# Aging trends and implications in Asia-Pacific and PRC

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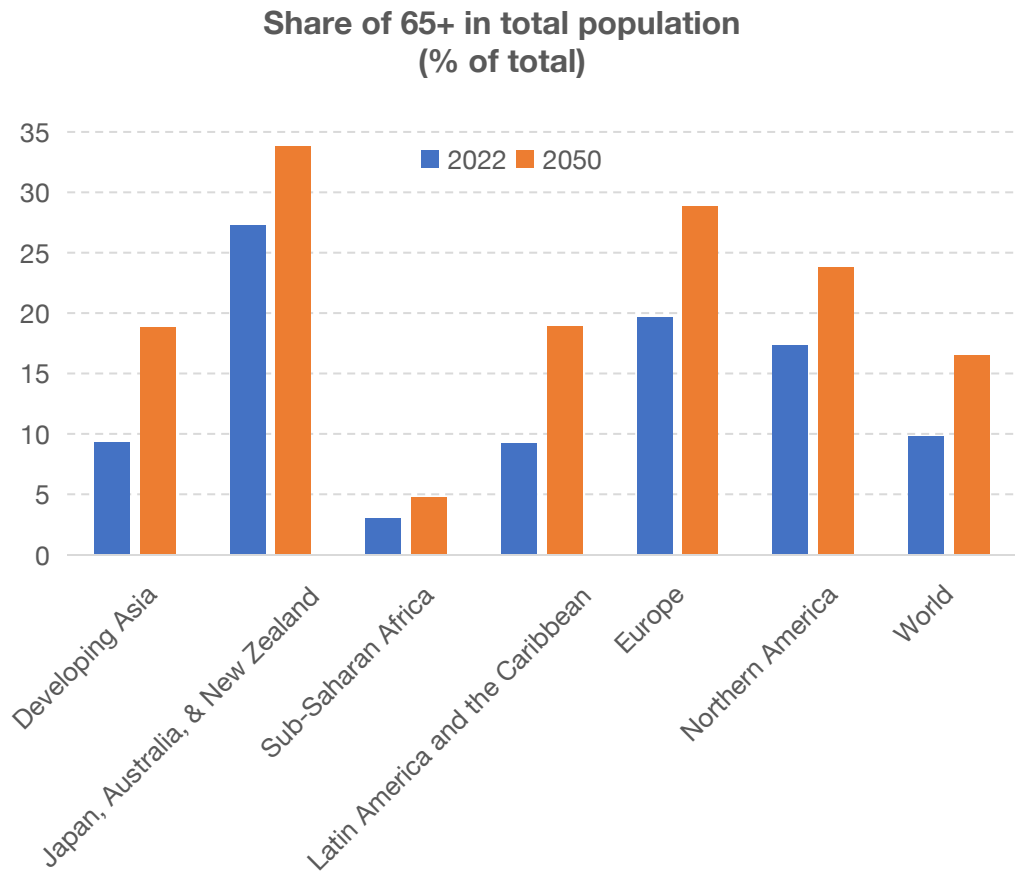
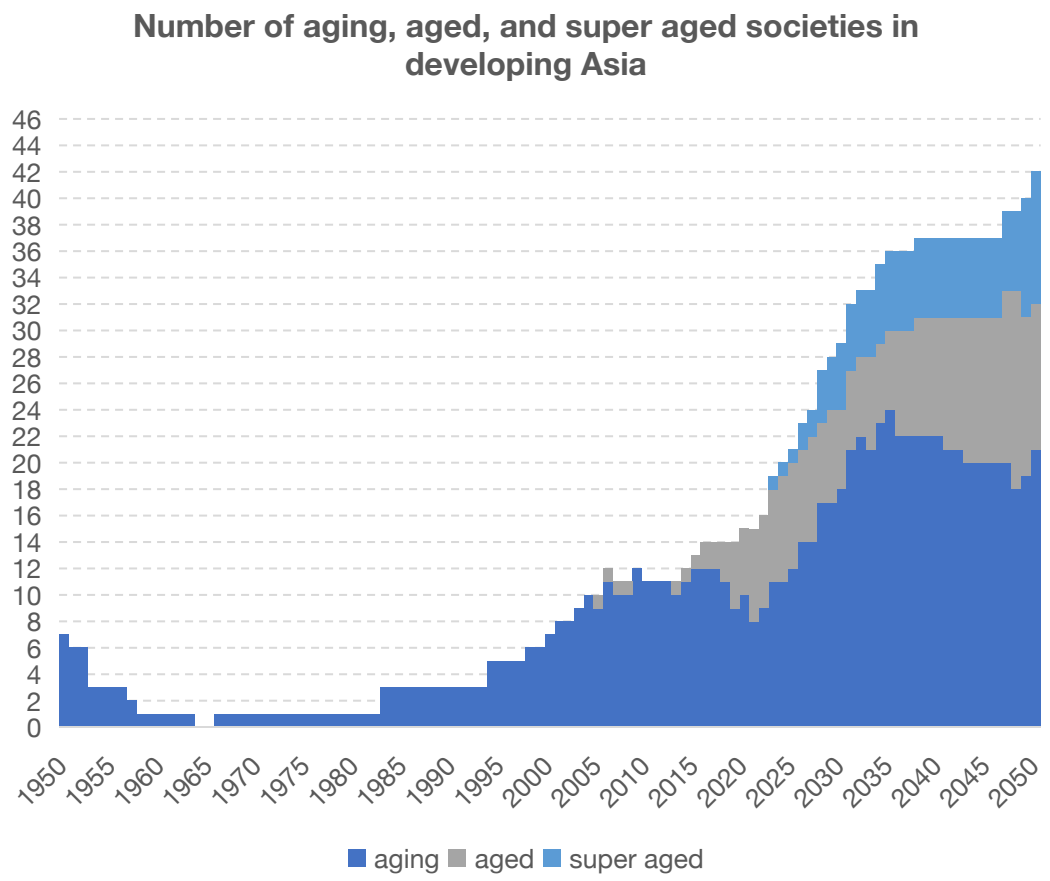
# Populations are aging rapidly

- 1 in 6 people will be 65 or over in 2050, up from 1 in 10 people in 2022
  - In Developing Asia, it will be 1 in 5 in 2050, from 1 in 11 in 2022
- Older people account for more than 21% of the population in 15 economies now; by 2050, it will be 102 economies
  - None is in the region now, but will increase to 10 in 2050




Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. Accessed on 13 July 2022.

# By 2023, Hong Kong, China will be super aged



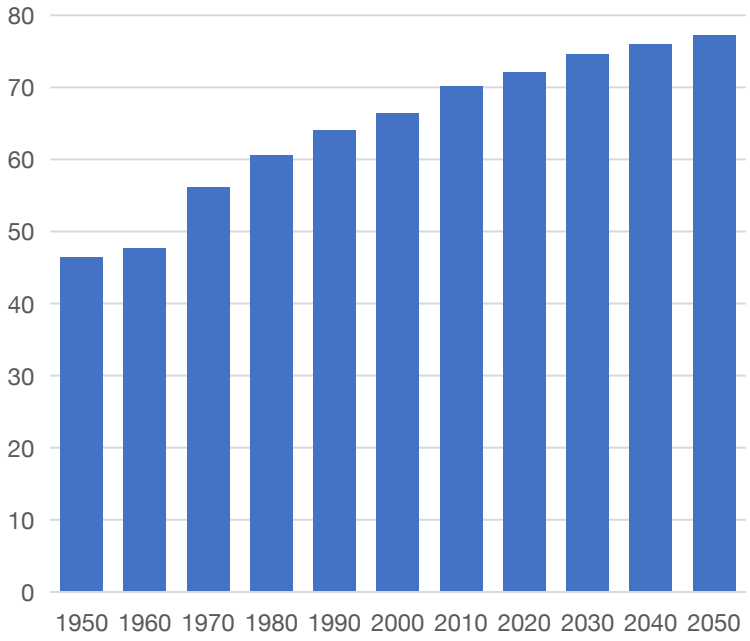

Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. Accessed on 13 July 2022.

