



DIGITAL MATURITY IN CHILDREN'S HOSPITALS: HOW PEDIATRIC PROVIDERS ARE ADVANCING DIGITAL EXPERIENCES IN THE POST-PANDEMIC AGE

What does it take for children's hospitals to excel digitally, and how wide is the digital divide? By benchmarking the digital maturity of pediatric providers across key dimensions and evaluating what sets digitally advanced hospitals apart, **Modea set out to understand the pediatric digital landscape.**

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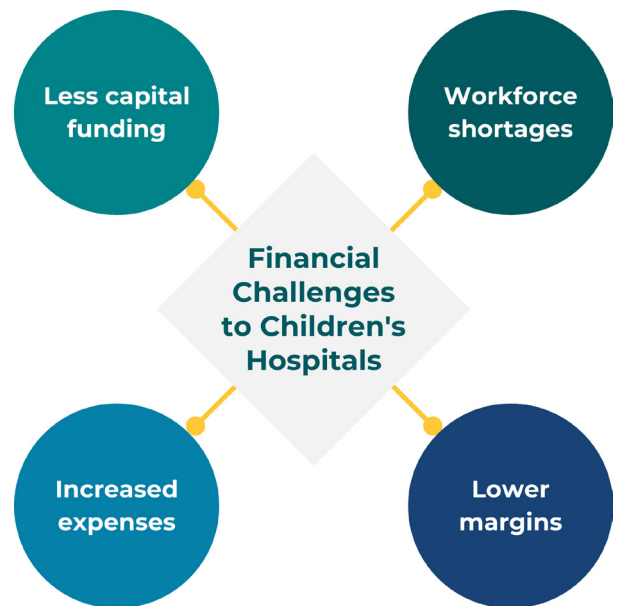


Of the more than 630 health systems in the U.S., just under 5% are stand-alone children’s hospitals.

In our post-pandemic age, hospitals and health systems are facing uphill financial battles. According to an April 2023 report from the American Hospital Association¹, several factors have contributed to the financial pressure on America’s provider organizations: increased expenses, workforce shortages, and fluctuating reimbursement rates among them.

Through Modea’s ongoing research initiatives and partnerships, we also know that children’s hospitals tend to have smaller budgets and less capital funding than adult institutions². While some have large research endowments, on the whole, they tend to be less profitable. And unlike any other type of health system, the best possible outcome is that their patients outgrow them.

But inside their small sliver of the market, the work that children’s hospitals do is essential – including how well they use digital tools to reach patient families and shepherd them through the customer journey.



WHAT TO EXPECT

This report digs into data we collected from surveying a wide cross-section of children’s hospitals and health systems. We’ll talk in detail about several key findings of this research, including:

- ▶ **Why there are more barriers to digital progress today than there were in 2021.**
- ▶ **How C-suite alignment impacts digital progress.**
- ▶ **The opportunity children’s hospitals miss when they only fund digital with operating budget.**
- ▶ **The link between health equity and digital tools.**

¹ The Financial Stability of America’s Hospitals and Health Systems Is at Risk as the Costs of Caring Continue to Rise, American Hospital Association, April 2023

² Children’s hospitals continue to face financial pressures, Chief Healthcare Executive, July 2023



Our Children’s Hospital Research

As a healthcare-focused digital consultancy that counts numerous children’s hospitals among our clients, Modea has been conducting research to learn about the digital maturity across the landscape of children’s hospitals in the U.S.

