The Role of Design in US Health Systems

A Report from 27 Health Systems

Equitable Healthcare Lab
Institute of Design at Illinois Tech
June 2024
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Equitable Healthcare Lab — Institute of Design
This report is a product of the Equitable Healthcare Lab, housed at the Institute of Design at Illinois Tech in Chicago, Illinois. The Lab partners with health systems to develop more inclusive healthcare strategies and solutions through the application of human-centered systems design. Learn more about our work and mission here: equitablehealthcarelab.org.

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At the Institute of Design (ID) at Illinois Tech, we turn design into a powerful tool anyone can use to transform the systems that shape our lives—from cities, education, and finance to food, healthcare, and technology. By uniting science and rigor with creativity and rapid iteration, we’re recognized around the globe as pioneers in human-centered design, systems design, and other methods that apply design to the real world. It’s through these unique approaches that students, communities, and organizations learn to observe the systems they’re surrounded by—and envision the new worlds they can build from them. Here, learners and leaders discover what design makes possible. Learn more about ID at id.iit.edu.
Commentary

It’s time to assess the role of design in US health systems.

This report describes a first-of-its-kind assessment of the role of design in US health systems, exploring the scope and scale of design’s influence on care delivery in 27 US health systems. The report is timely: 2023 marked the 20th anniversary of design’s integration into US health systems, first initiated by industry innovators Kaiser Permanente in 2003 and Mayo Clinic in 2004, but since joined by at least 40 other healthcare organizations.

For over 20 years, a small cadre of leading-edge health systems has invested in human-centered design (HCD) capabilities with an aim to improve care delivery and patient experiences. These organizations employ full-time designers and design strategists, embed them into both new and existing organizational units, and apply them to significant challenges in healthcare delivery: development of new service lines, strategies, digital infrastructure, and quality improvement efforts to generate results that resonate with staff and patients, improve clinical care, reduce errors, and accelerate adoption of evidence-based practices.

Today, the number of health systems investing in HCD has grown, but such efforts remain largely undocumented and therefore difficult to learn from or build on. There is little formalized knowledge or even peripheral awareness among health system leaders or designers about design’s optimal role, expected effects, or ideal placement within a healthcare organization. As a result, the role of design in healthcare is not well known or understood. But, as this report documents, there is growing evidence that design offers significant benefits across US health systems. This report, then, serves as a starting point for a deeper exploration of expectations, best practices, and impact.

Healthcare is in need of change.

The timing of this report also intersects a new and particularly challenging cycle in the US healthcare market: Healthcare is experiencing unprecedented pressures. The industry is more competitive, margins are compressed, workforce burnout has reached an all-time high, and waves of physician retirement portend dangerous conditions for a rapidly aging US population. Payment models are shifting, expectations of consumer-level services are growing, and the digitization of healthcare is underway with no clear standard or guidance for investment. More fundamentally, more patients need care but are struggling to access, pay for, and make use of it. As an industry in part responsible for the functioning of a nation, we must reimagine how care is delivered. The status quo is no longer an option.

Designers are effective change agents.

Design becomes more relevant and even necessary in today’s conditions, say our Advisory Council members, because design brings future-oriented processes — honed and found effective in commercial sectors for over 30 years — to enable rapid change built around the needs of human beings. In sectors such as consumer goods, electronics, financial services, and hospitality, designers are already recognized as change agents: they apply processes and tools to understand the challenges of complex systems and use these understandings to imagine relevant future states that do not yet exist but should.

The central role of Design Thinking in industry achieved formal recognition when Harvard Business Review placed it on its cover in 2008.1 In 2018, consulting giant McKinsey & Company developed the McKinsey Design Index and calculated that companies with strong design capacities captured almost twice the revenue and shareholder returns of their industry counterparts over a five-year period — and did so substantially faster.2

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Design has since moved into the domains of social innovation, complex systems design, and healthcare. A growing number of publications by healthcare researchers and practitioners have drawn attention to the potential for design methods to address 21st-century healthcare challenges. For example, more than 65% of PubMed-accessible papers with keywords of “user-centered design” or “human-centered design” or “design thinking” have been published in the last five years alone. Collectively these publications advocate applying design to a wide range of healthcare challenges: to develop new care delivery models for chronic disease management; to improve patient experiences of difficult procedures; to foment process improvement that is more effective, feasible and adopted by staff; to improve complex care workflows; and to develop effective Healthcare IT (HIT) that works for both patients and clinical staff.

Design's impact and value in healthcare are increasingly evident.

Design—a broad field that comprises diverse disciplines—is not well understood by health system leaders. Numerous design practitioners interviewed for this report noted the lack of clarity and understanding limits their ability to deliver their full value. This view suggests there is untapped potential for design to contribute to the performance of health systems. The Value of Design framework from the Bill & Melinda Gates Foundation and USAID (fig. 1) may help leaders appreciate that design can add value at different scales of care delivery: better outcomes (user); improved processes (program); expanded capabilities (organization); and increased equity (system). Designs add value across different problem types, as demonstrated by the organizations and their design teams in this report. We cataloged over 260 projects and “impact stories” from our practitioners to identify six primary contribution areas for design (in order of reported frequency): 1) patient experience, 2) digital transformation and product development, 3) care model refit, service line redesign, 4) strategy (setting long-term goals), 5) organizational development and training, and 6) quality improvement. Three secondary contribution areas—lower in reported volume and/or perceived health system value—include 7) reimagining space and facilities, 8) on-demand workshops, and 9) clinical IT industry research.

Our analysis of design projects in these areas revealed diverse types of value: they realigned healthcare operations with patient needs, improved clinicians’ ability to deliver high-value care, reduced Emergency Department utilization, directed Health IT investment and vision, connected people across siloed units within an organization, and integrated principles of patient experience into care delivery across the organization. Some efforts resulted in increased revenue through new service lines, decreased patient elopement, improved revenue collection, and product development and commercialization.

The impact stories in this report highlight that designers can deliver their value from different positions within a health system (address a quality improvement project from within a patient experience unit or pursue a care model project from within an innovation unit). Where to best position a design capacity in the organizational structure, then, may matter less than who designers report to: leaders seated in the executive suite and conversant in design were cited as the greatest facilitators of design impact among practitioners in interviews. Advisory Council members concur: design is sufficiently unfamiliar in healthcare that it requires a high-level organizational champion who can position it, introduce it to leaders seated in the executive suite, and convenant in design were cited as the greatest facilitators of design impact among practitioners in interviews. Advisory Council members concur: design is sufficiently unfamiliar in healthcare that it requires a high-level organizational champion who can position it, introduce it to leaders seated in the executive suite, and advocate for its inclusion.

Design may offer particular value to health systems ready to move past the current focus on efficiency. “Efficiency is what’s burning out your healthcare workforce,” say Advisory Council members. They question whether the efficiency mindset can produce the practice change outcomes needed. “Having the conversation about what’s driving burnout is profoundly important,” says the CEO of a leading hospital system. “We need to collectively congratulate ourselves for really focusing on efficiency, but we also need to identify what’s going to take our staff back.”

More than any other recent event, the COVID pandemic revealed a lesser understood value of design: it can help health systems mount rapid responses and accelerate changes in operations. Numerous practitioners related how their teams were deployed in a “flip of the spear” role to accelerate development of testing sites, PPE, telehealth services, and remote work practices. For some teams, these efforts expanded to include employee well-being programs, and retention programs. A surprising finding of this report is the rising volume of projects suggesting design has a growing role in organizational development to help health systems improve employee experience, build future work practices, and develop programs, centers, and platforms to improve innovation skills enterprise-wide.

Lessons from the vanguard can maximize design’s impact.

The diversity of models represented in this report suggests there is no single or state-of-the-art model for deploying design. But we can identify a few clear trends across both established and emerging teams:

From the fringes of the organization to the core: Early design groups were housed in standalone innovation centers. Today, designers are more likely to be integrated into and funded through core operations. Placing design at the organizational core means designers can “practice at the top of their license” to play a critical role in connecting parts of the organization to realize the full potential of design’s impact. Models. Design’s focus on deep understanding of patient and provider needs, modeling of complex systems, and turning ideas into concrete, workable, and understandable solutions may bring the ingenuity and execution muscle needed for this transformation. These types of capabilities are in short supply in healthcare organizations, which for decades have focused on process improvement and linear change outcomes. More than any other recent event, the COVID pandemic revealed a lesser understood value of design: it can help health systems mount rapid responses and accelerate changes in operations. Numerous practitioners related how their teams were deployed in a “flip of the spear” role to accelerate development of testing sites, PPE, telehealth services, and remote work practices. For some teams, these efforts expanded to include employee well-being and nurse retention programs. A surprising finding of this report is the rising volume of projects suggesting design has a growing role in organizational development to help health systems improve employee experience, build future work practices, and develop programs, centers, and platforms to improve innovation skills enterprise-wide.

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Commentary, continued

of the organization. They can inform and accelerate strategy; carry it down to the frontline to help operationalize strategic initiatives in ways that work better for clinical staff, patients and families; and work horizontally across units to streamline implementation. Within the conventionally siloed operations of health systems, the innate collaborative practices of designers may mean they are the only people who talk to everyone.

From design teams to mixed teams: Designers are well known for exploratory skills that help identify gaps in care and imagine preferred future states. Yet hand-off processes and lack of implementation knowledge have been identified as weaknesses that limit ROI on the exploration. Today many health systems in this report have shifted away from design-only teams to mixed teams in which designers conduct development work with administrators, MBAs, clinicians, and IT experts to improve implementation.

From discrete initiatives to enterprise strategy: In the current healthcare cycle, there is heightened leadership focus on business and strategy, and a growing number of designers are joining them. Our interviews identified numerous teams that in prior times operated under the “innovation” banner, pursuing discrete initiatives. Today, these teams are often deployed to facilitate leadership strategy meetings using design techniques, or asked to inform strategy directly through front-end design planning processes (usually technology-focused) to help define a path to a more relevant future.

The centrality of digital: The single largest shift reported by health system designers is their role in digital. “Five years ago we were begging health systems to think about apps,” noted one Advisory Council member. Today many health systems represented in this report are investing heavily in digital capacities. Since the mid-1980s, industry has leveraged design to conceptualize, build, and commercialize behavior-shifting technology. Inside health systems, IT may offer the most productive platform for designers who, if similarly enabled, can bring strategic thinking to both short-term HIT development (“let’s not code crap”) and longer-term investments in digital development that can elevate patient experience and promote practice transformation across the enterprise.

How might health system leaders integrate design into their organizations?

Here we step back to consider what health system leaders might learn about successful integration of designers into their organizations. Emerging best practices include:

• Hire more than one designer, and more than one type of designer, to build a robust capacity able to respond to the dynamic needs of a health system.
• Plan for shifts in team staffing and focus as design work grows in response to health system needs.
• Hire a senior design leader with experience in management or design consultancies, where they are likely to have absorbed a more client-service and business mindset, to increase organizational uptake.
• Position your design leader as high up in the organizational chart as possible to help operationalize strategic priorities.
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• Pay for designers out of overhead and consider them a shared service.

What’s next?

This report documents the first comprehensive look at the roles and contributions of design and designers inside US health systems. It was undertaken with the dual goals of helping health care system leaders better deploy and manage design, and to show designers and design educators the emerging expectations and career pathways for professional designers looking to engage in healthcare delivery. This report aims to bring designers and health system leaders together to continue the conversation. After 20 years of experimentation, design’s role in healthcare has taken root only selectively, but it has also demonstrated potential for meaningful impact. Future work will need to refine and extend what is presented here. Given the current state of healthcare, however, we believe investment in design capabilities merits wider and serious consideration by health system leaders. The relevant question for discussion may be less about whether design has a place but rather: Is the absence of design putting the industry at risk?

We hope this report stimulates further thinking about the role of design in healthcare and its potential benefit to patient and caregivers, front-line clinicians, payers, and practicing designers. We welcome input from readers about how to accelerate learning and share the lessons yet to be learned about the use of HCD in healthcare.

The argument for why design in healthcare is still developing. For tech companies, it’s so intertwined with their core products. In healthcare, it’s one of many options: you have QI and other approaches that healthcare staff are willing to use to make things work. Design has a foot in the door with the kind of needs in healthcare, but to say that it’s essential or dominant? Many health systems don’t think of designers as essential. Yet.

Kipum Lee
Vice President, Innovation & Product Strategy, University Hospitals
Section 2

Approach & Methods
This report shares the work and experiences of designers and design leaders across 27 US health systems (table 1). In total, we identified 45 healthcare organizations that say they use design or design thinking; 36 are health systems or research hospitals that employ designers to do that work, and 27 responded to interview requests (fig. 2). Mayo Clinic and Northwestern Medicine each reported two eligible teams with designers, for a total of 29 teams.

While designers are a part of many healthcare activities and organizations across the United States, we sought to understand the role of designers engaging in the full complexity of healthcare delivery. We asked: Who could best teach us about the current participation of designers? The selection of practitioners was guided by two inclusion criteria.

Inclusion criterion 1: Employed by, or reports to, a health system or research hospital. Because the focus is healthcare delivery, we narrowed our organizational inclusion criteria to research hospitals and health systems, defined by AHRQ as "an organization that includes at least one hospital and at least one group of physicians that provides comprehensive care (including primary and specialty care) who are connected with each other and with the hospital through common ownership or joint management." This definition excluded healthcare services organizations, such as CVS/Walgreens, Optum, and Oak Street Health. It also excluded large community care providers who say they use design thinking, such as Contra Costa Health Services in California; skilled nursing facilities, outpatient therapy groups, and other community-based service organizations. It further excluded insurance companies, architecture firms, ventures, and medical faculty-led research labs, unless those labs reported to and were funded by health system leadership.

Inclusion criterion 2: Employs a trained designer. Our goal was to explore the ways more strategic design practices are impacting care delivery. As a result, we sought full-time designers functioning in nontraditional designer roles and excluded, for example, designers engaged in marketing, facilities design, graphics, among others.

Who counts as a designer? Outside of architecture, design is an unlicensed profession, and the proliferation of design thinking certificate programs and weekend workshops has opened the term to individuals with varying levels of skill. In theory, skill level should matter to outcomes, as design is a formal discipline with its own field knowledge and specialties. As one of our practitioners asked: Who do you want working on you — an emergency medical technician, an ER doctor, or a trauma surgeon? All are considered emergency medical personnel, but they possess different levels of knowledge and skill. Levels of design skill merit similar consideration from those seeking to employ “designers.”

“You’ve got to demarcate what’s meant by design. Somebody who comes into the mix with a decade of experience — that counts. When they speak the language of design — that counts. But we also need formally trained designers as a part of the mix. We need health systems to recognize there is formal academic training in design the way there is in finance, for example.”

David Grandy
Vice President of Innovation, Garfield Innovation Group, Kaiser Permanente
Identification & Recruitment of Practitioners

To define the ideal level of design training, we engaged several practitioners from participating institutions in the discussion and evolved the following criteria:

- Holds an undergraduate or graduate degree in design from an accredited institution (academically trained, includes architecture)
- 3+ years mentorship under a design leader, or participation in design teams or a design environment or consultancy

Individuals with design workshop experience or certification through IDEO University, Luma, or one-off courses in academic institutions are for the purposes of this report considered design-informed, but not sufficient to meet inclusion criteria.

We identified 45 potentially eligible institutions and individuals through a mix of purposive and convenience sampling techniques:

- The professional network and prior knowledge of the report team
- LinkedIn searches for job titles
- LinkedIn searches for known practitioners
- A LinkedIn recruitment post sharing a link to an online screener
- Introductions and referrals from participating practitioners
- Internet searches using a health system name in conjunction with human-centered design, innovation, and other related terms to identify labs, design units, and design teams connected to health systems

All potentially eligible practitioners received an introductory email or a LinkedIn message (sometimes both) sent by either a project team member or a design colleague participating in interviews. It’s worth noting that job titles were a poor predictor of whether a health system employee was a trained designer — we found trained designers with no mention of design in their title, as well as design titles that did not require design training.

We conducted 35 informational interviews with potentially eligible teams between September 2023 and March 2024. Discussions were 30 minutes or longer and unpaid. Interview notes were translated into a templated team profile sheet to create comparable data across institutions. A total of 29 teams from 27 health systems were confirmed as eligible, with 48 practitioners participating. Eligible teams were sent their team profile sheet for review and correction. A total of 27 team profile sheets were returned, representing 29 teams from 27 health systems from across the United States (fig. 3).

We interviewed a number of teams that did not meet inclusion criteria but do apply design to healthcare-related work. These included university-employed designers funded by Clinical and Translation Science Awards (CTSA); health design research labs led by medical faculty or governed by joint institutional partnerships; and one health system–connected design team functioning primarily as external consultants to local and state governments. These teams and their work suggest there is opportunity for an expanded exploration of the healthcare design ecosystem.

A 10–member Advisory Council composed of health system designers and physician leaders convened in a half–day workshop at the Institute of Design (Chicago) February 15, 2024, to review and prioritize findings. Key perspectives from the session are summarized in the Commentary of this report (pp. 7–11).

**FIGURE 2**
Identification and eligibility of health systems

- US healthcare organizations using human-centered design (HCD) to improve care delivery (N=46)
- Health systems using HCD (n=40)
- Health systems employing trained human-centered designers (n=37)
- Eligible health systems that responded to interview requests (n=27)
- Excluded: Healthcare organizations not part of a health system (n=6)
- Excluded: Health systems using HCD without trained designers (n=3)
FIGURE 3
Map of the 27 US health systems represented in this report

1. Advocate Health
2. Ascension
3. Baystate Health
4. Boston Children’s Hospital
5. Geisinger
6. Kaiser Permanente
7. Mass General Brigham
8. Mayo Clinic
9. The University of Texas MD Anderson Cancer Center
10. Memorial Hermann Health System
11. Memorial Sloan Kettering Cancer Center
12. NewYork-Presbyterian
13. Northwell Health
14. Northwestern Medicine
15. NYU Langone Health
16. Penn Medicine
17. Providence Health
18. St. Jude Children’s Research Hospital
19. Stanford Health Care
20. Sutter Health
21. UCSF Health
22. University Hospitals
23. UPMC
24. UVM Health Network
25. UW Health
26. UW Medicine
27. Veterans Affairs
Section 3

Participants
48 designers and design leaders contributed their expertise to this report.
The vast majority of the 27 health systems represented in this report are private nonprofits. Only five — UCSF Health, UW Medicine, UW Health, MD Anderson, and the VA — are public nonprofits. About half of participating health systems are academic medical centers, defined as “a tertiary care hospital that is organizationally or administratively integrated with a medical school.” Three of the 27 are faith-based health systems, fewer than the current US market, in which roughly 20% of hospitals have official religious designation.

