The Digital Transformation Imperative for Healthcare Providers in Asia Pacific

25 October 2017 | Analysis

With digital transformation, healthcare institutions will be able to truly achieve the quadruple aim of improving population health and access to care; improving the patient experience; lowering the capita cost of healthcare and improving clinician experience and productivity.

Gabe Rijpma Senior Director of Health & Social Services, Microsoft Asia

Innovation in healthcare delivery, financing and technology have brought advances in the healthcare industry, but the sector still faces significant challenges with a global population that continues to age and grow. Governments are struggling to maintain the rate of funding required for their health systems and the cost of care is increasingly falling on the patient as out of pocket expenses whether publicly or privately insured.

With 60% of all deaths globally caused by chronic diseases, such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, the need for improvements in healthcare is especially acute. Particularly in Asia, as the region is home to more than half of the world's population. In India, approximately 600 million people struggle to get great access to care. In New Zealand, long distances between homes and hospitals are affecting services rendered to the aging population while Japan is facing a shrinking population brought on by a low birth rate and the fastest ageing population in the world.

Many industry leaders that I have spoken to throughout the Asia Pacific region agree that healthcare demand will continue to outstrip supply over the coming decades. A 'business as usual' approach will be a poor fit for meeting the expanding and evolving needs of millions of patients across the region. Since the start of the information age, information technology has brought incredible innovation to the health sector, be it through digitizing patient records to now being able to monitor people in their own home. As we usher in the 4th Industrial Revolution, where the confluence of cloud, data and analytics are coming together will usher in even more digital disruptions to the way we live, work and play.

We are excited about what the next wave of innovation can bring to tackle the big challenges we face, and two big shifts are expected to disrupt and redefine the healthcare system of the future . First, the flexibility that virtual care brings will create a new healthcare system that is focused more on developing services to provide better access and quality of care at lower cost, moving the focus from 'diagnose and treat' - to 'prevent and manage'.Second, with the focus gradually shifting to patient-centric healthcare, a greater emphasis will be placed on using digital innovations to improve productivity, boost efficiency and drive down costs. For instance, Microsoft recently partnered with Case Western Reserve University to use HoloLens to provide an immersive experience for medical students to learn about the human anatomy.

Last year, we also partnered with Vital Images, Inc. (Vital), a Minneapolis-based advanced medical imaging and informatics company, to explore the potential application of the Microsoft HoloLens as an extension of its enterprise visualization solution. Introducing this type of virtual interaction to healthcare presents a range of potential possibilities in providing clinicians an immersive view of a patient's anatomy, while extending that visibility to remote team members, consulting physicians or healthcare informatics partners.

Digital Transformation Study

Clearly, a deeper embrace of information technology is imperative for healthcare providers to transform digitally. To understand more about their digital transformation journeys, Microsoft recently commissioned a survey with 247 business decision makers from the healthcare institutions in Asia Pacific. The Study found that 77% of healthcare professionals agreed that every organization needs to be a digital business to enable growth. Yet, only a quarter of healthcare organizations have a full digital transformation strategy in place, and less than half (45%) are in progress with digital transformation. As compared to other industry verticals which participated in the Study, healthcare institutions in Asia seemed to be more cautious in their move towards digital transformation. To better understand what is holding them back from transforming, the Study found that the top five barriers faced by healthcare leaders in Asia Pacific are not entirely related to technology.

Here are the top barriers identified by healthcare business leaders in the Study:

CYBER THREATS AND SECURITY CONCERNS

LACK OF ORGANIZATIONAL LEADERSHIP SKILLS

LACK OF DIGITALLY SKILLED WORKFORCE

LACK OF SUPPORTING GOVERNMENT POLICIES & ICT INFRASTRUCTURE

UNCERTAIN ECONOMIC ENVIRONMENT

Lack of Supporting Government & ICT Infrastructure

Even though this is cited as the top barrier to digital transformation, we are seeing strides among authorities in the region in embracing emerging technologies such as cloud computing. For instance, New Zealand's Ministry of Health has approved the use of Microsoft's core cloud services including Azure, Office 365, and Dynamics CRM Online for storage of personal

health information. In the Philippines, the Department of Science and Technology – Philippine Council for Health Research and Development (DOST-PCHRD) has outlined in detail guiding principles for information and data security on cloud platforms. This includes requiring cloud service providers to have appropriate audit mechanisms and tools in place to determine how data is stored, protected, and used.

