

Differential Impacts of COVID-19: Five Lessons from New York’s Hospital Community

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Background

A primary goal of the 2010 Patient Protection and Affordable Care Act (known as the ACA) was to increase insurance coverage for all Americans to help them obtain needed healthcare.ⁱ There is little doubt that the ACA succeeded in this goal. In 2021, 31 million Americans were enrolled in insurance under the ACA.ⁱⁱ Fast forward in time almost exactly a decade from the ACA’s passage in March 2010 to March 2020 when the COVID-19 pandemic began in the United States. Suddenly, thousands of people were ending up hospitalized with COVID. Hospitals, which are obligated to provide healthcare no matter a person’s insurance status or their condition, were overwhelmed.

During a health crisis it is important to determine if and why there are differences in who becomes sick and whether certain public policies, such as access to insurance coverage, factor into who ends up hospitalized. Data show that insurance coverage is a factor in access to care.ⁱⁱⁱ

But access to care is not necessarily the only or biggest determinant of health outcomes. Other factors, sometimes referred to as “social determinants of health” (SDH) are often a better predictor of different health outcomes.^{iv} SDHs include access to housing, food, technology, transportation or other resources.

Data on patient hospitalizations during the pandemic also reveal that disparities in patient outcomes from COVID were tied to their underlying health conditions.^v If a patient had underlying conditions, they were more likely to experience worse health outcomes.

Given these findings, it is essential that the health sector better understand how to address such disparities in the future if patient outcomes are to improve. This chapter discusses five observations about the differential impacts of COVID from the perspective of hospital providers and proposes how society might use these observations to reduce healthcare disparities in the future. While the focus of this chapter is on hospitals in New York State, it is important to note that whether a standalone facility or part of a larger health system, each hospital works closely to coordinate patient care with nursing homes, home health and other healthcare providers and lessons learned from the pandemic were in part from that coordinated effort.

Hospitals’ history of focusing on disparities prior to COVID-19

The differential impacts of COVID were not necessarily a surprise to those working in hospitals. Hospitals have historically worked in their communities to address disparities driven by these types of social determinant issues.

All hospitals in New York State are nonprofit. They are required to report to the Internal Revenue Service the amount of community benefit they provide.^{vi} This reporting helps them maintain their tax-exempt status. State governments require similar proof that hospitals are engaging in activities that benefit the community to justify funding assistance to those hospitals. That funding assistance helps hospitals cover the cost of what is known as “bad debt and charity care”^{vii} — care delivered for which the hospital received no payment.

In 2014, New York state’s Medicaid program, which provides healthcare coverage to nearly eight million New York state residents with low incomes or disabilities, undertook additional steps to redesign how care is delivered in ways that could address health disparities. These steps toward care delivery improvement were made possible when the federal government granted New York a five-year Medicaid 1115 “research and demonstration” waiver, also known at the time as Delivery System Reform and Incentive Program (DSRIP). The goal of DSRIP was to address people’s health issues proactively so that they were less likely to have conditions or situations where they would end up in emergency rooms or hospitalized (i.e., preventable hospitalizations).^{viii} Hospitals were central to these efforts.

With the onset of COVID just as the DSRIP waiver concluded, these past efforts by hospitals likely prepared them to better understand and address differences in their patients’ SDH status. But given the differential impacts of COVID, there is still clearly an opportunity to expand efforts that reduce disparities among patients.

Five observations from COVID-19 for reducing healthcare disparities in the future

New York state and its healthcare providers have learned much from the pandemic about identifying and addressing healthcare disparities. The following five observations and lessons learned could reduce differential impacts further in the future:

1. Reduce disparities in hospitals’ resources to serve patients in their communities.
2. Build on hospitals’ “anchor institution” status to leverage the power of community.
3. Embed social determinants of health into healthcare planning at hospitals.
4. Maximize technology as a tool for equity.
5. Consider how advances in healthcare “consumerism” may widen or decrease differential health impacts for patients.

Lesson 1: Reduce disparities in providers’ resources to serve patients in their communities.

Prior to COVID, in 2018 into 2019, the Healthcare Association of New York State (HANYS),¹¹ undertook a long-term strategic planning process known as “scenario planning.” As part of this process, the HANYS Board of Trustees, , was asked to identify the two most important and impactful issues for healthcare for the next decade. Issues included everything from the growth in consumer demand for lower prices and more choice in services , to politics and vertical consolidation in the healthcare industry.

