# **Innovation in Health for Society**

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### **EDITORIAL**

## Pandemic to endemic: A preparation for technology adaptation

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#### **Abstract**

The world reached a point where it was starting to change from a COVID-19 pandemic footing to an endemic area. Although variants of SARS-CoV-2 (novel coronavirus) pend this trajectory, the country may be ready to reimagine its effect on public health systems. Over two years ago, as new variants of COVID-19 emerged, Indonesia's public-health priorities focused on the essential missions of getting society assessed, vaccinated, and boosted while maintaining access to healthcare in hospitals. Inequalities predating the pandemic were laid bare as historically marginalized communities bore the brunt of the pandemic's ill impacts. Many healthcare professionals are now redressing vulnerabilities and planning a more robust path against infection. To help guide them on this journey, the healthcare provider should set forth four imperatives authorities consider when developing a comprehensive strategy to live with COVID-19. As the transition from pandemic to endemic is on the way, defining the next normal, tracking progress, limiting illness and death, and slowing transmission should be performed massively. Governments have a unique role in stewarding evolution by supporting innovative technology to deal with other health issues. The ground on which this next ordinary settle determines whether the lessons during the pandemic are heeded and could create a new habit for public-healthcare systems to emerge more responsive to whatever challenges lie in the future. Finally hope, this pandemic will end soon, and people may generally live without concerns.

**Keywords:** Pandemic; endemic; innovation in health; quality care; health technology

The pandemic caused by COVID-19 is helping to speed up the shift to digital in many different businesses and throughout society as a whole. To combat the pandemic's initial phase, health care industry firms have moved quickly to implement digital solutions and other cutting-edge technological tools. In the realm of diagnosis, digital solutions that integrate with traditional approaches look to have the potential to be beneficial. One example would be AI-based diagnostic algorithms based on imaging and clinical data. The efficacy of using digital apps for surveillance has previously been demonstrated, yet, there are still issues with users' privacy and the apps' usability. Telemedicine and other forms of telehealth technology are among the potential answers to the problems brought by other patient requirements. These technologies have been accessible for quite some time, but the current historical context may favour implementing them on a far larger scale. It is essential to keep track of the digital solutions currently being proposed to implement best practices and models of care in the future and to adopt at least some of the solutions offered in the scientific literature, particularly in national health systems, which have proven to be particularly resistant to the digital transition in recent years. It is worthwhile to take advantage of the impetus provided by the crisis. It is also essential to keep track of the digital solutions currently being proposed to implement best practices and models of care in the future.

The COVID-19 epidemic, like all other worldwide catastrophes in the history of humanity, is producing significant disruptions in many countries' health systems and economies. On the other hand, this new circumstance, taken together, is helping to pave the way for adopting digital solutions across various industries and throughout society. One industry that has been affected by this trend is education. Educators at all field levels, from primary schools to universities, have devised new methods for online instruction, replacing traditional classroom lectures with live video conferencing or web-based classes. Similarly, in response to the COVID-19 epidemic, healthcare institutions have rapidly adopted digital solutions and advanced technology tools. The use of digital technology can help alleviate or perhaps solve many of the issues that arise during a pandemic, which in turn improves the delivery of health care. Apps for tracking patients and emergency services that can be provided remotely are two examples of digital solutions used to address urgent requirements that have surfaced as a direct or indirect result of the epidemic. However, many of the solutions developed and implemented during the emergency might be consolidated in the future, contributing to the formulation and implementation of new digital models of care. This was the case because of the crisis.

The number of emerging digital solutions is expanding at a breakneck pace. These choices include "video visits," as well as email and mobile phone apps, as well as the use of wearable devices, chatbots, artificial intelligence (AI)-powered diagnostic tools, voice-interface systems, and mobile sensors such as smart watches, oxygen monitors, or thermometers. In addition, these options include the use of mobile sensors such as smart watches, oxygen monitors, or thermometers. The monitoring of people who are quarantined at home as well as the surveillance of huge populations, is a newly developed category of services. In a time when access to health care for patients who do not have COVID-19 or for patients with nonacute COVID-19 is restricted, obstructed, or postponed, telemedicine and remote consultation have already proven to be helpful. According to Keesara et al., rather than using a model structured on the historically necessary model of in-person interactions between patients and their clinicians through a face-to-face model of care, current healthcare services and patient assistance can be guaranteed remotely through digital technologies. This contrasts with the face-to-face model of care, which has been the standard model of respect for most medical history.

