

General Information

Organizational Information

Please provide the following information.

Organization Name

If your organization is submitting multiple surveys, please name the group of facilities represented in this survey (example: ABC Inc. Region One; Flagship Hospitals of ABC Inc.)

Note: this name will be used for the associated report and industry recognition

Organization ID

(Provided by CHIME)

Name of parent organization/IDN (if applicable)

Street address(Organization headquarters)

City

State

Zip/Postal code

Please provide the following information regarding the CIO (system CIO if applicable):

First Name

Last Name

Phone Number

Email

If the CIO DID NOT complete the survey, please enter survey respondent information -

First Name

Last Name

Title

Phone Number

Email

Upon receiving level 7-10 recognition, marketing and promotional materials will be sent to your communications team. Please provide a primary PR contact for your organization.

First Name

Last Name

Title

Phone Number

Email

The following questions must be completed for your hospital/system to be considered for qualification as a Most Wired organization. This information is used for benchmarking and research purposes only.

Please enter the name of each **hospital** represented in this survey

Please provide the following for your hospitals...

Number of hospitals represented in this survey

Number of beds rooms regularly available (those set up and staffed for use) represented in this survey

Number of physicians at your organization

Number of other clinicians at your organization (NP, PA)

Please provide the following for your ambulatory facilities...

Number of clinics represented in this survey

Number of exam rooms regularly available (those set up and staffed for use) represented in this survey

Number of physicians at your organization

Number of other clinicians at your organization (NP, PA)

Please report the number of FTEs on the IT staff as of March 31, 2023.

Applications Staff:

Technology Staff:

Informatics/ Analytics Staff:

Innovation/ Digital/ AI Staff:

HIM:

BioMed:

Administrative:

Outsourced:

Other:

Total number of organization employees:

Finance Information

(Please use whole numbers and local currency)

What is your organization's total gross revenue (net patient revenue + other income)?

What is your organization's total IT expenses?

What is your organization's total operating expense?

What is your organization's total capital expense?

Select your primary EHR in use at your hospital.

Altera Digital Health

Athena

Cerner

Epic

Meditech

Other

Select your primary EHR in use at your ambulatory facilities.

Altera Digital Health

Athena

Cerner

eClinicanalWorks

Epic

Meditech

NextGen

Other

Infrastructure

(PDF-001) Which of the following methods does your organization use to monitor your IT systems?

(Check all that apply)

- A. Automated tools to escalate problems to highly skilled technicians (Level 2 or 3) based on category and type
- B. Dashboard to manage infrastructure by exceptions/anomalies
- C. Log collection automation
- D. Utilize pattern detection against automated login attempts
- E. Gather and trend data to mitigate potential issues before they occur
- F. Perform and escalate on system log exceptions/errors
- G. Utilize tools such as user behavior analytics or user/entity behavior analytics (UBA/UEBA)

(PDF-002) Which of the following wireless applications and/or technologies does your organization(s) support?

(Check all that apply)

- A. Cellular connectivity throughout premises
- B. RFID/RTLS Locator System
- C. Wander Management/Patient Elopement/Infant Abduction (Acute)
- D. Telemetry over Internet Protocol (TMoIP)
- E. Video monitoring
- F. Patient wearables integrated with the EHR
- G. Wireless VoIP
- H. Telehealth for clinicians

(PDF-003) Which of the following technologies does your organization utilize to improve caregiver workflow?

(Check all that apply)

- A. Patient context management between applications
- B. Single sign-on—biometrics
- C. Single sign-on—proximity systems (tap-n-go)
- D. Roaming virtual desktop sessions (Virtual Desktop Infrastructure)
- E. Traveling profiles
- F. Mobile POC devices
- G. Mobile voice recognition for clinician notes, order entry, etc.
- H. Voice assistants/activated devices (e.g., Amazon Echo Dot, Google Nest, etc.) to streamline some patient/exam room tasks
- I. Remote published applications

(PDF-004) Which of the following types of employee-owned devices are your clinical staff allowed to use in the care of your patients?

