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FUTURESCAN

Health Care Trends and Implications

2023

SHSMD Society for Health Care Strategy & Market Development℠

Foundation of the American College of Healthcare Executives
for leaders who care®

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ABOUT *FUTURESCAN 2023*

This is the latest in a series of publications for health care leaders that the American Hospital Association's Society for Health Care Strategy & Market Development (SHSMD) in collaboration with the American College of Healthcare Executives (ACHE) has published annually since 1999.

In *Futurescan 2023,* a panel of eight thought leaders provide their insights on key trends affecting health care organizations. Their expert perspectives are supported by data from a survey of health care executives across the country. The Futurescan national survey, conducted from January through March 2022, asked 1,980 hospital CEOs and leaders from SHSMD's membership their opinions about the future trajectory of a variety of important issues. A total of 398 responses were received, for a response rate of 20 percent.

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FUTURESCAN

Health Care Trends and Implications

2023

New Strategic Realities in a Post-COVID World

with Ian Morrison, PhD, author, consultant, and futurist

Throughout the COVID pandemic, hospitals and health systems played a pivotal leadership role in serving their communities. While the last *Futurescan* reported on the changes that were still emerging under the cloud of the pandemic, this edition chronicles how some of these new realities have become permanent fixtures in the health care environment. It spotlights subject matter experts in workforce recruitment, marketplace disruption, cybersecurity, emerging demographic trends, health equity, artificial intelligence (AI) in clinical and business operations, responding to capacity surges, and the essential element of trust. As health care executives strategize for a future that no one could have imagined three years ago, they will find this edition of *Futurescan* to be a thoughtful resource on how and where to lead their organizations in a post-COVID world.

Workforce Trends

Personnel shortages have emerged as the top concern among CEOs, and all levels of employees have been affected. Burnout is one of the most prominent reasons for turnover, and the employees left behind necessarily take on the additional work, leading to a ripple effect. Corey Bruner, director at global consulting group Huron, expects this trend to continue over the next few years. He highlights multiple factors leading to the turnover tsunami:

- Workers in all industries have reevaluated their life and work priorities and used the high-demand environment (partly induced by federal stimulus and escalating wage rates) to find new roles and positions.
- Many workers see hybrid and remote work as the new normal and will shift organizations to maintain it.
- Many workers in finance, administration and information technology have skill sets attractive to employers in other industries.

Health care must adjust to provide flexibility to all staff to remain competitive. Bruner provides practical advice on how to craft compensation and benefit schemes that lead to increased workforce retention and aid in recruitment.

Competitive Environment

Before COVID-19 emerged, the health care arena was seeing an influx of interlopers from nontraditional organizations such as Amazon and Apple, but the pandemic spurred changes in how health care services will be delivered going forward. Sam Glick, global leader in Health and Life Sciences at Oliver

About the Subject Matter Expert

Ian Morrison, PhD, is an author, consultant, and futurist. He received an undergraduate degree from the University of Edinburgh, Scotland; a graduate degree from the University of Newcastle upon Tyne, England; and an interdisciplinary doctorate in urban studies from the University of British Columbia, Canada. He is the author of several books, including the best-selling *The Second Curve: Managing the Velocity of Change*. Morrison is the former president of the Institute for the Future and a founding partner of Strategic Health Perspectives, a forecasting service for clients in the health care industry.

Wyman, discusses the new competitors and why it may be time for health care executives to reconsider the legacy health system model.

It would be foolish to dismiss industry newcomers, Glick says; they will inevitably raise consumer expectations for greater responsiveness from health care, and some of them will succeed at scale and become serious competitive forces. Glick believes health systems can use a focused approach to stay competitive and even claim a new leadership position within their markets.

Cybersecurity

John Riggi is a highly decorated 30-year veteran of the FBI and serves as the first national advisor for cybersecurity and risk for the American Hospital Association and its thousands of member hospitals. According to Riggi, cyberattacks represent perhaps the greatest external threat to clinical operations and can cause real financial pain. As health systems are increasingly digitally connected to consumers, the cloud and the internet, the potential risks escalate. The outcome of an attack can be disastrous for hospitals, health systems and patients. When a hospital is hit with a high-impact ransomware attack and the hospitals in that region are operating under strain, there is strong positive correlation between the attack and regional excess deaths.

Despite the apparent sophistication of cyber criminals, their primary source of access to any system is very simple: human vulnerability. Phishing attempts, often via email or text message, remain the most common avenue for hackers to penetrate an institution's security protections. Riggi recommends that every institution implement layered technical defenses, endpoint protection systems and a well-practiced, cross-function cyber-incident response plan to address this threat.

Consumer Trends

Joan Kelly, partner in strategic consulting at Press Ganey Associates, and Chrissy Daniels, chief experience officer at Press Ganey, have collectively been involved in assessing patient experience for over 50 years. They believe that consumer trends and market forces are ushering in a dramatic sea change in how hospitals and health systems collect and use patient-experience data to humanize care delivery.

Four distinct age groups, each with differing opinions on what is important in access and care provision, influence the status quo in health care. Kelly and Daniels give detailed examples in their discussion, as well as insights on the ways the LBGTQ+ community and various ethnic groups perceive health care.

Addressing these diverse viewpoints will require health leaders to customize solutions that recognize the values, lifestyles, priorities, preferences and needs of various demographic cohorts. Issues such as childcare, caregiving support, hybrid and remote work, training and career planning, environmental policies, and commitments to diversity and inclusion in the workplace will all have to be factored in when crafting the organization of the future.

Health Equity

Few times have brought the issues of diversity, equity and inclusion to more widespread attention in American society than 2022. In their article, Elaine Batchlor, MD, MPH, chief executive officer of MLK Community Healthcare and MLK Community Hospital in Los Angeles, and Mary "Toni" Flowers, PhD, DHL, chief diversity and social responsibility officer at LCMC Health in New Orleans, identify what needs to change in order to achieve a diverse, equitable and inclusive health care system.

Social determinants of health have put residents in communities of color at a disadvantage when trying to stay healthy. Health follows wealth, Flowers says, underscoring how an absence of transportation, healthful groceries, and broadband internet access contributes to worse health outcomes in some communities. Batchlor and Flowers also emphasize that racism in health care still exists and that it must be reported and investigated when it occurs. They argue for a concerted, society-wide focus on addressing inequities.

Artificial Intelligence

With current data generation exceeding the capacity of human cognition to quickly and reliably manage information, the use of AI will only continue to grow. Juan Rojas, MD, a pulmonary and critical care specialist at the University of Chicago with expertise in the application of machine learning to electronic health record data, expects that much of AI adoption will be in the areas of clinical care and business operations. However, these more complex tools require an information technology infrastructure sophisticated enough to support them, experts to monitor their use and safety, and a willingness of users

on the front lines to engage with these more complicated models.

AI and machine learning must be part of the future of health and medicine. AI can enhance and support clinical decision making, help engage consumers, provide vital analytics and insights, and automate routine administrative functions.

Capacity Planning

The COVID-19 pandemic spotlighted the importance of preparation for surges in hospital demand. Marjorie Bessel, MD, is chief clinical officer at nonprofit health care provider Banner Health, where Peter Fine is CEO. In their article, they discuss their award-winning surge-mitigation measures.

Considerations for managing surges in capacity needs can be grouped in three major categories, Bessel says: supplies, physical space and workforce. Prioritizing these considerations will depend on the immediate requirements of the situation. Bessel and Fine agree that effective communication is crucial to mitigating strain on hospital resources. Clear, concise and transparent communication empowered their workforce and allowed the organization to work collectively to solve problems.

Culture of Trust

The final article in this edition of *Futurescan* examines the importance of trust in health care and is based on the real-life experiences of Jeff Goldsmith, PhD, a recognized expert on management and policy issues relating to health care services. At the age of 65, Goldsmith was diagnosed with head and neck cancer. Over the course of the next two and a half years, Goldsmith underwent a total of five major surgical procedures, each addressing a different malady. The experience changed his life and altered his view of health care forever.

"For me, the central challenge of having cancer was not molecular biology or the various therapeutic options available to me," he says. "Instead, the central question was who would I trust to help me resolve the problem?" Trust is foundational in health care relationships, whether it is between patients and their caregivers, among clinicians, or between clinicians and the institutions for which they work.

How can hospital executives best address the challenges of economics and trust? Goldsmith gets to the heart of the matter. Health care is unlike any other industry, and we are not just consumers, shopping for care. As a patient, you must trust those who care for you, and that trust can and should be earned by health systems and staff. When done right as Jeff Goldsmith argues, it leads to a virtual cycle of better outcomes, higher patient and provider satisfaction and increased patient and provider loyalty.

Conclusion

As our nation continues to grapple with the impact of a virus that refuses to be contained, health care leaders may need to accept that, in reality, there is no more status quo. The economic and social changes sweeping our society as the result of the pandemic are here to stay. It is likely that the situation will continue to evolve over the next five years along with our understanding of complex data, management of patient surges, the factors affecting health care–purchasing decisions, the incentives for retaining critical personnel, and cybercriminal sophistication. By applying the wisdom and lessons learned from our subject matter experts in this edition of *Futurescan*, hospitals and health systems can better position themselves for changes and challenges yet to come.

1 WORKFORCE TRENDS

The Great Resignation

with Corey Bruner, Director, Huron Consulting Group

The COVID pandemic has had a devastating effect on many areas of human life. For health care workers on the front lines—enduring so many months of patient surges, a mounting death toll, and sheer exhaustion—the pandemic has been especially detrimental and, in many cases, life-altering. The resulting wave of resignations that hospitals and health systems have been experiencing has brought unprecedented staffing challenges unlike any other time in recent history.

Corey Bruner, director at Huron, a global consulting group, highlights multiple factors leading to the turnover tsunami. "Burnout is widespread among health care workers and one of the most prominent reasons for turnover," he states. "As their colleagues leave, the employees left behind have to pick up the slack, leading to a downward ripple effect. The fact that other economic sectors such as hospitality are also in competition for workers is only compounding the situation. This competition for labor has contributed to wage inflation and is driving a notable exodus of workers from the health care industry."

The most at-risk positions for turnover are registered nurses and entry-level roles, but Bruner notes that all levels of

employees have been affected. The most telling statistic is the registered nurse vacancy rate. According to the "2022 NSI National Health Care Retention & RN Staffing Report," 24 percent of organizations reported a vacancy rate greater than 10 percent in 2019 (NSI Nursing Solutions 2022). As exhibit 1 shows, that number had grown to 36 percent in 2021. A survey conducted by the American College of Healthcare Executives found that personnel shortages overall was the top-most concerning issue cited by hospital chief executive officers in 2021 (American College of Healthcare Executives 2021).

Key Challenges Facing the Health Care Field

Employee shortages are likely to continue over the next few years. The results of a recent study attest to that prediction, even among nurse leaders. According to a longitudinal study conducted by the American Organization for Nursing Leadership (2021), there was a 116 percent increase in the number of leaders considering leaving nursing

About the Subject Matter Expert

During the past 10 years with Huron, Corey Bruner has worked with more than 50 hospitals, health care systems, universities, and academic medical centers (AMCs) to examine and redesign their human resources (HR) policies, processes, structures, and business operations. Bruner is an expert in organizational structure and design, business process redesign, HR total rewards analysis and strategy, and service delivery design. Bruner has a proven track record of managing complex, multifaceted engagements for health care, higher education, and AMC clients, and he partners with them to ensure satisfactory and timely achievement of their objectives. Most recently, Bruner has been leading a number of Huron's talent strategy engagements, focusing on driving significant improvements to recruitment, retention, and engagement efforts for organizations and their most critical asset: their people.

Exhibit 1

Healthcare Organizations' Reported RN Vacancy Rates, 2017–2021

RN Vacancy Rate	2017	2018	2019	2020	2021
Less than 5%	18.2%	15.8%	21.9%	19.3%	23.9%
5.0% to 7.49%	31.8%	30.5%	22.8%	18.2%	13.8%
7.5% to 9.9%	27.3%	28.4%	31.6%	30.7%	26.6%
10.0% to 12.49%	9.1%	12.6%	12.3%	15.9%	22.9%
Greater than 12.5%	13.6%	12.7%	11.4%	15.9%	12.9%

Source: 2022 NSI National Health Care Retention & RN Staffing Report

between February of 2021 and August of 2021. Nearly 41 percent of those respondents were planning to leave within one year or less. According to the study, notable drivers include stress caused by staffing shortages, declines in reported emotional health, and low morale and burnout.

Continuing to provide quality care with a diminishing workforce is clearly going to be a challenge for health care executives. "I believe we will see some stabilization in the next five years," Bruner notes. "But the reality is that until then, we may have to do things differently than before if we do not get back to pre-pandemic staffing levels. That includes how we manage care delivery, how we structure programs to retain employees and keep them engaged, and how we recruit new talent." Bruner suggests the following strategies to manage the shortfall over the next five years.

Reexamine the total rewards package. The traditional total compensation package of salary, benefits, and retirement plan is no longer competitive in the current environment. Inflation is putting additional pressure on employers to pay more. Bruner says it is critical to ensure that base pay scales are competitive. He also urges health care executives to be creative in adding additional incentives, such as enhanced paid time off, parental leave, educational subsidies, and clearly delineated leadership tracks. "Tuition assistance and other subsidies can help employees to reach the next level in their career," Bruner states. "A formal leadership track demonstrates to workers that they are valued and have a long-term trajectory with the organization. It is an excellent way to build the talent pipeline from within the health system." Leaders who have successfully bridged this advancement in the health system should be prominent advocates for other employees to join this track within the organization.

"One health system offers down-payment assistance on a new home," Bruner continues. "This is actually better than a sign-on bonus. It helps a new worker put down roots in the community and fosters a good amount of loyalty. It also signals a long-term investment in the employee. This is both a recruitment and a retention strategy."

Bruner expects that the cost of total rewards packages will continue to escalate, and health care executives appear to agree. Just over half of the respondents in the latest *Futurescan* survey (51 percent) predicted that the cost of their organization's total rewards package will rise 20 percent by 2028. Eight percent of the respondents reported that they are already seeing that escalation in total compensation expenses.

Bruner recommends that managers at all levels be able to clearly articulate the total rewards package to potential new employees during the recruitment process. He offers one caveat in advocating for creative solutions to total rewards packages: "Be sure that anything you create is sustainable over the long term."

Redesign workforce strategies. "With reduced staffing, it is imperative to be flexible in how care is delivered and how you assign workers in day-to-day operations," Bruner says. "With the shortage of nurses, are there support positions such as certified nurse assistants whom you can elevate in their roles at the bedside? Are there some clinicians, such as pharmacists, whom you can upskill to work at the top of their licenses?" Health care executives may also want to consider establishing internal float pools to redeploy employees where they are needed most, to adjust staffing levels as necessary, or to institute flexible scheduling.

Bruner acknowledges that the cost of labor is at an all-time high, at 60 to 70 percent of an organization's overall expenses. "The situation is not sustainable," he admits. "Registries are very expensive and can tend to alienate employees who are doing the same job but making less. These same employees often have to train their new temporary counterpart, which can cause tension among team members."

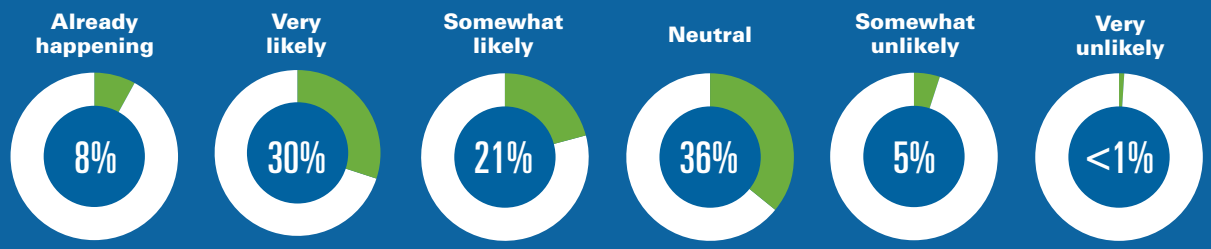
It is also important to be strategic about the pay offered for positions that are harder to fill. Many organizations offer premium pay for a night shift or extra shift bonuses, but employees can become inured to the extra money. "These premiums can be hard to pull back from," Bruner says. "I advise clients to make sure that these bonuses are temporary with clearly articulated triggers, such as volume and vacancies, to drive the appropriate and intended behaviors."

Being supportive of employees is also important when staffing is reduced.

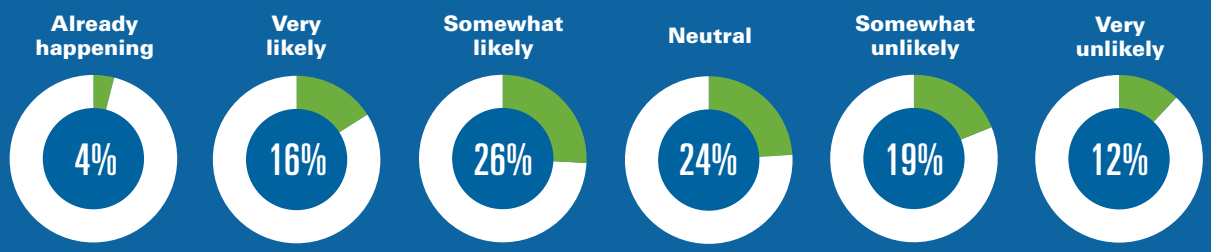
FUTURESCAN SURVEY RESULTS
The Great Resignation

Health care executives from across the nation were asked how likely it is that the following will happen in their hospital or health system by 2028.

By 2028, our hospital or health system's total rewards cost will have increased by at least 20 percent.



By 2028, given the workforce shortage, our hospital or health system will be able to meet the anticipated demand to perform 20 percent more work by leveraging the same amount of staff members we have today.



"We have found that nursing management needs to be more visible than ever in this environment," Bruner says. "Clinical staff needs a clear connection and needs to know where to go when they need support. For nonclinical employees, continuing to offer remote work may be an incentive to stay with the organization but should be evaluated in conjunction with the organization's broader remote work strategy."

Finally, organizations should rethink the overall recruitment process. "The way we have been doing recruitment is not working," Bruner asserts. "It calls for being more innovative in where we are looking for candidates, and rethinking what the ideal versus the acceptable candidate looks like." Some hospitals and health systems are even building a talent pipeline before recruitment by going into middle schools and sharing with students the possible careers in health care. Other organizations have established programs that provide internships or job shadowing.

