

# GERIATRICS FACT SHEET 2018



50th Anniversary Project of The Korean Geriatrics Society



Korean Geriatrics  
Society 50 years,  
Healthy aging 100!

Korean Geriatrics Society 50 years,  
Healthy aging 100!

# Summary

## 1 Aging indexes in Korea

Koreans over ages 65 and older (2017): 14.0% (approximately 7.25 million).  
Life expectancy: 82.4 years, Healthy life years: 64.9 years (disease duration: 17.5 years).

## 2 Socioeconomic indicators of older Koreans

Uneducated: 24.3%, living alone: 23.6%.  
With health challenges: 40.7%.  
With financial hardships: 40.1%.  
Expected age dependency ratio: 21.8 (2020).

## 3 Lifestyle of older Koreans

58.7% require nutritional care or improvement,  
Malnourished older Koreans are increasing with age  
51.9% lack sufficient exercise and 21.5% have lower extremity weakness  
39.7% perceive their health to be bad and 44.2% are dissatisfied with their health.

## Analysis methods

From the viewpoint of geriatrics, there are social costs caused by disease and dysfunctions in the older population. Assessing national statistical data is a priority. We refer to the most recent data from Ministry of Health and Welfare, Republic of Korea (2017), reviewing data from the National Health Insurance Service, Health Insurance Review & Assessment Service, Statistics Korea, and the Korea National Health and Nutrition Examination Survey. The 2018 fact sheet of the Korean Geriatrics Society reflects published data on chronic diseases such as hypertension and diabetes mellitus and is the first selected national datasheet to accurately reflect the current situation among older Koreans.

## 4 Syndromes and chronic diseases of older Koreans

25.3% unable to perform daily activities; 43.9% in ages 80 to 84.  
Discomfort in chewing (46.2%), vision (33.9%), and hearing (17.8%).  
Proportions of chronic diseases are increasing: more than one chronic disease (90%), more than three chronic diseases (51%).  
Hypertension is the most common chronic disease (59.0%)  
Followed by osteoarthritis (33.1%), hyperlipidemia (29.5%), low back pain (24.1%), and diabetes mellitus (23.2%), dementia (10.2%), attempted suicide (13.2%), osteoporosis (13.0%), and falls (15.9%).

## 5 Healthcare use by older Koreans

Annual national healthcare expenses for older Koreans in 2017:  
27.6 trillion won (39.9% of total healthcare expenses).  
Use healthcare facilities more than once a month (77.4%)  
Have been hospitalized within the past year (16.8%).  
Prescribed an average of 4.1 tablets and 38.9% take more than 5 tablets.  
More than 250,000 beds in 1,428 long-term care hospitals.  
3,136 long-term care facilities can accommodate approximately 150,000 older Koreans.  
Opposition to life-sustaining treatment is reported by 91.8% of older Koreans.

# Contents

			PAGE		
<b>1</b>	<b>Aging indexes in Korea</b>	1-1	Aging in Korea	5	
		1-2	Life expectancy of Koreans	6	
		1-3	Healthy life years of Koreans	7	
<b>2</b>	<b>Socioeconomic indicators of older Koreans</b>	2-1	Level of education	9	
		2-2	Residence type	10	
		2-3	Age dependency ratio	11	
<b>3</b>	<b>Lifestyle of older Koreans</b>	3-1	Nutritional status	13	
		3-2	Sedentary behavior	14	
		3-3	Exercise rate	15	
		3-4	Health awareness and quality of life	16	
<b>4</b>	<b>Syndromes and chronic diseases of older Koreans</b>	4-1	Functional decline (disability rate)	18	4-6 Depression and suicide 23
		4-2	Visuoauditory and masticatory function	19	4-7 Hypertension 24
		4-3	Chronic disease	20	4-8 Diabetes mellitus 25
		4-4	Common comorbidities	21	4-9 Osteoporosis and fall 26
		4-5	Dementia	22	4-10 Obesity 27
<b>5</b>	<b>Healthcare use by older Koreans</b>	5-1	Healthcare expenses for older Koreans	29	5-5 Health screening rate 33
		5-2	Access to healthcare facilities	30	5-6 Attitude toward 34
		5-3	Polypharmacy	31	life-sustaining treatment
		5-4	Number of long-term care hospitals	32	

# 1 Aging indexes in Korea

- 1-1 Aging in Korea
- 1-2 Life expectancy of Koreans
- 1-3 Healthy life years of Koreans

## 1. Aging indexes in Korea

# Aging in Korea

More than

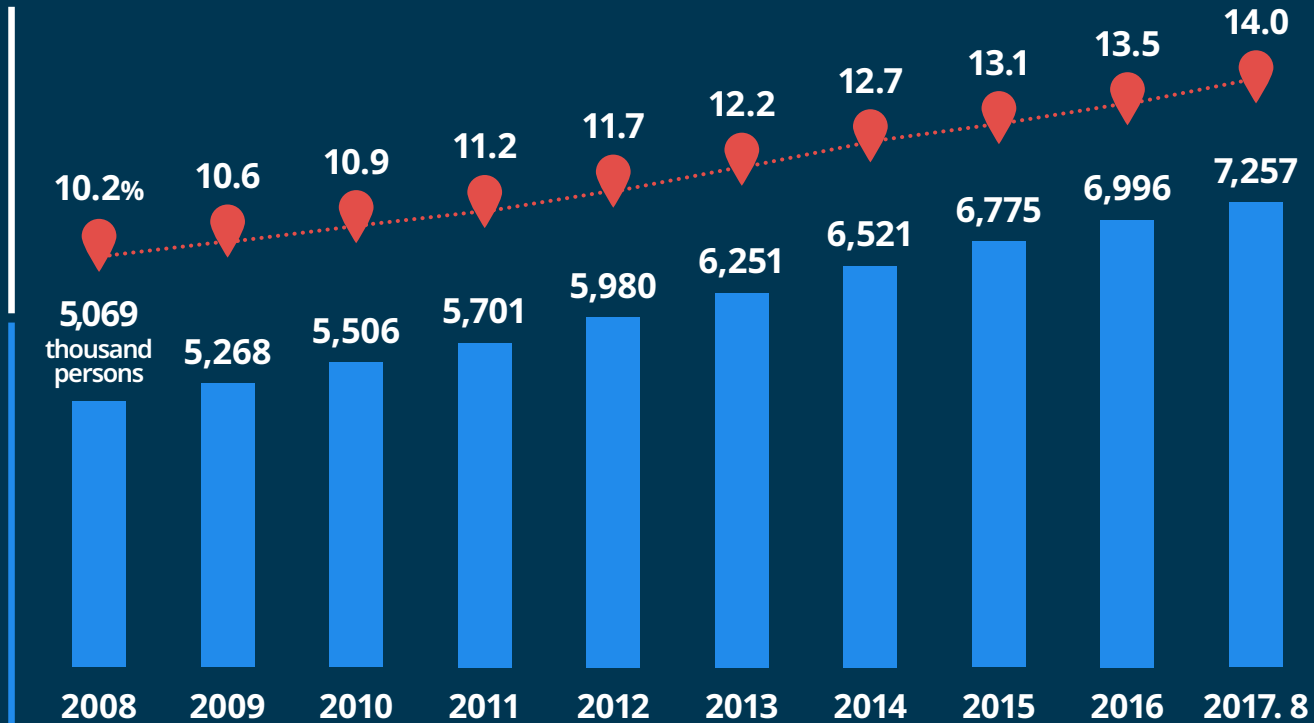
**7 million**  
older Koreans

**1 in 7**  
are 65+

Population trend among those over ages 65+ (Unit: %, thousand persons)

Percentage of  
older Koreans  
among the total  
population

Population  
over ages 65+



Source: Press Release 2017 by  
the Ministry of the Interior and Safety

1. Aging indexes in Korea

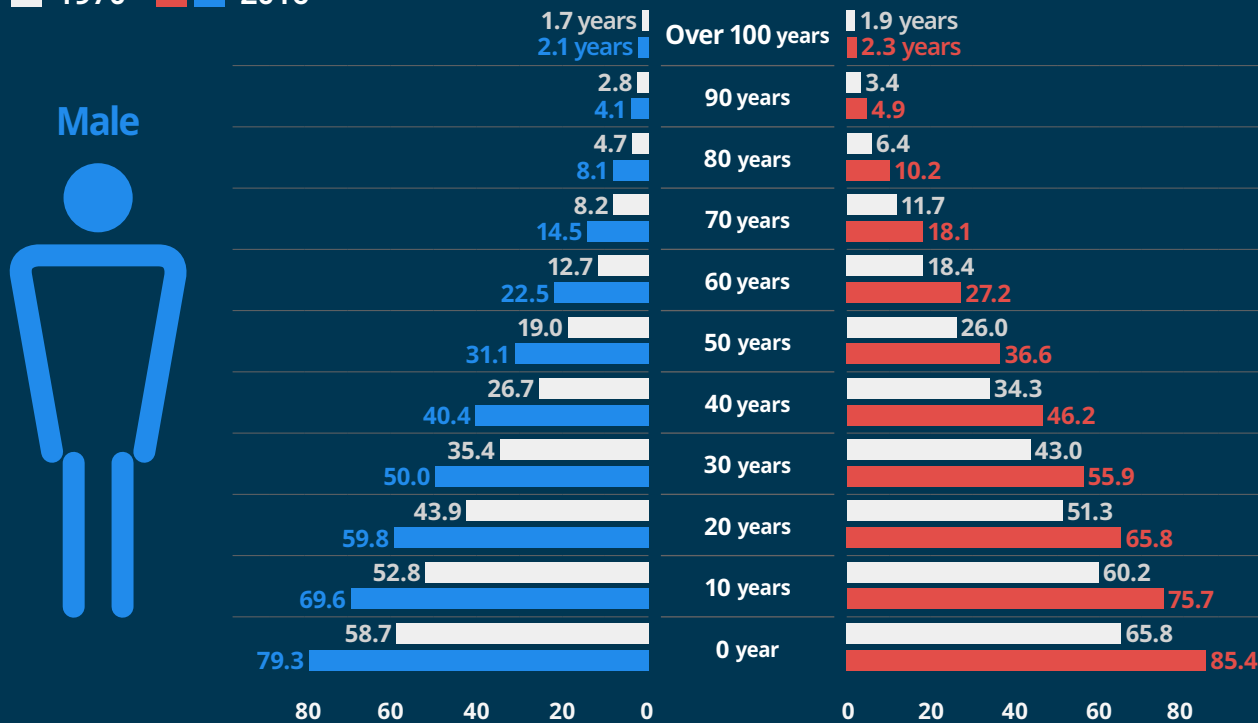
# Life expectancy of Koreans

**82.4 years**

Life expectancy of Koreans  
(Male 79.3 years, Female 85.4 years)

Life expectancy by sex and age (Unit: years)

1970 2016



Life expectancy:

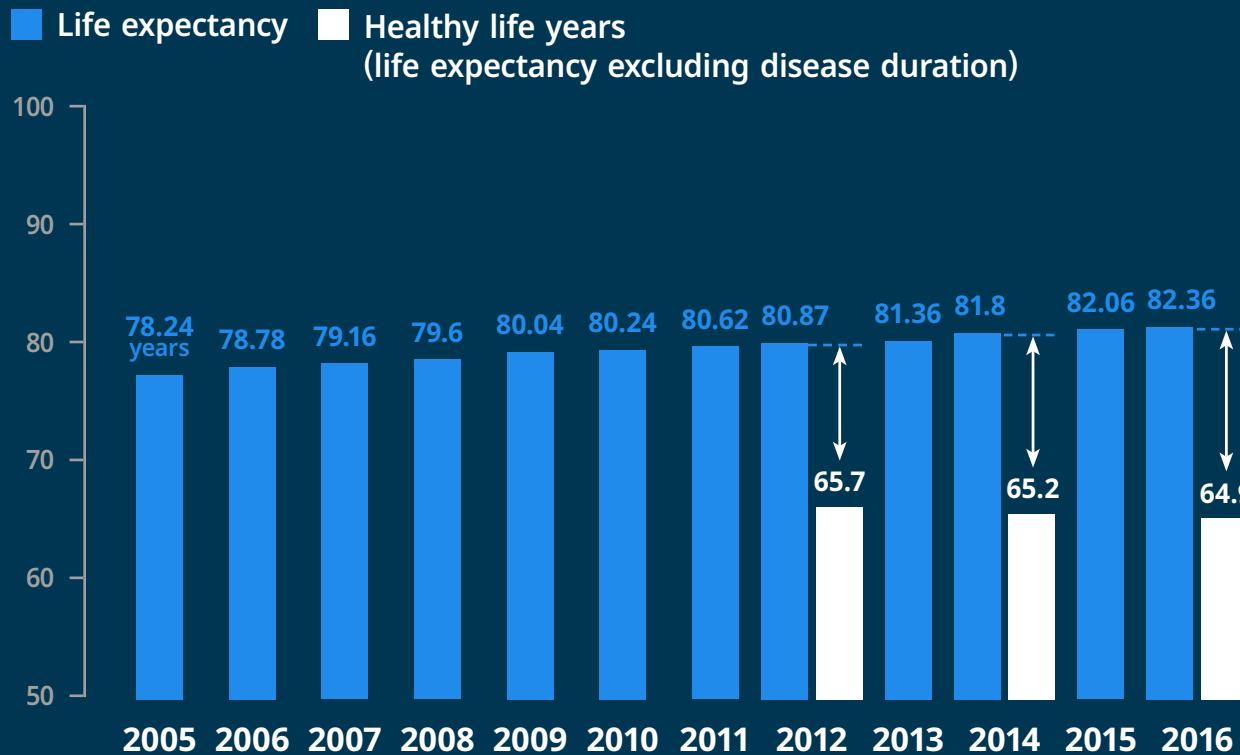
The average number of years that people who survive to a certain age are expected to live in the future

