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"Post COVID-19, healthcare systems should look to implement a knowledge-driven care model"

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Jan Herzhoff, President, Health Markets at Elsevier spoke to BioSpectrum Asia about the digital health transformation of India's healthcare system post COVID-19



In early August, India announced the National Digital Health Mission (NDHM), which indicated their commitment to rapidly integrate digital solutions and technology and build a strong and efficient healthcare infrastructure. COVID-19 has stress-tested healthcare systems and opened loopholes that need to be addressed. It has also shrunk the digitalization of healthcare from decades to months.

Given the current state of socio-economic flux, there are enormous challenges in reinvigorating the economy, getting the healthcare system into post-crisis mode, and utilizing scarce resources more efficiently. In this context, Jan Herzhoff, President, Health Markets at Elsevier spoke to BioSpectrum Asia about the digital health transformation of India's healthcare system post-COVID-19.

Edited excerpts-

While COVID-19 has impacted India in detrimental ways, it has also brought about an avalanche of positive changes, including the adoption of digital health technologies. How do you think COVID-19 has impacted India's journey towards digital health transformation and how will this change in the future?

Necessity is the mother of invention. The pandemic period has seen the explosion of digital innovations and enforced the need for societies to digitalize. This is a global phenomenon. A report published by the U.S. Department of Health & Human Services in July 2020 found that 43.5 percent of Medicare primary care visits were provided via telehealth in April, compared with 0.1 percent before the pandemic in February.

India is no exception. The adoption of telehealth and mobile technologies have increased exponentially during this period. At the FICCI Heal conference, Apollo Hospitals shared that their Coronavirus Risk Scan app saw 13.5 million downloads within seven days, something which would have been unimaginable before COVID-19. The mobile app allows people to self-assess their risk level of getting coronavirus infection. Telemedicine consultations on Practo, one of the key players in this sector, have also grown five-fold between March and mid-May. In the post-COVID world, telehealth will be further institutionalized with the Ayushman Bharat Health & Wellness Center program, which heavily relies on technology and digital health platforms.

Another key change is that digital healthcare systems are now taken more seriously in both medical education and practice. The pandemic has strengthened India's healthcare infrastructure with investments in equipment, supplies and manpower. It has also brought about significant changes to the way care is delivered – from acute to community setting, from person-focused care to patient-centered care. However, this crisis has highlighted a key missing link in our preparedness, which is the need for updated and near real-time availability of trusted information.

Post COVID-19, the winning combination would be to equip digital infrastructure and manpower with the latest evidence-based knowledge to manage the crisis on the frontlines. It is thus critical for India to urgently invest in upgrading its research and knowledge technologies as the adoption of data and digital health infrastructure is accelerated during the pandemic. For example, Elsevier is currently running a NITI approved primary screening pilot in the District Bahreidge in Uttar Pradesh using our Clinical Decision support solution based on the latest high-quality evidence-based knowledge to enable frontline health workers (ASHA) in maternal health and child health to do a primary health screening, provide required advice and create referrals for specialist consultations.

What are some key challenges and considerations that India has to take into account to enjoy the benefits of digital health transformation?

COVID-19 has brought well-recognized challenges of the Indian healthcare system to the forefront. While digital innovations and healthcare infrastructure can be established overnight, it is not possible to upskill trained healthcare workers overnight, especially with a healthcare workforce that is already stretched to its limit. We need to start empowering our frontline healthcare workers with knowledge and digital literacy that will aid their digital health adoption journey, and this has to start at medical and nursing schools.

Beyond that, there are three critical factors to consider for India to enjoy the benefits of digital health and health technologies. The first is around data. It is important to ensure that the data policies are robust to protect the rights of citizens. This way, they can trust that their data is being securely used and properly safeguarded in the digital economy. Second, it is important that there is harmonization across various government policies to support the growth of digital health, whether it is the availability of necessary digital infrastructure or adequate incentives, strong enforcement of intellectual property, trade secrets, copyrights and other similar safeguards for confidential information and proprietorial technologies which are critical to any tech company.

