

Shaping a Resilient and Reliable Healthcare Ecosystem with a Patient-Centric Approach



Abstract

The healthcare industry is striving to create a collaborative ecosystem where patients are active partners in managing their health. However, despite significant investments, the industry has had limited success in achieving tangible results from its care initiatives.

The industry is grappling with a disconnect between current solutions and actual patient needs, leading to low engagement, poor adherence, and increased healthcare costs. Data silos, impersonal communication, and misaligned incentives also hinder the delivery of truly personalized and effective care.

There is a significant opportunity to transform the healthcare landscape by adopting strategies and technologies that have proven successful in other sectors. By leveraging AI, fostering virtual communities, and embracing value-based care models, a more responsive, equitable, and sustainable ecosystem can be built. Realizing this vision requires a collaborative effort from payers, providers, pharmacies, plan sponsors, medtech providers, and hospital systems to prioritize patient needs and create a truly patient-centric experience.

Introduction

Healthcare is evolving into a two-way conversation, where patients have a voice and a role in shaping their health journey. This shift is evident in the industry's commitment to patient-centered care, yet translating this commitment into tangible, scalable solutions remain a challenge.

- 01 According to the recent WHO Global Patient Safety Report, meaningful patient engagement has the potential to [reduce patient harm by up to 15%¹](#). Clearly, there's not only an ethical imperative for improved engagement but also significant potential for cost savings and improved clinical outcomes.
 - 02 Patient-centered care, by improving the delivery of healthcare, motivates patients to become more involved in their health journey resulting in improved satisfaction. [A study of cancer patients in Türkiye²](#) revealed that higher levels of patient-centered communication were positively correlated with significantly increased patient engagement and satisfaction.
 - 03 This increased involvement directly translates to better outcomes such as reduced readmission rates due to improved adherence to treatment plans, minimized complications through proactive patient monitoring, and lower administrative expenses because of fewer errors and complaints.
 - 04 However, despite technological advancements and increased investments in patient-facing tools, engagement. The disconnect often because existing solutions fail to adequately address the nuanced needs and preferences of patients, creating a frustrating cycle for patients as well as providers.
 - 05 The disconnect often because existing solutions fail to adequately address the nuanced needs and preferences of patients, creating a frustrating cycle for patients as well as providers.
 - 06 The consequences of low patient engagement are far-reaching. Poor adherence to treatment plans, delayed diagnoses, and increased hospital readmissions drive up healthcare costs, decrease provider satisfaction, and ultimately, compromise the overall efficiency of the healthcare system.
 - 07 Notably, investing in patient-centric care translates directly into measurable business advantages. Healthcare organizations that prioritize positive patient experiences consistently report tangible business benefits, including improved [revenue generation and greater cost efficiencies³](#). This highlights the immense opportunity and growing demand for effective patient-centric solutions.
- By implementing the right solutions, we can equip individuals with the tools and information they need to manage their health effectively, improving overall quality of life. This means reducing the burden of chronic diseases, fostering adherence to new treatment paths, and empowering patients to play an active role in their well-being.
- For providers and other stakeholders, creating positive and memorable experiences through personalized engagement is key to standing out. By focusing on improved patient engagement and the technology that supports it, healthcare providers can become the go-to choice, attracting and retaining patients in a competitive market.
- This whitepaper explores the challenges, opportunities, and strategies for closing the engagement gap and realizing patient-centered care



Mapping the Ecosystem Gaps

The path to improve patient engagement isn't straightforward. While progress has been made in many areas, various systemic barriers continue to undermine efforts to improve patient engagement. Beyond the technological, operational, and cultural hurdles, the industry also grapples with skewed demand-supply ratios fueled by aging populations and workforce shortages, inflating costs, and rising investor pressures.

Notable structural deficiencies in the healthcare ecosystem include:

Administrative Complexity and Inefficiency

The US spends nearly [16% of its GDP](#)⁴ on healthcare—significantly more than other OECD countries—yet this high spending does not equate to better outcomes. The excess is largely driven by higher costs, including administrative overhead and provider salaries, rather than increased utilization or better access.

[Administrative costs alone account for over a third of US healthcare spending](#)⁵, with more than \$800 billion spent in 2017—over four times the per capita administrative costs of comparable countries like Canada.

