



# From Innovation to Inclusion—Tackling Digital Equity Needs in Health Care

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We are in an era of rapid innovation and transformation in health care delivery, driven by the surging development and deployment of progressively more sophisticated digital tools with the ability to make care more accessible and transparent while promoting greater activation and self-efficacy for patients. However, access to the requisite technology and broadband, as well as levels of digital literacy, vary widely among patient populations, resulting in lower rates of digital engagement among certain patient groups.<sup>1</sup>

Russell et al<sup>2</sup> share findings from a recent quality-improvement initiative conducted within the Department of Veterans Affairs (VA) demonstrating that when screened, 42.7% of veterans reported at least 1 digital need. Nearly one-quarter of respondents (23.2%) reported inconsistent or unaffordable broadband access, 16.9% did not have a smartphone or computer, and 12.1% reported limited digital literacy, indicating a need for help setting up a video visit or even learning how to use a smart device. Adjusting for sociodemographic characteristics, the authors' analysis<sup>2</sup> found that older age, racial minority status, lower income, nonmarried or nonpartnered status, and medical complexity were all associated with digital needs among veterans. The authors<sup>2</sup> rightly emphasize the critical importance of screening for digital needs, optimizing screening practices by individualizing approaches, and ultimately connecting patients with available resources like the VA Digital Divide Consult, which offers internet-connected devices and assistance with obtaining affordable internet.

Digital activation is essential for equitable access not only to health care, but also education, housing, employment, economic growth, social services, and food. While low digital literacy may not have been a major disadvantage 2 decades ago, today the consequences of digital exclusion are profound.<sup>3</sup>

And yet, digital health developments far outpace efforts to bridge the digital divide. Digital health tools can empower patients with information and self-efficacy to better manage their health and offer virtual care options that expand access and reduce barriers. They also remain stubbornly less accessible to patients who are older, lower-income, part of a racial or ethnic minority group, or non-English speaking and those with lower health literacy.

Ongoing barriers to digital equity include policies at the federal and local levels that impact internet availability and affordability, infrastructure barriers due to geography, and digital redlining, whereby technology and internet companies intentionally avoid investment in broadband in low-income areas and racial and ethnic minority communities.<sup>4</sup> Without a clear focus on removing barriers and supporting these individuals to help access digital health tools, we only further disenfranchise our most vulnerable patients.

Integrating digital needs assessments into regular clinical practice, as the authors have shown,<sup>2</sup> can help health care teams better understand the specific barriers their patients face and connect these individuals to available resources. However, these essential resources are still not consistently available for many patients. Screening efforts must also be accompanied by more proactive approaches to bridge a digital divide that is increasingly laid bare.

To start, developing and maintaining trust between patients and health care practitioners is fundamental to increasing digital engagement. Health care practitioners play a crucial role in encouraging the use of digital health tools, especially among populations that have historically been underserved or mistrustful of the health care system. Black patients, for instance, have greater concerns about privacy and security, more mistrust of the health care system overall, and more often

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prefer to speak to their practitioner directly compared with White patients.<sup>5</sup> While most efforts to increase use of digital tools focus on patient level interventions, clinicians and care teams play an equally essential role.

We must also monitor access to digital health tools through an equity lens by transparently tracking who is (and is not) accessing these tools and looking for disparities in access based on factors such as race, ethnicity, income, and geography. We must understand the root causes of digital disparities not by speculating or extrapolating, but by asking our patients in our communities. Using qualitative research methods, we can gather insights directly from patients; through interviews and focus groups, we can understand how the digital divide impacts patients' access to and use of digital health technologies, as well as their perspectives on potential solutions to bridge this divide.<sup>6</sup> The only way we can truly understand what barriers our patients are facing is by asking and listening.

Capturing the voices of our patients will help us develop targeted, data-driven digital support and coaching interventions to best support them; this may include training on how to use digital health tools or providing support to patients who are struggling with technology in general. We can also use predictive analytics tools to proactively identify and reach out to patients at the highest risk of digital exclusion to help lower barriers to digital activation. We must invest in developing accessible resources like digital navigation programs to connect patients with digital tools and virtual care options through brief training encounters after visits with their clinicians or in partnership with trusted civic- or faith-based community-based organizations (CBOs) offering technology access and assistance programs.<sup>7</sup>

Addressing obstacles to digital activation must be a national priority. The US federal government launched the Internet for All program, authorized by the Digital Equity Act, to enhance infrastructure, provide skills training, and ensure access to technologies such as high-speed internet for all citizens, particularly underserved populations. We must also support and help guide the CBOs serving as bridges between federal and regional programs for individuals in need. These organizations often operate within centers like public libraries and public-school districts, anchor institutions that are already established as centers for internet access and promote digital equity by offering digital literacy training tailored to the needs of different demographic groups within their communities.<sup>8</sup>

We must also make forward-thinking investments in technology and, in partnership with our patients, codesign and implement inclusive, user-friendly digital health tools. The lack of patient participation in the design of user interfaces for patient portals and related health care applications has been an egregious failure that has prevented these tools from being intuitive, multilingual, properly supported, and accessible to all patients, regardless of background or socioeconomic status.<sup>9</sup> Potential improvement strategies could leverage collaborations between academic medical centers and the technology industry, combining the expertise of clinician researchers with extensive experience in caring for patients in underserved communities with the technology industry's expertise in developing and implementing patient-centered solutions at scale.<sup>10</sup> Without their direct involvement in the design and usability testing, patient needs and preferences are too often overlooked, lowering patient acceptance rates.

Given the disproportionate burden of chronic disease and illness borne by the most underserved and digitally excluded, it is imperative that digital health innovation and advocacy focus foremost on these patients. Meeting this critical need starts with health systems improving their ability to readily identify those in need of support toward digital activation. Success, however, also depends heavily on a commitment from the technology sector, funding sources, and policymakers to not only include but prioritize those who have been left behind by taking intentional steps to develop connections with underserved communities to directly combat digital exclusion. If the trend of innovating exclusively for the most privileged, connected, and digitally literate patients continues, the digital divide will only grow wider.

## ARTICLE INFORMATION

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