What distinguishes these design adopters from other health systems? Notably, they are large. Eighteen health systems in this report rank in the top 50 by patient revenue (revenue over $20.5 billion in 2022), according to the AHRQ’s most recent report. Four participating health systems are in the top 10 largest by bed count, according to Definitive Healthcare’s 2024 list. Scale and revenue may in part create conditions that are favorable to investment in design, including greater likelihood of attracting innovation-focused leadership, philanthropic investment, and a culture of experimentation.

“[These are all] great, notable, prestigious institutions. Is it because they have design — or because they are prestigious institutions that can afford design?”

Stephen Weber
Advisory Council Member, Executive VP and Chief Medical Officer, UChicago Medicine

Of the 27 represented health systems, we spoke to a total of 48 designers and design leaders. Approximately 60% — 29 of the 48 — held titles that included vice president, chief, or director at the time of the interview. Specifically:

- 13 participating practitioners had VP or chief-level titles
- 16 participating practitioners had director-level titles
- 6 participating practitioners had manager-level titles

An absence of “design” in job titles.

Health system job titles suggest that design is not yet a widely recognized specialty or role. It’s notable that about half of participating practitioners — 25 of 48 — reported job titles that incorporate the word “design.” This includes half of VP- and director-level titles.

Consulting backgrounds are common.

Management and design consultancies — with their emphasis on client service and business mindset — may provide a fertile hiring ground. A third of our practitioners — 16 of 48 — came from consulting backgrounds. This includes half of the 10 VPs and half of the 16 directors. These individuals were more likely to lead larger, strategy-driven teams and report impactful projects and growth. Consultancies included IDEO, Fjord, Accenture, KPMG, and frog design.

Our team is new to NewYork-Presbyterian. Common challenges we’ve faced are how to communicate design in a way that feels relatable to people who haven’t heard of it before, and how do we make sure design is incorporated from start to finish when creating a product or service? These are some of the issues facing designers in healthcare.

Sarah Stewart
Director, Strategy & Service Design, NewYork-Presbyterian
Section 4

Types, Organization & Financing of Designers
Types of design hires

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<tr>
<th>Type of designer hire</th>
<th>Professional skills &amp; focus</th>
<th>Number of teams reporting hires (N=29)</th>
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<tbody>
<tr>
<td>Design Strategist</td>
<td>Applies design-thinking principles, business strategy, and customer-centric planning to generate innovative approaches for companies</td>
<td>16</td>
</tr>
<tr>
<td>Service Designer</td>
<td>Applies customer research and process mapping to define and optimize the end-to-end journey for customers and employees; applied to physical, digital, and experiential touchpoints</td>
<td>16</td>
</tr>
<tr>
<td>Design Researcher</td>
<td>Conducts end user research to identify needs and gather insights that can guide design processes and solutions; uses ethnographic and qualitative methods</td>
<td>11</td>
</tr>
<tr>
<td>UX Designer</td>
<td>Applies findings from user research and usability analyses to create a satisfying look and feel of a product, website, or app</td>
<td>10</td>
</tr>
<tr>
<td>Experience Designer</td>
<td>Draws on users’ needs, feelings, physical contexts, and mindsets to design experiences and business strategies optimized for efficiency, delight, and value</td>
<td>9</td>
</tr>
<tr>
<td>Digital Product Designer</td>
<td>Integrates end user needs and priorities, new tech capabilities, and user experience concepts to develop and test new digital products</td>
<td>7</td>
</tr>
<tr>
<td>Communication Designer</td>
<td>Develops the visual elements and strategies to engage users in content; different from a graphic designer that creates individual graphic elements.</td>
<td>6</td>
</tr>
<tr>
<td>Business Designer</td>
<td>Applies the tools of business analysts and strategists with the methods and mindsets of design to develop new business models</td>
<td>4</td>
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A handful of design specialties rise to the top.

We asked practitioners to characterize their design hires, as there are over 20 meaningfully different types of designers and design training. The most frequent hires were design strategists and service designers, each reported by 16 of the 29 teams (table 2). Design researchers, user experience (UX) designers, and experience designers were a distant second, with 11, 10, and 9 teams respectively reporting them as current hires. Digital product and communication designers are third, reported by 7 and 6 teams each, respectively. Notably, the number of teams reporting these hires differs from the quantity of designers actually hired. While we did not explicitly track the quantity of designers hired within each category, it is clear from interviews that UX-designers overall make up the largest percentage of design hires. Many teams noted that identifying the right design disciplines to deliver on the work is a process.

“As a new team, we learned a lot in the beginning about which design disciplines worked best to address the projects we were tasked with. When we first started, for example, I thought we would need more UX/UI capabilities, but we soon realized our projects were leaning toward service design.”

Sarah Stewart
Director, Strategy & Service Design, New York-Presbyterian

Size & Composition of Teams

With notable exceptions, most teams employ seven or fewer designers.

How many designers are needed for impact? In our sample, the number of employed designers varied from more than 100 (Mayo Clinic’s Center for Digital Health) to one (UW Health). Overall, design head count tended toward the modest: 22 of 29 teams reported seven or fewer designers (fig. 5). One-third of teams employed three or fewer designers.

Half intend to add more designers in the next 12 months.

At the time of interviews, and despite the widely reported post-COVID downturn in health system finances, 16 of 29 participating teams identified an intent to add designers in 2024. The other 13 reported staying stable; no one reported an intent to downsize. Smaller teams often rely on design consultants to deliver work until budgets meet demand.

“We have been operating in the past year at double our capacity through consultants. Our team is small, so that is always a conversation — where do we think we can provide the most value, if we can’t do it, do we need to get outside help?”

Daniel Schwartz
Director, Design, Digital Innovation & Transformation, Northwell Health

Digital strategy and experience are associated with higher investment in design.

Two groups stand out for their substantial investment in design: Ascension’s xRD reported over 40 designers; Mayo Clinic’s Center for Digital Health reported over 100 designers as part of a total headcount of more than 700. Both groups focus on digital transformation. The VA and Providence Health’s Service Design & Products group, which share a focus on patient experience, have 16 and 12 designers, respectively. Others with a higher design headcount include strategy-focused groups, such as Kaiser Permanente’s Garfield Innovation Group and Memorial Sloan Kettering Cancer Center’s Strategic Innovation Group, with 11 and 8 designers, respectively.

FIGURE 5

Number of full-time designers per team

<table>
<thead>
<tr>
<th>Number of teams</th>
<th>1-3 designers</th>
<th>4-7 designers</th>
<th>8-16 designers</th>
<th>over 17 designers</th>
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<td>10 teams employ</td>
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24 Equitable Healthcare Lab – Institute of Design

25
Origins & Longevity of Teams

The number of teams using design continues to grow at a steady pace. Kaiser Permanente, Mayo Clinic, and Memorial Sloan Kettering Cancer Center have the most mature design teams in our sample, starting in 2003, 2004, and 2008 respectively. But over 70% of participating teams — 21 of 29 — were launched in the last decade; 10 teams were launched in the last 5 years (fig. 6), despite significant disruptions from the pandemic.

Health system leaders help set the stage.

Many of our practitioners highlighted the role of executive sponsors and champions in launching design in their health system. Most frequently these leaders were exposed to design in other health systems or other industries and were persuaded that a design capability was important to build into their current health system. Some practitioners noted that having a leader who is design-informed and hires a team of designers isn’t necessarily enough to lead to success. Advisory Council members concur: what accelerates organizational uptake and impact is a leader partner — someone who can open doors, get the team to the right tables, and advocate their inclusion where they can be of greatest value.

“Our design team always had a champion — the CFO. This reporting relationship really helped open doors in the organization and create sustained growth for the lab. As our champion has moved up the ladder, our sphere of influence has also increased.”

Jeremy Beaudry
Manager, Health System Innovation & Design, hiCOlab, UVM Health Network

Is a champion sufficient for longevity?

We reached out to at least two design-focused teams formed in partnership with high-level health system leaders, only to learn they had disbanded when those leaders had moved on. Several practitioners from teams older than five years flagged the dangers of relying on a leader champion and stressed the importance of building a broader base in the organization.

“One lesson is that it’s better to work in a more integrated fashion across the system, versus having one or two leaders or champions in a certain space. The challenge in a big system is that it’s really hard to scale work if the design team is not integrated with priority initiatives and expanded leadership.”

Vandana Pant
Senior Director, Design & Innovation, Sutter Health

FIGURE 6
Launch & longevity of participating teams

- Kaiser Permanente: Garfield Innovation Group
- Mayo Clinic: Center for Digital Health & Department of Medicine
- Memorial Sloan Kettering Cancer Center: Strategic Innovation
- Mass General Brigham: Springboard Studio
- Penn Medicine: Center for Insights to Outcomes
- Advocate Health: Innovation & Commercialization
- Baystate Health: Digital Innovation
- Sutter Health: Design & Innovation
- UVM Health Network: hiCOlab
- UPIC Lab: Center for Innovation
- CDH SPARC Lab Center for Innovation
- Mass General Brigham: Springboard Studio
- Penn Medicine: Center for Insights to Outcomes
- Advocate Health: Innovation & Commercialization
- Baystate Health: Digital Innovation
- Sutter Health: Design & Innovation
- UVM Health Network: hiCOlab
- UPIC Enterprise: Experience Design & Strategy (XDS)
- Stanford Health Care: Care Experience
- MD Anderson: Innovation Center
- UCSF Health: Clinical Innovation Center
- University Hospitals: Strategy & Innovation + UH Ventures
- Geisinger: Experience Design & Strategy
- Northwestern Medicine: Digital Solutions
- VA: Experience Design & Strategy
- Northwestern Medicine: Mannaustr Foundation for Innovation Institute
- Ascension: Experience Research and Design (xRD)
- Boston Children’s Hospital: Digital Health Experience
- NYU Langone Health: FuturePractice
- Memorial Hermann: Consumerism
- Northwestern Health: Digital Innovation & Transformation
- Providence: Service Design & Products
- UVM Health: Service Design Research & Innovation
- NewYork-Presbyterian: Strategy & Service Design
- UVM Medicine: Digital Experience
- St Jude’s Office of Strategic Innovation & Design
More than half of teams report directly to the C-suite. Our practitioners tended to sit higher up in the organizational chart: 16 of 29 teams reported directly to C-suite executives; 9 teams were two steps from the executive suite. Organizational, teams fell into four reporting structures (fig. 7):

- **Innovation and strategy leadership:** 11 teams reported working under the umbrella of strategy and reporting to strategy leadership, such as the Chief Strategy Officer, Chief Innovation Officer, and Chief Transformation Officer.
- **Digital leadership:** 10 teams noted that they report to digital executives, such as the Chief Digital Officer, Chief Technology Officer, and Chief Medical Information Officer.
- **Operational leadership:** 7 practitioners described reporting to various operational leaders, including the Chief Financial Officer, the Chief Operating Officer, the Chief Administrative Officer, and the SVP of Revenue and Growth.
- **Clinical leadership:** 1 team reported directly to clinical leadership.

A subset of practitioners described organizational models that cluster and distribute designers by their role, each with a different line of reporting and often located in different parts of the business. For example, UPMC has multiple, distributed strategic design teams, including one within UPMC Enterprises and another at UPMC Health Plan. Mayo Clinic employs designers in both their Center for Digital Health and in their Department of Medicine. Providence Health has designers in the Service Design & Products and their Digital Innovation Group. None of these teams performs the same function or reports to the same leader.

An extreme example of a distributed system is Kaiser Permanente, with more than 100 designers “in every major organizational function, in every market, in the medical groups and health plan,” according to VP of Innovation David Grandy. In the largely independent network of Kaiser, there are no organizational controls to suggest where design can or can’t be deployed, and there are no standardized job descriptions. In 2023, they launched their Community of Practice group — an enterprise-wide gathering of designers for virtual discussions and presentations — to improve cohesion among their many designers.

Across interviews, longitudinal patterns emerged in how teams are being operationalized and deployed in health systems.

### From isolated to integrated

A trend in the aughts and early 2010s was to invest in separate innovation labs that housed designers, innovation experts, and entrepreneurial clinicians apart from the organization. Interviews suggest there has been a collective shift away from being “a people apart” to tying design — at least in part — to operations and the business at large.

> “The most successful innovation teams are embedded in the organization — they are not the cool, quirky team off to the side. If you’re doing things in a different way or launching new products, services, you need to be as close to the business as possible. Otherwise, you will not be able to implement. You can come up with a cool idea, and that’s where it will stay.”

Ellen Strong
Director, Office of Strategic Innovation & Design, St. Jude Children’s Research Hospital

### From design teams to mixed teams

Many interviews describe a current state in which designers work in mixed teams — MBAs, data analysts, digital developers, program managers are frequently cited partners — instead of operating as a band of designers assigned to a discrete process stage. For example, MD Anderson, Mayo Clinic, and Baystate Health deploy designers in multidisciplinary teams, with the goal of moving faster, improving feasibility, or increasing the implementation of work. The longer a health system has been investing in design, the more likely they were to report this change.

> “Experience design, product, project management — we work together as a large team to pilot projects, build digital front doors, and operationalize other programs.”

Krezia Anne Savella
Experience Designer, Design & Innovation, Baystate Health
“We used to work in silos, using a more linear process instead of working in cohesive project teams. Design would do its work and then hand off to business. But now it’s designers and business people working in small teams together. This change brought our team closer together, made us faster, and has given a lot of us who did not have exposure to HCD, exposure.”

Carissa Callini
Innovation Strategist, Innovation Center, The University of Texas MD Anderson Cancer Center

“In the Center for Digital Health, we have an entire group called practice enablement that is focused on implementation with dedicated experts to make sure concepts are implemented and operationalized as intended. We collaborate with a QI team within strategy that helps identify what to evaluate and understand, supporting us upstream. I am part of the upfront discovery and future planning process, using road mapping and organizational readiness to form a plan. Data, IT, UX/UI is our product operating model, the three-legged stool holding it together.”

Krisa Ryan
Director of User Experience, Center for Digital Health, Mayo Clinic

From discrete initiatives to strategy
Memorial Sloan Kettering Cancer Center (2008), UV Health Network (2015), and NYU Langone Health (2019) are just a few examples of teams shifting their work to align with and help enable the strategic goals of the health system.

“Historically MSK Innovation focused on doing projects in the service line and facilitating healthcare innovation within it. Now we are developing MSK Innovation as an enabler for the broader organization. Going forward, our work will be targeted and tethered to MSK’s shared strategic priorities.”

Ophelia Chiu
Vice President, Strategic Innovation, Memorial Sloan Kettering Cancer Center

The centrality of digital (and AI)
If there is a central trend reported by practitioners, it is the shift to digital solutions to improve patient experience, redesign service lines, and coordinate wrap-around services for patients and families. Across the healthcare industry, there is unbridled enthusiasm for the potential of digital and AI-driven solutions to transform care and bring new efficiencies to operations. In other industries, the return on investment for design-led technology development is well-established and goes back decades. Now health system investment in design for digital is gaining steam: Among teams formed between 2003 and 2012, none were digitally focused. Among teams formed between 2013 and 2023, 10 report to digital leadership, with another three teams highlighting ongoing work in start-up investments and other tech-driven strategy work.

“Over the past few years, we’ve been embedding strategic consulting services relating to digital patient experience and patient access. Most of that effort amounts to building competencies in service design, product, and technology. These capabilities don’t exist in traditional healthcare operations.”

Gretchen Mendoza
Vice President, Digital Solutions, UPMC Enterprises

We are lucky to have leadership in the hospital that appreciates design and is willing to take risks for us. I’ve never been afraid about it going wrong. If I’m afraid, it’s because patients’ lives are on the line. That’s why we work with clinicians to make our projects safe. I’ve had pilots that haven’t worked, and our CIO will ask: ‘What have you learned? What will we do differently? What do you need — time or money?’ That’s the kind of support design can thrive on.

Carolina Garzon Mrad
Design and Strategy Lead, Penn Medicine
Design’s Contributions to Health Systems
Overview
What designers are doing for health systems: Nine contribution areas.

Participating teams reported a wide variety of work. Design is a versatile skill set, and there are myriad people-centered challenges in healthcare delivery that benefit from its core strength: to improve the outcomes and human experience of systems.

Practitioners shared more than 250 projects, which were analyzed and clustered to identify nine distinct contributions that designers make to their health systems (Table 3). Six primary contributions and three secondary contributions.

Primary contributions are those with a high volume of reported projects that are also rated as providing high value by both designers and health system leaders.

Secondary contributions of design are so designated either because they were reported less often or because they were ancillary to the core work of the team. In other words, these are activities for which participating designers were not initially hired.

For some designers, contribution areas blur: "It just feels like design."

In this report, we aligned contribution areas to health system functions. This is to help health system leaders and practitioners understand in specific and practical terms how designers are adding value to existing organizational functions.

However, some practitioners noted that the design process — intentionally holistic and centered on people, not operations — frequently crosses institutional boundaries and management structures. As a result, categorizing the work for non-design audiences in terms of those same "silos" may miss an important truth about how design works.

"We've called the work different things over the years. But what we do is design, elementally, through and through. Sometimes I ask myself: Is this digital transformation? Is this product? Is this strategy? Does it matter?"

Gretchen Mendoza
Vice President, Digital Solutions, UPMC Enterprises

This perspective may help explain why where designers are placed in an organizational chart is not fully predictive of their contributions; design work under digital leadership may contribute to service line development; design work under innovation leadership may contribute to quality improvement.

For health systems, design’s impact may grow when contribution areas are linked.

Every participating team reported diversity in their work: 22 of 29 shared projects in terms of those same “silos” may miss an important truth about how design works.

For some designers, contribution areas blur: “It just feels like design.”

In this report, we aligned contribution areas to health system functions. This is to help health system leaders and practitioners understand in specific and practical terms how designers are adding value to existing organizational functions.

