PATIENT ENGAGEMENT TREND REPORT

THE DIGITAL PERSONALIZATION OF CARE

The Digital Health Most Wired Survey and Patient Engagement

In the tumultuous landscape of today's healthcare, the annual Digital Health Most Wired (DHMW) survey is a significant digital health "north star" that healthcare organizations (HCOs) have relied upon for years. Widely known for the annual Most Wired recognition awards, the DHMW survey provides healthcare leaders a comprehensive profile of digital health usage among U.S. HCOs and a reliable resource by which to benchmark their own digital health progression.

Reflecting the digital profiles of approximately 40% of U.S. hospitals, the array of HCOs included in the 2023 DHMW survey can be characterized as representative of the entire U.S. healthcare system. As such, the survey serves as a critical resource in helping researchers identify major themes and shifts in the HCO marketplace.

This is the case with the most current survey's findings where an overarching theme of "the acceleration of data usage" emerged across survey categories.

In a digital health world shaped by Meaningful Use, HCOs have largely moved on from focusing on their data capture and storage capabilities to improving outcomes. In this environment, leveraging data emerges as a critical activity in the realization of improved operational and clinical outcomes.

This "acceleration of data usage" was evident in all eight sections of the survey, but especially pertinent in the Patient Engagement section.

As the market continues to move towards patient-centric care, data usage in digital health tools increasingly plays a critical role in the empowerment of patients.

The demand for digital patient empowerment tools is perhaps best evidenced by the array of innovative digital health companies and solutions flooding the market purporting to offer HCOs and patients alike highly robust patient empowerment tools. Yet, with so many new and varied digital tools available, it would be easy to imagine how overwhelming it might be for any HCO leader to confidently develop an impactful digital patient engagement strategy.

Table of Contents

Gozio Health: A Patient Engagement Expert

To help make sense of the Patient Engagement findings in the 2023 DHMW survey and the digital patient empowerment market in general, CHIME sat down with leaders from Gozio Health, an industry-leading consumer technology engagement organization, and one Gozio Health client.

Using the 2023 DHMW survey as a starting point, we profiled the use of digital patient engagement tools in U.S. HCOs before leaning on the profound insights of Gozio Health leaders and their client to provide context and clarity around the complex issues HCO leaders must navigate in executing an impactful digital patient engagement strategy.

Emerging from this effort, we find that to accelerate data usage for patient engagement purposes, HCOs are increasingly relying on specialized leaders, increasing the depth and breadth of digital offerings, and leveraging broad promotional efforts to foster digital health cultures.

Defining Patient Engagement

It is essential to establish a definition of "patient engagement."

Patient Engagement broadly defined refers to the patient's desire and capability to actively choose to participate in care in a way uniquely appropriate to the individual, in cooperation with a healthcare provider or institution, for the purposes of maximizing outcomes or improving experiences of care.

As such, patient engagement can be seen as both a process and behavior shaped notably by the relationship between the patient and provider, as well as the environment in which healthcare delivery takes place.

In the context of CHIME's 2023 DHMW survey, Patient Engagement considers those digital health processes and tools used by HCOs to support and advance their patient engagement initiatives.

Weighing significantly in the overall calculus of an HCO's DHMW performance (~16% of the total score), the Patient Engagement section of the survey can be highly determinant in defining an HCO's digital health progression.

"The priority on Patient Engagement in the DHMW model is fairly intuitive once you think about it", says Lorren Pettit, CHIME's Vice President of Digital Health Analytics (DHA). "Patients are experienced with consumer technologies and feel this is an area they have some competency in which to judge. So, when an HCO is recognized as a DHMW Level 9 or 10 HCO, the market will typically use the one data point they are comfortable with in determining if the recognition is believable and deserved. And that data point for most involves the HCO's digital patient engagement tools."

This sentiment is shared by Sara Meinke, Sr. Director of IT Ambulatory Network Innovation at Baptist Health, a North Florida health system and a Gozio Health client.

While noting HCOs have used interviews and surveys, such as HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems), for some time now to learn more about patients' experiences with facilities, administration, and clinical care, Meinke claimed that Baptist Health is going a step further.

"We take the patient voice very seriously and are partnering with an organization to survey our patient population specifically around the technology that we've deployed and their general experiences, sentiment and satisfaction," she said. "We are putting patients at the forefront and being very thoughtful and methodical with the technologies that we're designing for our patient population."

Lea Chatham, VP of Marketing at Gozio Health agreed. Recognizing the fragility of patient loyalty when negative patient experiences occur, she championed the idea that HCOs be intentional in including digital patient tools as part of an HCO's patient experience measurement efforts. "Patients are saying if their digital experience is terrible, they may consider looking for care elsewhere."

Agreeing with Chatham, Meinke highlighted the need for HCOs to have a single "digital front door" for ease of patient access. "This is high on Baptist Health's priority list. We are specifically looking at developing an application so patients don't have to deal with multiple different access points," she explained, noting the chaos and confusion that can result from the numerous health apps many consumers currently manage.

