

Economics of Healthcare and COVID-19 in India

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Abstract: The COVID-19 pandemic is straining health systems worldwide. The rapidly increasing demand on health facilities and health care workers threatens to leave some health systems overstretched and unable to operate effectively. COVID-19 is revealing how fragile many of the world's health systems and services are, forcing countries to make difficult choices on how to best meet the needs of their people. Thus, as we face this challenge and focus on sailing through with minimum damage to human lives, there are opportunities to be unravelled for improvement in the healthcare scenario in the country. COVID-19 pandemic has forced us to think about the sound healthcare in India most urgently. If the virus is unmanageable in developed countries with far superior healthcare, India is facing a tough time to meet the current challenge in the form of COVID-19. Indian government is trying to mitigate the challenges arising out of costly and more privatized healthcare system. It needs to ramp up the flow of essential supplies and formulate an exit strategy that includes a financial stimulus package to get the economy and its people going again. The best defence against any outbreak is a strong health system. Here is a chance to redesign the system keeping both affordability and quality in mind.

Keywords: Health, Healthcare, Model of Healthcare, Public Health Expenditure, Out of Pocket Expenditure, COVID-19.

INTRODUCTION

More costly private sector of India dominates Healthcare System by delivering 75% of health services and caters to both rural and urban areas. India spends less of its GDP in comparison to other countries on Public Healthcare. Due to different concern about cost, equity and quality of healthcare people started criticizing private sector because of its less regulated nature. Equitable access to healthcare is always denied because of socio economic disparities created by caste, class and gender as well as strong rural and urban divide. We can observe that more robust private healthcare system is more prepared to respond to COVID-19 in cities and urban areas across India in comparison to lower-funded public health facilities in rural areas — home to more than **60 percent** of the Indian population. **Many will not be able to afford private treatment and testing, while public facilities and some private facilities as well will likely be less prepared to acquire necessary equipment in the short run, which is the main issue for the spread of COVID-19.**

The India's healthcare system with poor and inadequate infrastructure and manpower cannot extend quality services to its citizens. These inequalities are compounded in response to COVID-19 when considering broader reports throughout India's medical sector on lacking access to basic medical equipment and facilities for those receiving and providing treatment. **Italy is known to have the world's second-best healthcare system while Indian healthcare system is not included even in the top 100 list.** India spends about 3.5% of its GDP on healthcare and Italy spends about 9% of its GDP on health services.

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Objectives of the study

1. To highlight the dimensions of Healthcare in India
2. To show a well thought out model of Healthcare is required.

Methodology

It is based on the published sources and the information gathered from different news channels. It aims to justify the necessity of equitable access to healthcare in India.

Results and Discussions

Current statistics justifies that there is need of a sound health care infrastructure to meet the challenges of any pandemic just like COVID-19. We will look into the facts to show where do we stand in this battle against this CORONA pandemic?

ICMR estimates that India will need 7, 00, 000 test kits. South Korea having 51 million population has done tests over 2 00, 000 and India having 1.3 billion people has done 38,442 as on 1st April. More tests are required at virus hotspots to know and ascertain the transmission of COVID-19. High cost and low availability of testing kits has so far hampered India's effort to test larger numbers. Healthcare workers need at least 3, 34, 000 PPE and at the same time a national stockpile of PPE is necessary before India enters into community transmission. It is estimated that India needs 6.2 million pieces of PPE to cope with COVID-19. ICMR says that only 30% of testing capacity used so far with India's healthcare infrastructure already riddled with critical gaps-whether in the number of doctors, nurses and other medical staff or in terms of hospital beds and critical care equipments. The total number of beds available in public facilities in all the states and UTs in India is 7, 39,024 while the total numbers of hospitals in urban and rural areas are 19810 and 3772 respectively.

One in 50 Coronavirus tests in India is positive compared to Italy's 1 in 4. It means Italy gets 25% positive cases in 100 tests while India gets just 2% positive cases in 100 Coronavirus tests.