The board eventually chose these two issues as being the most impactful in shaping the uncertain future of healthcare:

- technology, in the broadest sense of the term (e.g., use of electronic health records, telemedicine, precision medicine, etc.) and
- the growing divide between the “have and have nots” in society.

¹¹ HANYS is a not-for profit trade association (501c6) which represents almost every hospital and health system in NYS. The HANYS Board of Trustees represents hospitals across the state.

With massive advancements by the technology sector and the explosion of digital companies in healthcare, the choice of technology was not surprising to most of the hospital CEOs participating in the conversation.

The choice of “the growing divide between the have and have nots” signaled a recognition that growing inequality in society was driving healthcare disparities. This societal divide is also seen in the hospital industry, and the CEOs’ choice was likely also influenced by their own experience and HANYS’ analysis showing a growing gap in resources and financial status among hospital providers.

HANYS’ analysis showed that median operating margins were declining from +0.4% in 2013 to +0.2% for 2017.^{ix} Any small increase in the average operating margin for New York state hospitals and health system providers as a group was primarily driven by the financial performance of higher-revenue institutions. Essentially, these data points show that while operating margins were declining overall, well-off hospitals did better financially, while less well-off hospitals did worse.

Similar research in 2019 from the Empire Center for Public Policy shows that “about one-quarter of the state’s hospitals are growing and thriving — and claiming the lion’s share of revenue growth — while the other three-quarters are shrinking and struggling. Forty-four hospitals, or one-quarter of the total, saw growth in the number of inpatients treated — and almost all of them had positive bottom lines. The other three-quarters of hospitals experienced declining demand, and just over half were in deficit.”^x

Tied to the analysis of the growing divide in wealth among hospitals was HANYS’ analysis of what might be driving this divide. A strong correlation was found between a hospital’s financial well-being and its payer mix. For the financially distressed group of hospitals, 74% of revenue was tied to Medicare and Medicaid payment, compared to only 45% for the top 15 “better off” group. Private insurance typically pays providers better than government programs. Payments from commercial insurers amounted to 17% of the distressed group’s revenue and 53% for the top 15 “better off” group. Both groups show a trend of increased rates from commercial payers and declines from government payers.²

In 2018, little did the CEOs participating in the scenario planning process know how prescient their choice of the “growing divide” would be in relation to health outcomes for patients. With the onset of the pandemic in 2020, suddenly the divisions between the “have and have nots” became more apparent with the differential health outcomes for patients.^{xi} Underlying the differential impacts for patients were noticeable differences in different hospital populations. The correlation previously noted by HANYS that a population’s mix of insurance coverage (i.e., government vs. commercial coverage) could be mapped to a hospital’s financial well-being became even more obvious.^{xii}

Interestingly, HANYS’ analysis also showed that financially distressed hospitals in upstate New York tended to have more Medicare patients, while distressed hospitals in the New York City area had more Medicaid patients. This finding may be partly a reflection of the populations being served (e.g., aging populations eligible for Medicare in upstate vs. younger people whose lower incomes qualify them for

² The findings were based on HANYS’ analysis of New York state Audited Financial Statements and New York State Institutional Cost Reports and reflect similar patterns for both outpatient and inpatient services.

Medicaid in the downstate region). In either case, the higher percent of government payer mix was correlated with differential financial conditions.

Without intervention or changes in government payment rates, these trends are likely to continue. Medicare and Medicaid pay less than the cost of caring for program beneficiaries — an annual shortfall of \$57.8 billion borne by hospitals. As noted in HANYS’ analysis of New York State Institutional Cost Reports, “New York hospitals lose billions of dollars each year treating Medicare and Medicaid patients. On average, Medicare pays 93 cents for each dollar of care provided in New York; Medicaid pays 73 cents for each dollar of care provided.”^{xiii}

On the positive side, these data suggest that there may be an opportunity to advance payment strategies or government initiatives that account for these disparities among hospitals. Already, New York’s Medicaid program has created special payments that help lessen some of these disparities among providers — a first step to ensuring all providers have the resources to provide care to those people most in need.

