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Article

Convenience and necessity: Managing risk in the shift to digital health

Dindson Phua • September 22, 2020

Advances in technology, changing consumer appetites and an ageing population have been fuelling growth in the digital health sector in Asia in recent years as traditional health providers explore new ways to treat patients. However, this steady expansion looks pedestrian compared with the explosive growth that the tech-led health sector has experienced since the start of the pandemic.

The introduction of ‘circuit breaker’ stay-at-home orders made routine medical appointments all but impossible, creating a surge in demand for remote medical consultations from patients. The ability to treat patients virtually has helped reduce the spread of the virus and shown how the future of more convenient tech-led care could look.

However, the greater role of technology introduces new, interconnected risks around diagnosis, data and professional responsibility. Combined with new business models and entrants vying in the space, this creates new challenges for healthcare providers and insurers alike.

Patients’ willingness to consult their doctor remotely has been a logical effect of the pandemic, but it isn’t altogether new, and the adoption of telehealth has become a growing part of the healthcare landscape as both demand and need drive growth.

In Asia, where the average person is older and sicker than any time before [1], greater use of technology has been identified as part of the remedy to alleviate pressure on stretched healthcare services. The introduction of self-care tools such as healthcare wearables and remote monitoring has helped to reduce face-to-face appointments and readmission rates, as demonstrated by the opening of Singapore’s first virtual hospital in 2012 [2], while in Hong Kong, teleconsultations are common practice for elderly care home residents. Today, younger

generations' appetite for mobile on-demand services is also fueling growth in digital health as they seek the same convenient anytime access from healthcare as for other parts of their lives.

Against this backdrop there are opportunities for innovative health and tech firms to harness the growth in demand and rise to the challenge of introducing technology in ways that meet demand for distanced, more convenient and efficient healthcare without compromising standards of care and confidentiality. These associated risks need to be considered to protect patient safety and personal information and the professional reputations of medics and their employers.

Patient Privacy

In terms of patient privacy and confidentiality, telehealth consultations need to adhere to the same standards as in-person appointments. That means in each stage of transmitting, storing and sharing data, controls must be in place to ensure that patient information is kept secure, and only shared with those authorised to have access. Human error, malicious attack, tech failure – or a software error, such as that which enabled users of Babylon Health's UK based app to access video recordings of other patients' consultations [3] – could all compromise data security and patient safety. These risks require organisations to act quickly if things do go wrong, to work with their data security and insurance partners and to ensure that any breach is handled correctly and reported to the right authorities.

Medical misdiagnosis

The fusion of healthcare and technology in the digital health space means a doctor is reliant on the technology as well as their own skills to deliver quality care. In the surge to deliver telehealth services, providers need to be sure that the methods they are using for treatment or diagnosis are approved and follow due procedure given the potentially higher risk for misdiagnosis when professionals are not in the same room as their patient. Clear instruction for patients when it comes to describing, photographing or recording their ailment needs to be well thought out and take account of patients' familiarity with the technology. In one study into the safety of telehealth, academics found diagnoses are occasionally proffered on the basis of a single photo shared by the patient, and reviewed three cases in which people were advised their aggressive skin cancer were benign on the basis of single images. [4] While some conditions may be treated just as well virtually as in person, extra caution is needed where visibility of a condition is reduced and the risk of misdiagnosis increased, and attention paid to circumstances when a face-to-face intervention required.

Technology Failure

Advances in wearable technology have introduced new opportunities for patients to monitor and regulate their own behaviours to improve health outcomes reducing the need for medical intervention. These devices have gone beyond the wellbeing sphere of smartwatches and fitness apps to enter the medical space, introducing potential technology risks that could give rise to bodily injury. This occurred in 2019 when an app-based glucose monitoring system for children with diabetes failed. The monitor was designed to warn parents when their

child’s blood sugar levels need correcting, however an overnight outage meant the app ceased to monitor blood glucose levels or issue warnings with many users and their parents only finding out much later. [5]

As health providers struggle to meet the additional social distancing and care demands of Covid-19, the incentive to use technology to deliver a broader range of healthcare and wellness services, safely and economically, is accelerating.

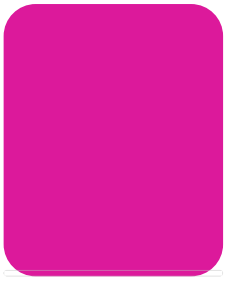
Understanding the interconnectedness of these risks will only become more important as the adoption of healthcare technology increases. Holistically managing these risks helps support growth within this sector and ensure patient care is not compromised in the evolution of healthcare.

DIGITAL HEALTH

Digital switch: Three quarters of Singaporean healthcare consumers were more likely to choose a provider that offered remote monitoring devices to help with self-care, according to Accenture. Sixty percent said they would be more likely to choose a provider that offered video consultations [6]

Ageing demographic: An ageing population is impacting healthcare provision in Asia demanding new approaches, including more digital services. In five years almost half a billion people will be 65 years of age or older. During the same time period an estimated 265 million people will be diagnosed with diabetes, and 250 million over the age of 18 will be clinically obese [7]

Measuring growth: At the height of the pandemic in March two Singapore-based telehealth platforms MyDoc and Doctor Anywhere reported increases in active users of 147% and 156% respectively compared to their normal monthly averages [8].



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[1]https://www.bain.com/insights/heeding-the-call-to-reinvent-healthcare-delivery/

[2] Straits Times, 16/07/16: https://www.straitstimes.com/singapore/hospital-finds-way-to-keep-patients-at-home

[3] BBC 9th June 2020: https://www.bbc.co.uk/news/technology-52986629

[4] JAMA Dermatology 2017: https://jamanetwork.com/journals/jamadermatology/article-abstract/2588699

[5] In Weekend Outage, Diabetes Monitors Fail to Send Crucial Alerts, New York Times (2019)

[6]https://www.accenture.com/_acnmedia/PDF-102/Accenture-Digital-Health-Consumer-Survey-Singapore.pdf

[7]https://www.bain.com/insights/heeding-the-call-to-reinvent-healthcare-delivery/

[8]https://www.bain.com/insights/covid-19-accelerates-the-adoption-of-telemedicine-in-asia-pacific-countries/

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