

The Value of a Quarter Century of Digital Health Research for Providing Healthcare During the COVID-19 Pandemic

As difficult as it has been living through the COVID-19 pandemic, imagine what it would have been like if it had occurred a generation ago. As described in an [NIH perspective article](#) of a [Health Education & Behavior supplement issue](#) based on the first Digital Health Promotion Executive Leadership Summit, Internet-based telemedicine research began only in the 1990s, and NIH support for other digital health research followed (patient- or consumer-targeted Internet health services in the 2000s, mobile health in the mid-2000s, and health-related social media research in the mid 2010s). Our ability to mitigate transmission and to address healthcare access during this pandemic has been facilitated in large part by the digital health advances of the past quarter century.

Risk communication about the virus, how it is transmitted, and how to mitigate transmission has been greatly enhanced by digital communications such as websites and social media feeds from trusted sources like the CDC. Near real-time monitoring of infections, hospitalizations, and deaths have been possible due to the rapid movement of data made possible by hospital and public health surveillance secure internet infrastructures. Our ability to deliver population-level public health interventions has been vastly improved by the digital health communication systems now available to us.

These digital health advances also have been critical to ameliorating many of the downstream health effects of pandemic mitigation strategies and providing healthcare access for those needing prevention services, chronic disease management, mental health care, substance abuse treatment, and various social services during this pandemic when in-person care was not possible or permitted. Many of our digital health applications have been pressed into duty for remote care more extensive than ever envisioned. Although a few of these digital interventions were designed to provide complete and fully-automated remote care, most were designed to augment in-person care. How these technologies fare in providing fully remote care to those in need of healthcare during this pandemic is a research question worth addressing.

How well these digital health technologies perform during this pandemic may forever change how we deliver prevention and treatment services. No doubt there will be future public health challenges that will require these digital health technologies to perform functions not previously imagined.

This year's Summit on "Digital Media and Health: Cross-sector Collaboration for the Public Good during a Pandemic" will examine how the current pandemic is driving the rapid adoption of digital health technologies and new ways of working across sectors, not only for this current public health crisis, but for future crises that we need to be prepared to address.

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