Before the COVID-19 pandemic, it was anticipated that the digital transformation in the healthcare industry would be just as transformative as it has been in other industries. The emergence of COVID-19 has presented a cause that cannot be refuted, making it imperative to embrace the digital transition fully. In addition, simulations indicate that many countries would likely be hit by many waves of the epidemic, leading to more lockdowns. As a result, it has become essential to analyse the digital technologies utilized during the state of emergency and assess whether or not they should be used continuously throughout time or cyclically if outbreaks continue to occur. The pandemic has dramatically boosted the applications and development of digital technology in healthcare services as an essential factor in mitigating the disease and breaking the cycle of disease transmission. Although digital technology in healthcare services was introduced decades ago as telehealth or remote healthcare services, the pandemic has dramatically boosted its applications and development. There are "hard" and "soft" advances to be found in digital health solutions. Complex health innovations involve medical technology in a remote setting. In contrast, soft health innovations are described as the knowledge required to operate and monitor medical devices and the patients who utilize them.

The following recommendations should be considered by those who have a stake in developing these digital health apps both during and after the epidemic. First, the long-term viability of incorporating digital health technologies into ordinary medical care in the face of impending pandemics. Second, researching the accumulated knowledge gained from implementing digital health technology would make it possible to expand access to medical treatment and reduce the severity of future epidemics. Third, provide digital health solutions that are less expensive and simpler to employ than those already available. A fourth recommendation is incorporating new ideas and digital health technology into medical education and clinical practice. In fifth place, the design and development of telehealth solutions should incorporate innovations that users have driven. Sixth, clinical research should be supported with enough resources and funding to investigate the potential long-term benefits of employing telehealth to cut the cost of providing healthcare services. When building and disseminating digital health technology, it is important to consider patients' concerns and requirements. A patient's right to privacy and confidentiality must be protected at all times, including during data processing and telemonitoring. Last, deploying digital health platforms into new healthcare systems must be guided by standardized criteria.

Even if telemedicine encountered some resistance in the past, the COVID-19 epidemic has increased patients' adoption of e-healthcare solutions by enhancing teleconsultation platforms. This has led to an increase in patients using these solutions. Several stakeholders have an interest in the managerial implementation of this study. Some of these stakeholders include medical personnel, the government, medical institutions, and third companies developing digital platforms. Indeed, the patient's feedback demonstrated that teleconsultation has the potential to become routine. Therefore, the medical ecosystem will need to adjust and promote its services to meet patients' requirements, as well as include the digital realm in medical treatment. Because of the lack of face-to-face interaction and trust that comes with distant consultation, one of the primary concerns with teleconsultation is the absence of natural human touch. Despite this, our research shows that patients positively perceive remote-care physicians as believing they are knowledgeable, looking out for their well-being, doing their best to assist them, and acting in their best interests. In conclusion, society's adaptability is shown by the successful implementation of digital

transformation in healthcare through the acceptance of teleconsultation. Teleconsultation was an answer to the pandemic, but it could also solve "medical deserts" in locations confronting a lack of medical professionals.

In conclusion, digital health during the COVID-19 pandemic has been recognized as an indispensable instrument for reducing the spread of the virus. The use of digital technology has resulted in a variety of diverse applications and has contributed in several different ways to the fight against the pandemic. During the pandemic, more robust healthcare systems have been able to incorporate digital technologies more quickly than healthcare systems that are less robust and more vulnerable. The research on putting digital health into practice during the COVID-19 epidemic has uncovered several factors that could either help or hinder the process.