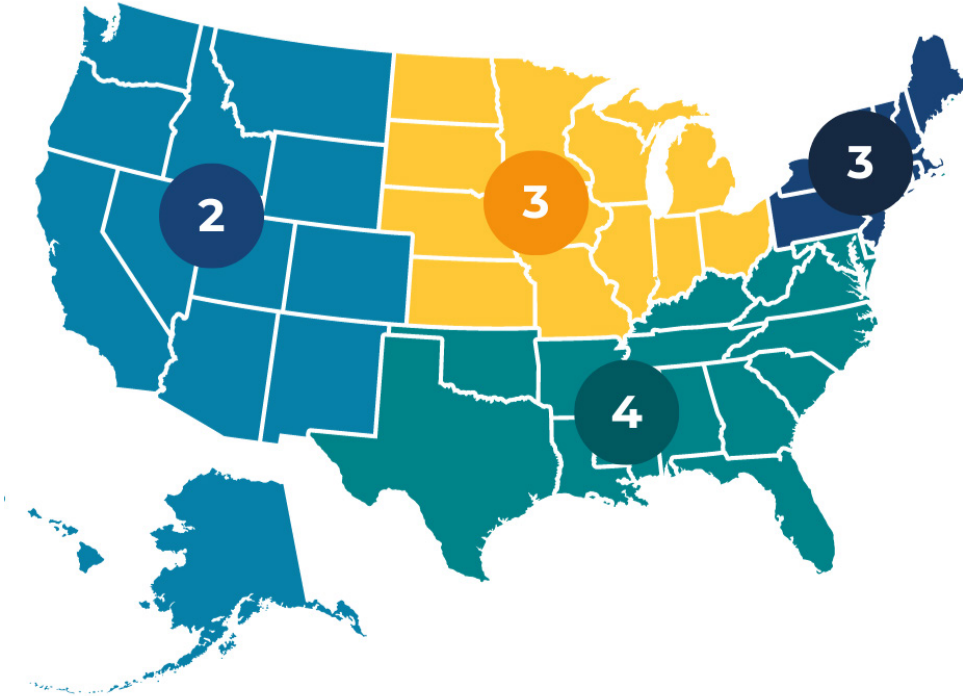
We conducted surveys of children’s hospitals in both 2021 and 2023, with 11 participants in 2021 and 12 in 2023. (Of the 12 who took the 2023 survey, Seven had also taken the 2021 survey.)

These children’s hospitals represented every major region of the U.S. All are well-respected, with programs nationally ranked by *U.S. News & World Report*.

We designed questions that would help us assess both their digital maturity and their organizational readiness. The data we gleaned has helped us understand and better categorize the challenges children’s hospitals face when it comes to digital transformation and preparing for the future.

It has also helped us identify what a children’s hospital needs to have in place to become a digital leader.

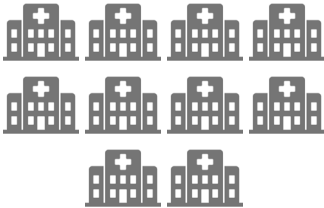
Meet the Research Participants 12 Leading Children’s Hospitals Across the US



Part of an Academic
Medical System



Independent
Children’s Hospitals



US News Top 10
(2023-2024 Honor Roll)



* Categories are not mutually exclusive.



What Makes a Digital Leader?

If **digital maturity** is a measure of how well the hospital is developing and using various digital capabilities, **organizational readiness** looks at the resources they have behind their digital efforts.

Digital Leaders are those children’s hospitals who scored high in both digital maturity and organizational readiness. These organizations have:

- 1**
Above average maturity of digital capabilities.
- 2**
Aligned internal resources.
- 3**
Few barriers to digital progress.

How does a children’s hospital arrive at being a digital leader?

We identified six big factors that contribute.

- 1. They have a digital champion.** This is a C-suite leader who is tasked with forging ahead on digital initiatives. In fact, the focus on digital represents a significant part of their job description. Having a digital champion in place means that other members of the C-suite are continually hearing about digital and there is ample budget for digital.
- 2. There are strong partnerships around digital.** IT, Operations, and Marketing all partner together to complete the work.
- 3. Digital transformation is salient** through all levels of the organization. Because there’s a champion and because there are key partnerships, digital initiatives are well-incorporated into departments and teams, versus existing in siloes.
- 4. There’s an aligned strategy.** There’s a clear strategy around digital enhancements that the entire C-suite is bought into.
- 5. There are good internal digital tools.** There’s a strong digital investment in the employee experience.
- 6. They have the largest budgets.** There is money earmarked for digital.