Source: Statistics Korea in 2017

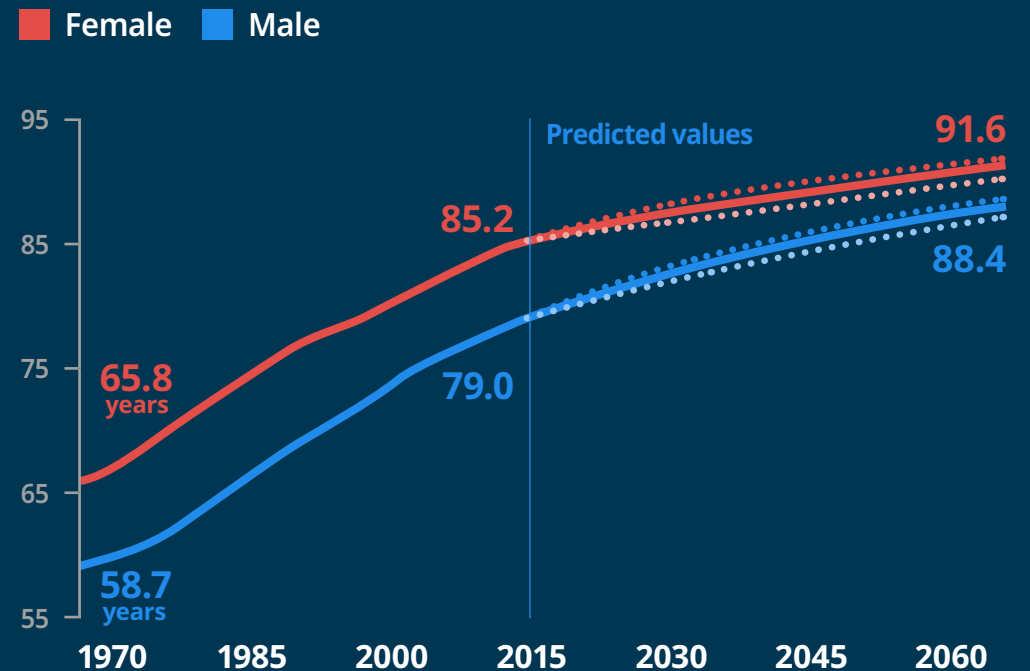
# Healthy life years of Koreans

**17.5 years**  
in the life expectancy gap

Trends in life expectancy and Healthy life years (Unit: years)



Life expectancy by sex, 1970-2065 (Unit: years)



Source: Statistics Korea in 2017

# 2 Socioeconomic indicators of older Koreans

- 2-1 Level of education
- 2-2 Residence type
- 2-3 Age dependency ratio



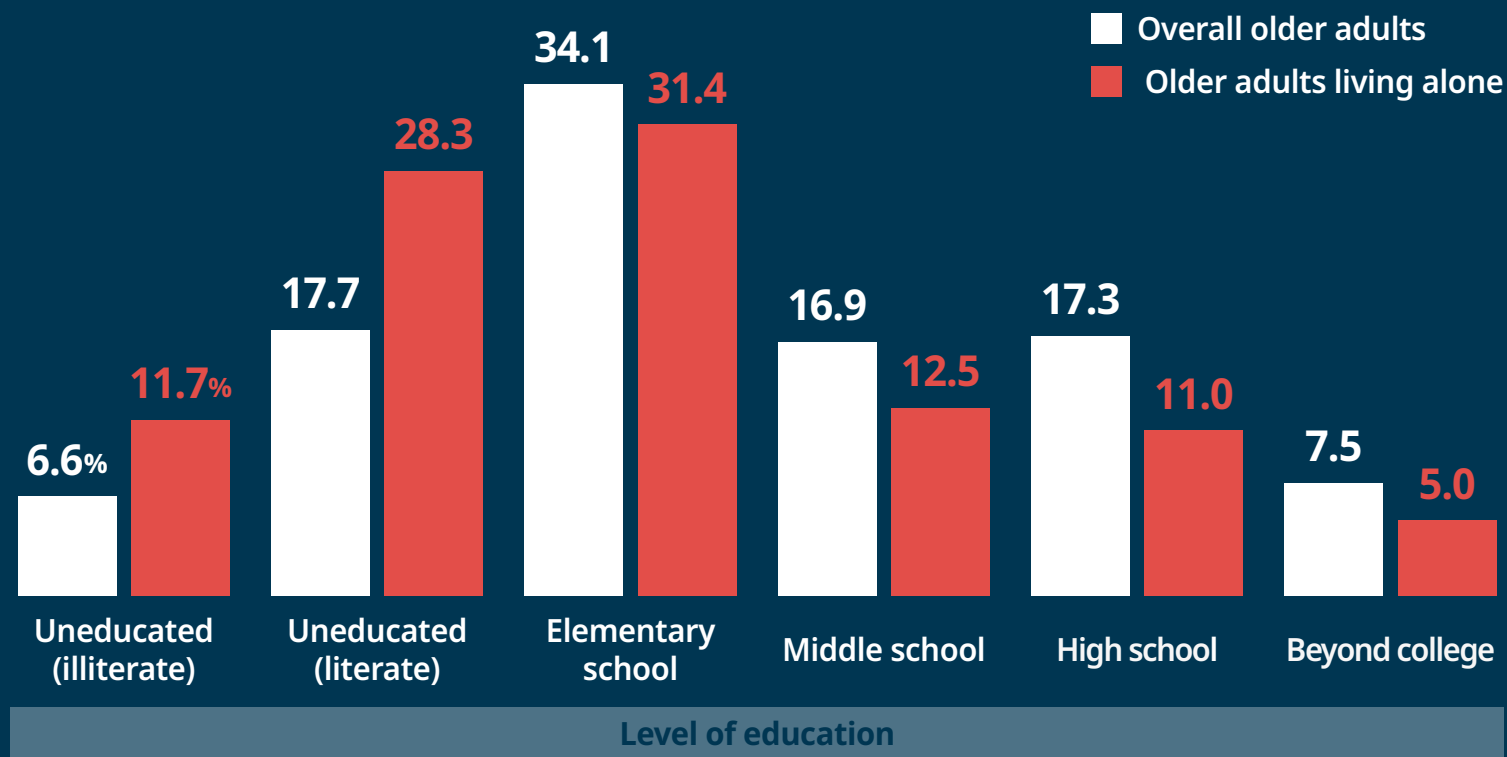
## 2. Socioeconomic indicators of older Koreans

# Level of education

**1 in 4**  
**uneducated**

**4 in 10 older Koreans**  
**living alone are uneducated**

Educational status of older Koreans over ages 65+ (Unit: %)

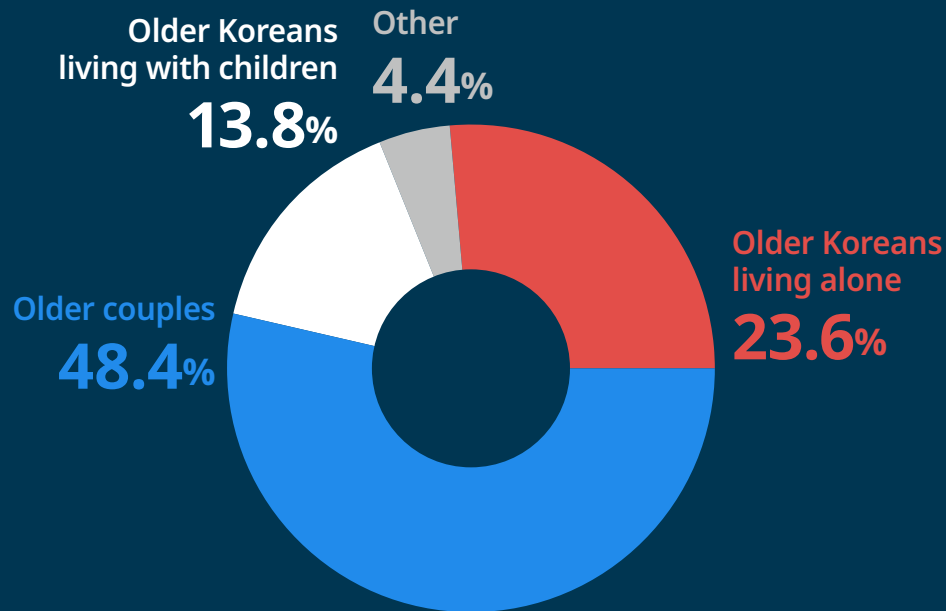


Source:  
The National Survey of Living Conditions and Welfare Needs of Older  
Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

# Residence type

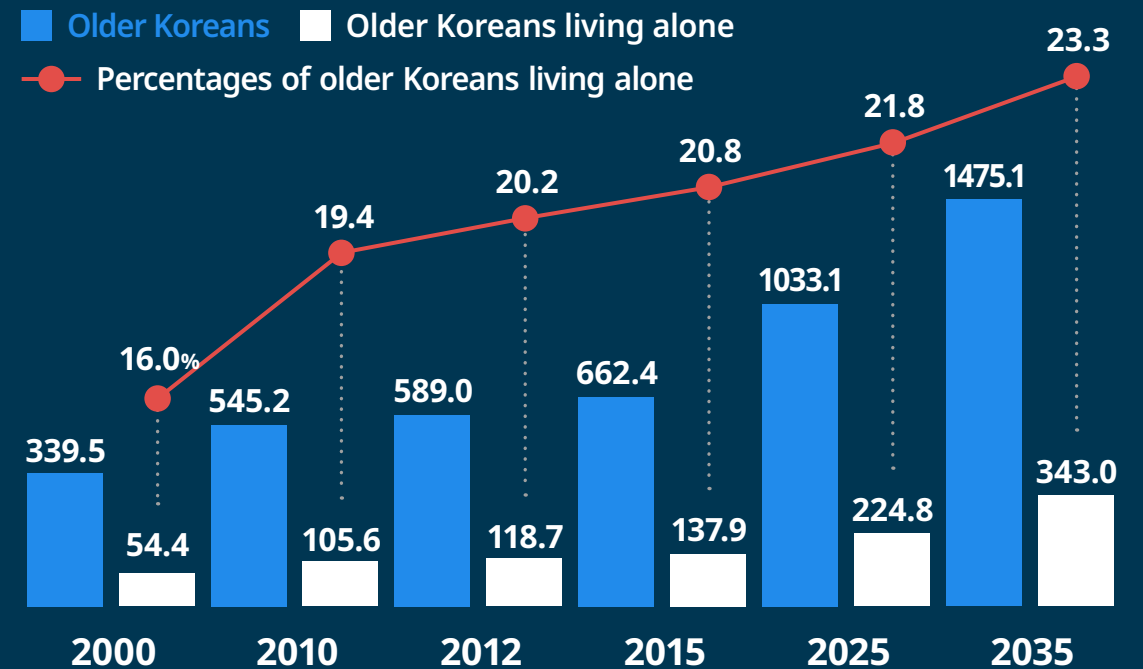
**1 in 4 older  
older Koreans live alone**

Residence types of older Koreans (Unit: %)



Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2012 by Ministry of Health and Welfare, Republic of Korea

Trends among older Koreans over ages 60+ and those living alone (Unit: 10,000 persons, %)



Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

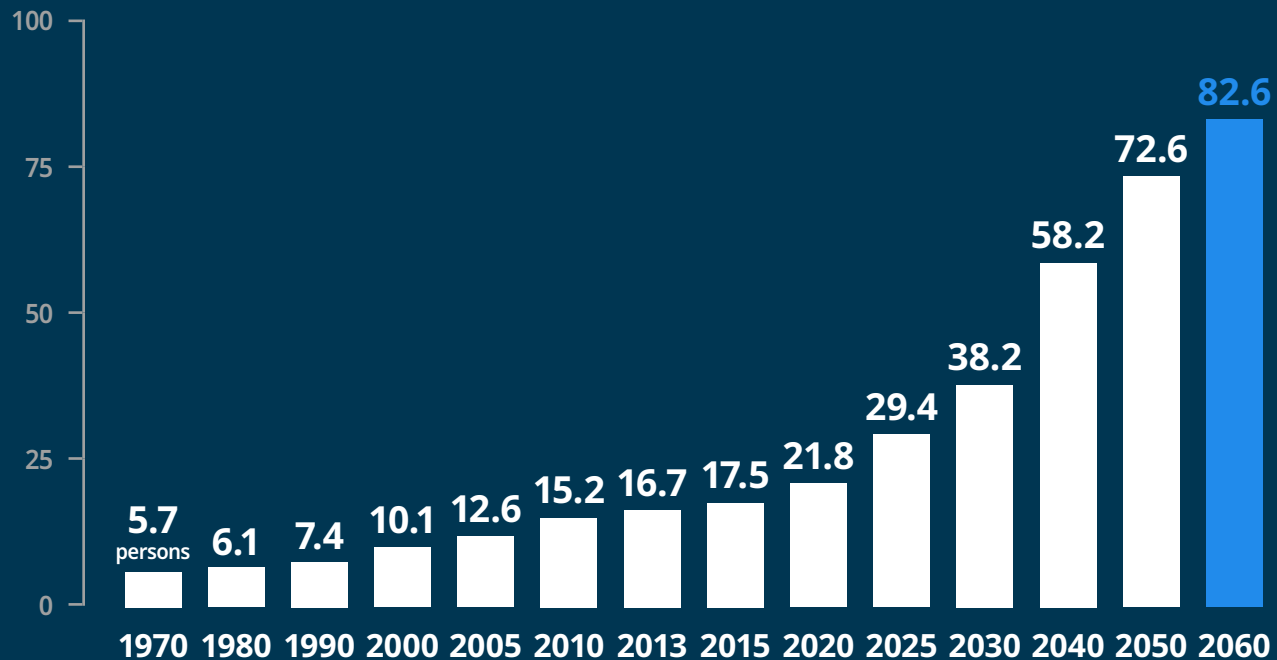
## 2. Socioeconomic indicators of older Koreans

# Age dependency ratio

Number of young people who support an older individual

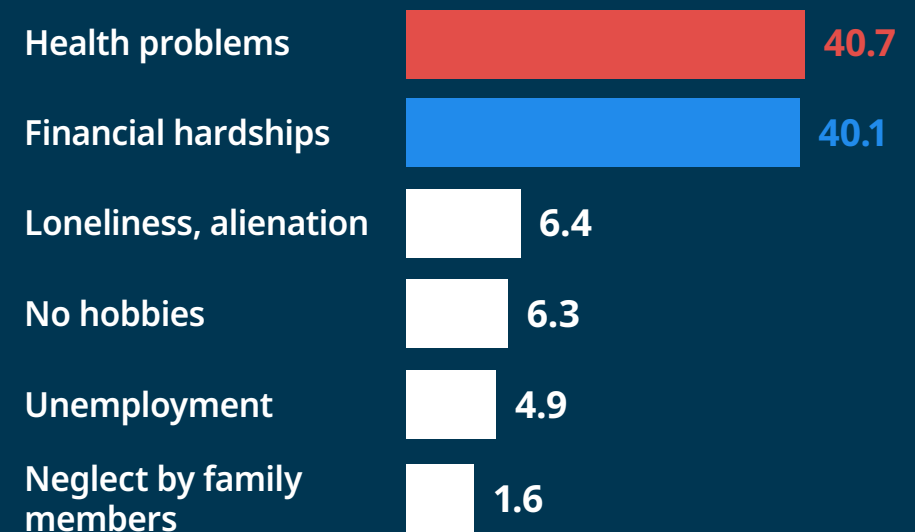
# 5.7

Age dependency ratio (Unit: number of persons per 100 people)