- Korea will be super aged in 2026; Taipei,China and Singapore in 2028; Thailand in 2030
- 9 (including PRC) are aging and 7 are aged in 2022
- PRC will become aged in 2023 and super aged in 2034
- By 2050, developing Asia will have only 4 economies (Afghanistan, Pakistan, Solomon Islands, Vanuatu) not aging, aged, or super aged

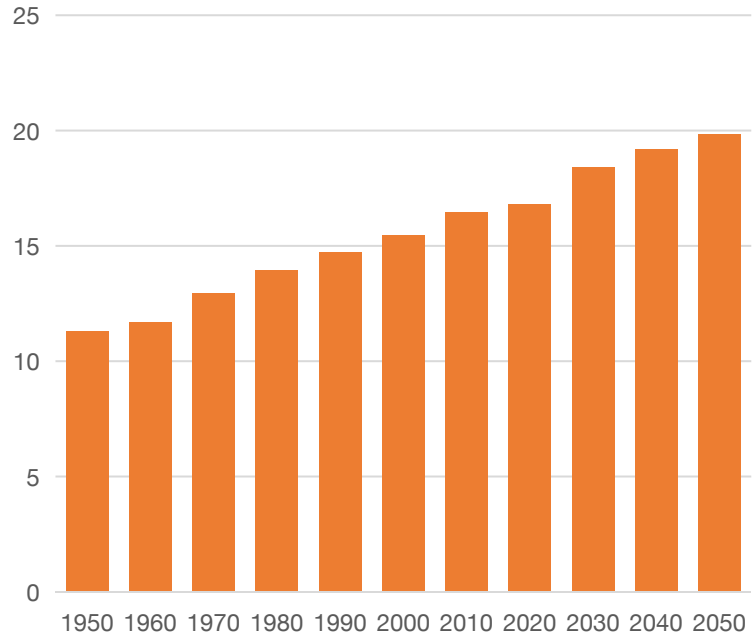
Aging: 7% < share of 65+ ≤ 14%
Aged: 14% < share of 65+ ≤ 21%
Super aged: share of 65+ > 21%

# Aging was driven by many factors

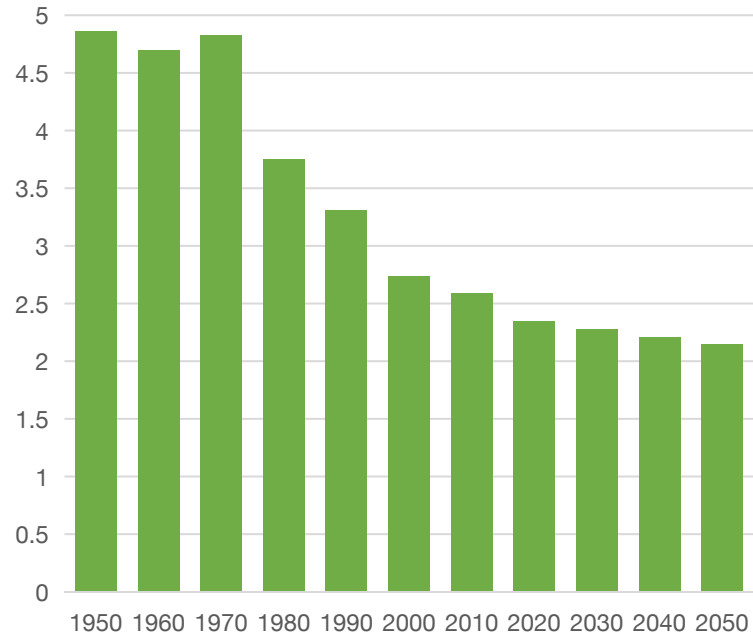
## Longer life expectancy at birth




## Better survival rates at age 65



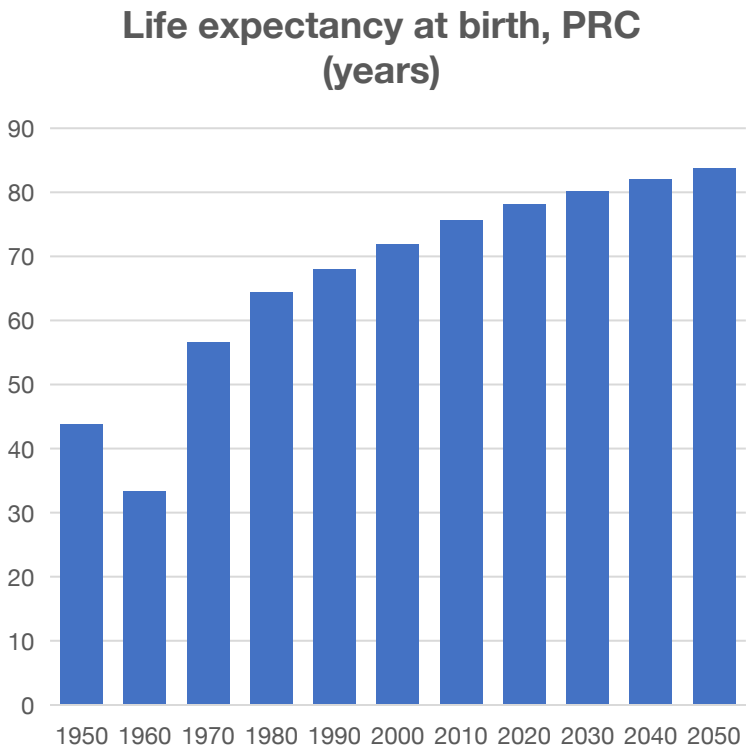

## Falling fertility rates



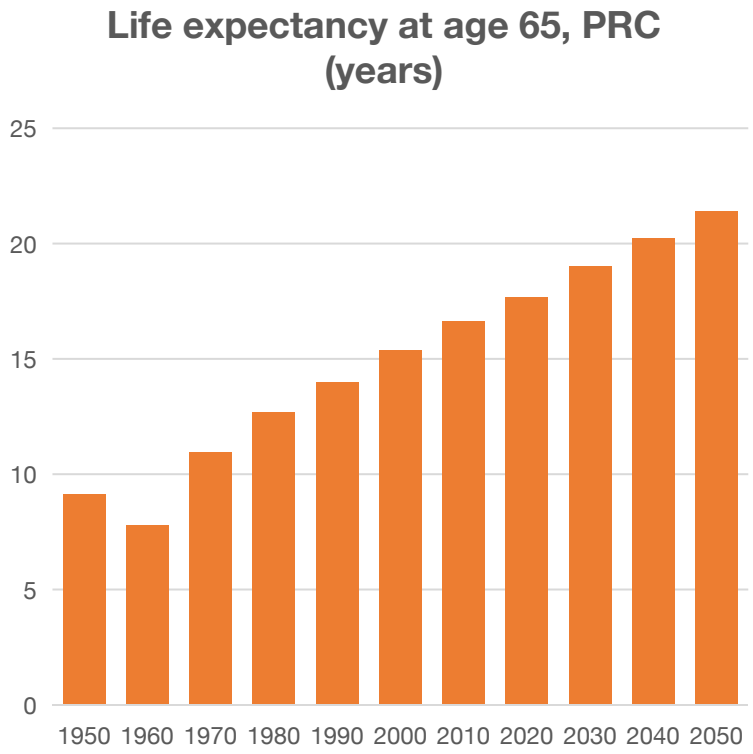

Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. Accessed on 13 July 2022.

# For PRC, these factors were more pronounced

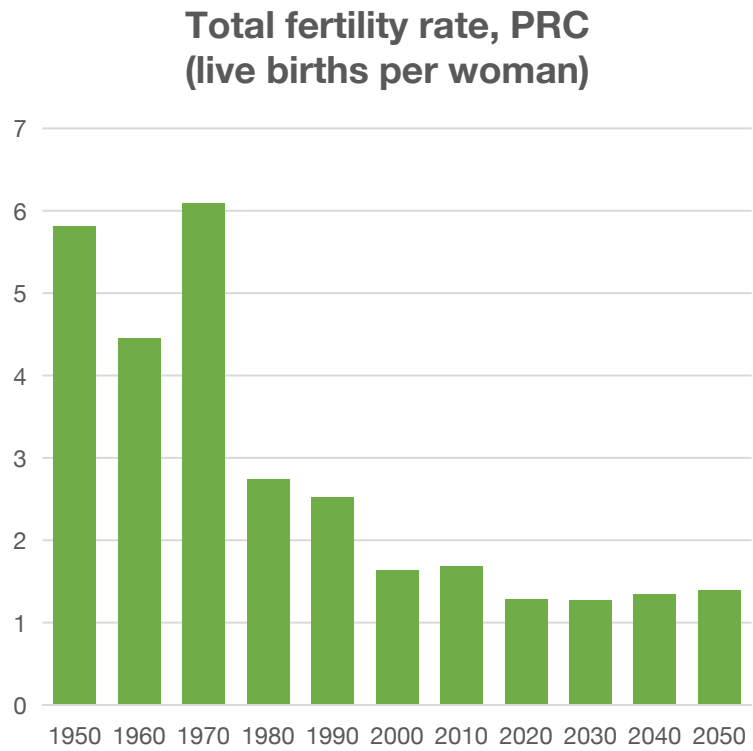
**Life expectancy at birth increased from 68.0 in 1990 to 78.6 in 2022**




**Life expectancy at 65 rose from 14 in 1990 to 18 in 2022**




**Fertility rate dropped from 2.51 in 1990 to 1.18 in 2022**




Source: United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. Accessed on 13 July 2022.

