Disruption and opportunity: Harnessing technology to address health disparities and achieve equity

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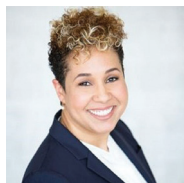
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Abstract   As the COVID-19 pandemic continues unabated, it is reshaping the fabric of the US healthcare system and shifting the ways in which consumers and patients seek care and treatment. The ongoing public health crisis has laid bare fault lines in the health-care system and highlighted socioeconomic and racial divides that have been prevalent but ignored by many for decades. As with many crises, the pandemic presents both disruption and opportunity. This paper outlines opportunities for healthcare leaders to

leverage technology to create robust platforms for virtual care, take tangible action steps to advance virtual care for a more inclusive patient experience and tackle the drivers of health disparities by revitalising organisational diversity, equity and inclusion efforts.

KEYWORDS: COVID-19, health equity, health disparities, virtual care

INTRODUCTION

With more than 33 million confirmed cases and more than 600,000 deaths as of early June 2021, the US continues to struggle to control the incidence of COVID-19.[1] The unfolding public health crisis driven by the COVID-19 pandemic has dramatically brought to light flaws in the US healthcare system and deep socioeconomic and racial divides fuelling health disparities. Black and Latinx communities and low-income populations have shouldered the brunt of the pandemic's impact.[2] These populations face a disproportionately high risk of hospitalisation as a result of the virus due to systemic inequities like access to health care, likelihood of virus exposure in the workplace and at home, job stability and higher rates of chronic conditions like diabetes and obesity.[3,4,] Furthermore, people of colour in less advantaged communities have been the hardest hit by the economic impact of COVID-19, a combination of resulting job losses and systemic racism further fuelling recent social unrest.[5]

With pervasive health disparities revealed on a national scale, healthcare leaders have an opportunity to channel the upheaval into clear solutions that drive impactful change and provide better, higher quality care to vulnerable populations; however, achieving health equity in the face of COVID-19 will not be quick or easy and will require more than equal access to specific services or treatments. Ample data exist to guide healthcare leaders in making incremental changes to provide better care and address health disparities magnified by COVID-19.[6] It is helpful to start with a shared understanding.

Health equity is achieved when every person has the opportunity to 'attain his or her full health potential' and no one is 'disadvantaged from achieving this potential because of social position or other socially determined circumstances.'[7]

Health disparities are differences in health outcomes and their causes among groups of people.[8] Disparities negatively affect groups of people who have systematically experienced greater social or economic obstacles to health, historically linked to discrimination based on race, gender, sexual orientation, and so on. For example, although black women and white women get breast cancer at about the same rate, black women die from breast cancer at a 40 per cent higher rate than white women.[9]

Social determinants of health are the conditions where people live, play, worship, work and age that impact their health outcomes and decision-making ability. Social determinants of health include factors such as employment status, income level, neighbourhood safety, pollution and availability of healthy foods.[10]

Social determinants of health are underlying factors that contribute to health disparities. Reducing health disparities is fundamental to achieving health equity and building healthier communities.[11]

As COVID-19 continues to disrupt daily life and spotlight health disparities, with social determinants of health contributing to and exacerbating poor health outcomes, the pandemic has also opened windows of opportunity to strategically address health inequities. Leveraging technology and examining and meaningfully committing to fostering diversity within the healthcare provider workforce are solutions that have been revitalised in response to the pandemic. In the case of leveraging technology, providers have harnessed the power of technology to connect with patients digitally and have embedded virtual models of care in the health

delivery system. With over 16 million new users since the onset of the pandemic, virtual care is experiencing a COVID-19-induced boon with unprecedented uptake[12]; however, the virtual model also presents potential barriers that require thoughtful and deliberate consideration in order to equitably expand access to care.