Many public health analysts have linked Mortality rates in countries to the numbers of ICU beds available. In India there are 2.3 ICU beds per 100,000, while in Germany 29 ICU beds are available per 100,000 population and mortality rate is 0.3% and in Italy there are 13 ICU beds per 100,000 and death rate is 9.26%. This is a worrying fact as the country has over a hundred million people over 60-the age group most vulnerable to COVID-19.

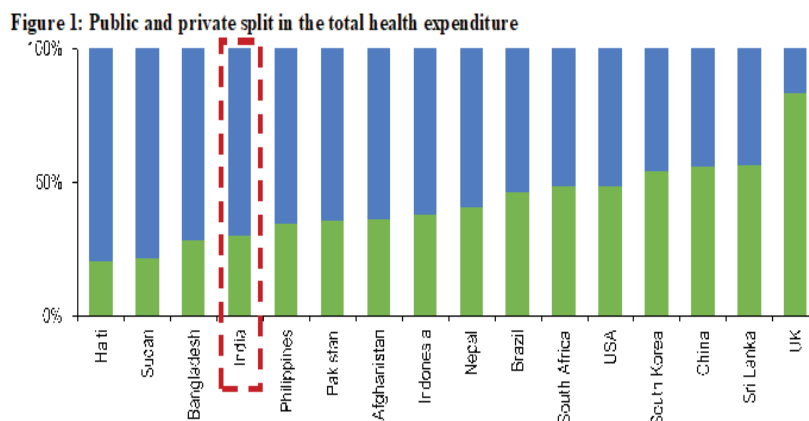
The present situation changed overnight with millions of migrant workers heading home due to loss of jobs, shelter and fear of starvation. The crowding of inter-state borders for days in many parts of the country has the potential to undo any gain India may be expecting from 'social distancing'. India did realise the poor state of its healthcare when the COVID-19 scare hit home. Prime Minister Narendra Modi declared allocating Rs 15,000 crores to improve healthcare even as he announced the 21-day lockdown. Most part of the fund would, presumably, go into meeting the emergencies, import of safety and testing kits, ventilators etc. **What part of it goes towards rebuilding healthcare**, and how, is not known yet. But when such an exercise is carried out it would require a better understanding of the ground realities. Access to quality care for the vast majority holds the key, which has two dimensions quality healthcare and accessibility.

How poor is the accessibility is denoted by some statistics. In India per capita expenditure is estimated little above Rs 1112 which shows that India is far behind other countries in this respect. This is almost responsible for increasing poverty in India because 67.78% of out of pocket expenditure accounts for health driving 55 million people back to poverty every year. India's health budget for 2019-20 was less than 63,000 crores majority of which was to provide

cashless hospitalization of up to 5 lakh to disadvantaged population for secondary and tertiary level healthcare under the National Health Mission and Pradhan Mantri Jan Arogya Yojana launched last year.

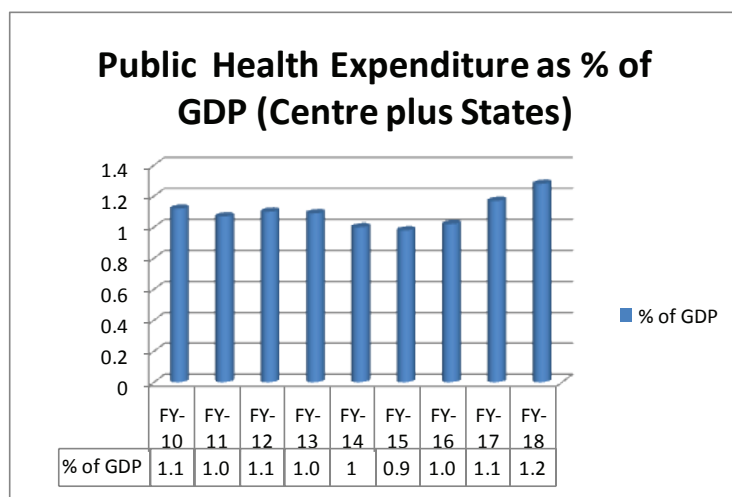
How much does India spend on health care financing vis-à-vis other countries is also a matter of concern. The public health expenditure in India (total of centre and state governments) has remained constant at approximately 1.3% of the GDP between 2008 and 2015, and increased marginally to 1.4% in 2016-17. When we compare Public Health expenditure of India with world average of 6%, this explains the economics of health situation in India. It was proposed in The National Health Policy, 2017 to increase this to 2.5% of GDP by 2025. In the budget 2020-21 there is provision for only 1.6% of its total estimated budget expenditure on public health that is Rs 67,489 crores, but it is low even if we compare with expenditure of low income countries.

