

## Study on Development of Indian Health Human Capital

Wenwu Yang<sup>1</sup>, Jun Dai<sup>2,3, a</sup>

<sup>1</sup>Institute of South Asian Studies, Sichuan University, Chengdu, China

<sup>2</sup>The School of Economics, Sichuan University, Chengdu, China

<sup>3</sup>Chongqing Technology and Business University, Chongqing, China

<sup>a</sup>comeonamelia@yeah.net

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**Abstract:** Human capital has been regarded as the main drive for the economic growth. After independence, India has exerted great efforts to promote all forms of human capital growth, partially health human capital. This thesis focuses on the study of development of Indian health human capital, and concludes that India's health human capital has accumulated since independence although the Indian government still lags behind other developing countries in terms of the inadequate health spending. Still, here lies great potential in India's health human capital.

### 1. Introduction

After independence, a series of health and hygiene measures have been adopted by Indian government to develop a medical security system to improve people's health. In 1983, the government enacted India's first National Health Policy with the goal of "Health for All by the Year 2000", which focused on universal access to basic health care, infrastructure development and the number of health care professionals. However, the policy of 1983 was not properly implemented. In 2002, a new national health policy that was more practical and feasible was launched to achieve the universal health standards. The policy proposed to increase public health spending from 1% of GDP to 2% of GDP within a decade, but by 2018, this goal has not yet been achieved.

This policy has been successful in achieving some of the goals of improving maternal and child health, but has failed to achieve other goals, such as meeting the quantitative requirements of qualified health care professionals and ensuring equitable access to health care for the poor. The National Health Policy, promulgated in 2015, is more pragmatic. The policy has recognized that health priorities are changing, the health care industry is growing strongly, and the increase in health care costs is the main cause of poverty. In fact, the government's increased spending on health care can greatly reduce the government's efforts and wipe out poverty.

### 2. The Indian medical security system

Two aspects are consisted in the Indian medical security system: the public medical service system and the social medical service system. The former system spreads all over India from urban to rural areas, from central to local areas. The medical service systems in cities of India are composed of public hospitals and urban health centers (family welfare centers), while community health centers, primary health centers and health stations constitute rural medical service systems [1].

### 3. India's health human capital has accumulated since independence

#### 3.1 Status of population indicators in India since independence

Public infrastructure has been strengthened due to improved nutrition and sanitation, and significant progress has been made in the world's health indicators since the twentieth century. The three indicators of maternal mortality, infant mortality and life expectancy are used by the World Health

Organization as the main measures of a country's people's health. The average life expectancy in developing countries increased from 40 in 1950 to 63 in 1990.

In the point of view of Theodore W.Schultz, the improvement of health status in low-income countries through longevity is the most important manifestation of population quality enhancement. One of the most critical issues facing India since independence has been the rapid population growth. In order to control the population, India launched the family planning program in 1951. The government also strongly promoted it in the 1970s. However, due to obstruction of religion, caste and conventional ideology, the birth rate in India has changed slightly [2]. With the implementation of the government's reproductive and child health programs, the maternal mortality rate (per 100,000 live births) fell from 538 in 1990-1991 to 174 in 2014-2015, a decrease of 68.19%, much higher than the global average. The survival rate of infants and young children increased significantly, from 162 persons in the period of 1950-51 to 33.6 persons in the period of 2015-2016, an increase of 77.6%; life expectancy increased from 41.174 years old in 1960-1960 to 58.409 years old in 1990-1991. The life expectancy during the period 2015-2016 was 68.56 years old, ranking 139 in the world.

According to the census of 1950-51, India's population was about 359 million, but by 1990-1991 the total population increased by 2.62 times and rapidly increased to 939 million. There has been annual increase of population by 120million during the 40 years after independence, while the Indian population increased by an average of 16.44 million per year from the economic reform to 2016.

As can be seen from the above summary, India's rapid population growth is mainly due to the sharp decline in mortality rather than the increase in fertility, which has greatly increased the life expectancy and a substantial improvement in India's health.