The human resources leadership at **Berkshire Medical Center (BMC)** is employing a grassroots strategy for developing its own pipeline of future health care workers. The 298-bed community teaching hospital is located in Pittsfield, Massachusetts, a small isolated community over two hours from Boston. "There are not enough trained health care workers in our area, making recruitment of qualified candidates very difficult," says Patrick Borek, vice president of human resources. Like many hospitals, BMC experienced increased turnover during the pandemic, further burdening the employees who remained.

"In order to meet our needs, we had to take a more prominent role not only in developing our current employees but with the training programs around us," Borek says. "We are getting more involved in recruiting students into the

local community college health care programs." One technical school in the area has a program to train licensed practical nurses (LPNs). In talking with school administrators, BMC discovered that its February 2022 class was only half full. The primary reason was that students could not afford to work part-time while they went to school. BMC built a program where those students could work at the hospital 16 hours a week as nursing assistants and receive full-time pay and benefits. In order to qualify, they must commit to working at BMC for two years after graduation. In the first cohort of students, 15 people started the program, and 13 are still active and expected to complete it. Borek says that BMC plans to support two cohorts a year and has initiated a similar program at a local community college, which also offers an LPN program.

This initiative is similar to another BMC program aimed at developing medical assistants (MAs) to work in physician practices. Established in 2021, the six-month curriculum at the local community college begins with full-time classwork and then transitions the students into internships in actual practices. "We had a severe shortage of MAs, causing problems with patient access," Borek states. "A benefit of this approach is that the MAs are being trained consistently and according to BMC's policies and procedures, and in the use of our electronic health records. There is no learning curve when they start employment. Our doctors describe them as some of the best MAs with whom they have worked."

As to the cost, Borek says that with tuition, fees, stipends for students, and other expenses, BMC is spending $350,000 per cohort. "We are doing this because patient access was at risk and we needed the staff," he explains. The employee development strategy is working so well that BMC is in the process of creating a registered nurse program that could cost $900,000 for each 20-person cohort. "Much of our staffing is done by travelers, and that is extremely expensive," Borek notes. "The rate has been as high as $200 per hour, and that is not sustainable. We believe these strategies are getting us to a more reasonable staffing contingent. If someone is oriented to and socialized within the organization, they will be more engaged and will stay longer."

Borek says that BMC will soon begin taking a more prominent role in visiting local high schools and middle schools to provide advice and information on the broad spectrum of health care careers and to begin the recruitment pipeline at an even earlier stage.

Embracing technology to do work differently. With a reduced workforce, hospitals and health systems may have to streamline their operations. Digital strategies came into the limelight during the pandemic, and as consumers have embraced them, they seem likely to become viable, permanent additions to the health care continuum. "Artificial intelligence is being used successfully in chatbots that triage patients to the appropriate level of care or that assess patient health status," Bruner notes. "Telehealth visits eliminate the need for staff to make appointments and check in and room patients. Taken together, these technologies can allow hospitals to utilize staff in more efficient ways." Many paper processes could also be automated. Bruner adds that hospital-at-home programs provide care remotely and enable staffing efficiencies, requiring fewer clinical staff onsite.

Finding new ways of working is paramount. According to the *Futurescan* survey, 19 percent of respondents said that in the next five years, even with the workforce shortage, they will be able to perform 20 percent more work by leveraging the same number of staff members they have today. Another 26 percent said that they would be somewhat likely to achieve that 20 percent increase in performance. Achieving those new levels of performance will require efficiencies.

Double down on organizational culture. "When turnover is high, it becomes harder to maintain an organization's culture, and morale can enter a downward spiral," Bruner notes. "This is the time for health care leaders to redouble their efforts to maintain a healthy level of employee engagement." The visibility of leadership and its willingness to foster connections with employees is critical. Soliciting employee input on the challenges they face and the solutions they can offer is also key. "Employee rounding is an excellent means of obtaining employee feedback," Bruner notes. "Town hall meetings, focus groups, online surveys and even suggestion boxes all can work as well. It is important to use more than one tactic for the broadest reach possible. Keep in mind, however, that management needs to be prepared to address employee feedback."

In 2017, leaders at the **University of Pittsburgh Medical Center (UPMC)** recognized that, although they were already a high-performing organization, they had opportunities to elevate the consumer experience and create consumers for life. Board members also expressed concern about the organization's Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores. At the same time, UPMC leaders sought to improve the employee experience to attract and retain top talent. To address these realities, UPMC's leadership created a structure that would enable cultural transformation at the organization. Starting with a commitment from the board of directors and system leadership, the transformation team branded its employee and consumer experience as "the UPMC Experience" and developed messaging around a cultural transformation. Senior leaders not only communicated the message but also modeled the behaviors they were asking employees to adopt. These behaviors included greeting coworkers, directing patients throughout the facility, and starting each meeting with a positive comment or accolade.

Leaders throughout the organization were given clear goals, 80 percent of which were tied to employee and consumer experience outcomes, while the remaining 20 percent focused on financial performance and quality metrics. Incentives were aligned with employee engagement and HCAHPS scores.

"Throughout the first year, UPMC committed to bring together 1,500 leaders quarterly for training and for the opportunity to build buy-in. This was to be accomplished through consistency in communication, explaining the "why" behind changes, and promotion of skill building to close performance gaps. Coaching sessions helped leaders achieve their goals and model effective behaviors. Seeking to create a better employee experience, leaders gained an understanding of the challenges employees and providers encountered by gathering feedback from them.

Since the inception of the initiative, UPMC has experienced significant gains at its two flagship hospitals. In one year, UPMC Presbyterian experienced a 9 percent increase in nursing engagement and a 5 percent improvement in employee engagement among its 30,000 employees. By 2022, UPMC-Shadyside had reached the 92nd percentile as measured against all hospitals in the HCAHPS database. Overall, UPMC's systemwide HCAHPS rating rose 38 national percentile points, from the 28th to the 66th percentile.

Key Takeaways

As health care leaders manage the challenges of maintaining staffing levels that meet the needs of their organization, Bruner suggests they consider the following takeaways:

1. **Embrace technology to do work differently.** "Leveraging technology such as telehealth, automation of paper processes, home monitoring devices, and artificial intelligence-based platforms can not only improve staffing efficiency, it can enable patients to take a more proactive role in their care where possible," Bruner notes. This can result in reduced costs on many levels.
2. **Ensure changes are sustainable.** Bruner expects that staffing levels will eventually become more consistent and aligned with health systems' needs, but this may not happen in the short term. "It will be important to be mindful of the long-term costs of short-term financial incentives you put into place," he cautions. "Be sure that you can fund or maintain any new rewards or retention programs for the foreseeable future."
3. **Double down on employee engagement strategies.** In times of great upheaval such as the COVID pandemic, culture tends to take a less prominent role in daily operations. Bruner advocates for the opposite approach. "Culture is what connects everyone across all levels of the enterprise to achieve the common mission of excellent patient care."

Conclusion

Bruner says that hospitals and health systems that are doing well during the turnover tsunami have been intentional about talent strategy, recruitment, and employee engagement and retention. As health care continues to struggle with an employee exodus, culture has become even more important. "It is incumbent on health care leaders to help employees feel valued, connected and tied to the organizational culture," Bruner says. "It's never been more important to ask employees, 'What barriers can we remove to help you work more efficiently for the benefit of patients?'"

References

American College of Healthcare Executives. 2022. "Survey: Personnel Shortages Cited Above Financial Challenges by CEOs as Top Issue Confronting Hospitals in 2021." Published February 4. https://www.ache.org/-/media/ache/about-ache/news-releases/ache-2021-top-issues-press-release_printer-friendly.pdf.

American Organization for Nursing Leadership (AONL). 2021. "AONL COVID-19 Longitudinal Study August 2021 Report: Nurse Leaders' Top Challenges, Emotional Health, and Areas of Needed Support, July 2020 to August 2021." Published September 8. https://www.aonl.org/system/files/media/file/2021/09/AONL%20COVID-19%20Longitudinal%203%20Written%20Report.pdf

NSI Nursing Solutions. 2022. "2022 NSI National Health Care Retention & RN Staffing Report." Published June 6. https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf.

2 COMPETITIVE ENVIRONMENT

Today's Disruptors: Innovators and the Competitive Environment

with Sam Glick, Partner and Global Leader, Health and Life Sciences, Oliver Wyman

The nature of competition in health care has evolved over time. When hospitals and health systems began cost-shifting in the early 1980s, the concept of an "ideal patient" who generated generous reimbursement provided the impetus for providers to vie for the same profitable consumers. The competitive landscape is very different today. "It used to be that your competition was the health system across town, who looked just like you," says Sam Glick, global leader of Oliver Wyman's Health and Life Sciences practice. "That's not the case anymore. Today's competitors are more likely to be national digital startups targeting niche audiences such as seniors with specific health needs, or a drugstore chain offering convenient primary care visits for half the price of the local health system."

While the health care arena was experiencing an influx of interlopers from nontraditional organizations such as Amazon and Apple before COVID-19 emerged, the pandemic created a sea change in how health care services will be provided going forward. Glick says there are two reasons for this.

"The pandemic created a fundamental change where everybody has to be globally competitive," he states. "In the midst of the pandemic, I did an online search for a doctor's visit. I stopped counting at 250 when perusing the list of providers who were offering a video appointment." Glick notes that geographically, many of the listed providers were not in his immediate area—they just had to be licensed in his home state. "Every health system in California can see me. The geography doesn't matter,"

About the Subject Matter Expert

Sam Glick is a partner at Oliver Wyman, where he leads the firm's Health and Life Sciences business globally. Glick's clients include leading providers, health plans, biotech manufacturers, enablement companies, retailers, and venture-capital firms. He works collaboratively with their senior executive teams to create the infrastructure required to serve consumers successfully. Through support for activities including organizational design, strategy development, operating-model building, and new product launches, Glick helps his clients create innovative solutions that provide delightful, affordable, high-quality care, coverage, and financing to consumers. Previously, Glick was in the high-tech strategy practice at Accenture and led strategy and corporate development activities at Mercer. Glick received his BA with honors in economics from Pomona College and was a Rotary Ambassadorial Scholar and North American Postgraduate Scholar in the MSc program in economics at the University of Warwick. He chairs the Pomona College Board of Trustees, and he serves as a member of the UCSF Rosenman Institute Advisory Board and the Meals on Wheels of San Francisco Honorary Board.

he notes. For consumers, the virtual care dynamic creates an increasingly large number of options when seeking health care. Cost and convenience have emerged as the most important factors when selecting a provider.

In addition, Glick says the provision of health care is moving away from the monolithic "department store" model that most health systems resemble today—providing a broad array of services with wide-ranging economics—to a model situated in an environment that is filled with specialty competitors. "Not that long ago, the upstart competition was primarily telehealth, retail clinics, and urgent care centers. Now we see a range of more focused innovators beginning to achieve scale, from VillageMD and Privia tailoring technology-enabled in-person care for specific markets, to Oak Street designing experiences for seniors and dual-eligible

patients, to Cityblock serving high-acuity Medicaid members with social needs," Glick says. These specialized, well-capitalized competitors can design for a more homogeneous market and offer a smoother patient experience. Glick continues, "For health care executives, their biggest competitor is not the

Exhibit 1

Large, For-Profit Players Take Share from Not-for-Profit Systems

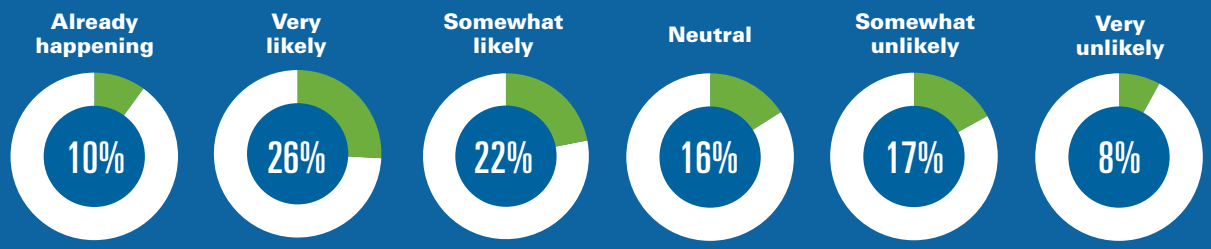
Focus on...		
Natural adjacencies	• Moves to grow existing core business value drivers within existing or new geographic markets • Growth accelerated through acquisitions	Tenet Health, HCA Healthcare, CENTENE Corporation, amazon
Greater relevance and scale for the core business	• Investments align with value in the core business, amplifying value creation and capture • Smaller moves stop short of wholesale reinvention but can be meaningful	Humana, GUIDEWELL
Moving up the value chain	• Big moves to acquire or create new sources of value • Legacy businesses are at risk (e.g., retail pharmacy) • Moving into new portions of the health care value chain enables new roles and integration across the care continuum	CVS Health, Walgreens, Walmart
Building a platform	• Outsiders attempt to extend existing consumer relationships by entering health care services • Aim to grow business by capturing a portion of the roughly 20% of GDP spent on health care • Success is dependent on network effects	Microsoft, salesforce, Epic
Business-model diversification	• Optimize revenue in regulated (e.g., insurance) versus unregulated (e.g., pharmacy benefit manager, service) businesses • Earn higher multiples on non-insurance businesses • Grow services to diversify business value over time	UNITEDHEALTH GROUP, Cigna, Anthem

Source: Oliver Wyman.

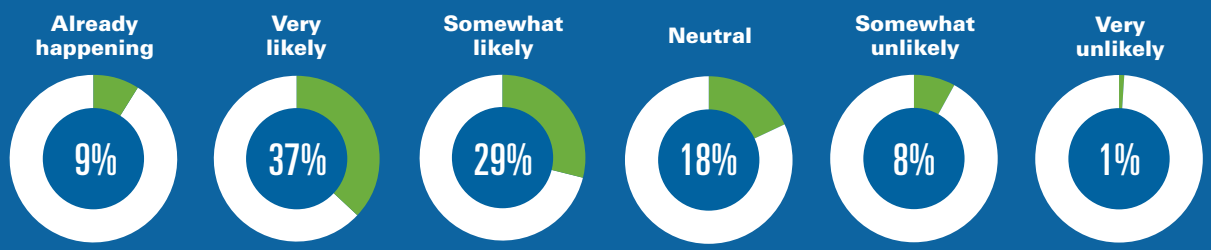
FUTURESCAN SURVEY RESULTS
Competitive Environment

Health care executives from across the nation were asked how likely it is that the following will happen in their hospital or health system by 2028.

By 2028, our hospital or health system will deliver at least 50% of its ambulatory care outside the four walls of our hospital (e.g., virtually or in the home).



By 2028, our hospital or health system will lose at least 5% of our market share to disruptors that are not in our market today.



health system across town but the 10 or 20 specialized competitors who are each chipping away at one or two percent of their market share with a targeted type of consumer. These enterprises span the health care continuum: prevention, diagnosis, episodic care, and chronic care."

According to the latest *Futurescan* survey, the loss of market share is something health care executives already see on the horizon. Two-thirds of respondents said that it was "likely" or "very likely" that by 2028, their hospital or health system would lose at least 5 percent of its market share to disruptors that are not in their market today. Another nine percent said this was already happening in their marketplace.

Key Challenges Facing the Health Care Field

With an increasing number of start-ups targeting niche audiences in health care, Glick says it may be time to reconsider the legacy health system model. "Anywhere you have to charge more in order to cover the cost of care in another service line or patient population, you are at risk," he says. "It provides an opportunity for a competitor to come in, provide the same quality of services, and charge less. They can do that because they are not dependent on one part of their business subsidizing others, so they have a laser focus on serving one specialized market profitably and well."

Self-insured employers are a key target market that health systems have traditionally courted, and for good reason: In 2020, 54 percent of the American population was covered by employment-based health insurance (Keisler-Starkey and Bunch 2021). Transcarent is a new entrant in the

crowded health care space that provides a risk-based model aimed at reducing costs for self-insured employers. The start-up enterprise, established in March 2021, raised $298 million in just over one year with participation from such investors as General Catalyst, 7wireVentures, Alta Partners, Merck Global Health Innovation Fund, and Jove Equity Partners. Leading health systems—including Northwell Health, Intermountain Healthcare, and Rush University System for Health (RUSH)—also invested in Transcarent.

For employees, Transcarent's health care app offers personalized, 24/7 health guides and access to extended clinical teams via chat, phone, or video. Members can receive real-time guidance and direct access to common health care needs such as urgent care, lower-cost medications, and personalized behavioral-health symptom evaluation and support. Transcarent can also link employees to specialty services including surgeries, at-home care, cancer care, and expert second opinions. In 2021, Transcarent and Walmart entered into an agreement through which Walmart is extending its everyday low-cost pricing for health services, including prescriptions and health supplies, to Transcarent members. In early 2022, RUSH contracted with Transcarent to provide its digitally based tools and resources to 9,000 employees and their family members.

Transcarent is not the only innovator attracting venture capital. "Our research shows that the eight largest health plans have invested $238 billion over the last five years, much of it in start-ups that are targeting a specialized market or service in health care," Glick says. These investments are aimed at transforming health care to make it more streamlined, less expensive, more personalized, and higher quality than ever before.

Implications for Health Care Leaders

Health systems have traditionally spent a great deal of resources on becoming large and integrated, but from the consumer's perspective, that is not always a benefit. "Integration has occurred

primarily on the back end, such as with electronic health records, but not in consumer-facing areas," Glick notes. "Many patients still have to call multiple numbers to arrange a specialist appointment or go to a location other than their primary care doctor's office for diagnostic work-ups. Also, bigger isn't always better in the eyes of consumers. There is a reason that surgery centers are popular: the parking is convenient, the waiting room is sparsely populated, and the facility itself is smaller."

Obstetrics is just one example of a service line that Glick believes is ripe for innovation. "Hospitals can be intimidating, and if a woman is expecting a normal delivery, why wouldn't she opt for a facility where she does not have to enter through the emergency room, hear beeps and monitors all night, or alter a birth plan because it doesn't comply with hospital protocols? Some communities have birthing centers, and we have several digital maternity startups, but where's the One Medical of maternity to create a delightful consumer experience from conception through pediatrics? Someone will create it—all the conditions are right."

With so many competitors draining market share on various fronts, Glick believes that health systems will eventually see an impact on reimbursement. "They may see lower volume over time if these specialty providers deliver a more convenient, frictionless experience," he says. "At a certain point, these new ways of delivering care will become fundamentally cheaper from a cost perspective. That is where the real threat lies." Payers may eventually leverage those lower costs to negotiate reduced reimbursement for health systems. Or they may redirect insured members to lower-cost providers. "Many health systems charge $150 for a primary care visit because they have buildings and support staff and other expenses they need to recoup. But for a virtual visit, the cost structure comes down substantially," Glick asserts. "Dedicated telehealth companies can offer virtual visits for $49. Payers will eventually begin to expect traditional providers to offer that same service for the same price. Today's reimbursement parity will become tomorrow's digital version of site-neutral payments."