1 Patient Engagement as a Collaborative Sport

The first category of questions in the Patient Engagement section of the DHMW survey considered the leadership and structure of an HCO's Patient Engagement effort.

A new question introduced into the 2023 DHMW survey asked: *Whom on your executive team is primarily responsible for the HCO's patient engagement/experience efforts?*

The findings revealed that just more than one-third of HCOs in the 2023 DHMW survey reported having a dedicated patient experience executive (e.g., Chief Experience Officer; VP of Experience, or similar title). For all other participating HCOs, this role was held by an executive other than a Chief Experience Officer (42%) or a non-executive employee (21%).

Question 55

Whom on your executive team is primarily responsible for leading your organization's patient engagement/ experience efforts?

Drilling further into these findings by HCO size revealed significant variances in the data. Unique to this year's DHMW survey is the parsing of the data by HCO size: "Large" organizations have 1,000 or more beds, "medium" have between 250 and 999 beds, and "smaller" HCOs have less than 250 beds.

Parsing the data by organization size showed large HCOs were significantly more likely to have an experience-dedicated executive lead patient engagement efforts, compared to both medium and small HCOs. Further, the number of medium-sized HCOs with a dedicated executive was more than twice that of smaller organizations. However, a majority of medium and small organizations at least had another executive (e.g. CEO, CIO, COO, etc.) As primarily responsible for patient engagement efforts.

Question 55

Whom on your executive team is primarily responsible for leading your organization's patient engagement/ experience efforts?

Commenting on these findings, Chatham noted that an underlying challenge many medium and smaller HCOs face is that they tend to have a small executive team, "mostly just a CEO and CFO. So, the patient engagement responsibilities are often assigned to someone more at the managerial level."

For Chatham, these findings point to another significant aspect of Patient Engagement efforts in HCOs she has witnessed over the years: An increase in "collaborative management."

In years past, the responsibility for an HCO's Patient Experience efforts fell to someone in IT, marketing, or another department. Even if there was a Patient Experience person, there were various stakeholders that impacted decisions.

"We would often struggle to get all of those groups to work together to implement a solution and make sure that it was successful," she explained. "Organizations that were much more collaborative historically have been much more successful in moving quickly and seeing greater success with our platform."

These days, she noted, organizations are building collaborative patient engagement teams before seeking digital solutions, often bringing established goals and requirements to the table.

"We are seeing much more team-based collaborative work on selecting and implementing digital solutions across the organization," Chatham reported. "This approach has proven increasingly successful."

As Baptist Health has grown and matured, Meinke has noticed more of a collaborative approach to patient engagement. Recognizing the clear need for formality around this effort, the health system established a Chief Consumer Officer and expanded its CIO role to Chief Digital Information Officer (CDIO) to address the bridging between teams.

"We had folks essentially moonlighting," Meinke said of the prior approach to patient engagement. "Now we have a formal alignment, including a team member that works exclusively with marketing as that bridge point. We are more immersed and strategically aligned. We know what's happening within the marketing and digital realms, and how we can complement that."