# Policies to address population aging

## Labor market reform

- Create incentives for employers to retain/hire older persons
- Encourage higher participation rates, especially for women
- Promote technologies to deal with workforce aging

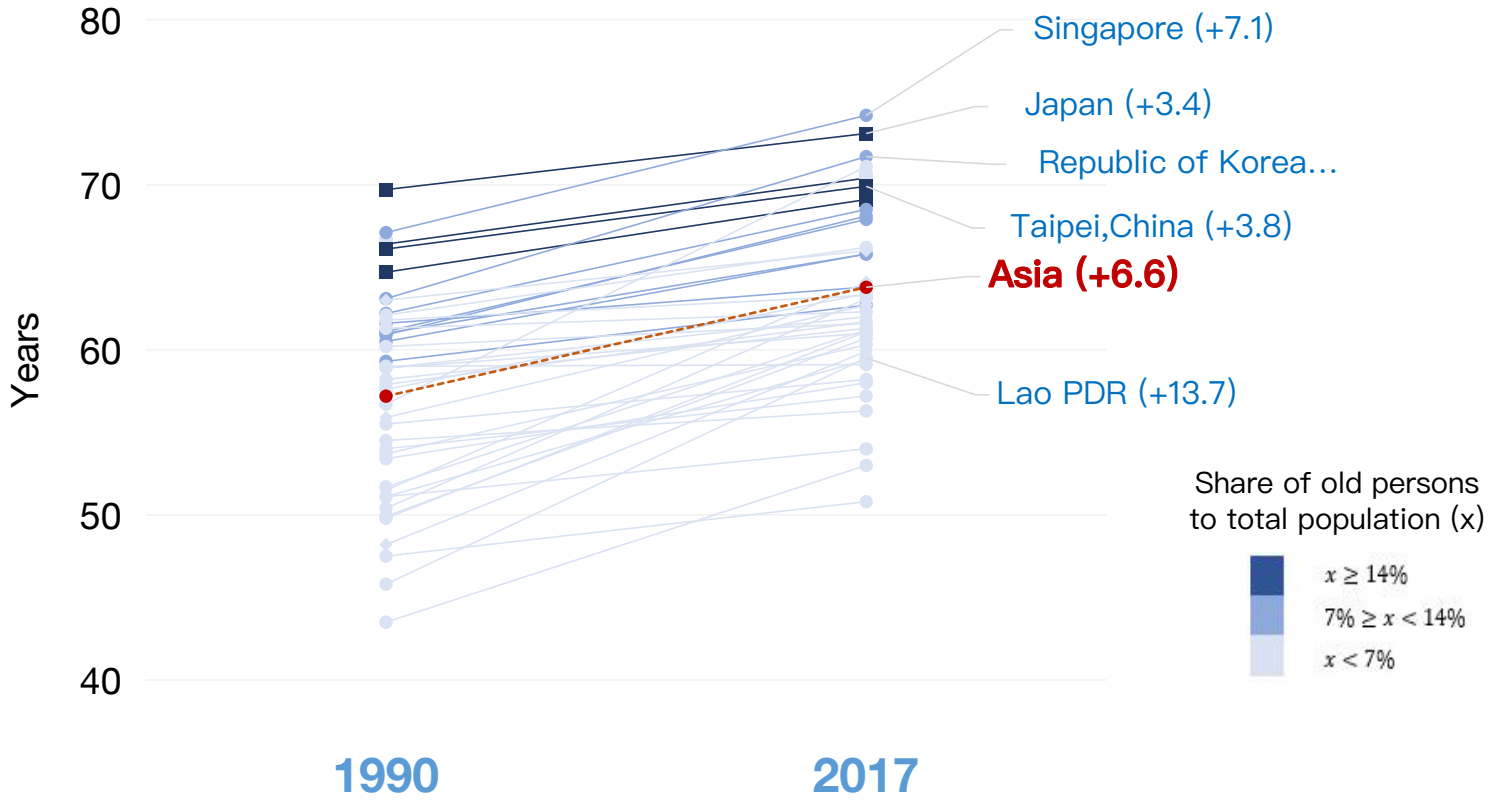
## Pension reform

- Raise retirement age in line with rising life expectancy
- Introduce public defined contribution programs
- Expand social pensions and/or increase pension contribution of workers

## Health care and long-term care reform

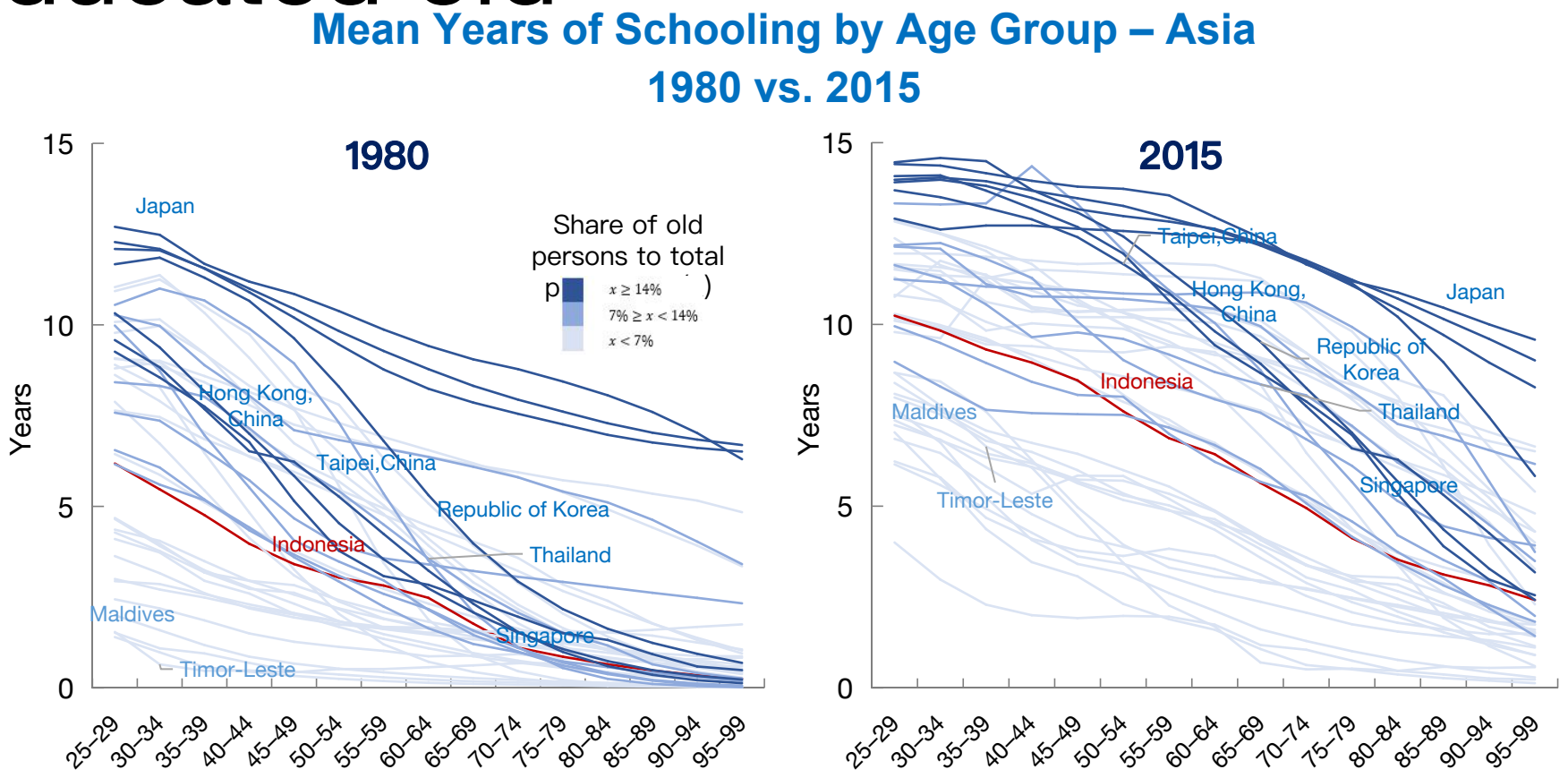
- Establish universal health care
- Create scheme for long term care, including innovative home-based and community-based services
- Expand assisted living and old-age friendly communities

# Healthy life spans among Asian economies have expanded 6.6 years




Lao PDR = Lao People's Democratic Republic.
Note: Numbers in parentheses refer to the additional years of healthy lifespan from 1990 to 2017.
Source: GBD 2017 DALYs and HALE Collaborators. 2018. Global, Regional, and National Disability-adjusted Life-years (DALYs) for 359 Diseases and Injuries and Healthy Life Expectancy (HALE) for 195 Countries and Territories, 1990–2017: A Systematic Analysis for the Global Burden of Disease Study 2017. Global Health Metrics 392(10159): pp.1859-1922.