Some forward-thinking health systems are embracing the wave of digital transformation by placing themselves at the forefront of technology adoption. In Louisiana, Ochsner Health's O Bar is a retail experience that helps walk-in or referred patients find the right electronic products or app for their particular health needs. Technology specialists help consumers do the following:

- find mobile applications geared towards wellness, nutrition, fitness, diabetes, women's health, and smoking cessation

- shop for devices such as Fitbits, Bluetooth-enabled blood glucose monitors, wireless blood pressure monitors, and wireless scales
- understand how to use these technologies to attain their health goals

After a customer has selected a product, an O Bar specialist helps the patient set it up and connect it to an electronic health record (EHR) if appropriate. The specialist can also help patients engage with Ochsner's digital medicine program to manage high blood pressure or type 2 diabetes. An electronic device uses Bluetooth technology to send readings to the digital medicine team, who make care adjustments as needed. By tracking patients with an EHR in its system, Ochsner has found that compliance with care management goals increases from 50 percent to 66 percent within 30 days after visiting an O Bar. Additionally, readmissions in congestive-heart-failure patients who were sent home with Wi-Fi scales decreased by 44 percent.

Glick advises that health care leaders begin to think small, prioritize flexibility in their planning, and consider more community-based locations. "Many people are more comfortable receiving care in places they feel are more relevant to them, and that may not be in a gleaming white building," he notes. "It may be their corner retailer, church basement, barber shop, or living room. Health care executives may want to consider investing in care provision assets that are mobile and portable and can pop-up at any location." Over half of respondents to the latest *Futurescan* survey believe that care will become more community-based, as Glick advises. Forty-eight percent said that it was "very likely" or "somewhat likely" that by 2028 their hospital or health system would deliver at least 50 percent of its ambulatory care outside the four walls of a hospital, such as virtually or at home. Over 10 percent said this was already happening.

In terms of capacity planning, the COVID pandemic highlighted the need for the ability to swiftly adapt

beds and units to the most urgent and critical need at hand. "In many states, there are not enough operating rooms or ICU beds," Glick states. "Instead of large building acquisitions, planners may want to consider shorter leases, footprints that are flexible, and multiple locations that are smaller, more specialized, and tailored to the population they are serving. It is possible to build for growth but not be as specific about the ultimate use of the space. That maximizes your options to adapt as needed."

In markets where health system leaders are already seeing innovative competitors negatively impacting their volume, Glick suggests a nontraditional strategy. "As a system, you may not want to fight for every part of your business but instead focus more on where you can partner up and do well financially. I see a need to rethink how and where systems compete. Does the idea of a catchment area still have merit, or can they target patients in new geographies virtually? And how do you serve patients who are digital nomads or have chosen to move away post-COVID?"

Key Takeaways

In an environment where hospitals and health systems are at risk of losing patients and revenue to enterprises targeting their various markets, health care leaders may want to consider Glick's recommendations for staying relevant and viable.

1. **Design a delivery system with more durable economics.** "A business model completely reliant on commercial insurance reimbursement may have worked in the past, but it is not sustainable for the future," says Glick. During the pandemic, providers who relied mostly on value-based reimbursement did not see the catastrophic decline in revenue that other systems endured. When patient volume reached new lows, those systems weren't affected as strongly because their revenue continued to flow. Glick recommends that health system leaders consider positioning their economics so that this kind of change is not a threat.
2. **Identify the most important issues on which to focus.** If facility planning is a priority, it may be prudent to find alternate sites of care or community partners who can share space in nontraditional locations. If regulatory policies regarding the use of hospital beds are too restrictive, advocating for flexibility at the state level may be critical to to maximize bed or unit conversions when needs arise. "If market share in a particular service line is eroding, it may be time to either partner with a competitor or withdraw those services from the market altogether," Glick states. "It isn't possible to address all fronts at the same time, but hospitals

and health systems do need to use whatever leverage they have in order to evolve."

3. **Be more nimble.** From new competitors to breakthrough clinical developments and ever-changing market trends, health care is evolving at a rapid pace. "Health systems have not traditionally been able to pivot all that easily," Glick observes. "While it is important to have a long-term strategic plan, health care executives will continue to be challenged by market forces at an accelerated pace. Being able to respond more quickly will be critical to their long-term survival."

Conclusion

Health care executives can mitigate the encroachment of multiple new competitors in their marketplace by rethinking the traditional legacy model of health system service provision and reimbursement. It has never been more important to be flexible; reduce costs; and create a frictionless, personalized patient experience. Using a focused approach, health systems can stay competitive and even claim a new leadership position within their markets.

References

Keisler-Starkey, K. and L. Bunch. 2021. "Health Insurance Coverage in the United States: 2020." United States Census Bureau. Published September 14. https://www.census.gov/library/publications/2021/demo/p60-274.html.

Cybersecurity: Attacks and Protections

with John Riggi, Senior Advisor for Cybersecurity and Risk, American Hospital Association

Cyberattacks on hospitals and health systems have spiked in recent years. Many health care institutions were vulnerable to attack before the COVID-19 pandemic because of increased digitization of sharing of health care records, legacy technologies and limited cybersecurity resources. Then, in response to the crush of COVID-19 patients and dispersal of the workforce in 2020, there was a rapid and massive deployment of network and internet-connected technologies. These factors, including the increased external connectivity and interoperability required to enable remote clinical care and third-party services, inevitably contributed to an expanded "cyberattack surface" or, more simply put, increased opportunities for the "bad guys" to penetrate our computer networks.

Cyber adversaries of all stripes, from sophisticated foreign organized criminal groups to hostile nation-states, seized upon our exposure and increased attacks, targeting hospitals and health systems around the globe. For example, more than one in three health care organizations around the world reported being hit by ransomware in 2020. In its "State of Ransomware in Healthcare 2022" report, Sophos found that 66 percent of health care organizations experienced ransomware attacks in 2021, which was an increase from 34 percent in 2020 (McKeon 2022).

On March 21, 2022, the Biden administration warned of increased potential for Russian cyberattacks against US institutions in retaliation for the sanctions put in place as a result of the Russian invasion of Ukraine. The administration urged private-sector institutions to further harden their defenses against potential intrusions (see exhibit 1).

However, in the latest *Futurescan* survey of senior executives around the nation, just over one in five indicated that their hospital or health system already has the capability to prevent a serious cyberattack involving the theft of sensitive patient information from a cloud-service provider or other business associate. One-third of the respondents said it was "very likely" they would

About the Subject Matter Expert

John Riggi, having spent nearly 30 years as a highly decorated veteran of the FBI, serves as the first national advisor for cybersecurity and risk for the American Hospital Association and its thousands of member hospitals. At the FBI, Riggi served as a representative to the White House Cyber Response Group and a senior representative to the CIA and was the national operations manager for investigations of the financing of terrorist groups. Riggi also led counterintelligence field surveillance programs in Washington, D.C., and financial crimes and terrorist financing squads in New York City. Riggi rose in the ranks of the Senior Executive Service and led the FBI Cyber Division national program to develop mission-critical partnerships with health care and other infrastructure sectors. He is the recipient of the FBI Director's Award for Special Achievement in Counterterrorism and the CIA's George H.W. Bush Award for Excellence in Counterterrorism, the CIA's highest award in this category. Riggi speaks extensively on cybersecurity and risk topics and is frequently interviewed by the media.

Exhibit 1

Summary of Biden Administration Recommendations to Prevent Cyberattacks

Use multifactor authentication.
Deploy the latest security tools.
Ensure that cybersecurity professionals patch security vulnerabilities and change passwords accordingly.
Back up all data offline.
Run emergency cybersecurity drills.
Encrypt data.
Educate employees about cyber threats.
Proactively develop relationships with local FBI or Cybersecurity and Infrastructure Security Agency (CISA) office.

Source: White House Briefing Room (2022).

have this capability in place by 2028, but another 23 percent said it was only "somewhat likely."

According to John Riggi, national advisor for cybersecurity and risk for the American Hospital Association, our increasingly interconnected health care system means an increased level of vulnerability to malevolent external forces seeking to steal data and shut down systems for their own gain. Riggi offers his insights into the growing threat of cyber-intrusion into hospitals and health care systems and into how these institutions can best prepare a robust defense against such attacks.

Who Is Behind Cyberattacks Against Health Systems?

Cyberattacks against hospitals and health systems may originate from nation-state-sponsored groups seeking to steal medical research and intellectual property for economic or strategic advantage or for potential military use. "We have seen a dramatic increase in actors from Russia, China, Iran and North Korea targeting our research on COVID-19 protocols and vaccine development, for example," Riggi says. "Nation-states have a strategic interest in securing the health of their population. Health security equals economic security, and economic security equals national security. You cannot have a viable economy unless the public is healthy enough to get out and work, and the strongest nations in the world, militarily and politically, are those that have strong economies."

Criminal cyberattacks—the traditional scenario for many years—remain a threat. "These are mainly financially motivated," Riggi explains. "They're stealing data to resell it and monetize it on the dark web. Within the past two to three years, there has also been a dramatic increase in ransomware attacks from criminal gangs, which we are particularly concerned with because they have resulted in the disruption and delay of health care."

Such attacks have primarily been conducted by foreign-based criminal ransomware gangs, with the most disruptive being Russian-speaking criminal enterprises, who resort to layered extortion methods. "Because we are getting better at defending against their attacks, they are first exfiltrating patient information to hold hostage before they execute the ransomware and encrypt our data," Riggi says. "So even if we can restore the data from our backups, they enable the second layer of extortion and may declare, 'We're holding 10 gigabytes of patient information, and unless you pay us, we'll publish it on the open internet and sell it to criminals on the dark web.'"

Russia's invasion of Ukraine highlighted a hybrid threat, in which nation-states use criminal hacking groups in furtherance of their military and political objectives. Many ransomware gangs have been provided safe harbor by Russia. "They operate with at least the tacit approval or acquiescence of the Russian government, if not their active assistance. Quite frankly, this has been going on for many years," Riggi points out. "Russia, China, Iran and North Korea rely on the capabilities and expertise of criminal hackers to penetrate organizations of intelligence interest, leveraging the hackers as subcontractors to the government in exchange for safe harbor from Western law enforcement."

Cybersecurity experts are also concerned about the deployment of destructive malware by nation-states, where data are wiped clean and nothing is left to be restored. Riggi points out the risk of US hospitals becoming collateral damage in attacks on other countries' infrastructure. "Hospitals and health systems are so interconnected with so many other organizations, such as third-party service providers, that even a critical access hospital in rural America is globally exposed to risk. We're all exposed."

A "Threat-to-Life Crime": Implications for Hospitals and Health Systems

A cyberattack against a hospital is not just a financial crime. "It is a threat-to-life crime," Riggi stresses. "Any disruption to patient care risks patient safety."

In September 2021, the Cybersecurity and Infrastructure Security Agency (CISA) released a report based on US Centers for Disease Control and Prevention data on ransomware attacks on hospitals. The CISA report shows that when a hospital is hit with a high-impact ransomware attack and the hospitals in that region are operating under strain—defined as ICU use of 75 percent or higher—there is strong positive correlation between the attack and regional excess deaths.

In addition to the paramount risk to patients' lives and health, cyberattacks also endanger hospitals' financial security. "When a hospital that is a victim of ransomware is on downtime, it typically has to go back to paper charting. Among the many issues this causes, it inevitably poses problems for proper billing, so there is revenue interruption due to the delay in billing caused by paper charting and revenue loss due to incomplete charting," Riggi says. "The institution may also be considered high risk by the insurance industry, resulting in increased premiums, a higher-risk credit rating and higher risk for debt issuance, meaning the cost of credit for them will rise. We have also found that organizations that are not transparent about a cyberattack and its impact on patient care may suffer reputational harm and civil litigation. It's possible that class-action suits will be filed after a ransomware attack no matter what, but institutions that are not transparent may be deemed less trustworthy and more likely to be hit with lawsuits."

In the *Futurescan* survey of senior executives, 4 percent of respondents said that cyberattacks interrupting the delivery of patient care are already occurring at hospitals and health systems in their local areas, while 47 percent suggested that such events were somewhat or very likely to occur within the next six years.

Sources of Vulnerability

Despite the apparent sophistication of cyber criminals, their primary source of access is simple: human vulnerability. Phishing attempts, often via email or text, remain the most common avenue for penetrating an institution's security protections.

"The first step of virtually all cyberattacks starts with not a technical but a psychological intrusion," Riggi says. "They send a phishing email designed to deceive the end user, the human being, hoping to trick them into clicking on that link or that attachment, which initiates the technical side of the attack. It all begins with deception."

Another major source of cyber-intrusion is third-party risk—data stolen not directly from the hospital or health system but from a business associate that has access to bulk patient data for purposes such as billing and coding. "The largest breaches in terms of the number of patient records stolen that we saw in 2020 to 2021 stemmed from business-associate breaches," Riggi says.

As the nation's health care institutions responded to the pandemic by rapidly deploying telehealth and remote-work technology, the number of remotely connected vendors and devices increased exponentially. "This necessary and appropriate expansion of these technologies created a vastly expanded 'attack surface,' which is a fancy way of saying there are more ways for the bad guys to get in," Riggi says. "We have more endpoints, more VPN connections, more servers and more cloud connections—all of which are potentially unlocked doors and windows."

Digital transformation and the use of artificial intelligence have brought tremendous advances in health care, but they come with a new set of hazards. "The more connected and interoperable we are, the more reliance we have on remote third-party servers and cloud-service technology and the more we will be exposed to risk," Riggi says. "We must continue on this path, but we must also recognize the embedded cyber-risk that comes with expanded use of technology, embed protections within the design phase, and always be on guard to identify hidden dangers."

Guarding Against the Next Attack

So how can hospitals and health systems build such protections into their culture and systems?

It all starts with cybersecurity hygiene, Riggi says. "Your staff all need to understand that good cyber-hygiene is just as important as good medical hygiene to protect their patients," he says. "Just as they scrub their hands before treating a patient, they should scrutinize every email before clicking on a link and practice good password management."

Every institution also needs layered technical defenses, including robust perimeter defenses, sophisticated signature- and behavior-based antivirus measures, intrusion detection and endpoint protection systems. In addition, a well-practiced, cross-function cyber-incident response plan, fully integrated into the overall incident command structure, is essential.

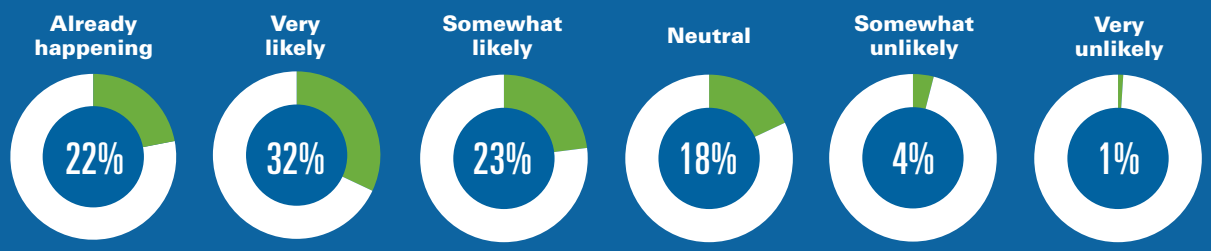
The failsafe is to maintain multiple copies of encrypted system and data backups, both on- and offline. "An organization needs multiple backups, both on the premises and in highly secure locations in the cloud, as well as one copy of a backup in the form of 'immutable storage'—meaning that the data cannot be altered, deleted, overwritten or encrypted in any way," Riggi says. "Backups are the failsafe and backbone in an organization's ability to successfully recover from a highly disruptive ransomware attack or worse, a destructive cyberattack."

No institution, not even highly secure federal agencies, can completely prevent all cyber-intrusions. Organizations must be prepared for the worst. This means conducting a thorough business-impact analysis for all hospital technology and services. Riggi recommends developing operational and clinical continuity plans and downtime procedures to sustain life-critical and mission-critical functions for at least four weeks.

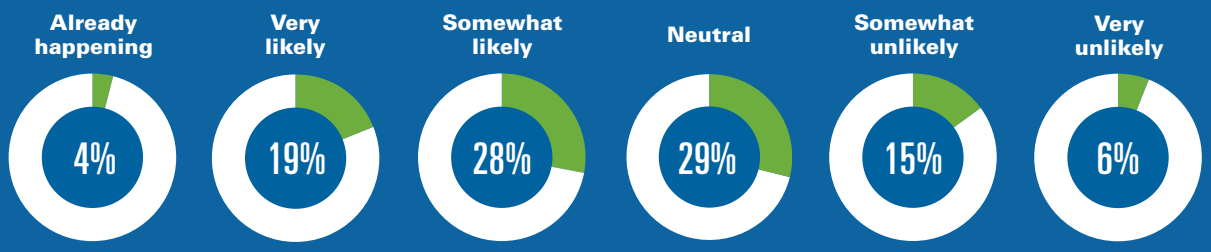
FUTURESCAN SURVEY RESULTS
Cybersecurity

Health care executives from across the nation were asked how likely it is that the following will happen in their hospital or health system by 2028.

By 2028, our hospital or health system will have the capability to prevent a serious cyber-attack involving the theft of sensitive patient information from a cloud service provider or other business associate (e.g., by developing technology infrastructure, rapid response plans or other strategic initiatives).



By 2028, a cyber-attack experienced by a hospital or health system in your area will interrupt patient care delivery resulting in physical harm to one or more patients (e.g., by rendering mission-critical medical technology unavailable or inoperable).



This includes manual and paper-based systems for all clinical operations. "What if you can't print labels or wristbands or IV bags?" Riggi asks. "What if you can't access staff contact information, can't transmit radiology images, can't access door controls for the neonatal nursery? How do you handle home health care without an internet connection?"

A failure to prepare can result in a series of cascading crises. Riggi recommends going through tabletop exercises for potential losses. "Institute 'downtime coaches' and 'downtime safety officers' who can be a second set of eyes when clinicians who have never written paper orders have suddenly lost the guardrails of the electronic health record."

Riggi also recommends a review of vendors and business agreements. Health care organizations can classify vendors according to which ones have access to the most data or are critical to operations. Organizations may also assess vendors' foreign operations, such as the employment of subcontractors outside the United States. Any offshore operations increase risk. "Cybersecurity requirements should scale based upon the level of identified risk," Riggi says. "For any high-risk vendors, ask for copies of their latest risk assessments and cyber vulnerability and penetration tests."