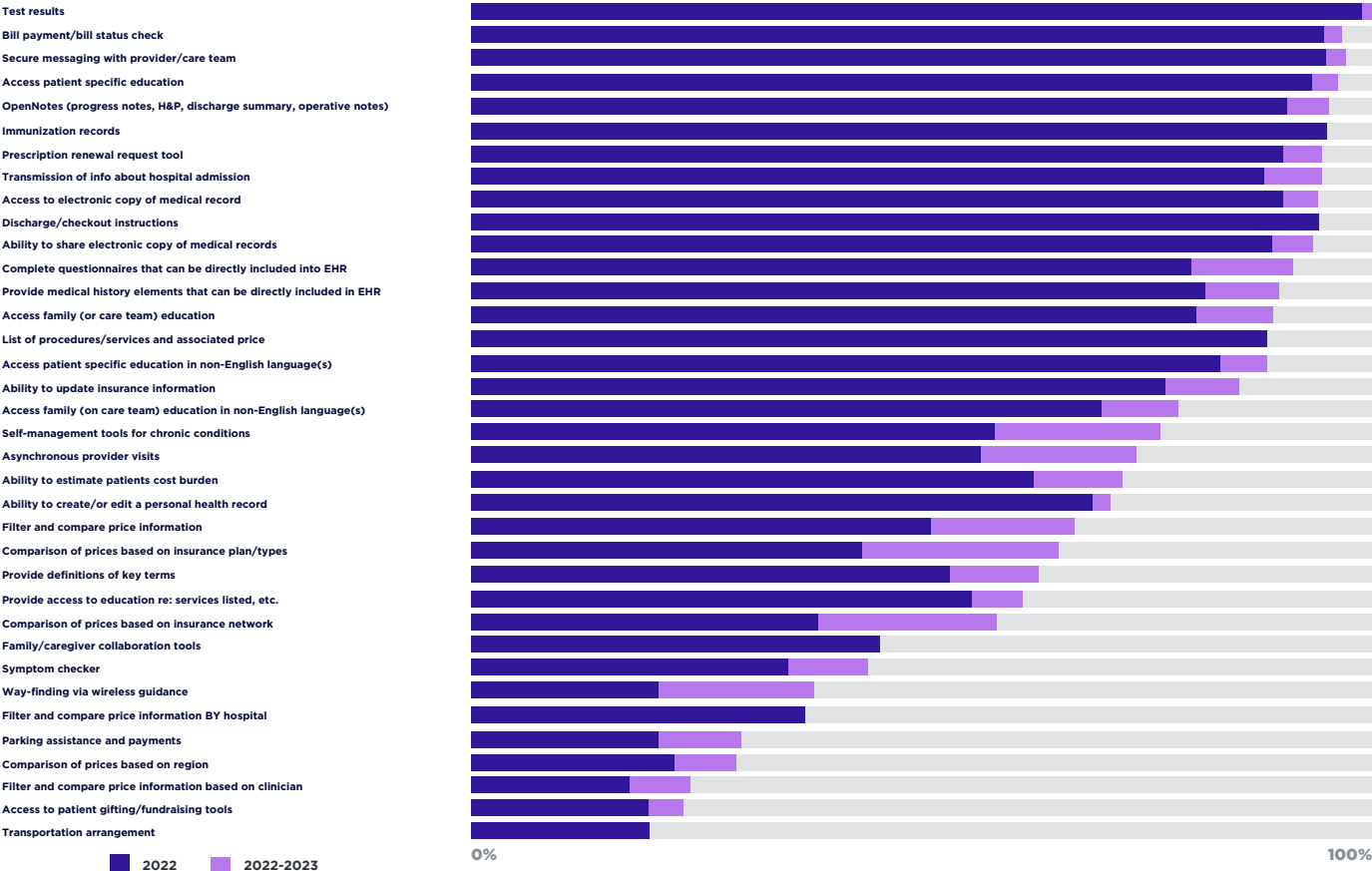# 2 Finding the Right Mix of Digital Tools

A second major category of questions in the Patient Engagement section of the survey looked at the varied digital patient empowerment tools HCOs provide patients and staff.

The DHMW survey partitioned these tools into varied functionalities.
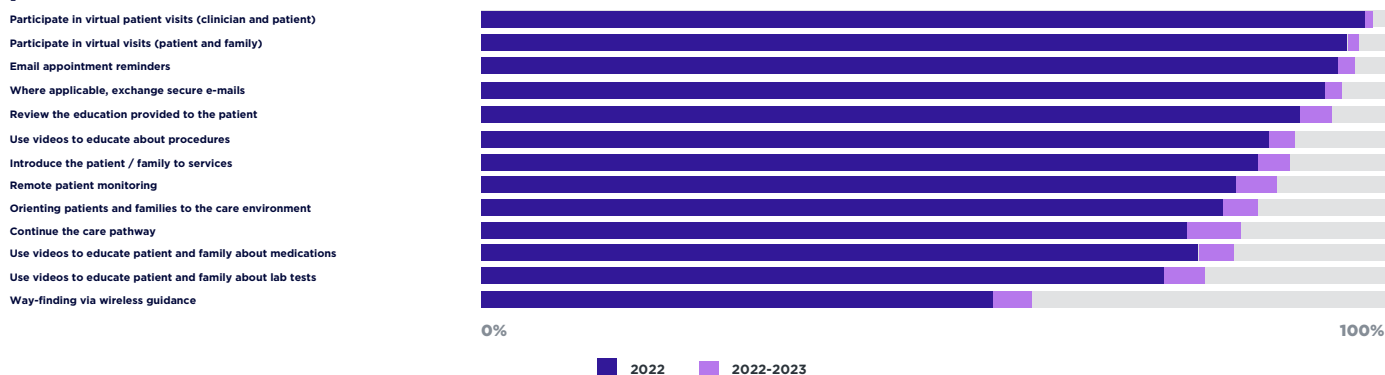
Website/Patient Portal Tools

Question 56

Which of the following capabilities are available to patients through your organization's website or patient portal?

