Introduction

Historically, the intent of the CHIME HealthCare’s Most Wired report has been to provide the industry with a clear picture of healthcare IT adoption and strategy. Building on this focus, the 2019 report not only measures high-interest areas of IT, but also incorporates year-over-year trends as well as insights regarding the impact these technologies have on patient, clinician, operational, and financial outcomes.

This year’s research answers several key questions, including (but not limited to) the following:

1. How much progress has the industry made with population health management, including with the adoption of key technologies, like telehealth?
2. How much risk are hospitals taking on as they shift to value-based care?
3. How have security programs evolved amid ever-increasing security threats?
Although legislative pressure to transition to value-based care began several years ago, movement to alternative payment models and changes to healthcare reimbursement have been slow.

Most organizations use a mix of payment models. 93% of participating organizations still use fee-for-service in some way; most of the remaining 7% rely on other revenue streams, like government payments or donations. Fee-for-service is unlikely to be eliminated entirely, but value-based payment models will likely continue to expand to comprise more of organizations’ revenue streams. Even organizations that have started using more advanced payment models (e.g., capitation or shared savings with upside and downside risk) tend to continue using more foundational value-based models (e.g., pay-for-performance or shared savings with upside risk only). Currently, at an industry level, only 26% of all revenue comes from value-based payment models.

To accelerate the transition to value-based care, healthcare organizations need the appropriate financial tools. From 2018 to 2019, some of the largest increases in adoption of revenue cycle and contract management capabilities were for more advanced capabilities, like real-time identification and tracking of value-based care conditions (up 11 percentage points) and distribution and management of bundled payments (up 8 points). For most other capabilities, the increase in adoption was substantially less. While improvements have been made, adoption is still insufficient to drive significant market changes.
Population Health Management

Disease Registries Foundational to Population Health

Segmenting patients into actionable groups is a core function of population health tools. Disease registries provide pre-defined parameters for such segmentation, and 83% of responding organizations report having an electronic disease registry. However, in order to segment patients accurately, organizations need their disease registry to be fed quality data from a wide variety of sources. While nearly all respondents have connected internal data sources (e.g., ambulatory and acute care EHRs) to their disease registry (96% and 93%, respectively), fewer respondents report pulling in data from external sources, such as HIEs, payer systems, or post-acute care systems. It is critical for clinicians to not only have needed data within the disease registry but also be able to access it at the point of care to help guide patient treatment.

Data Sources That Contribute to Disease Registry

- Ambulatory care EHR & billing system: 96%
- Acute care EHR & billing system: 93%
- ADT feeds: 75%
- HIE: 67%
- Payer/claims data: 65%
- Post-acute care data (continuum of care): 49%

Disease-Registry Data Accessible at Point of Care

- Ambulatory care EHR & billing system: 95% accessible, 5% not accessible
- Acute care EHR & billing system: 92% accessible, 8% not accessible
- ADT feeds: 87% accessible, 13% not accessible
- HIE: 94% accessible, 6% not accessible
- Post-acute care data (continuum of care): 67% accessible, 33% not accessible
- Payer/claims data: 61% accessible, 39% not accessible

As organizations expand the number of data sources contributing to their disease registry, they report a positive effect on patient and clinician outcomes.

Impact of Population Health Technologies on Patient and Clinician Outcomes

By number of data sources contributing to disease registry

- 0 (n=65): Patient 0.0, Clinician 0.0
- 1–2 (n=40): Patient 6.0–7.9, Clinician 6.0–7.9
- 3–4 (n=134): Patient 7.0–7.9, Clinician 7.0–7.9
- 5–6 (n=209): Patient 7.0–7.9, Clinician 7.0–7.9

Note: Not all respondents who indicated they have a disease registry answered questions about whether data is accessible at the point of care; only those who answered are represented here.

