

## Editorial

# Healthy China 2030: Primary Health Challenges

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On June 24, 2019, the State Council of China has issued the opinions on "Implementing Healthy China Action" (Appendix). This document will mark a milestone of turning the vision and action into the implementation of the ambitious healthy program, aiming to fight chronic diseases across the nation of China. It is the second nation-wide healthcare movement, following the mass "patriotic health campaigns" in the third quarter of last century (1955-1975) aimed at improving the low level of environmental sanitation and hygiene and attacking certain diseases in particular infectious diseases after the founding of the new China. The Opinions highlights a specific task for the implementation to achieve the goals of "Healthy China 2030" plan, which is drafted by the cooperation of over 20 departments of the central government and also a response to global commitment (1). The plan has been regarded as a vision set for a significantly expanded health industry that would become a mainstay of the national economy<sup>1</sup>. Preventing and controlling major chronic diseases, rising in the populations due to socio-economic transition over past decades, is the primary goal of Healthy China 2030 (2).

Over the past four decades, there has been a significant change in the pattern of disease burden. Stroke, ischemic heart disease, and lung cancer have been the top three causes of death in China from 1990 to 2017 (Figure 1) (3); In the meantime, musculoskeletal disorders, mental health disorders, and sense organ diseases were the three leading causes of the years lived with disability in 2017, which may also cause some indirect cost of health care (Figure 2). Looking to the future, one can view that China will face multiple health challenges, which should be of primary focus for the healthy China 2030.

### *The imbalance between socioeconomic development and population aging*

Over the past decades there has been a rapid socioeconomic development in China. However, the average income per capita is still relatively low. In the meantime, the population aging in China is accelerated and mostly induced by the early implementation of the family planning policy

rather than by socioeconomic development that the Western countries had experienced. The imbalance between socioeconomic development and population aging will cause a considerable burden for the society of China. For example, lacking good social security and the public elderly care system is a big problem for caring the "baby boomer" in the 1960s who will enter the elderly in the next 5-10 years. Older adults are more fragile to chronic diseases and have a higher risk of developing cancer. Early detection and diagnosis is the key to reduce the burden and the risk of chronic diseases.

### *Industrialization, urbanization, and environmental pollutions*

China is still in the stage of industrialization and urbanization, which has caused severe ecological problems. While no exact estimates, the environmental hazards surely contribute to a certain fraction of the etiology of chronic diseases, including cancer and cardiovascular diseases. However, reducing the risk factors in the environment is no easy task and will take a long time to observe a significant benefit of health. Also, the rapid increase in urbanization, particularly the massive construction of housing and office buildings may have generated environmental risks for human health. The new buildings and furnishings, with a lack of awareness of the hazards from the construction, have raised concerns. Studies have indicated that prenatal exposure to outdoor air pollution or indoor renovation increased the risk of intrauterine inflammation(4) and early childhood ear infection(5). The environmental pollutions in the air, water, or soil are more significant health threats to the specific group of populations, such as pregnant women, children and the elderly, who are fragile and may have a long-term effect on health.

### *Occupational health*

Occupational health has become a challenge due to the increased number of workers exposed to occupational hazards each year. For example, the number of new cases with pneumoconiosis has been doubled over the past 20 years (6)(Figure 3). According to the economic analysis of cases with pneumoconiosis during the end of the 20th century, the estimated financial losses associated with pneumoconiosis account for approximately 0.4% of the gross national product in China. Occupational safety and health programs are urgently needed.

### *Infections and chronic inflammations*

While acute infectious diseases have been under controls due to the mass health campaigns in the last century, chronic inflammation with infectious agents has been significant. The infection of hepatitis B and C virus is a considerable burden in China. According to the World Health Organization, China has the highest prevalence of HBV infection in the world. It is estimated that 90 million people in China currently have chronic hepatitis B (HBV), and

<sup>1</sup> <https://healthpolicy.pharma.bayer.com/healthy-china-2030-an-institutional-reshuffle-to-improve-healthcare-quality-and-prices-in-china/>

approximately 10 million people live with chronic hepatitis C (HCV). One-quarter of these people are in urgent need of treatment due to advanced disease<sup>2</sup>. Also, the two-third people in China infected with *Helicobacter pylori* (7), which is found as the cause of stomach ulcer that may

increase the risk of stomach cancer. Moreover, HIV in China has become a new challenge. China accounts for 3% of new HIV infections each year; there a sharp rise in new infections was reported, with 40,000 in the second quarter of 2018<sup>3</sup>.