Workforce Shortages and Maldistribution

There is a [projected shortage](#)⁶ of over 100,000 healthcare workers in the US by 2028, particularly affecting primary care physicians, advanced practice providers, and nurses. This shortage is driven by factors such as burnout, an aging workforce, and wage stagnation relative to other industries.

[Both rural and urban areas experience shortages](#)⁷ of healthcare professionals, leading to delays in treatment, poorer health outcomes, and increased health disparities.



Data Silos and Interoperability Challenges

Achieving seamless data sharing remains challenging due to several persistent factors, including the prevalence of proprietary, vendor-specific data formats, the difficulty of integrating older legacy systems with limited APIs (Application Programming Interfaces), and the complexities of navigating strict regulatory and privacy requirements. Despite \$36 billion federal EHR (Electronic Health Records) incentives, a [recent study found that only 45%](#)⁸ of all US hospitals engaged in the 4 core elements of interoperability, such as the capability of different EHR systems to find, send, receive, and use or integrate clinical information with one another. Rural and other smaller care providers lagged further behind.

Diverse interoperability standards often complicate consistent adoption as well, while organizations also grapple with managing the high volume and variety of health data. The process can further be hindered by 'information blocking' practices like excessive access fees or payers withholding claims history.

This lack of seamless data sharing between providers, payers, pharmacies, and other stakeholders prevents a holistic view of the patient. Consequently, it leads to inefficiencies, errors, duplicated efforts, and a diminished patient experience, where critical information is often inaccessible when and where it's needed most.

Legacy Systems and Cultural Inertia

One of the primary drivers of data silos is the technical debt accumulated from [legacy systems and outdated operational models](#)⁹, a problem that requires substantial investment and modernization to overcome. Replacing or integrating these legacy systems is often a complex and expensive undertaking. However, even with technological solutions available, resistance to change within organizations can hinder progress toward seamless interoperability. Policies, organizational culture, and deeply ingrained habits may discourage data sharing and collaboration, regardless of the technology in place.

Lack of Personalized Communication and Support

A 'one-size-fits-all' approach to patient communication can lead to disengagement, frustration, and ultimately, poorer health outcomes.

A [2021 survey](#)¹⁰ found that 71% of consumers expect personalized interactions, and 76% get frustrated without them.

Limited doctor-patient interaction and minimal use of patient data, including medical history, lifestyle factors, and treatment response information, prevent tailored care. Moreover, automated generic communication and standardized prescriptions fail to consider personal health histories. Cultural and language differences are often overlooked, leading to misunderstandings, and [mental health is frequently ignored in physical treatments](#)¹¹.

Health outcomes are significantly shaped by social, behavioral, and mental health factors. Effective patient engagement requires tailored communication strategies that consider these factors as well as health literacy, language preferences, cultural background, and individual needs.



Limited Access to Support Resources

Even when effective communication strategies are in place, many patients face difficulties in accessing necessary support resources. These barriers can include economic disparities that limit access to affordable care, high out-of-pocket costs for medications and services, technological barriers such as lack of internet access or digital literacy, and geographical limitations that restrict access to specialists or support groups. In an obvious [example of the digital divide](#)¹², a study found that telehealth utilization (which translates to [lower transportation costs and lost wages](#)¹³ for people) during the Covid-19 pandemic was directly related to increased broadband access.

Geographical limitations restricting access to specialists are being addressed by innovative solutions like [virtual clinical pharmacy services](#)¹⁴. Models implemented in areas like rural Australia demonstrate how remote access to specialized pharmacist skills can improve medication safety and patient support, even without an onsite presence. Addressing these barriers is necessary for ensuring equitable outcomes and diminishing disparities in care to achieve optimal health outcomes.

Misaligned Incentives

The prevailing fee-for-service payment model continues to incentivize volume over value and patient engagement. According to a report by the Health Care Payment Learning and Action Network (HCPLAN), [41% of healthcare payments](#)¹⁵ were still tied to fee-for-service models with no link to quality.