(Check all that apply)

- A. Laptops/Tablets
- B. Smartphones/Smartwatches (to include embedded voice activated functionalities)
- C. Voice assistants/activated devices (e.g., Amazon Echo Dot, Google Nest, etc.)

(PDF-005) Which of the following elements are included in your organization's bring-your-own-device (BYOD) policy? (Check all that apply)

Key definitions: Scope, purpose, and governance structure of the BYOD program, along with the definition of important terms used in the policy.

Service provision: Specifies the process of enrollment, registration, and deregistration.

Access control: Defines who will have access to what information and when. This is particularly important for personal health information, where the principle of least privileges must be applied. Only the required information must be supplied and only when needed, especially when it comes to patient data.

Data storage: Specifies what patient data are allowed to be stored on BYOD devices and how. If backup is involved, the policy should also advocate for separate backup of personal and patient data.

Incident reporting: Defines the procedure for reporting cases of breaches, including cases of theft/loss of device. Employees must report such cases to the IT department, especially if patient data are involved, and the IT department must report it to government agencies in case of major breaches.

Legislation and noncompliance: Defines applicable privacy or health care laws as well as actions or penalties in case of noncompliance with the policy or in case of breaches caused by employee's personal devices.

Education strategy: Strategies to train employees periodically to ensure secure user behavior. BYOD users should be constantly updated about latest cybersecurity threats. Policies should be disseminated through all means possible. Changes in policies should also be communicated.

Acceptable use: States the purposes for which BYOD devices could be used, whether clinical or nonclinical, and by whom. It defines reasonable use and prohibited activities.

Not applicable: Our organization does not allow employees to use their own devices while at work and/or in the care of our patients.

- A. Key definitions
- B. Service provision
- C. Access control
- D. Data storage
- E. Incident reporting
- F. Legislation and noncompliance
- G. Education strategy
- H. Acceptable use
- I. Not applicable

(PDF-006) How quickly can your organization restore mission critical operations should a disaster cause the complete loss of your organization’s primary data center?

(Check one per row)

	<4 hrs.	4 - 24 hrs.	1 – 3 days	4 – 7 days	>1 Week	Don't Know
A. Clinical information systems (EHR, lab, radiology)						
B. Administrative systems (Financial, Human Resources and Supply Chain)						
C. Network and phone systems						
D. Employee access and communication systems (Active directory, email, messaging)						

(PDF-007) Which of the following communication equipment and services could your staff potentially use in the event of an emergency?

(Check all that apply)

- A. Fixed line network
- B. First Responder Network
- C. Satellite phone, VSAT, MSAT and other satellite communications
- D. Government Emergency Telephone Service (GETS) cards
- E. Prioritized wireless communication (Wireless Priority Service or Telecommunication Service Priority)
- F. Crisis communications platform

(PDF-008) How often does your organization conduct a regularly scheduled inventory audit of the following?

(Check one per row)

	At least every 6 months	Annually	No Regularly Scheduled Audits	Don't Know
A. Software licenses				
B. Software programs/apps used by clinical staff				
C. Software programs/apps used by non-clinical staff				

Security

(PDF-009) Whom on your executive team is primarily responsible for leading information security in your organization?

(Check one)

- A. CISO, Vice President of Information Security or other similar security related title in your executive suite
- B. CIO
- C. An executive other than a CISO or CIO (e.g., CFO; COO)
- D. We outsource this function (e.g., external security leader/vendor)
- E. A non-executive team member (e.g., Director of Security)
- F. No security leader

(PDF-010) How often does your organization's formally chartered cybersecurity governance, risk and/or compliance committee meet?

(Check one)

- A. Weekly
- B. Monthly
- C. Quarterly
- D. Every 6 Months
- E. Annually
- F. As requested (no regular cadence)
- G. We do not have a formally chartered cybersecurity governance, risk and compliance committee

(PDF-011) How often do the following groups receive a formal report regarding your organization's information security efforts?