Population Health Activities Steadily Growing

As provider organizations have developed a better understanding of what is needed to succeed with population health management, adoption of tools for population health activities has grown. In 2018, the average was 68%; it rose to 72% in 2019. More basic tools have the highest adoption; for example, on average, 81% of participating organizations have adopted various tools for care management. Adoption of more advanced tools is much lower; for example, 40% of participating organizations have adopted a full CRM solution and 46% have tailored advanced analytics.
Activities Completed with Population Health Management Tools (n=496)

- Prioritized guidance on patient care gaps and statuses
- Quality measures and analytics at the physician level (including MIPS, MACRA, etc.)
- Tracking of clinician usage of population health tools and activities
- Secure messaging between patients, care provider and care managers
- Targeting of patients for outreach
- Care management workflow empowered with data-driven intelligence
- Care-gap identification
- Identification and tagging of patient groups to develop internal registries
- Tailored advanced predictive/prescriptive analytics (i.e., AI, machine learning)
- Network-utilization tracking and network-optimization analysis
- Financial performance tracking under risk-based contracts
- Total cost-of-care analytics
- Chronic-disease management
- Care management workflow empowered with data-driven intelligence
- Care-gap identification
- Identification and tagging of patient groups to develop internal registries
- Tailored advanced predictive/prescriptive analytics (i.e., AI, machine learning)
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- Network-utilization tracking and network-optimization analysis
- Financial performance tracking under risk-based contracts
- Total cost-of-care analytics
- Chronic-disease management

With no one-stop shop for population health management, the typical provider organization uses a mix of solution types (EHR, third-party, and manual) for their population health efforts. For most organizations, the EHR is a natural starting point, and over 80% of organizations report using their EHR for various population health activities. Expanding on the functionality of their EHR, 63% use third-party solutions. Even with the availability of advanced EHR and third-party tools, a majority of organizations also continue to use manual tools for some aspects of their population health strategy.

Organizations that use both EHR and third-party tools but no manual tools for population health report a stronger impact from their population health technology on patient, clinician, operational, and financial outcomes.
The main purpose of patient engagement technology is to help patients take control of their own care—a critical capability in light of the consumerization of healthcare. This type of patient involvement also helps advance Triple Aim outcomes. This section focuses on three areas of patient engagement: patient portals, price transparency solutions, and telehealth solutions. Many organizations offer this technology; however, the struggle lies in getting the adoption needed to actually drive patient and organization outcomes. For example, two-thirds of organizations with a telehealth solution report that less than 10% of patients have used it.

**Patient Portal Adoption & Use on the Rise**

Patient portals are often the first tools organizations deploy to help them engage patients in their own care. 98% of participating healthcare organizations offer a patient portal, though there is variation in which capabilities are included.

Because of meaningful use requirements, almost all portals include core clinical information, like test results and visit summaries. Other foundational, clinically relevant information and capabilities—e.g., discharge instructions and secure messaging—are also frequently included. Only about half of organizations offer eVisit functionality or self-management tools for chronic conditions, though adoption of the latter has increased 15 percentage points since 2018. Other areas with positive growth include appointment self-scheduling (by 15 points) and the ability to update insurance information (by 13 points).

Regardless of a facility’s size or type, the impact of their patient engagement technology on outcomes (patient, clinician, operational, or financial) increases as more patients use the portal.

### Clinical Communication Abilities Offered through Patient Portal (Not including pilot programs) (n=496)

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Access test results</td>
<td></td>
<td>98%</td>
<td>98%</td>
</tr>
<tr>
<td>Access visit summaries</td>
<td></td>
<td>98%</td>
<td>98%</td>
</tr>
<tr>
<td>Access discharge instructions</td>
<td></td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>Securely message care team</td>
<td></td>
<td>91%</td>
<td>91%</td>
</tr>
<tr>
<td>Access patient information</td>
<td></td>
<td>88%</td>
<td>88%</td>
</tr>
<tr>
<td>Access immunization records</td>
<td></td>
<td>86%</td>
<td>86%</td>
</tr>
<tr>
<td>Access bill payment/status</td>
<td></td>
<td>82%</td>
<td>82%</td>
</tr>
<tr>
<td>Access prescription-renewal request tool</td>
<td></td>
<td>82%</td>
<td>82%</td>
</tr>
<tr>
<td>Share hospital admissions information with another provider</td>
<td></td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>Access electronic copy of medical record</td>
<td></td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>Access patient information in non-English language(s)</td>
<td></td>
<td>74%</td>
<td>74%</td>
</tr>
<tr>
<td>Access self-scheduling tools for appointments and reminders</td>
<td></td>
<td>72%</td>
<td>72%</td>
</tr>
<tr>
<td>Automatically add medical history elements to EHR</td>
<td></td>
<td>67%</td>
<td>67%</td>
</tr>
<tr>
<td>Access family or care team education</td>
<td></td>
<td>65%</td>
<td>65%</td>
</tr>
<tr>
<td>Complete questionnaires that can be added directly to EHR</td>
<td></td>
<td>65%</td>
<td>65%</td>
</tr>
<tr>
<td>Ability to update insurance information</td>
<td></td>
<td>63%</td>
<td>63%</td>
</tr>
<tr>
<td>Access OpenNotes</td>
<td></td>
<td>59%</td>
<td>59%</td>
</tr>
<tr>
<td>Access family or care team education in non-English language(s)</td>
<td></td>
<td>58%</td>
<td>58%</td>
</tr>
<tr>
<td>Access self-management tools for chronic conditions</td>
<td></td>
<td>55%</td>
<td>55%</td>
</tr>
<tr>
<td>Conduct asynchronous provider visits for defined list of problems</td>
<td></td>
<td>44%</td>
<td>44%</td>
</tr>
</tbody>
</table>