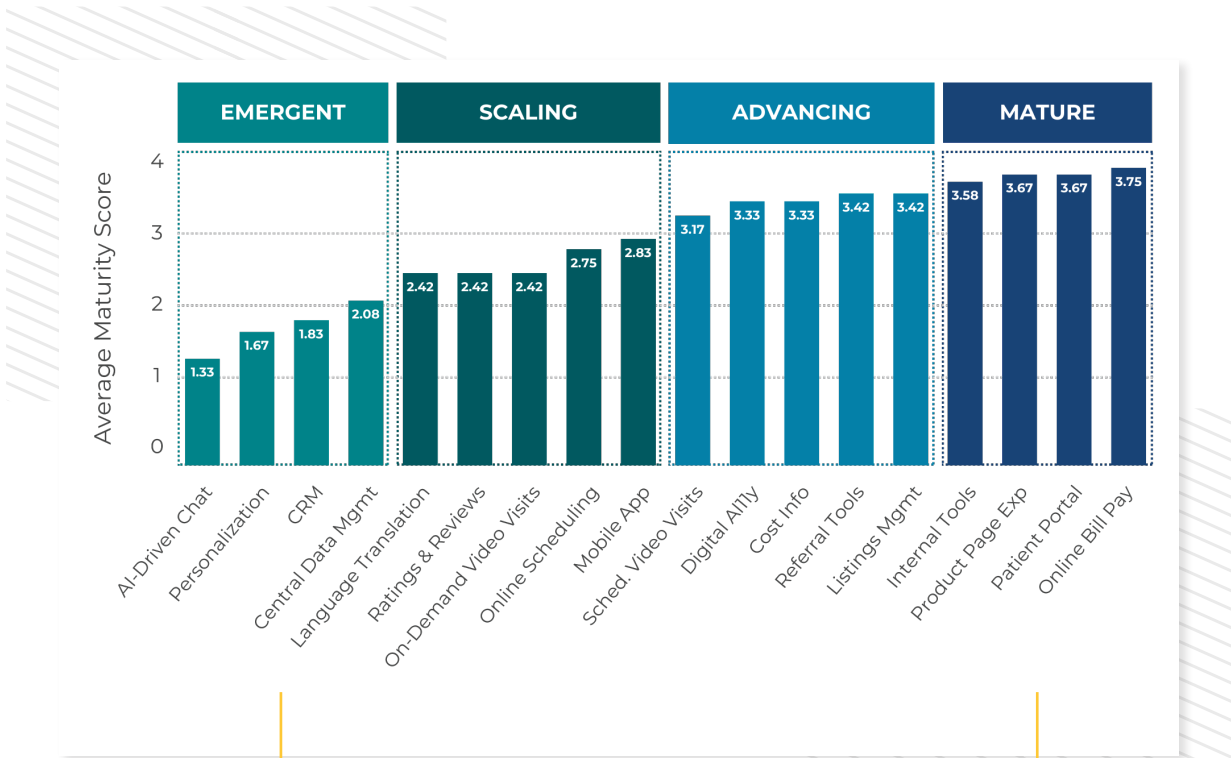


Digital Maturity: Where Children’s Hospitals Stand Today

First, let’s look at the progress children’s hospitals are making when it comes to digital maturity.

We asked survey participants to rate their progress in developing 18 different digital capabilities. To help them assess their progress on any given digital capability, we gave a description of what a best-in-class experience looks like by today’s standard. Then we asked participants to rank themselves on a 5-point scale.

As we did in 2021, we ranked the capabilities along a continuum, from **emergent** to **scaling** to **advancing** to **mature**.



Not surprisingly, **AI-driven chat** was the least mature capability. **Personalization** and **CRM** lagged behind as well, which we’ve found to be true in our work with children’s hospitals.

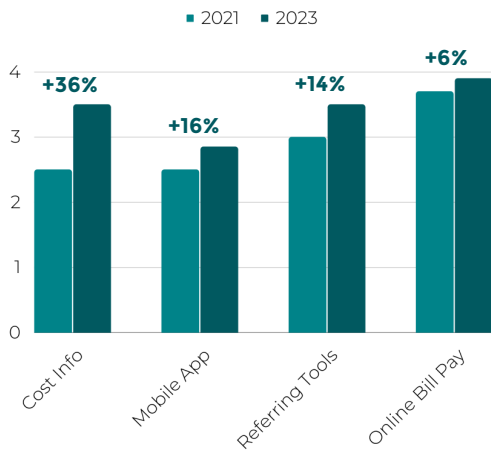
The most mature tools offered few surprises, too, and included **patient portals** and **online bill pay**.



2021 vs. 2023: What Changed?