(Check one per row)

	At Least Weekly	Monthly	Quarterly	Every 6 Months	Less than Annually	Annually /As Requested
A. Board of trustees, or committee of the board						
B. Executive leadership / executive governance						
C. IT leadership						

(PDF-012) How often are the results of the following reported to your organization's executive team? (Check one per row)

	At Least Weekly	Monthly	Quarterly	Every 6 Months	Less than Annually	Annually /As Requested
A. Progress on security enhancements						
B. Gaps or continuing deficiencies						

(PDF-013) How often are the following components of your risk management program reviewed (and updated when deemed necessary)?

(Check one per row; Leave blank if not applicable)

IDENTIFICATION OF...

	At Least Weekly	Monthly	Quarterly	Every 6 Months	Less than Annually	Annually /As Requested
A. Risks						
B. Who is responsible for managing/mitigating those risks						
C. Contingency/mitigation plans						
D. Risk level/ranking						

DETECTION OF...

	At least Weekly	Monthly	Quarterly	Every 6 Months	Annually	More than 12 months
E. Threats						
F. Vulnerabilities						

PROTECTION BY...

	At least Every 6 Months	Annually	More than 12 months
G. Mitigation (people, process, technology)			
H. Training and education			

RESPONDING THROUGH...

	At least Every 6 Months	Annually	More than 12 months
I. Notification processes			
J. Mitigation processes			
K. Initiation of response, recovery and contingency plans			

RECOVERY BY...

	At least Every 6 Months	Annually	More than 12 months
L. Incorporation lessons learned into all areas after an exercise or incident			

(PDF-014) Which of the following information security frameworks does your organization use to guide your information security program?

(Check all that apply)

- A. NIST Cybersecurity Framework
- B. 405(d) Health Industry Cybersecurity Practices (HCIP) (US Only)
- C. HITRUST
- D. ISO 27000 series
- E. COBIT
- F. Center for Internet Security (CIS) Critical Security Controls

(PDF-015) Which of the following information sharing and analysis organizations does your organization participate with to identify cybersecurity threats and vulnerabilities?

(Check all that apply)

- A. Cyber Information Sharing and Collaboration Program (CISCP): DHS's program for public-private information sharing (US Only)
- B. Health Information Trust Alliance (HITRUST) (US Only)
- C. Informal sharing in HIT user groups
- D. Informal sharing in professional society
- E. Health Information Sharing and Analysis Center (H-ISAC) (US Only)
- F. State industry associations (e.g., hospital/nursing home association) (US Only)
- G. Department of Homeland Security/CISA (US Only)
- H. National Cybersecurity & Communication Integration Center (NCCIC) (US Only)
- I. Health Cybersecurity & Communication Integration Center (HC3) (US Only)
- J. Private Information Sharing and analysis organizations
- K. Government Information Sharing and analysis organization (International)

(PDF-016) How often does your organization conduct each of the following?

(Check one per row; Leave blank if not conducted)

A. Assessments

	Weekly	Monthly	Quarterly	Every 6 Months	Less than Annually	Annually /As Requested
A. An inventory of all 3 rd parties/ business vendors						
B. The ranking of business vendors based on the potential risk they pose your organization						
C. An evaluation of high-risk vendors						
D. An assessment of sub-contractors used by our business vendors						

B. Audits/tests

	Weekly	Monthly	Quarterly	Every 6 Months	Annually	More than 12 months
E. Unannounced vulnerability scans						
F. Unannounced wireless penetration tests						
G. System/application access audits						

c. Exercises

	Weekly	Monthly	Quarterly	Every 6 Months	Annually	More than 12 months
H. IT/Security						
I. Red/Blue Team Exercises						
J. Enterprise						
K. Tabletop exercises or drills						

(PDF-017) Does your organization use the services of a 3rd party to conduct the following assessments? (Check one per row)

	Yes – At least annually	Yes – Every two years	Yes – But not on a regular basis	No
A. Risk (identify compliance gaps and security vulnerabilities)				
B. Cybersecurity Maturity				

(PDF-018) Which of the following types of security authentication measures does your organization currently use to authenticate/manage authorized users?

