"Never Let a Good Crisis Go to Waste!"

Dr. Nabil Georges Badr

Digital Advisor - FinTech, EduTech & Health Informatics
Research Associate - Higher Institute of Public Health - USJ

Whether this quotation is from Winston Churchill's or some other source, it has definitely become the new strategic vision for healthcare technology in the advent of the COVID-19 Pandemic. This disruption has accelerated the digital healthcare sector with a boost to pure-play telemedicine companies such as Teladoc Health, a telemedicine provider that reported an increase of 50% in its visit volume during the first weeks of March 2020[i].

To illustrate this phenomenon, this article samples the proliferation of technology observed in the US during the Pandemic.

While habits of all planet's inhabitants have changed, professions across the spectrum have become more reliant upon technology. Remote workers, public services and private enterprises have all looked to scale their technology solutions to provide platforms for continuity. This also applies to the care for our health; the sudden upscaling of virtual care using self-triaging tools, chatbots, telehealth, remote patient monitoring and testing technology have accelerated digital transformation for health IT.

Information technology leaders in healthcare organizations have been blown away by how technology has stepped up to help address the COVID-19 crisis. John Kravitz, CIO of Geisinger Health (a leading health system with 11 campuses and 13 hospitals in Pennsylvania, USA) exclaimed how his organization has kept up with a 500% increase in telehealth visits while doubling the number of remote workers to 13,000 employees. Providence Digital Innovations Group, tracked 70,000 patient logins and over one million messages through the chatbot in the first month of the outbreak - virtual visits had increased 10-15 times compared to the pre-pandemic levels[ii].

Healthcare Digital transformation at a tipping point

The public at large is now leaning to adopt telehealth visits as an acceptable way of obtaining health care for low-acuity needs. While remote patient monitoring has grown steadily in the past couple of years, the shelter-at-home restrictions across the globe have highlighted the need to monitor patients with chronic conditions in their homes. To assist front line workers at the task, hospitals have deployed self-triaging tools to help consumers check for symptoms prior to engaging a physician[iii]. Express Care clinicians are deployed to attend to the newly triaged patients coming in through the chatbots[iv].

Video conferencing tools and remote desktop connections have also become a principal support component for this health IT transformation. Health systems have managed to stay ahead of cybersecurity attacks during the pandemic, thus far, in spite of a few reported incidents of ransomware targeting public health districts, the World Health Organization, Dept of Health and Human Services, and several state and local agencies[v]. Despite strong endpoint security, this large-scale shift to a virtual workforce also exposes new vulnerabilities waiting to be exploited. This will drive providers to conduct a comprehensive security risk assessment of IT systems, evaluate security controls of telehealth technologies and vendor HIPAA compliance and consider interoperability of platforms and connected devices with electronic health record systems.

Government agencies have relaxed compliance related penalties for privacy, specifically the Health Insurance Portability and Accountability Act (HIPAA)[vi]. Providers are permitted the use of remote communication products that are not public facing, for "good faith provision of telehealth during the COVID-19 nationwide public health emergency". Providers must enter into or amend business associate agreements with vendors who have access to protected health information and ensure protections for breaches and security incidents — including strong indemnification, reporting obligations and cyber liability coverage.

To top it all off, recognizing the need to promote telehealth as a public health and safety issue, the US Government has brought reimbursements for telehealth on par with other visits[vii]. Consequently, health systems are accelerating their digital transformation roadmaps, encouraged by the success of telehealth and other technologies in responding to the crisis in a fundamental shift in health care delivery. Devoid of all preparatory arguments at the legislative levels, this quick onset of technology came under criticism from privacy advocates, highlighting the lack of trust that epitomizes the challenges for digital health companies in general. Technologies such as Blockchain with inherent attributes of trust, traceability and data Immutability might assist in Public Health response amid similar pandemics. Artificial intelligence systems powered by the proliferation of IoT sensors may provide secure and quality data and support informed decision making while keeping data privacy guidelines in check.

Finally, medicine is medicine, no matter how and where it is practiced! - Parking lots, hotels, vans and tents have become points of care with a new awareness that disaster preparedness should be ubiquitous and all encompassing, not limited to awareness, service provisioning and supply chains.

Would this be a new normal? Would the pendulum swing back to more controls over digital solutions for healthcare? How would we manage the cost of care and the complexity of medical coverages? Would data privacy and security laws change following the pandemic? How much of our healthcare will depend on technology?

Only the future holds the answers!

i- https://hbr.org/2020/04/what-will-u-s-health-care-look-like-after-the-pandemic
ii- https://www.cio.com/article/3534499/how-the-covid-19-pandemic-is-reshaping-healthcare-with-technology.html
iii- Verzantvoort, N. C., Teunis, T., Verheij, T. J., & van der Velden, A. W. (2018). Self-triage for acute primary care via a smartphone application: practical, safe and efficient?. PloS one, 13(6), e0199284.
iv- https://yourstory.com/2020/04/technology-transform-healthcare-coronavirus-pandemic
v- https://www.cio.com/article/3534499/how-the-covid-19-pandemic-is-reshaping-healthcare-with-technology.html
vi- The Health Insurance Portability and Accountability Act of 1996 (HIPAA) is a federal law that required the creation of national standards to protect sensitive patient health information from being disclosed without the patient's consent or knowledge. https://www.cdc.gov/phlp/publications/topic/hipaa.html
vii- https://healthtechmagazine.net/article/2020/06/how-will-telehealth-change-after-pandemic