### Average Impact of Patient Engagement Technologies vs. Patient Portal Usage

Respondent ratings for the impact of their patient engagement technologies on patient, clinician, operational, and financial outcomes.

As patients’ use of portals increases, so does the organization-reported impact of patient engagement technology—no matter the size/type of hospital.

**Average Number of Patients Who Have Used a Patient Portal in the Last 12 Months** (n=473)

- Rural/Critical Access Hospitals
- Urban/Integrated Hospitals

- 0.0
- 1.0
- 2.0
- 3.0
- 4.0
- 5.0
- 6.0
- 7.0
- 8.0
- 9.0

- Low
- Medium
- High
Price Transparency Still in Its Infancy

Amid efforts to reduce costs, price transparency tools have been of high interest in healthcare in recent years; energy was further heightened by the June 2019 presidential executive order mandating that hospitals publish prices for patients. Without effective price transparency tools, patients are limited in their ability to make meaningful price comparisons, impeding efforts to reduce the cost of healthcare.

Although 80% of respondents provide price lists for their offered procedures and services, true price comparison is still a long way off. Only 36% of organizations offer three or more of the price transparency capabilities tracked by the Most Wired survey; 25% offer price filtering or comparison based on procedure or service. Even fewer offer filtering based on other criteria, like health system (13%), insurance plan or type (12%), insurance network (12%), region (11%), or specific clinician (5%). 16% of organizations offer no price transparency tools at all.

As more price transparency capabilities are offered, the impact of patient engagement technology on outcomes (patient, clinician, operational, or financial) increases; the greatest impact is on patient and clinician outcomes.

Impact of Patient Engagement Technologies
By number of price transparency tools offered

<table>
<thead>
<tr>
<th>Number of Price Transparency Tools Offered</th>
<th>Impact of Patient Engagement on Outcomes</th>
<th>Outcomes Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (n=79)</td>
<td>Patient</td>
<td>8.0–9.0</td>
</tr>
<tr>
<td></td>
<td>Clinician</td>
<td>7.0–7.9</td>
</tr>
<tr>
<td></td>
<td>Operational</td>
<td>6.0–6.9</td>
</tr>
<tr>
<td></td>
<td>Financial</td>
<td>&lt;6.0</td>
</tr>
<tr>
<td>1–2 (n=240)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3–5 (n=112)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6–8 (n=51)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9–12 (n=14)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Price Transparency Capabilities Provided to Patients
(n=496)

- List of procedures/services with associated price: 80%
- Definition of key terms: 27%
- Cost-burden estimation based on insurance type: 27%
- Education regarding capabilities: 27%
- Price comparison/filtering based on procedure/service type: 25%
- Price comparison/filtering based on hospital/health system: 13%
- Price comparison based on insurance network: 12%
- Price comparison based on insurance plan/type: 12%
- Price comparison based on region: 11%
- Integration tools that help facilitate healthcare-fundraising efforts and transparency: 9%
- List of clinicians with associated prices: 6%
- Price comparison/filtering based on clinician: 5%
- No price transparency capabilities available: 16%

Telehealth Deployment High, but Patient Use Low

Adoption of telehealth technology, which can improve access to healthcare and lower costs, continues to expand. 90% of organizations offer some virtual services in hospitals; about 85% do so in physician offices and patient homes. However, 24% of organizations offer no telehealth services in post–acute care facilities, like SNFs and long-term care facilities, where virtual care has the potential to reduce costly rehospitalization. Since 2018, adoption has increased most for standard activities—such as consultations and office visits in physician offices (up 11 percentage points) and patient homes (15 points)—as well as for inpatient management in hospitals (11 points).

