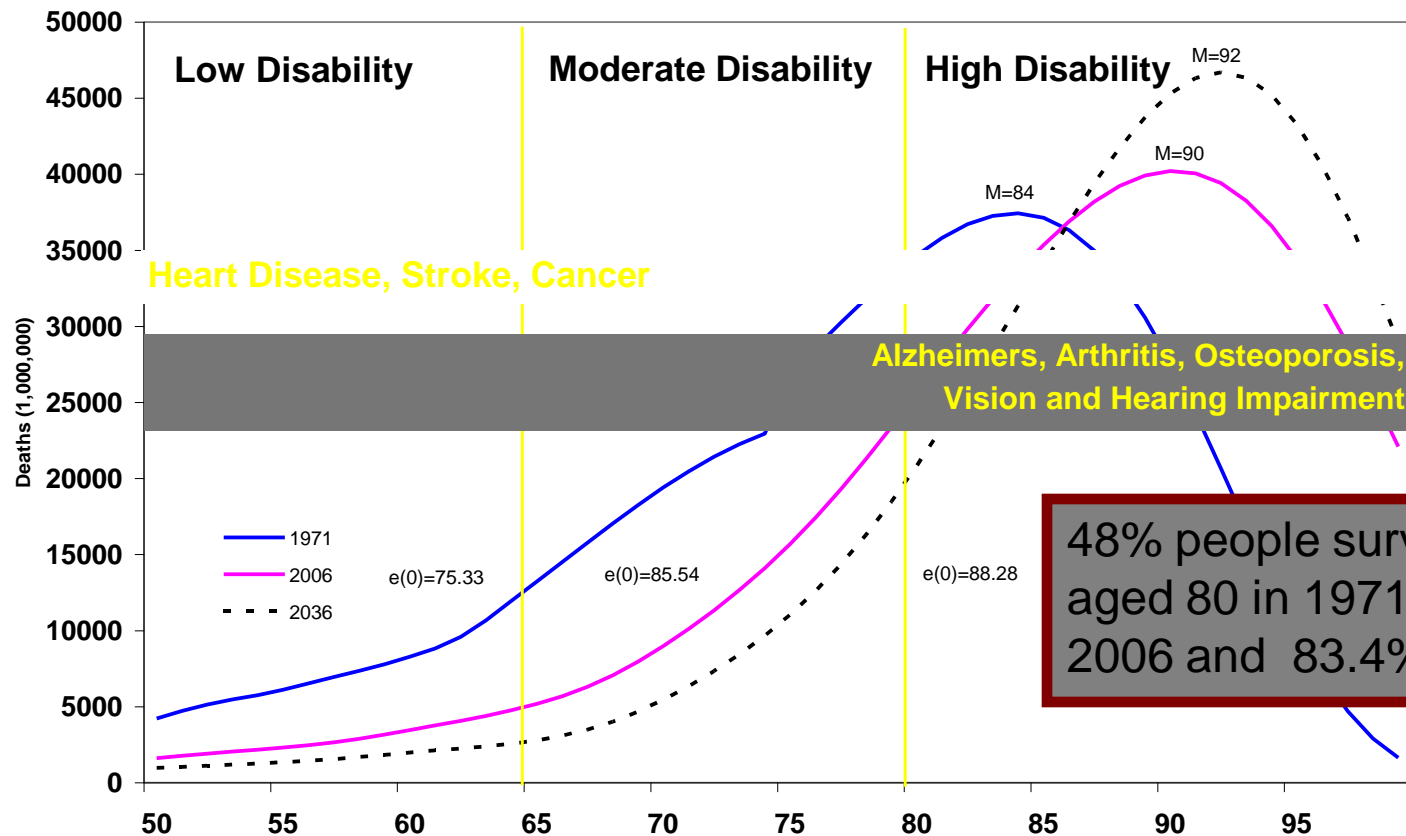
Women ⟹ "a double disadvantage"

ORIGINAL INVESTIGATION

Trends in healthy life expectancy in Hong Kong SAR 1996–2008

Karen Siu Lan Cheung · Paul Siu Fai Yip

Abstract Although Hong Kong has one of the best life expectancy (LE) records in the world, second only to Japan for women, we know very little about the changes in the health status of the older adult population. Our article aims to provide a better understanding of trends in both chronic morbidity and disability for older men and women. The authors compute chronic morbidity-free and disability-free life expectancy and the proportion of both in relation to total LE using the Sullivan method to examine whether Hong Kong older adults are experiencing a compression of morbidity and disability and whether there is any gender difference in relation to mortality and morbidity. The results of this study show that Hong Kong women tend to outlive Hong Kong men but are also more likely to suffer from a 'double disadvantage', namely more years of life with more chronic morbidity and disability. There has also health without disability has decreased since 1996, indicating a relative expansion of disability.