Capability
Test results
Bill payment/bill status check
Secure messaging with provider/care team
Access patient specific education
OpenNotes (progress notes, H&P, discharge summary, operative notes)
Immunization records
Prescription renewal request tool
Transmission of info about hospital admission
Access to electronic copy of medical record
Discharge/checkout instructions
Ability to share electronic copy of medical records
Complete questionnaires that can be directly included into EHR
Provide medical history elements that can be directly included in EHR
Access family (or care team) education
List of procedures/services and associated price
Access patient specific education in non-English language(s)
Ability to update insurance information
Access family (on care team) education in non-English language(s)
Self-management tools for chronic conditions
Asynchronous provider visits
Ability to estimate patients cost burden
Ability to create/or edit a personal health record
Filter and compare price information
Comparison of prices based on insurance plan/types
Provide definitions of key terms
Provide access to education re: services listed, etc.
Comparison of prices based on insurance network
Family/caregiver collaboration tools
Symptom checker
Way-finding via wireless guidance
Filter and compare price information BY hospital
Parking assistance and payments
Comparison of prices based on region
Filter and compare price information based on clinician
Access to patient gifting/fundraising tools
Transportation arrangement

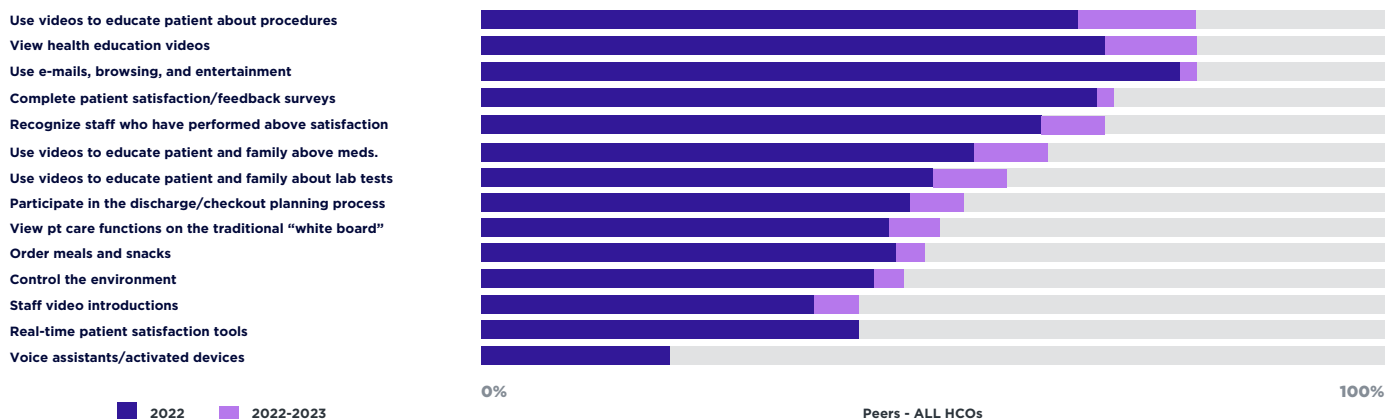Legend: ■ 2022 ■ 2022-2023

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Website/Patient Portal Tools

Question 56

Which of the following capabilities are available to patients through your organization's website or patient portal?

- Participate in virtual patient visits (clinician and patient)
- Participate in virtual visits (patient and family)
- Email appointment reminders
- Where applicable, exchange secure e-mails
- Review the education provided to the patient
- Use videos to educate about procedures
- Introduce the patient / family to services
- Remote patient monitoring
- Orienting patients and families to the care environment
- Continue the care pathway
- Use videos to educate patient and family about medications
- Use videos to educate patient and family about lab tests
- Way-finding via wireless guidance

0%   100%

■ 2022   ■ 2022-2023

Digital Tools for inside the HCO

Question 58

Which of the following services designed to empower patients and their families inside of your facility setting does your organization support via electronic tools?

- Use videos to educate patient about procedures
- View health education videos
- Use e-mails, browsing, and entertainment
- Complete patient satisfaction/feedback surveys
- Recognize staff who have performed above satisfaction
- Use videos to educate patient and family above meds.
- Use videos to educate patient and family about lab tests
- Participate in the discharge/checkout planning process
- View pt care functions on the traditional "white board"
- Order meals and snacks
- Control the environment
- Staff video introductions
- Real-time patient satisfaction tools
- Voice assistants/activated devices

0%   100%

■ 2022   ■ 2022-2023   Peers - ALL HCOs

Mobile Apps

Question 59

Which of the following functionalities are included in mobile apps your organization provides to your patients?

- Patient portal
- Secure messaging (one way/two way)
- Renew prescription
- Personal health record
- Telemedicine integration
- E-visit/virtual assistant
- Mobile check in
- Health maintenance campaigns
- Health library
- Alerts/notification from mHealth devices
- Price list for different services
- Personal health tracker
- Event alerts
- Real-time news and blog feed
- Click-to-call contact directory
- Electronic insurance card
- Way-finding with floor plans and maps
- Location sharing for assistance
- ER wait times (Acute)

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■ 2022   ■ 2022-2023

The key takeaway from these findings is that in the drive to leverage data to improve outcomes, HCOs are offering and supporting a wide variety of digital patient empowerment tools with some tools/functionalities being much more core to a universal patient empowerment strategy than others.

Commenting on these findings, Chatham questioned if having a wide array of digital tools is the right strategy?