In this model, healthcare providers are primarily rewarded for the quantity of services provided, rather than the quality of care or the level of patient engagement. This creates a disincentive for investing in patient engagement initiatives that may improve outcomes but not necessarily generate more revenue. Shifting to value-based care models that reward quality, outcomes, and patient engagement is essential to incentivizing healthcare providers and drive meaningful change.

Trust Deficit

A growing trust deficit between patients and the healthcare system poses a significant barrier to effective engagement. According to a survey [released by The Economist/YouGov](#)¹⁶, most Americans hold an unfavorable view of the US healthcare system.

Patients may also harbor concerns about data privacy and security, particularly as emerging technologies like AI and telemedicine become more prevalent. [Studies have often shown mixed results](#)¹⁷ on patients' views on healthcare providers relying on AI. In one study in the US, a majority weren't comfortable with such providers, but the same study found that 80% of them would be willing to try AI-powered tools to help manage their health.

Building and maintaining patient trust requires transparency, clear communication about data privacy practices, and a demonstrated commitment to protecting patient information.



How **MINDSPRINT** can Help

Mindsprint helps healthcare organizations address ecosystem challenges through advanced AI-driven analytics, interoperable digital platforms, and a patient-centric design philosophy. By streamlining administrative processes, enabling seamless data exchange, and supporting providers with AI-driven decision tools, Mindsprint empowers companies overcome operational inefficiencies, workforce shortages, and data silos. Our solutions are designed to enhance patient engagement, reduce costs, and support equitable access to care across diverse populations.



Key Enablers for a Patient-Centric Ecosystem

Creating a truly patient-centric ecosystem requires a comprehensive approach, addressing both technological infrastructure and underlying cultural barriers to engagement. By strategically focusing on specific areas, we can move beyond the limitations of traditional models and create a more responsive, equitable, and effective healthcare experience for all.



Building a Foundation of Interoperability

Achieving true patient-centricity hinges on creating a foundation of interoperability. Addressing the tech debt requires not only technological upgrades, but also a shift in mindset and a willingness to embrace new ways of working. This requires the adoption of suitable data-sharing platforms while establishing clear protocols for data security, patient privacy, and responsible data use. [Studies suggest](#)¹⁸ that interoperable prescription drug monitoring programs reduced opioid overdoses in the US.

Implementing a significant organizational shift for interoperable systems can be guided by frameworks like the [McKinsey 7S model](#)¹⁹, which emphasizes the need to align strategy, structure, systems, shared values, skills, style, and staff.

For example, applying this framework could translate into specific actions across each element, such as:



Companies aiming to address the deeply intertwined challenges of legacy systems, interoperability, and cultural inertia have partnered with firms that, in their independent assessments, have the required expertise in the landscape, deliver the right advanced technology stack, and manage change in a structured, human-centric way for successful implementation.

For example, MedAdvisor Solutions, a leading pharmacy-driven patient engagement platform with operations in the US and Australia, has embarked on this journey with Mindsprint as its partner. This partnership is now enabling MedAdvisor to seamlessly share drug and patient data across providers and pharmacies with integrated digital workflows and AI-driven mapping to break down data silos and improve care coordination.

Personalized Communication and Support Strategies

To truly resonate with patients, communication and support must be personalized. This involves leveraging advanced technologies like AI-powered diagnostic tools, predictive data analytics, and Internet of Medical Things (IoMT)-enabled devices to deliver tailored communication and support that addresses individual patient needs and preferences. By understanding a patient's specific health literacy level, cultural background, and unique circumstances, healthcare providers can deliver targeted interventions and resources that are more likely to drive engagement and improve outcomes.

For example, here's a hypothetical case of 35-year-old Sarah and her pre-diabetic journey.

Overwhelmed by Generic Advice

Sarah felt disconnected from her care team due to non-specific guidance that failed to address her unique circumstances.



Challenges

Difficulty Implementing Lifestyle Changes

Conflicting information and lack of actionable support left Sarah struggling to adopt healthier habits.

To address these challenges, healthcare providers can employ advanced technologies and tailored communication strategies.