Keywords Healthy life expectancy · Chronic morbidity and disability · Gender gap · Hong Kong SAR

Introduction

Sixty years ago, in their studies of the Public Health Service in the Eastern Health District of Baltimore, Downes (1950) and Jackson (1950) noted that the mortality rate for men was higher than that for women, whereas the morbidity rate for women was considerably higher than that for men. They found that, in terms of sickness and the number of medical calls and cases of hospitalization related to

Research Article

Centenarians Today: New Insights on Selection from the 5-COOP Study

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The number of oldest old grew tremendously over the past few decades. However, recent studies have disclosed that the pace of increase strongly varies among countries. The present study aims to specify the level of mortality selection among the nonagenarians and centenarians living currently in five low mortality countries, Denmark, France, Japan, Switzerland, and Sweden, part of the 5-Country Oldest Old Project (5-COOP). All data come from the Human Mortality Database, except for the number of centenarians living in Japan. We disclosed three levels of mortality selection, a milder level in Japan, a stronger level in Denmark and Sweden and an intermediary level in France and Switzerland. These divergences offer an opportunity to study the existence of a higher level of mortality selection and the functional health status of the oldest old survivors which will be seized by the 5-COOP project.
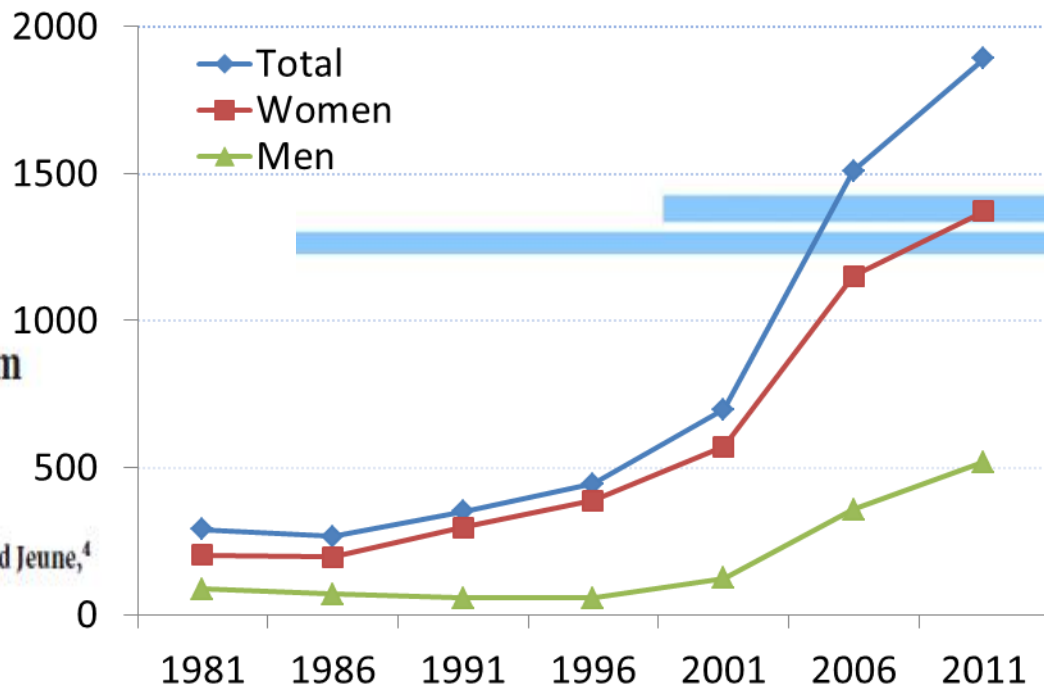
A New Era of Centenarians

Centenarian和nonagenarian的煩惱

華洋書莊 文·子慧

父母都知道，孩子約十歲以後，爲他們預備生日蛋糕點蠟燭就開始有點困難，十來支蠟燭不但插得辛苦，點起來也費神。

二十過後，若還有切生日蛋糕點蠟燭的興致，有些人會想到用另一種顏色的蠟燭代表「十」，那二十歲生日兩支蠟燭就夠了。不過，若你活到一百歲，問題又會重複，你的孫兒(或曾孫兒)爲你慶祝生日，大概要用一支蠟燭來代表一百。

一百歲的人瑞叫"centenarian"，這個字比較常見，活到一百歲的人今時今日仍屬很少數。那九十至一百歲的人叫甚麼呢？是"nonagenarian"。那八十歲的人又叫甚麼？這個串字遊戲可繼續下去，不過有人就給了這樣的答案：An old person.（一位老人家。）

人均壽命長又長

這當然是個打趣的答案。八十歲今天仍可叫"an old person"，但未來的情況就會有改變，據丹麥一項研究，二〇〇〇年後出生的孩子，有超過一半可以活到一百歲。進行研究的是University of Southern Denmark (南丹麥大學)的Aging Research Center(老化研究中心)。

但研究的對象只是八個發達國家：Canada, the United States, Japan, Denmark, France, Germany, Italy and the U.K.。研究推斷每個國家的人預計壽命都有些少分別，例如二〇〇七年出生的加拿大的人會活到一百零四歲；最長壽的是日本人，會活到一百零七歲。

這樣的推算在今天可能會覺得有點誇張，但過去幾十年，其實世界的人均壽命一直增長，由二十世紀初的三四十歲，至今天的七八十歲。有些地區已增長三十年有多。這樣來看，再增長二十年又有甚麼出奇？(若你想知世界各地現今的人均壽命，www.worldlifeexpectancy.com 有個mouse-over的地圖可供參考。)

有人會爲這消息高興，但有學者卻爲此擔心：

The question facing scientists is whether these dramatically extending lifespans will be matched by a delay in the decrepitude that usually accompanies old age – and whether governments will be able to provide for swelling ranks of ultra-senior citizens.

Lifespan 的意思是壽命長度。Decrepitude 解 "decrepit condition, dilapidated state, feebleness, especially from old age"，即衰老虛弱，活得老、活得好，那很好，但科學家卻不能確定，壽命增長，是否身體衰老都會推遲。

人均壽命增長可能會對社會資源帶來新壓力。除非百歲的人大部分都可獨立的、活動自如的生活，最好更能繼續工作，否則社會服務所需的資源會太大。

攤長分工解困境

研究報告對這問題也有建議：

The 20th century was a century of redistribution(再分配) of income. The 21st century could be a century of redistribution of work. Redistribution would spread work more evenly across populations and over the ages of life. Individuals could combine work, education, leisure and child rearing in varying amounts at different ages.