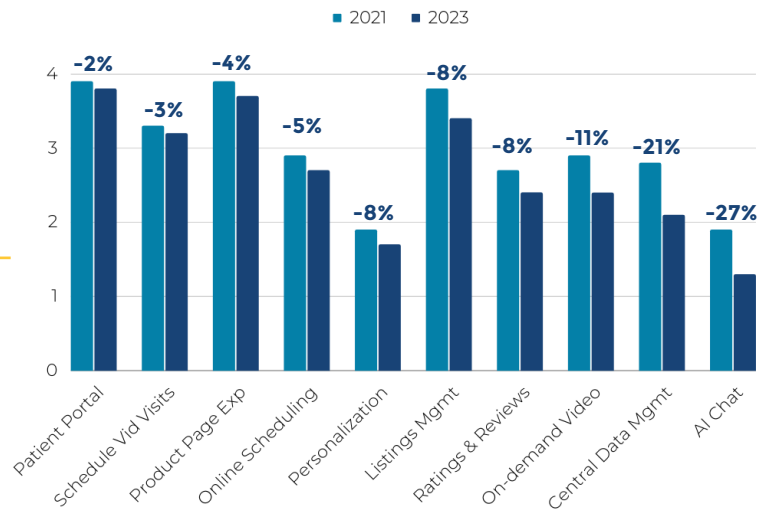
Compared to our 2021 survey, participants reported **lower maturity scores** on over 70% of digital capabilities.

But we think 2021 was an anomaly in some ways. With COVID, there was a lot of rallying around technology (particularly telehealth) and strong leadership buy-in. In that way, the 2023 scores are probably a more accurate reflection.



↑
Capabilities that increased in maturity from 2021 to 2023

↓
Capabilities that decreased in maturity from 2021 to 2023

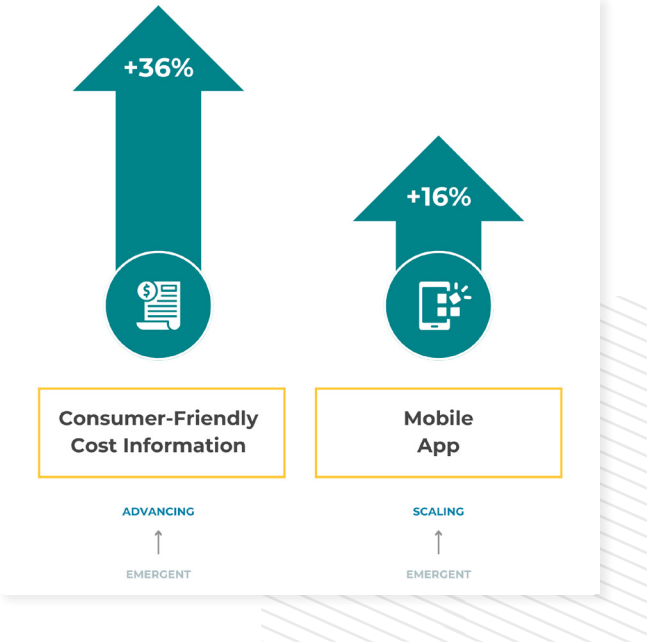


Capabilities Maturing at Highest Velocity

There were two notable increases in digital tools between 2021 and 2023.

The first was **consumer-friendly cost information**, which increased 36%. This is likely due to the recent regulations around providing cost information on a hospital’s website.

The second was having a proprietary consumer-facing **mobile app**, which increased 16%. We know from our work building proprietary mobile apps for healthcare that many hospitals and health systems are working to develop their own mobile app in order to have better control over the mobile experience.



New Capabilities for 2023

In the 2023 survey, we also added three more digital capabilities to reflect the trends we’re seeing among healthcare providers.



Internal tools such as intranets and programs that promote employee engagement



Tools and capabilities enabling **digital accessibility** for all types of users



Language translation capabilities, particularly to reflect local or regional demographics

Internal tools were the most mature of the three new tools. Internal tools were the only of these three new capabilities with high maturity, landing in the **mature** grouping. Digital accessibility was next, averaging at the low end of **advancing**, and language translation was least mature, towards the low end of **scaling**.

To summarize, in reviewing the 2023 data on digital maturity, there are three key learnings:

1

Focus on health equity still lacks tools to back it up

We asked the question: **Is your organization considering health equity when making digital investments?**

100% of respondents said yes. They specifically called out things like building awareness among multicultural populations, and their organization's diversity, equity, and inclusion (DEI) initiatives.

However, three of the most common, most effective ways to create equitable digital experiences – digital accessibility, language translation, and mobile app – are still immature.