"We see a consolidation of digital tools to be a growing priority for health systems," she said, adding patients are resoundingly looking to manage their health in one place and with fewer clicks. "They would really like to be able to access all of that on a single platform. But we know that just having a patient portal is not enough, because it doesn't do everything. They also want this single platform to be flexible and available on their mobile device. Patients want the same experience in healthcare that they have in other areas of their lives, such as in retail and travel."

Tools for staff

Question 60

Which of the following patient interactive capabilities does your organization provide your staff members to help to promote patient and family engagement in your facility?

Perform data analysis that will assess efficacy and facilitate engagement	
Initiate a patient pathway that uses HIT to follow a care plan specific set of processes	
Training the family on patient interactive devices	
Monitor patient and family engagement in real-time so that adjustments can be made during the clinical activities	

0% — 100%

■ 2022   ■ 2022-2023

Another driving force for digital tool consolidation is cost, she said. "Organizations are forced to invest more in infrastructure and technology just to support these efforts."

With leadership, patient input, and development and implementation strategies in place, the challenge is figuring out the right mix of digital tools to meet patient engagement goals. More specifically, the challenge is making sure a given tool is a fit not just for the patient engagement plan but also for the organization's digital set up.

For instance, it may be ideal for patients to access all the tools in one place, like a patient portal, but this isn't always feasible or successful from a utilization standpoint. Chatham pointed to test results and checkout instructions as examples of tools that fit well in a patient portal.

This is reflected in the DHMW results, which showed test results, discharge notes, bill pay, patient education, and EMR access were implemented by more than 95% of surveyed providers.

"Where we see lower adoption is on items patients want like symptom checkers and way-finding that are not often in the portal," Chatham said. These tools often come from an array of vendors and are offered as one-off apps, but they should all live in one place like a mobile app or website, she recommended.

Mobile is an area where HCOs generally need more focus, according to Chatham. "A website, even when optimized for mobile, is not necessarily a great mobile experience. You want a mobile native experience that's specifically designed to work on the device."

Mobile is outpacing desktop, so when patients need to seek urgent care or schedule an appointment, they prefer using a mobile device, and it should be easy for them to find what they are looking for, Chatham said. EHRs often lack a comprehensive provider database for people to search for providers and schedule appointments. Thus, there is a need for other solutions, and these should be mobile-native, not just mobile friendly. "For instance, if your solution requires users to pinch, drag, and pull various screen elements just to schedule an appointment, you will lose patients," she warned.

One solution that appears to be gaining traction among HCO leaders is way-finding. Hospital campuses can be very complex to navigate. Many did not follow a master design but were built piecemeal over time — adding new areas and buildings wherever there was space — and some urban facilities like Johns Hopkins Medical Campus in Baltimore take up multiple city blocks. Though just 58% of HCOs in the 2023 DHMW survey reported offering way-finding tools to patients and their families, this is a 26% increase over the prior year's results.
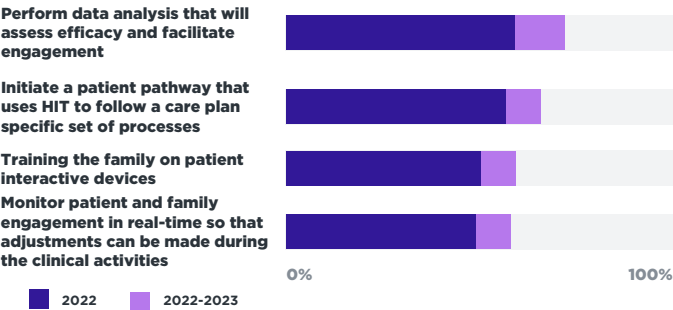
"People are clearly using their phones to 'way-find' themselves to places all day, every day, especially in metropolitan areas," Chatham noted. "Providers recognize this is becoming a big enough problem on their surveys or HCAHPS, and they want to address it, but surprisingly few have done so."

With respect to digital patient empowerment tools inside the HCO, both Chatham and Meinke keyed in on the explosive growth in machine learning and artificial intelligence (AI) as prime examples of how HCOs have been accelerating the use of data.

This is especially true in the growth of voice-activated interactive tools where AI is an underlying technology.

"Baptist is doing some very cool things with AI," Meinke said, noting ongoing talks with vendors around solutions involving inpatient room devices to support tools such as hands-free documentation and virtual sitters to monitor patients at-risk of falling or other health challenges. "We're just starting to scratch the surface with AI."

Patient digital technologies in large hospitals and health systems can have hundreds of thousands of users and are often more advanced on digital health, Chatham noted. They may be satisfied currently with their digital front door on mobile and, instead, shift focus to improving inpatient experience, including ordering food, controlling entertainment, and requesting services. "Considering the bring your own device (BYOD) scenario where the patient may already have the mobile app or can easily get it, providers can have both an inpatient piece and a standard outpatient consumer piece and transition between the two," she offered.