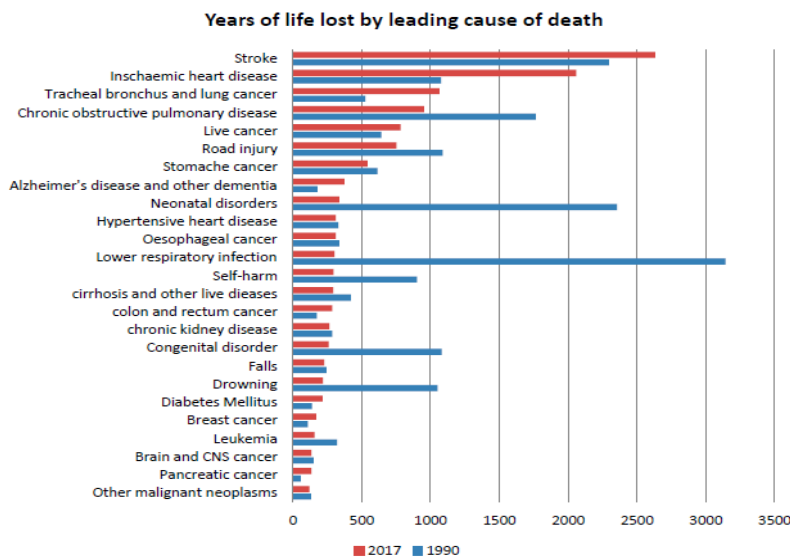


Figure 1. The years of life lost (YLLs) by leading cause of death in China in 1990 and 2017

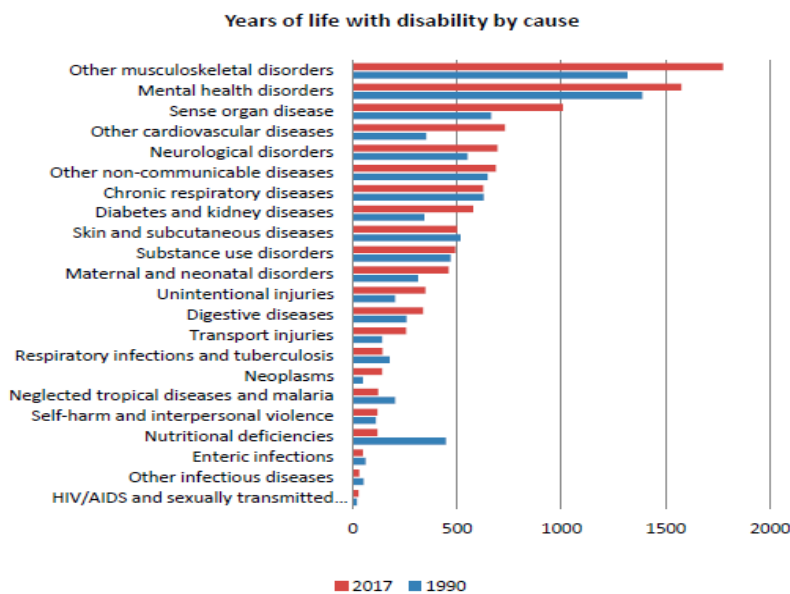
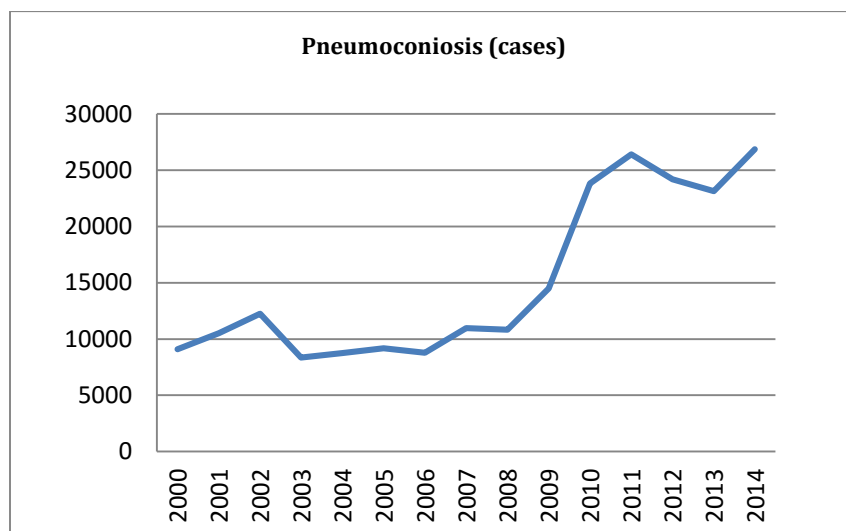


Figure 2. The year of life with a disability (YLDs) by the leading cause of death in China in 1990 and 2017

<sup>2</sup> WHO. Up to 10 million people in China could die from chronic hepatitis by 2030—urgent action needed to end the silent epidemic'. 2016.

<http://www.wpro.who.int/china/mediacentre/releases/2016/20160727china-world-hepatitis-day/en/> (accessed July 25, 2019).

<sup>3</sup> <https://www.avert.org/professionals/hiv-around-world/asia-pacific/china> (Accessed July 25, 2019).



**Figure 3.** Number of new cases of pneumoconiosis from 2000 to 2014

Different from the first national health movement targeting the acute infectious diseases, each of which may have a unique, infectious agent, the Healthy China program is to focus on various risk factors, and each of individuals may contribute to a small proportion of the risk. It may need to build a health management-oriented Primary Health Care as an infrastructure. Traditional Chinese Medicine in China can play a valuable role in the prevention and management of chronic diseases.

#### APPENDIX

Opinions on Implementing Healthy China Action

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