Cyber Threats and Security Concerns

Cyber threats and security remain primary concerns for business leaders in the healthcare industry. However, advancements in cloud security over the past few years have changed the way organizations perceive the cloud. Furthermore, organizations and government can reduce risk and focus on their digital transformation priorities with entities such as the Microsoft's Digital Crimes Unit. Using sophisticated technology, big data and analytics, our Digital Crimes Unit can track cybercrime in real time with an important goal of better understanding and working alongside the law to aid in the prosecution of cybercrime around the world.

Lack of Organizational Leadership Skills to Ideate, Plan and Execute

Another barrier that made it to the list was the lack of organizational leadership skills to lead and drive digital transformation. At Microsoft, we believe that digital transformation is not simply about technology – it requires leaders to re-envision their existing business models and lead the effort in bringing various departments on board to embrace the change. Respondents from the Study cited Chief Information Officers, Chief Executive Officers and Chief Digital Officers as executives who should drive digital transformation across the organization. The presence of a strong leadership is the key reason why leading retirement village operator in New Zealand, Ryman Healthcare, was successful in embarking in its digital transformation journey. Ryman Healthcare started its digital transformation journey with a simple aim of improving the experience for residents and the people who come to work every day to make a difference in their lives.

The company decided to digitize its business processes so they could better capture and analyse clinical documentation but also remove paper, reducing significantly the possibility of errors in its interactions with older people under their care. This single digital project provided the fuel for Ryman Healthcare to use data in transforming staff productivity and ultimately, enhancing the experience for residents and their loved ones. Simon Challies, Managing Director of Ryman Healthcare, is one who believed that driving and leading change within an organization must come from the top. He shared that his job as managing director included pushing everyone – the operations team, clinicians and IT department – in the right direction. "The biggest hurdle was getting everyone to believe in the vision. There was also the challenge in communicating the vision and getting other people to move out of their comfort zone," said Challies.

Four Key Pillars of Digital Transformation

Patients' needs have always been a top priority for healthcare organizations in Asia Pacific, and this is very much reflected in the Microsoft Asia Digital Transformation Study.

When asked what their digital transformation priorities are, we found that healthcare leaders are prioritizing the following pillars:

EMPOWER CARE TEAMS 38%

ENGAGE PATIENTS 33%

OPTIMIZE CLINICAL AND OPERATIONAL EFFECTIVENESS 23%

TRANSFORM CARE CONTINUUM 5%

Specifically, healthcare providers want to empower care teams by improving productivity and strengthening collaboration. This allows care workers and clinicians to be connected securely to information and people they need, wherever they are. Healthcare organizations can also leverage integrated platforms for better care coordination and to provide new models of care, e.g. virtual healthcare. Healthcare leaders' second priority is to engage patients by looking at new ways of connecting with patients before, during and after their interaction with caregivers. Healthcare organizations today need to enable more efficient access to care, reduce delays in the care experience, and maintain contact with patients outside the care setting. They can also enable clinical care through virtual heath and remote patient monitoring. Optimize clinical and operational effectiveness is ranked third for healthcare leaders. By harnessing data from all sources, healthcare professionals will be able to create actionable insights that can improve clinical and operational performance. This will enable better medical data storage, clinical analytics, operational analytics and cybersecurity in health.

In Australia, the new Bendigo Hospital will herald a new era of transformation with a streamlined information and workflow system built on Microsoft Azure that aims to optimize outcomes while ensuring unprecedented patient transparency. Transformation teams comprising business analysts, clinical specialists and technical experts explored how mobility, cloud and Digital Medical Records can be used as the foundation of a new class of patient care and health services. With the new system, interaction with patients is now approached from a holistic basis, where the team's access to patient information and medical history is available at the bedside. This means that treatment can be administered with a historical view, and this also helps keep the patient better informed. In addition, the revamp also meant that Bendigo Health could streamline its legacy applications in operation and optimize its operations to drive greater efficiency.

Healthcare organizations want to transform their care continuum and raise the quality of care by using platforms that provide valuable insights into patient treatment and operational efficiency. This include better care coordination, remote patient monitoring, genomics, clinical and operational analytics. Healthcare providers in Asia Pacific need to have the urgency to embark on digital transformation as the path towards solving many of the challenges that they are facing today. A forward-thinking doctor that I met in Asia Pacific said aptly that digital transformation today has become part of the Hippocratic Oath to provide better patient care in a healthcare industry reshaped by new demands of a changing population. With digital transformation, healthcare institutions will be able to truly achieve the quadruple aim of improving population health and access to care; improving the patient experience; lowering the capita cost of healthcare and improving clinician experience and productivity.