方法是「分工」。不是「分工合作」的「分工」，而是把一份工作分開，攤長

William H. Thomas, M.D.
What Are Old People For?
How Elders Will Save the World

Add years to life, not life to years

« Sans teeth, sans eyes, sans taste, sans everything »

Shakespeare's *As You Like It*, 1600: The speech is in <u>Act 2, Scene 7</u>.

First ever study in HK

11

Aims

- characterize the health profile of the Hong Kong community-dwelling near centenarians and centenarians and to identify their health care service needs.

- A total of 153 cognitively intact participants have been face-to-face interviewed from April to September 2011.

Mechanism – what we know and what we don't know

Methods

- Based on two modules (i.e. The Chinese Longitudinal Healthy Longevity Survey (CLHLS), 2008 version and the questionnaire Elderly Health Center, 2008 version, the Department of Health)

- A quota sampling method for recruiting samples was used in accordance with the proportion of population aged 85+ by 18 Geographical Constituency Area

Hong Kong Special Administrative Region of the People's Republic of China
Administrative Map

The New Territories
1 Islands
2 Kwai Tsing
3 North
4 Sai Kung
5 Sha Tin
6 Tai Po
7 Tsuen Wan
8 Tuen Mun
9 Yuen Long

Kowloon
10 Kowloon City
11 Kwun Tong
12 Sham Shui Po
13 Wong Tai Sin
14 Yau Tsim Mong

Hong Kong Island:
15 Central and Western
16 Eastern
17 Southern
18 Wan Chai

(N=153)
NT=24%
KL=53%
HK=23%

3 — 5%
2 — 2%
6 — (arrow)
5 — 4%
8 — 4%
7 — 3%
2 — 4%
3 — 3%
4 — 4%
14 — 14%
16 — 16%
12 — 12%
7 — 7%
8 — 8%
15 — 7%
18 — 1%
17 — 7%
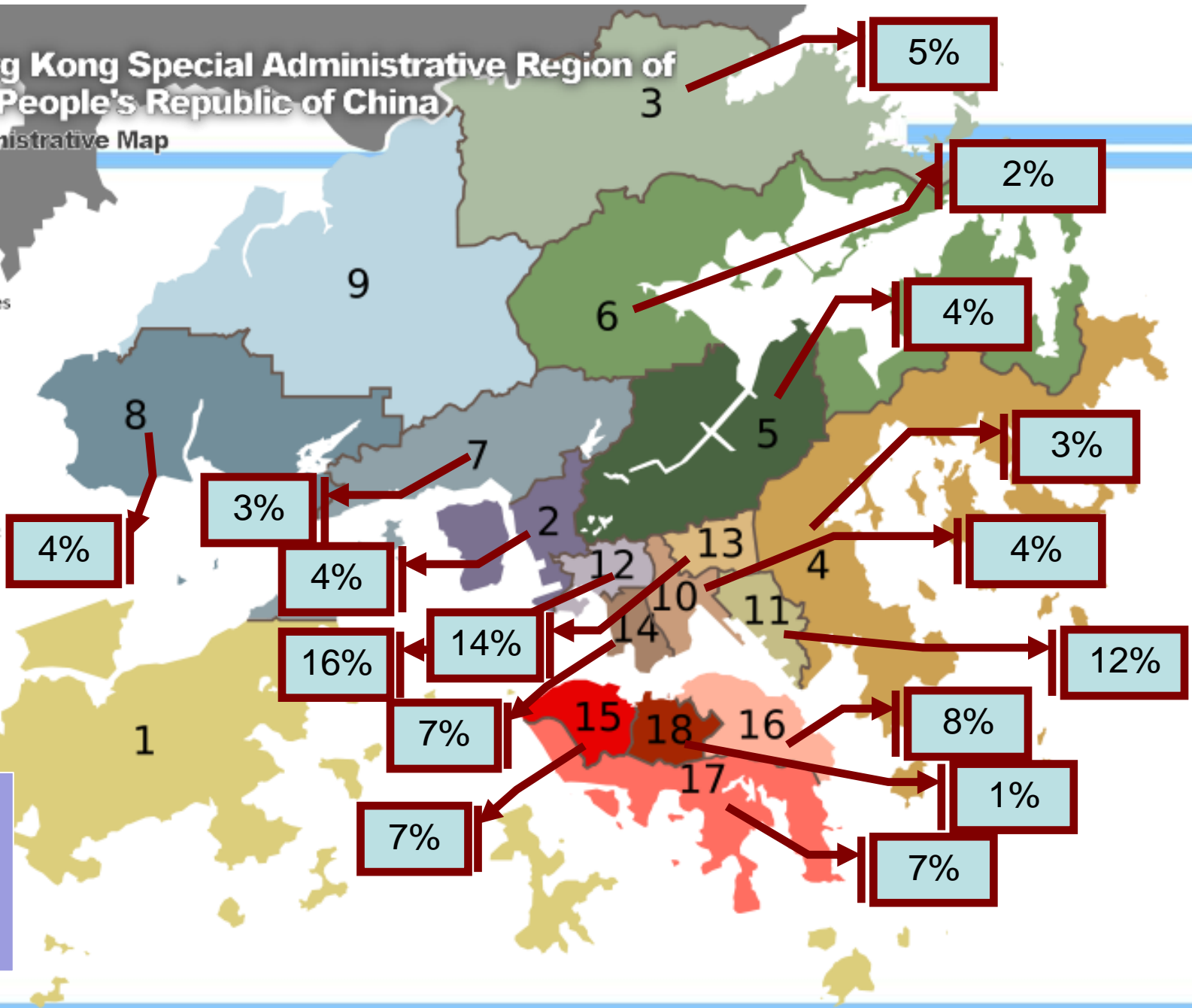
Descriptive Analysis		Total (N=153) %
Gender	Females	71
	Males	29
Age	Mean=	97.4
	SD=	2.81
Marital status	Married living with spouse	9
	Married NOT living with spouse	2
	Widowed	81
	Never married	6
	Unable to answer	2
Place of birth	Mainland China	84
	Guangdong	76
	Other province	8
	Hong Kong	10
	Other	6
Urban or rural	Urban	32
	Rural	63
	Don't Know	5

