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EDITORIAL


The urgency of developing innovation during the pandemic

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Abstract

The COVID-19 pandemic has changed nearly every aspect of human life, from the individual (how people live, work, and keep their health) to the professional (how healthcare professionals work). Unfortunately, more than three-quarters also approved that the pandemic created significant new opportunities for human growth, although this varies significantly worldwide. Of course, seeing the opportunities developing is not always the same as being able to seize them at times. Fewer than 50 percent of healthcare professionals feel confident that they are prepared to overcome the issues in the COVID-19 era. Most of the human aspect needs health innovation to prevent the long-term outcomes of the pandemic. As expected, they are focusing on maintaining the healthcare system and its continuity, especially in hospital and community settings. Therefore, developing innovation in health, driving productivity and implementing safety measures is needed during the never-ending pandemic. Leaders in the healthcare sector should provide essential strategies supporting innovation-led growth.

Keywords: Innovation; pandemic; clinical outcomes; COVID-19; healthcare professionals

The COVID-19 pandemic has changed nearly every aspect of human life, from the individual (how people live, work, and keep their health) to the professional (how healthcare professionals work). Unfortunately, more than three-quarters also approved that the pandemic created significant new opportunities for human growth, although this varies significantly worldwide. Of course, seeing the opportunities developing is not always the same as being able to seize them at times. Fewer than 50 percent of healthcare professionals feel confident that they are prepared to overcome the issues in the COVID-19 era. Most of the human aspect needs health innovation to prevent the long-term outcomes of the pandemic. As expected, they are focusing on maintaining the healthcare system and its continuity, especially in hospital and community settings. Therefore, developing innovation in health, driving productivity and implementing safety measures is needed during the never-ending pandemic. Leaders in the healthcare sector should provide essential strategies supporting innovation-led growth (Farrugia & Plutowski, 2020).

During the first few weeks of the pandemic, innovators concentrated on developing systems for surveillance, management of supply chains, and clinical testing. Gradually, though, their attention shifted to developing solutions for identifying patients and working on developing a vaccine. Over time, innovators have begun to search for strategies to ensure that they are communicating effectively with the general population. Research partnership platforms on COVID-19 have been continuously formed, and increasingly sophisticated domains, such as the isolating of patients, hospital upgrading innovations, and risk stratification tools, have been produced and made public. The World Health Organization (WHO), the European Union, the World Economic Forum, development partner organizations, and smaller start-ups and academic institutions have established various overview platforms to make finding and vetting solutions easier. The industry frequently supports these platforms. These platforms are intended to guide health experts and laypersons through the growing number of solutions for COVID-19. The public and business sectors, civil society, and academic organizations have devised various creative solutions to address the COVID-19 situation and its effects on health. Innovators have concentrated their efforts on building methods for surveillance, management of supply chains, clinical trials, diagnosis, communication, and the production of vaccinations. These have been reinforced with research cooperation platforms, novelties for isolating patients and improving hospital facilities, and risk stratification tools. The article's purpose is to support evidence-based health interventions, and it suggests the development of a "living platform" for sharing public health ideas. Many of these solutions are presented in the editorial.

A pandemic has had an impact that has never been seen before on different countries' global, regional, and national health systems. The public and corporate healthcare sectors have battled and continue to struggle to respond to the epidemic's effects. The struggle is not only about adopting diverse healthcare responses in the form of cutting-edge technological tools and innovations in public health, medicine, and wellness to take prompt decisions to address the pandemic by flattening the disease curve. Instead, the struggle is also about revisiting and reopening the realm of "digital health" in the policy and public discourse. It is the right time to make a concrete transition towards holistic technology and data-driven digital tools, which should be done while considering the short-, medium-, and long-term reaction plans. This will engage both public and private healthcare systems nationwide in facilitating policy dialogue, technical assistance, and training on specialized policy and response initiatives at the regional and national levels.