Should You Ever Pay the Ransom?

"Ransomware" has its name for a reason. Cyber criminals want targets to pay a ransom to restore essential data and, more importantly, essential clinical services. Should you pay?

"We have to ultimately acknowledge that it's a business decision an

organization has to make based on patient safety and other considerations, but we urge institutions to avoid paying ransom at all costs," Riggi says. "It emboldens and funds foreign criminal organizations to attack other hospitals as well as commit other serious crimes against the entire health care sector and the nation. If you have the ability in any way to independently restore your operations, even if it costs more, you should do that. The moral, ethical, patriotic and perhaps legal choice is not to pay the ransom, even if it's more financially expedient to do so."

The organizations that have been best prepared to handle cyberattacks have had strong incident-response plans in place with clear leadership, Riggi says. He notes that most hospital and health system CEOs now rank cyber-risk as their number-one or number-two issue of concern; if it's in second place, it ranks behind only workforce needs. "Those that I have spoken to are all serious about making the investments in cyber preparedness and response capabilities. Those that had not made it a priority before now find themselves confronted with a significantly increased cyber-threat environment, in part due to the war in Ukraine, and need to make a significant investment in establishing protections. But many other organizations are already well positioned with a heavily resourced cybersecurity program and a great culture of cybersecurity."

Although hospitals and health systems must establish strong electronic protections, defending against cyberattacks cannot be the sole responsibility of the health care sector. "Defense is only half the solution to this national security threat, and I've been advocating that position for years on Capitol Hill, with government agencies and in the media," he says. "We also need a dramatic increase in intelligence sharing between the government and the private sector, moving toward what I call true operational collaboration. We are all part of the same team."

References

McKeon, J. 2022. Healthcare Organizations Struggle to Obtain Cyber Insurance Policies, Report Shows." Published June 6. https://healthitsecurity.com/news/healthcare-organizations-struggle-to-obtain-cyber-insurance-policies-report-shows.

White House Briefing Room. 2022. "Fact Sheet: Act Now to Protect Against Potential Cyberattacks." March 21. http://whitehouse.gov/briefing-room/statements-releases/2022/03/21/fact-sheet-act-now-to-protect-against-potential-cyberattacks.

Market Forces and Consumer Demographic Trends

with Joan Kelly, EdD(c), MSEd, Partner in Strategic Consulting, Press Ganey Associates LLC; and Chrissy Daniels, Chief Experience Officer, Press Ganey Associates LLC

The study of customer satisfaction in health care has evolved in many ways since hospitals first started asking patients about their experiences 70 years ago. American society is now populated by numerous racial, ethnic and cultural groups, each with unique characteristics, beliefs and values. Age-specific demographic groups also have emerged with their own preferences and proclivities about purchasing decisions. Consumerism in health care is continuing to transform delivery in ways no one imagined even three years ago, before the COVID pandemic illuminated the health care disparities that exist for communities of color.

Joan Kelly, partner in strategic consulting at Press Ganey Associates, and Chrissy Daniels, chief experience officer at Press Ganey, have collectively been involved in assessing patient experience for over 50 years. They believe that consumer trends and market forces are ushering in a dramatic sea change in how hospitals and health systems collect and use patient-experience data to improve and humanize care delivery. "If all you are looking at is data on the average patient experience, your patients' experience will always be average," says Daniels. "Creating personalization in health care is reliant on being able to segment and understand the differences in experiences, rather than the aggregation of experiences."

About the Subject Matter Experts

Joan Kelly serves as a partner of strategic consulting, innovation and design at Press Ganey. Kelly brings more than 20 years of dedicated expertise in consumer and patient experience. Most recently, as Chief Experience Officer with Yale New Haven Health System, her portfolio of patient-centered care work included building the Care Signature strategy and operationalizing COVID-19 screening and protocols. Prior to her time at Yale New Haven Health, Kelly served as Chief Patient Experience Officer at NYU Langone Health, where she was the architect of the "Perfect Experience. Every Patient. Every Time." model, which was designed to drive the institution not only through operational changes but also toward the highest level of "patient-centeredness," focusing on behavior changes that affect patient experience and satisfaction. She recently completed her doctorate from the University of Pennsylvania with a dissertation titled "The COVID-Hospitalized Patient Experience."

As Press Ganey's chief experience officer, Chrissy Daniels collaborates with teams across the organization to design, develop and deliver solutions that are informed by over 400 million patient voices. Daniels works closely with health care organizations across the nation as a strategic and operational partner. She is widely recognized for her pioneering work in the areas of consumerism and physician performance data transparency.

The Changing Health Care Environment

For hospital and health system executives, it is essential to know what the current health care experience is for consumers in various age cohorts and how to best meet their needs. Much has been written about baby boomers and millennials, but there are actually four distinct age groups influencing the status quo in health care, all with differing opinions on what is important in access and care provision. The following are brief descriptions of each generation and the motivating factors behind their health care–purchasing decisions.

Baby Boomers (Born Between 1946 and 1964). According to Daniels, baby boomers have always been a unique group. "They want the best, and their demands have transformed many industries, including senior living, leisure and recreation," she says. Concierge and luxury health care emerged because baby boomers want high-touch services. "This is a growth opportunity for health care organizations," notes Daniels. "The demand isn't going away. We are seeing more concierge-type services springing up, such as businesses that provide medical sherpas to accompany seniors to appointments and to keep them independent as long as possible." Baby boomers have a high degree of confidence in brands that convey quality and are willing to pay for name-brand patient experiences. As a result, the market for destination medicine is likely to grow.

Gen X (Born Between 1965 and 1981). Gen-Xers are a silent but emerging demographic for patient acquisition. "This is the only cohort that is handling multigenerational patient direction," notes Kelly. "They have children at home and are likely helping an older relative make health care decisions as well." As a result, health care organizations need to respond by coordinating care in a family-convenient way. This reality may push the boundaries of HIPAA because involving another person in care decisions is at odds with the concept of protected health information. As more health care moves into the home setting and family members become care deliverers, the need to support Gen-Xers will continue to grow. "As a health care system, we need to provide more proxy support to help relatives and chosen family who have to be more involved," Kelly declares.

Millennials (Born Between 1981 and 1996). Millennials have surpassed baby boomers as the largest living adult generation in the United States (Fry 2020). "This is a population that has been really healthy and less insured," says Kelly. "They are just beginning to access health care, as they are now starting to have children." Consumers in this cohort value convenience first and foremost. They look for care that is close to where they plan to receive it, need to know wait times, want to be able to message a provider and find hours and reviews online. "Claiming all the locations affiliated with your organization and optimizing your presence on Google Maps has never been more important," Kelly advises. "The loyalty of these consumers can easily shift based on convenience." Millennials are also more willing to try retail or virtual care and have embraced the use of patient portals. Based on their demands, there has been a cascade of benefit plan changes that employers have implemented, such as fertility care and paternity leave. Likewise, health care has been shifting to accommodate the purchasing behavior of millennials. "This generation is big enough and loud enough to demand changes," Kelly states. She points out that millennials have shifted the status quo away from a tradition of health care in which patients accommodate themselves to hospitals' way of doing business.

Gen Z (Born Between 1996 and 2012). "This age bracket has the highest percentage of young adults living at home than at any other time in the post–World War era," notes Daniels. "They are also likely to be covered by their parents' health insurance and defer care decisions to their mothers." Consumers in this age cohort are very comfortable with virtual and text-based care and are less likely to engage in face-to-face, in-person care. According to Daniels, "Gen-Zers will not pick up the phone. This is non-negotiable for them. Providers should not assume this age group will get test results or schedule appointments via phone. Gen-Zers also expect to connect at their convenience and that texts will be responded to instantaneously, much like phones used to be." This is also a generation that grew up with patient portals and demands their ease of use.

Another hallmark of Gen-Zers is their willingness to seek care for behavioral health issues, especially among transgender individuals. "People in this demographic don't separate physical and mental health, and they access behavioral health care at a much younger age," Daniels says. "They expect providers to be more holistic and not gender-specific."

The findings of a recent Press Ganey study on consumer satisfaction illustrate the differences in how satisfied various generations are with medical office visits. The survey included the oldest generation, "traditionalists," who are people 77 years of age and older. When each group was asked how likely they would be to recommend a medical office to others, millennials were the least likely group to do so. Baby boomers and traditionalists were far more likely to recommend. All five generations gave low marks for telehealth visits, however, and the scores were much closer in ranking. Once again, millennials were the least likely to recommend services. Baby boomers were the most likely to recommend, with Gen-Xers close behind, although both groups were still relatively unlikely to do so.

Other Important Demographic Groups

LGBTQ+ People. Another important demographic group that is emerging as a transformational cohort in health care is the lesbian, gay, bisexual, transgender and queer (LGBTQ+) population. A 2022 Gallup poll found that over 7 percent of Americans identify as LGBTQ+ and that Gen-Zers represent

the largest portion of this group at 21 percent (McShane 2022). "When the United States military began covering gender-affirming surgery and offering benefits for this population, other insurers began to follow suit," says Daniels. "That coverage has expanded to mental health, hormones, family planning and other services. And like we have seen with other populations, if you provide benefits, then they will get used." LGBTQ+ consumers are now clamoring for these benefits and reshaping how they are treated by medical providers. "This group is active in posting on social media if they feel providers have not greeted them in a friendly manner," says Kelly. "They suffer emotional harm if someone addresses them differently than how they identify themselves. This is shifting culture in health care."

Both experts say that actively recruiting a more representative provider group to serve this cohort will be a significant business advantage over the next five years. "We have gone from not speaking about sexual orientation to now needing providers who can relate to and meet the needs of this very well insured population," Daniels asserts. She also notes that there are challenges for hospitals and health systems in meeting those needs. "Health care has some rigid systems in place, such as electronic medical records [EMRs] that do not make it easy for patients to identify themselves in the way that is most comfortable for them, whether it's their ethnicity, race, gender identity or sexual orientation."

People of Color. While the patient experience varies greatly among generations, there are also pronounced differences in how people of color view the access and provision of heath care. A 2022 study (see exhibit 1) found that Latino/Latina individuals were significantly more likely to have delayed care that they needed in the last 12 months than other ethnic groups (Monigle 2022). The reticence was largely due to cost, language barriers and a lack of trust in their providers. Black patients want health care providers to be more respectful, to listen to their concerns and believe what they have to say. These patients tend to value holistic care and innovative approaches more than other racial groups. Asian consumers expressed feeling less safe when getting health care and cited safety as the reason they delayed care in the last year. Asian patients are also willing to spend more for care they perceive to be the best. The study found an overarching common denominator: that people of color want more providers who look like them, speak their language and understand their unique culture.

When asked in a recent *Futurescan* survey whether their hospital or health care system would understand the

Exhibit 1

Reasons for Delayed Care by Ethnicity and Sexuality

	White	Black	Hispanic	Asian	Heterosexual	LGBTQ+
Cost/too expensive	39%	30%	55%	29%	39%	43%
I didn't feel safe getting care during COVID-19	27%	31%	15%	38%	27%	35%
I don't like going to the doctor	24%	15%	21%	19%	22%	20%
Difficulty getting an appointment	19%	22%	21%	12%	19%	25%
Not enough time	17%	25%	28%	24%	18%	17%
No availability/space due to COVID-19	16%	6%	19%	17%	16%	15%
Issues with health insurance	15%	15%	26%	10%	14%	17%
Symptoms improved/disappeared	13%	10%	17%	17%	13%	11%
Other	10%	4%	2%	3%	8%	17%

% of U.S. healthcare consumers who claim to have delayed care in the last 12 months—split by ethnicity and sexuality—who selected the above reasons for delaying care.

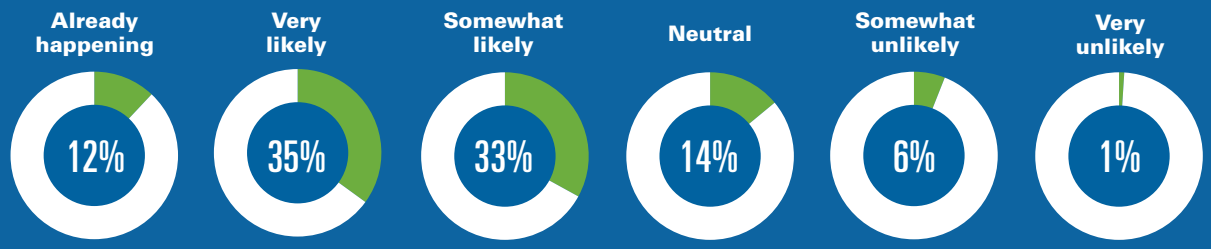
Source: Monigle 2022.

FUTURESCAN SURVEY RESULTS
Consumer Trends

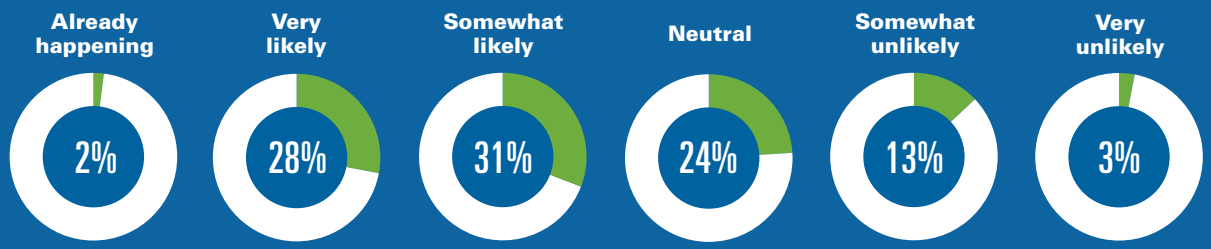
Health care executives from across the nation were asked how likely it is that the following will happen in their hospital or health system by 2028.

By 2028, our hospital or health care system will understand the profiles* of our entire patient population to better manage treatment and services across the continuum of care.

(*profiles to include economic, social, family support system, race, cultural background, language, sexual orientation and broadband data)



By 2028, our hospital or health system will be equipped to use machine learning/AI algorithms to drive care management for all patients that we serve.



profiles of its entire patient population in five years to better manage treatment and services across the continuum of care, 70 percent of executives agreed it was somewhat or very likely. Nearly 12 percent said this was already happening in their organization.

Implications for Health Care Leaders

"There are now conversations at the national level that we have never seen before on understanding the gaps in caring for these diverse populations," states Daniels. "In the past, data collection was unorganized and inconsistent. But there is a new rigor within hospitals and health systems to move beyond the average patient experience to understand the difference in perceptions within various ethnic, racial and cultural communities. Operationalizing around patient needs to bridge those gaps is new, and we're seeing more humanized care, along with the determination to understand everyone to create an individualized patient experience." Using artificial intelligence (AI) to analyze the data on unique preferences by age, gender, race and ethnicity is an important and emerging strategy to attain this goal.

Kelly notes that hospitals can use the findings of AI to empower caregivers to personalize the care they deliver. "For instance, if the data showed that Black males over 65 with comorbidities are less satisfied with their hospitalization because they don't understand the plan of care, the data can help inform a

prompt that tells the caregiver to ask these patients if they understand or need further explanation."

In the latest *Futurescan* survey, over half of health care executives—58 percent—said it was very likely or somewhat likely that their organizations would be equipped to use machine learning and AI algorithms to drive care management for all their patients by 2028. Over 2 percent said this was already happening at their organizations.

Access issues are equally important, especially in the digital age. "Millennials are very comfortable with patient portals, and Gen-Zers grew up with them," Kelly asserts. "Together, these cohorts have been pushing portals to the sharp end of health care." Baby boomers were slower to adopt their use, but both experts say there is increasing reluctance in even this generation to pick up the phone because of the risk of spammers. "Once people use a portal, they want to keep using it and rely on it," Kelly says. "Despite the mixed receptivity to patient portals, portals are here to stay."

Key Takeaways

Providing personalized care to diverse patient populations is not only a matter of health equity and better outcomes, it also makes good business sense. "Organizations that cannot meet the needs of various generations, races and ethnicities, and gender identities will eventually lose patients to those that do," Daniels says. Here are three recommendations for health care executives to consider for meeting generational needs over the next five years.

1. **Create a digital delivery system.** "In this environment, a digital front door is not enough," says Daniels. "Hospitals and health systems really need a patient portal where scheduling, test results and all communications can be completed or retrieved online."
2. **Humanize the connections.** "It is important to understand the human behavior behind the demographics," notes Kelly. "Many strategically driven health systems are already delivering experiences that are more convenient for millennials or very high-touch for baby boomers. We also need to work on humanizing our systems and processes, such as data collection protocols and EMRs, so that we can better personalize care."
3. **Empower family, including chosen family.** As more care moves outside the hospital and into the home, family members need more support in coordination of care, disease management and medical decision making. "For Gen-Xers in particular, it is less about individual care and more about providers being as inclusive of them as possible," Daniels states. "They are an extension of the care team."

Conclusion

To be a provider of choice, hospitals and health systems should start by collecting data by age, race, ethnicity and gender identity that represent the various segments within their patient population. "The most successful health care organizations will deliver care in a way that people demand," Kelly asserts. "People want—and are willing to pay for—an experience designed for them."

References

Fry, R. 2020. "Millennials Overtake Baby Boomers as America's Largest Generation." Pew Research Center. Published April 28. http://pewresearch.org/fact-tank/2020/04/28/millennials-overtake-baby-boomers-as-americas-largest-generation.

McShane, J. 2022. "A Record Number of U.S. Adults Identify as LGBTQ. Gen Z Is Driving the Increase." *The Washington Post*. Published February 17. http://washingtonpost.com/lifestyle/2022/02/17/adults-identifying-lgbt-gen-z.

Monigle. 2022. "Humanizing Brand Experience." Published May 3. http://monigle.com/report/hbe-v5/#form.

5 HEALTH EQUITY

Diversity, Equity, and Inclusion: A Health Care Priority

with Mary "Toni" Flowers, PhD, DHL, Chief Diversity and Social Responsibility Officer, LCMC Health; and Elaine Batchlor, MD, MPH, CEO of MLK Community Healthcare and MLK Community Hospital

Few times in American history have the issues of diversity, equity, and inclusion received more widespread attention than 2022. The disparities in vaccination and mortality rates during the COVID pandemic started a nationwide discussion that has only become more vociferous as the country continues to grapple with the human and economic toll wrought by the virus and its potent variants.

In addition, the murders of George Floyd, Ahmaud Arbery, Breonna Taylor and many others sparked global protests and soul searching on a national level about racism, bias, and unequal treatment and how to address them going forward.