Source: E-national Statistics 2017 (Age dependency ratio)

The most difficult problems faced by older Koreans (Unit: %)



Source: Korean Statistical Information Service 2007 by Statistics Korea

# 3 Lifestyle of older Koreans

- 3-1 Nutritional status
- 3-2 Sedentary behavior
- 3-3 Exercise rate
- 3-4 Health awareness and  
quality of life

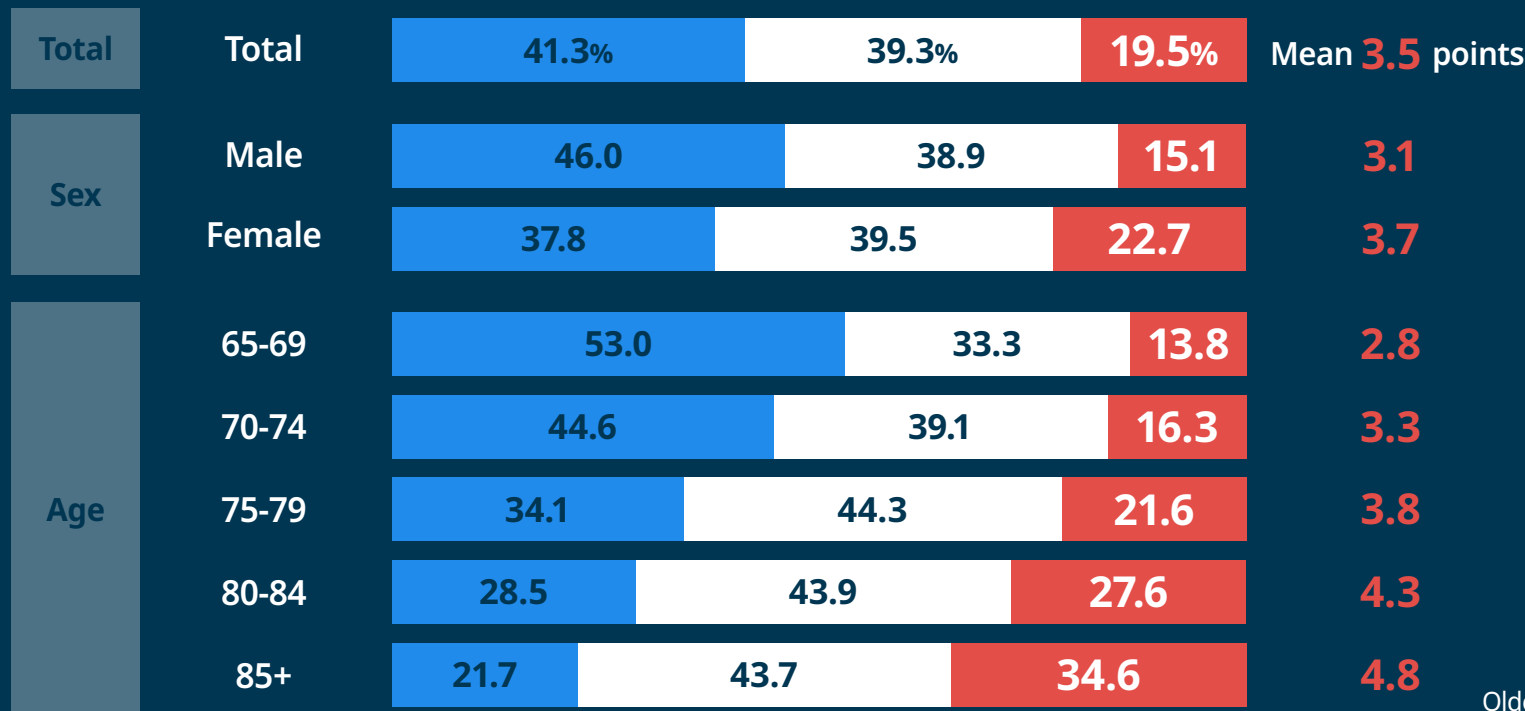
### 3. Lifestyle of older Koreans

# Nutritional status

**1 in 2 are malnourished**

**70%, among older Koreans over ages 80+**

Nutritional status of older Koreans over ages 65+ (Unit: %, point)



■ Good  
■ Needs attention  
■ Needs improvement

NSI (Nutrition Screening Initiative) based on a total score of 21 points given by weighting 10 items from the nutritional screening tool

(0 ~ 2 points: good, 3 ~ 5 points: nutrition care requires attention; more than 6 points nutrition care requires improvement)

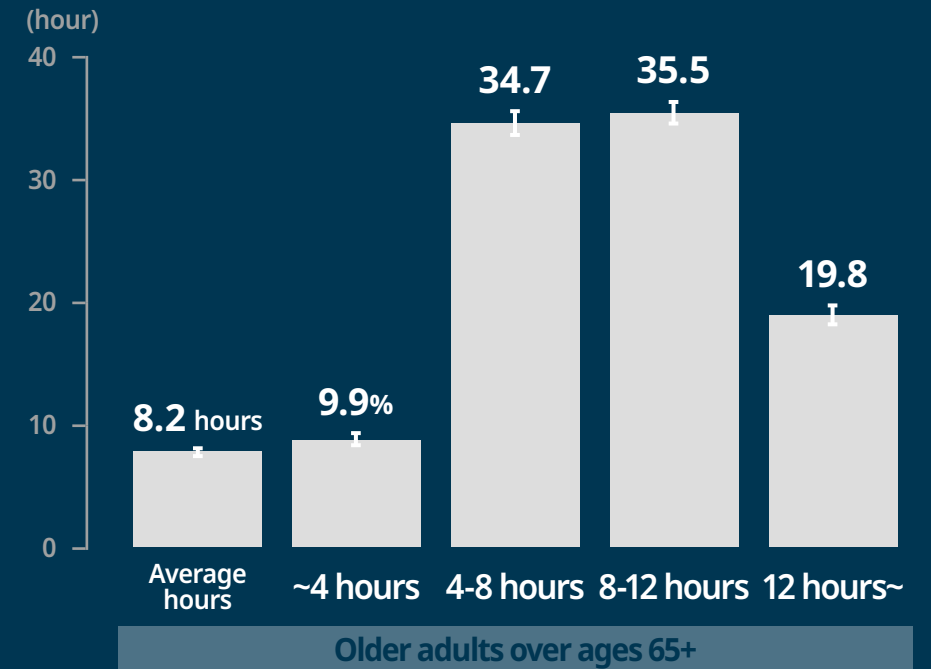
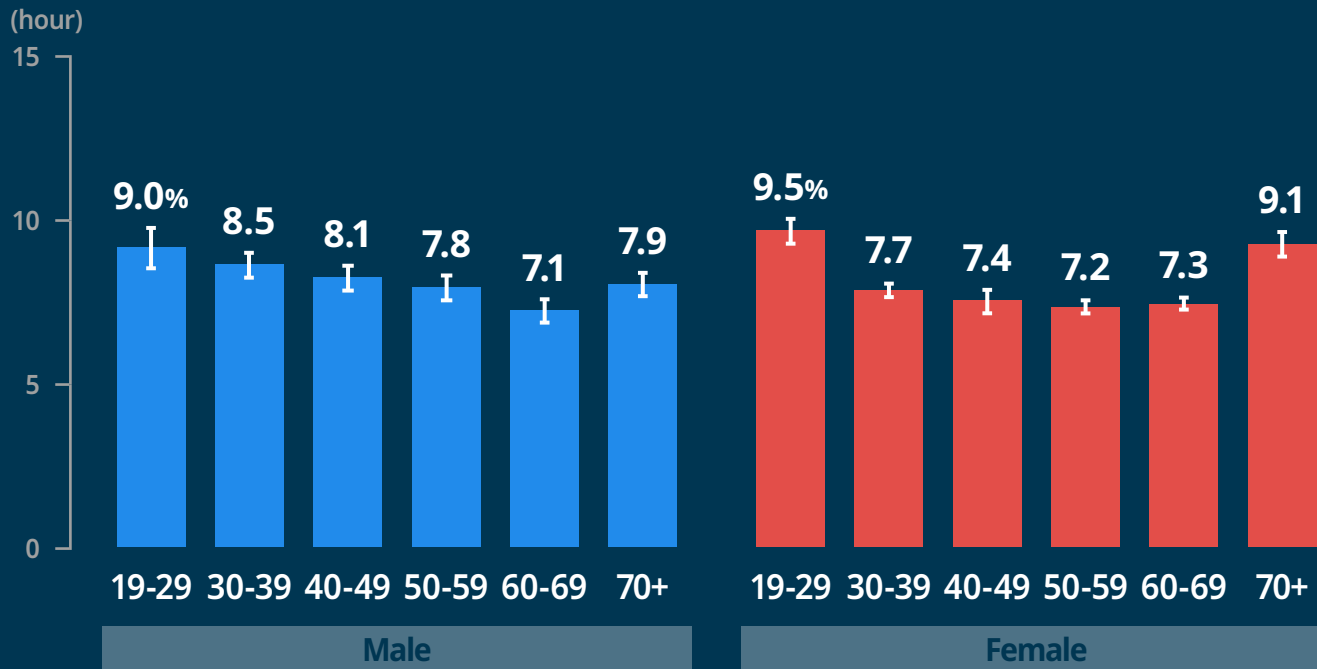
Source:  
The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

Daily sedentary time **8 hours**

# Sedentary behavior

Sedentary behavior by age (Unit: hour, %)

Sedentary behavior:  
Average time spent sitting or lying except for sleeping each day

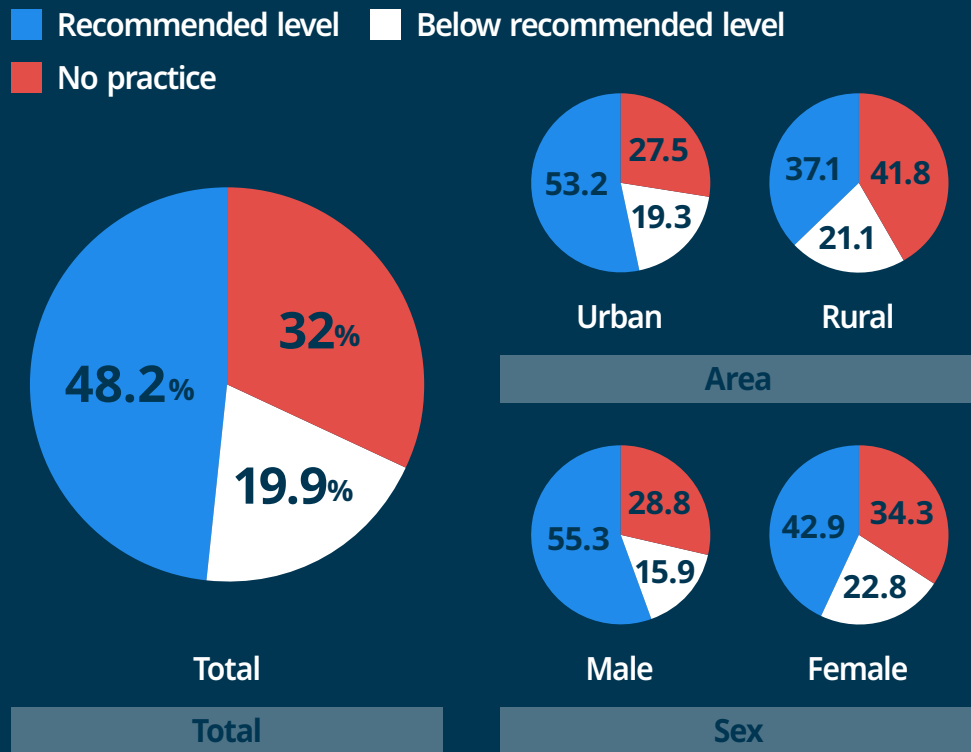


Source: National Health and Nutrition Survey 2016 by the Korea Centers for Disease Control and Prevention

### 3. Lifestyle of older Koreans

# Exercise rate

Exercise levels by general characteristics among older Koreans over ages 65+ (Unit: %)

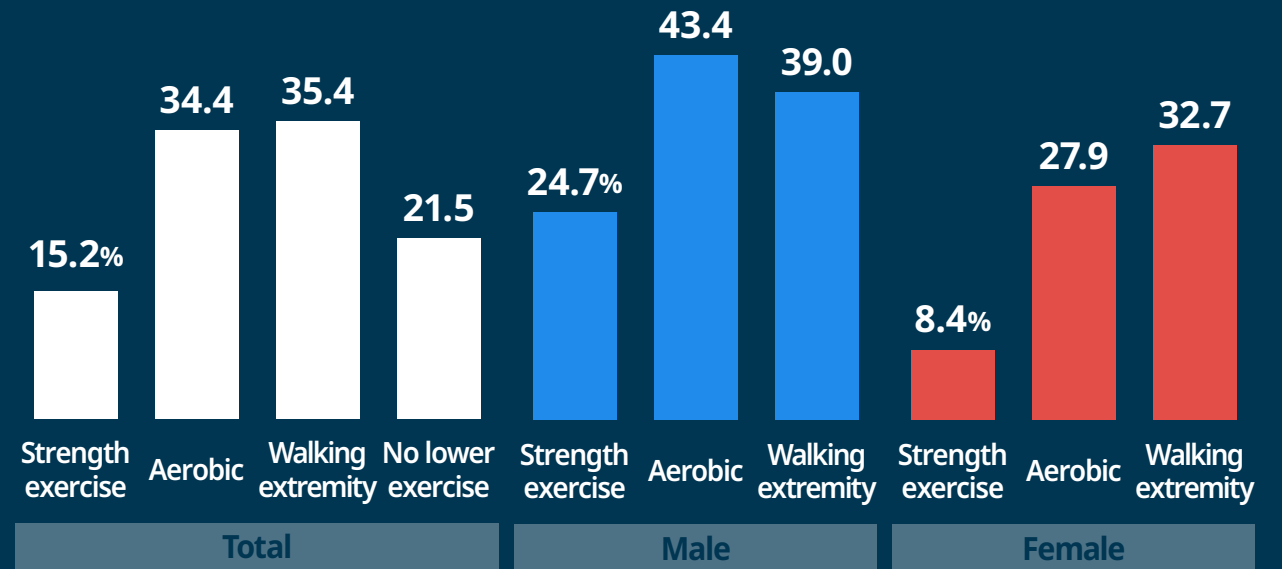


**1 in 2**  
Lack of exercise

**1 in 5**  
Lack of lower extremity strength

Rural older Koreans and women further lack exercise  
Strengthening exercises are performed in only 15% (8.4% in women)