Finally, it is the ability and ease of access to global markets, talent, data, and technologies to deliver value to clinicians and patients locally across varying market conditions is crucial. Digital innovations do not flourish in restrictive environments. In fact, technologies like artificial intelligence, natural language processing, deep learning, predictive modeling have all achieved pre-eminence during COVID-19, but one thing is for certain – AI has not fulfilled its promise during COVID-19, and the biggest reason for this is the lack of reliable training data, patient records and machine-interpretable knowledge-sets that are also dependent on big data sets derived from across the world.

With the National Digital Health Mission, India has the unique opportunity to galvanize the movement towards universal adoption of Digital Health, accelerate health information exchange and availability of a minimum clinical data set, that is relevant not only for continuity of care but also for machine learning. We must thus ensure that these data policies create an environment that boosts rather than impedes these tech innovations.

Beyond the increase in the adoption of digital health technologies, COVID-19 has also changed the way patients receive care and access information. Tell us more about how this has impacted the delivery of healthcare during this period and what would it be like in the future?

The way patients receive care and access information is not a new phenomenon. There are three main factors at play here: information growth, the time it takes for scientific discoveries to reach daily practice and the increasing role of the empowered patient.

COVID-19 has been an incredible catalyst to these trends in three distinct ways. Firstly, knowledge doubling time in medicine has contracted from 73 days to just 20 days now in relation to COVID. Based on Elsevier's Scopus database, over the past six months, more than 50,000 articles with the key-phrase "COVID-19" have been published globally. At the same time, the translation of research findings into practice has accelerated too. Traditionally, the diffusion of knowledge into clinical practice takes an average of 17 years, but with COVID, this has now come down to days, and sometimes even hours. For example, over the past six months, there had been more than 130 million downloads of COVID-19 related research articles on Elsevier's ScienceDirect platform. Finally, during COVID-19, more and more patients were searching for information online but were not able to get the care they needed.

These trends will continue post-COVID and we need to address important questions around the speed and diffusion of knowledge, quality over quantity of knowledge, and the spread of misinformation versus credible content. All these would raise critical issues around patient safety and the quality of care provided. There is, thus, an urgent need to synthesize research evidence into actionable knowledge. In the post-COVID-19 future, healthcare systems should look to implementing a knowledge-driven care model – one that is driven by data and evidence-based knowledge at the point-of-care. With it, clinicians can be assured that they are empowered with reliable insights that can be translated to safe and quality care for the patients whenever and wherever they need it.

As a health information and analytics company, how is Elsevier supporting clinicians and healthcare professionals during this COVID-19 pandemic?

As a global leader in information and analytics, Elsevier helps researchers and healthcare professionals advance intellectually and their patient outcomes to make lasting progress for society. We do this by facilitating critical decision-making. We combine technology with high quality, validated information and datasets to help health workers make better decisions.

COVID-19 has accelerated this transformation. In support of healthcare workers and researchers worldwide, Elsevier has made all its COVID-19 related articles and research tools freely available via the Novel Coronavirus Information Center and COVID-19 Healthcare Hub. Over the past six months, there have been more than 130 million downloads of COVID-19 related research articles on ScienceDirect. In addition, Elsevier colleagues continue to curate content into actionable knowledge in the form of Clinical Overviews, Order Sets, Care Plans, Guidelines and Patient Education, all designed for use at the point of care.

Elsevier also provided access to more than 1,000 medical and nursing schools in India and globally during lockdown through the learning platform, ClinicalKey Student, to support remote learning. Finally, Elsevier created a Research Hub with access to a wide variety of tools and datasets specifically designed for researchers in India and globally who are currently working on treatments and vaccines for COVID-19.

What do you think India's healthcare system will be like after this COVID-19 pandemic?

India has an incredible opportunity to become a digital health leader, with the launch of multiple national public health initiatives like Ayushman Bharat and the National Digital Health Mission. With a full-fledged, interoperable, National Digital Health Ecosystem, India will be enabled to run an efficient healthcare delivery system across the public and private sectors, better respond to health emergencies and ultimately achieve the goals of quality of care and outcomes, and enable the transformation of health data to wisdom. For this to happen, we need to focus on removing the frictions of adopting digital technologies for patients and clinicians.

What we need to do now is to guide clinicians on their journey to adoption by inculcating the right habits – starting at medical and nursing school. By equipping them with the foundation of necessary technology skills, it makes it easy for clinicians to adopt these technologies and interact with patients. In the long run, they will be familiarized with the digital tools that will complement clinician workflows and enhance the productivity of healthcare professionals.