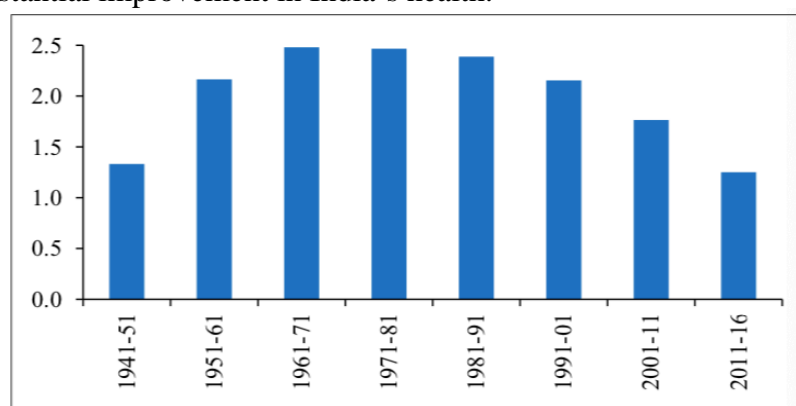


Figure 2.1 The annual average demographic trends in India (%)

Source: World Bank Database, <https://data.worldbank.org.cn/indicator/SP.DYN.LE00.IN?locations=IN>

### 3.2 Public expenditure on medical and health care in India since independence

It is stipulated in The Indian Constitution that all citizens enjoy free medical care, but with the dramatic increase in the population of India, the government's financial burden is too heavy and the per capita medical conditions are not satisfactory. In 2014, India's per capita health expenditure accounted for 149 worldwide, far below the world average. Public health expenditures in India is the sum of medical expenditures of central, state, and local governments that are used to provide health services (prevention and treatment), family planning activities, nutrition activities, and emergency assistance designated for health. In addition to directly allocating funds to health care, the central government also provides subsidies to the state government to pay for medical expenses. The state government provides health services directly through subsidies provided by the central government and its own resources, while transferring funds to urban and rural local institutions.

Table 3.1 India's medical expenditure as a share of GDP and total fiscal expenditure since independence (2003-04 constant price)

Unit: million rupee, %

Year	Medical and public health expenditure	Proportion of GDP	Proportion of total fiscal expenditure	Expenditure growth rate
1950-1951	2236.94	0.8%	NA	NA
1975-1976	7483.96	1.09	5.26	0.1679
1980-1981	11345.43	1.42	5.86	0.1337
1985-1986	14949.62	1.47	5.43	0.0412
1990-1991	17681.73	1.31	4.87	0.0047
1995-1996	19153.99	1.10	4.54	0.0278
2000-2001	26115.86	1.11	4.25	-0.0240
2005-2006	39833.35	1.22	4.44	0.1082
2010-2011	61661.65	1.25	4.31	0.0569
2015-2016	89078.98	1.34	4.49	0.0861
2018-2019BE	126252.02	1.52	5.15	0.0425

Source: Government of India: India Economy Survey, 2018-2019, A-11; Indian Public Finance Statistics.

Table 3.1 shows the changes in public spending on health care in India from 1951 to 2019. At the beginning of independence, this expenditure only accounted for 0.8% of GDP, and then the growth rate of fiscal expenditure and GDP was basically in line with the growth rate of India's population. Before 1990-1991, India's population growth rate was more than 2%. When the population increased significantly, the government needed corresponding health and sanitation investment. Therefore, the proportion of medical and health expenditure increased during this period. After the economic reform in 1991, as the population growth rate decreases, the growth of public expenditure on medical and health accounts for the proportion of GDP and total fiscal expenditure also shows a slowdown.

