J2 June Intensive Revision

**CSQ – Lesson 3 – Cost of Production / Market Structures – Q1**

**Healthcare in China and India**

**Table 1: Health expenditure per capita, 2009-2013**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2009 | 2010 | 2011 | 2012 | 2013 |
| China | 189 | 216 | 274 | 322 | 367 |
| India | 46 | 54 | 61 | 58 | 61 |
| Japan | 3746 | 4115 | 4656 | 4787 | 3966 |

Source: The World Bank Group

## **Table 2: Selected healthcare indicators, 2013**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Life expectancy at birth (years) | Mortality rate, under 5 yearsold (per 1000) | Immunization, measles (% of children ages 12-23 month) | Improved sanitation facilities (% of population with access) |
| China | 75 | 13 | 99 | 65 |
| India | 66 | 53 | 74 | 38 |
| Japan | 83 | 3 | 95 | 100 |

Source: The World Bank Group

## **Figure 1: Market share of the top 10 drug companies in China and US in 2012**

 USA

China

0%

10%

20%

30%

40%

50%

60%

Source: IMS Health

## **Extract 1: Why India trails China**

Modern India is, in many ways, a success. But beside slower growth, the far greater gap between India and China is in the provision of essential public services like education and healthcare – a failing that depresses living standards and is a persistent drag on growth.

India’s underperformance is due to a failure to learn from the examples of Asian economic development, in which rapid expansion of human capability is both a goal in itself and an integral element in achieving rapid growth.

Japan used investments in education and healthcare, to simultaneously enhance living standards and labour productivity and thus achieve rapid economic growth. Their development experiences remained and were followed, by Singapore and China in the early 1980s. There are strong economic returns that come from bettering human lives, especially at the bottom of the socioeconomic pyramid. For India to match China in its range of manufacturing capacity — its ability to produce gadgets of almost every kind, with increasing use of technology and better quality control — it needs a better-educated and healthier labour force at all levels of society. China’s healthier, more productive workforce and its resulting manufacturing capacity is a strong pull factor for foreign firms, when deciding where to locate their factories and firms. It has also allowed China to become the manufacturing hub of the world.

Source: *New York Times*, 19 June 2013

## **Extract 2: Things to know about India’s healthcare system**

In India, one of the fastest growing economies globally, a staggering 70% of the population still lives in rural areas and has no or limited access to hospitals and clinics. Many rely on herbal, alternative medicine and government programmes in rural health clinics as they do not know the importance of proper healthcare. Also, only a small percentage of the population has access to quality sanitation, which further exacerbates health problems due to easy spread of diseases. There is a growing need to fix its basic health concerns in the areas of HIV, malaria, tuberculosis, diarrhoea and mortality. For primary healthcare, the Indian government contributes only about 30% of the country’s total healthcare expenditure, the 11th lowest in the world in 2013.

Source: *Forbes India*, 9 September 2014

## **Extract 3: Drug companies face pressure despite China price pledge**

China’s leaders on Thursday said Beijing would lift maximum price controls on pharmaceuticals, a move long called for by drug companies and health experts to encourage both foreign and domestic firms to offer better drugs. According to consulting firm McKinsey & Co., the move could further open up the pharmaceutical industry. The industry totaled 655 billion yuan in drug sales last year, up 14% from 2013. The move “creates more incentives for foreign and local firms to develop more innovative drugs,” according to research firm China Global Insight.

The move is part of a broader government effort to create lower drug prices through free-market competition in the long term. Many drug companies might look to increase profits by raising prices, but they ultimately still compete on price and will be forced now to more greatly differentiate themselves through branding. China has long kept a tight rein on drug prices as part of its efforts to keep medical care affordable for its vast and ageing population. But the industry and experts have blamed price pressures for spurring some domestic manufacturers to cut corners such as using leather scraps to make gelatin capsules, leading to high levels of carcinogenic substances in their pills to maintain profits.

Authorities have been slowly stepping away from price restrictions, ending retail-price caps on low-cost medicine last year. But they have struggled to promote innovative drugs and ensure stable supplies.