		Total (N=153) %
Education	0	56
(years of schooling)	1-6	22
	>6	22
	Don't Know	1
	Mean=	2.5
	SD=	4.00
Average annual household income	=<19,999	12
(Per head)	20,000-29,999	12
	30,000-39,999	37
	40,000-59,999	9
	60,000-79,999	9
	Over 80,000	3
	Don't Know	18
	Mean=	34,995
	SD=	18,555

		Total (N=153) %
Living arrangement	Living alone	50
	Co-residence	31
	Institution	18
	No Answer	1
Living with whom	Spouse	8
	Child(ren)	33
	Child(ren) in law	12
	Grandchild(ren)	14
	Grandchild(ren) in law	4
	Grand-Grandchild(ren)	4
	Siblings	2
	Others	18
Type of housing	Public housing	52
Housing owned by whom	Self owned under his/her name or spouse's	53

General health evaluation
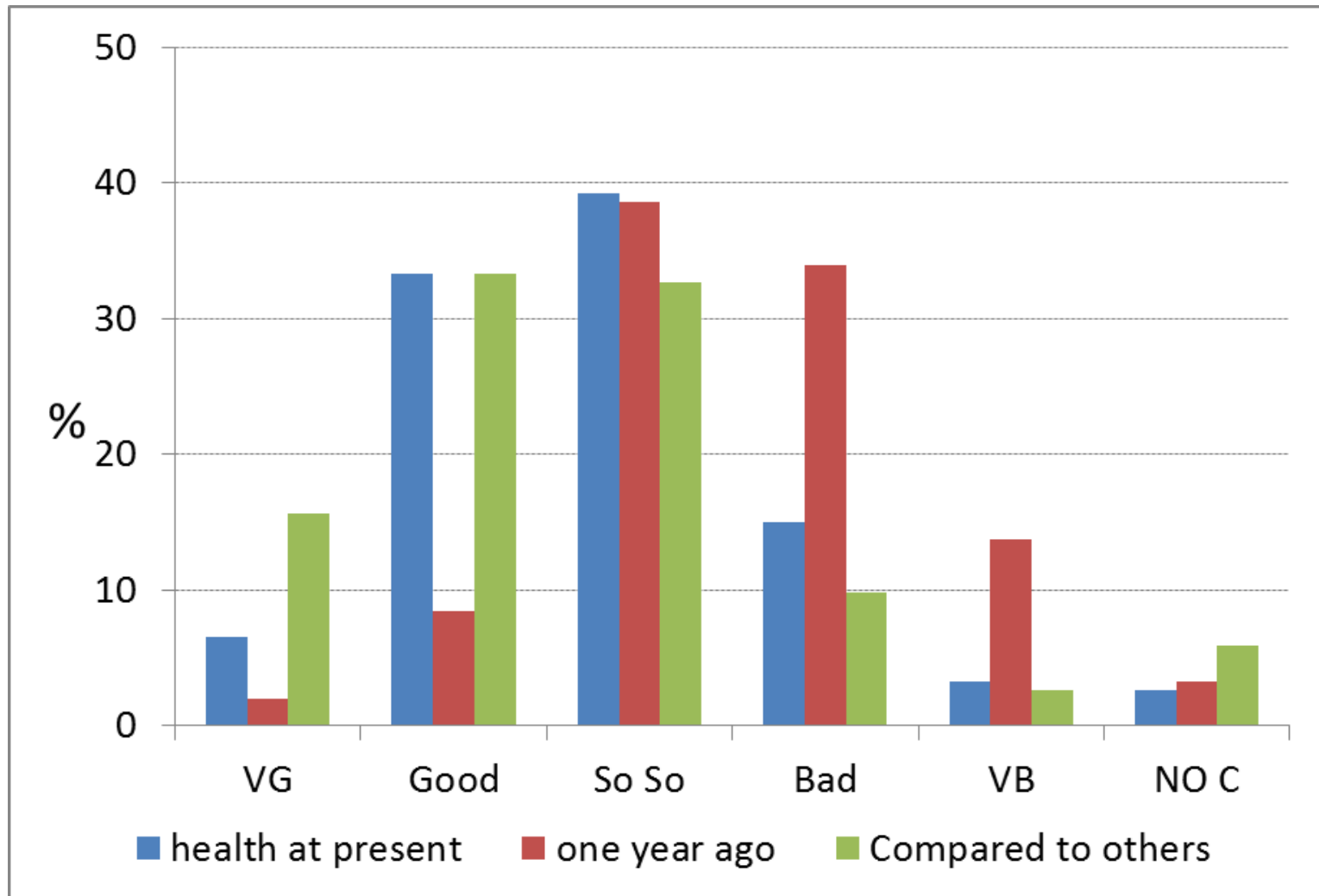
Personality
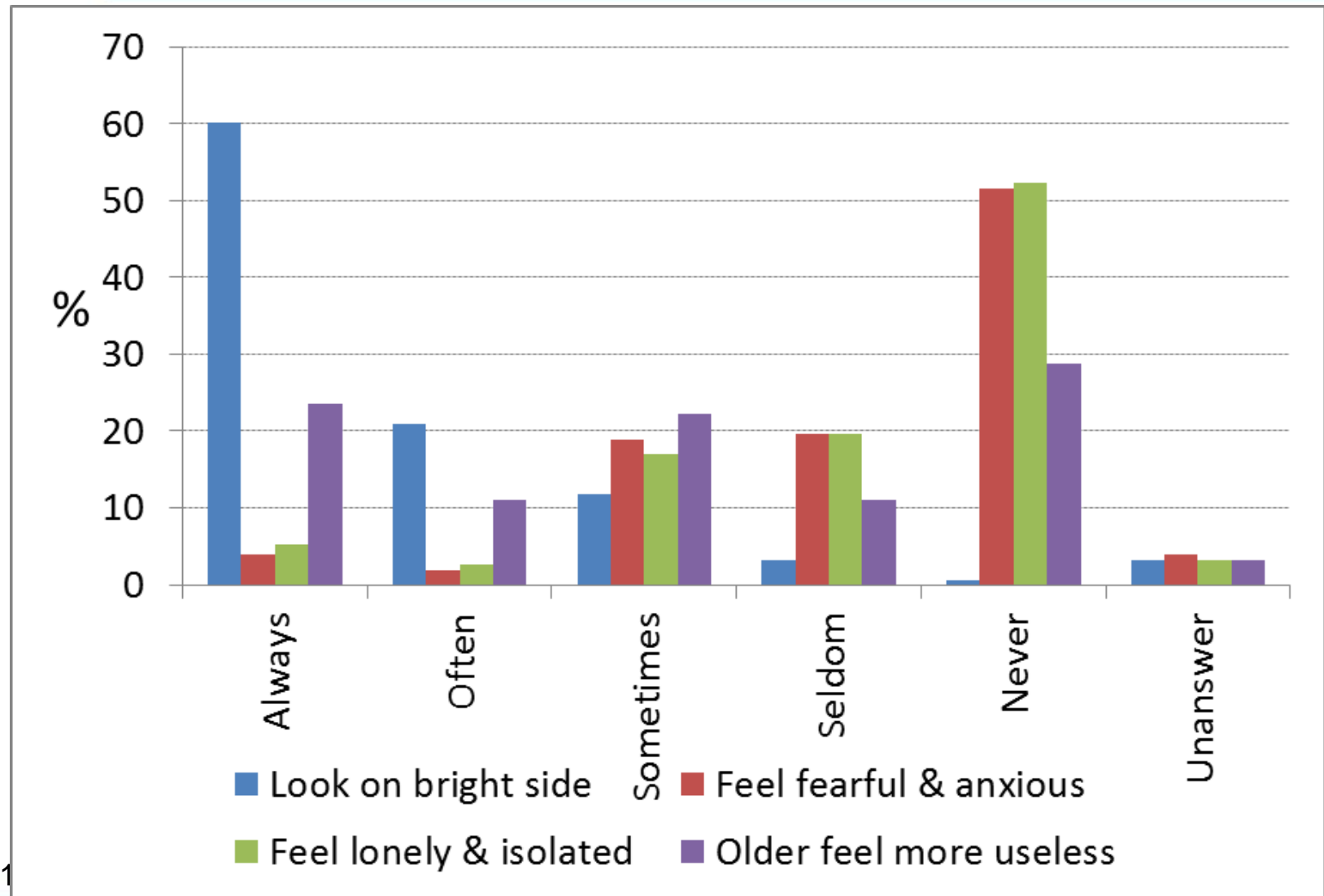
	Total (N=153) %
Katz' ADL	
Without assistance	
Bath	74
Dress	85
Toilet	90
Transfer	90
Continence	72
Feed	97
Number of difficulties in ADL	
None	56
1-2	32
3	12
Mean=	0.9
SD=	1.43

	Total (N=153) %
IADL (10 questions)	
Number of difficulties in IADL	