3 Telehealth Trends

Another digital patient empowerment resource which has been helping accelerate the growth of data usage is telehealth. Rushed to market during the pandemic in many HCOs, telehealth has emerged as a permanent piece of the patient engagement puzzle.

Frequently led by a clinical executive (45% of HCOs in the 2023 DHMW survey reporting a Chief Medical Officer was primarily responsible for leading the organization's telehealth efforts), most HCOs (56%) operate hybrid telehealth programs. This means telehealth services offered through an HCO are delivered via telehealth services the HCO manages and via telehealth services outsourced to one or more vendors.
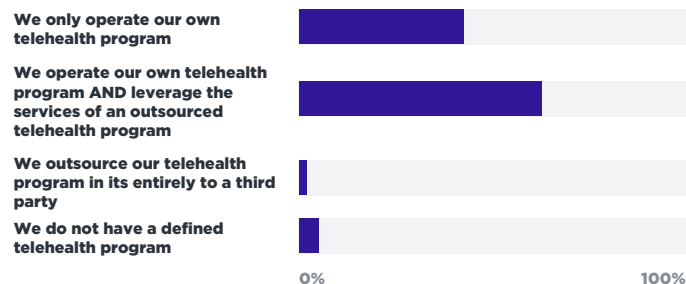
Question 61

Whom on your executive team is primarily responsible for leading your organization's telehealth efforts?

A clinical executive (e.g., Chief Medical officer)	
A non-clinical executive (e.g., CIO, Vice President of Telehealth)	
A non-executive team member (e.g., Director of Telehealth)	
We outsource this function (external leader/vendor)	
No telehealth leader	

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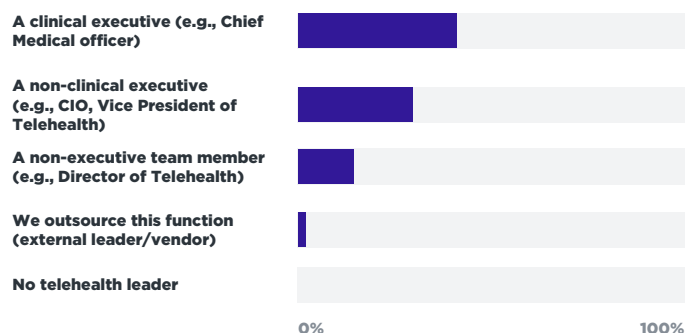
Question 62

Which of the following reflect how telehealth services are provided at your organization?

We only operate our own telehealth program	
We operate our own telehealth program AND leverage the services of an outsourced telehealth program	
We outsource our telehealth program in its entirely to a third party	
We do not have a defined telehealth program	

0%   100%

That HCOs operate via this mode is not too surprising given the need to rapidly implement telehealth services. More surprising is the anecdotal stories surrounding the number of varied telehealth vendors anyone HCO supports.

Strategically, Chatham has noticed a shift towards implementing much more cohesive telehealth and virtual care programs. "People have come to sort of expect that option to be available to them, even if it is not going to necessarily be paid for by insurance," she noted. "Most organizations are looking for ways to integrate telehealth into their front door and make it more cohesive with the rest of their digital health and patient engagement. Now that we are in a post-pandemic world, many providers are purposefully reassessing and consolidating these virtual care offerings to ensure consistency across these."

Meinke concurred adding, "I would not be surprised if at some point we have a separate and complete vertical for telehealth services."

4 Tracking Utilization of Patient Digital Tools

A third major category of questions in the Patient Engagement section of the survey focused on the methods HCOs use to gauge the utilization of digital patient empowerment tools.

More specifically, this series of questions considered the varied "doors" patients can use to access the HCO, including the physicians associated with the HCO who have integrated telehealth as part of their face-to-face practice, the percentage of patients accessing varied services by telehealth or the use of the HCO's patient portal.

The key takeaway from these findings is that most HCOs are monitoring utilization of these varied digital patient empowerment resources.
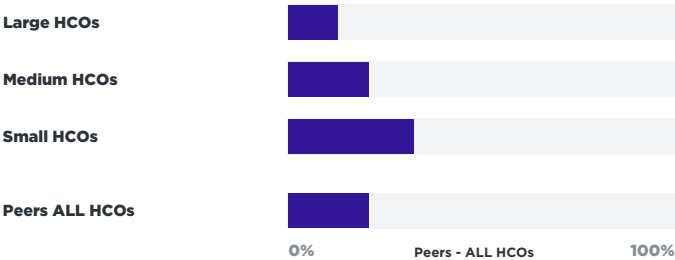
Question 61

Please indicate the percentage of your organization's...