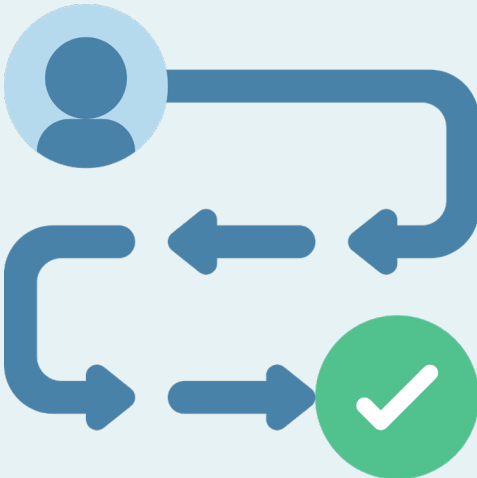
The desire is there, but the resources are slow to follow. **This means that children's hospitals have a strong opportunity to leverage digital to increase health equity.**



More children's hospitals are investing in journey mapping

2

In both 2021 and 2023, we asked the question: **In the last two years, have you invested in customer journey mapping to understand key patient family journeys and where points of friction exist?**



In 2021, just **7 of the 11** participants said yes.

But in 2023, **9 of them did.**

This is a step in the right direction, as journey mapping is becoming standard practice for understanding and investing in the patient family journey.

3

Patient portals don't always support key aspects of the digital care journey

Patient portals ranked as one of the most mature digital tools. However, several children's hospitals still reported that their portal fell short of the best-in-class benchmark.

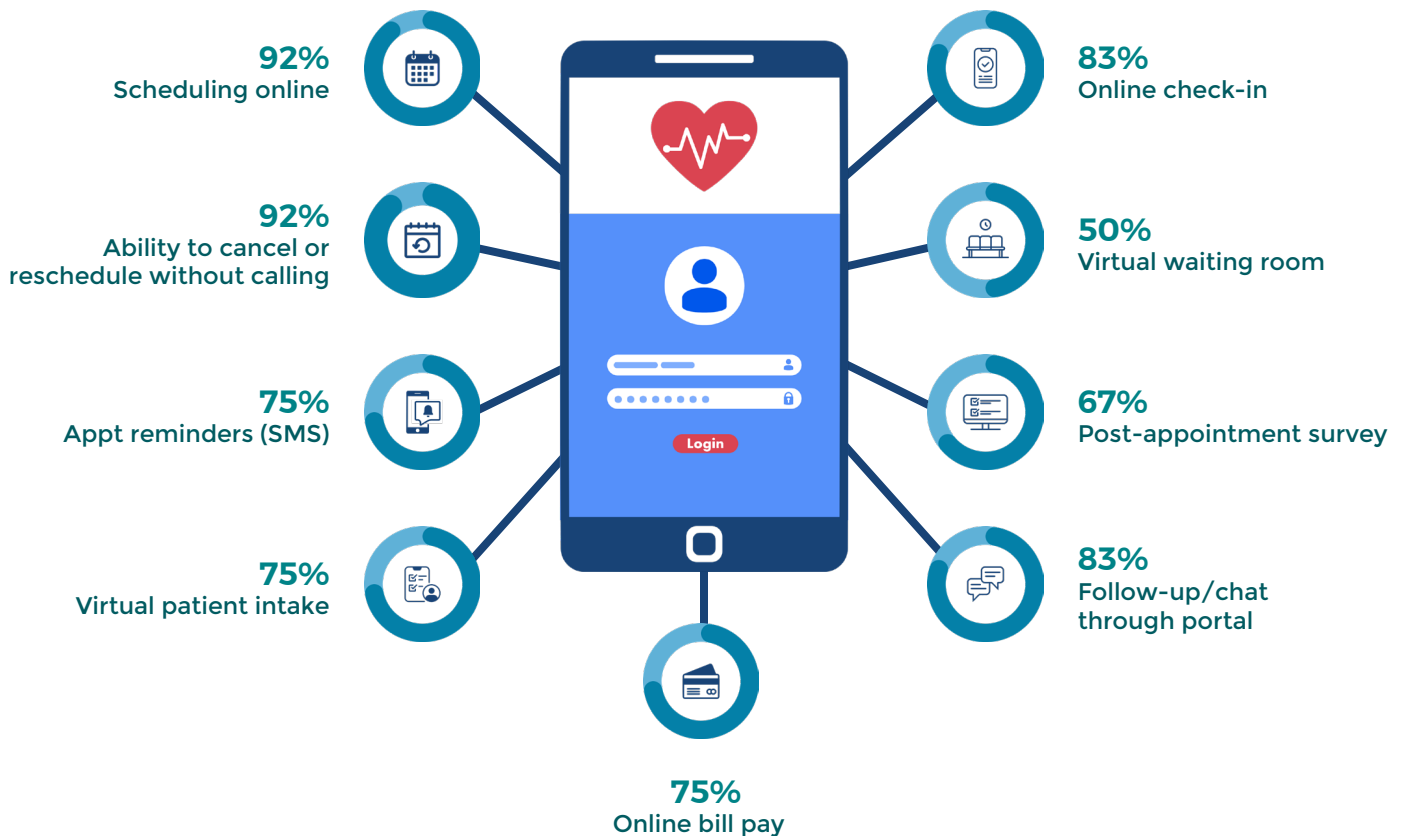
While most survey respondents said their patient portal allowed families to schedule appointments and cancel/reschedule without calling, **one-quarter** of respondents reported that their portal **lacked a virtual patient intake**.