(Check all that apply)

- A. Knowledge-based authentication measures (passwords)
- B. Possession-based authentication measures (something the user has like a one-time password sent to the user's cell phone; USB keys)
- C. Inherence-based authentication measures (biometrics)
- D. Location-based authentication measures (geolocation security checks)
- E. Behavior-based authentication measures (picture selection)
- F. Multi-factor authentication

(PDF-019) Which of the following security controls does your organization currently use to authenticate/manage devices accessing your network?

(Check all that apply)

- A. Control inventory of **non-medical devices** authorized to access our network
- B. Control inventory of **medical devices** authorized to access our network
- C. Control inventory of **mobile devices** authorized to access our network
- D. Inventory personal devices accessing our network
- E. Approve devices accessing our network
- F. Monitor devices accessing our network

G. Approve users accessing specific device

(PDF-020) Which of the following capabilities has your organization implemented and used as part of your organization's security processes?

(Check all that apply)

A. Technical security capabilities

- A. Encryption
- B. Data loss prevention (DLP)
- C. Intrusion prevention or detection systems (IPS, IDS)
- D. Security Information and Event Management (SIEM) system
- E. Next generation endpoint protection systems; EDR (Endpoint Detection and Response), XDR (Extended Detection and Response), EPP (Endpoint Protection Platform)
- F. Network segmentation
- G. Network monitoring and analytics
- H. Cloud access security broker (CASB)

B. Data protection capabilities

- A. Database monitoring
- B. Privacy monitoring/auditing systems (end-user behavior analytics)
- C. Basic spam/phishing protection (signatures, digests, spam blacklists, etc.)

C. Process control capabilities

- A. Log management
- B. Governance, risk, and compliance (GRC) systems
- C. Vulnerability management

(PDF-021) Which of the following security processes does your organization currently use to safeguard information?

(Check all that apply)

- A. Encryption at rest (device encryption)
- B. Encryption in motion (data sent outside an organization's firewall)
- C. Medical device password/access controls
- D. Consumption of threat intelligence information from other organizations (ISAC, ISAO, DHS, etc.)
- E. Procurement/contracting with security firm including vendor risk assessment
- F. Segmentation of medical devices on specialized network segments
- G. 24/7/365 Security operations center (insourced, outsourced, hybrid)
- H. Data classification
- I. Secure system baseline images
- J. Privilege access management

(PDF-022) Which of the following cybersecurity related insurance coverages does your organization currently carry?

(Check all that apply)

- A. Cyber liability
- B. Data breach
- C. Crime insurance coverage
- D. Business loss
- E. Network security and privacy
- F. Media liability (coverage for intellectual property infringement resulting from the online advertising of an organization's services, to include social media posts)
- G. Natural disaster
- H. We are self-insured
- I. Not applicable to our health system (International)

Administrative and Supply Chain

(PDF-023) Select the method best describing how your organization completes the majority of the following pharmacy supply activities.

(Check one per row)

- **Automated:** More than 50% of the activities are handled via electronic interfaces with appropriate internal controls (e.g., EDI, API integration, web)
- **Semi-automated:** More than 50% of activities are handled via electronic transaction (data keyed in), electronic tracking systems, and electronic usage reports
- **Manual:** More than 50% of activities are handled by telephone or fax

Pharmacy Supply Activity	Automated	Semi-Automated	Manual/Phone/Fax
A. Check Product price/Contract Price			
B. Check product availability			
C. Process Purchase Requisition			
D. Process Purchase order			
E. Check order Status/routing			
F. Received Order/Check-in			
G. Receive Invoice			
H. Pay Invoice			

(PDF-024) What percentage of your pharmaceutical supply orders are electronically generated once they reach a predetermined par level?

(Check one)

- A. 81-100%
- B. 61-80%
- C. 41-60%
- D. 21-40%
- E. 1-20%
- F. None

(PDF-025) Select the method best describing how your organization completes the majority of the following medical/surgical supply activities.

