Healthy Aging in Transitional China: Achievements and Challenges

Lydia Li
Associate Professor
School of Social Work
University of Michigan
The Context
China—rapid population aging
% of 65+ in China’s population

Source: US census bureau
World trend of population aging

- China
- World
Characteristics of China’s population aging:

• Fast

• Large
Years taken to increase older populations (65+) from 7 to 14%—
France: 115; United States: 69; China: 26
Growth in number of older people (65+) in China
Number of older people: China & US

- China
- US
% of world older population in China
China: An emerging economy
GDP per capita (US$) of China

- 1980: 200
- 1985: 250
- 1990: 300
- 1995: 400
- 2000: 700
- 2005: 1500
- 2010: 4500

GDP per capita
Population aging in an emerging economy

• Good: more resources

• Bad: problems related to rising income inequality, industrialization and urbanization
Today’s presentation

Address three questions:

1. Have there been gains in older people’s health since China’s economic reforms?

2. Who are more and less likely to have healthy old age? Why?

3. How would the trend of healthy aging be affected by rapid industrialization and urbanization?
Methods

• Review of empirical studies related to older Chinese adults’
  • physical health (physical functioning, disability, chronic disease)
  &
  • mental health (cognitive impairment, depression)
Have there been gains in older people’s health since China’s economic reforms?
Life Expectancy at Birth in China

Source: World Bank
Living long ≠ Living healthy

• Compare health status of older people at different times would help provide answer about health gains

• Such data rare in China
Several studies related to physical health trends

- Longer active life expectancy for 65+ (Cited in Saito et al., 2003)

- Improved physical functioning for 65+, esp 80+ & women (Gu et al., 2009)

- Delayed onset of disability among 60+. But disability rates increased for middle-age groups (45-59). (Liu et al., 2009; Peng et al., 2010)
Examples of cohort improvement in physical health

• 65 years old persons—
  • expect to live 2 more years without disability in 1992 than in 1987
  • Expect to have disability onset 5 years later in 2006 than in 1987
Have their been gains in healthy aging since economic reforms?

- Available evidence suggests improvement in physical health of older people over time

- Trends in mental health more difficult to tell

- Some indications that older-old gained more, but middle-age groups may be worse.
Who are more (less) likely to be healthy in old age?

Are opportunities for healthy aging equally distributed?
Health disparities among older adults in China

• Significant health differences between social groups characterized by:
  • Urban-rural
  • Region
  • Socioeconomic status
  • Gender
Urban-Rural Divide

• **Physical Health**—Rural elders (vs. urban):
  • shorter active life expectancy \(^5\)
  • faster transition from independent to dependent state\(^6\)
  • higher disability rates\(^4\)

• **Mental Health**
  • Mixed findings in cognitive impairment\(^7,8\)
  • Rural elders: higher rates of depression\(^9,10\)

---

\(^4\) Peng et al. (2011); \(^5\) Tang et al., 2005; \(^6\) Zimmer et al., 2010; \(^7\) Zhao et al., 2010; \(^8\) Rodriguey et al., 2008; \(^9\) Ma et al., 2008; \(^10\) Guo & Ying, 2012
Regional variations

• **Physical Health**—Older people in Western & Central regions (vs. Eastern) shorter active life expectancy. E.g., at age 60\textsuperscript{11}
  - Eastern—14.8 years
  - Central—13.6 years
  - Western—12.8 years

• **Mental Health**—same story. E.g., mild cognitive impairment prevalence\textsuperscript{12}
  - Western—14.7%
  - Eastern—9.6%

\textsuperscript{11} Liu et al. (2010); \textsuperscript{12} Nie et al., 2011
Major reasons for health differences by residence

• Healthcare access
  • Less healthcare resources, high healthcare cost
  • Healthcare access gap reduced after recent healthcare reforms though quality differences remain

• Socioeconomic differences
SES explains urban-rural gap in depressive symptoms
Socioeconomic gradient in health