Not all patient portals allowed for **online check-in**, or **following-up/chatting** through the portal.

Only half offered a **virtual waiting room**. And **one-fourth** of them didn't offer **online bill pay**.

These are all areas that children's hospitals can work to improve to better support a seamless and accessible care journey for families.

% of Children's Hospitals Surveyed with Key Patient Portal Capabilities



Organizational Readiness: Resources, Leadership, Barriers

The second part of the survey tried to assess how ready children’s hospitals are to invest in digital. We define **digital readiness** by the amount and alignment of an organization’s resources, minus the presence of barriers.

We asked our survey participants about budgets, teams, and leadership. Then, we asked them about the barriers they perceive that block progress against digital development.

In combing through the data, we found four key ideas that are driving -or impeding- digital readiness in children’s hospitals.

Children’s hospitals often aren’t using capital funding



Centralized digital teams are rare



Digital leaders perceive more barriers than they did in 2021



Lack of consensus on digital goals and strategy



1. Children’s hospitals often aren’t using capital funding

The average operating budget supporting key consumer-facing digital platforms was **\$500k to \$1 million**.

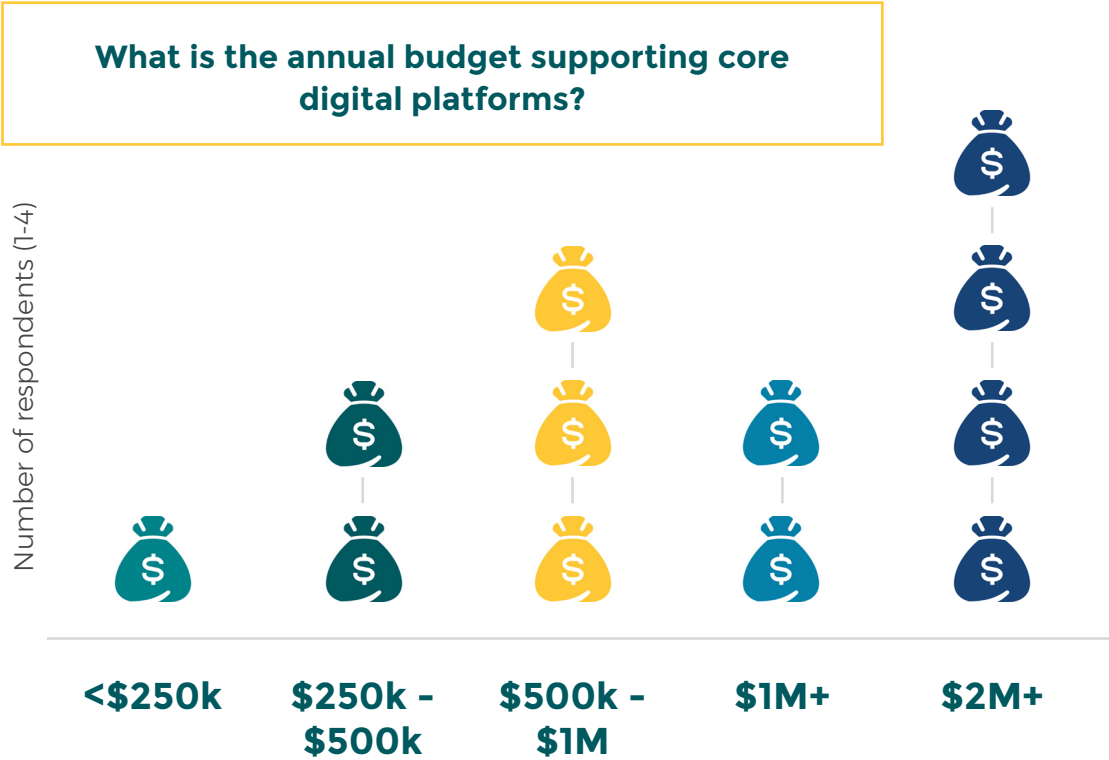
However, most respondents — 75% — reported that they were funding mostly or entirely with **operating expenses** from team or department budgets. In our experience, this is true of most children’s hospitals. Only 25% had **capital budget** dollars.