# Improved schooling among younger cohorts leads to a more educated old

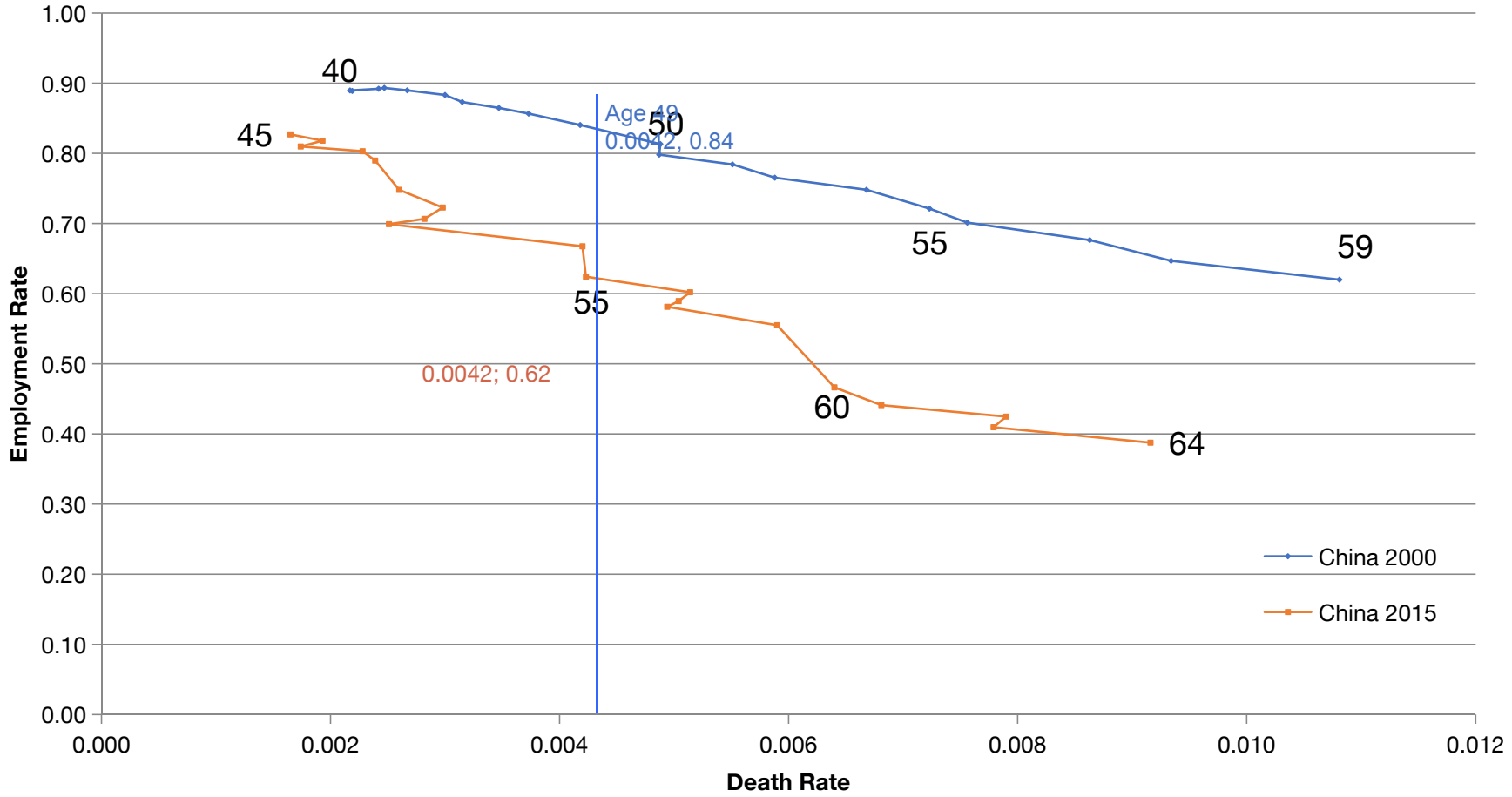



Source: ADB calculations using data from Wittgenstein Centre for Demography and Global Human Capital. Wittgenstein Centre Data Explorer Version 2.0. www.wittgensteincentre.org/dataexplorer (accessed June 2019).

# How much longer could older Chinese work given their current health?

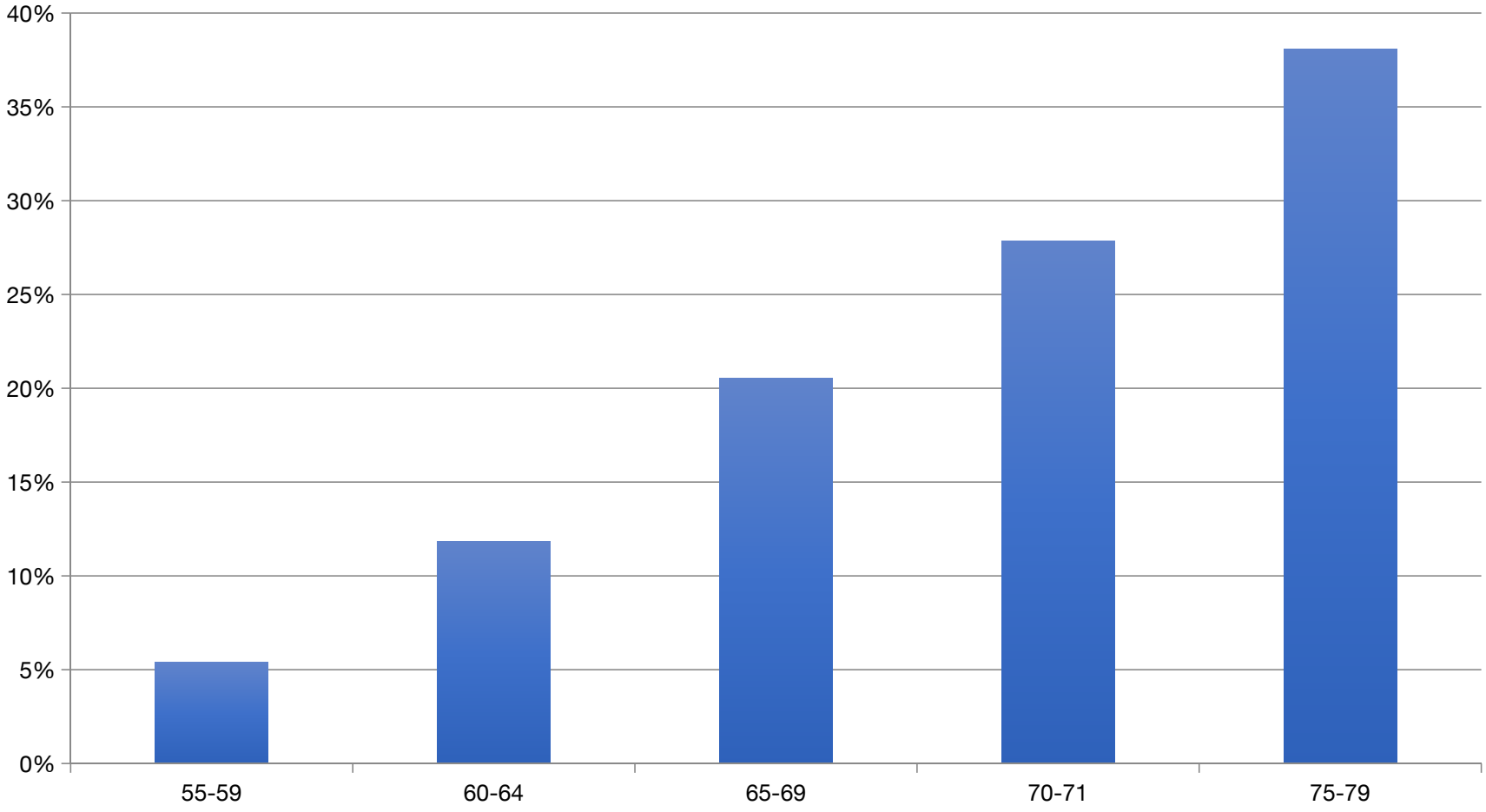
- Method 1: How much more would those age 50-65 work in 2015 if they worked as long as those with the same death rate in 2000?
- Method 2: Given the relationship between multiple health dimensions and the probability of working for those age 50-54, what is the difference between health-based work capacity and actual working rates for those age 55-79?