LEVERAGING TECHNOLOGY: CAUTIOUS OPTIMISM FOR VIRTUAL CARE

Initially established to provide access to care for those in rural and remote areas, telehealth has slowly expanded over the years as consumers have called for increased technological enablement. Until recently, patients predominantly relied on telehealth for minor illnesses and health issues such as the occasional rash or cold. Technological advances have helped telehealth grow beyond episodic interactions between patient and physician into more expansive virtual care, inclusive of interactions with other clinicians, like pharmacists and mental health professionals, treatment of chronic conditions and leveraging mobile devices for remote patient monitoring to provide continuous care. After years of incremental growth, the demand for virtual care has grown exponentially due to the environment created by the pandemic. COVID-19-imposed changes to the care delivery channel, designed to reduce exposure to ill and potentially infectious patients and to preserve personal protective equipment, have made virtual care services ripe for widespread adoption.

As the pandemic continues to wax and wane in the United States, patients have begun to seek out virtual care for ongoing treatment of chronic conditions, not just one-off health needs. Use of telehealth by Medicare fee-for-service (FFS) beneficiaries has grown nearly 13,000 per cent during the COVID-19 public health crisis.[13] The pandemic has also prompted the federal

government to reduce telehealth-related regulatory obstacles, creating additional financial incentive for payers and providers to engage with members and patients virtually.[14] Removing the low-reimbursement barrier, thereby making it more affordable for clinicians and health systems to offer virtual care services, has been an integral factor in driving expansive adoption. From the experience lens, virtual care can expand access to providers, particularly specialists and specialty care that may not otherwise be sustained locally, reducing barriers such as transportation and office hours. In turn, as patients and consumers begin to take greater advantage of virtual care as a safer means for continued access to care, healthcare leaders will need to adapt accordingly. Leveraging virtual care as a tool to expand access and mitigate the risks of COVID-19 experienced by black, Latinx and other vulnerable populations will require proactive solutions and a commitment to integrating health equity into the delivery infrastructure and model.

TANGIBLE ACTION TO OPTIMISE VIRTUAL CARE AND ADDRESS DISPARITIES

COVID-19 has necessitated rapid adoption of virtual care delivery; however, experience indicates that tailored strategies will be important in order to successfully expand access to vulnerable communities disproportionately impacted by COVID-19. Black and Latinx patients may have lower levels of trust in the medical system, and healthcare innovations by extension, as a result of a legacy of past abuses in the US medical system.[15,16] Long-standing systemic health and social inequities have put racial and ethnic minorities at increased risk of contracting and dying from COVID-19. Cases of COVID-19 among black individuals are 2.6 times higher, hospitalisation is 4.7 times higher and death rates are nearly

twice that of white counterparts. For Latinx individuals, compared with whites, COVID-19 cases are 2.8 times higher and hospitalisation rates are 4.6 times higher.[17] Inequities in the social determinants of health affecting black, Latinx and other minority communities, such as housing patterns, work circumstances and healthcare access, are interrelated and influence a wide range of health and quality-of-life outcomes and risks.[18] Optimising virtual care to address and mitigate disparities experienced by these communities necessitates concrete action.

Healthcare leaders should consider specific steps to assess the needs of the marginalised communities they serve in order to design virtual care programmes that address health equity and reduce existing disparities (Table 1).

At this point in time, the incidence and future course of the COVID-19 pandemic remain uncertain; yet, it is clear from historical examples that the burden of infectious diseases on poor communities is disproportional.[19] A causal, cyclical infectious disease 'poverty trap' has the potential to deepen fissures and alter the long-term trajectory of inequality within communities.[20] To circumvent this historical pattern and break the cycle, it is imperative for healthcare leaders and providers to dedicate significant effort to ensuring that virtual care programmes address health disparities heightened by the pandemic. There is great potential to leverage technology and close care gaps in many communities, but it is clear that even deeper divides can simultaneously be created within vulnerable populations.