Lesson 2: Build on hospitals’ “anchor institution” status to leverage the power of community.

Not only have hospitals played a major role in responding to the pandemic, but they also play a key role in the social and economic vitality of their communities. Because of this, they are sometimes referred to as “anchor institutions.” Anchor institutions can also include other large entities such as universities. Anchors provide employment for millions of Americans. The well-being of these anchors can influence the well-being of surrounding communities.

One way anchors impact their communities is through their economic heft. Hospitals spends billions of dollars on services annually and generate trillions in economic activity.^{xiv} The role of hospitals in the economy isn’t likely to subside anytime soon. The Bureau of Labor Statistics predicts that “employment in healthcare occupations is projected to grow 16% from 2020 to 2030, much faster than the average for all occupations, adding about 2.6 million new jobs. Healthcare occupations are projected to add more jobs than any of the other occupational groups.”^{xv}

Hospitals are particularly important in high-poverty areas. In each of the largest 20 U.S. cities, a health system is among the top ten private employers; in high-poverty communities, a health system is almost always among the top five.^{xvi} About one in 15 of the largest hospitals in the U.S. are located in “inner cities,” and these hospitals alone spend more than \$130 billion each year.”^{xvii}

During the pandemic, one notable way that hospitals in New York have helped their communities is by playing a major role in getting people vaccinated. In New York state, vaccination has historically been done by public health departments, which continue to play this role. However, during the first few months of the rollout of vaccination, the state engaged hospitals in this effort to a much larger degree than previously by initially labeling 10 hospitals “vaccination hubs.” These hubs were located in the 10 regional economic development center regions previously used by the governor for purposes of collaborative economic development.^{xviii}

The hubs varied in the degree to which any one of them directly provided vaccines and their role diminished over time as the state set up many more vaccination sites across the state. However, all of the hub hospitals played a large role in coordinating resources within their communities during initial vaccination efforts.

In coordinating resources within communities, hubs also ensured that vulnerable populations and those populations where differential health outcomes had been noted during the pandemic would get priority access to vaccines. The state had each of these hubs conduct analytics on where and which populations were likely to have more difficulty in accessing vaccine.^{xix} The hubs then had to develop written plans to describe how they would address those disparities. The hubs used what is known as the “social vulnerability index” to help them determine where there might be populations in need.^{xx} Many hubs supplemented this analysis with their own analytics from community health needs assessments or other data. To reach these populations, some hubs then built upon existing collaborations with community-based organizations that had recently been developed as part of the DSRIP program.

The hub hospitals worked in conjunction with their local health departments but they also served as a convener of numerous other stakeholders that could help them reach harder-to-serve populations. Some of the hubs prioritized vaccinating people with disabilities or minority communities with historically lower rates of vaccination, while others targeted seniors in remote rural areas. The priorities of the hub hospitals often reflected the different needs of their varying communities. But one thing all hubs had in common was their goal to reduce disparities in access to the vaccine.

In a recent panel discussion about the role of hubs in the vaccination process, hub leaders reflected that the hub governance structure, the communications strategies they used and the collaborations they built could be useful for future public health efforts that might ultimately reduce health disparities among the state’s or a region’s population.^{xxi}

The concept of using hospitals as anchors or hubs to help their communities in various ways is not new. In fact, a national network known as the “Healthcare Anchor Network” (HAN) already exists. The goal of HAN is to have hospitals serve as entities that build more inclusive and sustainable communities.^{xxii} HAN has 65 members, including at least two in New York state. In the future, there is an opportunity for hub hospitals to learn from the work of HAN’s members, and for HAN to learn from New York’s hub experience in coordinating communities around a large-scale effort to improve public health.

Lesson 3: Embed social determinants of health into healthcare planning at hospitals.

During the pandemic, research began to show that those with underlying health conditions or those with disadvantaged social and economic situations were more likely to end up hospitalized.^{xxiii} These social and economic factors that impact a person’s health are known as social determinants of health. In the past, healthy living was often seen as resulting from a person’s genetics and lifestyle, but a growing field of research is now also “attributing well-being to social determinants of health (SDH), which are the compounded effects that arise from the concentration or lack of social capital.”^{xxiv}

The American Academy of Family Physicians defines SDH as the conditions under which people are born, grow, live, work and age. Physicians will often consider this information as important to a person’s overall health when they are developing a care plan.^{xxv}

Physicians are not alone in their efforts to incorporate people’s social determinants of health in their care. Hospitals are also more often using SDH to proactively help their patients stay healthy to avoid admission or readmission to the hospital. Hospitals’ focus on social determinants has been growing.