### 3.3 India's health care facilities have gradually improved since independence

Thanks to the government's continued health spending and the development of medical education, facilities in India have increased significantly. As of January 1991, the number of hospitals and pharmacies nationwide increased from 7,400 in 1947 to 39,026. A total of 20,531 primary health centers and 1,852 community health centers were established throughout the country to serve the rural population. In the same period, the number of beds increased from 80,163 to 637,604. In 2011, the average number of beds per 1,000 people was 0.7, and the proportion of beds per 1,000 people in India ranked 167 in the world. In 1991, the number of people per 1,000 was six times that of 1970, indicating that the medical environment continued to improve, but has since declined. By 2016, this ratio was 0.758. From the data of community health service personnel per thousand people. In 2011, the proportion of community health service personnel per 1,000 people in China was 0.83. From this point of view, there is a large shortage of medical related personnel in India.

### 3.4 India's infectious diseases have been effectively controlled since independence

For a long time, the incidence of infectious diseases in various regions of India has been high due to the large population, poor sanitary conditions and hot weather. In 1958, the Central Government implemented the Malaria Eradication Initiative (NMEP), one of the largest plans for a single infectious disease in the world. Due to the implementation of the plan, the annual incidence of malaria dropped sharply from 75 million to about 100,000 in 1965. Since then, the incidence rate has not been effectively controlled and has shown an upward trend. In this context, the government revised the plan in 1976 and implemented it on April 1, 1977. By 1988, the incidence of malaria in India has gradually declined. In order to control filariasis, the country started the filariasis control program in 1955. The data show that the town's filariasis has been significantly reduced for more than five years.

#### **4. Great potential lies in India's health human capital**

##### **4.1 India's health requires improvement since independence**

The poor health environment is one of the main causes of disease transmission in developing countries, which seriously threatens people's health. India has a large population and more than half of its population does not have access to toilets. Although India has made substantial progress in improving sanitation since independence, by 2008 only 31% of the Indian population had access to improved sanitation. India still lags far behind many countries in environmental health. In 2008, India enacted the “Urban Health Policy”, which aims to rapidly improve the sanitation facilities in urban areas of the country, and to organize health education with community organizations and non-governmental organizations. It is hoped that the practice of open defecation will be eliminated by 2010, but this goal has not been realized so far.

##### **4.2 A long way to go to upgrade public health care**

Despite the improvement of the overall health of the entire population, India has accumulated a large amount of healthy human capital in the past few decades, but providing quality medical services remains a huge problem for the government. India's medical spending has increased over the years, but it is still small compared to other countries. It is necessary for the government to raise the level of public health expenditure from about 1% of GDP to 2% to 3%. In addition, the biggest challenge for the government is the lack of human resources and the lack of corresponding professionals.

##### **4.3 Government policies need to be pragmatic and put in place**

The Indian government has launched a number of health programs that have been extremely successful over the years. Successive governments have recognized that better quality human capital can help increase productivity. According to the Global Competitiveness Index (2017-2018) released by the World Economic Forum, India's health status ranks 104th out of 137 countries and regions[3-4]. Although India's health status has been widely discussed and questioned, and it has long been plagued by insufficient funds and poor governance, Amartya Sen has mentioned on many occasions that India needs to increase health care expenditures, but objectively despite the lack of previous government revenues, insufficient and high fiscal deficits, the government has still adhered to the social concept of “making the poor enjoy adequate medical services”.

#### **References**

- [1] Wenbao Luo, Research on the Economic Growth Effect of India's Fiscal Expenditure, Sichuan University, pp135,2017.
- [2] Theodore W.Schultz, Investing in People, the Economics of Population Quality, The Commercial Press,pp21.2017.
- [3] World Economic Forum, <http://reports.weforum.org/global-competitiveness-index-2017-2018/countryeconomy-profiles/#economy=IND>.
- [4] Yongyan Zhao, Bakhrom Rajabov, Qi Yang. Innovation and Entrepreneurship Education Reform of Engineering Talents in Application-Oriented Universities Based on Cross-Border Integration. International Journal of Frontiers in Engineering Technology (2019), Vol. 1, Issue 1: 56-61.