Including the private sector, the total health expenditure as a percentage of GDP is estimated at 3.9%. Out of the total expenditure, effectively about one-third (30%) is contributed by the public sector. This contribution is low as compared to other developing and developed countries. Examples include Brazil (46%), China (56%), Indonesia (39%), USA (48%), and UK (83%) (Figure 1)



Source: World Development Indicators: Health Systems, World Bank,

The latest **National Health Profile 2019**, released in October 2019,(Figure-2) shows India’s public expenditure on health (**centre plus state**) has been less than 1.3% of the GDP for many years.(Figure-2)



Source: National Health Profile 2019, GOI

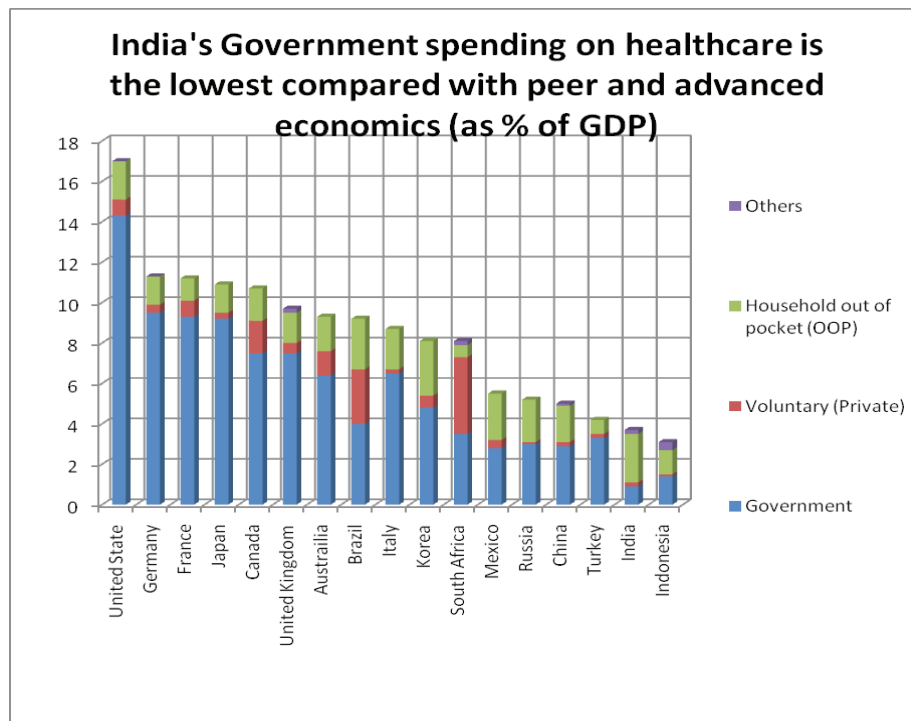
In Healthcare Access and Quality Index India stands at 145 out of 195 countries in 2018. That is because of high out-of-pocket expenditure (OOP) the amount of health expenditure paid from the pocket of individuals as a percentage of total public healthcare expenditure of a country.

What is India's OOP level?