Exercise level of older Koreans over ages 65+ and lower extremities (Unit: %)



Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

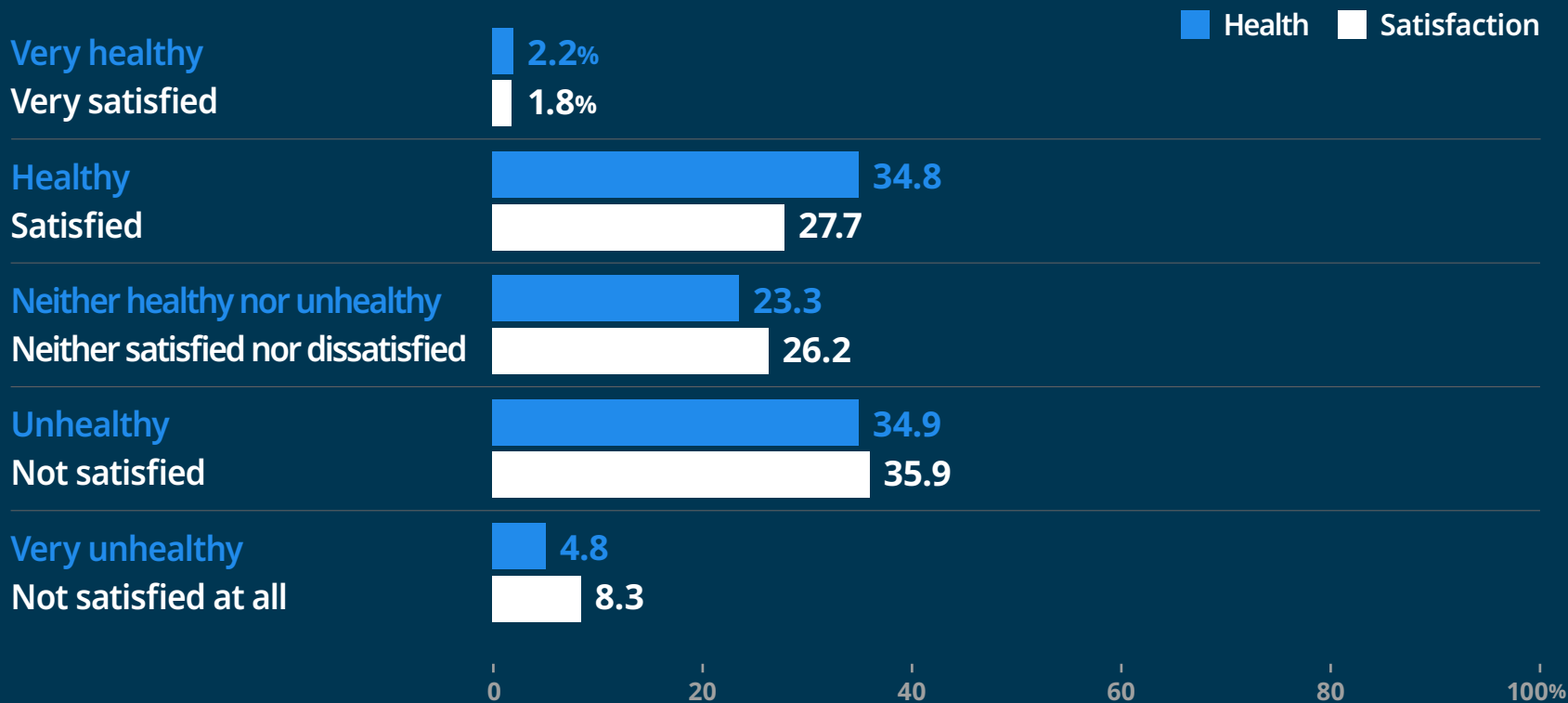
### 3. Lifestyle of older Koreans

# Health awareness and quality of life

**40%**  
Unhealthy

**44%**  
Dissatisfied with their health status

Health status and satisfaction of older Koreans over ages 65+ (Unit: %)



Source:  
The National Survey of Living Conditions and  
Welfare Needs of Older Koreans 2017 by  
Ministry of Health and Welfare, Republic of Korea



# 4 Syndromes and chronic diseases of older Koreans

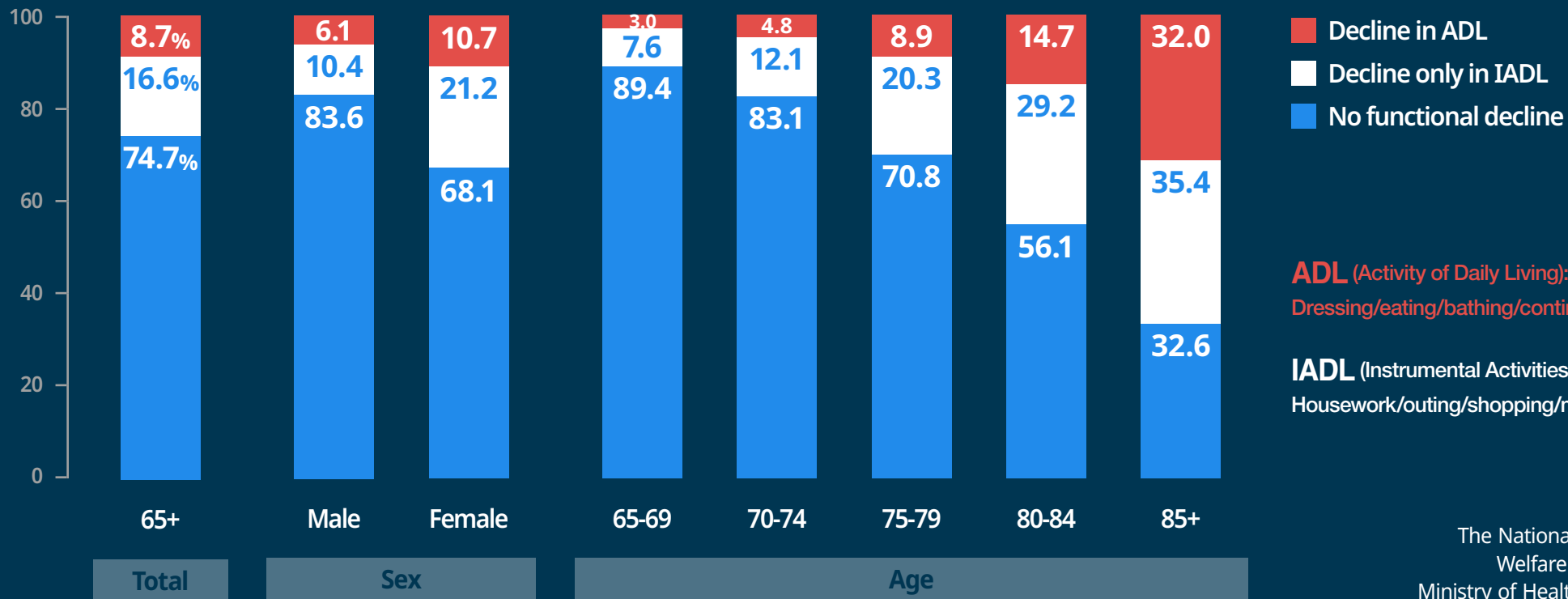
- 4-1 Functional decline (disability rate)
- 4-2 Visuoauditory and masticatory function
- 4-3 Chronic disease
- 4-4 Common comorbidities
- 4-5 Dementia
- 4-6 Depression and suicide
- 4-7 Hypertension
- 4-8 Diabetes mellitus
- 4-9 Osteoporosis and fall
- 4-10 Obesity

#### 4. Syndromes and chronic diseases of older Koreans

# Functional decline (disability rate)

**1 in 4 have disabilities in their activities of daily living**

Function decline status of the over ages 65+ (Unit: %)



Source:  
The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

#### 4. Syndromes and chronic diseases of older Koreans

# Visuoauditory and masticatory function

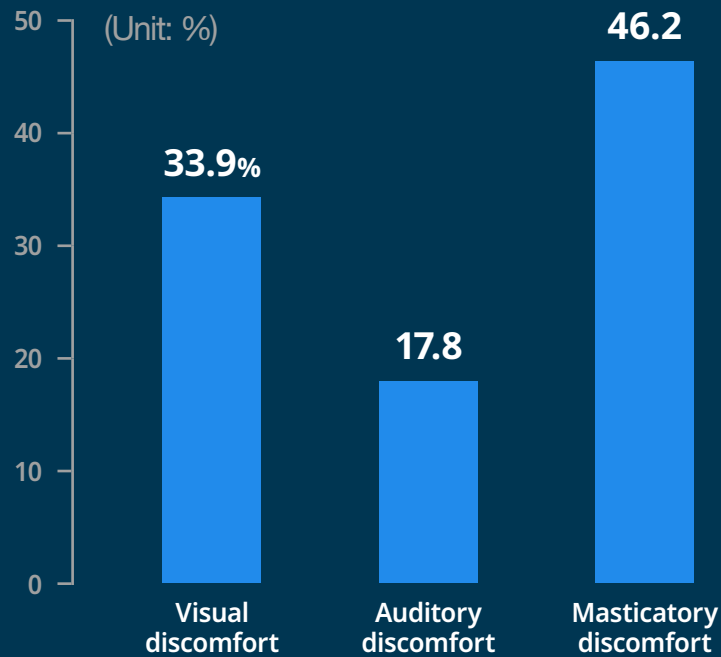
**1 in 2**

older Koreans  
have chewing discomfort

**1 in 3**

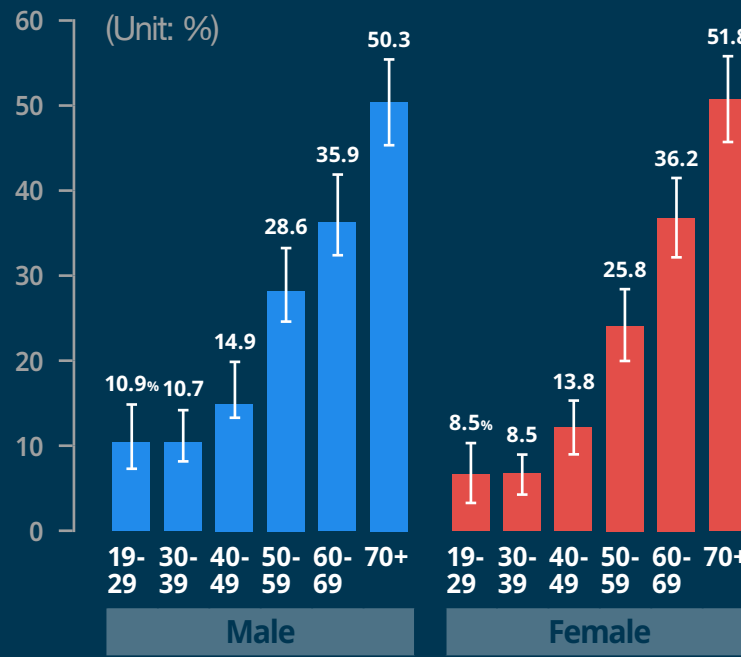
older Koreans  
have visual discomfort

Visio-auditory and masticatory function of older adults over ages 65+



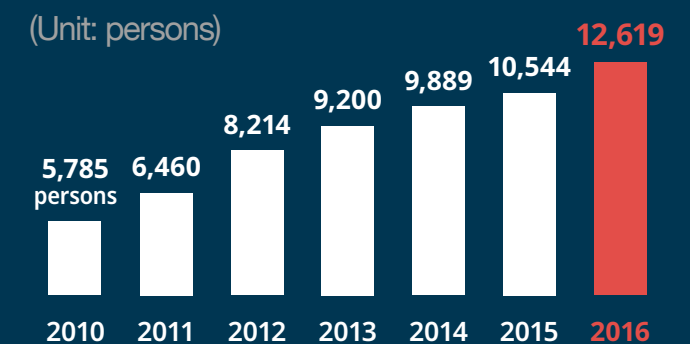
Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

Masticatory dysfunction rate by age



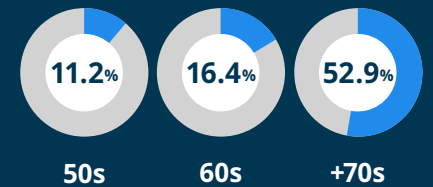
Source: National Health and Nutrition Survey 2016 by the Korea Centers for Disease Control and Prevention

Number of people treated for swallowing disorders



Number of people treated by age

(2015)



Source: Health Insurance Review & Assessment Service 2013-2015

#### 4. Syndromes and chronic diseases of older Koreans

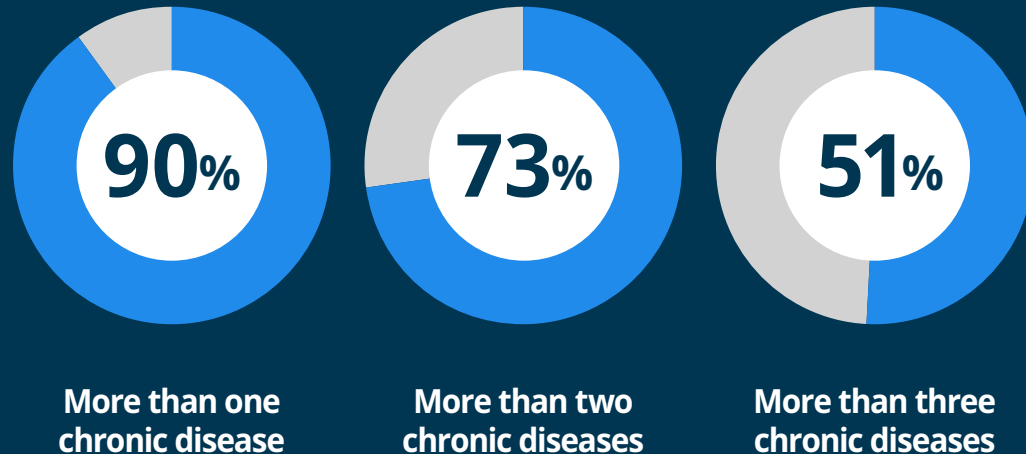
# Chronic disease

**90%**  
More than one

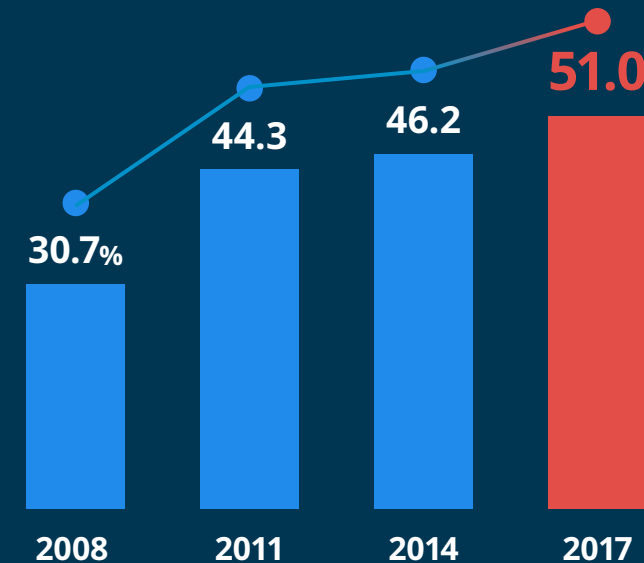
**73%**  
More than two

**51%**  
More than three

Chronic disease rate (Unit: %)