Associated physicians/clinicians who have integrated telehealth services as part of their face-to-face practice
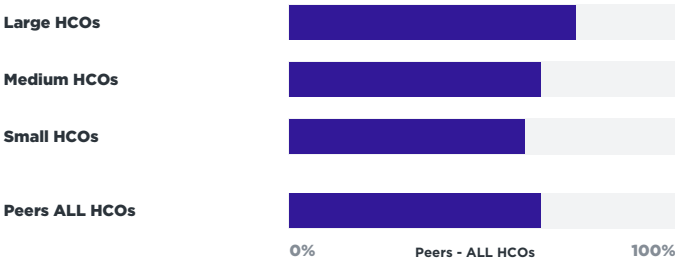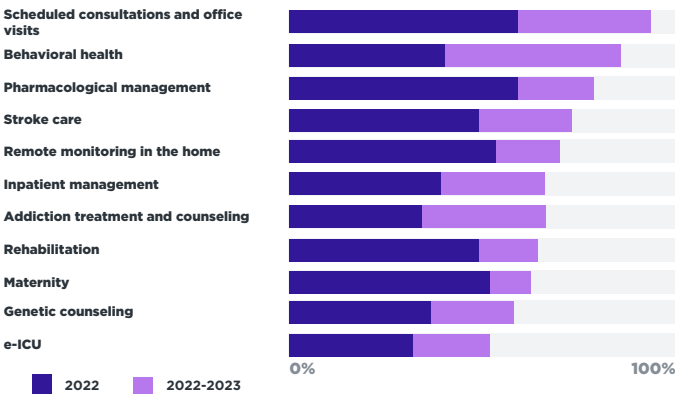
**Total patient visits conducted via telehealth during the last 2 months**

Question 64

Of the following diagnostic and therapeutic medical exchanges between patients and providers in your organization, what percentage are conducted via telehealth?

Question 65

Please indicate the percentage of unique patients your organization serviced during the last 12 months who have accessed your organization's patient portal at least once this last year?

■ 2022   ■ 2022-2023

9
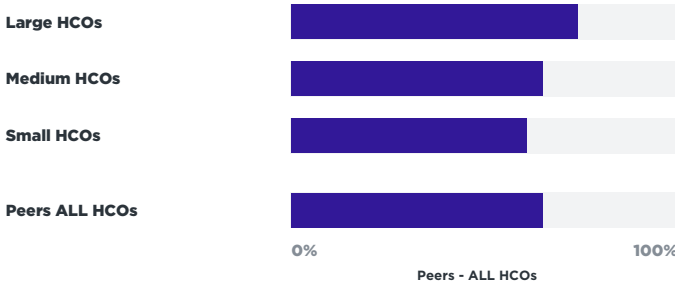
Given the array of digital tools HCOs make available to their patients, the question of return on investment (ROI) is bound to arise. Yet when organizations try to measure the effectiveness of digital tools to see how patients are engaged and to assess ROI, they often struggle to get beyond activation and general utilization rates.

Addressing this challenge, Meinke noted, "There is a big difference between tracking how often patients access their portals and figuring out how they are using the tools within the portal during each session. It is a tough task, and nobody seems to have come up with a solid solution".

Based on feedback from healthcare marketing professionals, Chatham said tracking patient engagement and patient experience initiatives with real meaningful data is a very difficult project. She explained that in the first couple of years of a new website or mobile implementation, looking at usage metrics like total engagement and reuse rates can provide a view into how many people are using the website and mobile app. Next, it makes sense to look more specifically at what features patients are using and how they are using them. "You look at how many people are clicking on urgent care services and checking in with Save My Spot, or how many are clicking on the scheduling function," she explained.

However, there can be many different programs involved in these engagement platforms, and trying to get real hard ROI data on fine utilization scenarios can be incredibly challenging. Despite this hurdle, relying solely on improvements backed only by patient surveys and anecdotal evidence no longer suffices, as leaders want to know more specifics about cost savings, changes in call center volume, patient scheduling stats, patient referral leakage, and other fine data points that may take effort across the entire enterprise to gather.

In fact, Pettit noted this task likely needs to go beyond the marketing department. "It should be a collaborative effort between marketing, patient experience, and IT, as the patient-generated data is being captured via the portals," he explained.

Collaborative efforts can be cumbersome in large health systems with many departments involved, but they can produce better results and better understanding of the impact of patient engagement efforts.

5   Promoting Engagement Tools

The final category of patient engagement considered in the survey involved the promotion of patient engagement tools.

The success of a digital patient tool offering can fall flat if patients (and clinicians) are not aware of the availability of the digital resources. Thus, the DHMW survey team elected to ask participants of the 2023 DHMW survey how they promoted their various digital patient empowerment tools.

Question 66

Which of the following tactics does your organization use to promote your organization's digital health tools to patients (patient portal, mobile app and telehealth services)?

Display a link to the patient portal, mobile app and/or telehealth services on your organization's website

Train your staff and providers so they understand the benefits to the patient and to the organization

Provide informational handouts to patients

Capture email addresses for every patient

Make the patient portal and/or mobile app your organization's preferred way of sending information to patients

Add a promotional tag line to appointment cards, statements, newsletters, and other communication

Promote digital health tools on video displays within the facility (e.g., patient rooms, exam rooms, lobby, etc.)