The World Health Organisation (WHO) data shows India's OOP stood at 65%, the global OOP average was a little over 30% and it was over 40% for the South East Asia region in 2016 according to a WHO study published in 2018. Low public investment in healthcare has its human costs. Way back in 2011 a study published in the Lancet, Health care and Equity in India, first alerted India by showing that 39 million people were falling into poverty every year because of high out-of-pocket (OOP) spending on healthcare. Again in 2018, another study published in the British Medical Journal said that in 2011-12, 55 million Indians fell below the poverty line due to OOP. Of this, 38 million fell into poverty due to medical costs alone. These studies are also important to analyse and for providing one big answer to why a large population of Indians perpetually lives below the poverty level despite decades of economic growth.

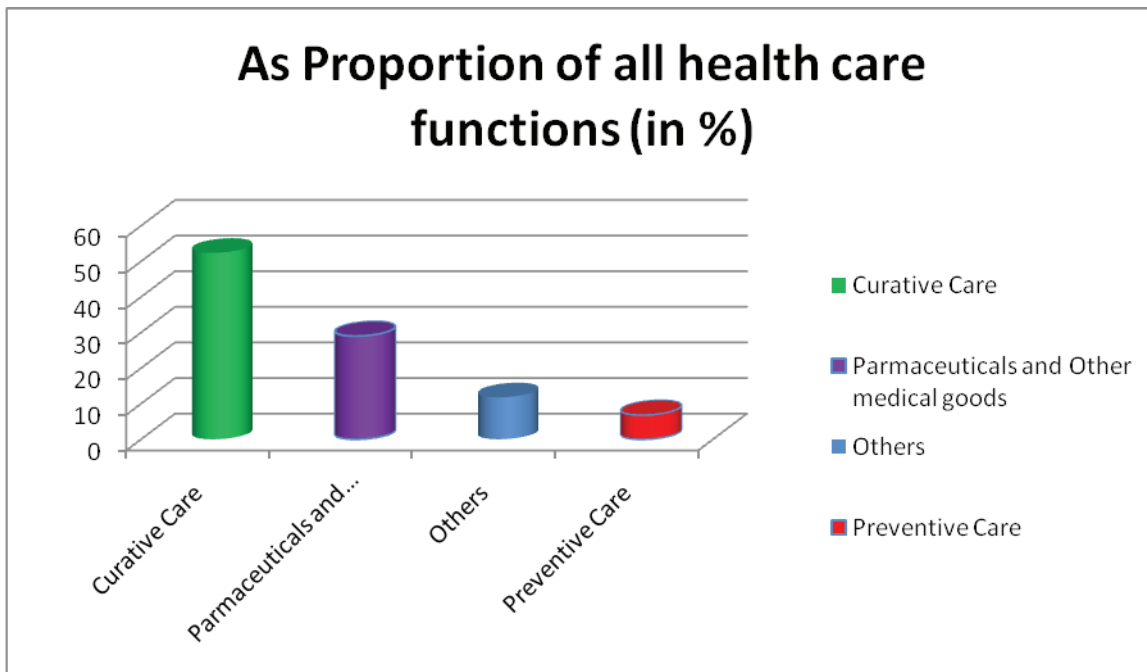
The 2019 Global Health Security Index measures countries' pandemic preparedness on a score of 1-100 based on their ability to prevent, detect, mitigate and cure diseases. The index ranks India at 57 out of 195 countries, indicating that we may be more vulnerable than China (at 51) and Italy (at 31), which have seen the highest number of Covid-19 related deaths till now. If a wrong public health strategy is one reason for India's vulnerability, the lack of resources is another. At 3.6% of GDP, India's overall health spending is among the lowest compared with peer and advanced economies. Of this, government spending on health accounts for an abysmal 1%. Unsurprisingly, out-of-pocket health expenditure for households is extraordinarily high in India. About 65% of all health expenditure in India (approx 2.5% of GDP) is borne privately by households.