<table>
<thead>
<tr>
<th>Contribution area</th>
<th>Definition</th>
<th>How design adds value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Patient Experience</td>
<td>Using design to define and optimize the holistic patient experience of the health system, including care delivery and administrative services.</td>
<td>Performs an end-to-end review of the patient experience of services. Describes, often visually and in detail, the flow and coordination required to deliver an effective and efficient service experience. Encompasses and integrates digital, physical, and spatial components of care for cohesion and efficiency.</td>
</tr>
<tr>
<td>2 Digital Transformation &amp; Product Development</td>
<td>Using design to integrate digital technology into all areas of the health system, fundamentally changing how the system operates and how patients experience treatment and care.</td>
<td>Conducts upfront exploration of end user needs and emerging opportunities in the marketplace. Integrates, standardizes, and improves enterprise-level infrastructure, such as EMRs, to improve fit, performance, and employee experiences.</td>
</tr>
<tr>
<td>3 Care Model &amp; Service Line Redesign</td>
<td>Using design to conceive and test new models of care that respond to changes in reimbursement and operating models (e.g., shift to value-based care) or that add capacity and services to the health system.</td>
<td>Identifies the needs and expectations of patients, families, and clinicians. Develops the service delivery blueprint and tests the delivery mechanisms. Integrates a range of health system capabilities (technology, environment, communications, etc.) into the service model.</td>
</tr>
<tr>
<td>4 Strategy &amp; Planning</td>
<td>Using design to shape long-term goals of a health system or service line (strategy). Using design to explore and execute different pathways to achieving defined long-term goals (planning).</td>
<td>Defines the needs and emerging opportunities in the marketplace, and describes how capabilities of the organization might serve them. Engages the institution, patients, and communities to create viable pathways to the desired result.</td>
</tr>
<tr>
<td>5 Organizational Development &amp; Training</td>
<td>Using design to build organizational capacity (systematic training programs or innovation centers), improve employee experience, and challenge legacy practices/organizational norms.</td>
<td>Creates enterprise-level leadership and innovation programs or centers. Creates programs to disseminate design practices. Proposes remedies to systemic issues — such as work processes, recruitment, and retention — to improve employee satisfaction.</td>
</tr>
<tr>
<td>6 Quality Improvement</td>
<td>Using design to improve the performance of existing workflows and delivery systems.</td>
<td>Engages frontline clinicians and administrators to understand their processes, challenges, and capabilities. Identifies alternatives to established practices and norms.</td>
</tr>
<tr>
<td>7 Reimagining Space &amp; Facilities</td>
<td>Using design to reimage clinical facilities and amenities, responding to new service line strategies and technologies (distinct from architecture roles responsible for detailed design of the built environment).</td>
<td>Assesses spaces for fit with emerging service line strategies and prospective patients (often includes a focus on inclusivity). Identifies opportunities for improvement in patient experience, including wait times, exam rooms, information flows, and family participation in care.</td>
</tr>
<tr>
<td>8 On-Demand Workshops</td>
<td>Using ad hoc engagements that orient employees to HCO and/or support project teams in creative problem-solving and patient-centeredness.</td>
<td>Creates workshops for engaging staff in project-specific problem-solving and planning efforts. Facilitates meetings to infuse design thinking into group processes.</td>
</tr>
<tr>
<td>9 Clinical &amp; Industry Research</td>
<td>Using design to improve the conduct and people-centerdness of funded studies.</td>
<td>Helps develop testable interventions. Improves recruitment and retention to generate participation in trials.</td>
</tr>
</tbody>
</table>
The interconnection between contribution areas may be easily explained by how designers apply well-established design process to their work.

“Our design group starts by first understanding the problem space and then working with stakeholders to ideate on how to design future experiences. And then we ask: how do we enable that new future? It’s not just digital. It has to include culture change and operational changes. The design team does a fantastic job of designing that experience, engaging the stakeholders and designing the transition into how we make it real.”

Rebecca Kaul
Senior Vice President, Chief Digital Innovation & Transformation, Northwell Health

Connecting design contributions to health system change: a conceptual model.

To respond to the observations above and provide a simpler overview of design contributions, we offer a conceptual model (fig. 9) that draws important connections among the nine contribution areas. This conceptual model clusters the contribution areas to highlight two distinct vectors of design impact on health system change: 1) to define new patient and provider experiences (via digital transformation, care model and service line redesign, reimagining facilities, patient experience, and clinical and industry research); and 2) to enable broader organizational changes needed to deliver this care (quality improvement, organizational development and training, on-demand workshops). Organizational strategy and planning can anchor and focus both types of impact.

Design contributions can transform patient & provider experiences.

<table>
<thead>
<tr>
<th>Primary contribution areas</th>
<th>Secondary contribution areas</th>
</tr>
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<tbody>
<tr>
<td>1 Patient Experience</td>
<td>6 Reimagining Space &amp; Facilities</td>
</tr>
<tr>
<td>2 Digital Transformation &amp; Product</td>
<td>9 Clinical &amp; Industry Research</td>
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<td>8 On-Demand workshops</td>
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<tr>
<td>7 Quality Improvement</td>
<td>5 Design contributions can facilitate organizational transformation.</td>
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How design contributions drive change: a conceptual model

<table>
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<tr>
<th>FIGURE 9</th>
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<tr>
<td>Design contributions can transform patient &amp; provider experiences.</td>
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Design contributions by team

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<thead>
<tr>
<th>FIGURE 8</th>
<th>Design contributions by team</th>
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<tbody>
<tr>
<td>1 Baystate Health: Digital Innovation</td>
<td>25</td>
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<tr>
<td>2 MD Anderson: Innovation Center</td>
<td>25</td>
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<tr>
<td>3 University Hospitals: Strategy &amp; Innovation + UH Ventures</td>
<td>19</td>
</tr>
<tr>
<td>4 Sutter Health: Design &amp; Innovation</td>
<td>19</td>
</tr>
<tr>
<td>5 Stanford Health Care: Care Experience Strategy</td>
<td>15</td>
</tr>
<tr>
<td>6 Memorial Hermann: Consumerism</td>
<td>12</td>
</tr>
<tr>
<td>7 Memorial Sloan Kettering Cancer Center: Strategic Innovation</td>
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<tr>
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<tr>
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<tr>
<td>12 NewYork Presbyterian: Strategy &amp; Service Design</td>
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<tr>
<td>13 Ascension: Experience Research &amp; Design (eRD)</td>
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<tr>
<td>14 UPMC Enterprises: Experience Design &amp; Strategy (KDS)</td>
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<tr>
<td>15 Boston Children’s Hospital: Digital Health Experience</td>
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<tr>
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<td>20 NYU Langone Health: Future Practice</td>
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<td>26 Mayo Clinic: Department of Medicine</td>
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<td>27 Northwestern Medicine: Digital Solutions</td>
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<td>28 Northwestern Medicine: Mansueto Innovation Institute</td>
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<td>29 Mayo Clinic: Center for Digital Health</td>
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Total number of teams that reported projects in each area

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</table>
1: Patient Experience

Good patient experience is a potent asset. It improves patient safety and quality, influences patient perceptions of a healthcare brand, and impacts HCAPs and related patient satisfaction scores on which funding and reputation rely. As a result, patient experience has become a health system priority, although there is neither a consensus definition nor a definitive set of measures for it. Maybe this lack of definition explains why over 85% of teams — 25 of 29 — reported engaging in patient experience work but described a kaleidoscope of different projects at different levels.

"For many health systems, patient experience is a differentiator in a competitive market." — Meredith DeZutter, Service Designer, Mayo Clinic

WHY HIRE A DESIGNER?

Design brings deep expertise in human experience.

Optimizing human experience has been a core objective of human-centered design for over 40 years. HCD has a robust tool kit to understand, describe, and reimagine human experience at multiple levels: product, service, enterprise and civic. In healthcare, designers are well-positioned to organize and optimize the end-to-end patient experience of care and administrative services — including digital, physical, and interpersonal interactions — across organizational touchpoints.

TYPES OF PROJECTS INCLUDE:

- **Patient access**
  Practitioners described a variety of ambitious projects aimed at redesigning or broadening patient access. These included addressing the healthcare gender gap by promoting care for men, tailoring clinic services to local populations, optimizing scheduling to increase available appointments, and revamping surgical services to reduce backlog and improve responsiveness to patients.

- **Patient education and tools**
  A number of projects sought to fill information gaps for patients undergoing care. Projects included helping patients understand telehealth options, discharge processes, cancer care, chronic disease management, and living with chronic pain. Other projects brought a focus on health literacy and family involvement.

- **Patient experience strategy**
  Strategy-level projects account for a third of reported PX work. There was strong emphasis on reimaging “moments that matter” touchpoints (telehealth, inpatient, retail pharmacy, ambulatory care) and standardizing PX across the enterprise (health system-wide principles of service delivery, omni-channel engagement strategies, patient education strategies).

- **Service design, with an eye on inclusion**
  Projects to improve specific types of service delivery (rather than those meant to target cost or efficiency) accounted for roughly a quarter of reported work and included vaccination, cancer care, inpatient and outpatient services, and administrative services. Several projects focused on auditing services for equity and inclusion, such as supporting the needs of LGBTQ and LatinX populations.

- **Patient journey mapping**
  From chronic disease care to breast cancer screening to the financial journey of patients, practitioners report using journey maps to organize redesign efforts. These journey maps looked at the end-to-end experience of services from the viewpoint of the patient. Journey maps visualized this experience in enough detail to highlight discontinuities and specific opportunities for improvement. Because most patient journeys cross organizational silos, interviews stressed the value of journey maps as critical communication tools to coordinate typically siloed parts of the health system for shared improvement.

**Impact Story**

**Providence Health improves patient experience in the Emergency Room**

**Challenge**

Some of Providence’s largest Emergency Departments see over 200 patients a day but have only 30 beds. Wait times are extremely high; patient satisfaction scores are dropping; care providers are stressed; and attrition is high. As a result, some patients choose to leave without receiving the care they need. The Service Design team sought to bring down rates of “Leaving Without Being Seen” (LWBS).

**Design activities**

Over a year, the team conducted qualitative research, rapid prototyping, and experimentation. They engaged hundreds of caregivers to map the end-to-end emergency room experience.

**Solution**

The team proposed adding a nonclinical staff member to the waiting room to function as a patient companion. The companion actively intercepts patient questions that would typically interrupt physicians, nurses, and registrars in the waiting room.

**Impact**

- **Tests in three pilot locations have generated an average of 17% reduction in patient leaving without being seen (LWBS). With average hospital fees of $1,750 per patient, this generates $175M increased revenue per year.**
- **Patients generated 9K data points and identified that the waiting room advocates:**
  - Restored patient satisfaction scores
  - Answered over 20K patient questions, with patients reporting feeling more in control
  - Caught escalating conditions — strokes, heart attacks — not surfaced at check-in
  - Reduced patient interruptions of ER staff by an average of 30–35 per day
  
  "I feel such relief when the patient companion is there. Patients are coming into triage less agitated. Maybe we can have multiple people do this role so we can have this for all days and multiple shifts."
  — Providence ED Provider
2: Digital Transformation & Product Development

US health systems invest a lot of money in IT: $320 billion in 2022 alone.18 Getting the most from that money is something that designers understand and appreciate, and they can make a unique contribution to that effort by improving the product fit with end users. Design’s value may be most clear here, judging from the 25 of 29 teams that employ or deploy designers to advise, develop, test, and refine digital solutions. Half of teams formed in 2019 or later — 5 of 10 — were launched as a digital capacity.

WHY HIRE A DESIGNER?

Digital transformation benefits from User Experience Design. The health sector’s intensifying focus on digital transformation opens opportunities to designers, many of whom have deep bench strength in designing tech and tech experiences. Broadly defined by Harvard Business Review as “using digital technologies to create or modify business processes, culture, and customer experiences,” digital transformation is increasingly viewed as a strategic imperative and necessary to accelerate the hybrid healthcare model. Digital transformation can enhance operational efficiencies and decision-making, improve care delivery and patient experience, and enhance the patient experience of health system services. Designers we spoke with mentioned work in all three areas.

Designers reported adding value in at least three ways: conducting user research to inform digital solutions, strategies, investment and deployment; applying user experience (UX) design to improve tech’s fit with user expectations and needs; and to design and run pilots that test digital products before scaling. Because large teams are required to implement and monitor digital solutions, designers in these roles are often folded into larger (50+) units and work in teams with diverse skill sets, such as software engineering, (UX) design to improve tech’s fit with user expectations and needs; and to design and run pilots that test digital products before scaling. Because large teams are required to implement and monitor digital solutions, designers in these roles are often folded into larger (50+) units and work in teams with diverse skill sets, such as software engineering, data analytics, and business design. When involved in the nitty-gritty of making systems work, designers can bring a discerning eye to IT investment.

“The system operates with the belief that if Epic offers something, we should just implement and expect it to work. I would tell leadership that we should put that under the microscope. We have uncovered so much that’s not being addressed by what we are offered and, as a result, we have lackluster performance.”

— Zack Perry
Executive Director, Service Design & Products, Providence Health

TYPES OF PROJECTS INCLUDE:

- **Digital Front Door**

  Designers frequently highlighted “digital front door” projects as a routine part of their work. Digital Front Door is a patient experience concept that comprises self-scheduling, virtual check-ins and screenings, patient access to records and data, virtual care options, and patient-provider messaging. Investment in Digital Front Doors is significant and growing: in 2022, US HIT companies and health systems invested over $2.5B to implement and scale these technologies.19

- **Digital product development**

  Product development accounted for more than 30% of reported work. Some enabled service enhancements such as virtual care, post-discharge support, or longitudinal support for cancer care. Other projects were efficiency-focused, such as improved DME ordering and inbox management. Designers at Mayo Clinic, Northwestern Medicine’s Mansueto Innovation Institute, and University Hospitals highlighted AI-driven projects. Finally, apps helped track lab equipment and supported providers with virtual rounding or virtual assistants. Merged patient-facing apps targeted chronic disease or longer-term care support, such as prenatal and postpartum, hypertension, diabetes, and mental health management.

- **Creating the "phygital" service experience**

  A number of projects target the integration of digital tools, physical spaces, and services — sometimes called the “phygital” experience — to create more seamless or effective care. Examples included intelligent hospital rooms, improved wayfinding and wait time management for patients, and integrating remote patient monitoring and telehealth into virtual care experiences.

- **Enterprise-level systems**

  Improving enterprise IT accounted for another 25% of reported projects, including assisting with Customer Relationship Management platform optimization, call-center enhancements, Electronic Medical Record migration and updates, website management, and patient portal development.

- **Commercialization**

  A few teams, such as UPMC Enterprises’ Experience Design & Strategy team and University Hospitals, have explicit goals to develop and commercialize products, and they use designers to do so. MD Anderson, NewYork-Presbyterian and Sutter also report bringing patient-facing products to market with the help of their design teams.

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3: Care Model & Service Line Redesign

A confluence of changes in payment models, virtual service options, and remote care technologies, and patient demands of service experiences are causing health systems to rethink their care models and service line practices. Many practices were ripe for disruption pre-pandemic, but post-pandemic realities—staffing issues, capacity, and margins—have only increased the urgency to do better with less. How to achieve this efficiency is an open question. The Lancet Global Health Commission on High Quality Health Systems has encouraged moving past incremental QI approaches and called out service delivery redesign as one of the four “universal actions” with the potential to improve quality and patient confidence.22 Our participating health systems appear to agree, with a full 22 of 29 teams applying design to reimagine or improve care models and services.

“One particular entity that sees design’s value here is Population Health Management, as they look for ways to succeed with value-based contracts. And that’s what we are looking for—champions of design that are early adopters.”

Kristian Olson
Vice President, Design Impact, Springboard Studios, Mass General Brigham

WHY HIRE A DESIGNER?
Design service methods add unique value.

The core methods and practices of service design were on full display across projects. Designers 1) used interviewing, observations, etc. to identify the needs of patients, families, and/or healthcare staff; 2) developed service delivery blueprints, a specific visual representation of the entire end-to-end experience of a service; 3) integrated other capabilities (technology, environment, communications) into the service model; and 4) aligned internal actors around a shared vision for the service.

“The VA offers a ton of different services, such as outpatient care, inpatient, emergency medicine, telehealth services, and community care. We’ve mapped all of those priority customer journeys. We’ve not just done the research to understand what the make or break moments are, we have also instituted measurement and designed tools to improve the experience for patients.”

Erin Siminerio
Chief Design Officer, Experience Design, Veterans Affairs

TYPES OF PROJECTS INCLUDE:

- **Service line modernization**
  Service line improvement projects accounted for over half the reported efforts. These targeted orthopedics, cardiac care, memory care, cancer care, primary care, kidney care, weight loss, surgery, and emergency department services, among others. Project teams updated service lines to incorporate new types of providers (e.g., Community Health Workers and Advanced Practice Nurses), new tech, and to integrate family members into services. Others addressed on-boarding, bill collection, wait times, and other enhancements to service line experiences.

- **New programs and service lines**
  Several projects helped define new programs or services and their service models. These include a vision service, a new program for chemo care, and a new service to help parents and children with chronic conditions connect to supportive services.

- **New business models**
  Several projects developed care models around new reimbursement strategies (for virtual services) or value-based care models (oncology services for Medicare patients). One project worked with the health system’s community clinics to create an environment for developing and testing new business models.

- **Service infrastructure**
  Several ambitious projects created system-level service infrastructure, such as a tech-enabled virtual care ecosystem or a care-at-home platform. Other projects integrated digital tools to improve patient flow through pre-visit activities (dermatology); enabled hybrid care models (remote patient monitoring); and bridged between services (hospital discharge and postpartum).

Impact Story

**Mayo Clinic Department of Medicine develops a new multispecialty clinic for Centralized Sensitization Syndrome.**23

**Challenge**
Central sensitization syndrome (CSS) is a collection of largely incurable disorders—such fibromyalgia, irritable bowel syndrome, and chronic headaches—in which patients experience chronic pain and other symptoms that they must learn to manage for life. These conditions affect millions of patients and have an estimated economic impact in the billions of dollars. Mayo Clinic sought to design and assess a patient-centric multispecialty clinic to better address these needs.

**Design activities**
The team engaged in direct observation of current clinic experiences to identify patient needs, operational inefficiencies, and opportunities for experimentation. They used iterative pilot testing in which patients could be seen in a multispecialty practice, comparing clinic performance to a contemporary cohort.