However, among our own non-children’s hospital clients, the reverse is true: 75% are funding digital initiatives with capital budgets.

When a hospital funds digital platforms like websites and apps through operational budgets, it’s treating the digital platform as an **expense** (a cost) rather than an **asset** (a revenue-generating investment). It labels digital investment as a marketing expense, rather than an organizational asset (the way a new building is viewed as an organizational asset).

Ultimately, **funding digital through operating budgets bakes in limits for what children’s hospitals can do with their digital consumer tools**.

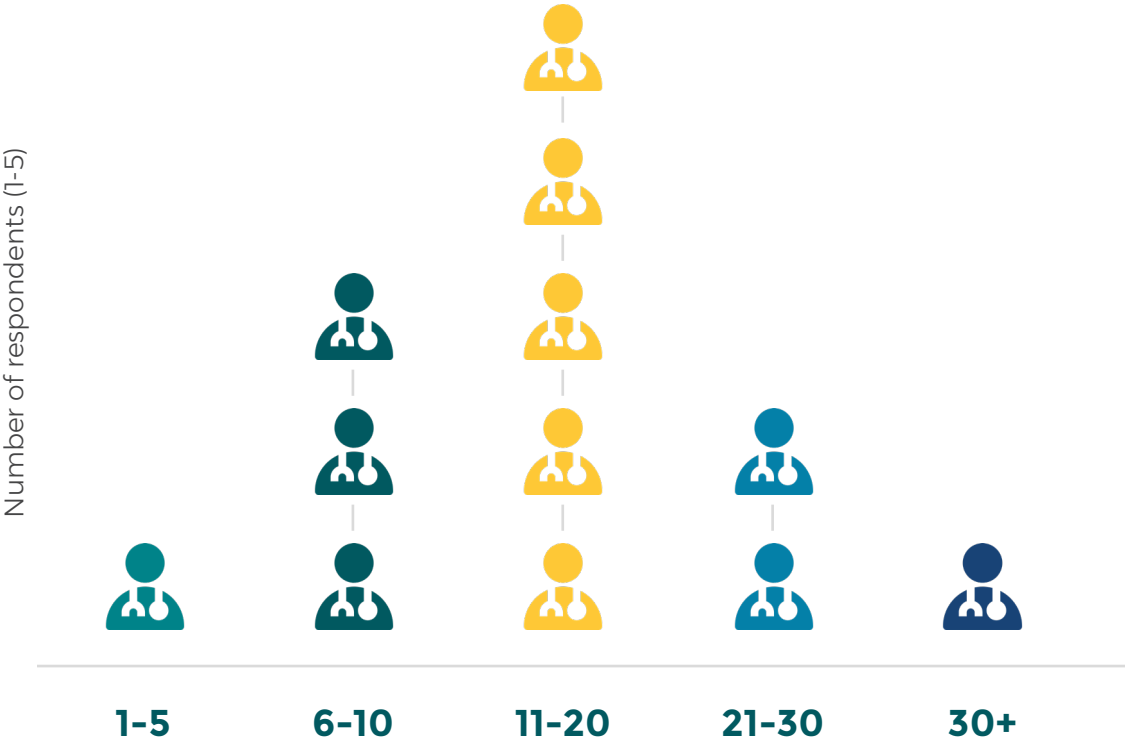
We believe that digital platforms ARE revenue-generating and should be funded as capital expenses. This is a shift that some children’s hospitals are starting to make, but most have not.