(Check one per row)

- **Automated:** More than 50% of the activities are automated via electronic interfaces with appropriate internal controls (e.g., EDI, API integration, web)
- **Semi-automated:** More than 50% of activities are handled via electronic transaction (data keyed in), electronic tracking systems, and electronic usage reports
- **Manual:** More than 50% of activities are handled by telephone or fax

Medical/Surgical Supply Activity	Automated	Semi-Automated	Manual/Phone/Fax
A. Check Product price/contract price			
B. Check Product availability			
C. Process Purchase Requisition			
D. Process Purchase order			
E. Check order status/routing			
F. Receive Order/Check-in			
G. Receive Invoice			
H. Pay Invoice			

(PDF-026) What percentage of medical/surgical supply orders are electronically generated once they reach a predetermined par level?

(Check one.)

- A. 81-100%
- B. 61-80%
- C. 41-60%
- D. 21-40%
- E. 1-20%
- F. None

(PDF-027) Which of the following deliverables does your organization’s revenue-cycle and contracts-management application offer:

(Check all that apply)

- A. Aggregation and measurement of cost of care across settings
- B. Aggregation of charges to form bundles and episodes, with the aggregation logic enabling different groupings for different payers
- C. Managing the distribution of bundled payments to the clinicians, care sites (e.g., hospitals) where care was delivered
- D. Provision of tools for retrospective analysis of clinical and administrative data (e.g., to identify areas for improving the quality of care and/or reducing the cost of care delivered)
- E. Reconciliation of charges and patient accounts to a monthly premium payment, billing co-payments and noncovered charges according to insurance agreements.
- F. Real-time patient identification and tracking for value-based care conditions (e.g., COPD)
- G. Estimates of out-of-pocket expenses for patients

(PDF-028) What percentage of the following payer-related activities are accomplished using automated electronic routines and/or software? (US Only)

(Check one per row; leave blank if not applicable)

	100%	90-99%	50-90%	<50%	0%
A. Claims Status Inquiry					
B. Claims Submission					
C. Electronic Funds Transfer					
D. Eligibility Inquiry					
E. Pre-certification					
F. Referral and authorization					
G. Remittance Advice					
H. Clinical documentation attachments					
I. Address Verification					
J. Charge and order matching					
K. Charge Capture Reconciliation					
L. Contract Management					
M. Denial management					
N. Medical necessity criteria checks					
O. Physician-performance comparisons					

(PDF-029) Which of the following settings in your organization use a bed/exam room tracking or patient-flow software system (Note: bed tracking/patient-logistics management may be functionality included within your electronic health record)?

(Check all that apply)

- A. Integrated patient logistics system (includes patient status, pending orders, critical lab results and room availability for the entire enterprise)
- B. RFID/RTLS patient location system integrated into the bed-tracking system to automate patient movement (Acute)
- C. Tracking system for emergency department beds (Acute)
- D. Tracking system for observation beds (Acute)
- E. Tracking system for in-patient beds (Acute)
- F. Tracking system for ICU beds (Acute)
- G. Transfer center
- H. Tracking system for exam rooms (Ambulatory)

(PDF-030) Which of the following management tools are available electronically/online to employees throughout your organization?

(Check all that apply)

- A. Self-scheduling of open shifts
- B. Enterprise HR management system or online HR manager portal
- C. Performance-improvement scorecards (organizational improvement)
- D. Goal Management System (employee goals)
- E. Real-time operational budget versus expense monitoring, financial modeling, and budget forecasting
- F. Recruitment/onboarding tools
- G. Benefits/compensation tools
- H. Learning management system
- I. Workforce management tool (productivity and cost trends)
- J. Shift swapping

(PDF-031) Which of the following types of computer-based clinical education offerings do you provide to clinicians in your organization?