Rates of three or more chronic diseases (Unit: %)



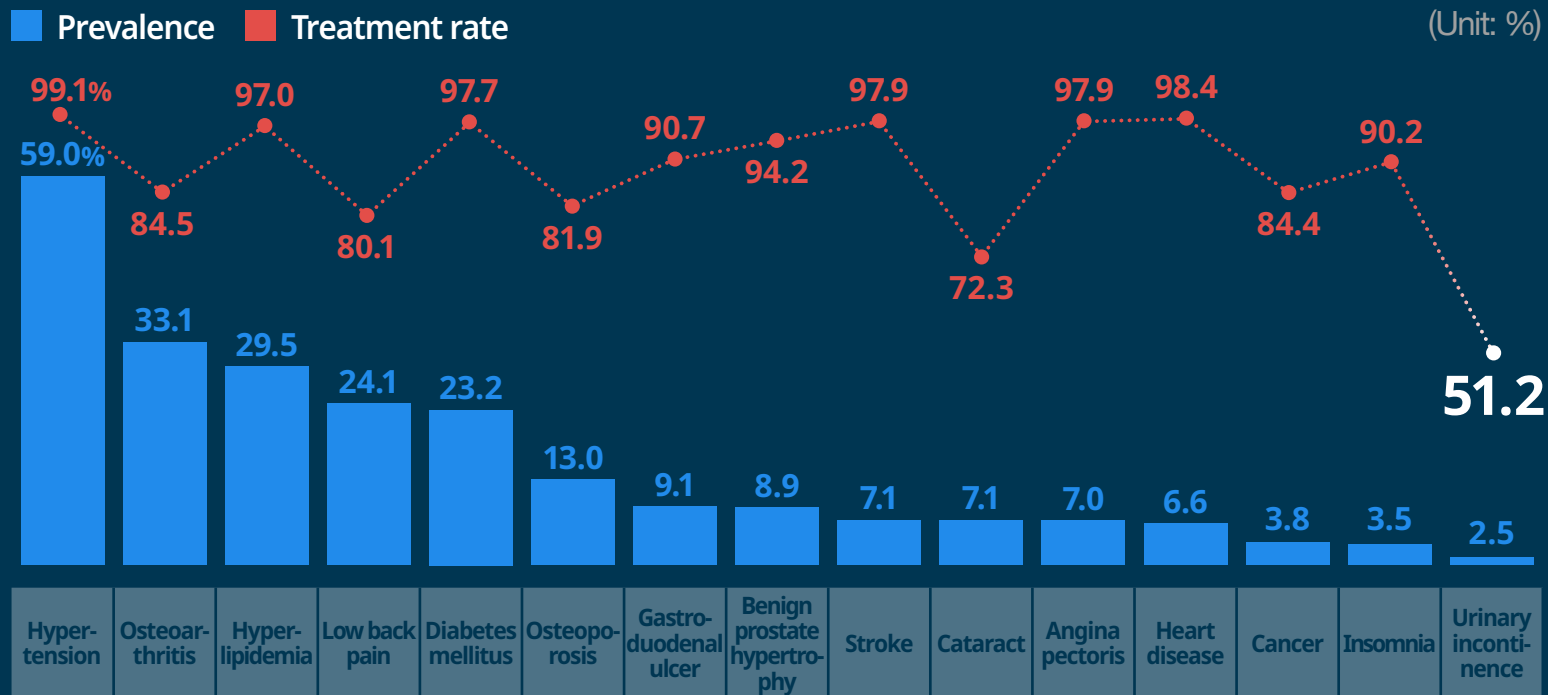
Chronic disease:  
Illness diagnosed by a physician lasting for 3 or more months

Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

#### 4. Syndromes and chronic diseases of older Koreans

# Common comorbidities

Prevalence (diagnosed by a physician) and current treatment rate of chronic diseases of the older adults over ages 65+

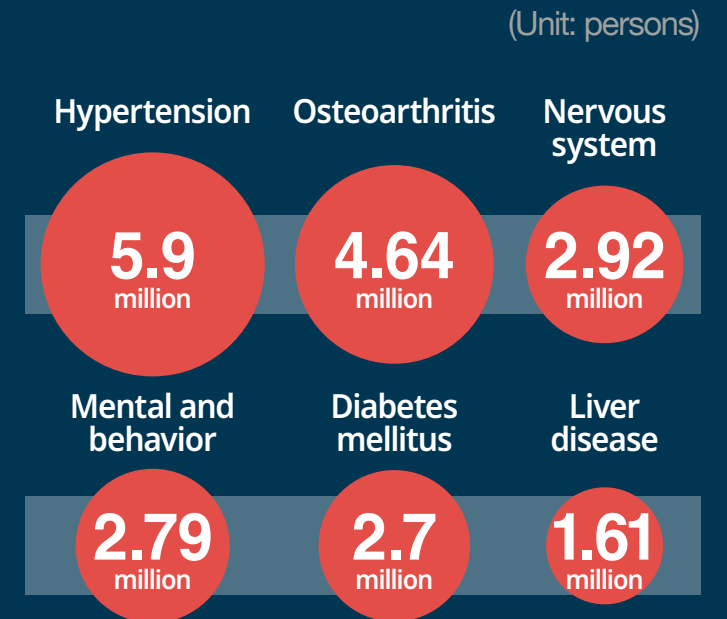


Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

## 5 major chronic diseases



Number of patients treated for chronic diseases (2016)



Source: Health Insurance Statistical Annual Report 2016 by the National Health Insurance Service and Health Insurance Review & Assessment Service

#### 4. Syndromes and chronic diseases of older Koreans

# Dementia

Number of dementia patients

**7.2 million**

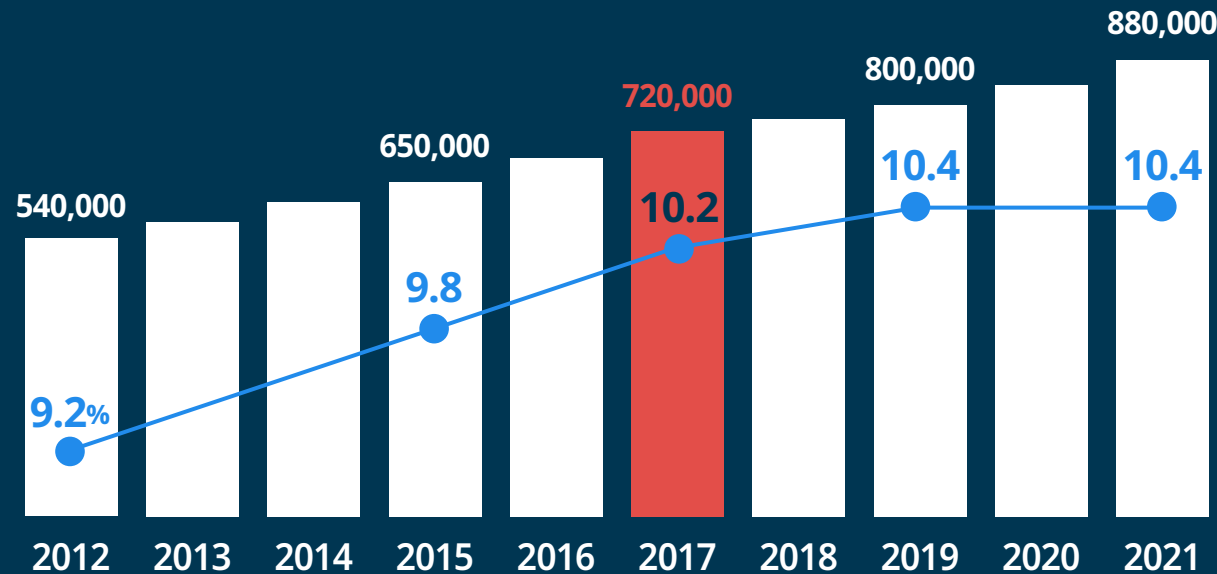
**1 in 10**  
older Koreans have dementia

The screening rate is only

**46%**

## Prevalence and trends in dementia patients (Unit: persons, %)

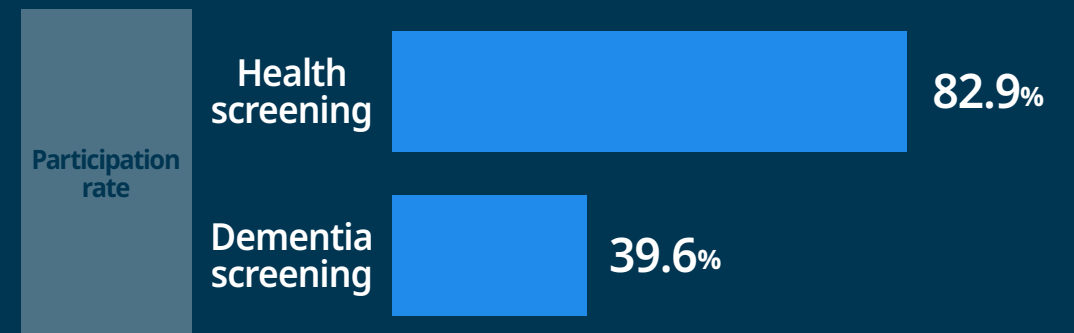
● Prevalence (%)



※ Estimates after 2016

Source: National Institute of Dementia by Ministry of Health and Welfare, Republic of Korea 2016-2017

## Health screening rates of older Koreans over ages 65+ (Unit: %)



Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

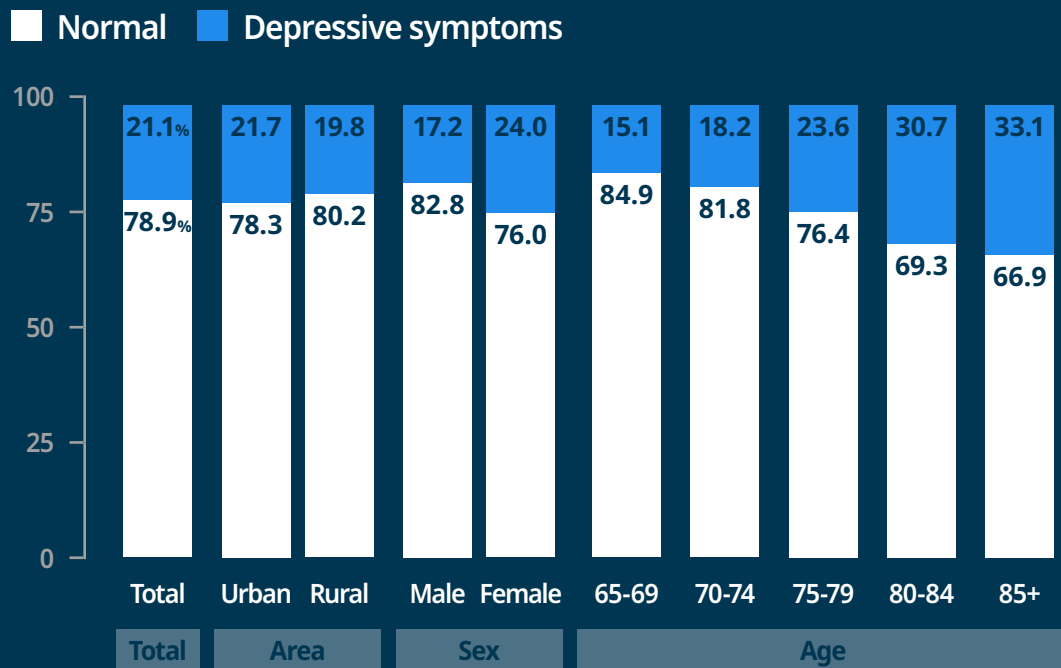
#### 4. Syndromes and chronic diseases of older Koreans

**1 in 5** Depressive symptoms

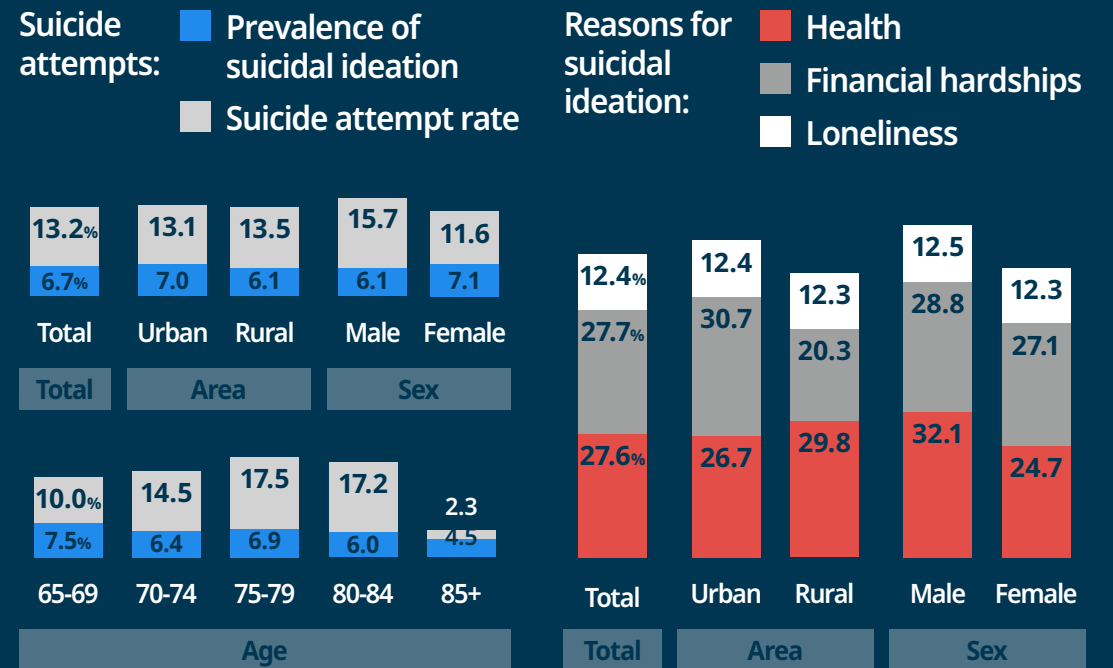
**1 in 8** Suicide attempt

# Depression and suicide

Depressive symptoms among older Koreans over ages 65+ (Unit: %)



