The Institution of Engineering and Technology

Telehealth – Breaking Stereotypes

Embracing Technology

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This document is a part of our Future Tech series. The IET has been curating expert views and presenting them to our partners on multiple platforms in multiple formats – digitally. This includes our expert webinars that occur once a week – titled IET India Digital Conversations and IET India Digital Debates, Walk the Tech Talk series in collaboration with India Automated that goes Live on our social media platforms, podcast series, white papers and approach papers etc. This document summarises the key discussions of the IET India Digital Conversations on **'Telehealth – breaking stereotypes and embracing technology'.**

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Telehealth – breaking stereotypes and embracing technology

A bridge between online and offline medication

Introduction

The World Health Organization (WHO) defines Telemedicine as, "The delivery of healthcare services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation and for the continuing education of healthcare providers, all in the interests of advancing the health of individuals and their communities". People living in rural and remote areas worldwide often struggle to access good-quality and timely medical care. For this, tele health services is a boon as it has immense potential to bridge this gap and facilitate access to health care in remote areas.

The COVID 19 pandemic brought along with-it safety measures such as social distancing and lockdowns to prevent the spread of the disease. At this crucial juncture, nations globally are now leveraging telemedicine to provide care to patients in their homes. This contrasts with a long history of slow adoption of telemedicine despite engaging in serious study and implementation experiences

Since the onset of the pandemic, we have been forced to explore possibilities of clinically managing a sizeable proportion of outpatient treatments in various settings from a distance. The necessary logistics can be deployed promptly including training, staffing and workflow with minimal disruptions. This method of care delivery is safe for both providers and patients.

We brought healthcare experts to discuss "'Telehealth – breaking stereotypes and embracing technology" to explore the benefits of tele health platforms and the key challenges that need to be addressed to increase its adoptability. The experts discussed shift required from the government, medical workforce and platforms that help enable these digital consults to make telehealth consultation a user-friendly experience for both practitioners and patients. It also brought forth some key milestones in the Indian health care space since the outbreak of the COVID 19 pandemic.

Telehealth - breaking stereotypes & embracing technology

How to build a functional and robust primary healthcare and public health system in India?

Importance of using technology in healthcare to make it accessible and affordable

Future readiness and essential skills required for telehealth workers and practitioners

Importance of a universal health coverage system and why India needs it

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Digital Conversations

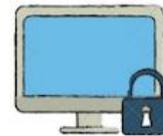**Telehealth - breaking stereotypes and embracing technology**

TELEHEALTH IS HERE TO STAY

With telehealth, care giving is going to change to a digital perspective and this is going to stay post COVID as well. It is a powerful tool and has the capability of increasing the reach, scale and accessibility of healthcare

NEED FOR LAYING A TECH ENABLED INFRASTRUCTURE

There is an urgent need to equip health workers and doctors to deal with this new paradigm. Building a tech savvy workforce is essential and training for this should start at medical college. Setting up of telemedicine specialistion in state and district hospitals and e-clinics in villages with trained health workers has to be expedited to strengthen health infrastructure

EMPHASIS ON USER EXPERIENCE

Enhancing user experience is very important and focus needs to be laid on this without the users or patients having to undergo major behaviour changes for adopting technology

DEAL WITH CHALLENGES OF SECURITY AND PRIVACY

Security and privacy concerns around implementation of telehealth needs to be dealt with. Predictive technology tools and sensors can be used to detect changes at cellular levels before they progress into a disease

WAY FORWARD

Telemedicine can be made sustainable in the long term and an integral part of the healthcare industry. Right application of AI and ML along with smart devices can help telehealth medicine practitioners with the right tools to handle patients.

Key Takeaways

- **Accessible healthcare**

India being a country with a large population often witnesses only a small fraction of its citizens having access to good health care. For a country with minimal health insurance coverage and expensive outpatient consultation, telehealth platforms will help garner accessibility. Platforms are being built with agile and nimble teams where specialisations are plugged in to offer the best of services. As the accessibility pie for these platforms increase, providers will be able to find their niche and offer exemplary service.

Telehealth platforms need to be quick, cheap, efficient, high quality and act as a substitute to self-medication which could be highly dangerous. These platforms need to be looked at as media that bridge the gap between online and offline health centres where the latter is visited on a need basis translating in money and time being saved.

Medical professionals need to come together to make an incremental evolution in terms of adapting and leveraging tele medicine keeping the end users in mind. The Primary Healthcare Centres (PHC) have unique set of challenges where a gradual approach to embracing a digital intervention needs to be considered

- **Technology paradigm**

Technology and telehealth go hand in hand for a country like India where we the doctor to patient ratio is small. The rural population have lower accessibility to healthcare as most of the doctors are placed in the urban cities. However, with the advancements in tele communication devices, larger internet penetration in rural settings and increased affordability of smart phones, this gap is being reduced. However, it is essential that service providers address the bandwidth issues in the rural settings such that consultation with the right fidelity could be provided.

Telehealth ecosystems where technologies such as AI and machine learning are leveraged will help sustain these platforms and render the best of services. Primary healthcare centres lack essential equipment and trained staff to operate them. Focus on streamlining process and people simultaneously will help address this issue. Making the workforce tech savvy by handholding them and introducing certifications could be extremely beneficial. Primary healthcare centres often have workers who have never been introduced to digital interventions, and for them, it is important to have systems designed in a way that is user friendly.

Technologists need to keep their end users in mind while developing solutions such that they don't require behavioural changes. An approach where technologists understand who their users are, what kind of technologies work for them and doctors are open to embracing these solutions, needs to be adopted. **Design, user experience and domain knowledge** are key factors to be considered while

building digital solutions. Data given out from these solutions need to be insightful thereby translating into action by the end user.

Predictive analytics leveraging genetics, measurements, sensors that will help detect changes at cellular level in the human body are key methods that need to be followed when it comes to preventive health care. Combining the power of data and physics at the grass root level will help in generating advancements in the preventive healthcare space.

- **Partnerships**

A Public Private Partnership model is key when it comes to leveraging digital platforms to provide the best of health care. A leading private hospital in Bengaluru has been able to provide consultation to more than 2,000 patients spread across 15 districts in Karnataka since the outbreak of the COVID 19 pandemic using digital platforms under the Public Private Partnerships model. A Bengaluru based healthcare start-up in collaboration with the Karnataka Government launched a telemedicine service to diagnose COVID-19. Cab-hailing unicorn in the country has also offered a number of vehicles from their fleet to the Karnataka government for pandemic related work.

- **Authenticity and affordability**

The cost of healthcare, which is often a concern, needs to be made more affordable. Health insurance needs to be extended at the prehospitalisation stage as well such that accessibility to healthcare improves. This inturn would help businesses perform better in the backdrop of an improved public health system as well.

Ensuring that doctors joining telehealth platforms have the right credentials and having them displayed can help increase trust among patients accessing these digital platforms. Furthermore, doctors also need to ensure following the guidelines set in place while consulting new patients and follow up on cases that require attention. Tele health and diagnostics need to intersect for the efficient use of these digital platforms.

- **Key milestones**

25 March, 2020 will be remembered as a watershed moment in India since the government legalised tele health consultation thereby increasing accessibility with a set of guidelines to follow in response to the outbreak of the COVID 19 pandemic. This fundamental change is here to stay and will transform the ways in which both the medical fraternity (includes pharmacies and testing laboratory) and the patients operate. The Insurance Regulatory and Development Authority of India on 12 June, 2020 recommended that telehealth consultation should be covered by insurance providers which can be looked upon as another milestone as it will help improve accessibility to health care.

Contributors to the discussion

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