In the past, hospitals traditionally viewed their mission as caring for people who were already sick. As the definition of “health” has broadened to include things other than just “healthcare,” hospitals have

broadened their mission and the services they provide to include those that are needed before a patient is sick. In a survey of healthcare providers conducted by the Institute for Healthcare Improvement, 58% identified health equity as a top priority in 2021.^{xxvi}

Government and private payers of healthcare have also recognized the importance of SDH by paying for better health outcomes or programs that prevent illness. This was first apparent in 2010 when funding was provided to the Centers for Medicaid and Medicare Services to create an Innovation Center tasked with developing alternate payment models and value-based payment arrangements that paid more for better patient outcomes.^{xxvii} Payment models developed by the Center for Medicare and Medicaid Innovation, Medicaid delivery system and payment reform initiatives, and options under Medicaid all attempt to account for SDH.^{xxviii}

In 2014, the federal government passed the IMPACT Act. The IMPACT Act requires the reporting of quality measures and standardized patient assessment data with regard to quality measures and standardized patient assessment data elements (SPADEs).^{xxix}

Just prior to the pandemic, managed care plans and providers were engaged in activities to identify and address social needs. For example, 19 states required Medicaid managed care plans to screen for and/or provide referrals for social needs in 2017, and a recent survey of Medicaid managed care plans found that almost all (91%) responding plans reported activities to address SDH.^{xxx}

SDH will likely remain a priority in healthcare delivery, especially now that the pandemic has highlighted how they are linked to differential health impacts. A June 2021 *Health Affairs* article supports the notion that social risk factors need to be considered in the development of future payment models.^{xxxi} Indeed, the Biden administration has indicated that health equity is a major goal of its payment reform efforts. In its October 2021 “Innovation Center Strategy Refresh,” the Center for Medicare and Medicaid Innovation (CMMI) includes “advancing health equity” as its second highest objective after driving accountable care.^{xxxii}

The government is also now recognizing that value-based payments need to be constructed in ways that do not penalize hospitals that may be serving populations that are already challenged by social and economic factors impacting their health. As noted in a March 2021 article from the *Journal of the American Medical Association*, hospitals that care for a high proportion of Black adults were penalized more frequently than other hospitals in value-based programs.^{xxxiii} *Modern Healthcare* also cautioned about this phenomenon in a Nov. 15, 2021 article about health equity.^{xxxiv}

CMMI’s prioritization of health equity, a recognition of flaws in previous value-based payment efforts, providers’ prioritization of health equity, and a growing number of studies showing the importance of social and economic factors in health bode well for future efforts that incorporate SDH in ways that can reduce differential healthcare outcomes and impacts for patients.

Lesson 4: Maximize technology as a tool for equity.

The use of technology in healthcare expanded dramatically in the last decade and even more so during the pandemic.^{xxxv} In its broadest terms, technology in healthcare can include things such as the use of electronic health records to keep track of patient data, robotic surgery, digital applications that make it easier for patients to engage in their care, remote (rather than in-person) monitoring of patients, and precision medicine, which uses data and algorithms to customize healthcare interventions for patients.

One of these technologies — telemedicine — expanded particularly rapidly during the pandemic. Telemedicine is defined as the remote diagnosis and treatment of patients by means of telecommunications technology.^{xxxvi} Although the use of telemedicine as a vehicle for care delivery peaked in 2020, it eventually declined later in 2020. However, its use still remained markedly higher than 2018 and 2019 levels.^{xxxvii}

In addition to the rapid growth in telemedicine, the use of remote monitoring within hospitals also increased. This expansion resulted in part from the lockdowns and need for social distancing during the pandemic.^{xxxviii} Remote monitoring is defined as a method of healthcare delivery that uses the latest advances in information technology to gather patient data outside of traditional healthcare settings.^{xxxix} Both forms of technology are sometimes lumped together under the term “telehealth.”