As a result, both countries have lacked until now widespread insurance coverage and access to affordable primary and specialty care, are increasingly concerned with the rising costs of healthcare, and are witnessing rising healthcare costs as a significant cause of impoverishment. Nevertheless, both countries spend a small percentage of their GDP on healthcare. In addition, both countries are located on the upward sloping portion of the Millennium Preston curve, which depicts the association between GDP per capita and life expectancy. Both India and China can be expected to move up this curve as their GDP grows, the US is an outlier. Indian states can be arrayed along a similar curve: states with higher per capita incomes also exhibit higher life expectancy at birth. The logic behind the association depicted in the curve is straightforward. Increased societal wealth can be channeled to greater investments in education, literacy, and public health, as well as purchases of health insurance and healthcare services that improve health status and longevity. The curve suggests that further improvements in health status (i.e., reduced mortality) may be achieved in these developing countries by greater societal spending on healthcare as a percentage of GDP.(figure-3)



Source: World Development Indicators: Health Systems World Bank, 2014

Of all healthcare functions, only 7% is spent on preventive healthcare, while more than 80% is spent on treatment and cure as of FY17, the latest year for which National Health Accounts data is available. Spending on preventive care is the lowest. (Figure -4)



Others includes patient transportation, lab and imaging, and governance and admin.

Source: National Health Accounts (2016-17)

Public sector or private sector led healthcare?

If we go through above statistics it is clear that we are in great need of sound Healthcare System with its accessibility. Whatever be the cost of treatment in a private facility which may involve the use of a ventilator or COVID-19 vaccine or some other treatment but during COVID-19 cost of such tests was fixed at Rs 4,500. Under the given situation cost effective healthcare is required. Because people having per capita income of about \$2,010 (2018), cannot afford to have private care treatment.

In September 2018, India took a major initiative in healthcare when the Pradhan Mantri Jan Arogya Abhiyan (PM-JAY) or the Aayushman Bharat was launched. It aims to provide hospitalisation cover (insurance) of up to Rs 5 lakh to 10 crore poor and deprived families (about 50 crore people). It is **fully funded by the taxpayers' money** (Centre and states share funds at 60:40). The central budget of 2020-21 earmarked Rs 6,400 crore for it. There is no study or assessment yet to establish its efficacy. There was little progress in the setting up of hospitals in and Tier-2 and Tier-3 cities subsequent to PM-JAY' even after issued guidelines of Health Ministry in 2019.

A year later in January 2020, the Niti Aayog brought out a public-private participation (PPP) plan envisaging handing over the government-run district hospitals to private players (who were to be given 40% VGF **viability gap funding** (land and various concessions as per the January 2019 guideline) from NITI Ayog's PPP scheme.

Public healthcare for public service

It is evident that India has achieved in its fight against COVID-19 so far is due to its public healthcare system in the form of thermal screening and surveillance at airports, contact-tracing, tests and the process of quarantine. Public healthcare resources have to bear a bulk of the burden from community level (ASHA) to panchayat, district, state and central levels. Now, the public healthcare system has assumed its importance in COVID-19. It would have been impossible to fight with corona if we enter into third stage and entire healthcare set up is with Private sector. Even after "flattening the curve" India aims to achieve through Social Distancing virus would survive for several months. So India has to think for long term and at the same time it has to redesign its healthcare system to cater to the people's needs. The Centre has approved the COVID-19 Emergency Response and Health System Preparedness package aimed at boosting national and state health systems to support procurement of essential medical equipment and drugs, and strengthening of surveillance activities.

Impact of COVID-19 on Healthcare in India

While currently all the energies in the country are focused on controlling the transmission and curtailing morbidity and mortality due to the pandemic, here we take a look at how this infection and its fallouts can impact the healthcare scenario in India.

