

Assessing healthcare system of India on the anvil of sustainability

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Abstract

Healthy population is the most valuable asset for a state. Sustainability, on the hand, is the means by which a long term and sustained healthcare system can be assured. Greening of health sector can bring paradigm change in the public health regime. Sustainable development - can promise a strong and resilient healthcare infrastructure, warrant universal healthcare facility and decrease the burden on health infrastructure by reducing morbidity through timely intervention. The paper enlists few facets of sustainable healthcare system. It demonstrates it through a case study of Netherland, which is amongst the first nations to have sustainability in their healthcare agenda. Further the emphasis of the paper is on how COVID-19 pandemic is a mere reminder to the world that sustainability is the way forward. Bypassing it can no more be conducive for humanity. In this background, this paper discusses the sustainability of health care system with respect to India.

Keywords- Sustainability, healthcare, COVID-19 pandemic.

Introduction

In the words of an evolutionary biologist Elisabet Sohtouris, “If we had viewed Earth from space for thousands of years, we would describe humans as a desert making species.” This is evident from the numerous reports of international organisations like IPCC, WWF and different bodies of United Nations that have reiterated the wrath of unsustainable practices countless times. In a rush towards economic prosperity the world leaders often tend to neglect sustainable development. The balance that we have been talking about for several years exist in rhetoric because the targets set for sustainable development goals, according to the recent analysis, are still out of reach. Though, in the midst of such hopelessness, there is some good news from India's side. India is the only G20 country which is set to achieve its target of 175 GW sustainable energy by 2022.

India has to its credit the accolade of second most populous country in the world and one of the fastest growing economies. This brings immense opportunities as well as challenges. The major challenges include policy gaps in health care system, lack of awareness and public participation, weak research and development opportunities in the field of medical and Biological Sciences as compared to other developed economies, inaccessible and unaffordable health care. The opportunities on the other hand include demographic advantage, presence of innovative human resource in the field of research in biomedical sciences and the rapidly evolving government polices.

Sustainable development

The idea of sustainable development was first envisioned officially in Bruntland report of 1987. However its genesis can be traced back to 1960s, when soot and smoke engulfed the streets of London during industrial revolution. In 1972, Stockholm convention which was first UN conference on environment and sustainable development, discussed the human impact on the environment and how it was related to economic development. Later in 1980, the human development index and sustainable development was launched under the aegis of United Nations development program.

The definition of sustainable development most accepted by the scholars is - a form of development in which the needs of the future generations is not compromised to fulfil the needs of the present generation. This is also the definition that is taught to toddlers in schools. The ambit of this definition can be extended to other sectors. This paper sheds light on how sustainability can be adopted in health care.

Status quo of health care system in India

Background- Health care system in India has ancient roots starting from Vedic period to medieval and modern period of medicine^[3]. In post independent India during the phase of planned development health had a separate allocation, although it did not receive much importance. *Bhore committee report*, 1946, was the cusp of change in the health care regime of India. Report on the health survey and development, that was submitted by this committee can rightly be given the sobriquet of 'constitution of health policy of India'.

Finally in 1983 the first national health policy of India was formed. The goal was to tend to "health for all by the year 2000 A.D."^[5] This however was a very ambitious target and has not been achieved even after two decades. It is interesting to note that this document of 1983 mentions *environmental protection* where in it states

"While preventive, promotive, public health services are established and curative services reorganized to prevent, control and treat diseases, it would be equally necessary to ensure against the haphazard exploitation of resources which cause ecological disturbances leading to fresh health hazards. It is, therefore, necessary that economic development plans, in the various sectors, are devised in adequate consultation with the central and state health authorities."

In a way, COVID-19 pandemic was anticipated and hence India should have been better prepared for it. The reality however, is far from it. The pandemic caused panic and did irreparable damage as thousands lost lives. Ignorance among people, not just India, but world over, was surprising.

The second National Health policy came in 2002. In this policy, targets were set for eradication of various diseases and other aspects of public health were dealt, for example use of generic drugs and vaccines, mental health, urban health, health research, role of private sector and civil society, national disease surveillance network and so on.^[5]

The recent most health policy is national health policy, 2017. The policy envisages as its goal the attainment of the highest possible level of health and well being for all at all ages, through a preventive and promotive healthcare orientation in all developmental policies, and universal access to good quality healthcare services without anyone having to face financial hardships as a consequence. ^[6] Few important tenets of this policy include affordability, equity, universality, accountability, decentralisation amongst others. These are few properties of sustainability. The government policies have been somewhat on track although progress remains snail-paced.

Attributes of sustainable health care system

In layman terms, sustainability means maintaining a system which can stand the test of time . Hence, a sustainable health care system should focus on building a long lasting public health Infrastructure. The focus areas include the following.