Tailored Messaging	A red icon of a speech bubble with a white checkmark inside, representing tailored messaging.	Personalized communications specifically acknowledged Sarah's prediabetic diagnosis, making the information relevant and direct.
Customized Care Plan	A red icon of a clipboard with a checkmark and an apple, representing a customized care plan.	Meal plans were carefully designed to exclude nuts due to her allergy and incorporated practical, accessible exercise suggestions (e.g., "10-minute exercise with dog").
Preferred Communication Channels	A blue icon of a globe with a checkmark and a speech bubble, representing preferred communication channels.	Sarah chose email and text for communication, aligning with her work schedule and lifestyle.
IoMT Integration	A blue icon of a gear with a checkmark and a speech bubble, representing IoMT integration.	IoMT-enabled devices were used for real-time glucose monitoring, providing crucial data that enabled timely and data-informed advice.
Proactive Follow-Up Support	A purple icon of a person with a checkmark and a speech bubble, representing proactive follow-up support.	Regular, scheduled calls motivated Sarah to stay on track, offered feedback on her progress, and created opportunities for Sarah to ask questions and clarify her care plan.

The personalized approach can lead to measurable improvements in Sarah's health journey

Outcome & Impact	Improved Engagement	Positive Health Outcomes	Enhanced Patient Satisfaction
	Sarah felt supported and empowered, directly translating into better adherence to her dietary and exercise plan	Consistent monitoring combined with tailored interventions resulted in the stabilization of Sarah's glucose levels within six weeks.	The personalized outreach fostered greater trust in the healthcare provider, leading to improved overall satisfaction and loyalty.

Mindsprint enables organizations with capabilities to deliver personalized communication and support strategies through AI-powered communication tools. Firms can leverage these tech capabilities to broadcast, timely, personalized messages and intervene contextually, resulting in higher patient engagement and improved adherence to care plans.



Expanding Access to Resources

Geographic location, economic status, and technological literacy should not dictate access to quality care. Investing in virtual care platforms, mobile health solutions, and community-based programs is essential for providing convenient and affordable access to care and support resources, particularly for underserved populations.

One example of this approach is the use of virtual behavioral health services, which enable care to be integrated with primary care settings where individuals often first seek support. These programs, leveraging approaches like the [Collaborative Care Model \(CoCM\)](#)²⁰ supported by robust clinical evidence, connect patients with behavioral health clinicians and psychiatric consultants via phone and video. This model not only enhances access but also creates more comprehensive care experiences where behavioral healthcare is readily available, regardless of geographic location.

Partnering with Mindsprint can allow healthcare organizations extend real-time support and resources to diverse patient populations, regardless of location or background through digital solutions.

Incentivizing Engagement through Value-Based Care Models

Shifting payment models to reward providers for improving patient engagement and outcomes is crucial for incentivizing healthcare providers and driving meaningful change. Value-based care models prioritize the quality of care over the quantity of services provided, incentivizing providers to invest in patient engagement initiatives that improve outcomes, reduce costs, and enhance the patient experience. This shift to value-based care requires a fundamental rethinking of how healthcare is delivered and financed.

For example, the Centers for Medicare & Medicaid Services (CMS) reported significant financial benefits through value-based care programs. The Accountable Care Organizations (ACOs) in the Medicare Shared Savings Program (MSSP) have generated billions in net savings while improving care quality. In 2020 alone, MSSP ACOs [saved Medicare \\$4.1 billion and earned \\$2.3 billion](#)²¹ in shared savings.

Collaboration and Partnership

By forming strong partnerships between healthcare providers, technology companies, patient advocacy groups, and research institutions, we can foster innovation, share best practices, and develop more effective solutions. These collaborations can take many forms, from joint research initiatives to the co-creation of patient-facing tools and resources.

Initiatives like the [Pfizer Oncology Patient Centricity Ecosystem \(POPCE\)](#)²² demonstrate the power of collaborative networks, bringing together over 65 patient advocacy organizations, professional societies, and industry leaders to address core areas like health equity, health literacy, and patient engagement in clinical trials.

Bridging the Skills Gap

As healthcare embraces new technologies like AI and machine learning, it's essential to ensure that all stakeholders are adequately prepared for such integrations. This requires targeted education and upskilling programs to equip healthcare providers, patients, and other stakeholders with the knowledge and skills they need to effectively utilize these technologies. These programs should focus on topics such as data literacy, AI ethics, and the responsible use of technology in healthcare.

