Building
Tomorrow's Enterprise

View Point

Infosys®

Healthcare Economy

Introduction

There have been significant technological and scientific breakthroughs in healthcare and yet, economies are struggling to address increasing costs, inconsistent quality and accessibility to timely healthcare. Globally, around 8.4%[1] of GDP is spent on healthcare; countries like US spend up to 17.4%[2] of the GDP on healthcare. However each nation continues to struggle with different issues in providing healthcare. In the developing world, access continues to be a pressing problem. In the coming years, aging population, changing lifestyles, globalization, and increased prevalence of chronic diseases will present multiple challenges to already stretched healthcare delivery in various economies. There have been intense policy and political debates on improving healthcare and in the coming years, healthcare issues would not only impact countries socially and economically but would also threaten the competitiveness of enterprises. Fundamental transformations are required to prevent these issues.

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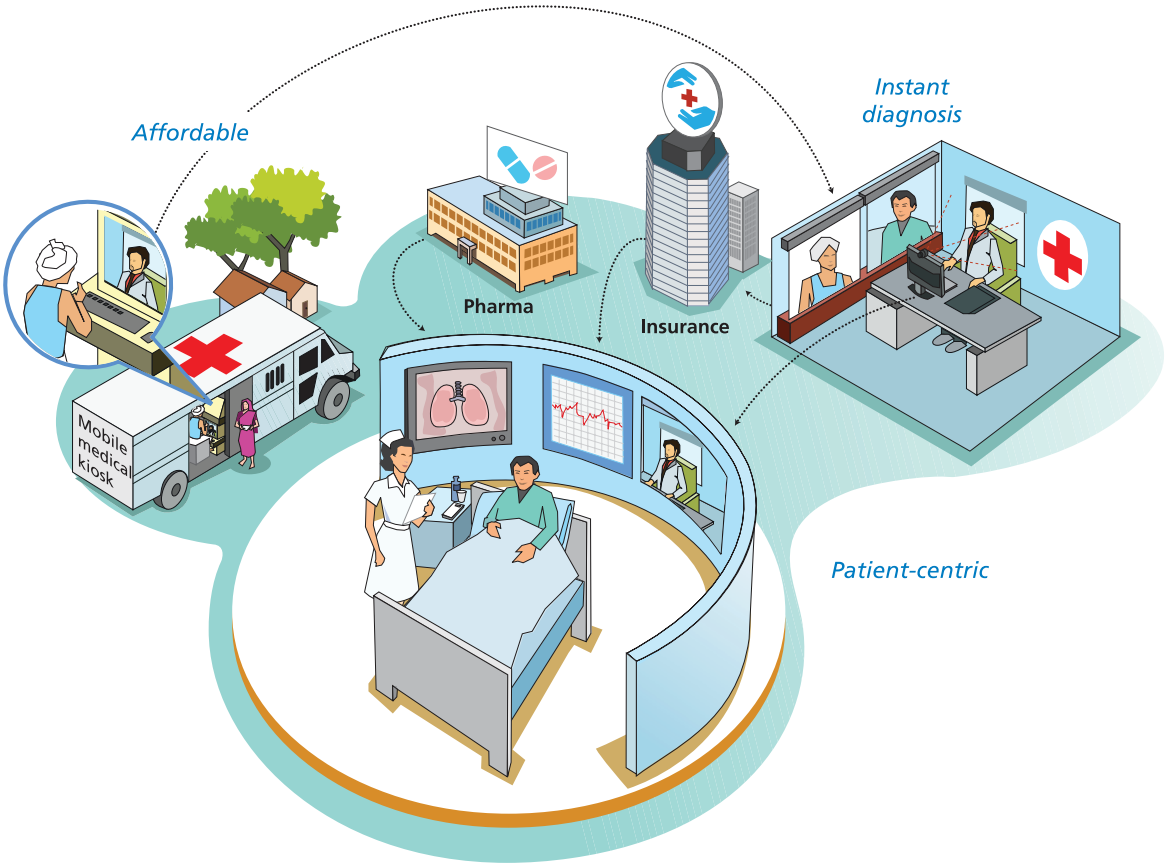
Healthcare Economy - Focusing on Affordability, Prevention and Patient-centricity