• Older Chinese adults with low incomes and education more likely to have:
  • Poor physical functioning\textsuperscript{12}
  • Higher rates of hypertension\textsuperscript{13}
  • Higher rates of Alzheimer’s disease, mild and severe cognitive impairment\textsuperscript{12,14,15}
  • Higher rates of depression\textsuperscript{16,17,18}

\textsuperscript{12} Beydoun & Popkin (2005); \textsuperscript{13} Pang et al. (2011); \textsuperscript{12}Dong et al. (2007); \textsuperscript{14}Nie et al. (2011); \textsuperscript{15}Zhou et al. (2006); \textsuperscript{16}Chen et al. (2004 & 2005); \textsuperscript{17}Ma et al. (2008); \textsuperscript{18}Li et al. (2011)
Childhood SES on later-life health

• Low SES during childhood $\rightarrow$ increased risks of physical disability and cognitive impairment in oldest-old age in China

Wen & Gu (2011); Zhang et al., (2010)
Gender differences

• Older women (vs. men) more likely to be:
  • Disabled\textsuperscript{19,20}
  • Frail\textsuperscript{21}
  • Have Alzheimer’s disease & mild cognitive impairment\textsuperscript{23,24}

\textsuperscript{19}Zeng et al. (2002); \textsuperscript{20}Kaneda et al. (2005); \textsuperscript{21} (Yu et al., 2012); \textsuperscript{17}Ma et al. (2008); \textsuperscript{22}Guo & Ying (2012); \textsuperscript{23}Zhou et al. (2006); \textsuperscript{14}Nie et al. (2011);
Who are more (less) likely to be healthy in old age? Why?

- People with social characteristics:
  - Rural,
  - Western and Central regions,
  - low education and incomes, and
  - women

  ➔ less likely to experience healthy aging

- Reflect socioeconomic inequalities in Chinese society
Why do we care about health disparity in older adults in China?

• Unfair & unjust
• Drain healthcare resources
• Reduce productivity
• Avoidable
How would the trend of healthy aging be affected by industrialization and urbanization?
China’s rates of urbanization—fastest ever recorded

1980: 191 million
2009: 622 million
Associated with rapid urbanization and industrialization

• Lifestyle change

• Pollution

• Urban hazards
Changes in lifestyle

• Diet

• Physical activity
High fat diet—transition to Western diet dominated by processed food with high fat contents & meat
Reduced physical activity—due to changes in work activity patterns, transportation mode, and leisure activities
Consequences of lifestyle change

• Overweight and obesity in younger age groups
  • 1/5 of Chinese adults overweight in 2004\textsuperscript{24}
  • Between 1989-2006, obesity rates doubled in women and tripled in men among 18-50 years old\textsuperscript{25}

→ High risks of non-communicable diseases in old age

\textsuperscript{24}Popkin, 2008; \textsuperscript{25}Jones-Smith et al., 2012
Environmental degradation--Pollution

• Poor air quality reduces healthy life expectancy of older persons\textsuperscript{26} -5.23 years shorter for older women in poor air quality areas than those in high quality areas.

• Water—more than half of China’s river severely polluted
  - Reduce access to portable water & increase water-borne disease

\textsuperscript{26} Wen & Gu, 2011
Urban hazards

- Industrial accidents and occupational diseases
- Traffic-related injury and death
- Psychological stressors
- Migrant workers more exposure to the hazards
In the context of rapid urbanization

• Health of next cohorts of older adults?

• Warning signs:
  • higher disability rates among recent than earlier cohorts of middle age groups
  • high rates of overweight, obesity, high blood pressure and diabetes in younger age groups
Conclusion

1. Recent cohorts of older Chinese have better health than previous cohorts
2. Opportunities for a healthy old age not equally distributed, and are linked to structural inequalities in Chinese society
3. Rapid urbanization has intensified risk factors for chronic illness and disability, threatening the prospect of healthy aging in China
Implications

• Health of older people critical to China’s economic development
• Health in old age depends on health in younger ages
• Aging policy = health policy = social policy

➢ Policies to reduce socioeconomic inequalities & buffer damaging effects on bottom strata
➢ Policies to reduce health risks associated with industrialization & urbanization
➢ Target poor areas, neighborhoods and individuals for disease & disability prevention