1. Within National Disaster Management Plan fast tracking of due implementation of targets for public health emergencies is possible.
2. Community Awareness towards Hygiene will have positive impact in the long-term, though in the short-term likely to increase PHC burden significantly
3. Gaps in Care of patients of other ailments, especially chronic diseases in the short-term can lead to long-term burden on healthcare
4. Strengthening of Government Infrastructure and Public Private Partnerships over next few years, but in the near-term, ongoing plans will see a major realignment.
5. Internalization of Pharma Supply Chain & Make-in-India focus for Medical Equipment
6. Medical Tourism will continue to see a downtrend, at least in the short-term
7. Increased use of Technology, Telemedicine, Training of primary health workers and Mobile hospitals.

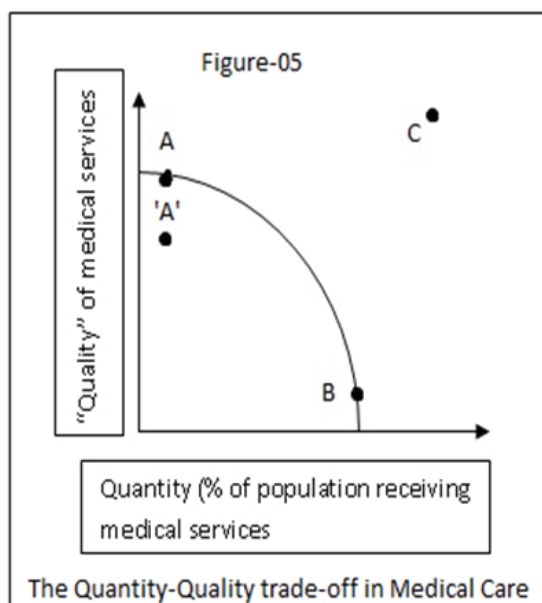
The Trade- off between Quantity and Quality in the provision of Medical Services

The economist's skill in using marginal analysis (optimization techniques) and supply and demand analysis and the economists' criteria for evaluating economic performance is useful and necessary regardless of how medical care is organized and provided in a country. Given that resources are scarce, three basic decisions must be made in any medical system, regardless of whether they are made by consumers or by government.

Every country must decide how much it wants to spend on medical services (and the composition of those services), the best methods for producing medical services, and third, the method for distributing medical services among the population. The first two choices are concerned with issues of economic efficiency of consumption and in production, the third with equity in use of health services.

The curve given in the figure -5 shows the trade- off between two different goods or outputs, e.g. quantity and quality of medical services. The curve is shaped as it is (concave to the origin) because the resources used in producing quantity and quality (each of which is a different output) are not completely substitutable for one another. As more of one combination of services is produced (as represented by Point A or Point B), the resources are shifted from producing one type of service to the other. The released resources are more specialized, hence more efficient in producing their previous output. Moving those same resources into the production of a different good or service will cause them to be less efficient in the production of that new service, therefore, the costs of producing more of the new output are increased.

The first choice that must be made in any medical system concerns the types of medical services to be produced, namely, for a given budget, which combination of quantity and quality of medical services to select? If health professional training times are very long and if the equipment and facilities used are the most technically advanced, fewer services will be available to the entire population. Point A represents a combination where quality (which actually refers to the level of training of health professionals – a process measure, not an outcome measure, of quality) is relatively high and is received by a small percentage of the population. Point B represents a different combination; a large percent of the population receives medical services while the quality of those services is relatively low. If society desires more of one type of output, it must give up some of the other output. Thus the opportunity cost of using scarce resources to expand quality of care (point A) is the foregone use of those resources to provide a greater number of people with medical care (Point B).



Source : Feldstein, Parl J. (2009), *Economics of Healthcare*

What criterion should determine the combination of quality and quantity of medical services that a society should choose? If the criterion were the maximization of consumer preferences, then, assuming adequate information and proper safeguards, consumers would be the appropriate group to select the quantity quality combination that should prevail. Alternatively, health professionals can select the quantity – quality trade as they have in the United States.