Building Trust

Building and maintaining patient trust is paramount in a digital healthcare landscape. This requires implementing robust data privacy and security measures to protect patient information. Additionally, it is crucial to promote transparency in AI algorithms and decision-making processes.

Patients need to understand how AI is being used in their care and have confidence that their data is being handled responsibly and ethically. Studies and surveys suggest that people are open to using AI for diagnosis, treatment, monitoring, or decision support while preferring to interact with human healthcare practitioners over AI for more complex or sensitive issues such as mental health, chronic diseases, or end-of-life care.

In all cases, transparency, clear communication, and commitment to data security are essential for fostering trust across the healthcare spectrum.

How Mindsprint Enables a Patient-Centric Future

Mindsprint partners with healthcare organizations to build the technological and cultural foundations for true patient-centric care. Driven by a relentless focus on interoperability, digital engagement, and personalized care delivery, we help payers and providers implement solutions that are secure, scalable, and effective. By applying AI, data-driven insights, and intuitive platforms, Mindsprint helps clients improve outcomes, build trust, and deliver value-based care wherever they are in their transformation journey.

The Difference Starts Here

From AI-driven patient engagement to integrated digital workflows, Mindsprint empowers healthcare organizations to deliver measurable improvements in patient outcomes and operational efficiency.

From AI-driven patient engagement to integrated digital workflows, Mindsprint empowers healthcare organizations to deliver measurable improvements in patient outcomes and operational efficiency.

We turn complexity into clarity with the power of AI and analytics



We design with a patient-first mindset, for every community we serve



We protect what matters most with leading security and privacy standards



We connect systems seamlessly through future-ready, interoperable platforms



We drive real results in value-based care transformation





Cross-Industry Lessons for Patient Engagement

To truly elevate patient engagement, healthcare organizations can look outside the industry for inspiration. Sectors like retail and logistics have mastered customer experience and efficiency, offering valuable lessons that can be adapted to improve how we connect with and support patients. Instead of cookie-cutter recommendations, financial institutions are leveraging personal information to deliver highly tailored solutions.

With these cross-industry insights, healthcare organizations can transform their patient engagement strategies into more effective and scalable solutions, driving better outcomes and a more sustainable healthcare system.

AI-Powered Patient Engagement Tools from Big Tech

Personalized, conversational experiences powered by AI are transforming patient engagement.

By leveraging solutions like [Microsoft Health Bot Service](#)²³, healthcare organizations can deploy AI agents for symptom checking, scheduling, and tailored information, driving both improved patient engagement and reduced costs. This translates to more timely, personalized care, fostering better adherence and more proactive management of their health.

These always available [AI virtual healthcare assistants](#)¹⁷ can help bridge the gap between practitioners available and the demand for care while reducing the workload on human healthcare professionals.

Online Communities Inspired by Social Media

To expand access, healthcare organizations are creating virtual communities where patients can connect with peers. These online platforms, ranging from social networking sites to specialized forums, foster patient education, empowerment, and support, significantly impacting the healthcare landscape. In fact, studies show that these digital tools can even improve the care delivered to patients, with as many as [60% of doctors](#)²⁴ reporting that exposure to social media enhanced the quality of care they provided. The result is improved emotional well-being and adherence to therapy through empowered peer engagement.

Telehealth and Virtual Care from Healthcare IT

Telemedicine platforms are transforming patient engagement by enabling remote and accessible care. A [Kaiser Permanente study](#)²⁵ highlighted the efficacy of this approach, finding that over 50% of primary care visits utilized telemedicine in 2021, with comparable outcomes to in-person visits. This enhances access to care, especially for underserved populations, while maintaining safety and quality.

Digital Patient Engagement Inspired by Consumer Tech

Empowering patients to manage their health effectively requires creating omnichannel platforms that deliver personalized experiences across various devices and channels. [MedAdvisor Solutions](#)²⁶ exemplifies how omnichannel platforms can transform patient engagement by integrating pharmacy-driven data with AI-powered predictive analytics. MedAdvisor's platform delivers seamless access to medication information through integrated, data-driven communication. This patient-centric strategy enhances adherence and satisfaction by ensuring timely, relevant interactions that support better health outcomes.