The use of this technology was accelerated when the government expanded payment policies to ensure this form of care could be reimbursed.^{xl} In fact, the number of Medicare fee-for-service beneficiary telehealth visits increased 63-fold in 2020, from approximately 840,000 in 2019 to nearly 52.7 million in 2020.^{xli}

The promise of technology is to advance care and save lives. But to do this, technology must first be accessible to patients and providers. Before the pandemic, the use of telemedicine was rare, albeit growing at fast pace, particularly for primary care and mental health.^{xlii} Policymakers and providers should be mindful of the impact of COVID on access to such technology. One study found that telehealth use for the treatment of mental illness was growing much faster in rural areas compared to cities prior to the pandemic but that during the pandemic, the situation flipped, with rural Americans much less likely to use telehealth.^{xliii} In the case of hospitals, many expanded their use of telemedicine during COVID where possible. But because hospitals often care for patients who require physically more invasive procedures or regular hands-on care, the explosion of telemedicine for hospital-based services was not as dramatic as the increase in telehealth for mental health and primary care.

If disparities are to be reduced, understanding whether telemedicine is accessible to all populations will be an important policy question going forward. Things such as access to a smart phone and 5G connectivity are critical to ensuring equal access to telehealth. In the future, that access may include 6G. Access to this type of technology can allow providers of all types to proactively identify health concerns, therefore reducing the likelihood that a condition worsens, requiring hospitalization.

A second way that hospitals are using the promise of technology to reduce disparities is data analytics that identify the health needs of populations in their surrounding community. As noted earlier, hospitals already do some of this work when completing their community health needs assessment. The idea of using these data in “population health analytics” was already widespread before the pandemic.^{xliv}

The promise of technology changed during the pandemic as it relates to population health management. There is now a wider recognition that the data available on disparities in patients’ access to care, their SDH status and their health record data, when combined with community data, could potentially lead to much more precise and effective strategies to reduce health disparities. This is evidenced by the federal government’s new emphasis on “health equity” as a major priority.^{xlv}

The prioritization of health equity is also gaining traction at state government levels and among healthcare providers.^{xlvi} The National Academy of State Health Policy defines health equity as a goal:

“Health equity means everyone has an equal opportunity to live a long and healthy life regardless of race, ethnicity, gender, income, neighborhood, education, or any other social condition.”^{xlvii}

Adding SDH data to the many other types of patient data hospitals have can allow them to maximize their community impact and alleviate longstanding disparities caused by factors that go beyond the healthcare that patient receives while in a hospital setting.

Lesson 5: Consider how advances in healthcare “consumerism” may widen or decrease differential health impacts for patients.

Finally, in addition to recognizing hospitals’ varying financial resources, their impact on the health of communities as anchors, the importance of social determinants of health, and the need to leverage technology to improve equity, is the idea that hospitals can more precisely match the needs of patients with services and products, seeing them not only as patients, but as consumers. Consumers are defined as people who “purchase goods and services for personal use.”^{xlviii} There are a range of ways consumerism is growing in healthcare.

One example is precision medicine, which is defined as “medical care designed to optimize efficiency or therapeutic benefit for particular groups of patients, especially by using genetic or molecular profiling.”^{xlix} The premise behind precision medicine is that every person/patient has different characteristics and the delivery of care and services should be tailored to account for variance. But precision medicine is shown to have bias. This is because of “differences in clinical care and a lack of engagement and recruitment of under-represented populations in studies.”^l

As the pandemic disproportionately impacted diverse populations, it drew attention to the need for precision medicine to give greater consideration to diversity in patient populations. Reducing the biases of precision medicine and using it to find ways to reduce health inequities was a major topic at the 2021 Precision Medicine World Conference.^{li}

A second way consumerism’s growth is reflected by the hospital marketplace is in how (e.g., via a computer or phone) and where (e.g., home) patients receive care. To avoid virus transmission, the circumstances of COVID resulted in more care being delivered remotely or in a patient’s home. A federal program called “hospital at home” was expanded during the pandemic not only to accommodate demands on the healthcare system, but also because it was preferable for some patients.^{lii}

The use of this flexible care delivery may have been born out of necessity but persists out of preference for those consumers who can access it. But access to “hospital at home” may only be possible if a patient has sufficient access to technology, including reliable internet or phone service and wide enough broadband. Unfortunately, recent research shows that nearly 43% of adults in households making less than \$30,000 a year lack a high-speed internet connection.^{liii} Therefore, the ability of a consumer to have preferences is only as good as their ability to access those preferences.