None	15
1-2	22
3-6	31
7	32
Mean=	4.4
SD=	3.35

		Total (N=153) %
Medical examination and health condition		
Sleep quality	Very good and good	62
How many hours sleep normally	=<5 hours	33
	6-8 hours	55
	>=9 hours	12
Mean=		6.5
SD=		1.83
BMI	Underweight=<18.5	22
	Normal weight=18.5-24.9	62
	Overweight=25-29.9	12
	Obesity>=30	4
Mean=		24.0
SD=		34.23

Suffering any disease (self-reported)	Total (N=153) %
01．中風	7
02．心力衰竭	7
03．冠心病	12
04．高血壓	67
05．心跳不均	8
07．腦退化症 (亞氏)	5
14．關節炎	12
15．臀部骨折	12
16．其他骨折（例：手腕、腰背）	13
17．骨質疏鬆症	12
18．白內障	77
19．青光眼	5
21．肺炎	6
25．糖尿病	13
26．肺氣腫、慢性阻塞性肺病、哮喘	8
29．痛風症	13
30．胃潰瘍	6

Geriatric Depression Scale (15 questions)		Total (N=153) %
	Not depressed =0	39
	Least depressed =1-4	39
	Slightly depressed=5-9	15
	Moderate/heavy Depressed=10-15	7
Mean=		2.6
SD=		3.56

		Total (N=153) %
Smoking	Not smoke at present	97
	Not smoke in the past	73
Drinking	Not drink at present	92
	Not drink in the past	75
Regular exercise	Exercise regularly at present	77
	Exercise regularly in the past	80