Source: *The Wall Street Journal*, 5 March 2015

## **Extract 4: China: A soaring demand for quality medical care**

Despite the Chinese healthcare system running at full speed over the past few decades, it can’t move fast enough to keep up with the country’s social and economic changes. China’s per capita GDP grew more than 25-fold from 1980 to 2011; its life expectancy rose by nine years; its infant mortality rate quartered. By the end of last year, China's elderly comprised 14 percent of its population. That figure is expected to grow to 25 percent by 2030. It is an appealing market for pharmaceutical firms and medical-equipment makers; with spending in the industry expected to nearly triple to $1 trillion by 2020 from $357 billion in 2011**.**

Yet, hospitals are not keeping up well enough. Those who need the essential, basic services are unable to seek treatment, including this growing elderly population. China has a lack of doctors and that has led to bottlenecks at hospitals, with frustrated patients who want to receive better medical attention resort to bribing doctors.

The Chinese government has poured billions of dollars into healthcare reform in recent years, and the system has improved accordingly. Yet the price of basic medical services has also risen, with patients still paying the same amount as they did before despite subsidies. Thus, China has one of the highest savings rates in the world – about 50% – largely because families fear catastrophic healthcare costs.

Therefore, China will increase its healthcare subsidies by 19 percent this year to deepen social reforms and strengthen safety nets. Authorities will also use new technologies, new training regimens for doctors, reduce the cost of drugs and medical checks, and increase the availability of doctors in rural areas, with the total number of doctors doubling by 2020. Yet, many feel that these measures are still insufficient as these resources are likely to move into more lucrative sectors like cosmetics and cardiology, rather than the much-needed general family medicine.

Sources: *The Guardian*, 29 October 2014 and *Reuters,* 9 May 2015

## **Questions**

(a)

1. Compare the trend of health expenditure per capita between India and China from 2009 to 2013. [2]
2. What conclusion would you draw from Tables 1 and 2 about the relationship between health expenditure and healthcare outcomes? Explain your answer. [4]

(b) Assess whether implementing measures similar to those undertaken by the Chinese government is the most appropriate way for the Indian government to achieve better healthcare outcomes. [8]

(c) Identify the market structure of the pharmaceutical industry in China and USA. [2]

(d)

1. Explain the possible barriers to entry for the pharmaceutical industry. [4]
2. Discuss how the market structure of the pharmaceutical industry in China will affect the ability of firms in this industry to make excess profits in the long run when the Chinese government removes price controls. [10]

[Total: 30]

**Suggested Answers**

**(a)(i) Compare the trend of health expenditure per capita between India and China from 2009 to 2013. [2]**

Similarity

The health expenditure per capita in both China and India shows increasing trends from 2009 to 2013.

Difference

China’s health expenditure per capita is consistently increasing while India’s fell once in 2012.

OR

China’s health expenditure per capita is increasing faster than India’s (94% versus 33%)

**(a)(ii) What conclusion would you draw from Tables 1 and 2 about the relationship between health expenditure and healthcare outcomes? Explain your answer. [4]**

Explain relationship

There is a positive relationship between health expenditure per capita and healthcare outcomes. Higher per capita spending on health would lead to better healthcare outcomes as more spending on healthcare would mean people can get protected and treated against diseases and illnesses.

Explain evidence

China has a larger spending on health expenditure per capita than India and better healthcare outcome in terms **lower mortality rate of children under 5 years old.** This could be due to China having higher % of children whom are immunized against measles hence they are less likely to be infected and grow up healthily.