Key Challenges Facing the Health Care Field

Health systems have been ground zero for displaying not only the impact of the COVID pandemic but also the effects of overall health care disparities that afflict communities of color. Data compiled before the pandemic showed that people of color fared worse compared to whites across a range of health measures, including infant mortality, pregnancy-related deaths, prevalence of chronic conditions, and overall physical and mental health status (Ndugga and Artiga 2021). The data showed that life expectancy for Black people was four years lower than for whites, with the lowest life expectancy among Black men. Research documents a variety of other health disparities among low-income individuals and the lesbian, gay, bisexual, transgender, and queer (LGBTQ+) community.

About the Subject Matter Experts

Dr. Toni Flowers is a senior executive who has amassed a truly diverse skill set that enables her to work collaboratively across many disciplines. Dr. Flowers is the chief diversity and social responsibility officer at LCMC Health, where she is developing their strategic plan for diversity, inclusion, equity, and corporate social responsibility. She is an award-winning diversity professional with credentials from Cornell University and Georgetown University. Her dedication to continuous learning has gained her a reputation among her peers as a national thought leader, a strategic innovator, and a skillful executive coach. She has been recognized on numerous occasions as a national leader for her work as a diversity practitioner.

As a former chief experience officer, Dr. Flowers has championed, designed, and implemented organizational culture change strategies. By aligning data-driven strategic goals with systemwide organizational goals, Dr. Flowers has led the challenging work of Diversity, Equity, and Inclusion (DE&I). She has created and implemented DE&I dashboards to monitor and evaluate opportunities for health care quality improvement, to identify themes and patterns of health care disparities, and to address inequities in organizational and departmental teammate recruitment, retention, and promotion practices.

Elaine Batchlor, MD, MPH, is the chief executive officer of MLK Community Healthcare, a health system in southern Los Angeles that includes a state-of-the-art hospital, the MLK Community Medical Group, and community health programs. Dr. Batchlor's innovative work to increase access to quality health care for underserved populations has brought her national honors, including membership in the National Academy of Medicine and recognition as an Irvine Foundation California Leader.

As a thought leader, Dr. Batchlor is a member of the Zetema Project, a group of national health experts focused on improving the US health care system. She is a director of the California Hospital Association and Insure the Uninsured, a project of the Integrated Health Association.

Dr. Batchlor holds a Bachelor of Arts degree from Harvard University, a Master of Public Health from the University of California, Los Angeles, and a Doctorate of Medicine from Case Western Reserve University.

Elaine Batchlor, MD, MPH, chief executive officer of MLK Community Healthcare and MLK Community Hospital in Los Angeles, and Mary "Toni" Flowers, PhD, chief diversity and social responsibility officer at LCMC Health in New Orleans, are thought leaders dedicated to addressing these issues. Health inequity is a challenge that directly affects the new community hospital that Batchlor has operated for seven years.

"We have four levels of care in this country based on insurance," Batchlor says. "Commercial insurance provided by employers offers the best access and quality. Then there is Medicare, followed by Medicaid. Patients with no insurance have the lowest level of access to care, if they have it at all." To illustrate the point, Batchlor notes that services rendered to a commercially insured patient in her emergency department will be reimbursed at $2,000. The same treatment will result in a $650 payment for a Medicare patient and just $150 for a Medicaid patient. In MLK Community Healthcare's low-income community, most residents have Medicaid or no insurance at all.

"Because Medicaid pays pennies on the dollar in the state of California, physicians cannot sustain a practice in our South Los Angeles community," notes Batchlor. Her hospital's service area has a critical gap of 1,300 physicians when compared to recommended physician-to-population ratios. "This shortfall of providers contributes to high rates of chronic medical conditions that are preventable and treatable if you had access to good medical care," Batchlor continues. "End-stage conditions that end up in the hospital and emergency department cost far more to treat than providing prevention and disease management earlier on." Batchlor notes that life expectancy in the area served by MLK Community Hospital is ten years lower than the rest of California. The rate of diabetes is three times higher, with diabetes mortality 72% higher than the rest of the state. "These disparities are the result of how our health care system is organized and funded. We have to address that if we are to improve health equity," Batchlor asserts.

Flowers and Batchlor both agree that health care disparities are greatly affected by social determinants of health (SDOH). "Health follows wealth," Flowers says. "Several years ago, there was a public-awareness campaign with the slogan 'know your numbers.' It meant, 'Know your blood pressure, your weight and glucose level.' Now your zip code is the most important number to know." It is no coincidence that areas with a lack of transportation, food deserts where healthful groceries are absent, and communities with nonexistent broadband access all have worse health outcomes. At MLK Community Healthcare, in addition to launching a street medicine program, Batchlor has partnered with the Homeless Organization of Los Angeles (HOLA) to develop a 56-bed shelter to house citizens who are homeless. "We will be sending some of our more frequent emergency room visitors to this facility to try and break the cycle of homelessness and chronic illness," she says.

Other factors contribute to health inequities as well. "There is a difference between health disparity and health care disparity. The first refers to incidence of disease within a group of people; the latter refers to a clinician's conscious or unconscious decision to care for a person differently," Flowers states. "These decisions impact health, health outcomes and quality of life. They are rooted in issues of bias and prejudice that, when acted upon, become discrimination." Health care disparities have been identified in numerous studies by the National Institutes of Health (Moy, Dayton, and Clancy 2005). "When there is racism in health care, it is imperative that it is reported and investigated. Offenders should be held accountable," Flowers adds. "Accountability and responsibility are crucial."

Nationwide, addressing SDOH is on the agenda of many health care executives. According to the results of the latest *Futurescan* survey, over half of survey respondents—62 percent—expect a 20 percent improvement in the top five areas of need identified in their community assessment over the next five years.

Action Steps for Health Care Leaders

In the wake of the pandemic and recent social justice movements, more and more health care leaders are addressing issues of racism and bias. Highly motivated health systems are using disaggregated data to identify opportunities for improving care and find trends and common denominators among certain populations. "It is important to study all data sets so that everyone gets great care. Both patients and team members should experience equity," Flowers says. "Looking at geosocial statistics in your service area can also help you identify neighborhoods afflicted with issues such as food

or housing insecurity. These and other issues are impacting the health of your patient populations." Likewise, issues of gender and sexual orientation bring their own unique challenges. "Members of the LBGTQ+ community report discriminatory experiences with health care providers, and as a result they often delay care and treatment. That contributes to poorer health outcomes," Flowers says.

Collaboration is critical to addressing health disparities. Batchlor encourages well-funded health systems to look for partners whom they can offer extra resources. MLK Community Hospital has found such a partner in a tertiary health system located in an affluent area ten miles away. "The system's leadership is willing to take our patients when they need services that we cannot provide as a small community hospital," Batchlor says. "And their system will accept Medicaid payment." The system has offered to provide services that include neurosurgery, cardiac surgery, hematology, and oncology.

Positive developments may lead to the reduction and eventual elimination of health inequities and more diversity. "We are on the cusp of great opportunity because of changes that have moved reimbursement toward pay-for-performance and value-based care. Population health is an encouraging trend," Flowers says. "We are also seeing more diversity officers in all industries, and in health care this role should continue to be elevated to the senior leadership level. Fostering diversity and inclusion is becoming part of the overall strategic plan for health systems, and that makes it within everyone's scope of responsibility."

Both Batchlor and Flowers stress that a hospital and health system's workforce should mirror the community it serves. It is important for patients to see themselves in their care team, and MLK Community Healthcare has made this a priority. "Historically underserved communities have a lack of trust in the health care system," says Batchlor. "Our community's COVID vaccination rate is 10 percent lower due to this lack of trust. Clinical staff who look like the patients they serve can go a long way and lead to more engagement and better compliance. That is why we place a high value on our workforce being more than 80 percent diverse." According to 17 percent of the health care CEOs and senior strategy executives who responded to the annual *Futurescan* survey, their leaders—including directors, senior leaders, and governing board members—already reflect the diverse populations of the communities they serve. Another 48 percent of respondents believe that it would be very or somewhat likely to achieve that level of leadership diversity in the next five years.

In addition to recruiting staff members who reflect the community that a hospital serves, Flowers encourages health care leaders to examine employee engagement, pay practices, and promotion track records using all diversity metrics (e.g., age, race, gender, gender identity, sexual orientation, disability, generation, veteran status) to find opportunities for improvement. "It is essential to really know your workforce so that health care leaders can benefit from the skill sets and strengths of each employee," says Flowers. "Race and culture are very important, and the demographics are steadily changing. It is important to be conversant and knowledgeable about the diverse populations within your own community so that you hire accordingly."

To make an organization-wide impact, Flowers suggests that health care leaders start with their Board of Directors. Recruiting racially and culturally diverse board members can provide wisdom and influence from populations that may not have been involved before. Likewise, hiring for diversity at the management level helps reflect the community served and ensures that all demographics have a voice.

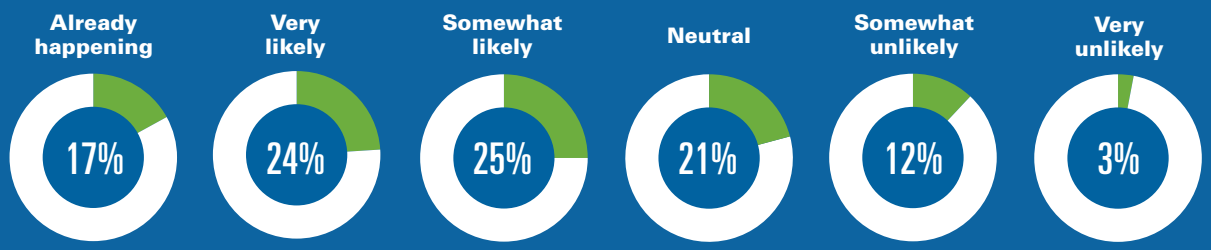
Health systems may want to revisit their procurement strategies to foster

> "Fostering diversity and inclusion is becoming part of the overall strategic plan for health systems, and that makes it within everyone's scope of responsibility."
>
> —Dr. Mary "Toni" Flowers

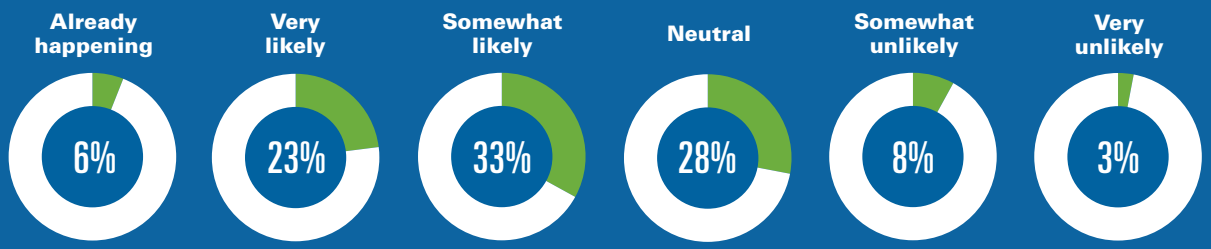
FUTURESCAN SURVEY RESULTS
Health Equity

Health care executives from across the nation were asked how likely it is that the following will happen in their hospital or health system by 2028.

By 2028, given the increased focus on multidimensional diversity in the health care field (e.g., gender roles, age, sexual orientation, race and ethnicity), the leadership of our hospital or health system (including director level, senior leaders and governing board) will clearly reflect the diverse population.



By 2028, the implementation of our hospital or health system's Community Health Impact Plan (CHIP) will result in greater than 20 percent improvement in the five top priority issues identified in our previous community health needs assessment.



diversity there as well. Contracting with women-, veteran-, and minority-owned businesses will increase their capacity to employ other workers and provide health insurance. Accruing financial resources and building wealth in communities of color are significant and important outcomes of this strategy.

Key Takeaways

Health care leaders can use multiple strategies to foster diversity, equity, and inclusion in their communities. It is also important to address the disparities that still exist in health care provision. The key is to prioritize the initiatives that are most relevant to each unique service area. Health care leaders can employ the following strategies to achieve these goals.

1. **Engage in advocacy.** Batchlor advocates beginning with the basics when addressing health care disparities. "If we are serious about diversity, equity, and inclusion, we need to acknowledge that we have a health care system that has different levels of quality and access based on how much people make, where they live, and the type of health insurance they can afford—or can't afford," she asserts. "My job is to raise awareness of the factors that contribute to unequal access. As health care executives, it is our responsibility to inform our elected leaders about the disparities, share the data documenting the barriers, and advocate for changing the conditions in our communities to support quality health care."
2. **Know your data.** Many health systems look at aggregated data to find trends and common denominators in care. Flowers adds

that it is also important to study smaller subsets of disaggregated data by race, ethnicity, gender and other diversity metrics so that any disparities in care or experiences can be discovered and addressed.

3. **Empower your workforce.** The same principle of analyzing disaggregated data applies to the workforce. "Are there subsets of employees who are not engaged, are affected by pay inequity, or are having trouble moving up the leadership ladder?" Flowers asks. "Those workers will need different types of engagement to thrive. I encourage health care leaders to be intentional about inclusion and equity by giving diverse employee segments a voice and leadership opportunities such as career ladders, leadership development, and placement in succession-planning activities."
4. **Increase medical school funding for students of color.** Residency training is funded mostly through the Centers for Medicare and Medicaid Services (CMS). For teaching hospitals, funding is based on the percentage of a hospital's patients who are on Medicare. "For MLK Community Hospital, which has a majority-Medicaid population, the annual funding of an internal medicine resident is around $60,000 a year," says Batchlor. "Another hospital in our region receives around $180,000 per resident. Many physicians stay to serve in the community where they completed their residency—increasing diversity in health care. We need better funding in communities of color to attract more physicians to underserved areas."
5. **Study geosocial data to address SDOH.** "We know that approximately 80% of issues affecting an individual's health occur outside of health care facilities," says Flowers. "We need to analyze down to the zip code level to determine which issues are having the greatest impact on the community's health, and then create collaborative action plans to address them."

> "Access to quality health care, and creating the societal conditions needed for health, are acts of social justice. Our goal as health care executives should be to build a quality health care system for all, especially for those people who need it most."
> —Dr. Elaine Batchlor

Conclusion

With the rapidly changing demographics of the American population, fostering diversity, equity, and inclusion should be a national priority. "Access to quality health care, and creating the societal conditions needed for health, are acts of social justice," declares Batchlor. "Our goal as health care executives should be to build a quality health care system for all, especially for those people who need it most." Flowers agrees. "Leadership is often measured by how you perform in moments of critical need," she says. "And with the changing face of America, the need has never been greater than now."

References

Moy, E., E. Dayton, and C. Clancy. 2005. "Compiling the Evidence: The National Healthcare Disparities Reports." *Health Affairs* 24(2): 376–87. https://www.healthaffairs.org/doi/10.1377/hlthaff.24.2.376.

Ndugga, N. and S. Artiga. 2021. "Disparities in Health and Health Care: 5 Key Questions and Answers." Kaiser Family Foundation. Published May 11. https://www.kff.org/racial-equity-and-health-policy/issue-brief/disparities-in-health-and-health-care-5-key-question-and-answers.

The Evolving Role of AI in Enhancing Clinical Care and Business Operations

with Juan C. Rojas, MD, Medical Director, Analytic Interventions Unit, and Coggeshall Instructor of Medicine, Section of Pulmonary and Critical Care, UChicago Medicine

With current data generation exceeding the capacity of human cognition to quickly and reliably manage those data, the use of artificial intelligence (AI) will likely continue to grow—particularly for advancing clinical care and streamlining the business of health care. However, questions persist with regard to its safety, how best to quantify its impact, and the path of future regulations.

AI is already used to enhance some traditional methods of delivering clinical care, and it has great potential in the area of health care business operations as well. Despite some caveats associated with such a rapidly advancing technology, thoughtful implementation of AI in health care offers great opportunities for improvement.

Clinical Decision Tools

Although AI is already being used at the point of patient care and many AI applications have been published in the literature, the usefulness of AI tools in the near future will be judged by how well those tools are integrated into health care systems. Juan Rojas, MD, a pulmonary and critical care specialist at the University of Chicago, is an expert in the application of machine learning to electronic health record data, and he says that AI tools need to be installed in such a way that physicians, nurses, and others on the front line of patient care are able to use them efficiently and effectively.

"What we started with in medicine were very simple, point-of-scale clinical decision support tools," Dr. Rojas says. "Say, if the patient had X, Y, and Z that adds up to five points, which puts them at a certain percentage of risk for a particular outcome."

One example of these support tools is the Modified Early Warning Score (MEWS), which is commonly used by hospitals to calculate the risk for clinical deterioration in a patient over the next several hours, based primarily on their vital signs.

"While MEWS has served its purpose for a long time, and certainly

About the Subject Matter Expert

Juan C. Rojas, MD, serves as the medical director in the analytic interventions unit at UChicago Medicine, where he is also Coggeshall Instructor of Medicine in the Section of Pulmonary and Critical Care. Dr. Rojas is board-certified in internal medicine, pulmonary medicine, critical care medicine, and clinical informatics. As a physician data scientist and clinical informaticist, he leads the analytic interventions unit at UChicago Medicine to enhance clinical outcomes, patient experience, and health care delivery by developing and deploying clinical decision support tools powered by artificial intelligence in the electronic health record.

did move the needle further in trying to be proactive with clinical deterioration," Dr. Rojas says, "I think it's pretty clear now that most of the tools that are developed using AI methods are more accurate than those bedside calculations."

However, these more complex tools require experts to monitor their use and safety, an information technology (IT) infrastructure that is sophisticated enough to support them, and a willingness of front-line users to engage with these more complicated models. Dr. Rojas observes that such tools are very sensitive and offer more positive predictive value, but they raise important concerns. He explains, "You need to know: Is the model transparent? Is it easy to use? Will people use it or ignore it? Will it make patient care safer? These are the questions that we need to consider in the next five years. How do you make these advanced tools easier for front-line clinicians to trust and digest?"

Role of AI in Diagnostics, Operations, and Patient Safety

As AI models have improved and gained traction in a variety of industries, health care systems have adopted various forms of AI to enhance the delivery of clinical care across a broad spectrum, as well as to optimize business operations. According to the latest *Futurescan* survey, hospital CEOs and strategy leaders are quite confident that by 2028 health systems will have the IT infrastructure completely in place to make use of AI in augmenting clinical decision making. More than 48 percent of respondents feel that this is somewhat or very likely to happen, with an additional 8 percent responding that it is already happening. Only 24 percent responded that this was somewhat or very unlikely, showing significant confidence in the adoption of AI.

Diagnostics. In diagnostics, the greatest application of AI has been in imaging. "The one that's nearest and dearest to me is AI-based assistance for lung nodule detection on CT scans, but there are similar stories around breast imaging and other areas, where AI is being used by radiologists to augment their clinical decisions," Dr. Rojas remarks.