Reasons for suicidal ideation and suicide attempts of the older adults over ages 65+ (Unit: %)



Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

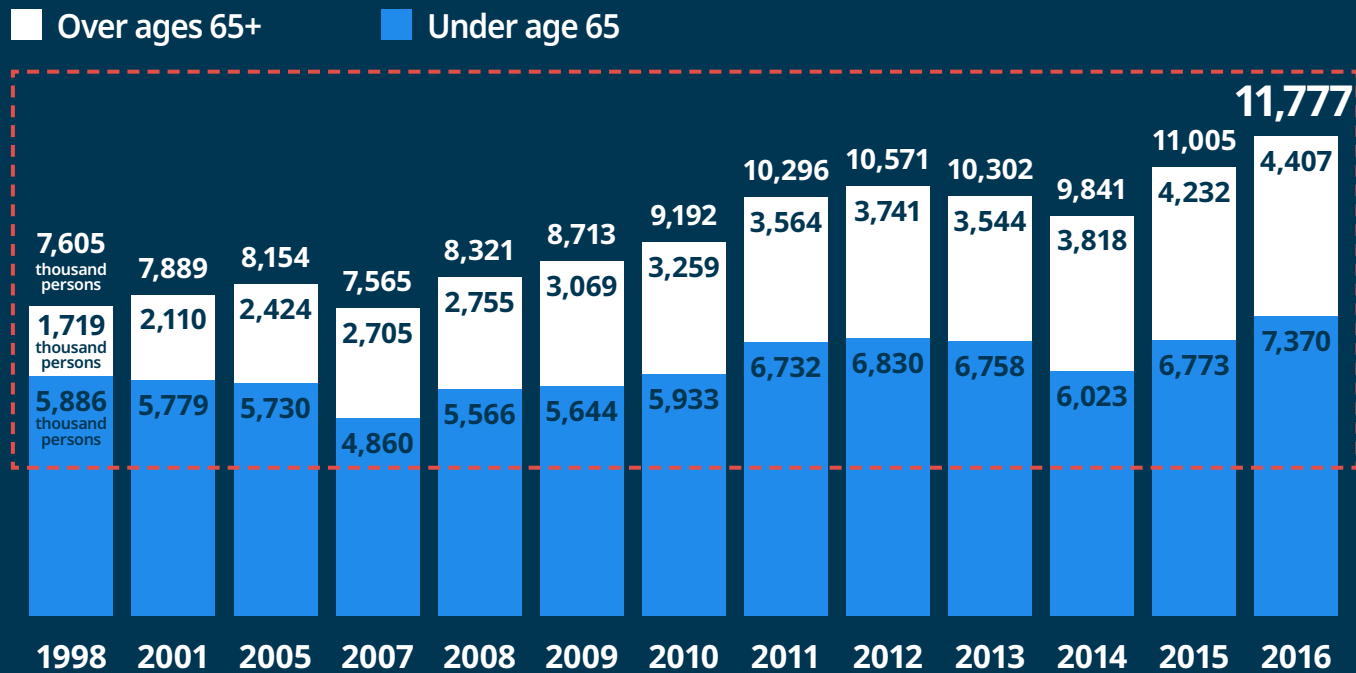
## 4. Syndromes and chronic diseases of older Koreans

# Hypertension

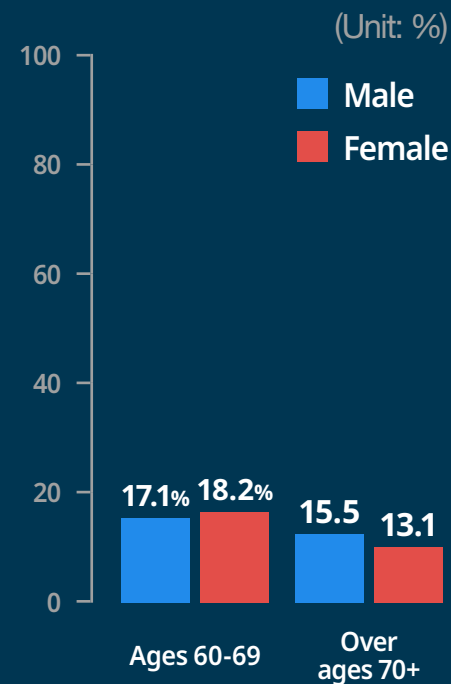
**4.4 million**  
older Koreans with hypertension

Among all patients with hypertension patients,  
**46%** are older

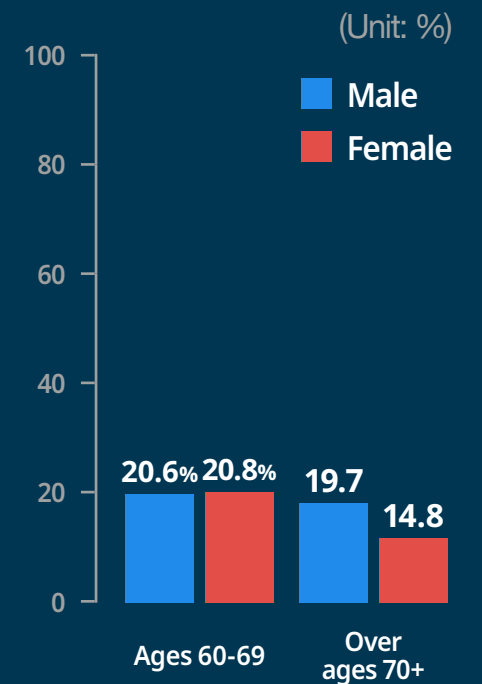
Changes in the population with hypertension (Unit: thousand persons)



Unawareness rate



Untreatment rate



Source: National Health and Nutrition Survey 1998-2016 by the Korea Centers for Disease Control and Prevention / Hypertension Fact Sheet 2018 by the Korean Society of Hypertension



#### 4. Syndromes and chronic diseases of older Koreans

# Diabetes mellitus

Diabetic older Koreans

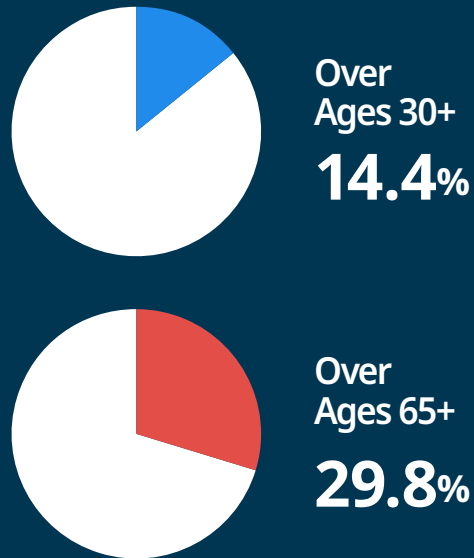
**2.7** million

Among older Koreans,

**30%** have diabetes mellitus

Diabetes mellitus prevalence (2016)

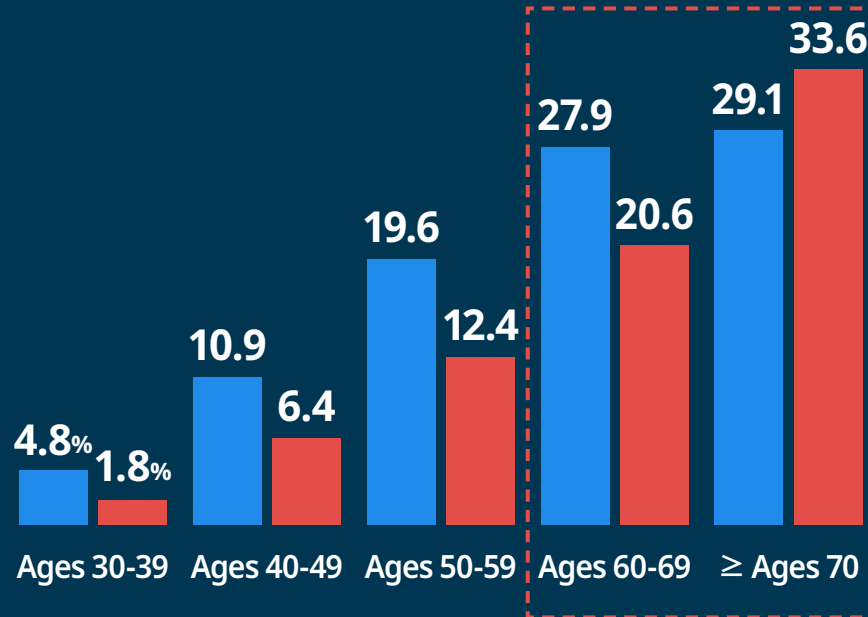
(Unit: %)



Diabetes mellitus prevalence by age (2016)

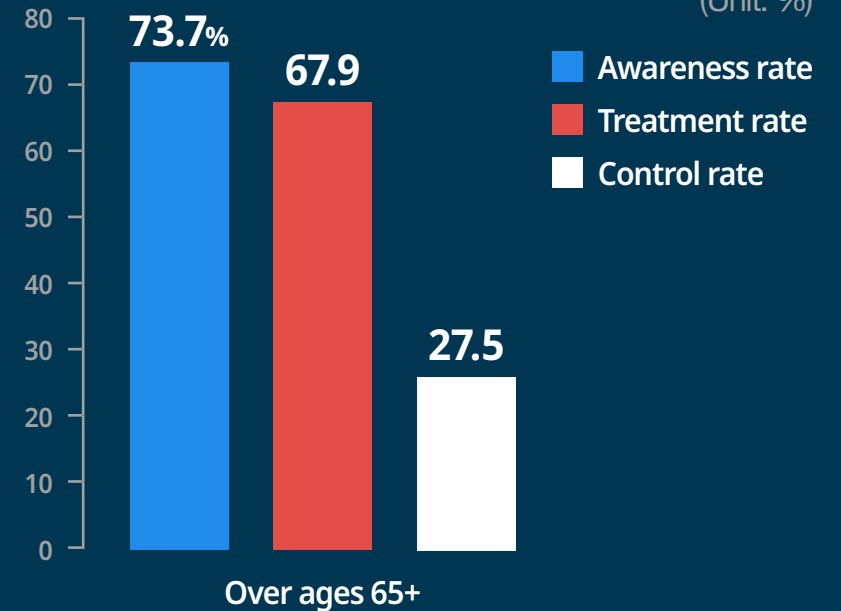
Male Female

(Unit: %)



Diabetes control level (integrated between 2013 and 2016)

(Unit: %)



Source: National Health and Nutrition Survey 2011-2016 by the Korea Centers for Disease Control and Prevention / Diabetes Fact Sheet 2018 by Korean Diabetes Association

#### 4. Syndromes and chronic diseases of older Koreans

# Osteoporosis and Fall

**1 in 7**  
osteoporosis

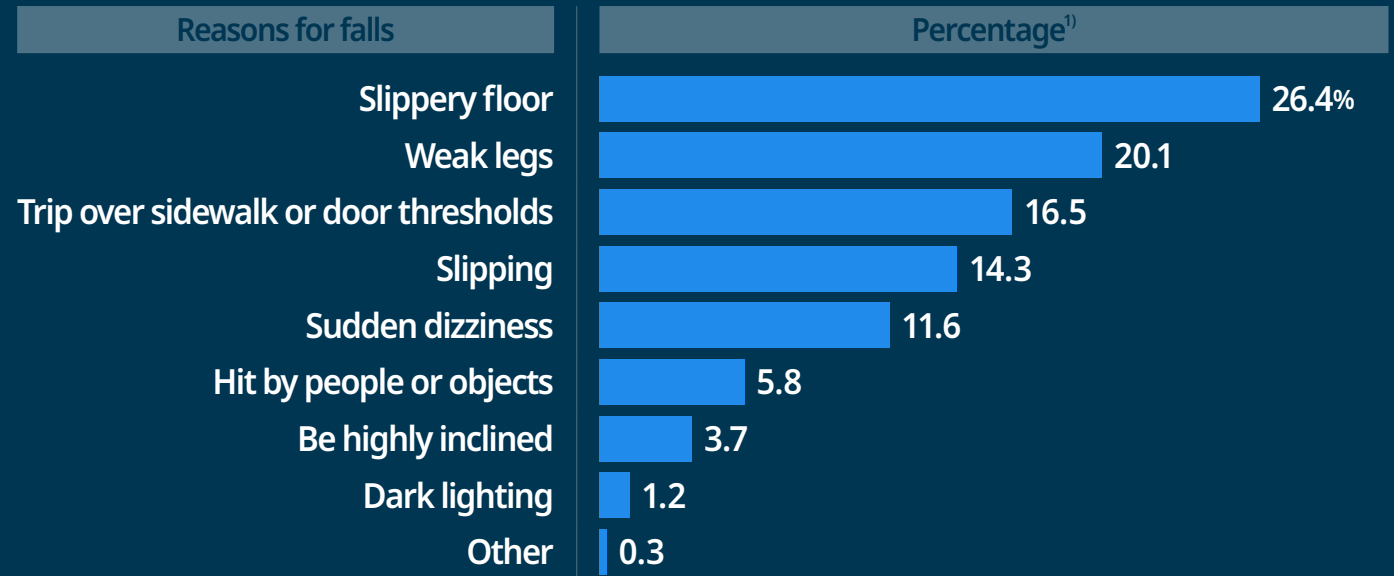
The fall rate in the  
older population is  
**16%**

**2.1 falls**  
per year

Fall experience over ages 65+ (Unit: %, time)