**Solution**
Developed the Complex Care Coordination (C3) clinic that uses virtual care to enhance the face-to-face visit. Virtual intake visits connect patients to clinical specialists, ensuring diagnostics are in place and on-site visits are with the correct specialist. Post-visit, patients are offered a four-hour virtual nurse-led education session with links to online self-management material.

**Impact**
A 12-month pilot test included 34 patients with suspected fibromyalgia/chronic abdominal pain. Integration of virtual care scored well among physicians, who ranked the value of the virtual pre-visit as 7.5 on a scale of 1-to-10. Patients reported positive experiences with the combined nurse-led and digital education program. Physicians reported an average of 50 minutes spent per appointment, including preparation, execution, and post-visit documentation. Burden was low: There was no change in the number of added appointments or messages received within the patient portal when compared to a comparison cohort.

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4: Strategy & Planning

Health systems are increasingly employing designers to chart and implement strategic initiatives for their organization. More than half of teams — 19 of 29 — reported work in this area. Not surprisingly, more than 80% of those who reported this work (16 of 19) report to SVP or C-suite executives. Further, many of these teams said they intend to increase their efforts in strategy and planning going forward, a decision driven in part by leadership recognition (especially during COVID) that design can bring agility and responsiveness to health systems.

"Something that is not as well understood by healthcare leadership is the use of design in strategic work. We have a long history of this in other industries." - Aaron Farber, Vice President, Experience Research & Design, Brigham's Springboard Studio

Practitioners shared multiple contributions to organizational strategy and planning. First, designers are shaping strategy by applying "futureing" to longer-term health system challenges, which are typically digital or enterprise-level. This contribution was reported by only a handful of designers who have earned their seat at this table over time and through advocacy. Second and more common, designers are informing strategy through consumer insight, workshop facilitation, and decision-support tools. Third, designers are helping operationalize strategies defined by leadership, providing translational planning and stakeholder engagement to promote change.

"COVID focused us on work culture and employee-related projects. But we’ve spent the last year and half looking into strategy-level projects within the organization. Our team is expanding, as we are now focused on longer term design projects tied to the business strategy in clear ways." - Jeremy Beaudry, Manager, Health System Innovation & Design, hC0lab, UVM Health Network

Practitioners shared multiple contributions to organizational strategy and planning. Second and more common, designers are informing strategy through consumer insight, workshop facilitation, and decision-support tools. This contribution was reported by only a handful of designers who have earned their seat at this table over time and through advocacy. New efforts include designing roadmaps or decision-support tools to promote executive decision-making, using design methods to plan and lead strategic planning cycles with senior leadership; and selecting projects to inform or advance strategic priorities. One team pursues partnerships with payers and others to test concepts that could inform future contracts.

WHAT TYPES OF PROJECTS INCLUDE:

- Visioning
  A number of teams reported developing longer-term and/or enterprise-wide visions to guide health system strategy. These projects all targeted digital experiences. Several teams explored future engagement with EMRs from the patient and provider perspectives. Others planned for the digitally enabled consumer and defined their digital experiences. Mayo Clinic Department of Medicine developed and published their Digital Care Horizon framework to accelerate healthcare digital transformation.

- Enterprise strategy
  Almost half of teams engaged in strategy reported shaping, leading, or supporting enterprise-level strategy. This work includes exploring consumer experiences and examining new technologies to develop futures for. For example, MD Anderson’s Innovation Group provides deeper context into the human need and possible futures that may impact enterprise-wide decision-making. Other efforts include designing decision-making frameworks. One team reported working to inform or advance strategic priorities. One team pursues partnerships with payers and others to test concepts that could inform future contracts.

- Growth and operations strategies
  Several interviews cited projects that help the enterprise grow its number of patients, revenue, or market share — among them the development of new consumer engagement strategies and frameworks. One team reported working to inform their health system’s operations plan.

- Future service strategies
  Several teams outlined overall product and service strategies needed to enable consumer-centric healthcare, often addressing the need to unify and standardize approaches, practices, and systems across their health systems. Mass General Brigham’s Springboard Studio is helping plan for the departure of the Dana Farber Cancer Institute.

Impact Story

Kaiser Permanente develops an enterprise-wide system for digital equity.

Challenge
Develop an enterprise-wide strategic plan for digital equity with the goal of ensuring all Kaiser Permanente members and those within KP’s communities can fully participate in this digital-first world should they choose to do so.

Design activities
Over the course of a year, the design team: 1) engaged in scoping, framing, and leadership alignment; 2) conducted primary and secondary research consisting of policy review; data review; literature review; environmental assessment; competitor assessment; internal assessment of business assessment; lived experience; and interviews with stakeholders and subject matter experts; 3) conducted co-creation sessions to summarize and prioritize opportunity areas; and 4) designed and developed the following assets:

- Insights: conveying the digital equity landscape as discovered through both primary and secondary research
- Vision: what addressing digital equity should look like at KP; what outcomes should be achieved, and what KPs’ role should entail
- Strategy framework for how to bring the vision to life
- Initiatives: a set of projects and programs that can be executed at scale along a defined roadmap

Solution
The Digital Equity System is a three-pronged approach to address digital barriers and inequities. It helps members adopt and use technology, and consists of nodes, or primary activities, and building blocks, or secondary activities, which collectively aim to enable members to participate in a digital world, should they choose to do so.

Impact
Pilot programs are being implemented across departments. For example, a pilot between KP’s Southern California Consumer Experience Design group and external partner SameSky is studying 30,000 members, using SameSky’s platform to track culturally concordant, bidirectional communications to ensure meaningful and preference-based outreach. The study measures retention, loyalty scores, engagement, and overall potential impact to ROI.
5: Organizational Development & Training

Surprisingly, more than half of teams — 19 of 29 — are involved in efforts that are best categorized as organizational development. Common themes among projects include using design to catalyze organizational change, promote employee well-being, and establish leadership and innovation programs to diffuse design thinking skills throughout the organization. During the pandemic, some health systems leaders learned that managing disruptive change is different from managing planned change, and that designers were useful to the former. Others are deploying designers to enable innovative and strategic thinking. These organizational capacity-building efforts are often initiated by leadership, rather than designers themselves, and are driven by a growing need for a more adaptive, future-oriented health system.

WHY HIRE A DESIGNER?
Design can teach the health system to fish.

Some designers are being asked to turn their human-centered processes inward on employee issues — nurse retention; remote work policies; mental health access for clinicians, for example — which created highly visible demonstrations of human-centered approaches. Others are being asked to enable organizational capacity through programs and platforms that build innovation skills, language, and propensity among leadership.

“We are moving toward developing MSK Innovation as an enabler for the broader organization. Earlier it was focused on enabling healthcare innovation solely through a discrete project portfolio.”

Ophelia Chiu
Vice President, Strategic Innovation, Memorial Sloan Kettering Cancer Center

TYPES OF PROJECTS INCLUDE:

- Leadership and innovation cultivation
  Almost one-third of reported projects targeted programs for leadership to promote innovation and innovative practices. These projects include innovation accelerator programs to support and advise on novel solutions to care delivery challenges; developing new offices or centers for innovation; innovation awards from the CEO; developing an innovation assessment tool for leaders; and newsletters and events (“Innovation Days”) to keep innovation visible.

- Learning opportunities
  Several teams have developed a design training course, a curriculum or full-certificate program that is available to the broader organization.

- Change management efforts
  One design team led change management and overall communications for a new program to improve patient access. Another led the implementation of a new operating model designed to create a culture of service across the health system. A third oriented over 30,000 employees on an enterprise-wide “Moments that Matter” service strategy.

- Employee experience
  During the pandemic, some health systems leaders learned that managing disruptive change is different from managing planned change, and that designers were useful to the former. Others are deploying designers to enable innovative and strategic thinking. These organizational capacity-building efforts are often initiated by leadership, rather than designers themselves, and are driven by a growing need for a more adaptive, future-oriented health system.

Impact

Advocate Health launches its “Design for Impact” leadership development process.24

Challenge

Atrium Health, now part of Advocate Health, formed an enterprise-wide shared services team dedicated to creating new revenue sources and spreading a culture of innovation throughout the organization. In 2020, the Innovation & Commercialization team launched the “Design for Impact” program, a robust business model innovation process that uses design methods to identify and respond to a variety of challenges in healthcare facing stakeholders.

Design activities

The “Design for Impact” process aligns clinicians and executives on a topic and helps them engage patients, clinicians, and caregivers to understand their concerns and barriers. The resulting concepts are assessed using design’s Balanced Innovation framework, which says good solutions should be 1) desirable: a value proposition and delivery channels that stakeholders want; 2) feasible: includes the key partners, activities, and resources necessary for the organization to be able to implement; and 3) viable: uses a cost structure and revenue stream that will yield a positive return on investment.

Solution

Advocate Health leaders have successfully applied Design for Impact to community clinics, dialysis, and stroke care. To improve use of community clinics and reduce ER visits, the innovation team interviewed people at bus stops, community centers, and other gathering places. The team discovered a general distrust of large healthcare institutions and a widespread feeling that systems don’t understand patients’ personal challenges. In response, Advocate Health incorporated Community Health Workers (CHWs) into clinics. CHWs visit at-risk patients’ homes between routine visits, helping strategize management of chronic conditions.

Impact

In 2022, two pilot clinics using the CHW strategy reported a 34% drop in ER visits and a 37% decrease in inpatient stays. Design for Impact is being implemented within Advocate Health through its Impact Academy as part of a broader leadership development strategy.

6: Quality Improvement

Quality and safety are health system mandates, and most health systems have for years invested in quality improvement (QI) teams steeped in Agile, Lean, or Six Sigma processes to improve performance. Evidence of their effectiveness remains mixed, however, and some have been associated with a decrease in clinician satisfaction. QI can appear to be a natural gateway for designers, given their strengths in identifying and addressing process gaps, barriers, and workflow issues in both internal operations and patient-facing services. However, designers in our discussions expressed mixed feelings about QI and its relentless focus on efficiency at the expense of experience. That said, 12 of 29 teams reported engaging in quality improvement projects, suggesting there is both interest and experimentation in applying design approaches, especially challenges affecting the quality of patient care that rise to the level of strategic priorities.

“Design and a design approach are compatible with the fundamental concepts of Agile, but unfortunately aren’t understood as such by some Agile practitioners.”
Aaron Farber
Vice President, Experience Design and Research

“UCSF is a lean organization. While there are parallels between the lean process and human-centered design, the intent is different. And this presents an ongoing opportunity to demonstrate the value of bringing that difference to bear in the work we do.”
Jan Yaeger
Lead Service Designer, UCSF Health

WHY HIRE A DESIGNER?

Contextual Design brings a fresh perspective.

Designers are trained to prioritize the role of context — the real-world settings, people, practices, and competing priorities that drive human behavior. They apply methods of user research and contextual inquiry to understand these contexts, to engage end users in defining needs and design goals, and to generate “context-aware” solutions. QI teams may benefit from collaborating with this holistic approach: design, with its place-based emphasis, may benefit from the rich insights of user research and contextual inquiry to understand these contexts, to engage end users in defining needs and design goals, and to generate “context-aware” solutions. QI teams may benefit from collaborating with this holistic approach: design, with its place-based emphasis, may benefit from the rich insights of contextual inquiry to understand these contexts, to engage end users in defining needs and design goals, and to generate “context-aware” solutions. 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TYPES OF PROJECTS INCLUDE:

- **Hospital quality challenges**
Two projects targeted known quality challenges: sepsis and promoting patient mobility. One used machine learning to improve the signaling and management of sepsis “not present on admission” status across the hospital system. The other engaged providers, nonclinical providers, and staff to prototype and pilot test a mobility speedometer rolled out hospital-wide in 2024.

- **Clinical practice improvement**
Several projects assisted their QI teams with the launch of new technologies, such as a new blood draw device and preparing staff to convert to a new genetic testing technology.

- **Process optimization**
Most projects addressed process improvements related to patient care. Improving patient discharge, improved care coordination workflows, and filling gaps in care were some of the projects reported. One project reduced “patient escalation” rates through a redesign of registration and check-in workflows. Technology solutions were common: one project ensured performance data was automatically being relayed to specific individuals to improve the quality of their processes. Another improved the onboarding process for patients by replacing manual processes with digital processes.

- **Operations improvements**
Several reported projects were directed at operational efficiency. These include integrating the CMR experience across the enterprise and developing an app to track lab equipment throughout the health system.

Impact Story

**Developing the UCSF Health Sepsis Collaborative**

**Challenge**
Sepsis is a dangerous whole-body infection that can take as little as 12 hours from detection to death. In 2023, UCSF Health reported 693 NPOA (not present on admission) cases and 117 deaths. At UCSF Health, one-third of sepsis cases are NPOA (not present on admission), resulting in more than 500 deaths per year. Real-time, point-of-care, EHR-based alerts to clinical staff exist but are poorly tuned and imprecise, resulting in 50–80% of alerts being canceled by hospital staff.

**Design activities**
An interdisciplinary team with expertise in service design, analytics, clinical, nursing workflow, quality improvement, and operations came together to understand the current state of sepsis in adult patients. Qualitative research defined the human and system factors associated with current sepsis signaling and management workflows. Iterative prototyping and testing are driving solution development.

**Solution**
Nurses are engaging in developing a "precaution protocol" for aspiration pneumonia, commonly found in NPOA sepsis patients. This process included: new precaution signage in patient rooms to improve readability and promote oral care; improved access to aspiration precautions protocol in Epic; and recommendations for a measurement system that highlights compliance with enacting precautions.

Developing a Sepsis Pathway using machine language (ML). This solution includes defining the underlying predictive model and prototyping both the visual elements of an ML-based sepsis signal and the visual system for communicating patient status.

**Impact**
The goal is to impact care and the mortality index for NPOA sepsis. As a work in progress, the project has garnered strong support for the team, evidenced by its fast tracking within the Epic development and AI oversight groups for the health system.
7: Reimagining Space & Facilities

Designers are helping rethink healthcare spaces and their role in patient experience and service delivery. Fifteen of 29 teams reported at least one such project, either advising on how to be new spaces to patient experience and new service models or envisioning new futures for key spaces — exam rooms, operating rooms, waiting rooms, and amenity areas — to challenge conventional thinking. Maybe especially for newer designers or newer design groups, these projects are useful because they dramatize unique design skills, such as prototyping, and build visibility among clinicians and leaders. It is important to highlight that designers are advising on how to knit environments into a patient-centered strategy; they are not functioning as architects, who still own detailed design and build roles.

WHY HIRE A DESIGNER?
Design can prototype new futures.

The following projects are highlighted:

**Patient amenities**
Several projects targeted nonclinical spaces. Designers helped remodel a cafeteria, an over-the-counter pharmacy, and a parking lot, using human-centered research techniques to help define more functional and inviting spaces.

**Outpatient clinics**
A quarter of the reported projects asked designers to inform the design of new outpatient spaces. These efforts targeted multiple ambulatory centers, a pediatric specialty clinic, a vision clinic, a rehab clinic, and a hematology and oncology clinic.

**Transitional spaces**
Multiple projects targeted the “in-between” spaces used by patients transitioning between care environments. These include arrival spaces and arrival workflows, waiting rooms, and wayfinding/navigation. Most projects involved integrating technology solutions, such as apps and kiosks.

**“Future of” clinical spaces**
Designers were asked to create visions for patient care spaces, often imagining how digital, physical, and service models could come together to create new experiences for patients and clinical staff. Cited projects include inpatient rooms, ambulatory care spaces, and other clinical spaces slated for rebuild in the next five to seven years.

8: On-Demand Workshops

More than a third of teams — 11 of 29 — created or led on-demand workshops for other departments and teams to promote creative problem-solving and patient-centeredness across the enterprise. While designers are not explicitly hired for this function, their knowledge base is considered a unique resource to be leveraged.

WHY HIRE A DESIGNER?
Design knowledge is an organizational asset.

The following projects are highlighted:

**9: Clinical & Industry Research**

Nine teams reported engaging in research trials, both federally funded — CDC, PCORI, AHRQ, AHA/HRET — and industry funded. There is growing interest in applying design methods to clinical trials, especially in translational research that seeks to bridge evidence-based interventions to clinical practice. Design methods have contributed to study design, study tools, and recruitment and retention efforts.

WHY HIRE A DESIGNER?
Design methods can help research better fit people.

Our practitioners reported leading product development, especially digital products, for industry research. They are also applying co-design and design discovery processes to inform study conduct, for example, how to improve infection control or make cardiac care more equitable.
Team Profiles

Section 6

1: “We are fortunate enough to be tied to strategic goals and the CEO. But we would also like to do work driven by consumer data, not pits of experience issues. So, what balance between doing things that COO care about, and those that are useful to the end users? We’re not

2: “Designing design’s value in an accelerated time frame is more difficult than aligning efforts to strategic business. HCD brings a lot of value, but it has a timeframe. So getting to 2, 3 years goals and connecting them can make a stronger argument.

3: “A business was missing, what’s practical on both sides. The friction ROI of what empathy, of a product or service.

4: “We have learned that have struck a balance that understands the things stated above. Additional in care design, and the much more powerful design engagement in
design experience.
Advocate Health

TEAM NAME

Innovation & Commercialization

YEAR LAUNCHED

2013

TEAM PROFILES

In 2013, Atrium Health, now a part of Advocate Health, formed an enterprise-wide shared services team dedicated to innovative problem-solving and spreading a culture of innovation throughout the organization. Now known as the Innovation & Commercialization team, it focuses on innovation, partnerships, investments, tech transfer, and commercialization. The team’s designers also develop and lead design-based programs for senior leadership, including Design for Impact, a comprehensive process for renovating or developing business models to stay viable, and Impact Academy, a training course for leaders to infuse innovation language and tools into the organization.

FUNDING

- Single source: Health system operating budget
- Blended source: 

TYPES OF DESIGN HIRES

- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

HEADCOUNT

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INTENT TO GROW IN THE NEXT 12 MONTHS

- Shrinking
- Stable
- Expanding

REPORTING LINE

- Direct reporting
- Indirect reporting

DESIGN CONTRIBUTIONS

PRIMARY CONTRIBUTIONS

1. Patient Experience

Community Clinics: Through a series of interviews and observations, this project aimed to deeply understand the progress patients were trying to make in their lives, their access to care and how Advocate Health’s Community Clinics either facilitated or hindered patient progress toward their life and health goals.