It is also a truth that the well-tested hardware is already in place, and quite a few trials have already been carried out; nevertheless, this technology has not been put to good use, particularly in developing nations, due to a lack of national will, a lack of resources, and a lack of strategic planning to reach those who need it the most. To synthesize knowledge and experience to evaluate the capacities and avenues of emerging technologies such as artificial intelligence (AI), machine learning, blockchain, health wearables, remote patient monitoring trackers, sensor-enabled hospital beds, medication-tracking systems, and medical supplies and equipment inventory tracking systems, an alignment of expertise, leadership, and practices is required. This will provide the opportunity for policy discourse and actions to make healthcare systems more inclusive and accessible regarding better patient experience and cost. It will become more widespread when more recent technologies become widely available. The actual cause for concern is how it was applied until the end. The very first telemedicine trials in underdeveloped countries were carried out in the 1970s and 1980s, and a few "resourceful" healthcare providers have been making intermittent use of the technology ever since the early 1990s. The challenge with developing countries is that it is difficult to incorporate newly developed medical technologies into the existing operational system, particularly on a universal scale. It is essential to keep in mind that those with the financial means to do so are the ones who will be able to take advantage of any technology. Therefore, either it is a tool in the hands of commercial actors (many of whom have state-of-the-art technology), or the cost is borne by the State, which has failed in the past so many decades to take it to the latter point. When people finally get access to the technology, we can begin educating and informing them about the many advantages it offers in the medical field.

During the epidemic, some people could consult with physicians and other health specialists without physically travelling to a clinic or hospital. This demonstrates the potential of telemedicine, which was demonstrated. This was a promising indicator, emphasizing the need to investigate new business models that can contribute to expanding telemedicine worldwide. On this front, the moment has come to urge businesses to take the lead with various tech-driven digital healthcare tools and products. Experts in the healthcare sector have speculated that the global telehealth market will likely experience a significant uptick in demand and an increase in the number of companies offering these services. The service providers are evaluating their capacity and potential avenues and pursuing evidence-based innovations and technologies across the board. Some examples of these innovations and technologies include diagnostic and telemedicine tools, mobile apps for fitness, well-being, medical, healthcare, and data-driven software. The counterargument, though, is that perhaps it was the epidemic that spurred people to investigate and use these technologies to bridge the time and spatial gaps in accessing healthcare. This investigation will focus on determining how these advances and technology will be used in a post-covid environment to address public health concerns. In public health studies, one of the most critical areas of focus for research should be how new technology and innovations will be incorporated into the public health response system in the coming years. This will allow for increased accessibility and affordability of healthcare services. As a result of the pandemic, numerous paths and opportunities have become apparent for improving healthcare and life sciences worldwide. It would be interesting to investigate how health would be regarded as wealth in society after the avian flu pandemic, with technology and innovations as its most significant investments.

Recent studies on COVID-19 have indicated that the severity of the pandemic's impact is higher in people who come from communities with fewer resources than others. This is demonstrated to be the case by looking at the severity of the infection rates. The term "The Internet of Medical Things (IoMT)" refers to the network of medical devices and apps connected to healthcare IT systems via the Internet. This network, which has the potential to provide regular access to healthcare services through cloud-connected healthcare professionals, is known as "The Internet of Medical Things." In medicine, "data governance" can provide a safe and secure digital environment to manage the handling, storing, and sharing real-time patient data 24 hours a day, seven days a week, across several

hospitals and other healthcare institutions. This can be accomplished by having well-defined policies and procedures.

This Research Topic collection attempted to investigate the new health realities that have emerged in the wake of the pandemic, with a particular emphasis on the various policy and response strategies that have been developed and implemented by nations all over the world to make public healthcare services more easily accessible to citizens in terms of issues relating to cost, security, and data privacy. The many studies released as part of the Research Topic collection looked into the new structural and institutional shifts that are occurring to make healthcare services safer and more convenient by empowering frontline care providers to use technologies. It is necessary for healthcare organizations and institutions, whether public or private, to coordinate the multiple linked changes required to design, implement, and maintain digitally-enabled healthcare delivery platforms to make healthcare services more accessible and inclusive.

In this recent issue, *Innovation in Health for Society*, the research topic collection discussed various policy and response measures that have been taken to deal with restricted physical access to services amid the epidemic. At the collection's core, the emphasis was placed on cutting-edge medical technologies. The topic collection makes a compelling case for the idea that health technologies and innovations will emerge as one of the most important fields for investment and innovation over the next three decades. This will revolutionize the healthcare industry worldwide regarding diagnosis, disease management, treatment, and prevention and contribute to improved readiness for future catastrophes.

References

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