# Employment by Mortality in China, 2000 and 2015

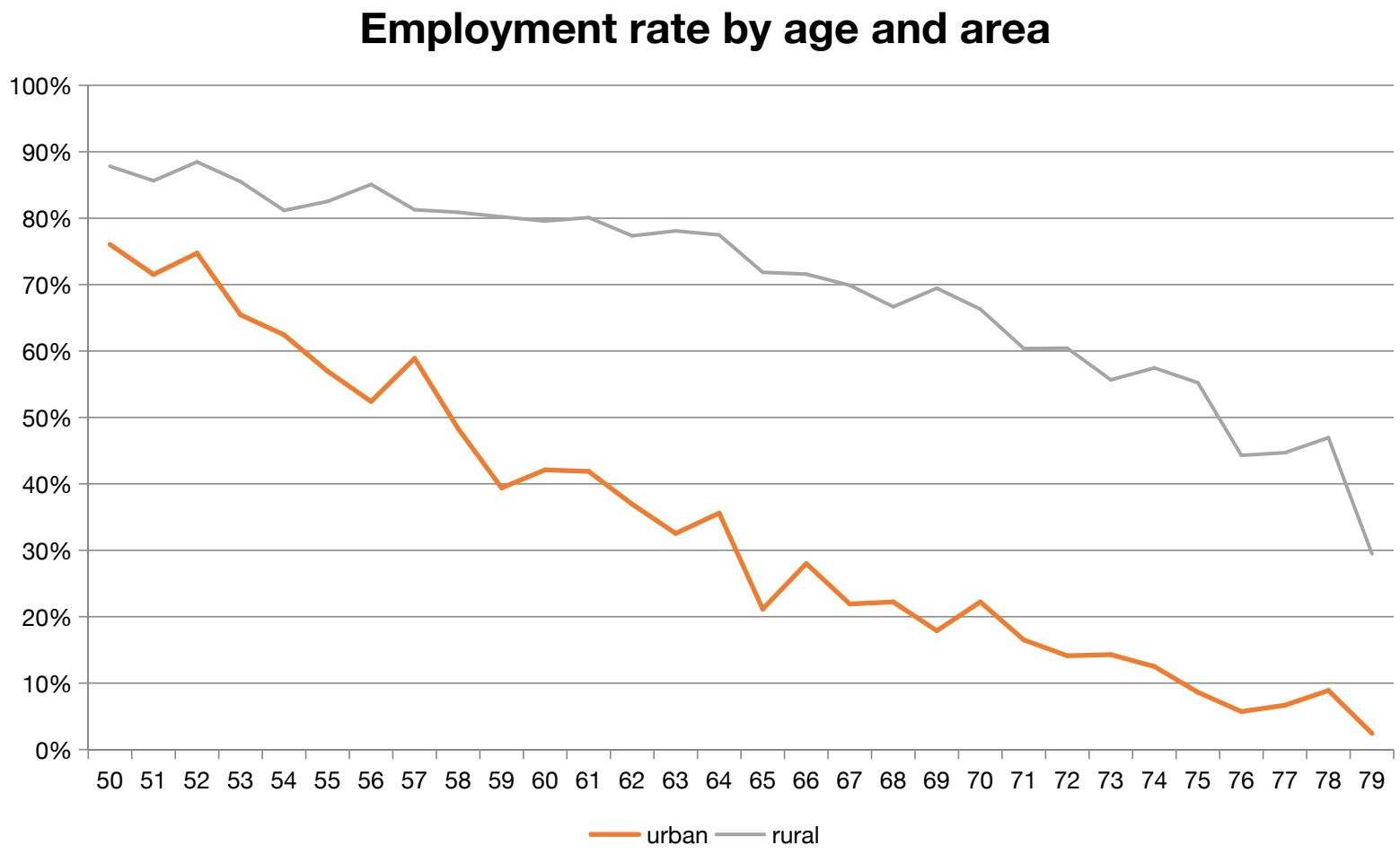



- Those aged 50-65 in 2015 could work **3.3 years longer** if they worked as long as those with the same mortality rate as them in 2000.

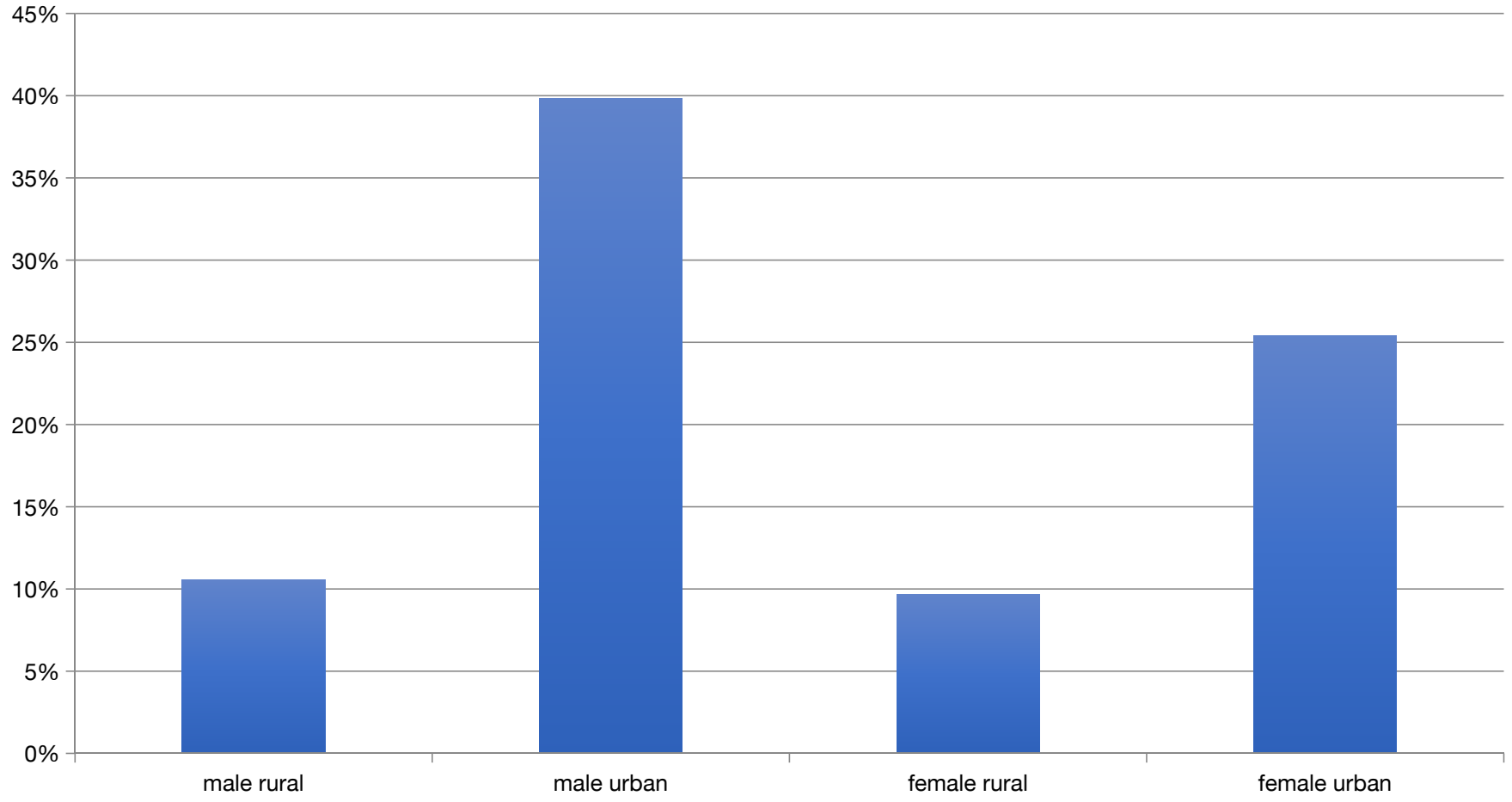
# Potential increase in health-based work capacity for those aged 55-59, by age group