(Check all that apply)

- A. Privacy Training
- B. Information Security Training
- C. EHR Training
- D. CPOE Training
- E. Data Analytics Training
- F. Voice Recognition Software Training
- G. Sharing Best Practices for Patient Safety

Analytics and Data Management

(PDF-032) Whom on your executive team is primarily responsible for leading your organization's analytics and data management efforts? NEW QUESTION

(Check one)

- A. Chief Data Officer (CDO), Chief Analytics Officer (CAO) or similarly titled role
- B. CIO
- C. Other executive (e.g., CFO; COO)
- D. A non-executive team member (e.g., Director of Analytics)
- E. We outsource this function (external data/analytics leader/vendor)
- F. No data/analytics leader

(PDF-033) Which of the following best describe the management of data analytics and staffing in your organization? NEW QUESTION

(Check one)

- A. Across the whole organization, both analytics staff and data management are centralized in one unit
- B. Analytics staff are spread across multiple units and data management for the whole organization is through one unit
- C. Analytics staff for the whole organization are centralized and data management capabilities are spread across multiple units
- D. Across the whole organization, both analytics staff and data management are decentralized and spread across multiple units
- E. We don't have a purposeful approach to managing analytics staff or a data management strategy

(PDF-034) Which of the following data storage/analytics applications models does your organization use?

(Check all that apply)

- A. Clinical systems on cloud services
- B. Non-clinical systems on cloud services
- C. Data as a service (DaaS)
- D. Infrastructure as a service (IaaS)
- E. Analytics solutions are on cloud services
- F. Analytics solutions are on-premise
- G. Storage virtualization
- H. Redundant data center (Off-site backup)

(PDF-035) Which of the following data sources send data to your organization’s Enterprise Data Warehouse and/or Operational Data Store? NEW QUESTION

(Check all that apply)

- A. Clinical/EHR platform(s)
- B. Revenue cycle management (US Only)
- C. Supply chain management/ERP
- D. CRM (US Only)
- E. Patient monitor (near) real time data capture
- F. Artificial Intelligence/Machine Learning solutions
- G. Population health tools

(PDF-036) Which of the following areas in your organization leverage technology to automatically review patient data in your EHR and alert caregivers when their patients are out of compliance with key quality indicators (e.g. CMS’ Core Quality Measures)?

(Check one per row)

- A. At discharge/checkout
- B. On the med-surg floor (Acute)
- C. In the critical care area (Acute)
- D. In the emergency department (Acute)
- E. In the physician’s office/clinic (Ambulatory)

(PDF-037) How does your organization deliver the following data to your organization’s clinical and operational personnel (leaders and individual clinicians)?

(Check all that apply)

- **Automated real-time dashboards:** Presents context sensitive [transformed] data insights immediately when time is of the essence, for shared or individual consumption with limited ability to manipulate; constantly updated.
- **On-demand self-service dashboards and reporting:** Visualization tools that offer standard views and ability to explore other views and reports to meet the needs of clinical and operational areas.
- **Personal Data Visualization tools:** Offer the ability to re-structure queries and “drill-down” into the core data marts, filter information by a variety of parameters (date/time, patient, provider, disease, payer, etc.) on the fly.
- **After the fact reporting:** Reports in various forms (PDF, spreadsheet, .RPT, etc...) delivered retrospectively (nightly/daily/weekly/quarterly) to shared drive(s), via e-mail, via portal(s), or other non-interactive platforms.

	Automated real-time Dashboards	On-demand self-service dashboards and reporting	Personal Data Visualization Tools	After the Fact Reporting
A. Clinical quality metrics				
B. Clinician productivity metrics				
C. Patient volume metrics				
D. EHR utilization/ performance data				

E. Population health metrics				
F. Patient engagement/ satisfaction metrics				
G. Social Determinants of Health (SDoH) metrics				
H. Human Resources, staff availability, staff need, metrics				
I. Critical supplies/pharmaceutical metrics				
J. Safety data/metrics				
K. Patient throughput/Length of stay (LOS)				
L. Operating Room utilization, capacity metrics (Acute)				

(PDF-038) How would you characterize the utilization of data analytics to support the following business functions in your organization?

(Check one per row)

	Used Extensively	Used but not Extensively/Limited Use	Not Used
A. Setting enterprise strategy/driving transformation			
B. Patient care, care paths, and/or other clinical purposes			
C. Operational decision making			
D. Value-based care management (US Only)			
E. Safety and Quality			
F. Population health			
G. Marketing and promotion (US Only)			
H. Supply and supply chain decisions			
I. Finance and budgeting			
J. Facilities and building management			

(PDF-039) How would you characterize the adoption of Machine Learning in each of the following business functions in your organization?

