

Using technology to redefine healthcare

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'India Emerging' has lately become India Submerging — particularly when it comes to healthcare. The woes and stress of daily living here have become legion — from garbage piles and poor sanitation, bacteria-laden water, pollution, long commutes due to uncontrolled traffic, lack of green spaces, and much of the above, contributing to higher blood pressure than ever before. Add to it, diabetes, strokes, heart attacks and lives with unfinished business finishing too soon.

This disease burden in the cities leads to massive healthcare needs. However, estimates show there is a shortage of 7.5 lakh doctors and nearly 20 lakh nurses in India leading to an incredible increase in the salaries of specialists and super-specialists. Rising costs of doctors, real estate and essentials such as electricity drive up the cost of hospital stays.

Further, an overemphasis on hospitals and hospital-based medicine has meant intervention-based treatment where surgeries and procedures are prioritised. The money lies in procedures, therefore the focus has moved there. There is not much money to be made in primary healthcare so very little importance has been given to it in the past several decades. Some key interventions could include:

Forward planning: In new cities that are underway, a planned healthcare system is imperative. This could mean having a major tertiary care hospital in the north and south end of the city. Each of these would be connected via telemedicine and ambulances to general physician clinics set up in a radius around the main hospital.

Most of the specialist consults could be via a telemedicine link with a digital stethoscope etc, to the tertiary hub. Sick patients or those needing surgery or other procedures could be referred to the main central hospital.

General physicians could, in turn, be connected to community nurses trained in basic assessment, BP and diabetes screening, patient education and so on. A tiered system of healthcare that is well-planned and implemented, well-monitored and effective is no more a dream? Not really, if we start early at the planning stage.

Technology to help patients: Telemedicine can help increase doctor utilisation with clinic-based doctors seeing more patients than just the ones who made it to the clinic, thus obviating some of the issues related to doctor shortages. And it can help decongest the cities and de-stress individuals as patients are saved the commute. In RXDX clinics, patients can see their doctors on the app with their health check or other reports, thus saving them a second visit to the clinic.

Technology can also radically change the way we run public campaigns in the arena of health. Using bulk SMS, the Ministry of Health has restarted public interest messages, for instance, on dengue prevention. The same could be done for life-changing messages such as how folic acid pre-conceptually can reduce the chance of spina bifida or how an aspirin needs to be chewed if you are having a heart attack.

Expanding healthcare resources: Technology for dissemination of health education has huge potential. In my own personal experience, having started an e-teaching programme for paediatric cardiology fellows across India, now supported by Children's Heartlink and endorsed by the National Board of India, one teacher is able to simultaneously teach postgraduates across all centres in India. One teacher, many students; thus standardising healthcare knowledge and delivery.

India now has over 100 million elders over the age of 60. With families becoming increasingly nuclear and everyone at home working, there is a huge need for elder care. Using technology, one trainer can train a large number of healthcare workers in terminal care and elder care. Teaching at scale to meet the changing needs of our country is essential.

Tele-psychiatry: For social reasons, most Indians prefer not to go to a clinic or hospital to see their 'mental' counsellor or psychiatrist. What if they could do this from the privacy of their home on a web connection? They are more likely to seek help. And since they don't need to commute to meet their doctor, there would be one less vehicle on the road. Online counselling portals such as Healthminds are helping address this need.

As India explodes, there are many challenges, healthcare being a major one. If we are to save ourselves from imploding, it is time we considered new ways of addressing old and not-so-old problems.

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