# Rural and urban: employment rate



# Potential increase in work capacity by sex and urban/rural location



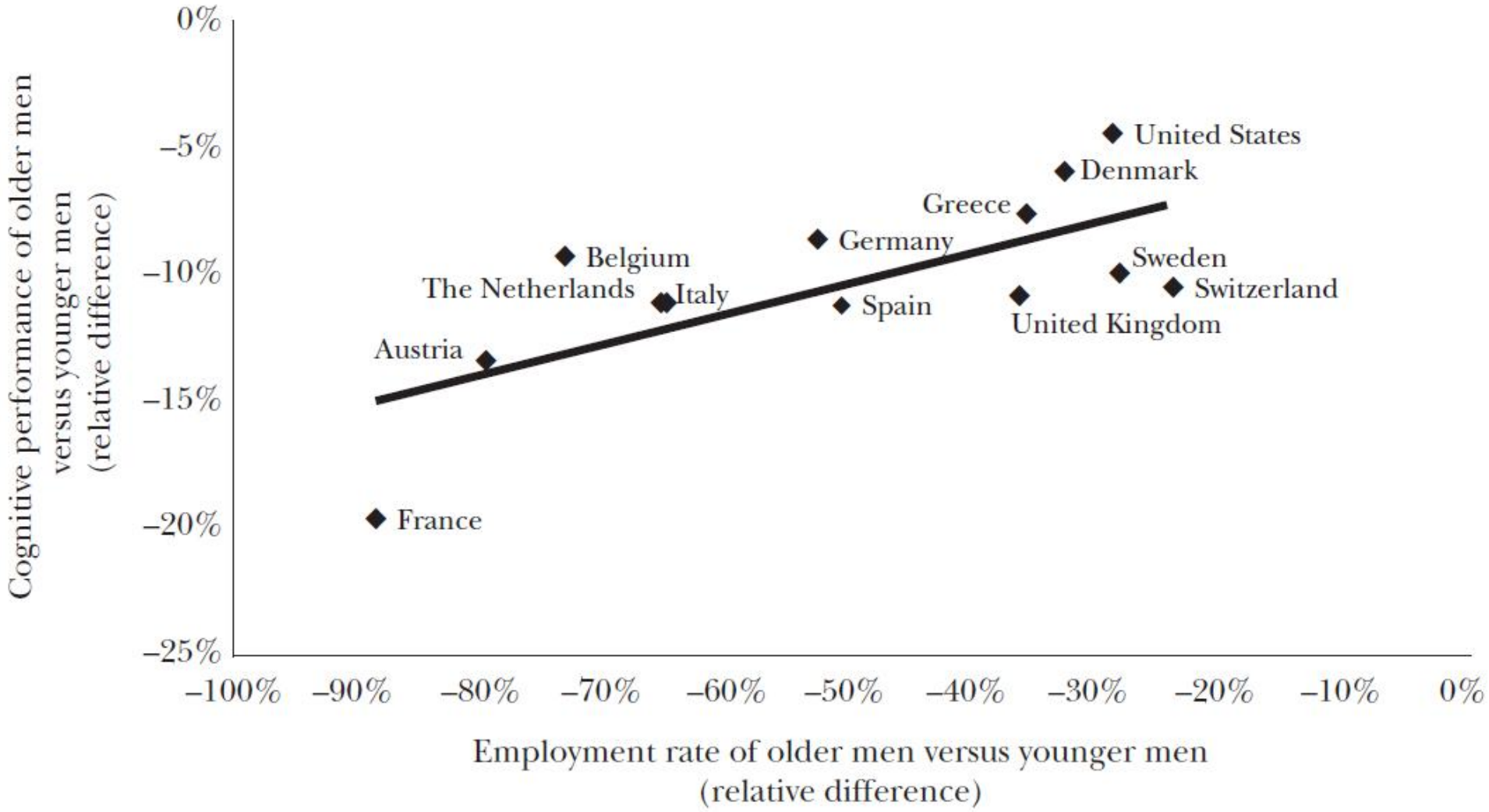
# Expansion of pension programs influences the demand for public elderly care services

- Pensions may reduce economic and other support from children (increase demand)
  - Exacerbated by fewer children due to the one-child policy
- Pensions increase income of the elderly (increase demand)
- Pensions can lead to earlier retirement and more rapid cognitive decline (increase demand)
- Access to rural pensions in China increased elderly health and subjective well-being (decrease demand)

⇒ **Overall impacts ambiguous**

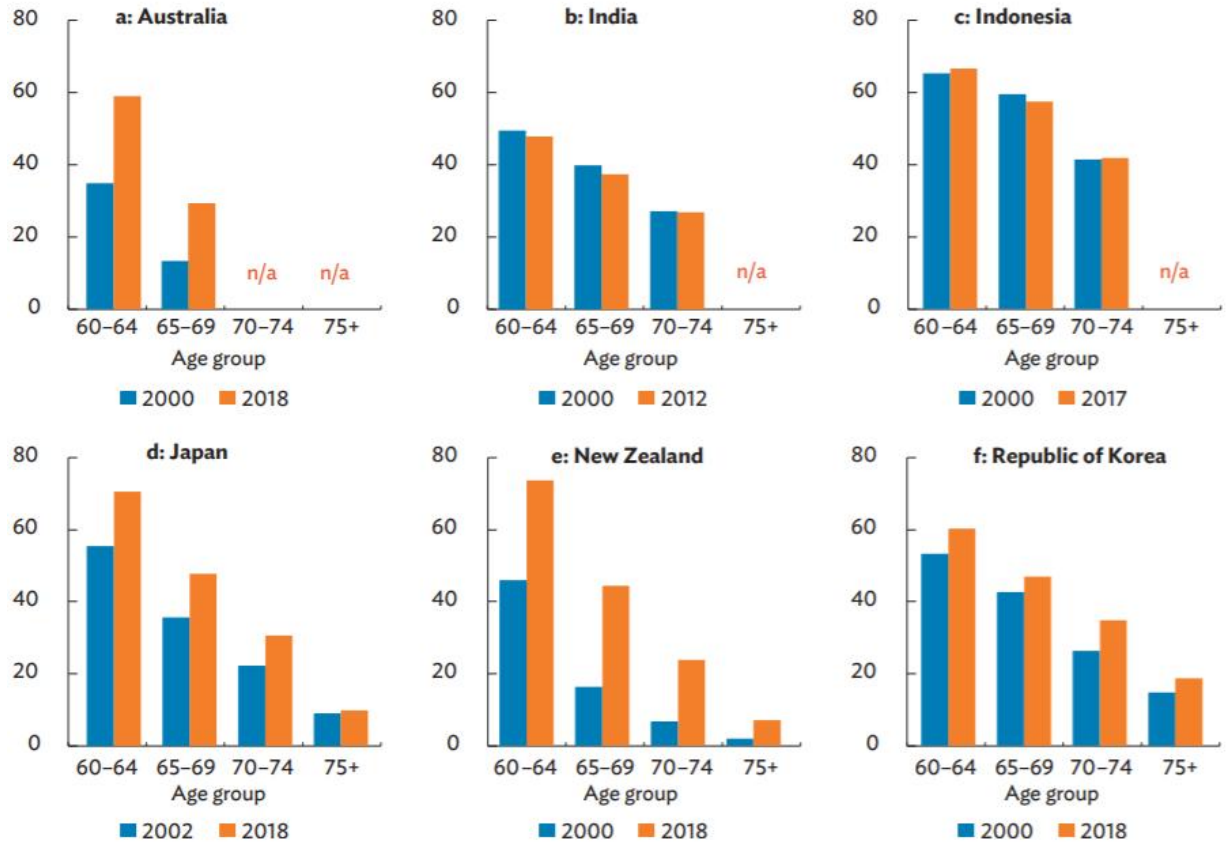
Source: Park, Albert, and Xiaoyue Shan. "Access to Pensions, Old-Age Support, and Child Investment in China." (2020).

# Working Can Prevent Cognitive Decline




*Source:* Adam, Bay, Bonsang, Germain, and Perelman (2007), in Rohwedder and Willis (2010)

# A growing share of older people stay in the labor market




n/a = data not available.
Note: Latest available data for India are 2012, while those for Indonesia are 2017.
Source: ADB calculations using data from Organisation for Economic Co-operation and Development (OECD). OECD Stat Database. https://stats.oecd.org/ (accessed June 2019)

# Cognitive Ability and Education by Age Group

Figure 3.5. Cognitive Ability by Gender and Age Group

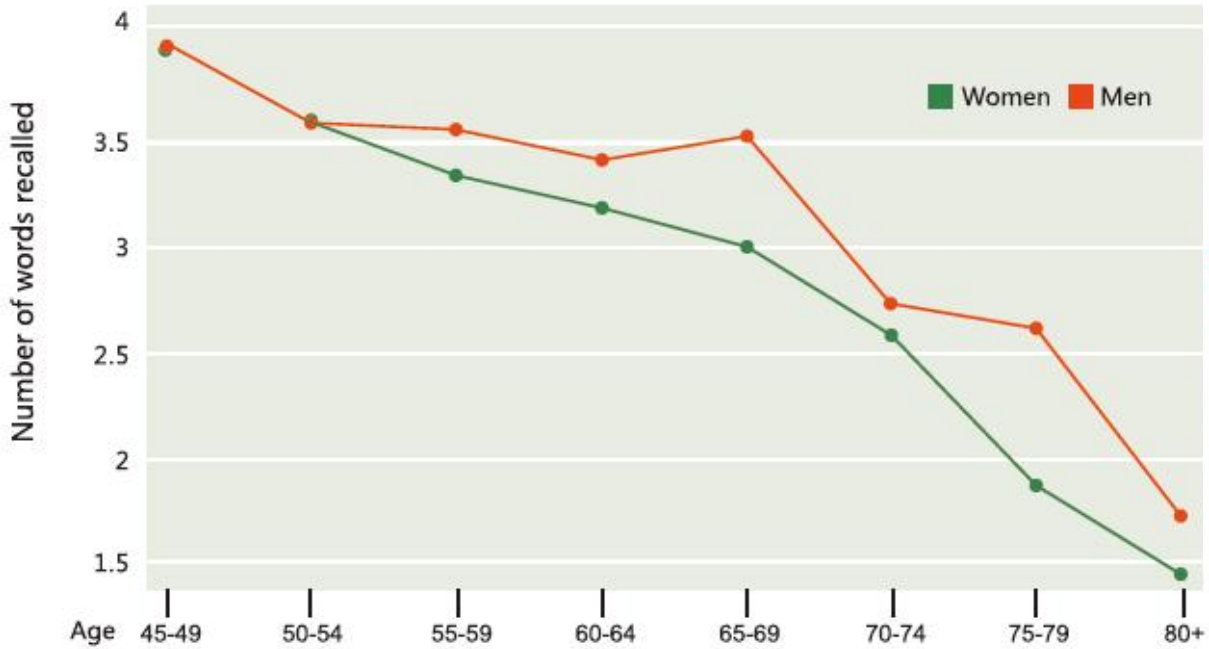



Table 2.3: Educational Attainment of Older Population (%)