Primary means of financial support

Categories (x-axis): self, child(ren) & spouses, grandchild(ren) & spouses, collective, CSSA, DA, OAA, other

Y-axis: % (0 to 50)

%

Categories: very rich, rich, so so, poor, very poor, Unable to answer

Legend: Economic status compared with others
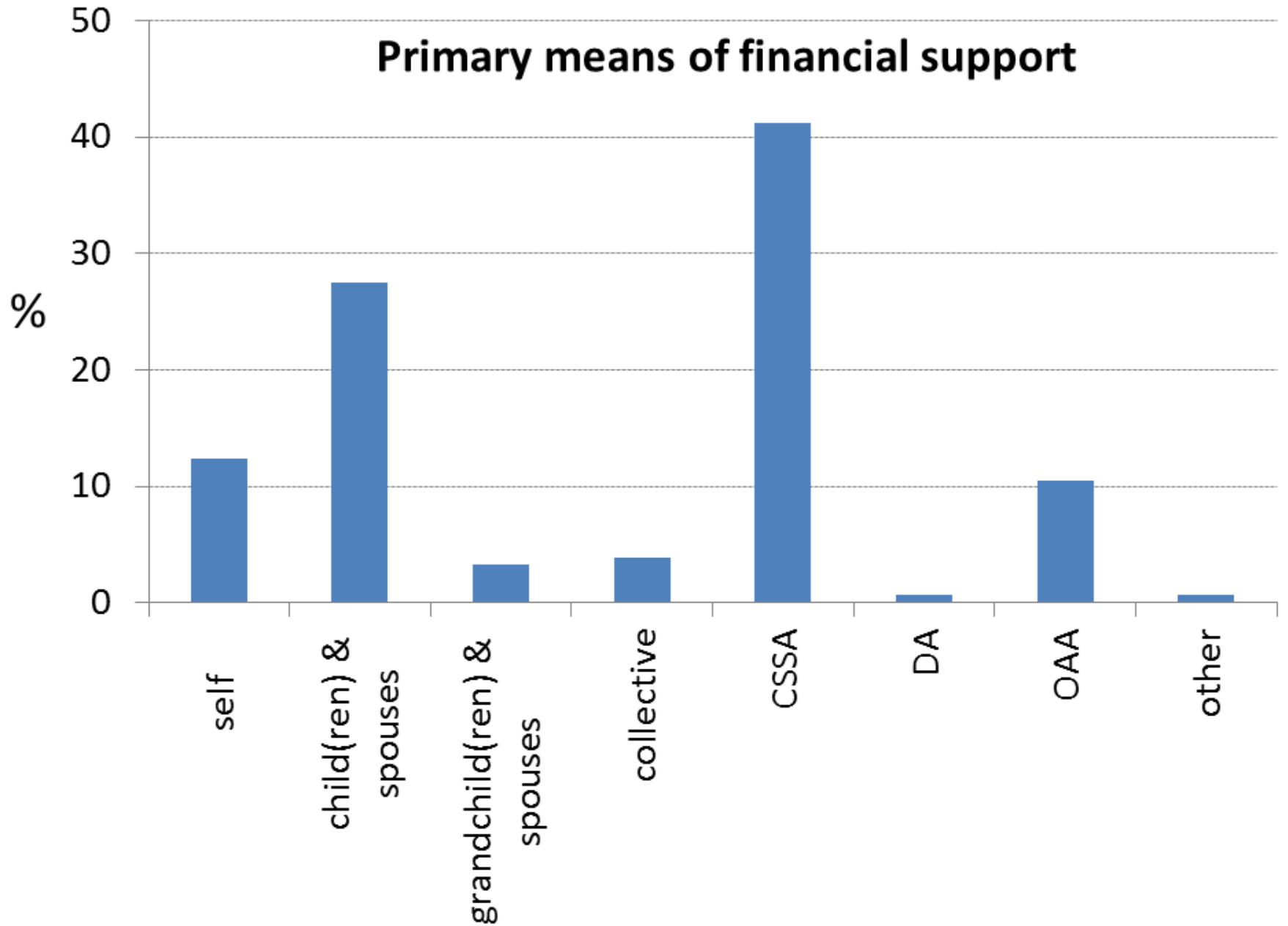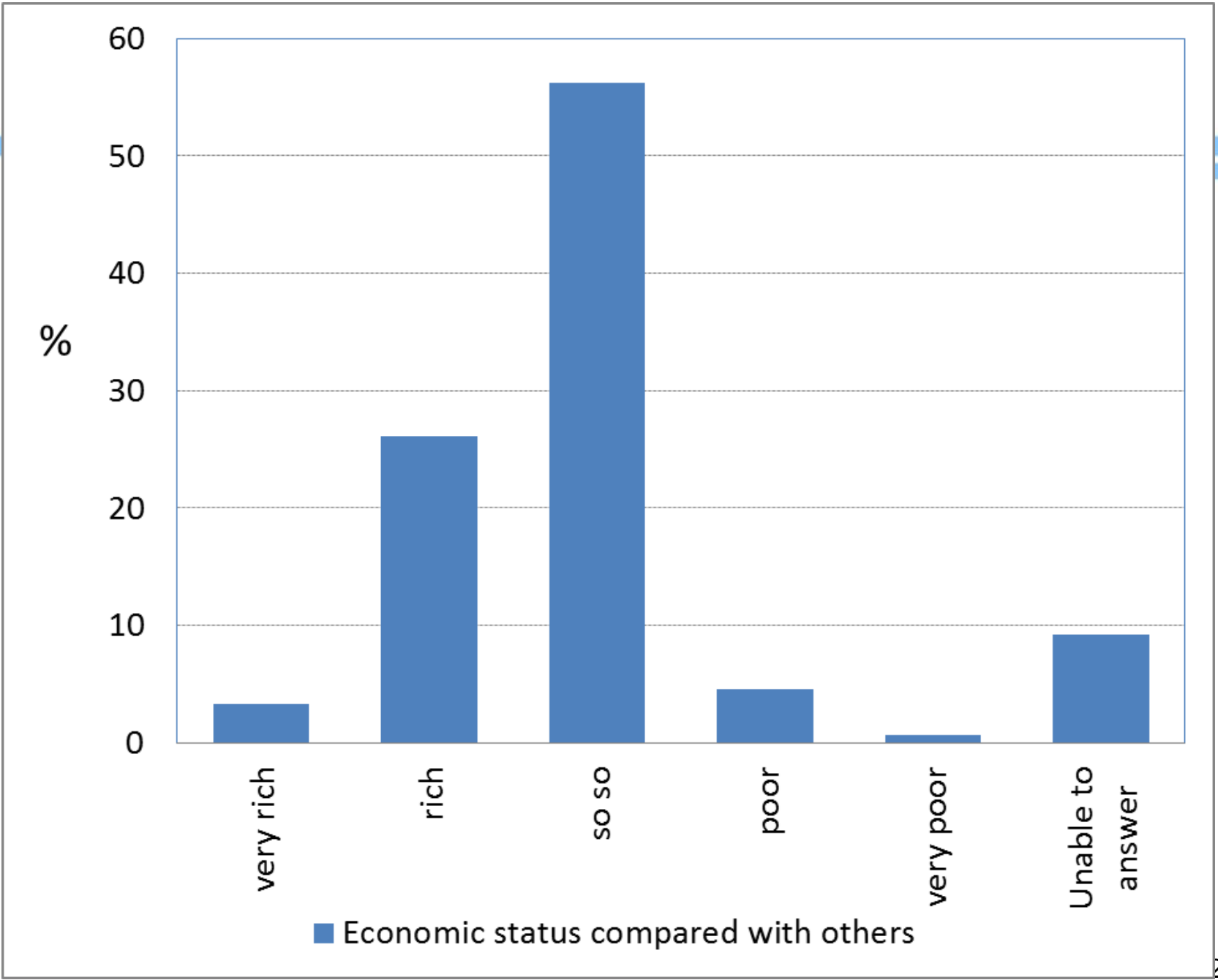
When sick, who usually takes care of
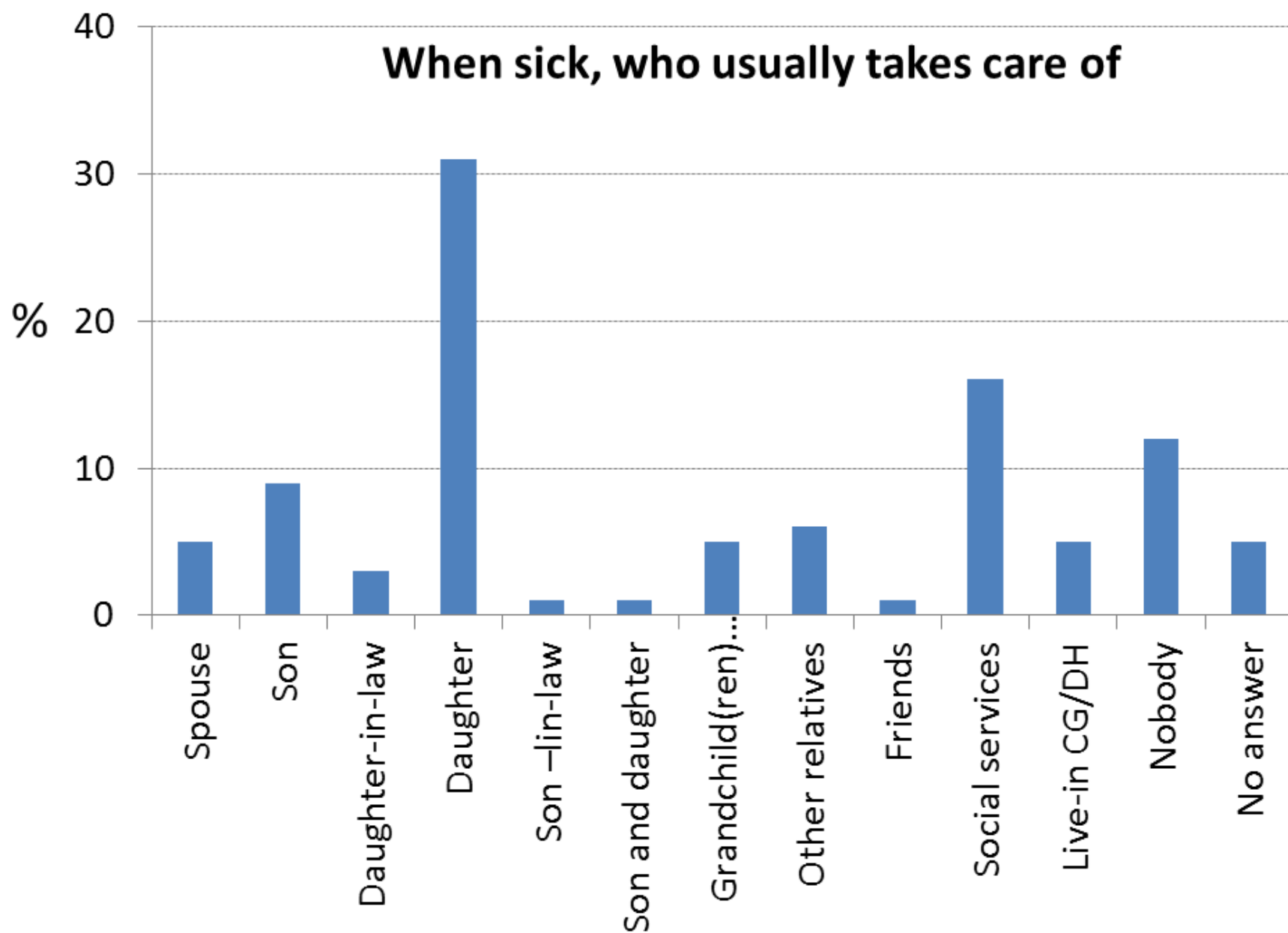
Reasons of preventing social opportunities