Predictive Analytics from Financial Services

To improve long-term health outcomes, healthcare providers are adopting predictive models to anticipate patient needs and personalize interventions. For example, Geisinger Health System uses tools that function similarly to financial risk modeling to [identify high-risk patients early on](#)²⁷. This allows them to proactively offer targeted interventions, ultimately reducing hospitalizations and improving patients' overall well-being.

Logistics Expertise from E-Commerce

There is a growing focus on bringing care directly to the patient, as exemplified by the rise of remote care kits and hospital-at-home programs. [Atrium Health's partnership with Best Buy](#)²⁸, providing remote monitoring devices for in-home care, demonstrates the potential of this approach. These kits empower patients with the tools to track their vitals and engage in virtual consultations, leading to both reduced costs and maintained high-quality care.





Case in Focus

Notably, an acute care hospital in the US Midwest²⁹, which was experiencing inefficiencies, applied the principles of the Toyota Production System (TPS) for medication delivery.

The results showed a measurable improvement in delivery, as well as patient safety and satisfaction among other benefits.

Other related widespread studies³⁰ on the adoption of innovative management practices involving methodologies such as TPS and Lean Six Sigma (LSS) have also shown similar favorable results. In these cases, operational efficiency significantly improved, translating into lower wait times, reduced costs, and in turn, better patient outcomes.

A Collaborative Path Forward

The journey toward patient-centered care is a shared responsibility, demanding active participation from every stakeholder in the healthcare ecosystem. For payers, this means investing in innovative solutions that directly engage patients, such as user-friendly communication platforms and personalized health navigation tools, while also incentivizing provider performance through value-based care models that prioritize improved patient outcomes and proactive care management. Providers, in turn, must fully embrace digital solutions to enhance communication, streamline care delivery, and empower patients to actively participate in their own health journey.

Pharmacies can leverage technology to play a more active role in medication adherence and patient education, ensuring patients understand their medications and keep up with treatment plans effectively. Plan sponsors are key to designing benefits packages that not only provide access to comprehensive care but also actively incentivize healthy behaviors, promoting preventative care and early intervention.

Medtech providers should focus on the development of interoperable and patient-friendly solutions that seamlessly integrate into existing workflows, empowering both patients and providers with the tools they need to make informed decisions and achieve better health outcomes. By embracing these interconnected roles, we can collectively transform the healthcare landscape into a more patient-centered, effective, and sustainable ecosystem.

Drive the future of healthcare with Mindsprint

Healthcare transformation is accelerating, and Mindsprint is your trusted partner to help realize true patient-centered care. We empower stakeholders across the value chain to simplify operations, personalize patient experiences, and transition confidently to value-based care. When you partner with Mindsprint, you gain a collaborator focussed on delivering measurable outcomes, fostering innovation, and championing the well-being of every patient. Together, let's build a resilient, equitable, and future-ready healthcare ecosystem.

ABOUT

MINDSPRINT



Thank you for downloading our whitepaper. Mindsprint is an AI-first trusted partner for healthcare organizations, delivering innovative AI-driven solutions that enhance patient, provider, and payer experiences, improve medication adherence, streamline business operations, and enable organizations for resiliency and long-term growth. Our proven frameworks and advanced technologies empower organizations to achieve measurable improvements in efficiency, care delivery, and patient outcomes.

Discover how Mindsprint can help you navigate your digital transformation journey with precision and impact backed by a risk- mitigated AI-first approach.

Contact us

for a consultation and discover how we can help you prioritize patient needs and create a truly patient-centric experience.

www.mindsprint.com



About the Authors



Unnikrishnan Sasikumar

Vice President and Global Leader
of the Business Transformation Services team supporting
Mindsprint's clients in the Healthcare, Insurance, and
Lifesciences industries.



Prabhu Kumar Uppalapati

Director and Product Leader
supporting solutions and delivery for Mindsprint's
clients in the Healthcare, Insurance, and Lifesciences
industries



Abhishek GR

Manager and Content Lead
for the Business Transformation Services team
supporting Mindsprint's clients in the Healthcare,
Insurance, and Lifesciences industries.