2. Care Model & Service Line Redesign

Community Clinics: The Innovation & Commercialization team’s efforts helped accelerate the transformation of Advocate Health by fostering an environment where new business and care models can be designed and tested. The team facilitated the integration of CHWs into clinics, which are vital when fostering connections and trust within our served communities.

Dialysis Care: The Innovation Engine championed the investment in upgrading hospital dialysis machines to elevate the delivery of kidney care.

Memory Care: The Innovation Engine collaborated with Advocate Health’s Senior Care and Neurology teams to test a desirable, viable, and feasible model for diagnosing and caring for people with dementia in primary care. The goal was to provide earlier access to treatment, clinical trials, and support services for patients and families, and seamlessly integrate the process into existing primary care practices to increase the adoption of the new clinical workflow and procedures for reimbursement.

SECONDARY CONTRIBUTIONS

4. Reimagining Space & Facilities

Over-the-Counter Pharmacy: Team members from the Innovation Engine supported a community partner, MedAssist, to redesign their free over-the-counter pharmacy to make it a functional and inviting store for clients and volunteers.

METRICS & MEASURES

- Number of people reached in meaningful ways
- Number of assumptions identified and tested
- Number of lives impacted (e.g., number of people screened for dementia before and after intervention)
- Efficiency metrics: time saved, resources saved
- Business model financial viability
- Number of teammates trained through Impact Academy or on the Design for Impact process.

ADVOCATE HEALTH

INNOVATION & COMMERCIALIZATION

CEO

EVP, Chief Innovation & Commercialization Officer

Strategy

Digital

Operations

Clinical

2013

CEO

EVP, Chief Innovation & Commercialization Officer

Innovation & Commercialization

2013
Ascension

**Experience Research & Design (xRD)**

Launched in 2019, Ascension Studio's charter is "to accelerate Ascension’s journey to transform healthcare, for those we seek to serve and those who serve, by delivering ministry-wide experiences powered by people, design, data, and technology." The Studio was initiated by the Chief Strategy and Innovation Officer to infuse human-centered design into the organization to address business problems. Currently, the Studio’s xRD group employs over 40 designers across two teams. The Digital Product Design team focuses on digital development, accounting for almost 80% of xRD’s work. The Strategic Design team focuses on consumer touchpoints across the health system, integrating processes, people, and physical and digital artifacts into an improved patient experience.

### TEAM PROFILES

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<th>TEAM NAME</th>
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<td>ASCENSION</td>
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<td>Design Strategist, Service Designer, UX Designer, Design Researcher, Experience Designer, Digital Product Designer, Communication Designer</td>
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### REPORTING LINE

- Direct reporting
- Indirect reporting

### FUNDING

- Single source
- Blended source: Capital expenditures through strategic investment funds, Operating expenses, Charge-back model (internal funds transfer)

### YEAR LAUNCHED

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<tr>
<th>2003</th>
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### TYPES OF DESIGN HIRES

- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

### INTENT TO GROW IN THE NEXT 12 MONTHS

- Shrinking
- Stable
- Expanding

### TYPES OF DESIGN HIRES

- Number of designers:
  - 1–3
  - 4–7
  - 8–16
  - Over 17

- Number of non-designers:
  - 0
  - 1–3
  - 4–7
  - 8–16
  - Over 17

### Design Contributions

#### xRD STRATEGIC DESIGN PORTFOLIO

1. **Patient Experience**
   - Designed the aspirational experience for the retail pharmacy business.

2. **Digital Transformation & Product Development**
   - Evaluated the current information workflows and use of existing technology capabilities within ambulatory surgical centers, and provided recommendations for improvements that would materially improve the patient and surgeon experience or streamline operations with other sites of care.

3. **Care Model & Service Line Redesign**
   - Identified key consumer experience challenges during transitions of care; designed solutions that created an optimized experience for both patient and care team.

4. **Strategy & Planning**
   - Developed a strategy — grounded in an understanding of why individuals make avoidable use of the Emergency Department — to reduce ED visits while maintaining appropriate care for patient needs.

#### xRD DIGITAL PRODUCT DESIGN

1. **Digital Transformation & Product Development**
   - Online scheduling
   - Health record access
   - Online bill payment

### Metrics & Measures

- Each digital product the Studio develops or oversees has a defined set of OKRs that set the objectives for the team/product. These are the measurable results that the team seeks to improve within a stated time frame — typically one quarter or one year. These include, for example: percent of appointments booked digitally; conversion rate from performing a search on their site to appointment booking; app store ratings, etc.

- Ascension has started to use NPS as a base measure of consumer experience, though the Studio does not have oversight for measuring that metric. However, much of Studio work contributes to advancing the consumer experience and, consequently, NPS.

- Strategic design projects themselves do not have any common metrics used to evaluate them, but they are often in service of broader strategic initiatives that do. For example: reduction in avoidable ED utilization.
Equitable Healthcare Lab — Institute of Design

Baystate Health

TEAM NAME
Digital Innovation

YEAR LAUNCHED
2014

Initially launched as TechSpring in 2014, this design-focused capability offered external consulting services to engage partners and the health system in health tech development. During COVID, the team shifted its efforts to enterprise-wide internal transformations, helping the organization respond to the operational challenges of the pandemic. Today, the Digital Innovation team applies design to near-term organizational challenges, tying its efforts to the health system strategy, patient experience and digital solution levels, and participation in the transition to implementation. They use intensive pilot testing to tell stories of change and to make the case for new, foundational practices across the health system. The team also works closely with the clinical side to translate and bridge care delivery needs to technology teams.

HEADCOUNT

- NUMBER OF DESIGNERS
  - 1–3: 0
  - 4–7: 8–16
  - over 17: 4–7

- NUMBER OF NON-DESIGNERS
  - 1–3: 0
  - 4–7: 8–16
  - over 17: 1–3

INTENT TO GROW IN THE NEXT 12 MONTHS
Shrinking → Stable → Expanding →

FUNDING
- Single source:
- Blended source:
  - Sponsored collaboration (industry partners and grants)
  - Health system operating budget

REPORTING LINE
CEO → Chief Information & Digital Officer → VP - Digital Innovation → Digital Innovation

Design Contributions

PRIMARY CONTRIBUTIONS
1. Patient Experience
- Consulted on DEI projects and led patient experience audit for LGBTQ+ patients to promote inclusion.
- Designed data integration of remote monitoring devices for diabetes care.
- Developed tech solutions to promote team-based cardiac care.
- Customer development and pilots of patient education and engagement apps for asthma and nutrition.

2. Digital Transformation & Product Development
- Standardized digital front doors.
- Designed data integration of remote monitoring devices for diabetes care.
- Designed care model roadmaps for endocrine, neurology, primary care, and community health.
- Centralized ambulatory capacity management, processes for the organization, defined the improvement strategy and assisted with planning.
- Conducted clinic journey mapping to establish anesthesia prior to surgery.
- Established a centralized ambulatory capacity management function that included scheduling guidelines, provider templates, job descriptions, roadmap for self-service scheduling, and SOPs for department and service lines.

3. Care Model & Service Line Redesign
- Designed care model roadmaps for endocrine, neurology, primary care, and community health.
- Centralized ambulatory capacity management, processes for the organization, defined the improvement strategy and assisted with planning.
- Conducted clinic journey mapping to establish anesthesia prior to surgery.
- Established a centralized ambulatory capacity management function that included scheduling guidelines, provider templates, job descriptions, roadmap for self-service scheduling, and SOPs for department and service lines.

4. Strategy & Planning
- Established multiyear strategy to differentiate the health system for orchestrated access to health, organizational governance process, communication, and rewards and recognition, and also established roadmap and first priorities.
- Defined and established Product Management role for Virtual Care and Digital Front Door.
- Designed gaps-in-care outreach campaign model and first use case for breast cancer screening.

5. Organizational Development & Training
- Launched a Design and Experience Review Board (DxRB) to review and advise on adoption, design, and user engagement.
- Designed Informatics and Technology Project Request Governance Process for organizational participation.

6. Quality Improvement
- Patient onboarding process: streamlined onboarding to reduce manual processes and ensure that the digital platform provides data to for further quality improvement.

SECONDARY CONTRIBUTIONS
7. Reimagining Space & Facilities
- Design of TechSpring, a 10,000-square-foot design, coworking, and conference center.
- Emergency Department redesign to improve patient experience.
- Parking lot redesign for a major medical office building.
- Primary ambulatory center redesign for visitor support.

8. On-Demand Workshops
- HCD seminar program.
  - *Tap into TechSpring* monthly innovation and design meet-ups.
  - Mandatory innovation seminars for managers and above.

9. Clinical Industry
- Publication: “Exploring the Patient Experience with Noninvasive Ventilation: A Human-Centered Design Analysis to Inform Planning for Better Tolerance.”

Diabetes connected care operational study funded by Eli Lilly.

Metrics & Measures
- Revenue
- Cost efficiencies
- Patient experience satisfaction
- Quality and patient outcomes
- Staff experience and satisfactions
- Community impact
- Engagement metrics
- Project and product metrics for all initiatives
Boston Children’s Hospital

**TEAM NAME**
Digital Health Experience

**YEAR LAUNCHED**
2019

Inside the Innovation & Digital Health Accelerator (launched in 2016) lives the Digital Health Experience (DHE) team, which has a dual focus on digital health solutions and enterprise needs. Projects are improvement-focused and tied to their patient journey map. For example, a review in 2023 highlighted needs such as billing education, and increasing pre-visit check-ins and portal usage. Given its role in implementation, the DHE team reports to both the Accelerator and IT, but they also work directly with vendors to customize solutions. Ensuring products are equitable and accessible—a hospital goal—is an explicit part of DHE processes.

### TYPES OF DESIGN HIRES
- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

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**INTENT TO GROW IN THE NEXT 12 MONTHS**
- Shrink
- Stable
- Expand

**FUNDING**
- Single source: Health system operating budget, Research grants
- Blended source: CEO, Chief Innovation Officer, VP, Digital Health, Chief Innovation Officer, Innovation and Digital Health Accelerator

**REPORTING LINE**

![Reporting Line Diagram]

**TEAM PROFILES**

2003 to 2023

**Design Contributions**

### PRIMARY CONTRIBUTIONS

1. **Patient Experience**
   - Creating patient educational materials in Spanish, ensuring the products are inclusive of patients (not just parents).
   - Working with the office of PX.

2. **Digital Transformation & Product Development**
   - Sample projects include:
     - Integrating Amazon ECHO dots into inpatient rooms
     - Remote patient monitoring
     - Virtual visits
     - Patient portal and Welcome Kiosks
     - AI integrated EMR note transcription for pediatric providers

3. **Care Model & Service Line Redesign**
   - Remote patient monitoring pilot and expansion.
   - Working with specialty clinics on digital health issues/needs. For example: simplifying the flow and then communicating the steps for dermatology patients to upload photos before a virtual visit.

4. **Strategy & Planning**
   - Long-term planning on issues and items that need to be worked on, looking at patient journeys to identify pain points that need to be worked on. Topics include: billing education, increasing the number of patients who pre-check in, increasing the number of patients that sign up on the portal pre-visit, and making hospital services as accessible as possible.

5. **Quality Improvement**
   - Iterative portal improvements based on user feedback and data.

### SECONDARY CONTRIBUTIONS

6. **Reimagining Space & Facilities**
   - Defining the kiosk strategy and arrival workflows, as well as conducting on-site care planning.

**Metrics & Measures**

Metrics are tied to and differ between products:
- Stratifying product usage by payer, age, race, language, ethnicity to identify disparities
- Using internal, market, and community health research to prioritize initiatives that reduce barriers to care and amplify health equity—for example, SSRI prescription rate disparities via race and ethnicity
Geisinger

TEAM NAME
Experience Design & Strategy

YEAR LAUNCHED
2003 2023

Types of Design Hires
- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

FUNDING
- Single source: Funded by the Geisinger Steele Institute
- Blended source:

Design Contributions

PRIMARY CONTRIBUTIONS

1. Patient Experience
Sits on council to inform patient health literacy initiatives.

2. Digital Transformation & Product Development
Post Discharge Management: Developing a standardized outreach program to address patient concerns post-discharge and reduce readmissions. The team collaborated with nursing operations managers and nurse informaticians to create service design blueprints that provided an overview of patient journey, including back-end process from admission through discharge.

Self-Service Check-In: Creating self-service check-in options to improve patient check-in experience while enabling support staff to refocus their time on crucial tasks. The team conducted observations and interviews to evaluate and align on current state check-in processes and technology stack. Created training material for staff.

Patient Contact Center Call Experience: Refining inbound call experience to aid in better patient call handling. The team created user flows; led user testing; and collaborated with business, software engineering, and product teams to iterate, test, build, and deploy solutions for the contact center inbound call experience.

Virtual Nursing: New acute care model to help nurses in their work while improving patient experience and address staffing shortages. The team facilitated stakeholder ideation sessions and conducted on-site observations to understand and align on current state and identify pain points within phases of the care journey.

Digital Education: Deliver standardized quality and timely education for patients and their families. The team conducted stakeholder sessions to understand and align on the current clinician workflow/journey for accessing educational materials and evaluate ideas to increase adoption of newly implemented digital education platform.

SECONDARY CONTRIBUTIONS

5. On-Demand Workshops
Modest support for internal and external design-led workshops across teams such as marketing, informatics, etc.

Metrics & Measures
The team contributes to measurement: as part of the DTO, the team works with Digital Solutions Analysts to develop strategies for the collection and visualization of data.
The team is measured on organizational reach, adoption and engagement of deployed solution, and patient and employee experience.
Kaiser Permanente

Garfield Innovation Group

Kaiser Permanente is one of the earliest adopters of design among US health systems. Mirroring its nationally distributed network of hospitals, medical offices, and administrative offices, design groups are decentralized and embedded on both the health plan and medical group sides of the enterprise. The Garfield Innovation Group was assembled to address unfamiliar, complex opportunities that don’t neatly fit into existing healthcare functions or practices. The group is part of KPx: a current initiative taking a holistic view of consumer experience at the organization, bringing together design practitioners and leaders — plus other specialties and departments — to improve offerings across the patient experience, care model design, and digital experience on a national scale.

**Primary Contributions**

1. **Patient Experience**
   - Undertake projects related to patient engagement with the entirety of the health system. For example, defined and launched the Excellence in Cancer Care effort.

2. **Care Model & Service Line Redesign**
   - Provide systems design approaches to interaction design across the health system. For example, helped develop Focus Home, a care-at-home system that unifies different components of the home into a single platform. Also includes efforts attached to specific business lines.

3. **Strategy & Planning**
   - Deliver high-level vision work directly linked to the organization’s strategic goals. For example, Digital Equity is an enterprise-wide vision covering a wide range of all touchpoints — IT, government, purchasing, communications, community partnership.

**Metrics & Measures**

- Yearly goals include process and outcome measures
- Projects often span multiple years, making outcome delivery a lengthy process
- Success is measured by achieving goals
- Internal, postmortem assessments are conducted informally to evaluate project performance
Mass General Brigham

TEAM NAME
Springboard Studio

YEAR LAUNCHED
2010

From its origins as a device design group in 2010, Springboard Studio was relaunched in 2018 and gained organizational traction assisting in COVID response efforts. Today, this collaborative-focused design thinking capability provides organization-wide support for product and service innovation using their four-phase design methodology. Through their programs, including “We Solve Stupid Stuff,” MGB providers are able to initiate multidisciplinary-driven problem-solving processes and receive hands-on support to design and test solutions.

TYPES OF DESIGN HIRES
- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

FUNDING
- Single source:
  - 40% Philanthropy, Grants
- Blended source:
  - 60% system funded through Core Budget and Project-Specific Funds

HEADCOUNT
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  - 8-16
  - over 17
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  - 0
  - 1-3
  - 4-7
  - 8-16
  - over 17

INTENT TO GROW IN THE NEXT 12 MONTHS
- Shrinking
- Stable
- Expanding

REPORTING LINE
- Direct reporting
- Indirect reporting

Primary Contributions

1. Patient Experience
   Conducted design research with PFAQs to focus on patient experience and satisfaction, using one-on-one patient interviews to learn about their care-related interactions with the health system.
   Conducted design research for MGB Population Health Management, specifically producing patient and provider journey maps for chronic kidney disease treatment pathway. Investigated inpatient and outpatient experiences more broadly, using design methods.

2. Digital Transformation & Product Development
   Developed an augmented infant resuscitator device, along with accompanying apps. Produced, deployed, and evaluated HEPA-Filtered COVID Testing Booths called “Hexapods”.
   Developed wireframe for a Virtual Rounding app in COVID. Produced wireframes for a project in partnership with Palliative Care.

3. Care Model & Service Line Redesign
   Investigated and designed a model of how people with chronic kidney disease navigate the system and the way care is delivered.

4. Strategy & Planning
   Helping with comprehensive cancer care across MGB, as Dana Farber leaves the system in five years.

5. Organizational Development & Training
   On behalf of the Wellness Committee at MGH, contributed to several projects aimed at helping providers and staff engage in “designing the care and working environment they want to live in.” They worked with Pediatrics to explore how to thrive and combat burnout, and then they provided a roadmap depicting possible interventions for the incoming Chief.
   Conducted “Design Thinking in Healthcare 101” with various groups across the health system, which evolved as part of their design curriculum for internal innovators. DT 101 was recorded for asynchronous viewing and sharing.

6. Quality Improvement
   Increasing inpatient mobility — through design research, engagement with providers, nonclinical providers, and staff. Prototype of a mobility speedometer — expanded to one entire hospital and to undergo a staged roll out across MGB from January 2024.

SECONDARY CONTRIBUTIONS

7. Clinical & Industry Research
   Developed fogless goggles (coated with a hydrophobic polymer), built the goggles and participated in the subsequent effectiveness trial funded by the polymer manufacturer.

Metrics & Measures

At the start of new projects, the team and Impact Pillar leader ask the question: “What might success look like?” For example, a mobility-related project identified a hybrid set of measures that combined what was possible to measure, and what was practical.