A third way consumerism grew during the pandemic was through the expanded availability of information about hospital prices. On Jan. 1, 2021, the federal government began requiring hospitals to provide “clear, accessible pricing information online about the items and services they provide in two ways: 1) as a comprehensive machine-readable file with all items and services, and 2) in a display of shoppable services in a consumer-friendly format.”^{liiv} The goal of these efforts is to make it easier for

consumers to shop and compare prices across hospitals and estimate the cost of care before going to the hospital.

It is important to note that hospital price transparency is not necessarily useful to a large segment of the population. This is because what consumers pay for care is largely dependent on the type of health insurance they carry (i.e., deductibles, copayments). If they receive care through traditional Medicaid or Medicare programs, the prices paid are set by the government. For the small proportion of patients who can plan ahead for hospital services and who pay directly for healthcare, transparency about prices for purposes of comparison may be useful when it is feasible to put that information in an understandable and comparable format. The fact that pricing information is only applicable to a certain portion of people receiving care creates disparities in choice based on a person's insurance status.

Although there are many other examples of how healthcare is changing to better serve patients as "consumers," each advancement also has the potential to create disparities. The pandemic highlighted the potential for things like precision medicine, access to broadband and availability of pricing information to either create greater disparities or lessen them. As consumerism in healthcare gains traction it will be important to discern the potential for it to create more or less parity in the access and delivery of care.

Looking to the future

As hospitals contemplate how to reduce differential health impacts, they will need to balance their efforts against financial challenges and staffing shortages, while considering larger trends such as the changing demographics of the patients they serve. The U.S. population is aging and becoming more diverse.^{lv} Hospitals may not have the resources to meet the demands of caring for a growing aging population; nor might they have the resources to properly train their workforce to meet the needs of an increasingly diverse population. Public policymakers will need to find ways to support hospitals with these challenges.

As hospitals contemplate the issue of differential health impacts their role as anchor institutions in their communities is important. They may be able to build on the lessons of COVID, which put them at the forefront of proactively addressing disparities in access to care. They can leverage their role as major employers, purchasers and conveners to help solve some community problems. With a deeper understanding of SDH and the potential to use large datasets to better target population health efforts, hospitals also can play a larger role in reducing differential health impacts for patients. And hospitals may be able to continue leveraging technology and consumerism as a means to improve health disparities and care delivery.

In addition to the focus on differential impacts of COVID on patients, policymakers also must recognize that the pandemic has had disproportionate impacts on hospitals. Many were already financially distressed prior to COVID.^{lvi} Many are still reeling financially from all the new challenges COVID caused and may be for years to come.^{lvii} Even more are facing the fiscal strain of paying much higher wages for jobs in their institutions since so many people left the health workforce during the pandemic.^{lviii} Other hospitals will inevitably have more difficulty breaking even because of the correlation of payer mix and finances.^{lix}

There are hopeful signs that government is recognizing the intense challenges hospitals face. At the federal level, the American Rescue Plan aims to extend coverage to more Americans and it includes money to help modernize the public health infrastructure.^{ix} Resources were also provided to hospitals through the Provider Relief Fund.^{xi} In addition, the federal government is continuing to alter how it pays for care to account for the disparities among providers. This is also true at the state level, where payments are being targeted at hospitals with the biggest financial challenges. As policymakers seek ways to reduce patient health disparities in the future, they have a willing partner in hospitals and health systems. However, success depends on finding ways to address the many challenges that hospitals face.

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ⁱⁱⁱ Centers for Disease Control and Prevention, “Reduce Access to Care: RANDS during COVID-19” Research and Development Survey, collected at various points during 2020 and 2021, <https://www.cdc.gov/nchs/covid19/rands/reduced-access-to-care.htm>, accessed Jan. 16, 2022.

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^{xii} Ibid, HANYS, “Healthcare Trends: Insights for Resilience.”

^{xiii} Ibid, HANYS, “Healthcare Trends: Insights for Resilience.” https://www.hanys.org/communications/publications/healthcare_trends/docs/2019_healthcare_trends_report.pdf, accessed Dec. 31, 2021.

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