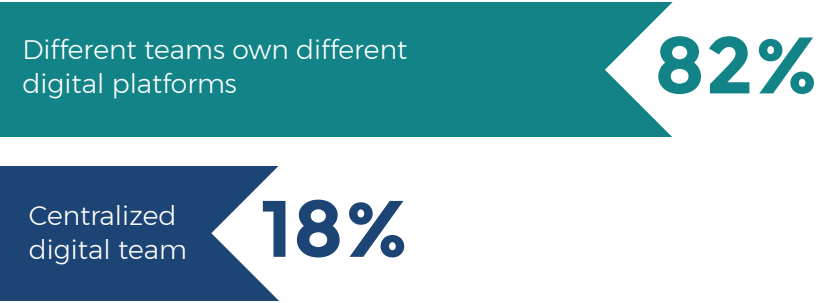
2. Centralized digital teams are rare

When asked how many employees are dedicated to supporting consumer-facing digital, the average was **11 to 20 employees**, with the laggards only having **one to five employees**.

How many employees are dedicated to supporting core, consumer-facing digital experiences/platforms?



Only rarely (18%) does a **centralized team** own all consumer-facing digital. Interestingly, even those children’s hospitals which rank as Digital Leaders don’t always have a centralized team. But, they have the next best thing: **A digital champion and organizational alignment**.



3. Digital leaders perceive more barriers than they did in 2021

Respondents in the 2023 survey cited **more barriers** than they did in 2021. The biggest barriers included **lack of team bandwidth** and **limited resources** to invest.

They also found it harder to prove **ROI** in this climate than in the “all things digital” climate of 2020 and 2021. And leadership support seems to have declined.

Children’s hospitals are facing a lot of the same challenges the entire industry is facing, including **recruiting and retaining good digital talent**. It’s also worth noting that in 2021, when telehealth shot through the roof and digital seemed to be the only option for many people, the barriers were far less.

4. Lack of consensus on digital goals and strategy

When we asked children’s hospitals if their organization had an aligned, enterprise-wide digital strategy, **less than half** said yes.

Some reported that they have workgroups, but not a full enterprise-wide strategy. Others responded that they are still **competing for capital investment** against other non-digital initiatives.

For too many children’s hospitals, digital still isn’t viewed as a “worthy” investment, both in capital dollars and in the time and resources it takes to create an aligned, enterprise-wide strategy.



Does your organization have an aligned, enterprise-wide digital strategy?

*“We have introduced an **experience framework** across Marketing, Patient Access, Health IT and Revenue Cycle touchpoints for consumer experience.”*

*“We have a **cross-functional digital access and engagement workgroup**, but it’s not yet fully enterprise-wide”*

Has your organization’s C-suite and executive leadership ratified the strategy?

*“There is wide support with an exceptionally wide C-suite requiring **ongoing socialization and education**”*

*“Some have, some have not; **still competing for capital investment against other non-digital initiatives**”*



Our Predictions and Hopes

Research initiatives like this one help all of us better understand trends, progress, and imperatives in the digital patient experience. Additionally, they provide insight into how digital teams in healthcare can make the most impactful investments. **Moving forward, how can children’s hospitals continue to invest in digital platforms that make navigating care easier and more accessible to families—while providing strong ROI for the organization?**

Based on our research and depth of experience working in the industry, we see 4 big areas of opportunity for children’s hospitals



Health equity

There is a lot of room to improve when it comes to how digital can support the focus on expanding health equity. Digital tools and capabilities that promote equitable access to care will remain a priority for children’s hospitals and health systems



Efficiency

Investments in digital infrastructure will remain a focus for children’s hospitals, but the current economic climate requires a sharp focus on ROI. We know that customer-facing digital assets like websites and apps DO affect the bottom line, and can generate revenue by increasing appointments, improving patient retention, and increasing organizational efficiency via reducing calls. In essence, digital needs to prove its worth.



Digital teams

Digital teams will continue to scale internally to support digital progress, adding people to manage new tools to solve the bandwidth problem. But this is historically challenging for large providers. It’s difficult to recruit strong digital talent, and children’s hospitals are competing, just like everyone else.



Digital budget

Creating the right executive alignment and using more capital funding will help pediatric systems to compete in the digital landscape. Leaders and chief decision makers must buy-in to the value of digital to expand capital funding.





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