For example, health professionals establish the educational requirements and determine the number of educational institutions through their accreditation policies. **Less emphasis on process requirements and greater emphasis on outcomes and testing would provide greater assurance of quality at lower cost, hence greater quality.**

The quantity-quality trade off can also be used to illustrate the second set of choices that must be made in any medical care system namely how best to produce medical services. Any quantity – quality combination on the production possibilities curve is assumed to be produced in the least costly manner. The area under the curve represents the amount of resources devoted to medical services. If owing to the placement of restriction on the least costly manner of production or the use of a method of provider reimbursement that remove efficiency incentives, the providers of medical services are not as efficient as they might be, then fewer medical services will be produced for the same amount of resources. This situation is shown in Figure where ‘A’ represents the same amount of resources as used at Point A but the output is less than that achieved at Point A. ‘A’ is obviously inefficient in the resources are being wasted; either more medical services or medical services of higher quality could be produced with the same quantity of resources. It is important to determine whether the current medical care system is at Point A or ‘A’ and if so, the reason why.

The third set of choices concerning distribution of medical services can be illustrated by an analysis of the statement. “All American should receive the highest quality of medical care. “ The highest quality of medical care to all would be represented by point C in Figure 5 which is equivalent to 100 percent of the population (Farthest) to the right on the horizontal axis and by the highest point on the quality axis. To achieve such a goal, additional resources equivalent to the distance between Point C and the current production possibilities curve would be required. These additional resources would be financed either by an increase in taxes or by decreased expenditures on other programs. These choices provide differing marginal benefits. Who is to decide their relative benefits? Health professionals attach greater benefits to medical as opposed to services; however, they do not bear the costs of their decisions. Consumers, who will bear the costs may not share professional estimates of the relative benefits.

CONCLUSION

The World Bank on Friday announced \$1-billion (over ₹7,500 crore) support for the India Covid-19 emergency response and health systems preparedness project. This is largest ever support for the health sector in India. The project will also enhance the resilience of India’s health system to provide core public health prevention and patient care to better manage Covid-19 and future disease outbreaks. It will help strengthen India’s Integrated Disease Surveillance Programme, revamp infectious disease hospitals, district, civil, general and medical college hospitals, and build a network of high containment Bio safety Level 3 laboratories.

The next two to three weeks are critical to watch for India’s effort to “flatten the curve” and to test, trace, and treat in communities across states is required on war footing. The crisis response also gives the central government and respective state governments the opportunity to transform the weak health system through greater financing, more coordination between authorities, and entwined public-private partnership—all of which can go a long way in addressing the pandemic and the in-built asymmetries and persistent fragility in India’s medical healthcare system. Covid-19 has changed that, showing that the health of each member of a society impacts that of the other. And without health, it is not possible to create wealth, the current lockdown to fight the pandemic shows. Here is a chance to redesign the system keeping both affordability and quality in mind. The COVID-19 pandemic is straining health systems worldwide. The rapidly increasing demand on health facilities and health care workers threatens to leave some health systems overstretched and unable to operate effectively. COVID-19 is revealing how fragile many of the world’s health systems and services are, forcing countries to make difficult choices on how to best meet the needs of their people. Thus, as we face this challenge and focus

on sailing through with minimum damage to human lives, there are opportunities to be unravelled for improvement in the healthcare scenario in the country. The best defence against any outbreak is a strong health system.

References

1. https://economictimes.indiatimes.com/industry/healthcare/biotech/healthcare/plea-in-sc-seeks-to-nationalise-all-health-care-facilities-in-india-till-covid-19-is-contained/articleshow/75062202.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst
2. <https://www.businesstoday.in/current/economy-politics/coronavirus-lockdown-covid-19-pandemic-public-healthcare-system-doctors-nurses-patients/story/400039.html>
3. Feldstein, Paul J.(2009), Economics of Healthcare, Cengage Learning
4. <https://economictimes.indiatimes.com/industry/healthcare/biotech/healthcare/india-145th-among-195-countries-in-healthcare-access-quality/articleshow/64282199.cms?from=mdr>
5. <https://www.indiatoday.in/mail-today/story/coronavirus-how-india-is-gearing-up-for-covid-19-1661962-2020-04-01>