There have been some significant trends in healthcare over the past few years. Both developed and developing nations are innovating on various aspects of healthcare delivery. Breakthroughs such as genome sequencing have shown tremendous potential in the area of personalized medication and thereby in the cure of diseases which were till now untreatable. Innovations from developing nations have shown that how cost and accessibility can be improved to address local challenges. Also, never before has so much information about healthcare been widely available. This has increased consumer 'literacy', participation and proactiveness, indicating that a change is required in healthcare delivery.

We believe that improving affordability, preventing diseases and an increased focus on patients would drive the transformation in healthcare and technology will have a crucial role to play in this transformation.


Affordable
Instant diagnosis
Pharma
Insurance
Mobile medical kiosk
Patient-centric

Affordability

Undoubtedly, improving affordability is critical. Affordability is not just about being cost-effective, it is about providing quality healthcare in a timely manner. Across the world, various funding models are used in providing healthcare. Irrespective of which model is used, increased cost is finally borne by the consumers either in the form of higher premiums or higher taxes. Key components of healthcare which make up cost – core services, operations, drugs, diagnostics, medical devices, etc. need to be designed and modeled for affordability by eliminating wastages and redundancies, eliminating excesses, innovating ways for providing healthcare in more affordable environment.

Experts believe that 30%[3] of the healthcare provided in US is wasteful and many of the diagnostic tests conducted are redundant. Consumption of new medical technologies, which are expensive, is on the rise. Many of these are not necessarily cost-effective. The other key factor driving the cost is increased prevalence of chronic diseases, which are expensive to manage. Chronic diseases consume nearly 75%[4] of the healthcare cost in US. Outdated payments systems accounts for 12% to 15% of[5] healthcare expense in US. Errors in prescription cause more 42000 to 98000[6] deaths in US and number of expensive malpractices law suits.

Effective use of information and communication technology has fundamentally altered the way several industries operate. Similar breakthroughs are possible in healthcare. Cost-effective treatments are enabled by analysis of patient records and combining that with advanced clinical knowledge. This would reduce wastages, redundancy and bring about best practices in treatment. For monitoring chronic conditions, in-home monitoring devices connected to primary care provider can reduce the need for hospital visits and cost. Technology would not only reduce the cost of delivery but will also enable the industry to scale and cope with changing demographics.

Moreover, to improve affordability, devices and drug manufacturers are also looking at emerging markets not only as the future growth engines but also for importing innovations from those countries. This strategy has helped in reducing costs substantially as GE was able to do when they started manufacturing ECG and Ultrasound machines in both India and China. Additionally, collaboration with various participants from across the globe can help develop drugs cost-effectively, the biggest example being the Open Source Drug Discovery. Thus, it is amply clear that both strategically and operationally, technology can help provide opportunities to reduce cost, improve access and bring best practices to improve outcomes in disease management.

Prevention

While improving efficiency will increase affordability, there has to be a focus on prevention. We are dealing with increase in prevalence of chronic diseases which are largely the result of changing lifestyles. In the US alone, 100 million people are living with chronic diseases. As mentioned, management of these diseases accounts for a large part of the healthcare spending. Prevention is clearly the way forward in the future of healthcare.

One good way of adopting a preventive model is by incentivizing people for healthy behavior as was done by Safeway Inc. This fortune 500-organization realized that 70% of all health-care costs are result of behavior and 74% of all costs are confined to four chronic conditions: cardiovascular disease, cancer, diabetes and obesity – all of which are largely preventable. It incentivized its employees for healthy behavior and offered differentiated premium based on behavior. Safeway estimated that if the US adopts their approach, healthcare spending could reduce by $800 Billion. By following this approach, the company managed to keep their healthcare cost flat from 2005 to 2009.