Education and awareness- An intervention can be made before a health issue arises. Timely action can ensure better public health. This is not a new concept. As the saying goes 'prevention is better than cure', the fundamental idea behind sustainable health care system should be creating awareness so that a disease can be prevented altogether. In this direction, a National Health policy should prioritise awareness generation and education amongst masses. This, in addition to giving nudge can have promising results. A well educated citizen will have the basic know how about the importance of cleanliness and sanitisation, balanced diet and nutritional diversity, exercising, methods of prevention of STDs (sexually transmitted diseases) as well as role of mental health. This can cut back the prevalence of lifestyle disorders like diabetes, hypertension and hypertension reducing burden on the existing healthcare system. In India public notices and warnings, national movements like 'eat right movement', international dates like 14 November - world diabetes day have been the most popular medium of information dissemination.

Population Control- For sustainable development of a country and equitable resources distribution, population control plays a pivotal role. A population with total fertility rate (TFR) of 2.1 is the internationally

set standard for healthy population dynamics. This essentially means that if replacement level fertility is sustained over a sufficiently long period, each generation will exactly replace itself. ^[15] Towards this end the government of India has been in passive state ever since Rajiv Gandhi led government adopted the policy of 'Hum do Humare do' (Two Child Policy). The major reason stated behind inactivity is that the policy was not conducive in the long run in case of China. No remedial or alternative policy has been designed till date. Given the fact that now India is moving towards next phase of demographic transition, as indicated by the data of census of 2011, the urgent requirement for population control can take a backseat. The next round of census can provide a clear picture for policy formulation, if need be.

Digital health care system- A paperless infrastructure and database is a viable and efficient solution towards sustainability. Through digital health mission the government wants to utilise digital facilities but data safety and privacy concerns are a bottleneck to this development. The national digital health blueprint ^[16] is a 76 page document which provides an elaborate vision of the government. It describes the institutional framework to realise the goal of digitising the health data. Although digital is green but it makes us vulnerable to sensitive personal data theft.

Decentralisation of health care system- This essentially means that health care facilities should be brought closer to the people especially, the poor and the vulnerable. Government of India launched the flagship program Ayushman Bharat- PM Jan Arogya Yojana to realise this goal. This Scheme has two major health initiatives namely, creation of health and Wellness centres and National Health protection scheme. It will target about 10.74 crore poor, deprived rural families and identified occupational category of urban workers families as per the latest socio economic cast census data covering both rural and urban areas.^[7] Anganwadi system and Aasha workers paint another success story of decentralisation. Its importance came to the fore during the pandemic when Aasha workers acted as information providers to local areas. The tragic part of the entire story was the violence that they had to face. This violence was result of ignorance, lack of knowledge and panic.

Alternative systems of medicine – India has a rich tradition of alternative systems of medicine. Keeping this in view, the government has a dedicated ministry of AYUSH. Alternative health care systems and conventional health care systems should complement each other to warrant universal healthcare. So far this has not been achieved in its entirety because the debate about which one is better and effective has taken the centre stage. This moot escalated when recently the government notified a list of specific surgical procedures that a postgraduate medical student of Ayurveda would be able to perform. This has met with opposition from the Indian medical association.^[9] These dissensions have been quoted as vested interests by some experts while some have called it a necessary disagreement to safeguard public health.

Medical education- An attempt to overhaul medical education was made through national medical Commission act, 2019. It introduces concept of equity in accessing medical education. This will be realised by determining fees for 50% of the seats in private medical colleges and deemed to be universities, bringing new opportunities for financially weak sections of the society. ^[10] One of the most sustainable aspects of this act is its attempts to bridge the urban rural divide by Granting license to community health provider who are persons connected with modern scientific medical profession and qualify such criteria as may be specified. This is an important step towards decentralisation of health care as well.^[10]

Robust research in biomedical Sciences – To be abreast with latest and most efficient technologies and to increase efficiency of the existing systems, should be a priority for the government. On this front India's performance remain abysmal. Though, during the pandemic there was some action from the scientific fraternity of India and indigenous vaccine for COVID-19 testify this fact, much more needs to be done especially in understanding the nuances of zoonotic diseases, ways and means of integrating artificial intelligence and quantum computation in drug designing, nano-biotechnology and combating antimicrobial drug resistance. Here perhaps innovation of private sector can give fillip and bring new energy to the sector. Recently the government in 2020-21 budget announced a plan to build four new virology centres. The need for this was realised during the pandemic when only one facility namely, National Institute of Virology, Pune

was available and test samples from all over India had to be sent to this institute. This is yet again step towards decentralisation of specialised research institutions.