Mobility-related measures:
- Percent of patients at admission with recorded Highest Level Mobility (HLM) score
- Change in HLM score from admission to discharge (Improve, No Change, Decline)
- Target HLM met at discharge (exceeded, met, fell short)
- Average daily number of HLM Scores recorded in Epic
- Average number of HLM Scores in Epic System outcomes (MGB System)
- Average hospital Length of Stay (LOS)
- Discharge disposition (Home, Acute Rehab, LTAC etc)

Qualitative feedback from patients and providers:
- Does the speedometer remind you to ambulate patients?
- Are you able to keep it up to date?
- Would you prefer a simplified version?
- Does the speedometer help you talk about mobility?
- Should we continue with the speedometer?
- Open-ended questions related to culture and receptivity.
Mayo Clinic

TEAM NAME
Center for Digital Health

YEAR LAUNCHED
2019

HEADCOUNT

NUMBER OF DESIGNERS

- 1-3
- 4-7
- 8-16
- over 17

NUMBER OF NON-DESIGNERS

- 0
- 1-3
- 4-7
- 8-16
- over 17

INTENT TO GROW IN THE NEXT 12 MONTHS
Shrinking → Stable → Expanding →

FUNDING
Single source: Health system operating budget
Blended source:

REPORTING LINE
CEO & CAO
Chief Digital Officer
Center for Digital Health

Design Contributions

PRIMARY CONTRIBUTIONS

1. Digital Transformation & Product Development

There are hundreds of ongoing projects with current areas of focus being the expansion of virtual health, building patient-centered digital infrastructure, improving the ability of teams to do their work with less effort while enhancing their ability to connect with patients, and strengthening their analytical capabilities. Examples of Digital Front Door services include:

- Patient Care & Health Information Library: A comprehensive patient guide to hundreds of conditions and diseases;
- Symptom Checker: A digital tool to help patients find out what might be causing their symptoms;
- Chatbot for First Aid: Supported on Alexa Voice Assistant, this provides patients with self-care instructions for dozens of everyday mishaps and medical emergencies.

Metrics & Measures

CDH metrics are a layered mix of organizational OKRs, portfolio management OKRs, product team OKRs, and capability specific metrics:

- High-level metrics are patient and employee satisfaction; reduced burden on providers and patients; improved outcomes
- Product-level metrics are usage, usability, and other performance analytics captured behind the scenes. These are tracked automatically using digital tools; results are reviewed monthly and quarterly in a formal presentation by all of CDH
- The "Voice of Customer" team is composed of call center experts and others who track metrics using tools behind the scenes. They send feedback to product directors when unusual patterns show up, and can launch fixes in 24 hours
Mayo Clinic

Department of Medicine

Mayo Clinic is one of the earliest and largest adopters of design in the US. In 2004, with assistance from IDEO and 2 physician champions, Mayo launched the SPARC Lab as a design-led prototyping and testing space. By 2008, the concept and staff had grown and was rebranded the Center for Digital Health (CDH) to better coordinate digital development. This massive investment reflects recognition that healthcare is increasingly driven by digital capabilities. Today, Mayo currently employs over 100 designers enterprise-wide.

Design Contributions

1. Digital Transformation & Product Development
   Designed and launched remote patient monitoring for comprehensive care at home to support patients with complex chronic conditions.

2. Care Model & Service Line Redesign
   Designed and evaluated a multispecialty clinic for patients with central sensitization syndromes that combines virtual previsit consultations, traditional face-to-face appointments, and technology-enabled educational programming.23

3. Strategy & Planning
   The Digital Care Horizon: A framework for how to extend and accelerate healthcare through digital transformation and omni-channel patient experience models.25

Metrics & Measures

Rather than measures, the Department of Medicine uses the following indicators that efforts are on the right path:

- Identified opportunity areas resonate with Clinical Practice
- Clinical Practice wants to partner with them on aligned opportunity areas
- New products and services are implemented into the practice impression

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The University of Texas MD Anderson Cancer Center

**Innovation Center**

Tasked with institutional innovation since 2016, MD Anderson’s innovation team provides human-centered strategy development and problem solving — investing in opportunities that drive institution-wide impact. With MD Anderson’s mission at the forefront of their work, they assess opportunities and help transform them into long-term meaningful experiences for patients, caregivers, and employees. They create experiences connecting people, technology, and environments (physical and virtual) to inform digital product selection and development. The team is currently developing Future Foresight and Human Factors capabilities. The team comprises designers and business associates that come from diverse backgrounds and work in cross-functional teams to support institutional priorities.

### Design Contributions

**PRIMARY CONTRIBUTIONS**

1. **Patient Experience**
   - Reimagine how patients and caregivers engage with MD Anderson, starting at the front door by creating journeys that integrate their patient care services, education, technology, and space to create a comforting, easy-to-navigate experience, increasing the likelihood they would seek all their cancer care at MD Anderson.

2. **Digital Transformation & Product Development**
   - Enhanced the new patient experience through an EHR-embedded status tracking application that informs patients when activities such as financial review and medical record retrieval have been completed prior to first appointment.

3. **Care Model & Service Line Redesign**
   - Created a virtual new patient service that enables a wholly digital onboarding process that expedites a patient’s intake procedure and reduces time to first appointment.

4. **Strategy & Planning**
   - Employed a human-centered approach to gather qualitative insights from leaders and employees across the institution to develop the Institutional Strategy, identify required supporting functions and prioritize key initiatives.

5. **Organizational Development & Training**
   - Developed service blueprints for MD Anderson constituents (such as patients, referring providers, donors, external vendors) to inform CRM requirements including data integrations to create a unified constituent view.

**SECONDARY CONTRIBUTIONS**

7. **Reimagining Space & Facilities**
   - Applying “Futures Foresight” methodology to future-proof new ambulatory care buildings that are 5 to 10 years away from completion to ensure the spaces are flexible enough to evolve with changing patient care needs and technology advancements.

8. **On-Demand Workshops**
   - Partnered with stakeholders across MD Anderson to co-facilitate human-centric problem-solving techniques, such as ideaation workshops, that they can later employ to facilitate localized innovation.

9. **Clinical & Industry Research**
   - MD Anderson launched the Institute for Data Science Oncology to foster an ecosystem for clinicians, researchers, and data scientists to use data science to explore new frontiers in cancer research care. A key enabler to the IDSO’s success is facilitating strong external partnerships. They created a flexible framework to vet external data collaboration opportunities while adhering to their data science principles.

### Metrics & Measures

- Patient satisfaction
- Employee satisfaction
- New patient retention
- Referring provider retention
- Time to first patient appointment
- Patient conversion rate (patients who were referred in and complete their care at MD Anderson)
- Virtual care visits
- Decrease in preventable adverse events
- Employee retention
Memorial Hermann Health System

**TEAM NAME**
**Consumerism**

**YEAR LAUNCHED**
2003 - 2023

**TYPES OF DESIGN HIRES**
- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
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**INTENT TO GROW IN THE NEXT 12 MONTHS**
- Shrinking
- Stable
- Expanding

**FUNDING**
- Single source: Health system operating budget
- Blended source:

**REPORTING LINE**
- Direct reporting
- Indirect reporting

**Design Contributions**

**PRIMARY CONTRIBUTIONS**

1. **Patient Experience**
   - Created an organizational-level strategy for patient education.

2. **Digital Transformation & Product Development**
   - Ensuring Epic implementation is consumer/patient-friendly.
   - Salesforce journey design.
   - Online scheduling.
   - Digital forms.
   - Mobile app design.

3. **Care Model & Service Line Redesign**
   - Defined a new emergency room experience for patients who are low-acuity or non-emergent.
   - Redesigned service line experiences for Orthopedics (knee and hip replacement journeys), Oncology, Cardiac, Women & children’s, Surgery, Weight Management, etc.

4. **Strategy & Planning**
   - Defining the overall product and service strategy for consumer-centric healthcare for the organization.

5. **Organizational Development & Training**
   - Defining and training over 30K+ employees in “The Memorial Hermann Experience,” which includes their service commitment, behaviors, and standards for the organization.

**SECONDARY CONTRIBUTIONS**

6. **On-Demand Workshops**
   - Providing Human-Centered Design 101-type workshops open to all staff.

7. **Reimagining Space & Facilities**
   - Designed a new pediatric specialty clinic space.

**Metrics & Measures**

Patient experience scores are the primary measures — particularly NPS. Beyond that, and much more nuanced, are project-specific metrics.
Memorial Sloan Kettering Cancer Center

TEAM NAME
Strategic Innovation

YEAR LAUNCHED
2008

Founded in 2008, MSK's Strategic Innovation unit is one of the earliest and most enduring design units in our survey. 2023 brought new leadership — a Chief Strategy Officer and a leader in the C-suite. The new reporting has shifted the design group's focus away from division-level projects to efforts linked to MSK's larger, shared strategic priorities. Strategic Innovation continues its focus on early-stage discovery-focused work, but is expanding into an internal innovation practice aimed at enabling innovation across the broader organization.

TYPES OF DESIGN HIRES

- Design Strategist 0
- Service Designer 1–3
- UX Designer 4–7
- Design Researcher 8–16
- Experience Designer over 17
- Digital Product Designer 0
- Communication Designer 1–3
- Business Designer 4–7

NUMBER OF DESIGNERS

- 1–3 0
- 4–7 1–3
- 8–16 4–7
- over 17 8–16

REPORTING LINE

President & CEO

Chief Strategy Officer

Strategic Innovation

Strategy

Digital Operations Clinical

HEADCOUNT

NUMBER OF DESIGNERS

- 1–3 0
- 4–7 1–3
- 8–16 4–7
- over 17 8–16

NUMBER OF NON-DESIGNERS

- 1–3 0
- 4–7 1–3
- 8–16 4–7
- over 17 8–16

INTENT TO GROW IN THE NEXT 12 MONTHS
Shrinking  Stable  Expanding

FUNDING

- Single source: Health system operating budget
- Blended source: Blended source

Design Contributions

PRIMARY CONTRIBUTIONS

1. Patient Experience
Defining Memorial Sloan Kettering Cancer Center's "patient experience" strategy: a shared framework and set of experience principles for orchestrating a consistent service experience across the enterprise.

2. Digital Transformation & Product Development
Enabling longitudinal engagement and guidance for consumers (pre-cancer) with known genetic high risk for cancer, including a digital screening assessment tool, personalized surveillance care plan, and targeted education.

3. Care Model & Service Line Redesign
Development of InSight Care, an active monitoring program for chemotherapy patients aimed at proactive identification and intervention of symptoms. Included the development of new clinical roles/teams, service delivery, and clinical workflow, enabled by a platform of digital tools including patient reported outcomes.

4. Strategy & Planning
Enabling organizational strategy through structured facilitation to define strategic priorities, as well as design and lead enterprise leadership summits for socialization, collaboration and engagement.

5. Organizational Development & Training
Cultivating innovation across MSK through efforts to stand up an internal innovation practice that identifies and educates internal leaders across the organization. This entails purposely defined coursework and mechanisms for teams to do consultation internally.

SECONDARY CONTRIBUTIONS

6. Reimagining Space & Facilities
Redesigned waiting experiences to consider the varying needs and modes of people.

7. Clinical & Industry Research
Using digital engagement platforms, explored mechanisms to engage individuals at high risk for cancer and assess their interest in participating in research.

Metrics & Measures

Overall program metrics and measures are in process of being defined, but will focus on outcomes, impact and driving innovation culture.

Across projects metrics and measures have included:

- Overall satisfaction and impact on users
- Defined project based hypothesis
- Business impact — volume, efficiencies, cost
- Product level metrics — utilization, usability, engagement, enrollment
NewYork-Presbyterian

Strategy & Service Design

The Strategy & Service Design team launched in 2022, after external design consultants demonstrated value to NewYork-Presbyterian’s maternity service line. Design research and service blueprints are the foundation of their work, but their two-pronged approach — human-centered design with agile and program management — is what gets results. They are “top of the pipeline,” with projects initiated and/or sponsored by the CEO and COO, giving them access to needed resources and supporting their role as advisors and interface between marketing, tech, and service line operators.

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### Intent to Grow in the Next 12 Months

- Shrinking
- Stable
- Expanding

### Reporting Line

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The Strategy & Service Design team launched in 2022, after external design consultants demonstrated value to NewYork-Presbyterian’s maternity service line. Design research and service blueprints are the foundation of their work, but their two-pronged approach — human-centered design with agile and program management — is what gets results. They are “top of the pipeline,” with projects initiated and/or sponsored by the CEO and COO, giving them access to needed resources and supporting their role as advisors and interface between marketing, tech, and service line operators.

### Design Contributions

#### Primary Contributions

1. **Patient Experience**
   
   Initiative to improve patient access to care by enabling omni-channel scheduling and increasing availability.

2. **Digital Transformation & Product Development**
   
   Digital tools for time keeping, scheduling, and callouts for nurses and support staff (team member/employee-facing).
   
   Digital pregnancy care plan embedded in patient portal with education, information, and tasks triggered based on gestational period (patient/consumer-facing).

3. **Care Model & Service Line Redesign**
   
   Developed reimbursement model to deliver virtual 1:1 lactation support for mild to moderate need patients. Currently exploring funding for a pilot to test feasibility and scalability of the model.
   
   Transforming the postpartum experience (Women’s Service Line), specifically related to lactation and behavioral health support.

4. **Strategy & Planning**
   
   Developed growth strategy framework. Goal was to connect consumer engagement to the enablement of growth.

5. **Organizational Development & Training**
   
   Lead change management and overall communications for patient access initiative.

#### Secondary Contributions

6. **On-Demand Workshops**

   Grassroots effort to embed Design Thinking into the way teams across NewYork-Presbyterian approach challenges. Started by conducting Design Thinking training workshops with Emerging Leadership Council (community of growing leaders) and concluded effort with a Design Thinking session at the Chief People Officer’s executive team retreat.

### Metrics & Measures

**Overall satisfaction / impact on the user:**
- Metric: HCAPS, click rate, engagement rate, enrollment rate, utilization rate, etc.

**Improvement in quality:**
- Quality metric examples (non-exhaustive): Length of stay, discharge to home, breastfeeding duration, etc. (depends on service line)

**Business impact:**
- Metric: reimbursement rate and/or revenue, cost reduction/savings, volume, etc.

**Technical and operational efficiency (relates back to satisfaction):**
- Determined by other metrics such as engagement rate — if low engagement rate, explore potential inefficiencies in the UX/UI or clinical/practice adoption
- Buy-in from clinical and administrative teams is crucial to the success of any product and/or service launch
**TEAM NAME**  
**Digital Innovation & Transformation**

**YEAR LAUNCHED**

![Timeline](image)

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**INTENT TO GROW IN THE NEXT 12 MONTHS**

- Shrinking ▼
- Stable ➟
- Expanding ▲

**TYPES OF DESIGN HIRES**

- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

**FUNDING**

- Single source:
  - Health system operating budget
- Blended source:

**REPORTING LINE**

- Direct reporting
- Indirect reporting

**NEW TO NORTHWELL IN 2021, THE DIGITAL INNOVATION & TRANSFORMATION (DIT) TEAM WORKS ACROSS THE ENTERPRISE TO PROVIDE DESIGN CONSULTING EXPERTISE. DIT BRINGS THREE COMPONENTS — A DESIGN GROUP, ENGINEERING GROUP, AND BUSINESS GROUP — TO ENSURE ALL PROJECTS HAVE A CLEAR CUSTOMER-CENTERED VISION, SPECIFY THE TECH AND SERVICES REQUIRED, AND OUTLINE SOLUTIONS THAT ARE VAILABLE. ALL DIT DESIGNERS HAVE WORKED IN DESIGN AGENCIES PRIOR TO THEIR CURRENT ROLE, AND DIT CONTINUES TO ENGAGE OUTSIDE DESIGN FIRMS TO AUGMENT THE TEAM.**

**DESIGN CONTRIBUTIONS**

**PRIMARY CONTRIBUTIONS**

1. **Patient Experience**  
   Future in-room patient experience.

2. **Digital Transformation & Product Development**  
   Virtual assistant for physicians.

3. **Care Model & Service Line Redesign**  
   Nurse navigation for oncology.

4. **Organizational Development & Training**  
   Currently planning Center for Innovation.

5. **SECONDARY CONTRIBUTIONS**

   - **Reimagining Space & Facilities**  
     Future ambulatory experience.

**METRICS & MEASURES**

Quality of the patient experience, tied to the health systems’ existing business metrics, and patient experience metrics, such as:

- For Oncology Nurse Navigation: time to appointment / time to diagnosis (some patients can get lost in the system)
- Adherence to care plan
- Finding/surfacing patients during gaps in care
- Business metrics: time savings. For example, AI for examinations, lowering physician burden.
Northwestern Medicine

**TEAM NAME**

Digital Solutions & Analytics

**YEAR LAUNCHED**

2017

Design at Northwestern can be found in at least three teams, two of which interface and share joint reporting to the CIO. The Digital Solutions team employs UX designers focused on patient experience, and clinical and administrative support.

**TYPES OF DESIGN HIRES**

- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

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- **NUMBER OF NON-DESIGNERS**
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  - 4-7
  - 8-16
  - over 17

**FUNDING**

- Single source: Health system operating budget
- Blended source:

**REPORTING LINE**

CEO

Chief Information Officer

Digital Solutions & Analytics

- Direct reporting
- Indirect reporting

**INTENT TO GROW IN THE NEXT 12 MONTHS**

- Shrinking
- Stable
- Expanding

**TEAM PROFILES**

2003 2023

**Design Contributions**

**PRIMARY CONTRIBUTIONS**

1. **Digital Transformation & Product Development**
   - Maintaining patient website.
   - Maintaining patient-facing mobile apps: MyChart and custom applications.
   - Maintaining on-site kiosks.

2. **Care Model & Service Line Redesign**
   - Conducting research for different clinical specialties.

3. **Quality Improvement**
   - Developed a digital tool to help track lab equipment across the enterprise.

**Metrics & Measures**

- Number of projects completed
- Used to use Google analytics (page views; click rates — updated HIPAA laws now include IP address as PHI, and Google won’t secure this information)
Northwestern Medicine

Mansueto Innovation Institute

Design at Northwestern can be found in at least three teams, two of which interface and share joint reporting to the CIO. The Mansueto Innovation Institute helps guide development of innovative technologies through external partnerships, internal pilots, mentorship and investment. The Mansueto Institute employs a design-trained program manager and partners with external consultants to educate clinical champions on user-centered design methodologies.