China has also better healthcare outcome than India in term of **higher life expectancy at birth.** A reason could be because China has better sanitation facilities than India which resulted in the Chinese being able to live more hygienically and less susceptible to diseases which resulted in

**(b) Assess whether implementing measures similar to those undertaken by the Chinese government is the most appropriate way for the Indian government to achieve better healthcare outcomes. [8]**

**(strengths and weakness of the solutions for use in India – consider the situation in India)**

**Introduction**

Measures adopted by the Chinese government to improve healthcare outcomes of life expectancy at birth and infant mortality rate

1. Increase in healthcare subsidies
2. Increase number of doctors in rural areas
3. Use new technologies

# Development

**Discuss whether India should implement the above measures taken by China.**

* Describe the mechanism of the measures
* Assess the strengths and weaknesses
* Consider the situation in India
1. **Increase in healthcare subsidies**

India should increase healthcare subsidies as health expenditure per capita in India is much lower than in China and Japan. Table 1 and 2 has shown that there is a positive relationship between health expenditure and healthcare outcome. **An increase in healthcare subsidies which makes healthcare services more affordable would be able to increase consumption of healthcare which improve healthcare outcome as people get treated for their medical condition.** A subsidy is a payment made by the government to producers in order to lower their cost of production. By subsidizing the production of healthcare, the **supply will increase** and equilibrium price lowers and equilibrium quantity increases. Alternatively, subsidies could also be given to consumers. The increase in healthcare subsidies would be the most helpful for the low income workers as healthcare may be too expensive for them as **majority of Indian population still lives in rural area.**

Increasing subsidies may impose a **large burden on India’s government budget** as the demand for healthcare is likely to be price inelastic. Hence a large amount of subsidies is required to increase consumption on healthcare significantly to improve healthcare outcome.

This may be not a serious problem as the spending on healthcare need not increase significantly. The Indian government currently spends only about 30% of the country’s total healthcare spending on primary healthcare, the 11th lowest in the world in 2013 (Extract 2). Hence the Indian government could just reallocate more of the total healthcare spending towards primary healthcare.

# Increase number of doctors in rural area

India should also increase number of doctors in rural area as 70% of Indian population still lives in rural area. There may be a lack of doctors in the rural area as there is **limited or no access to hospital and clinics** (Extract 2) to meet the huge demand and resulted in low consumption of healthcare and therefore poorer healthcare outcome. India government could subsidize the training of new doctors so that the cost of a medical degree is lower and **supply of doctors would increase**. With the increase in supply of doctors, **more people could get access to doctors** and get treated.

However, training of doctors takes time and healthcare outcome may only improve in the long term. Hence it may not be the most appropriate measure if healthcare outcomes were to improve quickly.

While increasing number of doctors would mean more people could get treated at a cheaper price, it may not be the most appropriate measure as it does not solve the problem of poor sanitation in India which increased the possibilities of people getting infected.

1. **Use new technologies**

India could also use new technologies to improve its healthcare outcomes. The use of new technologies would **improve the quality of healthcare services** and productivity level, thus allowing more patients to be treated more effectively. Examples include the use of more advanced medical equipment which allows doctors to detect diseases more accurately and prescribe the correct drugs so that people become healthier and can live longer.

However, the use of new technologies could increase the price of healthcare services as the cost of these new technologies may be passed onto the consumers. Price of healthcare services would increase if productivity level does not increase sufficiently. The rural population may not have the purchasing power to pay for the better quality healthcare services even with the increase in subsidies. Moreover, **India lacks basic healthcare services and not higher quality healthcare services** hence it may not be the most appropriate measure.

**Conclusion**

**India should only implement the measures which can tackle the root causes of its poorer healthcare outcome.** From the data given, India faces inadequacies in terms of quality sanitation and knowledge of proper healthcare (imperfect information). Hence increasing subsidies and using new technology may not be the appropriate measures. Increasing number of doctors in the rural area would be more appropriate especially if the doctors can impart knowledge about proper healthcare to the Indians rural population

Other policies may be more appropriate such as **education and legislation on compulsory vaccination** as these policies tackle the root causes of the problem directly. Awareness campaigns about proper healthcare could be conducted in the rural area so that the Indian would visit the doctor to receive proper treatment instead of relying on herbal and alternative medicine. A law may be enacted to ensure all children are immunized against measles to protect themselves from the deadly disease.

Why India can copy the measures introduced in China?

* Large population size and therefore need a centralized approach to introduce healthcare services
* Affluent income and high saving rate – potential market demand for healthcare
* Big countries with many rural areas
* The influence of the pharmaceutical firms