| Educational level | Age | | Gender | | Hukou | |
|---|---|---|---|---|---|---|
| | 45-59 | 60+ | Male | Female | Urban | Rural |
| No schooling | 17.9 | 36.5 | 11.8 | 39.1 | 9.4 | 32.8 |
| Did not finish primary | 15.0 | 18.8 | 17.0 | 16.3 | 9.6 | 19.6 |
| Finished primary | 19.2 | 23.3 | 25.0 | 17.3 | 17.6 | 22.4 |
| Finished middle school | 28.0 | 12.0 | 26.3 | 16.1 | 25.6 | 19.2 |
| Finished high school | 15.9 | 6.8 | 15.4 | 8.8 | 26.8 | 5.8 |
| Finished college and above | 4.0 | 2.6 | 4.5 | 2.4 | 11.0 | 0.2 |

# International comparisons of cognition by age

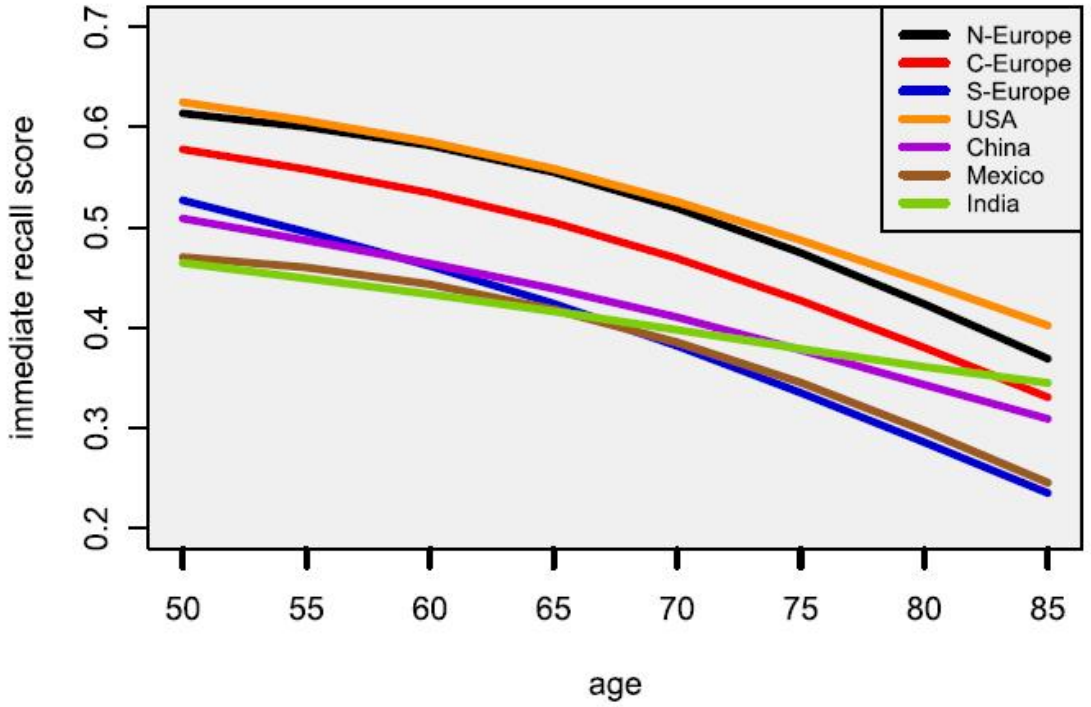



**Fig. 1.** Mean age-group–specific immediate recall scores (values between 0 and 1, where a score of 0.4 means being able to recall 40% of the given words). Curves are smoothed by using spline interpolations. Logistic regression to test for significant age-related decline, significance levels $P < 0.001$. Analysis of variance to test for differences between countries, significance levels $P < 0.01$.

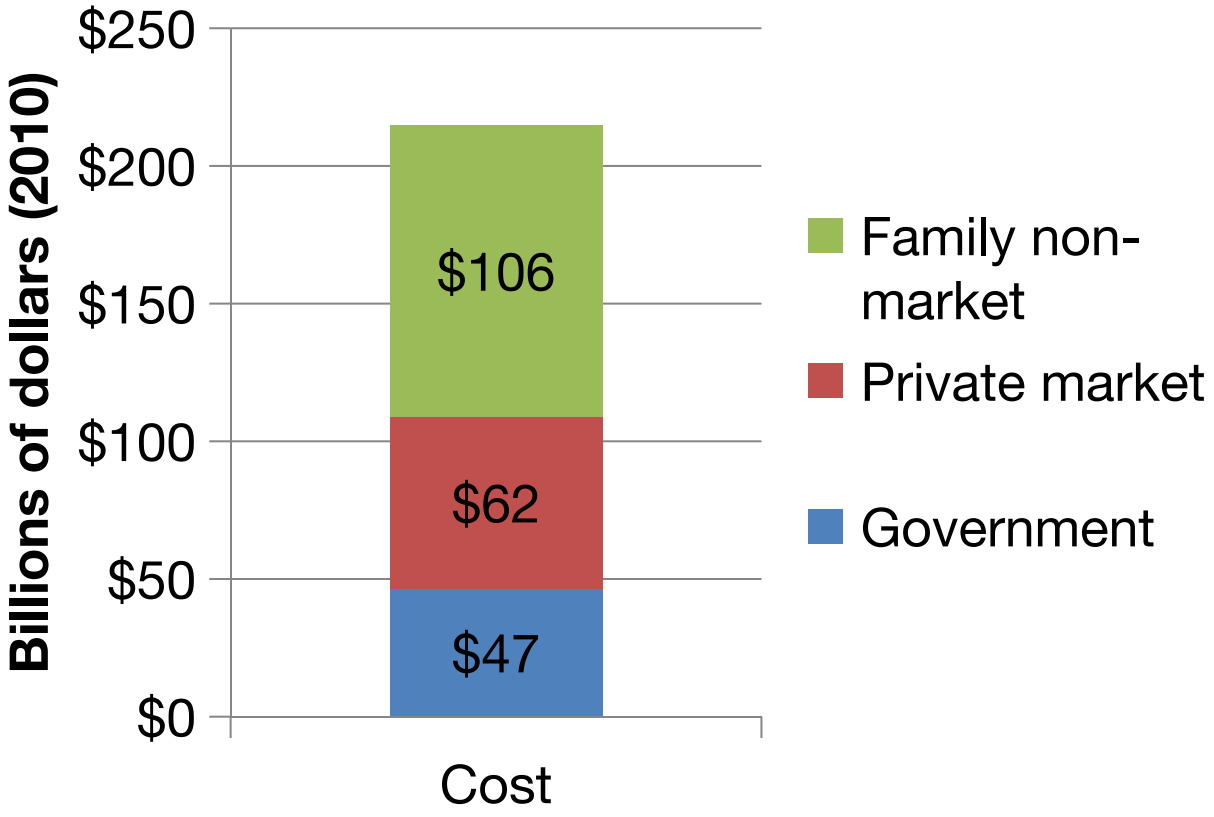
Source: Skirbekk et al., PNAS, 2012  Note: China data from WHO SAGE

# Determinants of Cognition in China (Results of Multivariate Regression Analysis)

- Educational attainment plays a dominant role in explaining differences in cognitive function
  - Nearly fully explains gender gaps
- Unlike developed countries, community (village) factors are significant
  - Differences in community expenditure per capita have larger effect than household expenditure per capita
  - Women are particularly disadvantaged in poorer communities
  - Community facilities and social activities positively associated with cognitive function

Source: Lei et al, 2014

# Costs of Dementia in the United States




- Annual cost estimated to be $215 billion in 2010.
- Most costs from informal care by family members.
- Costs greater than cancer, will grow by 80% by 2040.

Source: Michael Hurd, et al. “Monetary Costs of Dementia in the United States” New England Journal of Medicine April 4, 2013.