The preventive model focuses on providing the overall well-being of patients, unlike the traditional 'cure' model which focused only on paying physicians for treating a specific illness. This shift from the 'cure' model to the 'prevention' model is what will revolutionize the healthcare sector. Patients will be able to avail healthcare services from less expensive, effective and convenient locations like retail outlets, at home or even at the workplace. One advantage of this model is that it does not propose the demand for specialists. Nurse practitioners, physician assistants and counselors equipped with knowledge and tools and in consultation with doctors will be able to provide preventive care. In addition, the various products and service offerings will also encompass healthy alternatives, as per this model. Methods like incentivizing wellness in health insurance plans will become mainstream. Besides, healthcare providers will be able to use technology like social media, to promote and motivate the adoption of preventive healthcare.

While medical technology will mature and become more cost-effective over the period of time, initially, value from advances in the field would come from early detection, prognosis and prevention only.

Patient-centricity

Improving affordability and focusing on prevention will play an important role in improving well being but there are other factors which are challenging the current models of healthcare delivery. Firstly, current healthcare is designed for diseases; it cures symptoms and is therefore designed to provide episodic care. Prevalence of chronic diseases is increasing and they cannot be fixed in one sitting. Diseases are managed over the period of time and the current model is not designed to work in this scenario. Secondly, providing this care would require lot more coordination and collaboration amongst care providers. The current disease centric view or physician centric view will not be sustainable.

Thirdly, patients today have a wealth of information, though not necessarily accurate. They desire to understand their condition and want to be an active recipient of healthcare. They like to have their say in the decisions being taken. They demand more transparency in the outcomes of the healthcare, would like to understand and compare providers and physicians on such parameters. Essentially, they demand more value. So rising costs, access to information, lack of transparency on the quality and outcomes, complexity involved in treating chronic diseases, etc is making healthcare become more patient-centric. Patient-centric care means considering the patients' values, involving them in clinical decisions and ensuring transparency and self-care.

Patient centric care has the capacity to work in several scenarios and create new methods of delivery. Take for instance chronically ill patients who would like to be monitored and treated at home. In such scenarios patients would have to be enabled to manage their health and be educated about their conditions. A Patient-centric home would be equipped with smart sensors and devices which would capture data and securely send them to a physician or a nurse practitioner. Based on the patient's information and evidence based medicine, a physician can decide the best course of treatment.

Conclusion

Therefore, Healthcare Economy is emerging as a significant driver that is sure to prepare enterprises for facing tomorrow's challenges in this domain effectively. Infosys believes that this driver, with its focus on affordability, prevention and patient-centricity, will improve a patient's experience and effective care. Also, the patients and their families will be involved in the decision-making process. Capturing and sharing the information on various aspects of a patient's condition, treatment risks, benefits, alternatives and others will become easy for this shared decision making,

Infosys believes that enterprises of tomorrow have a major role to play in how healthcare economies are developing.

HC offers tremendous opportunities and challenges to tomorrow's enterprise. To stay on the top of this business/technology curve, enterprises need to move away from the traditional firm centric model of R&D and innovation, and need to embrace the potential of open innovation. Infosys has been partnering with its clients and the other ecosystem partners in co-creating products, platforms and solutions that can help its clients to stay on top of this curve.

Time-to-market is one of the key parameters enterprises have to keep in their minds while trying to innovate for the future. To enable its customers hasten their innovation journey, Infosys has invested in creating products that can fasten the client's journey in innovation. These are pre-fabricated products/platforms which can be quickly introduced in the client environment, to give them a leeway in creating solutions for tomorrow's business opportunities

One such Innovation accelerator Infosys has developed in the space of healthcare is a platform, called 360 eHealth. This is an end-to-end solution that allows a step-by-step transformation from brand to customer centricity. This transformation occurs through processes, methodologies and technology IP.

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For more information, contact askus@infosys.com

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