Legend:
- Movement and health issues
- lack of toilets along the way facilities
- without a friend companion
- transportation problem
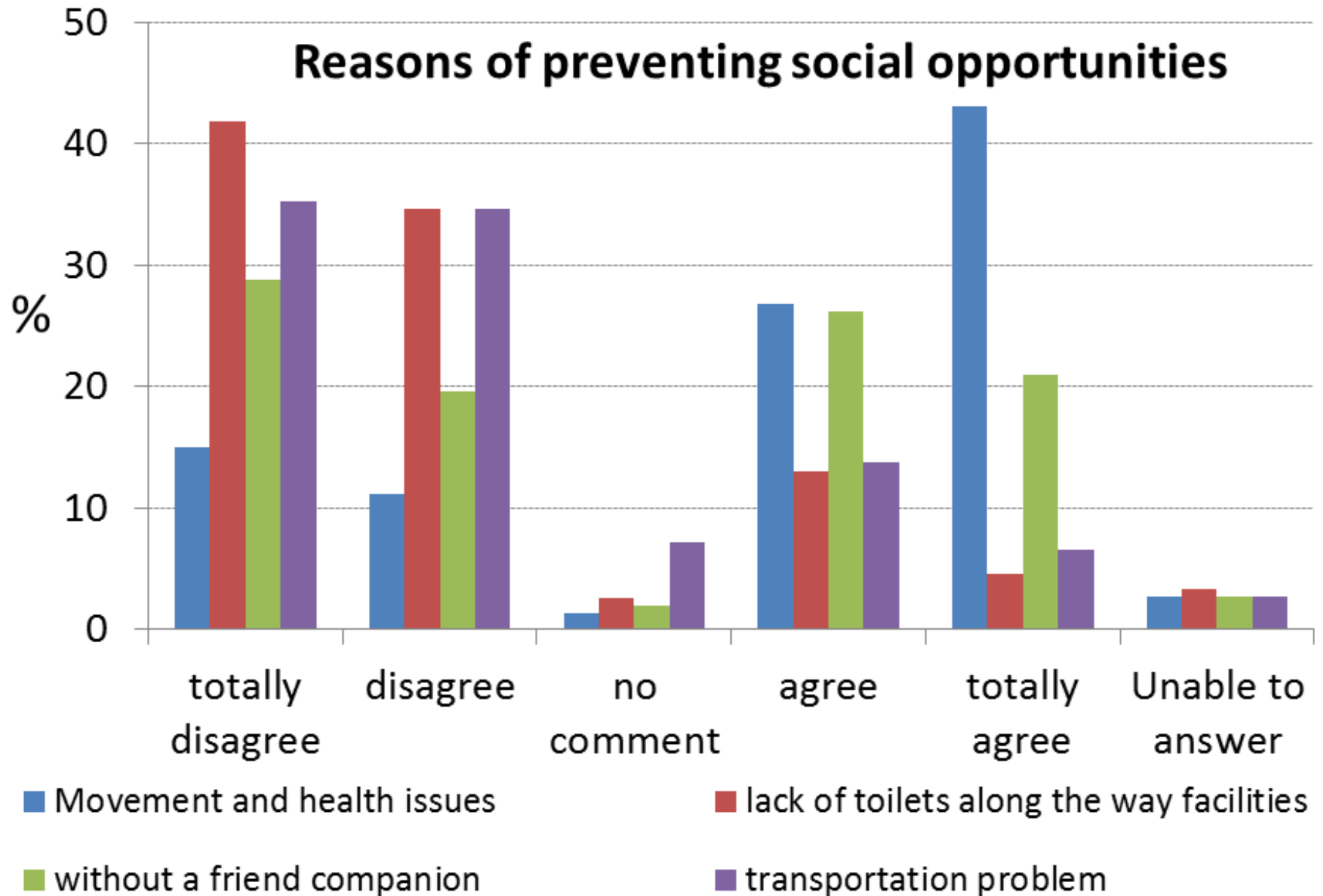
Conclusion

- Multidisciplinary determinations (i.e. psych-social, behavioral, cognitive function and diseases)
- Always and often to be optimistic, although half of them have a negative feeling towards old age
- Adapt more salubrious life style, such as eating moderately, absence of smoking and excessive alcohol consumption and doing regular exercise
- Escape of devastating chronic diseases is a priority
- Economic affluence, family support and care giving do play a role in achieving a relatively longer and healthy life
- In turn, all these factors can affect one's activities of daily life and functional capability.
- To take care of their own ADL and IADL with minimal assistance.
- If the severity of the disability is minimized, the likelihood of receiving institutional care services may be reduced.