AI also has the potential to identify patients at high risk for mortality within the next six months by means of the mortality risk score. This then helps ensure that resources are optimized to support end-of-life care. AI may also be useful in helping physicians prepare for end-of-life conversations (Windisch, Hertler et al. 2020).

"For example, let's say we have a patient in the hospital who is going to survive and go home, but based on their clinical problems, we can identify them as having a high probability to not live more than another few months," Dr. Rojas says. "We're trying to figure out how to deliver better advanced-care planning for those patients in order to deploy the limited resources we have around palliative care—or even social work resources—to the highest-risk patients."

The intention behind using AI in advanced-care planning is not to put all people who are at high risk for mortality into hospice. Rather, AI enables health care workers to tell patients that, based on their doctor's judgment and the diagnostic model, there is a likelihood of advanced illness or death. "That way, by being up front with them earlier on, patients can have more time to digest that information and think about what they would want at the end of their life," Dr. Rojas says.

Mortality, of course, isn't the only thing for which AI could potentially help hospitals plan better. Other examples might include identifying patients at risk of a longer length of stay or of not making it to the next appointment. "If someone is at very high risk for a clinic no-show, there are simple things we can do in terms of follow-up reminders," Dr. Rojas says. "As a health system, we can try to address this. Maybe it's transportation. Maybe they can't get off work. If you have a tool to identify those patients, and a solution to overcome their barriers to care, you can help make sure they get the care they need."

Operations. Some health care systems are using AI-derived no-show models to address the other side of no-shows—the doctor's missed opportunity to see a patient. "If you have a patient at high risk for a no-show booked for an 11 a.m. appointment, and there's a 50/50 chance that patient won't show up, then possibly you should schedule another visit and make sure that physician has someone to see to increase access to care and decrease wait times for patients," Dr. Rojas explains. He notes that his institution hasn't employed such a model yet but hopes to once they find a tool whose accuracy they trust.

Patient Safety. Currently, decision systems that incorporate AI are capable of improving error detection, stratifying patients, and managing drug delivery—all in the name of protecting patients (Choudhury and Asan 2020). The use of AI in health care has greatly advanced patient safety.

"One of the main aspirational visions is improving patient safety across the board: identifying diagnoses, problems, or risks for an event earlier so that you might change the trajectory of the final outcome for the better," Dr Rojas notes. "If you're a radiologist using a lung nodule model and are missing early cancers, using AI will improve patient safety. The same thing goes for six-month mortality scores or other early warning signs. I would say that all of the models being used in 2022 and in the next five years will be about trying to improve patient safety."

The *Futurescan* survey also revealed that hospital CEOs and strategy leaders believe a federal regulatory body will determine that AI augmentation of clinical care is safe for hospitals and health systems. According to the results, 53 percent of respondents indicate this is either already happening, very likely, or somewhat likely. Only about 14 percent felt it was somewhat or very unlikely.

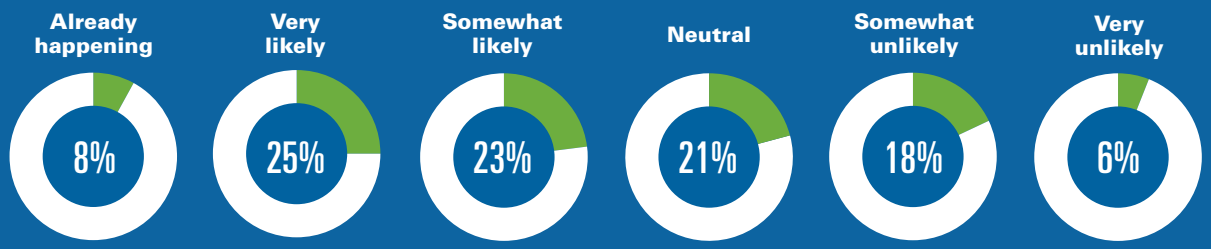
Possibilities for the Expansion of AI

Although AI does not and will not replace traditional health care, it may be

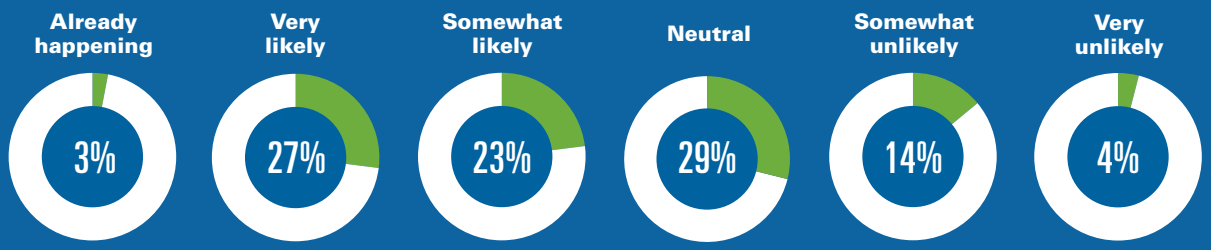
FUTURESCAN SURVEY RESULTS
Artificial Intelligence

Health care executives from across the nation were asked how likely it is that the following will happen in their hospital or health system by 2028.

By 2028, our hospital or health system will have the complete IT infrastructure in place to implement AI to assist and/or augment clinical decision making.



By 2028, a federal regulatory body will determine that AI for clinical care delivery augmentation (e.g., assisted diagnosis and prescription, personalized medication and care) is safe for use by our hospital or health system.



particularly useful in certain areas. AI can extend the reach of a doctor, hospital, or health care system without drawing on additional manpower by providing expert diagnostics without a physician in the room or in conjunction with a physician's input via remote access.

"One example that comes to mind is skin cancer detection," Dr. Rojas says. "There is a fair amount of evidence that we can use deep-learning methodologies [for] image processing. These use neural networks that are models that function like the human brain."

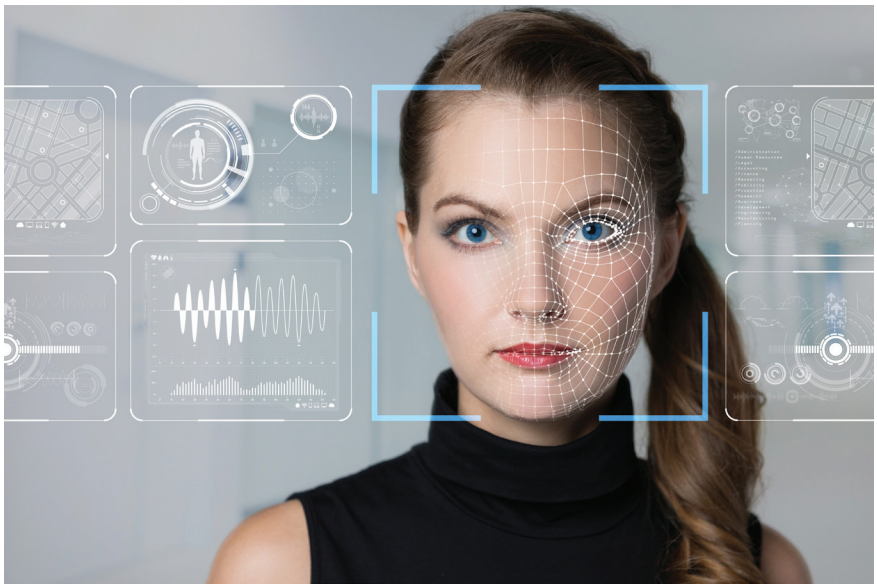
These tools can analyze a photograph of a mole and determine how likely that mole is to be a dangerous skin cancer, such as melanoma. "Many of these tools developed by dermatologists and others are often as accurate or more accurate than a trained dermatologist would be," Dr. Rojas says.

This could be particularly useful in areas that have limited dermatological resources, such as rural hospitals or satellite clinics that may not be adequately staffed to meet the skin cancer screening needs of their community. "The trained dermatologist doesn't have to travel to every single place. Rather, they would have the software and screening methodology uploaded to a portal. The AI would analyze it while the physician serves as another set of eyes, and you could develop a plan to perform a biopsy on a suspicious mole without that particular physician having to go see it themselves," Dr. Rojas explains.

There has also been a lot of research into the use of AI in the diagnosis of diabetic retinopathy, a leading cause of blindness worldwide that is only expected to grow as the population ages and rising numbers of people develop diabetes. The literature has described a substantial number of AI tools for predicting and detecting diabetic retinopathy, and many of them are already

available commercially (Grzybowski, Brona et al. 2020).

"There's been some good evidence showing that with AI there's a very high degree of accuracy in finding retinopathy earlier than the human eye would detect it," Dr. Rojas says. "So that's another situation where you could think about using software and AI-based methodology to bring under-resourced environments—and even highly resourced environments—an additional layer of diagnostic care for patients."



A Boon for Business

Although much of the research and discussion about AI in health care emphasizes its potential in optimizing the outcomes of patient care, it is also likely to play a role in optimizing business practices, a field that is under constant pressure to simultaneously maximize outcomes and minimize cost. "It would be unrealistic to think that operational health systems wouldn't try to use some of this methodology to optimize costs while providing the same quality of care and safety," Dr. Rojas says.

One business practice revolves around identifying high-risk patients in order to maximize resources in a cost-effective manner. AI could be used to identify high-risk patient populations—ER patients, people with multiple readmissions to the hospital, or patients with congestive heart failure, for example—and set up ways to deploy resources to that patient. "AI might get those patients a case manager to coordinate nursing care at home and work with their family on an outpatient basis," Dr. Rojas says.

That type of care is expensive, he added, but involving AI could be a step toward more efficient care for the most vulnerable patients, helping large health systems find their high-risk patients so they can deliver those resources at the right time to the right patient.

AI methodology could also present opportunities to address staffing issues by optimizing access to limited resources, such as MRI machines and CT scanners. "This could in some way address labor shortages because it will ensure that the people who are there are really doing the work—for example, that the 10 a.m. MRI will really be a 10 a.m. MRI and that you won't have downtime on a machine that's really valuable," Dr. Rojas says.

Dr. Rojas emphasizes that innovative AI-based approaches provide opportunities for optimizing the use of limited resources to help patients. "This wouldn't be replacing humans on the ground but would optimize their workflow and make them more efficient, because they're able to do the work when they're there," he notes.

Considerations for Improving AI

Developing More User-Friendly Models. The greatest potential Dr. Rojas sees for AI in the next five years is not so much in new applications but in human-centered AI design. "We need to make sure that people are not put off by AI tools but that they trust them and use them," he explains. "We have to make sure that the 'ask' from the health system is tangible. What are we going to do with this information?"

Dr. Rojas uses the example of the mortality risk score, which is transparent in its goals and practical uses, such as arranging for palliative care. The application does not simply conclude that a patient is at high risk for mortality and leave the clinician questioning what to do with that information.

Ensuring Safety. Concern about AI's safety is a major caveat regarding its use in health care. A recent survey about monitoring AI tools in a large health care system found that only a relatively slim majority of respondents (64 percent) had a team of experts to vet the safety of these tools (Rojas, Rohweder et al. 2022).

"In their planning for the next five years, it will be key that health systems have a multidisciplinary team involved, getting experts in data science and having the right IT infrastructure," Dr. Rojas says. "You have to make sure the expertise is there."

As AI tools and vendors become more prevalent, with more data sharing across entities, it will be critical for health systems to guard against privacy breaches. "As you work with these vendors, you'll need to be sure that the sharing of data is mitigated in such a way that they have access only to the data they need," Dr. Rojas says.

Building Equitable Models. Models learn from historical data, which often, if not always, contain some degree of bias. Health systems will need to ensure that the models they deploy do not further promulgate ongoing disparities (Rojas, Fahrenbach et al. 2022).

Dr. Rojas highlights the importance of models that foster equity rather than impede it. A system should identify variances in accuracy across groups with

differences in socioeconomic status, race, or sexual orientation. "All of these things are important so that when you turn an AI model on, you feel comfortable that there won't be one patient group benefiting while others are missing out," Dr. Rojas says.

Getting Physician and Staff Buy-In. An initial concern about the implementation of AI models in health systems was that it would render obsolete certain people and positions. That's less of a concern now, but people still need to be assured that the AI models deployed by a hospital are meant to make their jobs easier.

"When you consider the electronic health record—which is a 'pain point' for many physicians and nurses—you can make it a positive in the sense that it helps clinicians take care of their patients better," Dr. Rojas points out. "Does AI augment your thoughts about that one patient out of the 20 you saw today in a way you might not have been able to do due to your cognitive load? I'm hoping these tools will increase patient safety and improve outcomes by helping clinicians at the bedside make safer, better, evidence-based decisions for whatever that patient is at risk for."

Key Takeaways

1. **Be prepared.** The advance of AI into patient care is inevitable. Dr. Rojas strongly advises health system executives to start thinking about implementing the proper infrastructure and expertise so that their organizations are prepared. "It is essential to have the right expertise from IT, data science, and physician leadership; to realize these tools have some promise; and, as these tools are rolled out, to make sure you invest in people who can ensure the safe, equitable, and efficient use of these new predictive tools," he says.
2. **Identify your pain points.** Every health care system has its own unique pain points. Identify those areas of concern and interest so that you tackle the right problems. "For example, if you're worried about access and throughput, make sure the first models you deploy address those areas. See if you really can improve patient access. In other words, pick the right problem for what's going on locally in your system," Rojas says.
3. **AI enhances; it does not replace.** Be sure your staff understands that the AI tools deployed by your health system are meant not to threaten their autonomy but rather to ease their work and relieve them from tedious tasks, enabling them to have more patient-facing time. "Once staff members see how much easier and more efficient AI makes certain aspects of their work, they can focus on the most important part of the job: caring directly for the patient," Rojas explains.

References

Choudhury A. and O. Asan. 2020. "Role of Artificial Intelligence in Patient Safety Outcomes: Systematic Literature Review." *Journal of Medical Internet Research*, 8(7): e18599.

Grzybowski A., P. Brona, G. Lim, P. Ruamviboonsuk, G. S. W. Tan, M. Abramoff, and D. S. W. Ting. 2020. "Artificial Intelligence for Diabetic Retinopathy Screening: A Review." *Eye* (Lond), 34(3): 451–60.

Rojas, J. C., G. Rohweder, J. Guptill, V. M. Arora, and C. A. Umscheid. 2022. "Predictive Analytics Programs at Large Healthcare Systems in the USA: A National Survey." *Journal of General Internal Medicine*. Published April 8. https://doi.org/10.1007/s11606-022-07517-1.

Rojas, J. C., J. Fahrenbach, S. Makhni, S. C. Cook, J. S. Williams, C. A. Umscheid, and M. H. Chin. 2022. "Framework for Integrating Equity into Machine Learning Models: A Case Study." *Chest*, 161(6): 1621–27.

Windisch P., C. Hertler, D. Blum, D. Zwahlen, and R. Förster. 2020. "Leveraging Advances in Artificial Intelligence to Improve the Quality and Timing of Palliative Care." *Cancers* (Basel), 12(5): 1149.

7 CAPACITY PLANNING

Flexible Responsiveness to Surges in Capacity: Lessons Learned from the COVID-19 Pandemic

with Peter Fine, CEO, Banner Health; and Marjorie Bessel, MD, Chief Clinical Officer, Banner Health

The COVID-19 pandemic brought to the forefront the importance of preparation for surges in hospital demand. As of late March 2022, there have been nearly 4.6 million hospital admissions of patients with COVID-19 in the United States, with hospital bed occupancy during the heaviest surges exceeding 90 percent in some states (Centers for Disease Control and Prevention [CDC] 2022; AHA Data & Insights 2022). Effectively managing increased health care demands is critical for the optimal care of all patients.

How can health care organizations improve flexibility if and when hospital

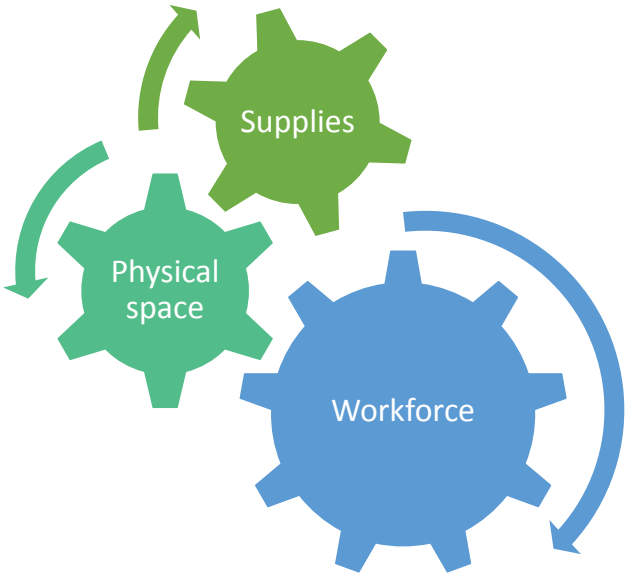
About the Subject Matter Experts

Peter Fine has served as the CEO of Arizona-based Banner Health since November 2000. Prior to his appointment as CEO, Fine was executive vice president and COO of Aurora Health Care, a large integrated system serving all of eastern Wisconsin. His previous position with Aurora was as president of West Allis Memorial Hospital. Before joining Aurora, Fine served in several hospital leadership positions, including president and chief executive officer of Grant Hospital and senior vice president of operations at Northwestern Memorial Hospital—both in Chicago—and assistant administrator at Porter Memorial Hospital in Valparaiso, Indiana. Fine received his bachelor's degree from Ohio University and his master's degree in health care administration from George Washington University.

Marjorie Bessel, MD, is the executive vice president and chief clinical officer at Banner Health. She began her journey with Banner in 2006 and has served in progressive physician leadership positions. She initially served as chief medical officer for several hospitals, then moved into the Arizona Division chief medical officer role before accepting the role of vice president for Continuum Management/Clinical Integration and then of vice president/chief medical officer for Community Delivery. Her clinical background is as a hospitalist, and she maintains board certification and staff privileges. She is passionate about empowerment of patients through transparency of individual clinical information, technology use, and promotion of the well-being of physicians and advanced practice providers. Dr. Bessel earned a BS in biology, magna cum laude, from Syracuse University, and she attended Rush Medical College in Chicago, where she was presented with the James B. Herrick Award for most outstanding performance in internal medicine. She completed her residency in internal medicine at Rush-Presbyterian-St. Luke's Medical Center in Chicago and was honored to continue for an additional year as Chief Resident.

