

Digital Technology for Building Resilient Healthcare Systems in Thailand and Southeast Asia

The healthcare systems in Southeast Asia are at a critical juncture today. The new wave of COVID-19 infections is straining healthcare facilities as cases continue to rise at an alarming rate, while most countries struggle to organise the required medical resources. Thailand, much like the rest of the region, has been busy expanding its in-patient hospital capacity to accommodate the surge of COVID-19 patients and minimise the damage caused by the virus. While the challenges created by the pandemic are recent, Thailand has anyhow been grappling with overwhelming healthcare demands caused by an ageing demographic and a rapid growth in non-communicable diseases (NCDs) within the country's population.

These challenges have overburdened Thailand's healthcare system – its physical infrastructure has been constrained by capacity and the network is yet not fully developed to effectively reach patients outside healthcare settings. This has been particularly unfavourable for patients suffering from NCDs, whose chronic conditions typically require extended treatment plans and consistent engagement with healthcare providers. In the absence of regular follow-ups and limited visits to hospitals or clinics, patients are known to fall off their treatment schedules, resulting in suboptimal health outcomes.

Thailand has undertaken several initiatives to arrest this problem, including the deployment of pharmacies as an important touchpoint to retail prescription drugs in an effort to reduce congestion at hospitals, while seeking to build medical adherence. Physician-led efforts have also ensured some effectiveness, but given the inadequate doctor-to-patient ratio and their uneven distribution across the country, the results have been far from ideal. For healthcare systems to be responsive and resilient against pandemics like COVID-19, a much more deep-rooted healthcare transformation is required – a system that places patients at the heart of the matter,

and effectively deploys all possible means to serve them, irrespective of where they are.

Over the last decade, healthcare digitalisation has been rapidly adopted across Southeast Asia, which has led to disruptive changes and an improvement in overall healthcare outcomes. Under the Thailand 4.0 policy, the government has launched various digital healthcare initiatives including a personal health profile tool, a patient administration cloud service and a telehealth and telemedicine app. While these introductions will definitely aid the process of medical care and help reach patients beyond healthcare settings, it is vital to treat these tools as enablers and not the solution itself.

Digital Tools and Building Access During Public Health Emergencies

In the wake of the ongoing pandemic, countries across the world are strengthening their healthcare infrastructure to undertake the mammoth task of inoculating large populations, necessary to build herd immunity, and restrict further spread of the virus. Thailand has been no exception and the government has been working relentlessly to vaccinate its people, starting with more vulnerable sections of the society.

But what is important to note here is the difference between vaccine availability and accessibility. Many nations today have the wherewithal to purchase / receive vaccines in the required quantity, but not all have the efficient infrastructure and technologies to immunise people using them. Hence, vaccine availability is of no consequence till it is converted into vaccine accessibility. There's a need for nations to invest and plan in building this accessibility – after all, a stockpile of vaccines is not what builds immunity for nations; it is the ability to deliver shots into arms that does!

Unfortunately, health systems in developing countries are largely centred around hospitals and clinics and solely depending on these facilities will not allow nations to reach the massive population numbers required for effective inoculation. As experts in healthcare access for over 25 years, we've often dealt with the issue of

availability vs. accessibility and understand the need to connect with patients beyond the physical settings of health facilities. Dealing in chronic illnesses, we've utilised different channels to build a sustained engagement with our patients, which has been crucial in achieving treatment adherence and optimum health outcomes.

Drawing from this experience, we recognise that it is imperative for countries to look beyond hospitals and tap into complementary, proactive mechanisms to reach patients wherever they are. In fact, a combination of these channels will be required as nations attempt to vaccinate populations in the most efficient and nimble manner possible.

Digital solutions can play an important role here, as they can be used for personalised communication between patients and healthcare providers. If properly deployed, they can help structure immunisation plans better and administer shots in the most informed manner.

In my organisation, we've developed a range of innovative digital tools that help us communicate with patients after they leave health facilities to ensure that they keep up with their care plan and steadily improve in their health conditions. They also enable physicians to refer a patient to an access programme and to follow up on their patients' progress remotely, and pharmacists to track medical supply efficiently. Based on a patient-centric design, these tools complement our offline channels aptly, and help serve our patients in an all-inclusive manner.