TACKLING DRIVERS OF HEALTH DISPARITIES FROM WITHIN

Beyond applying technology and devising strategic solutions to address health

Table 1: Virtual Care Programme Considerations

Initiative	Description
Patient journeys	Developing patient journeys can help leaders and providers engage in the care experience through the patient's eyes, revealing blind spots that may actually exacerbate health disparities rather than reduce them. Prototype patient journeys may highlight access issues, such as access to broadband or translation services, for underserved and marginalised populations.
Expanded virtual care modalities	Different virtual care modalities should be explored with patient access and the appropriate care solutions in mind. Modalities extend beyond synchronous or real-time video interaction between a caregiver and their patient. Other modalities include asynchronous technology that allows providers and patients to interact via stored messages and communications on a patient portal, for example, and remote patient monitoring that facilitates transmission on a patient's clinical measurement. Depending on the patient's resources, digital acumen and healthcare needs, they may find one modality preferable over another. Leaders and providers should investigate which modalities and platforms might drive uptake and adoption most readily among their vulnerable populations served. Additionally, protection against privacy risks, preventing unauthorised access to patient data, should be considered a core element of any platform, regardless of care modality.
Robust screening	Robust screening of patients would help in identifying what potential barriers may prevent them from fully accessing telehealth. This should include screening for patient digital literacy, device and broadband access, as well as other social conditions and environmental factors like education level, socioeconomic status and English language proficiency. Leaders and providers should consider leveraging education and materials to help upskill patients' digital acumen in order to interface via video platform. Where not feasible, telephone visits and text communication should be considered.
Strategic partnerships	Leaders and providers should consider partnerships with community organisations and, where possible, coalitions of local insurers, faith-based groups and employers in an area to conduct proactive outreach to ensure that the populations that have been hardest hit by COVID-19 are not ignored.

disparities, leaders should also look inward and examine how these inequalities may persist within the walls of their own systems. Healthcare leaders should reflect upon and think critically about how social determinants and systemic inequities may impact their own workforce, culture and organisational legacy. This is particularly salient given the role of implicit bias within healthcare delivery. Nearly two decades after the publication of the National Academy of Medicine report on the significant scope of bias within the healthcare system, little has been done to address the factors that contribute to even worse outcomes for racial and ethnic minority patients.[21] Medical literature offers bias-reducing strategies, including increasing the number of black physicians as they exhibit significantly less implicit race bias than their white counterparts; yet, disparities persist.[22–24] In response to a 2019 global PwC survey, only 8 per cent of healthcare organisations within the sample indicated that the primary objective of their diversity, equity and inclusion initiatives was to respond to customer expectations and needs.[25] Forty-one per cent of health industry executives surveyed indicated they would prioritise promoting diversity, equity and inclusion in the workforce in 2020, but only 18 per cent expressed promoting leadership diversity as a workforce priority while planning for the next year.[26] An impactful approach requires addressing both the societal and economic factors driving inequity that patients might be facing when interacting with providers and the internal organisational workforce culture that fails to challenge implicit bias, further contributing to health disparities.

PwC recently published its first 'Diversity & Inclusion Transparency Report', and the data tells an important piece of the organisation's diversity journey.[27] PwC aspires to add a more diverse workforce and set our people up from Day 1 — no

matter the level. We have and will continue to implement a number of interventions specifically focused on networking, performance development, deployment and training. Similarly, CEO Action for Diversity and Inclusion is a CEO-driven business commitment to advance diversity and inclusion within the workplace.[28] The initiative was collectively formed and is led by a steering committee of CEOs and leaders from professional services firms, including PwC. Diversity within organisations has been found to be associated with higher revenue, economic growth and innovation[29,30]; therefore, the commitment to expanding diversity and promoting inclusion within organisations benefits organisations, individuals and society overall. Advancing diversity and inclusion in the workplace should not be viewed as a competitive issue, or a means of comparing or benchmarking peer organisations against one another, but as a societal issue and business imperative. Recognising that change starts at the executive level, this is just one way in which healthcare leaders are uniquely positioned to address health disparities.

CONCLUSION

The COVID-19-driven expansion of virtual care has the potential to meaningfully expand healthcare access, delivery and patient and provider experience; however, technology is merely an enabler, not a solution in and of itself. Without factoring in the social, economic and health needs of underserved populations, the growth of virtual care technologies could easily exacerbate existing health inequities and the social determinants driving those health gaps. Infectious diseases have historically hastened the burden on vulnerable populations. A comprehensive response to the pandemic will require commitment and dedication to addressing health disparities to ensure that underserved populations are not left behind.

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