Exhibit 1

Considerations for Managing Hospital Surges



demand surges again? According to Marjorie Bessel, MD, and Peter Fine, the industry will never be fully prepared for the next health care crisis. Bessel is chief clinical officer and Fine is CEO at Banner Health, a nonprofit and the largest health care provider in Arizona. Looking back over the incredible work from hospitals and health care workers as they rose to meet the demands of a years-long sustained surge in capacity needs, Bessel and Fine share what has been learned as health care organizations prepare for future challenges.

Key Challenges With Increased Capacity Demands

Considerations for managing surges in capacity needs can be broken into three major categories, Bessel says: supplies, physical space, and workforce (see exhibit 1). Proper prioritization of these factors will depend on the immediate requirements of the situation.

Supplies. Supplies, including treatments and medical equipment, will always be a critical consideration when managing a hospital surge. According to Bessel, it's important to consider not only the equipment but also all of the individual disposable elements required to use that equipment. Personal protective equipment (PPE) is critical for hospital workers to do their jobs; PPE, particularly masks and gowns, was in short supply at the very beginning of the pandemic. As 2020 progressed, Fine explains, Banner Health was able to build up its supply base as cases decreased in order to stock up for the next surge.

Creative solutions from hospital workers—a highly valuable resource, Bessel explains—helped overcome supply issues. For example, at Banner Health, intensivists and respiratory therapists determined how to use one ventilator to treat two COVID-19 patients, if needed. "Our workforce is our best asset," Bessel says. "They have deep expertise. If you are transparent with them, if you point them in the direction where you think we're going to need to land, they will come up with very creative solutions."

Physical Space. During the initial stages of the pandemic, parking lots and stadiums filled with cots as hospitals prepared for an influx of patients that exceeded the capacity of their buildings. Bessel notes that the best solutions to space constraints came from the creativity of health care workers. Two of the most useful space-creating approaches employed by Banner Health were double-bunking and the conversion of areas to negative-pressure rooms. Bessel says that nurses performed "a work of incredible magic" to fit two beds, dialysis machines, and other necessary equipment into a small intensive-care unit (ICU) space. Staff vented outside windows, even in sweltering Phoenix summer heat, to create negative-pressure rooms.

Experiences like this illustrate the versatility of hospitals in addressing challenges, even as they highlight the fact that there is more work to be done. This year's *Futurescan* survey revealed a divergence of opinion about the capability of hospitals to adjust rapidly. When asked whether, by 2028, their hospitals would be able to triple their ICU bed capacity within one week, 47.9 percent of surveyed CEOs felt that was either somewhat or very unlikely, compared with only 15.9 percent of SHSMD's strategy and marketing leaders. This demonstrates less confidence in rapid adjustment capability among CEOs than other strategy leaders.

"When you take a look at the individuals who run our facilities, they are incredibly creative in how they make old space, mid-age space, and even new space work to its maximum," Bessel says.

Workforce. Expanded capacity and a stockpile of equipment are only as useful as the trained specialists available to leverage them, Bessel notes. Workforce considerations should support not only skilled staff (e.g., nurses, respiratory therapists, physicians) but also non-skilled staff, such as environmental-service and food-service workers. These staff members are critical to the full, safe functioning of the facilities.

Moving staff from one hospital area to another is a temporary solution when demands are high, Bessel says, and timing needs to be thoughtfully executed. "You can pull all your ambulatory-care

staff from clinics into the hospital, but only for a short period because otherwise it becomes a defeating purpose," Bessel explains. "Here you are, trying to staff up to meet the surge needs, and yet you're feeding your surge because nobody's getting preventive care because the clinics are closed. You need to also keep your core business running, especially when something like this is very, very prolonged."

Recruiting new workforce members and retaining existing members posed challenges in keeping up with pandemic demands. Long hours and caring for a large number of sick patients wore heavily on health care workers, leading to burnout and resignations. "People don't recognize the trauma that causes the staff," Fine says. "It didn't have to be like that."

For Banner Health, workforce solutions included effective and clear internal communication and augmentation of ongoing educational efforts. Bessel and Fine anticipate that technological tools will become more useful. Automation approaches can lighten workers' burden when resources are scarce. Progress on telehealth implementation, which was relied on heavily during the pandemic, is at risk of being lost unless hospitals prioritize it and reimbursement practices are updated, Bessel adds.

The *Futurescan* survey found broad agreement among respondents on the question of whether, by 2028, their hospital or hospital system would be able to respond to a patient surge by increasing acute care capacity to 125 percent of normal levels while serving patients at a pre-surge level of care. Nearly 22 percent of respondents said that that was already the case at their hospitals, while another 47.1 percent said it was very or somewhat likely.

Communication as a Tool

Bessel and Fine agree that effective communication is crucial to mitigating strain on hospital resources. "One of the things I think we all have learned is that consistent communication drives behaviors," Fine explains. Internal and external communication efforts can affect the behavior of the public, empower the workforce, and promote transparency and trust in hospital organizations.

External Communication. Communication that is inconsistent or difficult to understand creates distrust and allows politicization of an issue to take over. The lesson learned, says Fine, is to ensure that public health systems present consistent, clear information to effectively resonate with the public. "All those mitigation tactics were intended to protect the finite resource called health care," Fine says. "It wasn't communicated like that. To the general public, it became all about the infringement of rights; it was never about protecting a finite resource. If we could fix that, we'd have greater trust and a better source of communication, and then we could consistently apply that communication to tactics that we know would work at an early stage."

Early in the pandemic, Banner Health positioned itself as a knowledgeable voice, a trustworthy source for health information. Fine emphasized the importance of having someone with clinical experience as the person behind public health messaging. Bessel held regular press conferences and contributed to informational campaigns on social media. The public relations department ensured communication was performed in a way that resonated with viewers and brought them positive sentiments and good messages. "We felt that it was incumbent upon us to make sure the public was informed and to help guide them in making good decisions so they could stay well, but also so we could stay where we needed to be and were available to them for both COVID and non-COVID needs," Bessel says.

Bessel shares the following tips for communication during a health crisis:

- Start early.
- Maintain regularity.
- Be consistent.
- Use digital tools to make information easy to find for the public.

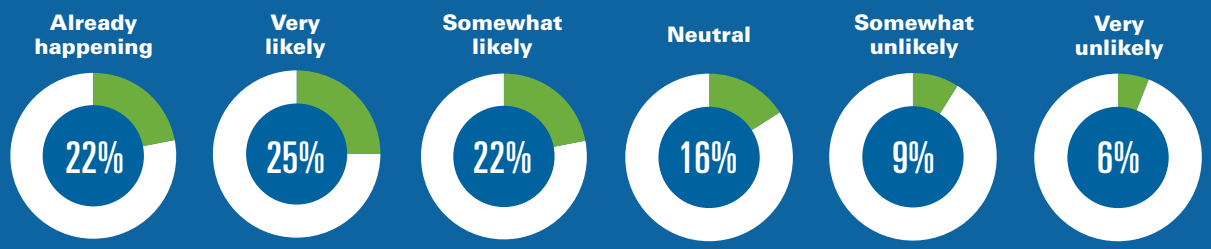
Internal Communication. Banner Health also increased internal efforts to keep lines of communication open between health care workers. "Being transparent is one thing, but make sure your communication is also clear and concise," Bessel says. "You are attempting to control chaos with clear and concise messaging, and you do so in a cadence that meets the needs that are out there."

To that end, Banner Health hosted weekly virtual town-hall meetings with hospital leaders during the peak of the pandemic. These meetings pushed a clear message of what challenges hospital leaders anticipated and the issues that needed to be addressed. Clear communication empowered their workforce and allowed the organization to work collectively to solve problems. "When you

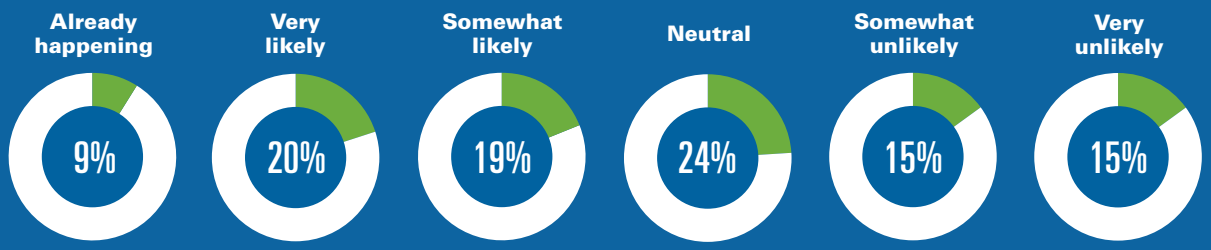
FUTURESCAN SURVEY RESULTS
Capacity Planning

Health care executives from across the nation were asked how likely it is that the following will happen in their hospital or health system by 2028.

By 2028, as a result of a patient surge (e.g., disaster, pandemic), your hospital or health system could increase acute care capacity to 125 percent to serve patients at the level of care you are serving them today.



By 2028, our hospital or health system will be able to triple its intensive care unit bed surge capacity within a week.



have a workforce and team members who are highly engaged—when you tell them what's happening, what we think will happen, and what's going to need to happen—and you put them to work, they can make it happen," Bessel says.

Collaboration. In a highly unusual collaboration, Banner Health teamed up with competitors in unique and novel ways in an attempt to mitigate health care demands at the local level. Together with local health care systems, Banner Health gave joint press conferences and participated in other public broadcasts. This approach presented a unified front to communicate information and request help from the public in mitigating the surge of COVID cases. Banner Health also shared best practices and information with local partners so there would be consistency in the community experience—for example, with visitation restrictions and other operational practices. "The demographics, the curve of the pandemic—we were all feeling it the same," Bessel says. "Therefore, our responses should be relatively similar."

In addition to the alliance among competing hospitals, Banner Health was involved in a health task force with Greater Phoenix Leadership, a decades-old group of leaders of area businesses whose purpose is to improve both "economic vitality and quality of life." The task force was quickly assembled to

facilitate communication with political leadership in a way that would have been difficult for individuals, Fine says. "We used [this] large business group to be a communicator to the political side of the state—governor, legislators, and county executives—giving them a sense of what to pay attention to, what's important, and what critical success factors look like."

Political conversations were, and still are, an effective component of navigating health crises like the pandemic. Bessel and Fine agree that benefits can be gained from less regulation, not more. "In many cases, external organizations were telling us how to manage our internal organizations," Fine says. "There's one thing that health care organizations are really, really good at: they're good at managing emergencies and trauma situations. They know how to rally their forces to deal with issues. But when you impose upon that the various quickly assigned executive orders and regulations, you kind of scratch your head, saying, 'What are you thinking?' Let us do what we are organized to be able to handle."

The constant flow of communication from chief marketing officers and CEOs to government figures helped combat overreach from external organizations. However, Bessel notes that these legislative forces are still at play and require continued attention. Bessel has spoken with the Arizona State Senate and is in the process of a letter-writing campaign with physicians. "It's really very dangerous," Bessel says. "We can't have nonskilled, nonclinical people legislate and regulate how the health care industry provides patient care in complex situations. That has to be left to the experts, the health care systems, the physicians, the nurses, the respiratory therapists. I don't think that we can overemphasize how important that point is." Bessel notes that Banner Health has a government liaison who works with appropriate advocacy groups on specific issues.

Coordination and Decision Making

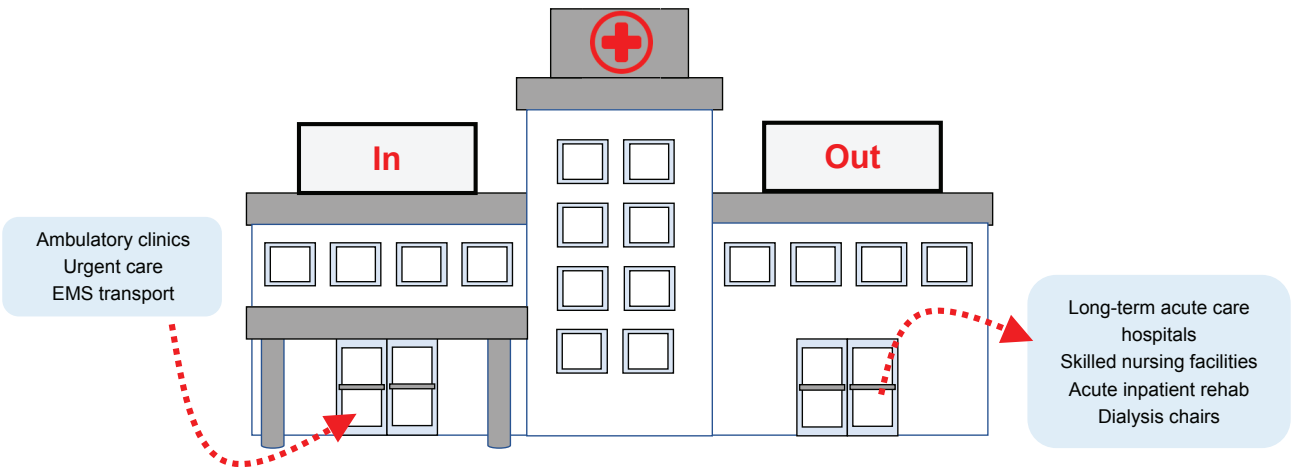
Lessons in coordination and decision making will help guide future actions. The pandemic made apparent the tight relationship between the front and back doors of the hospital and overall hospital operations (see exhibit 2). At the front door, Bessel says, if preventive care is inaccessible, patients overload hospitals. At the back door, issues with post-hospitalization care can create gridlock. "Those things become bracketed around the hospital and are rate limiting," Bessel says.

Different types of decision trees will guide actions when a facility is constrained. Banner Health implemented an emergency operation structure to make decisions during the pandemic, with frequent multidisciplinary meetings. Content experts performed a deep dive for information to present at the meeting where hospital leadership would decide what actions to take and which to prioritize. Bessel claims this process worked well. In fact, this data-driven decision-making led to Banner Health receiving the American Society for Health Care Engineering's 2021 Excellence in Health Care Facility Management Award for its work streamlining the facilities' operations. Banner Health accomplished this by creating a remote operations center that housed "technology, policies, processes and procedures, creating universal protocols to ensure the best approach is applied to the operation of all building equipment" (American Society for Health Care Engineering 2021). The creation of the operations center helped instill and promulgate data-driven decisions. "Everybody did similar things: reduced elective surgeries, closed down ambulatory clinics, got everybody into the hospital to take care of that," Bessel says.

Decision-making is likely to morph as the dynamics of the situation change;

Exhibit 2

Connecting the Hospital's Front and Back Doors



for example, as vaccines against SARS-CoV-2 became available, hospital leadership needed to determine whether it was appropriate and equitable to sacrifice care in some areas to treat vaccine-preventable illness. "We tried to make sure that we were organizing our staff in a way that was equitable for all services that all patients may need. Banner Health is a not-for-profit organization; we are here to serve our community. And that includes both COVID and non-COVID patients this deep into the pandemic," Bessel says.

Key Takeaways

Fine shares three key takeaways from Banner Health's experience for hospital leadership to consider when planning for the unexpected:

1. **Challenge preexisting notions around collaboration with competitors.** Banner Health broke norms by working with its competitors to prevent further strain on area hospital systems, and it reaped substantial benefits. "You have to have a high tolerance for ambiguity and a passion for complexity in health care because they both exist all the time," Fine says. "When you're trying to problem-solve an unknown, ambiguous environment, you have to figure out how to collaborate with other people and other organizations and how to develop new ways of thinking."
2. **Accept that health care systems will never be adequately prepared.** Fine and Bessel agree that there will undoubtedly be another event that strains the health care system. It is impossible to be prepared for every scenario. Fine explains, "This will happen again. No matter what you do, you're never going to be totally prepared for an unknown situation. You have to be flexible enough to react to that situation." Collaboration, creativity, and flexibility will support success through future challenges.
3. **Take care of your people.** The workforce is the ultimate asset for managing strains on a hospital system. "Whatever hard decisions we made, whatever policies we put in, whether they were totally effective or not, the whole theme was that we have to keep our people safe," Fine emphasizes. "Because if they're not safe, they can't take care of the people that are coming into the organization. Safety was always key and critical."

Conclusion

We may be unable to predict future challenges, but lessons learned from two years of surge management can help hospital leadership prepare for whatever comes next. There is always an opportunity to learn something from anything new and disruptive. "This is a once-in-100-years type of event—the next one will be slightly different," Bessel notes. "As much as there are always lessons learned, there are also going to be nuances and differences, because nothing is exactly the same."

References

AHA Data & Insights. 2022. "COVID-19 Bed Occupancy Projection Tool." Accessed March 28. https://metricvu.aha.org/dashboard/covid-bed-shortage-detection-tool.

American Society for Health Care Engineering. 2021. "Banner Health Recognized for Excellence in Facility Management." Published November 8. https://www.ashe.org/banner-health-recognized-excellence-facility-management.

Centers for Disease Control and Prevention (CDC). 2022. "COVID Data Tracker." Accessed March 28. https://covid.cdc.gov/covid-data-tracker.

At the Core of Health Care Lies the Essential Element of Trust

with Jeff Goldsmith, PhD, President, Health Futures, Inc.

After many decades of great health, things began to change for Jeff Goldsmith, PhD, in late 2014. At the age of 65, Goldsmith was diagnosed with head and neck cancer, which not only changed his life but also altered his view of health care forever.

Over the course of the next two and a half years, Goldsmith, a recognized expert on management and policy issues relating to health care services, would undergo a total of five major surgical procedures, each addressing a different malady: surgery related to the head and neck cancer, nerve-grafting surgery to restore use of his right hand, two hip replacements, and cervical spine surgery. And while all five operations were successful and Goldsmith enjoyed a complete recovery from each, the experience left him with insight into health care that few patients ever attain.

"The cancer diagnosis was very much like staring down the barrel of a shotgun," Goldsmith remembers. "My entire focus turned to how I was going to survive. Yet for me, the central challenge of having cancer was not molecular biology or the various therapeutic options available to me. Instead, the central question was, who would I trust to help me resolve the problem? Cancer taught me that trust is the essential element in the relationship between a patient and the care systems they work with."

The Many Dimensions of Trust in Health Care

Although often overlooked, trust is foundational in health care relationships, whether it is between patients and their caregivers, among clinicians, or between clinicians and the institutions for which they work. And while economists have observed that virtually all commercial transactions involve an element of trust, Goldsmith says trust is particularly critical in health care, where any illness can be viewed as an assault on one's personal integrity.

"In a health encounter, the consequences of failure for the patient are so great that the level of trust required is greater than in just about any commercial transaction," Goldsmith explains. "And the more threatening the medical problem, the greater the level of trust required."

