4 Unsolved Challenges for Healthcare's Digital Transformation by the end of 2021

What has been really improved by the COVID-19 pandemic is the adoption of technologies by healthcare providers. However, those will get the biggest return who will ensure not just the incorporation of digital innovation into their daily activities but will let patients feel how digitalization may really add to their wellbeing. In our today's article, we'll flag 4 challenges to be addressed by healthcare professionals without waiting for tomorrow.

In-person patient experience

While healthcare is jumping on the remote care bandwagon, virtual care should provide smooth and more personalized patient experience. The practice of COVID-19 home screening shows that this experience is worth the trouble. Now, increased patients' engagement and satisfaction is possible due to augmented and virtual reality apps as well as smart Internet of Things devices available at the market. However, it should be also about more direct-to-patients personalized care. For example, a web AI-run application assesses lungs images after their upload into the service and patients receive feedback whether additional medical advice is needed. Another vibrant practice is handheld point-of-care ultrasound empowered by an AI tool to facilitate an accurate diagnoses without a need to visit overcrowded emergency rooms amid the pandemic. What is more exciting is that handheld ultrasound systems are also offered as consumer items. Babywatcher from the Netherlands provides pregnant women with 2D ultrasounds videos and images "in a

relaxed atmosphere from their own couch".

All these examples show how healthcare technologies may be superior to chaos and emotional fears of patients and deliver in-person care.

Explosion of healthcare big data

At the moment, up to 30 % of the global data volume falls on the healthcare with a further expected influx of the medical data share of 36% by 2025. Medical professionals need to leverage this data to ensure data-driven care. According to a survey, healthcare providers are more pro-active in achieving effective solutions in data management as compared to other spheres. In particular, 40.9% of those surveyed in the healthcare sector said they had a data-driven organized company vs. 17.9 % in the financial services domain. Artificial Intelligence and machine learning are frontline technologies to turn mass stores of medical information into value-based approaches.

Pfizer, premier biopharmaceutical manufacturer, takes advantage of data from health surveys, patients registers and anonymized health records to discover new drugs within the Real World Evidence concept. More and better data may lead to a better understanding of human biology and therefore innovation treatments. "*If you look at the tech companies… they realized that actually the core asset for them is the data-mining of all of that experience*" – says Dr. Narasimhan, Swiss Novartis' CEO.

Healthcare data cybersecurity concerns

The influx of healthcare data entails cybersecurity and patient data concerns. Medical professionals need a robust cybersecurity strategy that includes both regulatory compliance and safe technologies adoption. Inter alia, healthcare facilities should have a response plan, educate their staff, encrypt data in transfer, keep software updated and apply controls. The U.S. Department of Health and Human Services have guidelines to protect personal health information and to act in case of a data breach. All combined is the key to navigate cybersecurity threats and mitigate them.

Interoperability of the medical software

Interoperability is about communication of various healthcare providers with each other. Although an expanded medical data access is widely supported, patients matching across care vendors leaves much to be desired. For example, 1 in 5 hospitals mentioned data mismatches as a reason for inadequate patient treatment. Meanwhile, standardized medical data exchange covers not only improved medical outcomes but also reduced administrative costs, easer invoicing and more effective follow-up of the patient. The hurdle towards enhanced interoperability of medical systems is the lack of necessary standards and low adoption of those in force. Regulatory bodies, healthcare software developers and medical professionals need to unite their efforts to make medical data exchange more effective and secure.

Bottomline

Healthcare’s digital transformation has become ubiquitous and is worth the efforts. However, this disruption must address some unsolved challenges. There is no doubt that in the coming months, we’ll see continued efforts so that healthcare could comprehensively benefit the technologies.