One health approach- According to Gandhiji ‘the good of individual is contained in the good of all.’ It is upto the people to decide what does 'all' include. In the broadest sense a sustainable definition of 'all' would include not just humans but environment with all the floral and faunal species which cohabit the earth. With this spirit in mind a new initiative has been launched called *one health approach*. According to World Health Organisation it can be defined as an approach towards designing and implementing programs, policies, legislation and research in which multiple sectors communicate and work together to achieve better public health outcomes.^[11] It must be noted that many microbes infect animals and humans alike because ecosystem has an integrated structure. It must be viewed as a whole and not in parts if we are to combat pandemics of the kind we are facing today. Another way of looking at one health approach is that wildlife acts as a gene pool. This gene pool is a resource which can help in formulation of a vaccine using modern biotechnological tools. It can help in creating organic material which can help in biofuel production which will reinforce sustainability in energy sector, the life blood of economy. This resource can provide countless services to humanity and hence must be preserved at any cost.

Vaccination- vaccines and developing immunity against certain diseases like polio, tuberculosis among others should be on high priority of governments world over. This will eradicate communicable diseases and reduce burden on health care ecosystem.

International collaboration – In this era of globalisation and connectivity, boundaries between countries have become fluid. Hence, an outbreak can easily turn into a pandemic. This is the reason why even after eradication of wild type polio from India, vaccination still continues as neighbouring countries like Pakistan and Afghanistan still harbour polio virus. Therefore, a holistic approach towards dealing with communicable diseases is the need of the hour.

Minimising ill effects of climate change on health – Lancet countdown report 2019 has demonstrated how climate change can be detrimental to public health. Climate change influences cropping pattern which can induce food shortage engendering malnutrition and threat to food security. Further, it can facilitate survival of disease causing vectors, cause respiratory diseases induced by pollution, heat wave and cold waves and so on.^[12]

Waste management – The holistic approach towards sustainable health system requires management of waste produced at homes, industries as well as the hospitals itself. The Government of India has taken a step in the form of Swachh Bharat Abhiyaan in this direction. Although the vision behind the said program is farsighted, the results that were recently audited by the Comptroller Auditor General of India (CAG) were not satisfactory. The report published by CAG highlighted the gaps that exist in delivering the goals that was set under the program.^[17]

Lessons from abroad: case study of Netherlands ^[13]

Netherlands has a robust health care system. This has been reiterated by various international indices published by reputed organisations. The next step that the nation has planned on taking is Greening the health care system. The focus areas include making medical equipment and MRI scanners more energy efficient, saving cost by decreasing food waste generated in hospitals and contributing to patient recovery, promoting solutions for better waste recycling and so on. These micro details can have big outcomes. The four major key areas that the framework envisages include

1. Lowering carbon emissions
2. Promoting circular business operations
3. Reducing pharmaceutical residues in water
4. Fostering healthy communities

They have recognised the importance of private public partnership. Shared responsibility should be the way ahead. Universal social health insurance approach merges public and private insurance. All residents are required to purchase statutory health insurance from private insurers, which are required to accept all applicants.^[14] As much as 63% of the population is covered under the insurance program. This has rendered universal health coverage in Netherland. This model can be adopted with modifications.

Recommendations

The above stated pointers about sustainability can become part of India's health policy. In this backdrop few recommendations are as follows

- Ebbing population explosion- Two child policy creates ripples in the demography of a country. Hence sudden introduction of policy will be counter productive. Thus instead of a pan India movement, a well designed plan for population reduction can be the way forward. This means that nudge can be given to certain areas so that people can voluntarily adopt sustainable family planning. This approach can be expanded to entire country in phased manner so that possibility of demographic burden can be subverted.
- Privacy as a right- Maintaining a digital data base for health records is a tedious job due to privacy related issues. To this end, a data protection law is required. Once such a law is enacted the benefits will emanate not just to health sector but to the entire economy. This can be done on lines of general data protection regulation (GDPR) of European Union.
- Alternatives to complement allopathy- The availability of alternatives should not be a cause of concern but when health is concerned. Consensus building between the practitioners of various systems of medicine should be promoted by the government. A legislation without consensus among the stakeholders is bound to upset the applecart, which is the reason behind the recent uproar in medical fraternity.
- Health passport- A new passport which can be dubbed as health passport can be the way forward. This can help in containing an outbreak. COVID-19 pandemic must act as a lesson. The idea is not new. The concept of Yellow card is an example. Health passport can be made into a permanent requirement as a practice of risk aversion and prevent any future pandemic.
- Home healthcare- Home healthcare is important because we have a large old population and it is only going to increase in the years to come. This is especially important for India which should be future ready. The demographic advantage of young population today should not become a liability in future. Digital infrastructure and private sector can play a pivotal role in this area.

Conclusion

This year's budget (2020-2021) had an outlay of Rs 2,23,846 crore for health and well being which is an increase of 137% (1.6% OF GDP). The government has realised the worth of public health. Unhealthy population is a burden on the economy of a country mainly because of decreased productivity. Sustainability is an inseparable component of health. A sustainable health system is the holy grail of economic development. The recent COVID-19 pandemic is an example of how humans have failed to develop sustainably. It has highlighted the lacunae that exist in the present global health care system to address the problems arising out of human activities. The one health approach is the way forward to a comprehensive framework for public health.

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