Telehealth Services Offered—By Location

- Addiction treatment and consulting
- Consultations and office visits
- eICU
- Genetic counseling
- Inpatient management
- Pharmacologic management
- Psychiatric examination/psychotherapy
- Rehabilitation
- Stroke care
- No telemedicine services available

While organizations have expanded their telehealth offerings, patient adoption remains low. Two-thirds of organizations report less than 10% of patients have used their telehealth services. However, some organizations are making more headway—about one-quarter say 10%–24% of their patients have used their telehealth services.

The good news is that even small levels of telehealth use can have a significant impact on outcomes. As more organizations mature their telehealth offerings and patients increase their use of telehealth services, the impact of telehealth as a patient engagement tool may increase further.
30% of Organizations Have Comprehensive Security Program

Despite increased industry focus on healthcare cybersecurity, many organizations still have room to improve their security programs. 73% of participating organizations report that since 2018 the number of security-related incidents they experience has either stayed the same or increased. To measure how prepared the industry is for such incidents, respondents were asked which security program components they have in place; only 30% indicated they have a comprehensive security program (i.e., adoption of all components). Large organizations seem to be better prepared: 45% of organizations with over 1,000 beds have a comprehensive security program compared to only 12% of organizations with less than 200 beds. Additionally, 35% of urban/integrated organizations have a comprehensive security program compared to only 7% of rural/critical access organizations.

Adoption of Core Components of a Comprehensive Security Program

Organizations that have a comprehensive program are much more likely to have security-related technologies and protocols in place (by about 25 percentage points on average). But regardless of how comprehensive their program is, all organizations have room for improvement. Half of organizations with a comprehensive program (and 70% of those with a non-comprehensive program) don’t have measures in place for medical device security. Even more lack adaptive or risk-based authentication for network access.

Adoption of Security Measures

Organizations with a comprehensive security program (n=148)
Organizations with a non-comprehensive security program (n=348)

Organizations with a comprehensive security program and high adoption of the security measures in the chart to the left see more outcomes from their security technologies—90% of such organizations report their security technology has a high positive overall impact, compared to 67% of other organizations. This trend also holds for the individual security outcomes measured (securing PHI, protecting against internal threats, and protecting against external threats).
EHR Data Access and Integration

**EHR Remote Access at 100%; Other Areas Lacking**

In an increasingly digital, mobile world, it is more important than ever that clinicians have ready access to relevant patient information. Providing remote access to EHR and imaging data is the first step, which nearly all participating organizations have taken. The remote-access capabilities with the largest increases in adoption since 2018 are virtual patient visits and secure texting (up 11 percentage points each). More advanced capabilities are less likely to be offered remotely—less than 50% of organizations enable remote clinician access to alerts/notifications for chronic patients and to data from implants or RFID/RTLS solutions.

**Data Integration Growing**

Because the EHR is at the center of patient care and the clinician workflow, clinicians need the EHR to provide access to high-quality patient data from all relevant sources. On average, 99% of organizations have access to clinical documents (i.e., study results, discharge instructions, nurses’ notes, operative reports) directly in their EHR. Organizations less often integrate data such as tracking of hospital-acquired infections (69%) and clinical summaries from outside organizations (81%). Collecting information from outside the health system is especially challenging—only 41% of organizations have at least 95% of summary-of-care records from referrals/care transitions input directly into the EHR.

Especially when ingested directly into the EHR, data from patient-monitoring equipment can help reduce human error and keep clinicians up to date on a patient’s condition. Organizations that integrate at least seven of the measured types of patient-monitoring data into their EHR report a 10% higher impact on outcomes. A majority of participating organizations have integrated at least one patient-monitoring data source; 5% have no such integration. For many data sources (i.e., ventilator data, intracranial monitor data, IV pump data), adoption of integration is still low.
Compared to last year, all data sources are being integrated at a higher rate. 6% more organizations report having a surveillance system, and EHR-integrated alerts from various units have increased across the board. 29% still lack a clinical surveillance system, a necessary tool for clinicians to be notified in real time about critical patient conditions, such as sepsis. Organizations that have a surveillance system integrated with their EHR most frequently send alerts to critical care units (66%) and medical-surgical units (63%).