Thailand is a strong player in the digital healthcare space and has been diligently investing into new and modern digital technologies. During the COVID-19 lockdown, the MOPH and Department of Medical Services launched an initiative with 27 hospitals where patients were allowed to virtually visit doctors and medicines were delivered at home. This project was crucial as it allowed patients to continue accessing healthcare services, despite restrictions on people movement and hospitals being out of reach. The government has also been



healthcare needs of people to strengthening it for improved, tailored responses – it's the human behind the gadget that makes it all possible and allows for a better patient management system.

In Conclusion

Digital healthcare technology is a positive force; it has the capability to forge a strong connection between patients and healthcare stakeholders which can be instrumental in driving better treatment adherence and positive health outcomes. These tools, though, need to be harnessed effectively – they should always be focused on assisting patient journeys and improving quality of life rather than being medication-oriented.

using artificial intelligence (AI) and 5G technology to address the challenges posed by the ongoing pandemic, and deliver timely healthcare solutions to people. Leveraging these digital tools, doctors have been able to quickly and accurately distinguish early, advanced, and severe stages of COVID-19, leading to better diagnoses.

Complementing the efforts of the Thai government, the private sector has also stepped up its efforts, and contributed to bolstering the overall effectiveness of the healthcare system. For example, one of the leading hospitals in Thailand expanded its telemedicine consultations as the pandemic intensified over a period of time, making sure that patients had access to high-quality medical care at the convenience of their fingertips. Similarly, a local medtech startup in the country grew exponentially in its subscriber base as it offered a one-stop medical ecosystem to patients, taking care of all their needs in the most convenient manner. While the adoption of digital healthcare technologies has been steadily increasing over the years in Southeast Asia and the rest of the world, the pandemic has accelerated the trend significantly.

Digital Tools and the Future of Healthcare

Digitalisation will be an important element in the future of healthcare as it helps facilitate connected care. In other words, it helps build a strong connect between healthcare providers and receivers across the entire treatment journey, ensuring efficient management of current illnesses while effectively preventing future ones. In fact, WHO makes a similar argument when it criticises fragmented health systems – it highlights how these systems can create a mismatch between actual performance and

rising expectations of the society, leading to frustration and suboptimal health outcomes.

Healthcare systems working in isolation will never be as effective; synergies need to be built between healthcare providers and receivers while using technology as an efficient conduit between the two. This approach was confirmed in our recent survey conducted in Thailand which revealed that a majority of our physicians (75%) found the company's digital app useful to get updates on their patients, while 88% of the patients shared how the tool helped them manage their chronic conditions effectively.

In addition, digitalisation can also help streamline operations, leading to faster decision-making and decreased risk of human error. It can complement physical systems' suitably and ensure enhanced productivity for all stakeholders in the ecosystem, resulting in better patient outcomes. Digital technology can also help build personalised solutions for patients as it continuously assesses patients on a per-patient per-cycle basis, offering more holistic insights about their treatment outcomes. Finally, digital technology can be instrumental in designing new innovative access solutions as a rigorous system of capturing and analysing data helps understand the efficacy of ongoing access solutions, and the re-configurations required to make them more impactful.

Though the benefits of digital technology make it indispensable in the current healthcare framework, one must understand the crucial role that the human factor plays in ensuring its effectiveness. Right from the user-friendly design of the interface, its alignment with the evolving

Thailand has constantly innovated and improved its healthcare systems to offer advanced medical solutions, aligned with the evolving healthcare needs of its people. But the ongoing pandemic has compelled us to reassess healthcare systems and make important integral changes. Going forward, Thailand should further embrace digital technologies, build a system of connected care where both healthcare providers and receivers are equally involved and empowered to drive better healthcare outcomes. This will help strengthen Thailand's healthcare system and build its resilience to withstand the pressures of any public health emergency, making sustainable healthcare access a reality for its people.



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