References

1. [Global patient safety report 2024](#), by World Health Organization, May 30, 2024
2. [The Effects of Patient-Centered Communication on Patient Engagement, Health-Related Quality of Life, Service Quality Perception and Patient Satisfaction in Patients with Cancer: A Cross-Sectional Study in Türkiye](#), by Sage Journals Home, February 27, 2024
3. [Patient-reported experience is associated with higher future revenue and lower costs of hospitals](#), by National Library of Medicine, December 9, 2023
4. [Health expenditure as a percentage of gross domestic product \(GDP\) in selected countries as of 2023](#), by Statista, March 19, 2025
5. [One-Third of U.S. Healthcare Spending Is Administrative Costs](#), by The Rheumatologist, January 7, 2020
6. [Mercer Projects a Deficit of Over 100,000 Healthcare Workers in the US by 2028](#), by Worsening Health Disparities and Impacting Patient Care, Businesswire, August 29, 2024
7. [The Health Workforce](#), by CHWS
8. [Perspectives on Challenges and Opportunities for Interoperability: Findings From Key Informant Interviews With Stakeholders in Ohio](#), by National Library of Medicine, February 24, 2023
9. [Healthcare Companies Must Understand Technical Debt](#), by Forbes, July 19, 2023
10. [The value of getting personalization right—or wrong—is multiplying](#), by McKinsey & Company, November 12, 2021
11. [Mental health is part of physical health. Why isn't it treated as such?](#), by AAMC, February 6, 2025
12. [Association between broadband capacity and telehealth utilization among Medicare Fee-for-service beneficiaries during the COVID-19 pandemic](#), by National Library of Medicine, April 5, 2023
13. [Telehealth Is a Sustainable Population Health Strategy to Lower Costs and Increase Quality of Health Care in Rural Utah](#), by National Library of Medicine, at July 16, 2020
14. [Virtual clinical pharmacy services: A model of care to improve medication safety in rural and remote Australian health services](#), by National Library of Medicine, March 15, 2022
15. [From Volume to Value: Progress, Rationale, and Guiding Principles](#), by AAFP, January, 2023
16. [Americans Are Souring on the Health Care System](#), by Newsweek, December 11, 2024
17. [Revolutionizing healthcare: the role of artificial intelligence in clinical practice](#), by National Library of Medicine, September 22, 2023
18. [The Impact of a PDMP-EHR Data Integration combined with Clinical Decision Support on Opioid and Benzodiazepine Prescribing Across Clinicians in a Metropolitan Area](#), by National Library of Medicine, January 1, 2023
19. [Enduring Ideas: The 7-S Framework](#), by McKinsey & Company, March 1, 2008
20. [Future of Health Case Study: Concert Health](#), by AMA
21. [Medicare Shared Savings Program ACOs saved \\$4.1 billion in 2020](#), by Healthcare Finance, August 21, 2021
22. [Patient Centricity White Paper](#), by Pfizer, December 2023
23. [Microsoft Health Bot Service](#), by Microsoft
24. [Transforming care, improving outcomes](#), by Wipro
25. [Patient outcomes point to efficacy of telehealth and virtual care](#), by Healthcare IT News, October 24, 2023
26. [The Power of Digital Patient Engagement: A Guide to Improving Healthcare](#), by Hexaware, November 25, 2023
27. [Geisinger uses AI to boost its value-based care efforts](#), by AMA, December 11, 2024
28. [Atrium Health and Best Buy Health Partner to Enhance Hospital at Home Experience](#), by Atrium Health
29. [Applying Toyota production system techniques for medication delivery: improving hospital safety and efficiency](#), by National Library of Medicine, March 2011
30. [Enhancing Hospital Pharmacy Operations Through Lean and Six Sigma Strategies: A Systematic Review](#), by National Library of Medicine, March 29, 2024

Mindsprint reimagines business through talent, technology, and insight-driven solutions. With a proven track record spanning two decades, the company has enabled digital transformation for clients in over 60 countries, spanning diverse industries such as retail, agriculture, manufacturing, healthcare and life sciences. Mindsprint offers a differentiated suite of services, including enterprise technology applications, business process services, and cybersecurity solutions. Mindsprint is headquartered in Singapore, with a strong global presence across the US, UK, Middle East, India, Australia and Africa.

www.mindsprint.com