### Types of Clinical Alerts Sent from an EHR-Integrated Surveillance System

<table>
<thead>
<tr>
<th>Alert Type</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alerts to critical care units</td>
<td>58%</td>
<td>66%</td>
</tr>
<tr>
<td>Alerts to general medical-surgical units</td>
<td>56%</td>
<td>63%</td>
</tr>
<tr>
<td>Alerts to step-down units</td>
<td>51%</td>
<td>58%</td>
</tr>
<tr>
<td>Alert data tied to present-on-admission reporting</td>
<td>27%</td>
<td>33%</td>
</tr>
<tr>
<td>No surveillance system</td>
<td>29%</td>
<td>35%</td>
</tr>
</tbody>
</table>

### Market Moving to Discrete Integration of External Data

As a whole, the healthcare industry is shifting away from consuming external data as text blobs and moving toward directly integrating data discretely into the EHR. Compared to 2018, more organizations (by 6 percentage points) can consume CCD data into their EHR as discrete data, and 98% of organizations contribute data to CCDs. The average percent of organizations that consume data from an outside entity (regardless of type) is 5 percentage points higher than in 2018. Consumption of data from outside hospitals and physician practices has risen (nearly 90% of organizations do so), though there is still significant room for improvement in data consumption from home health agencies (at 67%) and skilled nursing facilities (at 65%). Another area for improvement is payer data (currently pulled in by 70% of organizations), a critical data source for the advancement of value-based care.

### Incorporation of CCDs and CCRs from Physician-Office EHRs

<table>
<thead>
<tr>
<th>Year</th>
<th>Incorporated as discrete data elements</th>
<th>Incorporated as text blob</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 (n=495)</td>
<td>64%</td>
<td>30%</td>
<td>5%</td>
</tr>
<tr>
<td>2018 (n=618)</td>
<td>70%</td>
<td>25%</td>
<td>4%</td>
</tr>
</tbody>
</table>

### Outside Entities from Which EHR Can Consume Discrete Data

<table>
<thead>
<tr>
<th>Entity</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>External hospital system</td>
<td>85%</td>
<td>89%</td>
</tr>
<tr>
<td>External physician practice</td>
<td>82%</td>
<td>88%</td>
</tr>
<tr>
<td>Health information exchange¹</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>External laboratory¹</td>
<td>51%</td>
<td>51%</td>
</tr>
<tr>
<td>Retail pharmacy</td>
<td>76%</td>
<td>81%</td>
</tr>
<tr>
<td>Government agency</td>
<td>70%</td>
<td>77%</td>
</tr>
<tr>
<td>Insurance company/payer¹</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>Home health agency</td>
<td>60%</td>
<td>67%</td>
</tr>
<tr>
<td>Skilled nursing/chronic care facility</td>
<td>60%</td>
<td>65%</td>
</tr>
</tbody>
</table>

¹ Not measured in 2018 survey
Barriers Remain for Opioid Management

Industry focus on the opioid epidemic has only grown since 2018. Electronic patient-education programs have seen the highest increase in adoption (by 14 percentage points); on average, adoption in all other areas has grown by 11 points.

However, significant barriers remain to implementing comprehensive opioid-reduction programs. For instance, although PDMP hyperlinks can be embedded into an EHR interface, some states’ legislation prevents direct integration between the PDMP and EHR, making it both cumbersome and time-consuming for clinicians to screen for at-risk patients. Another factor is the difference in opinion as to what role clinicians should play in educating patients about opioid risks. Since less than half of respondents have electronic patient-education programs, the responsibility to educate patients often falls to already overwhelmed clinicians.

Enterprise Imaging Strategies Vary

Having a combination of enterprise imaging tools enables healthcare organizations to facilitate centralized storage, image viewing, and image exchange within and outside the organization. Though the exact solutions included in an enterprise imaging strategy varies, nearly all organizations (99%) include at least a PACS. 39% of organizations also have a VNA, a universal viewer, and image exchange, though 15% of organizations have not expanded to these other imaging technologies. Radiology images are the most common content accessed via enterprise imaging (99% of organizations provide centralized access to these images). Enterprise access to some other types of diagnostic imaging is significantly less; for example, less than 30% of organizations provide access to microscopic pathology and ophthalmology imaging.