Characteristics	Fall rate	Fall rate and treatment
		Number of falls per year
<b>Total</b>	<b>15.9%</b>	<b>2.1 times</b>
<b>Area</b>		
Urban	16.0	1.9
Rural	15.6	2.5
<b>Sex</b>		
Male	11.2	2.5
Female	19.4	2.0
<b>Age</b>		
65-69	12.2	1.9
70-74	15.0	2.2
75-79	17.4	2.3
80-84	20.5	2.2
85+	22.0	1.9

Reasons for falls over ages 65+ (Unit: %)



Note: 1) A total of 1,627 reported falls in the previous past year

Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

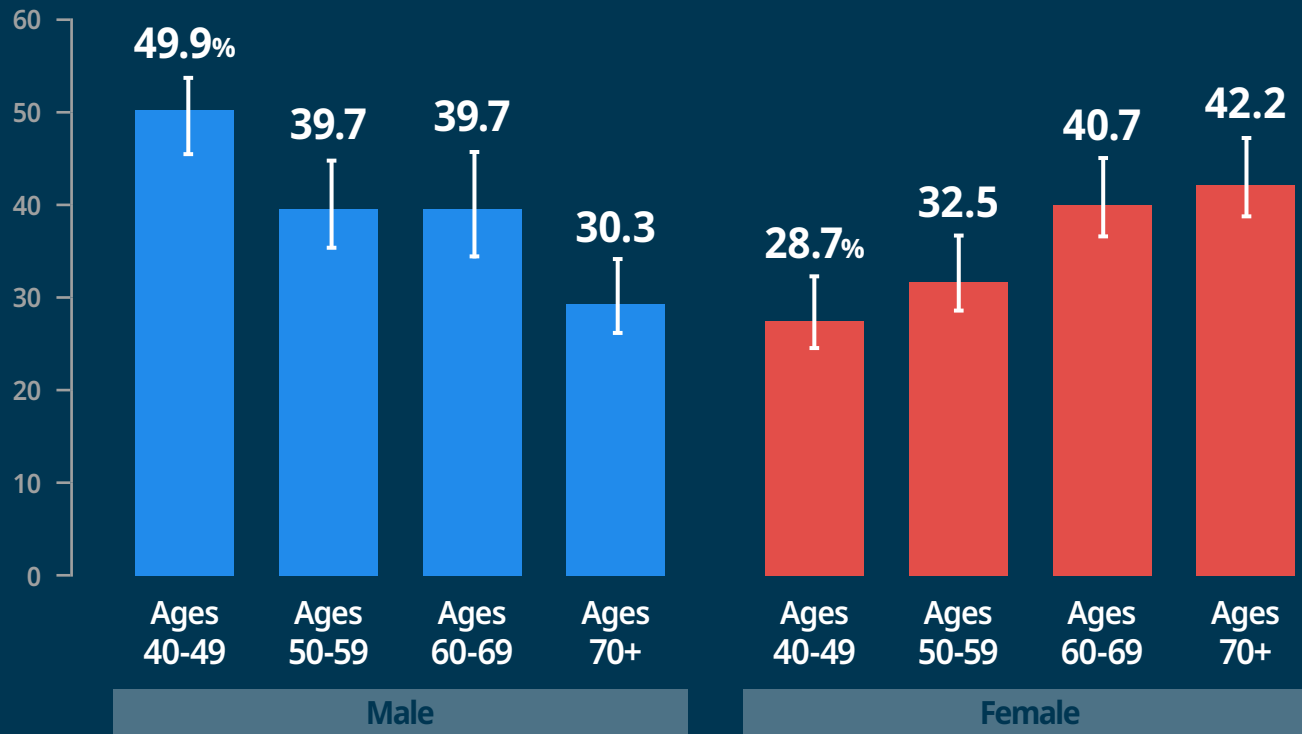
## 4. Syndromes and chronic diseases of older Koreans

# Obesity

# 40% of older women are obese

With age, the rate of female obesity increases while that of males decreases

Obesity prevalence by age (Unit: %)



Obesity prevalence:  
Body Mass Index (BMI) fractions  
greater than 25 kg/m<sup>2</sup>,  
over ages 19+

Source: National Health and Nutrition Survey 2016 by the Korea Centers for Disease Control and Prevention

# 5 Healthcare use by older Koreans

- 5-1 Healthcare expenses
- 5-2 Access to healthcare facilities
- 5-3 Polypharmacy
- 5-4 Number of long-term care hospitals
- 5-5 Health screening rate
- 5-6 Attitude toward life-sustaining treatment

5. Healthcare use by older Koreans

# Healthcare expenses

**27.6** trillion

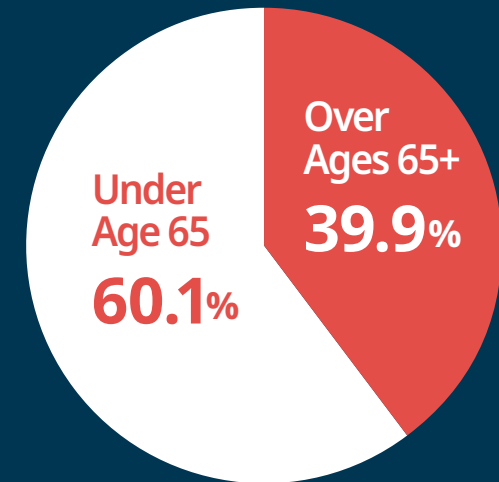
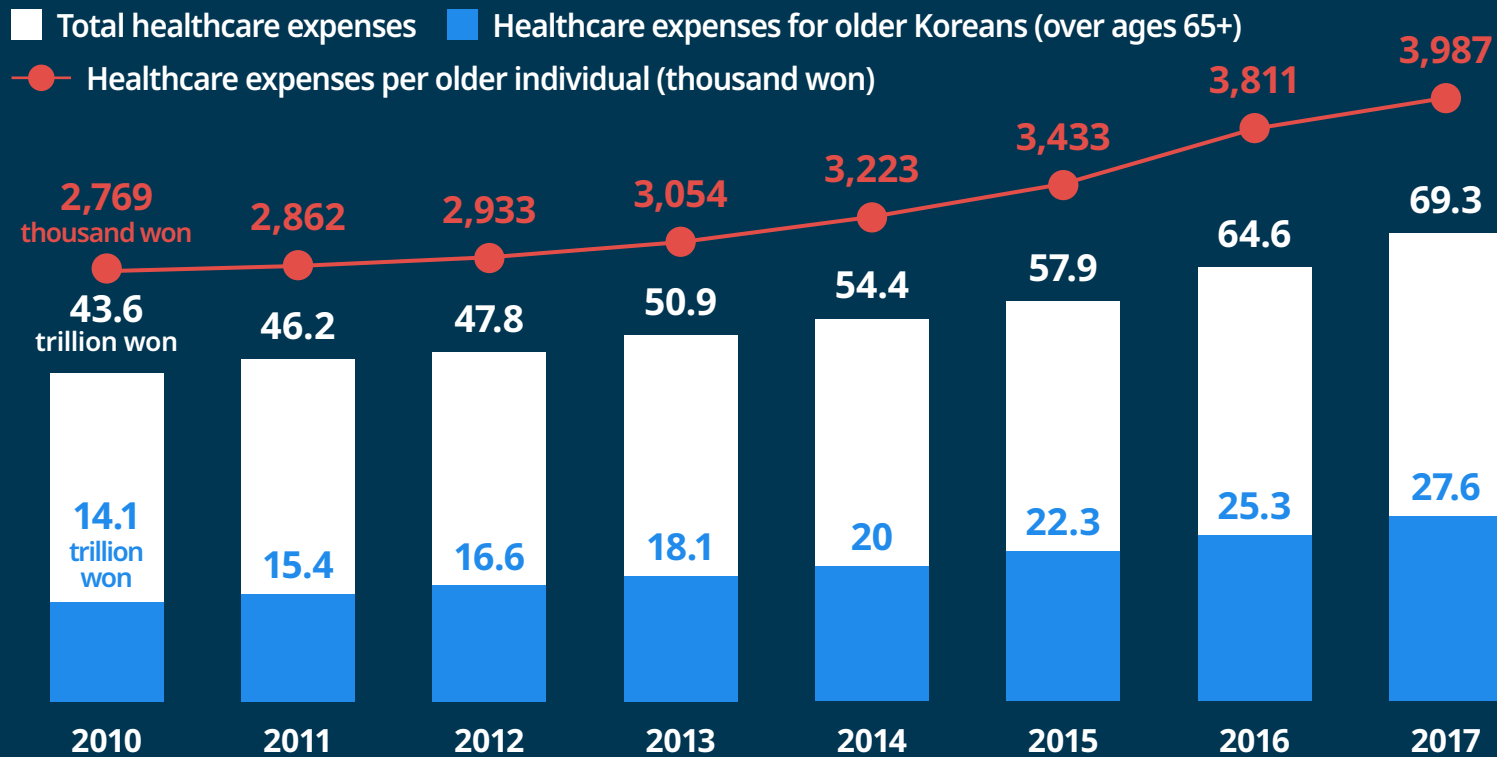
Annual national healthcare expenses for older adults

Of total healthcare expenses

**40%**

(2017)

## Increase trend in health insurance expenses for older Koreans (Unit: Korean won)



Source: Health Insurance and Medical Expenses Statistics 2017 by the National Health Insurance Service and Health Insurance Review & Assessment Service

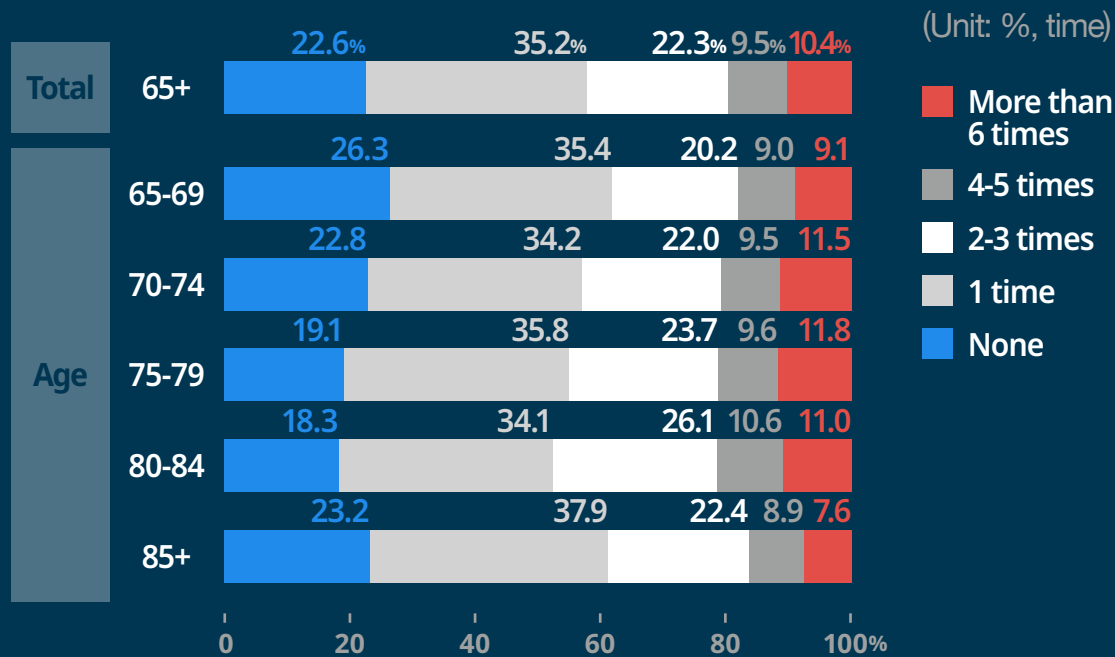
## 5. Healthcare use by older Koreans

# Access to healthcare facilities

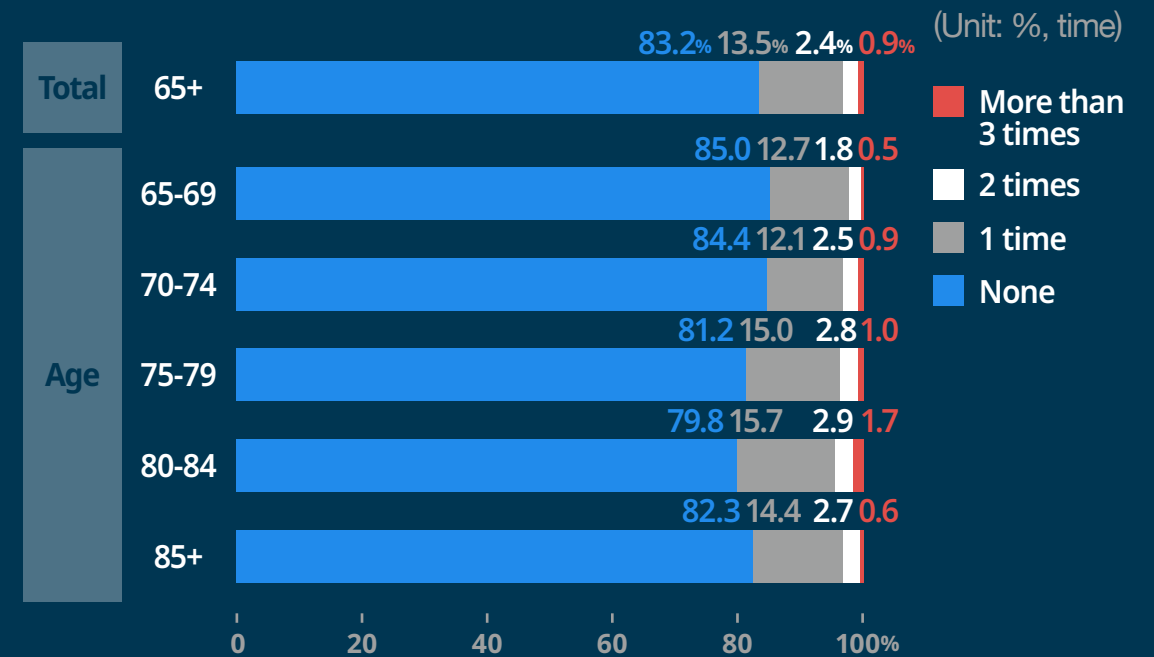
**4 in 5**  
older Koreans use  
the hospital monthly