Goldsmith is not alone in these beliefs. In a 2017 article, Carlos A. Pellegrini, MD, calls trust the "keystone" of the patient-physician relationship. A patient's trust, Pellegrini explains, may

About the Subject Matter Expert

Jeff Goldsmith founded Health Futures in 1982. Goldsmith is one of the nation's foremost health industry analysts, specializing in corporate strategy, trend analysis, health policy, and emerging technologies. He has worked as an advisor to senior management and boards across the health system—in hospitals; health plans; physician groups; and pharmaceutical, biotechnology, and health care manufacturing. Health Futures also helps guide venture and private equity investment in emerging technologies. Goldsmith writes on health policy, financing, and technology, and he lectures in the United States and overseas.

be built upon a foundation of effective communication, but it thrives when clinicians share their humanity with their patients. Trust is one of the central features of patient-physician relationships, and five elements of physician behavior can help foster it: competence, compassion, reliability, integrity, and open communication (Pearson and Raeke 2000). However, only a few assessment measures are available to actually gauge a patient's level of trust in his or her physicians (Anderson and Dedrick 1990; Safran et al. 1998; Kao et al. 1998):

- trust in physician scale
- primary care assessment survey
- patient trust scale

In a recent meta-analysis, a team of investigators from Europe and the United States sought to determine whether patients' trust in their health care professionals is associated with health outcomes (Birkhäuer et al. 2017). To do so, they searched a series of major electronic databases for studies reporting quantitative data regarding the association between trust in health care professionals and relevant outcomes. A total of 400 reports were screened; 47 studies were ultimately included in the meta-analysis.

The investigators worked to identify correlation coefficients (r) for a group of associations. (Note that r can vary anywhere from –1 to 1, with –1 denoting two variables that change entirely in opposite directions and +1 denoting two variables that change together). It was found that there was indeed a small-to-moderate correlation between trust and health outcomes (r = 0.24; 95% CI, 0.19–0.29). Subgroup analyses also revealed a moderate correlation between trust and self-rated subjective health outcomes (r = 0.30; 95% CI, 0.24-0.35). On the other hand, no significant correlations were found between trust and either objective outcomes (r = –0.02; 95% CI, –0.08 to 0.03) or observer-rated outcomes (r = 0.10; 95% CI, –0.16 to 0.36).

A series of exploratory analyses found a marked correlation between trust and patient satisfaction, as well as more modest correlations between trust and health behaviors, quality of life, and symptom severity. Given these findings, the researchers concluded that patients who had greater levels of trust in their health care professionals reported more beneficial health behaviors, fewer symptoms, and improved quality of life, as well as greater satisfaction with their treatment than their counterparts who did not exhibit such levels of trust (see exhibit 1).

Interlocking Circles of Trust

The way Goldsmith sees it, the architecture of health care institutions can be visualized as interlocking circles of trust, radiating outward from the physician-patient relationship. Intuitively, it stands to reason that more complex health issues require clinicians to act in concert with others; care in these cases is provided by a trusted clinical team comprising consulting physicians, nurses, pharmacists, and others. Yet the circles of trust extend beyond the clinical realm and include the complex framework of administrative and support services that provide clinicians with technological and logistical support.

In much the same way, physicians increasingly find themselves part of larger organizations, either independent group practices or those owned or supported by hospitals and other enterprises. Regardless of the size of

Exhibit 1

Associations Between Trust in the Health Care Professional and Health Outcomes, Stratified According to Outcome Dimensions

Analysis	Number of Studies (Patients)	r^a (correlation coefficient)	95% CI	*P* Value
Overall	47 (34,817)	0.24	0.19-0.29	<0.001
Objective	15 (7,867)	–0.02	–0.08 to 0.03	0.430
Observer-rated	2 (706)	0.10	–0.16 to 0.36	0.445
Subjective, self-rated	42 (30,943)	0.30	0.24–0.35	<0.001
Behavior	21 (26,642)	0.14	0.10–0.19	<0.001
Experience	29 (10,229)	0.37	0.27–0.47	<0.001
Satisfaction	15 (5,141)	0.57	0.49–0.64	<0.001
Health-related quality of life	5 (1,816)	0.18	0.14–0.22	<0.001
Symptom-related	13 (4,285)	0.13	0.04–0.22	0.004

Source: Adapted from Birkhäuer et al. (2017).

these ventures, they are all characterized by a common thread: the shared trust among professionals that helps everyone perform to the best of their abilities.

"Clinicians do not function in isolation, but rather as part of complex, multidisciplinary teams, the core of which are trusting relationships between people who have to work together effectively in order to get their job done," Goldsmith says.

Like a surgeon trusting the anesthesiologist or an oncologist trusting the pathologist, trust is the foundational component that underlies all successful health care efforts. Erode that trust, Goldsmith says, and the entire system falters. "If the trust is absent, people aren't able to function effectively as clinicians," he explains.

The importance of trust in health care relationships extends beyond the clinical realm and includes executive and administrative professionals as well. "Clinicians want to know that clinical quality and their safety are important to the people running their institutions," Goldsmith says. "They want to believe that investments are being made in technology and in people that make it possible for them to practice quality medicine. So trust between clinicians and management is also extremely important."

In addition, patients want to know that the executives running hospitals and other institutions take their needs seriously and are doing everything in their power to optimize the clinical experience.

Are Patients Consumers?

As critical as trust may be in the ultimate success of a health care organization, it is crucial for hospital executives to remember that these relationships are very different from those forged between more typical consumer brands and their customers. In fact, Goldsmith bristles when he hears patients referred to as "consumers" of health care. "To me, dealing with a threat to your life isn't 'consuming' anything," he says. "When I had cancer and was struggling to regain control of my life, I found it insulting and demeaning."

"Consuming" health care, Goldsmith says, is fundamentally different from going to the movies or buying a suit. People do not choose to be sick and do not rush to the hospital to have an experience. Rather, people become patients when something negative happens to them and they need help to ameliorate their health.

"I don't think that's a consumer in the same sense that we think about people functioning in a consumer-oriented economy," he explains. "Maybe that's how it works with something like LASIK [laser-assisted in situ keratomileusis] surgery, where price and convenience are the dominant factors determining where a patient goes. But the sicker you are, the more important the issue of trust is and the less 'consumer' behavior is really relevant."

Goldsmith's personal experience demonstrates this. After being diagnosed with head and neck cancer, he chose to travel 600 miles to the University of Chicago for treatment, but only because he had a trusting personal relationship with clinicians there. The issue of price or value did not factor into the decision, even though those two characteristics are important determinants of typical consumer behavior. He acted similarly when it came to his hip arthroplasties and cervical spine fusion, choosing surgeons he trusted over those who may have been less expensive or more convenient.

"There's an element of sanctity in the doctor-patient relationship—as well as the relationship a person has to the institution that takes care of him—that goes far beyond the depth of a relationship you have with McDonald's, say, or your health insurance provider, for that matter," he notes. "It's a deeper and more complex relationship. It's a human relationship."

Money Matters

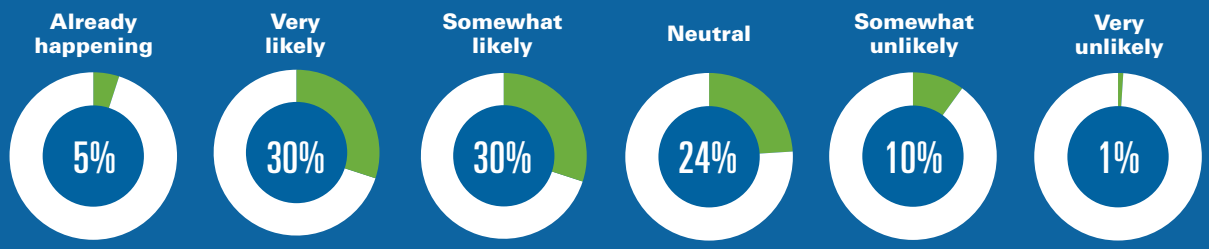
Of course, most patients don't have the luxury of traveling hundreds of miles to have a procedure performed. Goldsmith is not naive enough to think that economic matters can be ignored when it comes to the delivery of health care. In fact, he likes to quote legendary management guru Peter Drucker, who said hospitals are the most complex organizations in the modern economy, with hundreds of "products" offering a bewildering array of technical complexity. Roll these institutions into multihospital organizations—each of which boasts its own web of commercial relationships with government and commercial payors—and it's easy to see why economic factors, affected as they are by this complexity, play such an important role in health care.

How, then, can a hospital executive best address the challenges of economics and trust? One way, Goldsmith says, is to recognize that while health care institutions have "brands" in much the

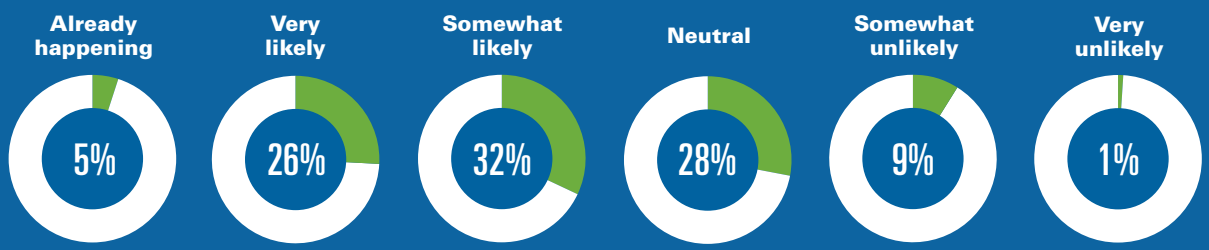
FUTURESCAN SURVEY RESULTS
Culture of Trust

Health care executives from across the nation were asked how likely it is that the following will happen in their hospital or health system by 2028.

By 2028, our hospital or health system's brand metrics (e.g., likelihood to promote, brand perception, brand loyalty) will demonstrate an average 25 percent increase in community trust in our system.



By 2028, our hospital or health system's physician satisfaction metrics will demonstrate an average 25 percent increase in community trust in our medical staff.



same way that Nike and Coca-Cola do, they are judged according to a very different standard than consumer brands—the role of trust looms far larger. The way Goldsmith describes it, the strength of health care brands is a direct consequence of the trust and personal confidence vested in them and their clinicians by the patients who visit these institutions.

With this in mind, hospital executives can begin forming relationships by fostering and growing an institutional culture of trust among every employee who works at the institution. Goldsmith says trust needs to be considered part of every health care institution's culture. Bolstering trust will strengthen the bonds between patients and institutions.

According to the latest *Futurescan* survey, hospital executives are quite confident that by 2028 their efforts will result in a 25 percent increase in community trust in their institution. Fully 60 percent of respondents replied that this was very or somewhat likely, and another 5 percent reported that this was already happening. In addition, 57 percent of respondents felt that a 25 percent increase in community trust in their medical staff by 2028 was very or somewhat likely, with another 5 percent reporting that this was already happening.

As demonstrated by the international meta-analysis mentioned earlier, the benefit of these relationships is improved outcomes, which ultimately bolster an institution's bottom line. Goldsmith agrees, saying patients who don't trust their clinicians will likely not follow their advice and may not get

better as a result. "Your faith in the professional competence and the caring of the person that is taking care of you has a great deal to do with the effectiveness of the relationship," he says.

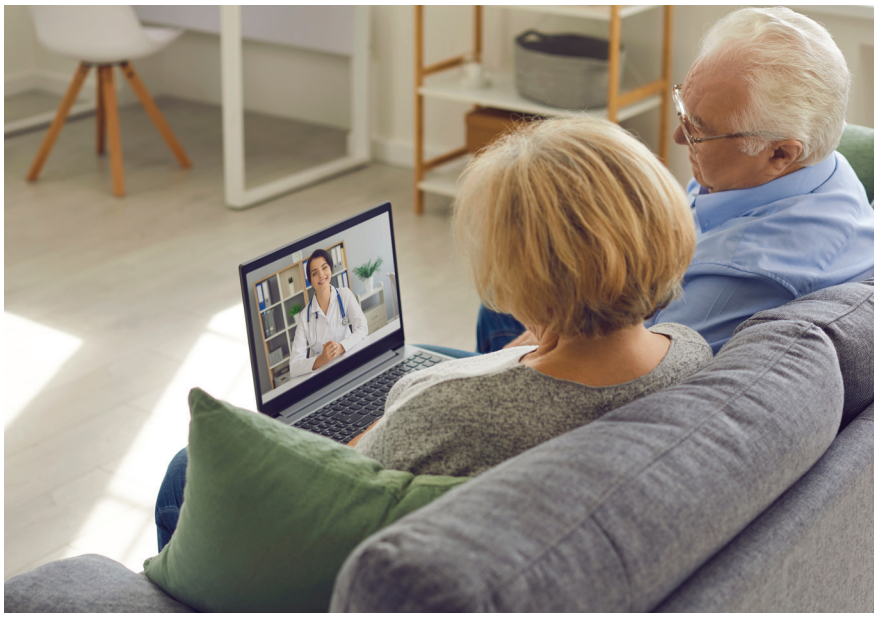
That relationship is also subject to the vicissitudes of fate and circumstances. The advent of COVID-19 saw an eventual diminution of the level of trust people placed in their health care systems, buffeted as they were by informational gaps and the politicization of medical care (Sarasohn-Kahn 2022). Physicians, too, lost trust in the leadership of their health care system (McClennen 2021). And surveys of people of color have consistently found lower levels of trust in health care practitioners and systems, pointing to well-documented systemic racial disparities (Young 2021).

Trust building begins with a commitment to treat each patient with dignity and respect, which people have increasingly come to expect from their health care interactions. Patients who are not treated with dignity and respect immediately know it, and that feeling colors their attitude toward the institution where their clinicians work.

"When consumers have a disappointing experience, they tell 13 other people they had a bad experience," Goldsmith says. "So that certainly doesn't help you retain your market share or improve your net promoter score."

In a recent scoping review, Nandyal and colleagues (2021) assessed the current strategies to help build trust between hospital systems and community members. The review identified 13 relevant articles and six key themes that form a framework for building trust between health care institutions:

1. Choose potential partners.
2. Form partnerships.
3. Conceptualize and define trust in collaborative relationships.
4. Identify strategies for community investments and hiring.
5. Communicate with communities.
6. Understand the community.



The Role of Telehealth

Popularized as a result of people's inability to make in-person visits during the COVID-19 pandemic, telehealth has demonstrated its value in the past two years. Yet, as Goldsmith explains, the technology does not represent a new kind of health system but rather an extension of extant trusting relationships. Like the networks upon which they are founded, telehealth apps need to respect and enhance the central role that trust plays in all patient-clinician interactions.

Indeed, the vast majority of telehealth visits during the pandemic were not anonymous but rather between patients and their existing doctors, typically using dedicated telehealth technology or a platform such as FaceTime. Goldsmith says the telehealth "explosion" during the pandemic would not have happened without the efforts of hospital-based health systems, which used telehealth to continue the relationships that patients already had with their physicians. This explains why telehealth platforms have struggled to gain significant purchase in the health care realm.

"I think that has been a missing puzzle part in the whole telehealth conversation," Goldsmith explains. "To me, the highest and best use of telehealth is to extend and strengthen existing trusting relationships. Few people really want to talk to a stranger on the phone about their health problems."

Health-related phone apps that connect users with anonymous providers or, worse yet, chatbots are equally disconnected, Goldsmith says. Given that there are literally hundreds of thousands of health-related apps, how are patients expected to make a rational decision about which ones to trust and use?

Goldsmith adds, "There is a proof point here. Does the product meet a patient's needs? And is it able to engender a relationship of trust with them such that the relationship continues?"

Looking down the road, Goldsmith hopes for a time when trust is an integral component in all health care enterprises, regardless of size. "I think it's got to be part of the culture of the place," he says. "This way, institutions can strengthen the bonds of trust that bind the community to them, bind their medical staff to them, and bind their patients to them. And it all begins by validating trust."

References

Anderson, L. A. and R. F. Dedrick. 1990. "Development of the Trust in Physician Scale: A Measure to Assess Interpersonal Trust in Patient-Physician Relationships." *Psychological Reports*, 67(3 pt 2):1091–1100.

Birkhäuer, J., J. Gaab, J. Kossowsky, S. Hasler, P. Krummenacher, C. Werner, and H. Gerger. 2017. "Trust in the Health Care Professional and Health Outcome: A Meta-analysis." *PLoS One*, 12(2):e0170988.

Kao, A. C., D. C. Green, A. M. Zaslavsky, J. P. Koplan, and P. D. Cleary. 1998. "The Relationship Between Method of Physician Payment and Patient Trust." *Journal of the American Medical Association*, 280(19):1708–14.

McClennen, J. 2021. "Poll: Physicians' Trust in Health System Leadership Declines During COVID-19 Pandemic. *ABIM Foundation*. Published May 21. https://abimfoundation.org/pressrelease/poll-physicians-trust-in-health-system-leadership-declines-during-covid-19-pandemic.

Nandyal S., D. Strawhun, H. Stephen, A. Banks, D. Skinner. 2021. "Building Trust in American Hospital-Community Development Projects: A Scoping Review." *Journal of Community Hospital Internal Medicine Perspectives*, 11(4): 439–45.

Pearson S. D. and L. H. Raeke. 2000. "Patients' Trust in Physicians: Many Theories, Few Measures, and Little Data." *Journal of General Internal Medicine*, 15(7): 509–13.

Pellegrini, C. A. 2017. "Trust: The Keystone of the Patient-Physician Relationship." *Journal of the American College of Surgeons*, 224(2):95–102.

Safran, D. G., M. Kosinski, A. R. Tarlov, W. H. Rogers, D. H. Taira, N. Lieberman, and J. E. Ware. 1998. "The Primary Care Assessment Survey: Tests of Data Quality and Measurement Performance." *Medical Care*, 36(5):728–39.

Sarasohn-Kahn, J. 2022. "People Have Lost Trust in Healthcare Systems Because of COVID. How Can the Damage Be Healed?" *World Economic Forum*. Published March 25. https://weforum.org/agenda/2022/03/trust-health-economy-pandemic-covid19.

Young, S. 2021. "Survey Highlights Unequal U.S. Health Care System." *WebMD*. Published June 21. http://.webmd.com/a-to-z-guides/news/20210621/survey-highlights-unequal-us-health-care-system.

ABOUT THE CONTRIBUTORS

Society for Health Care Strategy & Market Development

The Society for Health Care Strategy & Market Development (SHSMD) of the American Hospital Association is the largest and most prominent voice for health care strategists in marketing, strategic planning, business development, communications and public relations. SHSMD is committed to leading, connecting, and serving its members to prepare them for the future with greater knowledge and opportunity as their organizations strive to improve the health of their communities. The society provides a broad and constantly updated array of resources, services, experiences and connections.

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