# Costs of Dementia in China

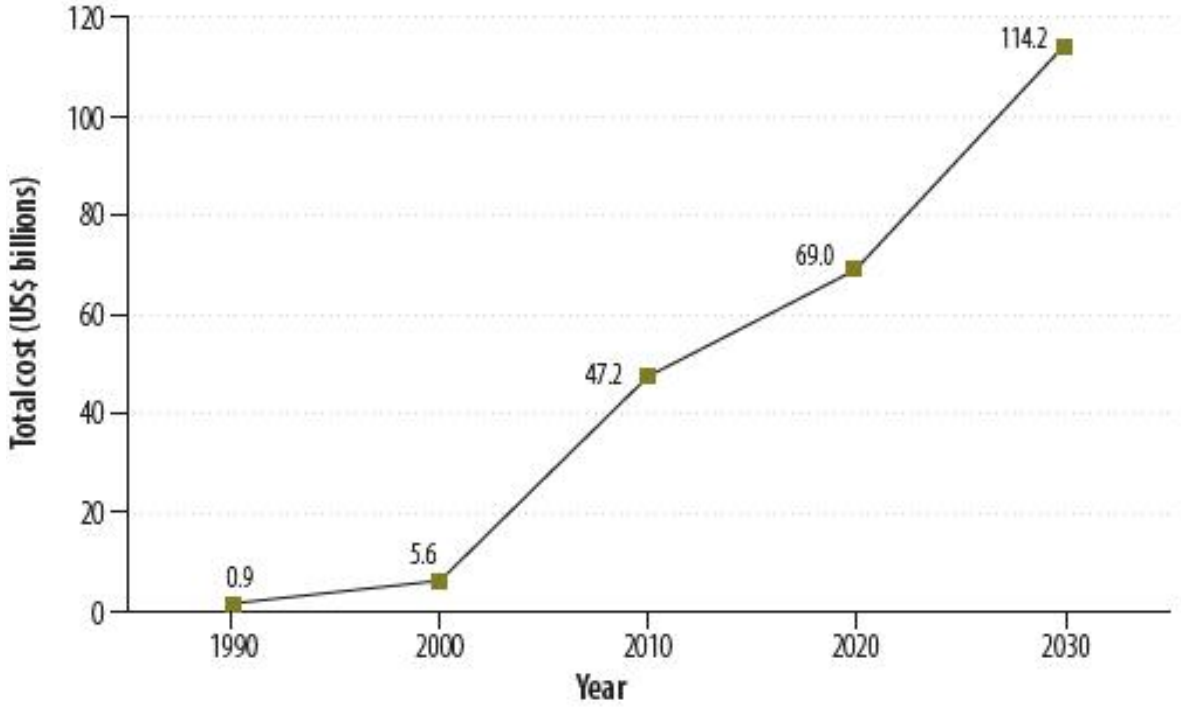
Table 2. **Predicted age-specific prevalence of dementia and numbers of people with dementia, China, 2020 and 2030**

| Age in years | 2020 | | 2030 | |
|---|---|---|---|---|
| | Prevalence (%) | Thousands of cases | Prevalence (%) | Thousands of cases |
| 60–64 | 1.5 | 1 121.1 | 1.7 | 1 879.0 |
| 65–69 | 3.0 | 2 117.3 | 3.4 | 2 966.8 |
| 70–74 | 5.3 | 2 340.7 | 6.0 | 3 661.7 |
| 75–79 | 9.7 | 2 593.2 | 11.0 | 5 477.5 |
| 80–84 | 16.6 | 2 717.8 | 18.8 | 4 547.9 |
| 85–89 | 27.8 | 2 096.8 | 31.5 | 2 997.0 |
| ≥ 90 | 47.4 | 1 082.1 | 53.9 | 1 760.8 |
| ≥ 60[a] | 5.8 | 14 069.0 | 6.7 | 23 290.7 |

[a] The values shown cover all of the expected dementia cases aged at least 60 years.

- 24 million cases by 2030

Fig. 1. **Estimated total annual costs of dementia, China, 1990–2030**




US$: United States dollars.
Note: All the estimated costs were converted to United States dollar (US$) values in January 2015 – when US$ 1 was equivalent to about 6.2 Chinese yuan.

Source: Xu et al (2017). "The Economic Burden of Dementia in China, 1990-2030: Implications for Health Policy", *Bulletin of the WHO*, 95: 18-26.

# Long-term Care in Asia

- Relatively few public long-term care systems
  - Japan, Korea are key examples; also Singapore, China, Thailand
- Lessons from international experience
  - Reducing disabilities and healthy aging can help control costs of long-term care
  - Public systems focused on long-term care institutions rather than integrating home and community care can lock in high costs
  - Private provision of care must be accompanied by strong state guidance on standards and quality monitoring
  - Coordinating long-term care and health-care systems is challenging
  - Shortage of care workers is common. Can address this by training professional long-term care workers and mobilizing community carers through time banks or other arrangements (and facilitated by technology)

# A cloud job-matching system for elderly workers in Japan

Negative perceptions of elderly workers make it harder for them to access employment. This tendency for unemployment perpetuates social isolation and financial problems. However, aging societies are increasingly recognizing the potential of healthy senior workers and are tapping them for simpler tasks through crowdsourcing.

Gathering Brisk Elderly in the Region (GBER), is a web application, accessible through personal computers, tablets, and smartphones, that matches tasks and jobs with active seniors in Japan. In addition to skills-based matching, GBER features calendar-based and location-based matching capabilities (Arita, Hiyama, and Hirose 2017). The platform, supported by a groupware function, allows retired people to maintain good health and socialize by working on community-based projects with other seniors. In the area of Kashiwa, it has resulted in 2,300 job placements (University of Tokyo 2018).

A pilot study in Kashiwa of 92 users with an average age of 67, showed that GBER was easy to use even for seniors with limited information and communication technology experience and that it promoted their engagement in local activities (Arita, Hiyama, and Hirose 2017). Given its success, GBER will expand to other cities. Its developers also plan to implement a recommendation system that will evaluate the platform's skills-matching functions.

Source: ADB. 2019. *Asian Economic Integration Report: Demographic Change, Productivity, and the Role of Technology*. Manila.

# Conclusions

- Asia is experiencing rapid aging, especially in China, creating policy challenges
- Demand for elderly care depends on the extent to which aging is healthy or unhealthy
- Shift from reliance on children to pensions is likely to increase demand for public long-term care services
- Declining cognition and dementia imposes high costs on family members, and is influenced by work and social interactions
- Designing public elderly care services is difficult but essential

# Thank you.

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**TABLE 7.1 Features of long-term care insurance in Japan, the Republic of Korea, and Taiwan, China**

| Feature | Japan | Korea, Rep. | Taiwan, China |
|---|---|---|---|
| *Year introduced* | 2000 | 2008 | 2016 (planned) |
| *Premium contributors* | All people ages 40 and older | All people | All people |
| *Sources of financing* | | | |
| Government subsidy | 45% | 20% | 90% |
| Premium | 45% | 60–65% | |
| Co-payment | 10% | 15–20% | 10% (poor are exempt) |
| *Eligibility* | Ages 65 and older<br>Ages 40–64 with mental or physical disability | Ages 65 and older<br>All ages with age-related conditions | All ages with disability or age-related conditions |
| *Service benefits* | | | |
| Home care | Yes | Yes | Yes |
| Community-based care | Yes | No | Yes |
| Nursing care | No | Yes | No |
| Institutional services | Yes | No | Yes |
| Cash benefits | No | Only exceptional cases | Yes for family members and home help |
| *Management* | Municipal government but with uniform fee schedule | Under national health insurance but financed independently | Under national health insurance but financed independently |

*Source:* Lu 2014.

# Long-term care system for older adults in China: policy landscape, challenges, and future prospects

Zhanlian Feng, Elena Glinskaya, Hongtu Chen, Sen Gong, Yue Qiu, Jianming Xu, Winnie Yip

**Profile of the long-term care system and policy landscape in China:**

- The long-term care system is characterized by rapid growth of the residential care sector, slow development of home and community-based services, and increasing involvement of the private sector.
- The long-term care workforce shortage and weak quality assurance are concerning.
- Public long-term care financing is minimal and largely limited to supporting welfare recipients and subsidizing the construction of residential care beds and operating costs.
- China is piloting social insurance long-term care financing models and, concurrently, programs for integrating health care and long-term care services in selected settings across the country; the effectiveness and sustainability of these pilots remain to be seen.

**Informed by international long-term care experiences, policy recommendations to strengthen the evolving care system for older people in China are offered:**

- Develop a long-term care delivery system centered on home- and community-based services
- Strengthen quality assurance
- Upgrade the long-term care workforce
- Establish a systematic and sustainable long-term care financing mechanism
- Integrate health care and long-term care services
- Strengthen research and data collection to support policy formulation