Population Ageing Presents Challenges to China

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ABSTRACT. Resulting from drastic fertility and mortality declines in recent years, ageing is at an unprecedented speed in China, bringing various impacts and raising social concerns. To find out how the trend occurred and why people are concerned, I took specific measures and analyzed the social impacts. Thus, I introduced alternative measures of ageing and came up with pro-active policies offsetting ageing based on the national conditions.

KEYWORDS: Population ageing; Trend; Challenges

1. Introduction

Nowadays in China, ageing has caused considerably serious problems. This trend has brought significant impacts on the local society from various aspects including the pension and health system, the labor and financial market, etc. Undoubtedly, within the post-demographic dividend era, the country should take an overview of the ageing process and redesign the current ageing policies based on the national conditions especially by phasing out the urban-rural and costal-inland distinction.

2. Measures of Ageing

Fig.1 e various measures of ageing. In terms of fertility rate, basic measures are Crude Birth Rate, General Fertility Rate, Age-Specific Fertility Rate and Total Fertility Rate. Among these indicators, I choose the Total Fertility Rate (TFR, estimated as the sum of age-specific fertility rates), which is independent of the effect of the age structure and provides a standard way to compare fertility levels across countries. The figure dropped sharply as early as 1965 and it was down from 6.4 in 1965 to 1.6 in 2014 (Figure 1), below most high-income OECD countries. While, this cannot fully reflect the serious ageing problems in China due to the significant imbalance between boys and girls and the differences between urban and rural areas. Sustainability depends on the total number of girls that each woman gives birth to. Census data suggested that women were bearing only 0.66 girls over
their lifetime in the late 1990s, well below the replacement figure of just over unity, equivalent to a TFR of 1.58.

Figure. 1 Data from United Nations Population Division. World Population Prospects: 2017 Revision. (Also, for Table 1, Figure 2,3)

Table 1 mortality rate, standard measures include Crude Mortality Rate (CMR), Age-Adjusted Mortality Rate (AAMR, Calculated by Standardized Population Distribution), etc. I calculate the Comparative Mortality Figure (CMF) to compare the AAMR in 1980-1985, when China’s one-child and Open and Reform Policy was implemented, and the data in 2010-2015. The calculated CMF is 0.7, indicating that the mortality rate in China has deceased a lot. (Table 1, data from UN)

<table>
<thead>
<tr>
<th>Country</th>
<th>Period</th>
<th>AAMR</th>
<th>CMF</th>
</tr>
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<tbody>
<tr>
<td>China</td>
<td>2010-2015</td>
<td>5.73</td>
<td>0.7</td>
</tr>
<tr>
<td></td>
<td>1980-1985</td>
<td>8.21</td>
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Fig.2 ally, the survival-ship changed significantly and is expected to further improve compared with OECD countries, meaning there will be more people living longer, while not necessarily better (Figure 2)

Figure. 2 Data from United Nations Population Division. World Population Prospects: 2017 Revision.

Fig.3 ult, the proportion of people aged over 65 was over 11.4%, much higher than 7% (International ageing society standard), indicating that China is now joining the ranks of ageing societies elsewhere in the world at a rapid pace. (Figure 3, data from UN)
3. How Ageing Happened in China within Years?

3.1 Decreasing Fertility Rate

(1) One-Child Policy

Early in 1970s, family planning program was gradually established by central government, and later in 1980s, one-child policy was introduced. The policy has successfully slowed down the population growth, though, also caused ageing society. It continues to have an impact on China’s demographic processes.

(2) Socio-economic development

Socio-economic development is certainly a decisive factor facilitating the transition. Since the open and reform policy, remarkable changes have occurred in every aspect of society. As the economy boosted, more people migrated to the urban area from rural regions in search of development. The soaring number of migrants certainly affects the fertility rate. In rural areas, influenced by traditional customs, people tend to start their families at early age of around 20. Migrants in the urban area tend to be less affected and marry at later age with more efforts in jobs for personal development, resulting in a lower fertility rate.

In the meanwhile, the education standard also improved with the economic achievement. More people receive higher education and positive impact of education attainment on fertility reduction is well documented by scholars. Additionally, residential income increased significantly, and so did the cost of living, especially childbearing cost. One the one hand, as is well-known, Chinese parents save a lot for the children’s education. The rising education fees made people reluctant to have many children. On the other hand, as the gap between the rich and the poor widened, simulated by the hope of being rich, to give births seem to be economically irrational and a burden with the soaring prices.