**1 in 6**  
older individual has  
been hospitalized  
in the past year

### Number of monthly visits to healthcare facilities



### Annual number of hospitalizations



Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

# Polypharmacy

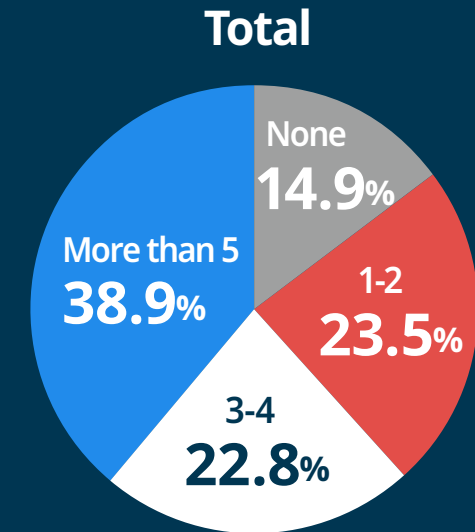
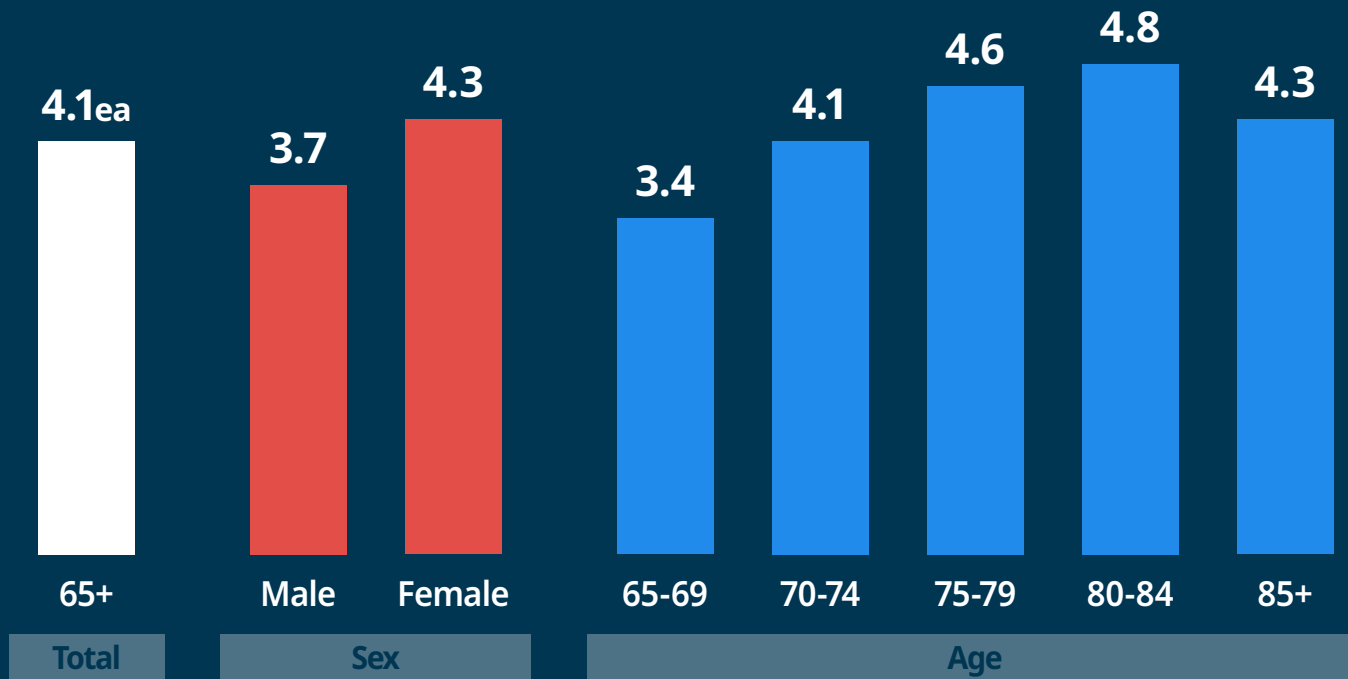
Average number of medications

4.1

More than 5 medications

40%

Average number of medications taken for more than 3 months (prescription+non-prescription) (Unit: numbers, %)



Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

## 5. Healthcare use by older Koreans

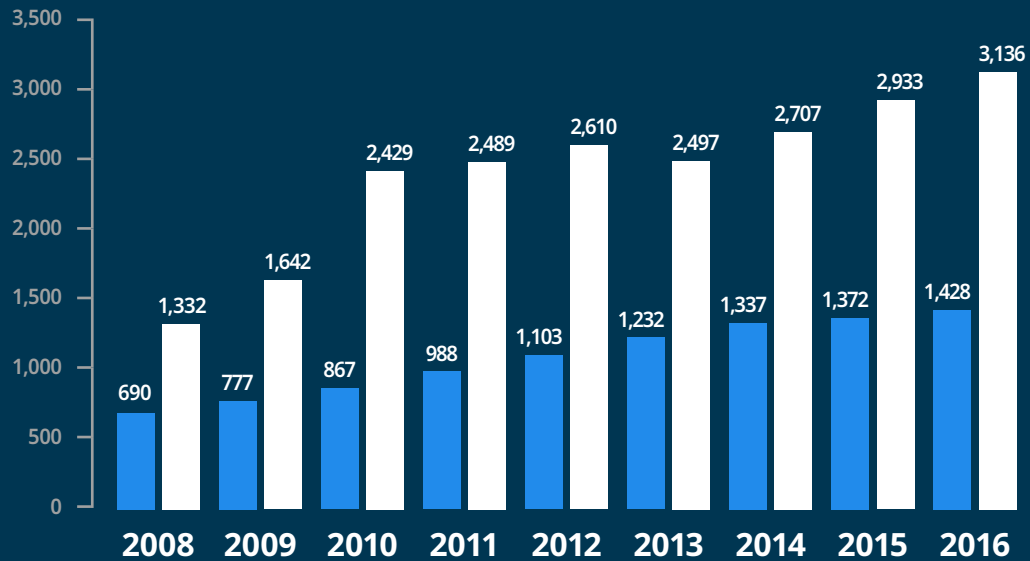
# Number of long-term care hospitals

Number of beds at long-term care hospitals

# 250,000

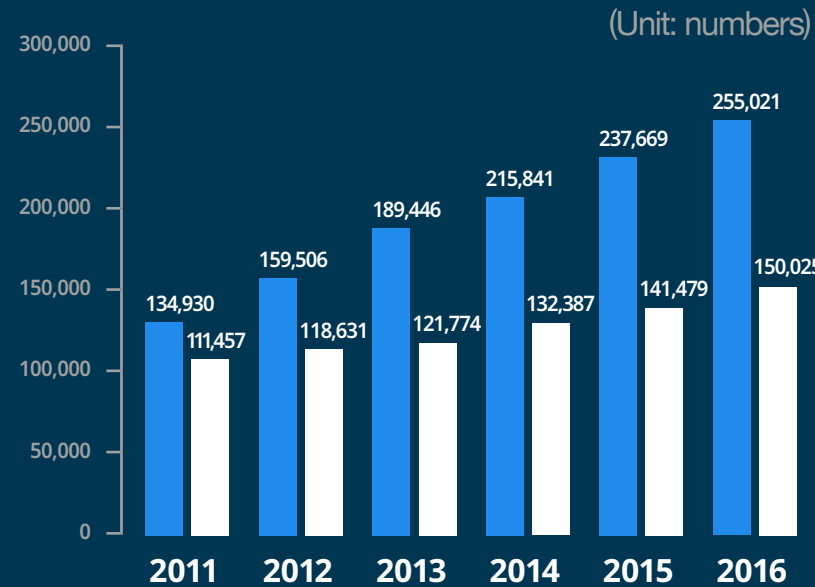
Long-term care hospitals and long-term care facilities

■ Long-term care hospitals ■ Long-term care facilities (Unit: numbers)



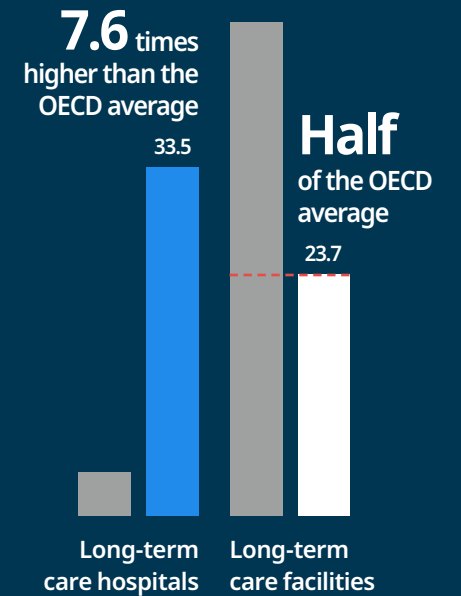
Number of beds in long-term care hospitals and facilities

■ Long-term care hospitals ■ Long-term care facilities (Unit: numbers)



Number of beds per 1,000 older Koreans of over ages 65+

(Unit: numbers)



Source: Health Insurance Statistics 2014-2016 by the Health Insurance Review & Assessment Service / OECD Health 2015-2016



## 5. Healthcare use by older Koreans

# Health screening rate

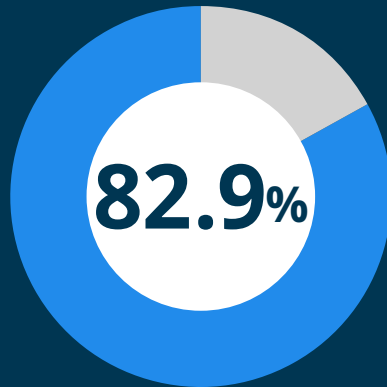
**83%**

Health screening rate

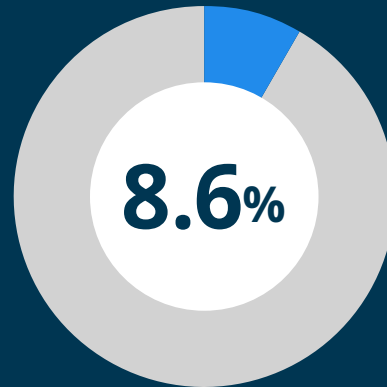
**50%**

Untreated due to financial hardships

Health screening rates and reasons for non-treatment of older Koreans over ages 65+ (Unit: %)

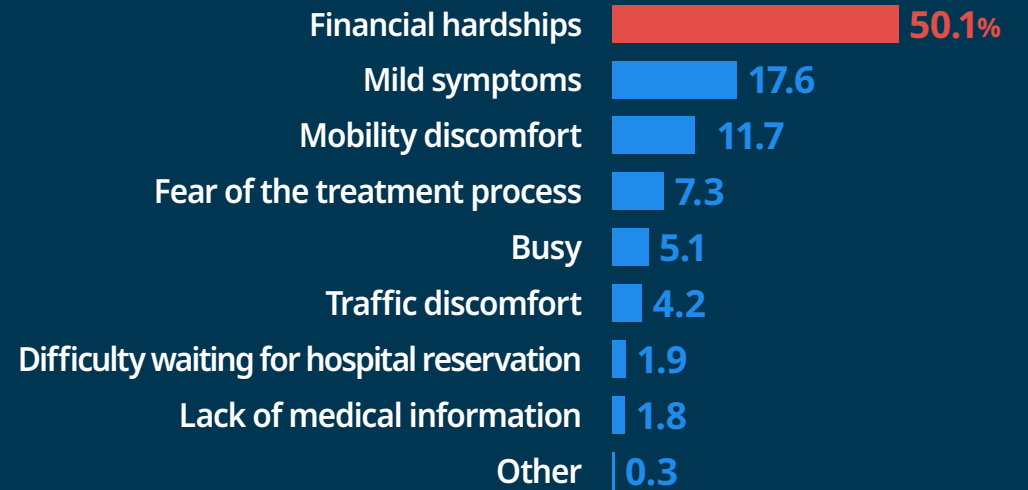


Health screening rate



Non-treatment rate

Reasons for non-treatment of older Koreans over ages 65+ (Unit: %)



Source: The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

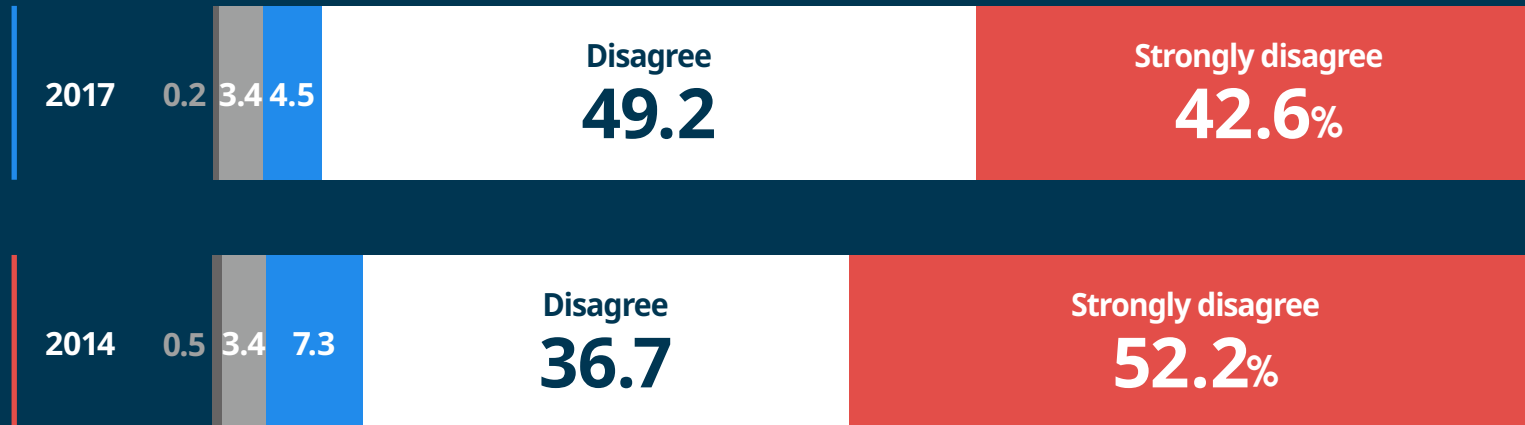
5. Healthcare use by older Koreans

# Attitude toward life-sustaining treatment

**9 in 10** oppose life-sustaining treatment

Attitude of older Koreans aged over 65+ toward life-sustaining treatment (Unit: %)

Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree



Source:  
The National Survey of Living Conditions and Welfare Needs of Older Koreans 2017 by Ministry of Health and Welfare, Republic of Korea

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# 50th Anniversary Project of The Korean Geriatrics Society



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