Gaps in Patient, Staff & Asset Tracking

Patient, staff, and asset management are critical for organizations seeking to maintain and improve quality patient care and organizational sustainability. For inventory tracking and management, provider organizations leverage a variety of tools, including barcode scanning, RFID, and RTLS. 88% of respondents use barcode scanning to track medical, surgical, and blood supplies, and 73% use RFID or RTLS to monitor people and assets (i.e., staff and patient ID, movable equipment). Organizations are less likely to use auto-ID technology for tracking the location of staff/patients or for hand-hygiene compliance.
Ambulatory Findings

Almost all trends identified for acute care organizations in the previous sections also hold true in ambulatory settings. The greatest differences between the two care settings relate to patient-facing technology—patient portals, telehealth, and some aspects of population health (see below for detailed comparisons).

There are also some smaller security differences between acute and ambulatory care organizations. About 70% of both groups have a comprehensive security program, but those programs differ somewhat in composition—e.g., PKI/digital signatures are used more frequently in ambulatory settings (by 13 percentage points), and social engineering is used more frequently in acute care settings (by 12 points).

Clinical Communication Abilities Offered through Patient Portal

<table>
<thead>
<tr>
<th>Access prescription-renewal request tool</th>
<th>Acute Care (n=496)</th>
<th>Ambulatory (n=136)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatically add medical history elements to EHR</td>
<td>79%</td>
<td>94%</td>
</tr>
<tr>
<td>Access self-management tools for chronic conditions</td>
<td>64%</td>
<td>74%</td>
</tr>
<tr>
<td>Access discharge instructions</td>
<td>39%</td>
<td>64%</td>
</tr>
<tr>
<td>Access self-scheduling tools for appointments and reminders</td>
<td>89%</td>
<td>88%</td>
</tr>
<tr>
<td>Complete questionnaires that can be added directly to EHR</td>
<td>93%</td>
<td>87%</td>
</tr>
<tr>
<td>Share hospital admissions information with another provider</td>
<td>50%</td>
<td>66%</td>
</tr>
</tbody>
</table>

Note: The chart to the left only includes clinical communication abilities with notable variation between acute care and ambulatory settings. For a complete list, see page 5.

Patient Portals More Commonly Used

Because patients interact more regularly with ambulatory facilities than acute care facilities, ambulatory organizations tend to prioritize patient portal functionality differently than acute care facilities. They report higher adoption of portal functionalities overall (by an average of almost 6 percentage points) and outstrip acute care facilities most notably in adoption of prescription-renewal requests (by 17 percentage points) and self-management tools for chronic conditions (by 16 points). In a couple of areas more closely related to acute care, ambulatory organizations report less adoption.

Telehealth Deployment Higher

Compared to acute care facilities, ambulatory facilities report higher deployment of telehealth services across physician offices, post–acute care settings, and patient homes. In terms of types of services offered, ambulatory facilities are more likely than acute care facilities to offer psychiatric examinations and psychotherapy in physician offices (by 9 percentage points) and patient homes (by 8 points). However, actual patient use of telehealth is low in both settings, though slightly lower in ambulatory settings—on average, 6% of ambulatory patients have used telemedicine, compared to an average of 7.8% at acute care facilities.

Population Health Use Further Along

Ambulatory facilities are slightly more likely (by 4 percentage points) than acute care organizations to have adopted any mix of population health technology (either EHR or third-party tools). However, ambulatory facilities are also 12 times more likely to be using manual processes for population health–related activities. The activities with the biggest differences in deployment rates are tied to patient engagement.

More Organizations See High Impact from Patient Engagement

A greater percentage of ambulatory facilities report that their patient engagement tools have a high impact on outcomes—most dramatically around clinician outcomes (higher by 8 percentage points) and financial outcomes (higher by 7 points).

Impact of Patient Engagement Technologies

<table>
<thead>
<tr>
<th>Impact (1–9 scale): High (8.0–9.0)</th>
<th>Medium (6.0–7.9)</th>
<th>Low (&lt;6.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Care (n=477)</td>
<td>Ambulatory (n=131)</td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>27%</td>
<td>39%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Compared to acute care facilities, ambulatory facilities are more likely (by 4 percentage points) to use telehealth.
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 2,900 members in 56 countries and over 150 healthcare IT business partners and professional services firms, CHIME provides 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.