### TYPES OF DESIGN HIRES
- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

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Intent to grow in the next 12 months
- Shrink
- Stable
- Expanding

### FUNDING
- Single source
- Blended source
- Philanthropy

### REPORTING LINE

- Direct reporting
- Indirect reporting

- CEO
- VP of Innovation
- Mansueto Innovation Institute

### PRIMARY CONTRIBUTIONS

1. **Digital Transformation & Product Development**
   - Internally developed solutions based on input provided by NM clinicians.
   - External partnerships with start-up companies like Artisight and Diligent Robotics:
     - Created by Diligent Robotics, Moxi is a point-to-point delivery robot that frees up clinicians from having to deliver items across hospitals.
     - Developed and deployed Augmented Reality content to assist educators in creating an immersive training experience for our clinicians.
   - Strategic Partnership with large companies like Microsoft and Epic:
     - Currently piloting Nuance’s Dragon Ambient eXperience (DAX) tool to allow physicians to record appointments and use generative AI to draft clinical documentation for review and reduce their administrative workload.

### Metrics & Measures

Uses a digital solutions value framework that looks at different metrics across the following domains: Experience, Risk Avoidance, Cost Avoidance, and Revenue Generation. Other metrics:
- Number of evaluations completed
- Number of pilots completed
- Number of pilots scaled
Launched in 2019, the FuturePractice group is a design-led innovation lab within NYU Langone Health’s Medical Center Information Technology (MCIT) Department of Health Informatics. FuturePractice began applying human-centered design to the ambulatory outpatient care setting — enhancing the physician-patient relationship and environment — and subsequently expanded to align its efforts with the shared goals of the health system. Specifically, FuturePractice applies the full design process to projects related to patient and clinician digital experiences, as well as at the points of clinical care.

**Design Contributions**

**PRIMARY CONTRIBUTIONS**

1. **Patient Experience**
   - Defining the telehealth experience.

2. **Digital Transformation & Product Development**
   - Understanding the future of remote patient monitoring.
   - Establishing digital touchpoints with patients.

**SECONDARY CONTRIBUTIONS**

3. **On-Demand Workshops**
   - Conducting design thinking workshops and other forms of team development.

4. **Reimagining Space & Facilities**
   - The inpatient room of the future, including support for nursing tasks. Defining a new future for other types of clinical rooms and spaces involved in patient care.

**Metrics & Measures**

To date, no one has asked for quantifiable metrics. However, soft metrics are top of mind.

**Inspiring organizational change and innovative culture:**
- Broader culture change in the organization through innovative thinking
- Utilization of design thinking and design research
- Transformation of design thinking from a subculture to mainstream recognition within the organization

**Vendor collaboration and vision:**
- Collaborating with vendors in the healthcare space
- Consideration of a broader vision for projects

**Influencing operational innovation:**
- Supporting teams in implementation of new features or products
- Collaborating on roadmap development
**Center for Insights to Outcomes (I2O)**

**YEAR LAUNCHED**

|------|------|------|------|------|------|------|------|------|------|------|

The Center for Insights to Outcomes (I2O) is part of Penn Medicine’s Center for Health Care Transformation and Innovation. The I2O team integrates design thinking, technology, data science, public health, and business model innovation to address health system challenges. Its four-phase work process terminates in bringing successful innovations to scale and implementation across the health system. Projects are acquired through leadership initiatives and an annual accelerator program.

**TYPES OF DESIGN HIRES**

- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

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**INTENT TO GROW IN THE NEXT 12 MONTHS**

- Shrinking
- Stable
- Expanding

**FUNDING**

- Single source: Internal budget
- Blended source:

**REPORTING LINE**

- Direct reporting
- Indirect reporting

**Design Contributions**

**PRIMARY CONTRIBUTIONS**

1. **Patient Experience**
   **PATH:** A home-based alternative to hospitalization for ED patients that expands the point-of-care options available to providers and deploys health system resources to the home.

2. **Digital Transformation & Product Development**
   **Symphony:** A software platform to streamline the day-to-day management of practice and provider schedules. It facilitates the assignment of staff to space to optimize resources, communication about assignments and schedules to the care team, and ad-hoc changes to schedules as needed.

3. **Care Model & Service Line Redesign**
   **Healing at Home:** Supports the postpartum needs of parents and babies in their preferred setting using a two-pronged approach: getting eligible patients home sooner using an expedited discharge process; and providing new parents with around-the-clock access to clinical guidance through a text-based automated postpartum chatbot.

4. **Strategy & Planning**
   **I2O** informs Penn Medicine’s overall strategy by selecting projects that align to the system’s long-term goals. The team balances its portfolio to address urgent health system needs and to de-risk the future. For example, I2O is preparing for the shift from fee-for-service to bundled payments or risk-sharing contracts by working on projects that will be financially feasible once these contracts change. I2O also partners with payors like Independence Blue Cross to pilot projects that will inform future contracts. Heart Safe Motherhood, for example, resulted in payors agreeing to pilot projects that will inform future contracts.

5. **Organizational Development & Training**
   **COBALT:** A web-based platform designed to help healthcare workers access mental health support easily and on their terms. After completing a self-assessment, users receive personalized recommendations for support based on their needs.

   **Innovation Accelerator Program:** A flagship program that provides training, mentorship, and educational tools to help frontline clinicians apply a disciplined, scientific approach to creating, evaluating, and implementing high-impact solutions.

6. **Quality Improvement**
   Training and support for the Performance Improvement teams across the health system. For example, Precision Medicine Activated (PreAct) leverages technology to optimize genetic testing for ovarian cancer patients—a multiphase, manual process prone to delays—within the prescribed timeline so providers can intervene before it is too late.

**SECONDARY CONTRIBUTIONS**

7. **On-Demand Workshops**
   Design sprints are offered to teams working on solutions to improve patient outcomes, operations, or other areas aligned with the system’s goals. This format allows I2O to offer ad hoc and targeted support, increasing the team’s capacity without taking on a larger project, as well as the opportunity to train staff in HCD methods and forge new partnerships.

8. **Clinical & Industry Research**
   Heart Safe Motherhood informed research grants and expanded research operations and outputs. Once projects move on to the scale phase, staff are engaged in testing for grants to test the solution with larger patient populations and generate knowledge for the medical community.

**Metrics & Measures**

- Inspiring organizational change and innovative culture
- Increase in the volume of patients treated
- Improvement in patient outcomes
- Reduction in repetitive tasks
- Number of staff working at the top of their license
- Automation of lower value tasks
- Reduction in patient’s burden (costs, paperwork, etc.)
- Improvement in staff well-being
- Improving revenue is also taken into account, but it is the case for all projects
Providence Health

TEAM NAME
Service Design & Products

YEAR LAUNCHED
2021

Launched in 2021, the Service Design & Products team is part of the Revenue & Growth group. The Service Design team functions at the front end of the three teams that collectively target the book ends of the clinical experience: scheduling, registration, referrals, insurance collection, billing, and financial assistance. Embedded within operations, CX designers assess these patient touchpoints and propose improvement plans and technology solutions with an emphasis on addressing the problems that costs of care create for patients.

HEADCOUNT

NUMBER OF DESIGNERS
1-3
4-7
8-16
over 17

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1-3
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over 17

INTENT TO GROW IN THE NEXT 12 MONTHS
Shrinking → Stable → Expanding →

TYPES OF DESIGN HIRES
- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

FUNDING
- Single source: Revenue collection
- Blended source

REPORTING LINE
- Direct reporting
- Indirect reporting

- CEO
- Chief Revenue & Growth Officer
- SVP Revenue Cycle
- SVP Patient & Market Experience
- Service Design & Products

Strategy
Digital
Operations
Clinical

Design Contributions

PRIMARY CONTRIBUTIONS

1. Patient Experience
   Conducted multiple qualitative user studies to understand patients’ financial journey and identify points of friction.

2. Digital Transformation & Product Development
   Partnered with an internal team to build a generative AI bot that will facilitate financial assistance services/support, and conduct solution evaluations as it relates to revenue cycle activities.

3. Care Model & Service Line Redesign
   Improved wait time experience in the Emergency Department through the use of a patient companion to check on patients and facilitate Q&A with clinical staff.
   Modernized the payment experience to reduce points of friction related to paying patient bills and seeking aid.

4. Strategy & Planning
   EMR integration and vision for digital engagement and for how Providence can deliver financial care: provided leadership to define what the engagement model should be, and set the vision that shapes the roadmap for implementation. They often drive experiments in the market to verify and build confidence in the recommendations, with the approach of leading with digital to create more human moments in the hospitals.

5. Organizational Development & Training
   Led the implementation of a new operating model that will create a culture of service.

6. Quality Improvement
   Reduced elopement rates among cancer patients through the redesign of registration and check-in workflows related to episodes of care and multi-department services (e.g., labs, imaging, treatment).

Metrics & Measures

- Caregiver satisfaction rates
- Customer service call volume
- Customer satisfaction rates
- Financial assistance application volume
- Customer collections rates
- Bad debt rates
- Cost to serve
### Stanford Health Care

**Care Experience Strategy**

Deeply rooted in a culture of performance improvement, the Care Experience Strategy team emerged when its senior executive engaged the Stanford d.School and discovered design thinking in 2013. Persuaded that empathy with stakeholders should drive improvement goals and processes, leadership agreed to bring design methods in-house and train the larger workforce in their use. With coaching from d.School faculty, the team evolved an approach to process improvement that starts with user research and patient needs. Today, findings from user research efforts not only drive process improvement, but also inform and coordinate related digital development, service line enhancement, and strategic priorities for Stanford Health Care.

#### Design Contributions

**PRIMARY CONTRIBUTIONS**

1. **Patient Experience**
   - Connected Experience: The umbrella strategy for the future of care experience at Stanford Health Care. The Connected Experience concept informs operational and product driven engagements in the pre-visit, access, care coordination, and financial experience. Specifically, the concept:
     - Rethinks the pre-visit experience for all members, care team, and patients across three phases: referral process, scheduling process, pre-visit prep.
     - Evolves a next generation definition of “access” for Stanford Health Care: expanding the definition to consider factors like timeliness, appropriateness of care, site location, modality, and synchronous versus asynchronous to inform new ways to deliver care and medical advice to patients
     - Care coordination: Based on user research, the Care Experience strategy partners with stakeholders across the organization to improve the post and in-between encounter experience for patients, caregivers, and care teams.

2. **Digital Transformation & Product Development**
   - Enhanced Patient Portal: MyHealth is Stanford Health Care’s patient engagement platform, customized to meet patient needs based on user research. It identifies patients’ physical location within the health system to share tailored updates, correlative education, tasks, and next steps with patients and proxy users. Context-aware offerings include MyHealth inpatient, MyHealth ED and MyHealth Procedures.
   - Enhanced the in-basket message experience for the care team.

3. **Care Model & Service Line Redesign**
   - Pre-visit work on Cancer Service line: addressing capacity issues.

4. **Strategy & Planning**
   - Informing the organizational Operating Plan.

5. **Organizational Development & Training**
   - Redefining the CI-CARE (Connect, Introduce, Communicate, Ask, Respond, and Exit) model to promote deeper consideration when engaging patients, families, and coworkers.

**SECONDARY CONTRIBUTIONS**

6. **Quality Improvement**
   - Care Coordination proofs of concept.

7. **Reimagining Space & Facilities**
   - Used the 3P methodology of facility design with high levels of interaction, engagement, and guidance from patients and families for our Neurosciences Health Center and Stanford Health Care Cancer Center South Bay.

8. **Clinical & Industry Research**
   - Working to hardware research and publication into their process as part of the ongoing refinement of their innovation model. Future states of design/innovation engagements at SHC will look as follows:
     - User research and synthesis
     - Idea generation
     - Prioritization
     - Research planning
     - Prototype operationalization via targeted workgroups
     - Measuring and testing of intervention
     - Refinement of concepts based on metrics
     - Publish outcomes of design based interventions
     - Scale

### Metrics & Measures

- LTR scores
- Touchpoints/patient
- Patient sentiment/level of effort in completing tasks
- Adherence to care plans
- Referral conversions
- Care team satisfaction
- MyHealth features utilization data
- Appointment cancellation/no show rates
## TEAM NAME

**Office of Strategic Innovation & Design**

Launched in 2023, design at St. Jude targets the organization and business aspects of the health system, rather than medicine or research. Led by an IDEO-trained MBA, this team helps the organization apply a people-centered design process to operational challenges, using iteration and pilot testing to get past the “this won’t work” and “we’ve tried this before” responses.

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**INTENT TO GROW IN THE NEXT 12 MONTHS**

- Shrinking
- Stable
- Expanding

### TYPES OF DESIGN HIRES

- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer
- Other: Organizational Designer

### FUNDING

- Single source: Health system operating budget
- Blended source:

### REPORTING LINE

- **CEO**
  - Chief Business Innovation Officer
  - Office of Strategic Innovation & Design

**Strategy**

- Digital
- Operations
- Clinical

**YEAR LAUNCHED**

| 2023 |

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### Design Contributions

#### PRIMARY CONTRIBUTIONS

1. **Patient Experience**
   - Patient and Family ID Badges: Exploring ways to make patient and family ID badges more engaging, similar to Disney World’s “magic tickets.”

2. **Digital Transformation & Product Development**
   - The future patient ID badge will be both a physical and an app-based product.

3. **Organizational Development & Training**
   - Hybrid and Remote Work Policy: Launching an innovative approach to hybrid and remote work. Throughout 2023, they refined their work policy in collaboration with employees.

#### SECONDARY CONTRIBUTIONS

4. **Reimagining Space & Facilities**
   - Cafeteria Upgrade: Researching and redesigning the cafeteria experience at St. Jude, considering post-COVID family dining options.

#### Metrics & Measures

- The team addresses the business value of a project by using qualitative metrics that align with business’s KPIs.
- The team primarily focuses on outcomes rather than specific metrics. They believe in a design-first and research-first approach; qualitative methods work best in this context.
In 2015, Sutter Health launched an enterprise-wide innovation team and appointed Chris Waugh from IDEO as VP and Chief Design & Innovation Officer. The Design & Innovation team includes business leads, project managers, designers, researchers, product managers, data scientists, and engineers and reports to the Chief Digital Officer. The team works closely with system, marketing, and medical group leaders, operators, service line directors, clinicians, and administrators across the system. Their work so far has led to new products and services in mental health, primary care, maternity care, and population health. Their goals align with system priorities and the Sutter Health mission of “caring for our patients first and our people always.”

### Design Contributions

#### PRIMARY CONTRIBUTIONS

1. **Patient Experience**
   
   Developed the end-to-end experience design for 20+ new ambulatory sites, including space, digital, and service interactions.

2. **Digital Transformation & Product Development**
   
   Scout by Sutter Health: Developed a Webby-winning consumer facing app called Scout by Sutter Health to help teens and young adults build resilience, understand difficult emotions, and manage everyday mental health. Scout also supports parents and families by helping them better understand their loved ones.

   Developing a continuous care health management program with a first app focused on chronic disease management.

   **Partnerships & Venture Relations:**
   - Established a sustainable model for digital partnerships to integrate AI solutions for improvements in clinical and non-clinical experiences of work
   - Created mechanism for strategic collaborations with Venture companies and relevant start up firms

3. **Care Model & Service Line Redesign**
   
   Developed a virtual-first primary care service model.

   Developed Grove, a Medicare VBC model for seniors.

   Supported redesign of a Central Valley Oncology service line.

   **SECONDARY CONTRIBUTIONS**

4. **Strategy & Planning**
   
   Partnered with system’s clinical and administrative team to develop a strategy for ambulatory mental health and addiction care services.

5. **Organizational Development & Training**
   
   Design Garage: Business transformation accelerator that helps launch and scale complex, system-wide initiatives to improve care delivery and operations through HCD workshops with strategic and operational planning. Launched in 2017, these workshops have impacted 90+ projects and 2,000+ staff members.

### Metrics & Measures

- **Patient engagement**
- **Health outcomes**
- **Number of users**
- **Revenue generated**
- **Staff retention**
- **Goals progress & metrics for collaborating teams**
- **Number of teams trained & business transformation metrics met**

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**Sutter Health**

**TEAM NAME**

**Design & Innovation**

**YEAR LAUNCHED**  

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**TYPES OF DESIGN HIRES**

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- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer

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**INTENT TO GROW IN THE NEXT 12 MONTHS**

- Shrinking △
- Stable →
- Expanding ▲

**FUNDING**

- Single source:
  - Health system operating budget
- Blended source:
  - Philanthropic investments

**REPORTING LINE**

- **Direct reporting**
- **Indirect reporting**

**TEAM PROFILES**

**Sutter Health**

**Equitable Healthcare Lab — Institute of Design**

2003 2023

**Design Contributions**

**PRIMARY CONTRIBUTIONS**

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### Metrics & Measures

- **Patient engagement**
- **Health outcomes**
- **Number of users**
- **Revenue generated**
- **Staff retention**
- **Goals progress & metrics for collaborating teams**
- **Number of teams trained & business transformation metrics met**
Founded in 2016, the Clinical Innovation Center (CIC) includes and supports the Chief Innovation Officer, who is also the Associate Dean for Clinical Innovation in the UCSF School of Medicine. As a result, the unit bridges both the School of Medicine and health system. This group focuses on quality improvement, some strategic initiatives, and funding for research and human-centered design education. New efforts aim to shift the Center’s work to align with and drive strategic initiatives system-wide.

**Design Contributions**

**PRIMARY CONTRIBUTIONS**

1. **Patient Experience**
   Defined and implemented a strategy to standardize patient education across cancer center clinics to improve quality, fill critical information gaps, increase comprehension, and make information more actionable for patients.
   Employed a human-centered design approach to the redesign of population health chronic disease management programs to address patient engagement attrition.

2. **Digital Transformation & Product Development**
   As part of an institutional COVID response system, developed a digital screening tool that was completed by visitors, patients, and employees in advance of entry to any facility.
   Developed a set of design principles to enhance the e-Consult/Referral platform.

