

# Evaluation of successful aging for older adults in China

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# Background

- 15.5% of Chinese were aged  $\geq 60$  years in 2014, and projected to increase rapidly to more than 30% by 2050.
- The huge impact of population aging.
- Concept of *successful aging*
  - A multidimensional health status, which encompasses physical functional, psychological and social health.

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# Successful aging definition

- Rowe and Kahn\*
  - Freedom from disability and disease
  - High cognitive and physical functioning
  - Activate engagement with life

*\*Rowe JW, Kahn RL. Successful aging. Gerontologist 1997; 37: 433-40.*

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# Objectives

- Evaluate successful aging in China.
- Examine the link between sociodemographic factors (age, sex, education level, marital status and regions) and successful aging.

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# Study design

- The China Health and Retirement Longitudinal Study (CHARLS).
- National representative sample of Chinese residents aged 45 years and older.
- Pilot survey was carried out in two provinces in 2008.
- Expanded to the national baseline survey in 2011, first follow up in 2013, second follow up in 2015.

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# Definition of successful aging

- No disability
  - If participants did not report performing any of the six following activities (bathing, dressing, eating, indoor walking, or continence).
- No major diseases
  - No cancer, chronic lung disease, diabetes, heart disease, and/or stroke.
  - Obtained a score of more than 10 on the 10-item Cancer for Epidemiologic Studies Depression Scale -10.

Freedom from disability and diseases

# Definition of successful aging

- High cognitive functioning
  - If participants achieved a median score on the Telephone Interview for Cognitive Status
- High physical functioning
  - If participants reported no difficulties with: walking 100 m; getting up from a chair; lifting or carrying items weighing 5 kg; stooping, kneeling or crouching; and climbing several flights of stairs.

High cognitive  
and physical  
functioning

# Definition of successful aging

- Active engagement with life
  - If participants reported involvement in “voluntary or charity work”, or having “provided help to family, friends, or neighbors”, or having “gone to a sport, social, or other kind of club” in the month preceding the interview.



## Characteristics of the participants (N=5,667)

<b>Age group (years)</b>	<b>N</b>	<b>%</b>
60-74	4,734	83.5
≥75	933	16.5
<b>Gender</b>		
Male	2,989	52.7
Female	2,678	47.3
<b>Marital status</b>		
Married	4,516	79.7
Other marital status	1,151	20.3
<b>Education</b>		
Primary school and below	4,463	78.8
High school and above	1,671	21.2
<b>Region</b>		
East Coast	1702	30.0
Central	1650	29.1
Northeast	648	11.4
Western	1667	29.4

## Prevalence of successful aging by each indicator

Characteristics	No disability	No major diseases	High cognitive functioning	High physical functioning	Active engagement
<b>Age group (years)</b>	<b>N (%)</b>				
60-74	4427 (93.5)	2021 (42.7)	2773 (58.6)	3481 (73.5)	2178 (46.0)
≥75	791 (84.8)	344 (36.9)	299 (32.0)	498 (53.4)	430 (46.1)
<b>Gender</b>					
Male	2771 (92.7)	1387 (46.4)	1881 (62.9)	2285 (76.4)	1381 (46.2)
Female	2447 (91.4)	978 (36.5)	1191 (44.5)	1694 (63.3)	1227 (45.8)
<b>Marital status</b>					
Married	4186 (92.7)	1962 (43.4)	2614 (57.9)	3261 (72.2)	2061 (45.6)
Other marital status	1032 (89.7)	403 (35.0)	458 (39.8)	718 (62.4)	547 (47.5)
<b>Education level</b>					
Primary school or below	4080 (91.4)	1787 (40.0)	2065 (46.3)	3005 (67.3)	1942 (43.5)
College and above	444 (94.7)	213 (45.4)	406 (86.6)	388 (82.7)	296 (63.1)
<b>Region</b>					
East Coast	1577 (92.7)	839 (49.3)	1008 (59.2)	1211 (71.2)	882 (51.8)
Central China	1532 (92.8)	664 (40.2)	887 (53.8)	1143 (69.3)	740 (44.8)
Northeast China	576 (88.9)	222 (34.3)	407 (62.8)	420 (64.8)	339 (52.3)
Western China	1533 (92.0)	640 (38.4)	770 (46.2)	1205 (72.3)	647 (38.8)

## Prevalence of successful aging

<b>Total</b>	746 (13.2%)
<b>Age group (years)</b>	
60-74	688 (14.5%)
≥75	58 (6.2%)
<b>Gender</b>	
Male	485 (16.2%)
Female	261 (9.7%)
<b>Marital status</b>	
Married	659 (14.6%)
Other marital status	87 (7.6%)
<b>Education level</b>	
Primary school and below	446 (10.0%)
College and above	126 (26.9%)
<b>Region</b>	
East Coast	286 (16.8%)
Central China	209 (12.7%)

## Factors associated with successful aging

Characteristics	Crude model	Adjusted model
	OR (95% CI)	
<b>Age group</b> (Ref.=60-74 years)		
≥75 years	0.39(0.30-0.52)***	0.41(0.31-0.55)***
<b>Gender</b> (Ref.=male)		
Female	0.56(0.48-0.66)***	0.67(0.56-0.79)***
<b>Marital status</b> (Ref.=married)		
Other marital status	0.48(0.38-0.61)***	0.69(0.54-0.88)**
<b>Education level</b> (Ref.= primary school or below)		
High/vocational school	2.80(2.30-3.41)***	1.98(1.60-2.45)***
College and above	3.31(2.64-4.15)***	1.90(1.46-2.48)***
<b>Region</b> (Ref.=East coast)		
Central China	0.72(0.59-0.87)**	0.68(0.56-0.83)***
Northeast China	0.72(0.55-0.93)*	0.53(0.40-0.70)***
Western China	0.56(0.46-0.69)***	0.59(0.48-0.73)***

# Key messages

- 13.2% of older people met successful aging criteria.
- The prevalence of successful aging varies with different sociodemographic factors.
- Education may influence health by enhancing a person's financial status, which provides more resources for maintaining good health, and by increasing a person's knowledge, ability, and skills to achieve better health.

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# Conclusion



Socio-demographic factors affected the prevalence of successful aging. Targeting right population to achieve successful aging is a critical.

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**THANK YOU**

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