(3) Changes in family reproductive culture
Chinese traditional society is deeply based on the family structure. This culture has changed gradually and so as society with lower marriage rate and higher female working participation rate.

Across the country in 2017, 3 million couples registered their marriages with the in the first quarter, down from nearly 4.3 million in the same period of 2013 – a substantial decline of 30 per cent. This change, along with the changing female social status, contributes to the lower fertility rate.

3.2 Decreasing Mortality Rate

China has experienced an extraordinary mortality decline in recent years. Mortality reduction first took place among children and then among mid-aged people. The change of mortality among people aged over 60 was less clear until the late 1970s. The same as the reasons analyzed above, people’s life expectancy increased with the economic development, reaching 76.25, higher than worldwide average number. Besides, significant improvements in health care system also played important roles. The government began to collect health statistics in 1950s, which helped a lot to reduce disease-specific mortality rate such as injuries and toxicosis. Yet, further improvement in data collection should be made especially compared with developed countries.

4. Why Are People Concerned about Ageing?

Population ageing has various impacts on society, bringing institutional challenges.

(1) Pensions and income security

The working age population is shrinking dramatically and there were about five taxpayers for every senior citizen; by 2030, there will be two. Pension expenses rose 11.6 per cent to 2.58 trillion yuan in 2016, leaving a 429.1-billion-yuan tab to cover the shortfall, according to the latest data from the finance ministry. The situation is worse in rural areas as there are many empty-nest people. Catering for elder will be enormously costly so pension systems need to be modernized urgently to ensure sustainability.

(2) Long-term healthcare system

The increase number of older persons aged 60 and above and changes of family patterns made social demand for long-term care rise significantly and become more complex. The average household size in 2010 was 3.1 persons, compared to 4.4 in 1982. When less wealthy families have to pay for caregivers, catastrophic costs can be imposed on households. Government therefore need to arrange sustainable financing of LTC to reduce this risk. Ageing population with an increasing burden of NCDs including mental health is arguably the largest challenge facing the health system, claiming large proportion of national funds. Furthermore, with fewer adult offspring to bear economic and social support responsibility for the elderly, health
care system in China faces challenges such as inadequate education and qualifications of workforce, a paucity of digital data on everyday clinical practice, financial subsidies and incentives, and insurance policies that hamper the efficiency of care delivery.

(3) Labor Force and economic development.

Around 2010, the size and proportion of working-age population began to decrease. The average annual growth rate of the working-age population was only 1.3% from 1995-2010, and it was only 0.13%, nearly only 1/10 from 2010 to 2014. More importantly, in 2014, there was an absolute decline in the size of the population aged 15-64. Thus, the real labor supply will inevitably decline at a faster in the future, further influencing the economy. While, to some extent, simple old-age dependency ratio overestimates the future public finance challenges faced by the country.

5. Possible Policy Responses

5.1 Population Level

The central government scrapped one-child policy in 2015, allowing all couples to have a second child to mitigate the effect of aging. As the data revealed from National Health Commission, 18.5m babies born in 2016, the highest number since 2000, suggesting the policy change had made a difference, however, it is far too early to claim victory.

Besides, The University of the Aged is on the frontline in fighting against ageing. Some local governments activate elderly residents also by funding center that offer elderly citizens classes in everything from Latin dance to the use of electronic devices.

5.2 Institutional Level

Central government launched Healthy China 2030, aligning UN’s health-related sustainable development goals, to re-construct government responsibilities for pop health, health care and insurance. National Health Commission and Stata Health Insurance Institution were established to develop national health by the formulation and implementation of appropriate health insurance policies, maternity insurance and medical financial assistance for the poor. Additionally, financing of public health programs jointly funded by central and local governments increased subsidies for health insurance schemes and reduced mark-up rate of drugs to zero in hospitals.

Over 95% of the population in mainland is covered by health insurance, however, problems remained. China’s health service delivery system is on profit driven and it neglects disease prevention, so efforts should be paid to change this situation.
Besides, lack of detailed plans at provincial and regional levels may fail to achieve most of the targets set up by Healthy China 2030.

References