3. **Care Model & Service Line Redesign**
   Wellness Center for Youth with Chronic Conditions: Developed a de novo service to provide new pathways that connect children/families to important adjuvant services (i.e., social work, nutrition, mental health), which are often difficult to access for children with complex medical conditions.
   Cardiac care ICU Redesign: Supported the integration of Advanced Practice Practitioners across two cardiac ICUs to collaboratively manage cardiac surgical patients. This included service modeling and designing/developing communications to support change management.

4. **Strategy & Planning**
   Developed a decision support tool to streamline decision-making about improvement investments to fulfill health system strategic priorities (in progress). The goal is to disseminate the final product to executive leaders from all UCSF Health clinical entities as well as leadership within functional support departments.

5. **Quality Improvement**
   Enhanced clinical decision support using a machine language approach to improve the signaling and management of sepsis “not present on admission” status across the hospital system.

**SECONDARY CONTRIBUTIONS**

6. **On-Demand Workshops**
   Co-director of a human-centered design course within the Implementation Science Certificate Program (within Department of Epi/Biostat).
   Plan and deliver co-creation workshops.
   Deliver introductory presentations on HCD to various clinical entities/units upon request.
   Coach teams in application of design methods.

7. **Clinical & Industry Research**
   Part of AHRQ and PCORI grants applying design methods to the conduct of studies.

**Metrics & Measures**

- Length of stay
- Direct costs
- Readmission rates
- Reduction in adverse events
- Decreased mortality rates
- Patient engagement
University Hospitals Health System

Office of Strategy & Innovation: UH Ventures

Launched in 2016, UH Ventures supports and guides innovation and commercialization within University Hospitals. Together and to date, UH Ventures has facilitated development of over 700 innovations, 525 patents, 64 licenses, and 16 portfolio companies. In late 2023, UH Ventures became a strategic function embedded within enterprise strategy. The focus is on leading enterprise strategy via design, generating alternative sources of revenue, and sourcing opportunities outside of traditional healthcare. Goals are to build a culture of innovation through programming engagements with caregivers; advance transformation through technology and service line development; and build collaborations with regional and international partners.

FUNDING
- Health system operating budget
- Gift + Grant
- Revenue diversification / commercialization

TYPES OF DESIGN HIRES
- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer
- Other: Human-Centered Designer, Innovation Strategist

Design Contributions

1. Patient Experience
   - The Healthcare Gender Gap: Increasing male patient access and engagement with the health system through the creation of a free program that offers conversations with certified healthcare navigators and the creation of digital apps that leverage Microsoft Power Apps to enhance engagement and reduce administrative burden by 90%.

2. Digital Transformation & Product Development
   - Wayfinding and asset tracking work through indoor geomagnetic positioning application; intelligent hospital room using AI and virtual nursing, etc. — strategic engagements (e.g., pilots, proof-of-concepts) feed investment pipeline.

3. Care Model & Service Line Redesign
   - Vivid Vision sessions with all department chairs to reimagine service lines in 2024; Neurological Institute enhancements (2016—2017) — embedded with them to activate neurosurgery from the academic main campus to the community hospitals of the health system.

4. Strategy & Planning
   - Using design to establish 2024—2025 enterprise strategy including consumer experience and value-based care strategies; development of High-Value Problem Engine to systematically identify, vet, prioritize the best problems in system.

5. Organizational Development & Training
   - Partnership with HR to build innovation assessment for leaders and HCD content in learning management system (LMS); programming and events to inspire caregivers (numerous events include flagship annual “Innovation Days”); Design & Innovation awards in partnership with CEO and research institute; Design & Innovation leadership part of physician and research recruiter strategy; publication of works related to “On-the-Job” design education training.

6. Quality Improvement
   - Efforts tied to process optimization and performance improvement (Veale; enterprise strategy; CDC and AHA funded research focused on GI and HCD).

SECONDARY CONTRIBUTIONS

7. On-Demand Workshops
   - Conducted workshops with operational teams to incorporate HCD methods into system access and nursing work.

8. Reimagining Space & Facilities
   - Participated in design standards committee to define new facilities branding/design standards.

9. Clinical & Industry Research
   - AHA/HRET grant (Project Firstline: Improving Infection Control Capacity for Frontline Workers in Health Systems) focused on HCD applications in infection control.
   - CDC grant (CDC-RFA-DP-23-0006: The Innovative Cardiovascular Health Program) in partnership with regional health and health adjacent institutions to improve cardiovascular health in underserved communities using codesign.

Metrics & Measures
- Traditional Tech Transfer Office (TTO) measures — revenue from royalties and fees
- New revenue streams and enhancement of existing ones (product consulting fees; non-dilutive funding obtained including from philanthropy and grants with recognized attribution)
- ROI from venture investments (e.g., company exits)
- Pipeline of inside and outside opportunities (activities measures such as number of outside-in or start-up opportunities due diligenced and invention disclosures, innovation problem/idea submissions, pilots/co-development engagements)
- Impact to operating units when design & innovation drives strategic initiatives (e.g., with the Culter Center for Men, our team significantly increased new patient acquisitions and appointments with primary care institute)
University of Vermont Health Network

Healthcare Innovation Collaboratory (hiCOlab)

The Healthcare Innovation Collaboratory, or hiCOlab, was launched in 2015 by the President of the UVM Health Network’s medical group. Today, this design and innovation lab reports to the CFO and functions as an internal consulting team with expertise in design-led problem-solving (both strategic and tactical). With a track record of applying design to work culture and employee health and wellness projects, their focus is shifting to projects tied to higher priority strategic initiatives. Their reporting structure contributes to the Lab’s sustained growth and continues to open doors inside the organization.

### Design Contributions

#### PRIMARY CONTRIBUTIONS

1. **Patient Experience**
   - Improving Patient Access to Surgical Services Across UVHN: In response to inefficiencies in perioperative services and a backlog of patients waiting for necessary surgeries, a comprehensive strategy was devised, involving two multi-day design sprints across different UVHN hospitals.
   - Through extensive research, patient experiences, processes, and unmet needs were uncovered. The proposed solution focused on enhancing system coordination, creating incremental operating room capacity, and establishing a cross-departmental “tiger team” to manage patient backlog effectively. Impact of this was increased time to surgery, improved patient satisfaction and health outcomes, more efficient use of available operating room time, and overall improved financial performance.
   - Helping Patients Create a Roadmap for Living Well with Chronic Pain: Designed tools to help patients plan their next steps and continue the progress they made in an 8-to 10-week intensive, integrative pain management program at a new University of Vermont Medical Center chronic pain clinic.

2. **Strategy & Planning**
   - Organizational Strategy: designed and led strategic planning cycles for senior leadership working across clinical and administrative operations, including data management, patient throughput and capacity management, and customer experience with network shared services (i.e., IT and HR).
   - Outcomes include: problem definition, vision setting, guiding principles, and defining objectives and key results (OKRs).

3. **Organizational Development & Training**
   - Recruitment and Retention of Nurses in the Health System: worked with partners to determine opportunities and tactics for recruitment of nursing staff.
   - Future of Work strategy for UVHN: Organization-wide initiative to design and implement a strategy for remote work that helps their employees be successful and thrive in this workforce model over the long term.

### SECONDARY CONTRIBUTIONS

4. **Reimagining Space & Facilities**
   - Redesigning the UVM Cancer Center Hematology and Oncology Clinic: Design recommendations to create a more human-centered clinic environment through participatory research and identifying key stakeholder needs and guiding principles.

5. **On-Demand Workshops**
   - Applied Design Training Program: Developed a design training program for employees that offers a practical introduction to the principles of human-centered design (HCD) and innovation with specific instruction in the fundamental methods and tools of the HCD process. Participating teams apply their learning in a real-world project that is developed and executed in partnership with hiCOlab. A designer is embedded with the team throughout the program to serve as a guide and facilitator of the design process.

### Metrics & Measures

- Metrics vary from project to project; some are squishy, some are solid metrics
- The burning issue of the year is to make financial improvements and metrics. For example: we did X, improved patient access by this percent; then translate that into a dollar amount
- The aim is to tie each project closely to a broader strategic objective and then show that the goal was achieved
**UPMC Enterprises**

**Experience Design & Strategy (XDS)**

Launched in 2015, UPMC Enterprises is the venture capital and innovation arm of UPMC. The Experience Design and Strategy (XDS) team is part of a broader Digital Solutions group that broadly investigates opportunities and strategic investments in promising digital health businesses. Specifically, the XDS team: 1) provides strategic, technical, experiential and financial insights to inform investments, build innovative products, and launch novel technologies and 2) supports corporate initiatives and the digital transformation of healthcare services and products that serve UPMC’s patients, providers, and staff.

### Design Contributions

**PRIMARY CONTRIBUTIONS**

1. **Patient Experience**
   - Breast Cancer Screening Journey Redesign: To improve access to breast care services, XDS identified opportunities to address gaps in care coordination, communications, and usability of supporting tools. Resulting updates to online scheduling workflows and increased utilization. Visibility of the work has led to continued engagement with breast health services, advising on methods of risk assessment, and patient journey optimization.
   - Patient Access Partnership: In partnership with executive stakeholders, XDS has undertaken multiple initiatives that embed design-centric thinking into operations, resulting in proposals for improved care navigation across various use cases, such as virtual care, pre-visit experience, outreach, and shopping for care.

2. **Digital Transformation & Product Development**
   - DME Digitization: XDS identified a best-in-class solution to address operational challenges in current durable medical equipment (DME) ordering models. The team has since executed a product implementation and change management plan. After going live across six service lines, time savings was estimated at 2 minutes per order, which amounts to approximately 33 hours per month.
   - Sports Medicine Concussion: To support nonexpert providers in properly diagnosing concussions, UPMC Sports Medicine is collaborating with XDS to explore new care models via upstream diagnostic solutions. The team is currently observing clinic workflows, interviewing providers, and gathering perspectives from concussion programs across the country. Reducing Wait-Times in Ophthalmology: After deep discovery and data analysis, XDS piloted an AI-driven scheduling solution to optimize ophthalmology clinic flow, resulting in wait-time decreases of 5.6 minutes per patient, removing almost 4 hours of inefficient and wasted time throughout the course of a single clinic workday.

3. **Care Model & Service Line Redesign**
   - Sports Medicine Concussion: To support nonexpert providers in properly diagnosing concussions, UPMC Sports Medicine is collaborating with XDS to explore new care models via upstream diagnostic solutions. The team is currently observing clinic workflows, interviewing providers, and gathering perspectives from concussion programs across the country. Reducing Wait-Times in Ophthalmology: After deep discovery and data analysis, XDS piloted an AI-driven scheduling solution to optimize ophthalmology clinic flow, resulting in wait-time decreases of 5.6 minutes per patient, removing almost 4 hours of inefficient and wasted time throughout the course of a single clinic workday.

4. **Strategy & Planning**
   - MyUPMC Strategy: Through ongoing consumer research program and redefinition of channel architecture, XDS is collecting, integrating, and amplifying the voice of the digitally-enabled UPMC consumer into opportunities that enhance patient portal efficiency, improve patient experience, and align with or exceed industry standards.

### SECONDARY CONTRIBUTIONS

5. **Reimagining Space & Facilities**
   - Mercy Pavilion: Design for Inclusivity: XDS embedded inclusive design principles and considerations into a traditional architectural and construction process of a $50 million outpatient facility. Manifestations of the work included design solutions within the building’s interior, adjustments to patient flow in the clinic, low vision-optimized wayfinding signage, and curation of UPMC’s first public art collection, which includes several artists who identify as living with disabilities.

### Metrics & Measures

- **Generation of System Value:**
  - Financial value: cost savings or revenue generation
  - Operational value: innovative, optimized processes and workflows, time or FTE savings
  - Reputational value: increased retention, loyalty, and trust in the brand
  - Experiential value: consumer engagement and satisfaction.

- **Achievement of Consumer-Centered Business Goals:**
  - Acquiring new consumers
  - Converting new consumers into loyal patients
  - Diverting patients to appropriate care pathways
  - Retaining patients across their lifetime care journey
UW Health

TEAM NAME
Service Design, Research & Innovation (SDRI)

YEAR LAUNCHED
2021

EXPECTED HEADCOUNT

- NUMBER OF DESIGNERS
  - 1-3
  - 4-7
  - 8-16
  - over 17
- NUMBER OF NON-DESIGNERS
  - 0
  - 1-3
  - 4-7
  - 8-16
  - over 17

INTENT TO GROW IN THE NEXT 12 MONTHS
Shrinking ↘ Stable ↔ Expanding ↑

DESIGN CONTRIBUTIONS

1. Patient Experience
   Video visits.
2. Digital Transformation & Product Development
   Digital health strategy & scope.
   Virtual care.
   Patient mobile journey.
   Symptom management solutions.
   CRM.
3. Care Model & Service Line Redesign
   Oncology care redesign.
   Integrated Specialty Care for Women program.
4. Organizational Development & Training
   Executive Visioning Sessions: Defining the role of design within UW Health.
   Future of schedulers’ work.
5. Quality Improvement
   Collaborated on oncology care team workflows.

SECONDARY CONTRIBUTIONS
6. On-Demand Workshops
7. Reimagining Space & Facilities
   Using a 1:1 scale model for a new outpatient facility to prototype new space uses, service experiences, and workflows.

METRICS & MEASURES
- Developing approaches to measurement that first articulate a hypothesis based on human understanding, and then identify what measures need to be created to best test those hypotheses. Often, we don’t have the measures in place, and we are working to build new approaches.
- Press Ganey patient experience metrics
UW Medicine has invested in UX Research and Design since 2018. They deepened their investment by creating the Digital Experience team in 2022 and hired a Microsoft UX manager turned patient (who also volunteered as a patient advisor) to build out and lead the team. The team focuses on enhancing patient experience through multiple digital channels and helping patients find care, schedule online, manage billing, and other means that increase access. Their longer-term mission is to redesign and simplify access to life-changing care services by increasing scheduling efficiency for both patients and providers. They describe how, at times, their efforts feel like “waves on the rocks,” but are positive about the changes and improvements to date.

### Design Contributions

**PRIMARY CONTRIBUTIONS**

1. **Patient Experience**
   - Evaluating and investing in the overall patient experience with a focus on the digital channel experience.

2. **Digital Transformation & Product Development**
   - Advancing patient experience by ensuring patients can access the appropriate care in the simplest ways possible.
   - Advancing experience and accessibility on UW Medicine website and MyChart.
   - Appointment flows including online booking; Find a provider and location search experiences; Practitioner Resources, Medical Specialties information; Billing and insurance, and more.

3. **Strategy & Planning**
   - Strategy and planning for the digital patient experience through collaboration with Access, IT Services, Digital Health Office and Operation teams, and medical department leads.

### Metrics & Measures

- Increasing scheduling efficiency
- Increasing success rate at scheduling appropriate appointments
- Improve provider and clinic staff experience and satisfaction
- Elevating accessibility score

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**UW Medicine**

**TEAM NAME**

**Digital Experience**

**YEAR LAUNCHED**

- 2003
- 2023

**TYPES OF DESIGN HIRES**

- Design Strategist
- Service Designer
- UX Designer
- Design Researcher
- Experience Designer
- Digital Product Designer
- Communication Designer
- Business Designer
- Other: Content Designer

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**REPORTING LINE**

- Direct reporting
- Indirect reporting

**INTENT TO GROW IN THE NEXT 12 MONTHS**

- Shrinking
- Stable
- Expanding

**FUNDING**

- Single source
- Blended source

---

Hospital operations funding through the Digital Health Office

The University of Washington School of Medicine (SOM)
Veterans Affairs

### Experience Design & Strategy

**Launched in 2017, Experience Design & Strategy is a design thinking team embedded in the Veterans Experience Office. They have embraced human-centered design as a key tool to drive improvement and coordination of veteran experiences and healthcare services, with 90% of their effort directed at the VHA. Best known for their journey maps, the team has completed over 150 projects and mapped the thousands of VA-provided services, such as outpatient care, inpatient, ER, and telehealth services. Maps are used to coordinate systems and care across the vast VA network. They also inform measurement, pinpointing where real-time data collection and feedback should occur to inform continuous program improvement.**

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**Intent to grow in the next 12 months:**

- Shrinking
- Stable
- Expanding

**Design Contributions**

### PRIMARY CONTRIBUTIONS

#### 1. Patient Experience

**Journey Mapping:** Creating maps of the patient experience of Outpatient Care, Inpatient care, Community Care, Emergency Medicine, and the Telehealth Experience Framework. Producing journey maps that represent a common set of moments Veterans experience during the course of planning for and receiving care, and identifying the “moments that matter” — the make-or-break moments that we need to get right — as well as bright spots and pain points along the way. The maps are also used as a working document that captures emerging best practices and resources for delivering trusted care during moments that matter.

Engaging VA Staff. Using journey maps as tools with VA staff to build empathy and understanding for Veterans, as well as better their understanding about where to focus their time and resources to improve Veteran trust with VA.

**Developing tools:**
- Discharge Checklist that provides patients and providers with a concrete series of actions that must happen before a Veteran is safely discharged. This tool helps to set expectations for Veterans; keeps them informed about tasks and timing surrounding their discharge from facilities; and allows them to understand everything that needs to happen before they can go home.
- Communication tools to help care teams educate patients on TeleHealth options and take their preferences into account from the beginning of their TeleHealth journey. Designed in long-term collaboration with VA’s Office of Connected Care (OCC), specific artifacts developed are the TeleHealth TeleToolkit and TeleHealth Playbook.

**Metrics & Measures**

- **From outputs to outcomes:** They are trying to move beyond measuring outputs/artifacts to project outcomes but are not there yet. They still track project outputs — number of journey maps developed; number of people interviewed; number of prototypes developed.
- **Application measurement:** They have more sophisticated measurement in place for assessing the educational offerings, utilizing Kirkpatrick Level 3 evaluations to assess participants’ application of learnings.
- **Trust scores:** They also measure the overall change in VA trust score — a north star metric similar to a Net Promoter Score (NPS). Leadership looks at VA’s overarching trust score, which has improved from 55% when VA first started measuring trust to nearly 80% today. Metrics are evolving to move beyond the output.

#### 2. Organizational Development & Training

Incubating and standing up a new office to support the development and expansion of the VA’s Customer Experience Institute.

Developing several learning opportunities including an intensive, 14 hour HCD Certificate Program, and a CX Fellowship.
References


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Design is an innovation tool — it's a weapon for change. If you don't want to change, don't use design, because you're going to have awkward conversations.

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