Use the organization's telephone on-hold messaging system to promote the patient portal, mobile app and/or telehealth services

Place a computer kiosk or tablet in key locations

Send postcards to patients introducing the patient portal, mobile app and/or telehealth services
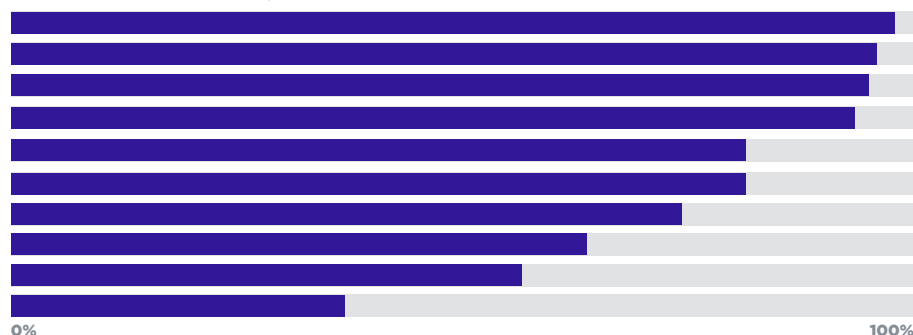
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Peers - ALL HCOs

The data showed that HCOs leverage an array of marketing tactics to promote digital health tools to patients, with the most commonly leveraged being *Display a link to the patient portal, mobile app and/or telehealth services on your organization's website; Train your staff and providers so they understand the benefits to the patient and to the organization; Provide informational handouts to patients; and Capture email addresses for every patient.*

6 The Future of Engagement

The idea of patient engagement has skyrocketed in recent years, propelled in part by a rush of digital health solutions like telehealth and virtual check-in during the pandemic and to the quick pace of innovations like AI and mobile apps, as well as to the new era of patients managing their lives digitally.

Patients are clear about their desire for convenient and easy-to-use tools to manage their health and care on modern devices from anywhere. And HCOs are committing vast resources to meet their demands by dedicating leadership and collaborative teams to patient engagement efforts; by offering the right mix of digital tools in a seamless, convenient manner; and by taking a multi-step approach to not only making patients aware of the availability of tools like portals and native mobile apps, but also by guiding them to access the tools and showing them how they work and help them manage and experience health care.

However, the foundation of patient engagement is connecting with the patient, and understanding their journey and how digital tools can improve their experience. "HCOs need to engage patients as part of a bigger strategy to truly understand their needs," Chatham offered, emphasizing the importance of strategy. "They need to figure out their strategy around engaging patients in the development of digital health programs." This could mean doing focus groups, additional patient surveying, and creating patient advisory groups.

This is not a sit-back-and-launch-solutions type of endeavor; it's about partnering with patients. Once they realize these digital tools are part of their overall care journey, including patient communications and reminders and other conveniences, they will engage.

About CHIME

The College of Healthcare Information Management Executives (CHIME) is an executive organization dedicated to serving chief information officers (CIOs), chief medical information officers (CMIOs), chief nursing information officers (CNIOs), chief innovation officers (CIOs), chief digital officers (CDOs), and other senior healthcare IT leaders. With more than 5,000 members in 58 countries plus 2 US territories and over 190 healthcare IT business partners and professional services firms, CHIME and its three associations provide a highly interactive, trusted environment enabling senior professional and industry leaders to collaborate, exchange best practices, address professional development needs, and advocate the effective use of information management to improve the health and care in the communities they serve. For more information, please visit **chimecentral.org**.

About Digital Health Analytics

Digital Health Analytics (DHA) is a global market intelligence and survey research hub for digital health technology. Provided by the College of Healthcare Information Management Executives (CHIME), DHA was created in 2022 to supercharge organizations' digital health transformation capabilities by moving from a one-snapshot-in-time, static Most Wired survey to a 365/24/7 data and analytics resource. DHA is the gateway for provider organizations and companies to better understand how digital technology supports leaders in transforming health and care and delivering data insights that help them make the greatest business impact possible. For more information, please visit **dhanalytics.org**.

About GOZIO Health

Gozio Health partners with health systems to increase consumer engagement using a proven mobile platform and strategy. The entire healthcare journey–both in-person and digital–is improved by giving systems the flexibility to consolidate all their patient-facing digital solutions into one premium native mobile experience accessible by anyone, anywhere. Combined with Gozio's patented indoor positioning technology, the platform empowers consumers to confidently navigate their healthcare journey and enables health systems to more effectively achieve their business goals. Gozio customers surveyed in a 2021 KLAS Research Emerging Technology Spotlight report found 100% satisfaction. For more information, visit **goziohealth.com**.