- **Machine Learning:** Process of developing algorithms that can improve automatically through experience and by the use of data; it is seen as a building block of artificial intelligence.
- **Fully Adopted:** A condition where the technology/solution has been implemented organization wide and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
- **Partially Adopted:** A condition where the technology/solution has been implemented in at least one area of the organization but not organization wide, or the technology/solution has been implemented organization wide but the relevant users are not utilizing the technology/solution as intended per industry expectations and/or organizational policy.
- **Not Adopted:** A condition where the organization has not yet implemented the technology/solution in at least one area of the organization and has no intention of implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

(Check one per row)

	Fully Adopted	Partially Adopted	Not Adopted
A. Clinical workflows			
B. Revenue cycle management (US Only)			
C. Supply chain management/ERP			
D. Patient Engagement/CRM (US Only)			
E. Population Health			
F. Human Resources/Recruitment/Scheduling			

(PDF-040) How would you characterize the adoption of Predictive Analytics in each of the following business functions in your organization?

- **Predictive Analytics:** A variety of statistical techniques from data mining, predictive modelling, and machine learning that analyze current and historical facts to make predictions about future or otherwise unknown events.
- **Fully Adopted:** A condition where the technology/solution has been implemented organization wide and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
- **Partially Adopted:** A condition where the technology/solution has been implemented in at least one area of the organization but not organization wide, or the technology/solution has been implemented organization wide but the relevant users are not utilizing the technology/solution as intended per industry expectations and/or organizational policy.
- **Not Adopted:** A condition where the organization has not yet implemented the technology/solution in at least one area of the organization and has no intention of implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

(Check one per row)

	Fully Adopted	Partially Adopted	Not Adopted
A. Clinical workflows			
B. Revenue cycle management (US Only)			
C. Supply chain management/ERP			
D. CRM/Patient Engagement (US Only)			
E. Population Health			
F. Human Resources/Recruitment/Scheduling			

(PDF-041) How would you characterize the adoption of Artificial Intelligence in each of the following business functions in your organization?

- **Artificial Intelligence:** A system that may utilize machine learning and predictive analytics to assess a situation and either recommend or take actions that maximize chances of success/positive outcomes.
- **Fully Adopted:** A condition where the technology/solution has been implemented organization wide and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
- **Partially Adopted:** A condition where the technology/solution has been implemented in at least one area of the organization but not organization wide, or the technology/solution has been implemented organization wide but the relevant users are not utilizing the technology/solution as intended per industry expectations and/or organizational policy.
- **Not Adopted:** A condition where the organization has not yet implemented the technology/solution in at least one area of the organization and has no intention of implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

(Check one per row)

	Fully Adopted	Partially Adopted	Not Adopted
A. Clinical workflows			
B. Revenue cycle management (US Only)			
C. Supply chain management/ERP			
D. CRM/Patient Engagement (US Only)			
G. Population Health			
H. Human Resources/Recruitment/Scheduling			

(PDF-042) Which of the following best describe the scope of your organization's data governance program? NEW QUESTION

(Check all that apply)

- Data governance spans from the Board room to the front lines with regular meetings at all levels. Data governance has clear leadership and an articulated strategy.
- The Executive suite and some Chiefs are involved in data governance. The strategy is clear but fluid.
- Data governance is managed at the VP and/or Chief Data Officer level. The strategy is evolving and dynamic.
- Data governance is handled by the CIO and/or IT. The strategy is more technical than strategic.
- Limited data governance with the focus on applications or solutions.
- No data governance efforts at this time; defaulting to vendor approaches and recommendations when required.

(PDF-043) How often does your organization's Data Governance committee meet?

(Check one)

- A. Weekly
- B. Monthly
- C. Quarterly
- D. Every 6 Months
- E. Annually
- F. As requested (no regular cadence)
- G. We do not have a data governance committee

(PDF-044) How often do the following groups engage in your organization's data governance efforts?

(Check one per row)

	At least Monthly	Quarterly	Every 6 Months	Les than Annually	Annually/As requested
A. Board of trustees, or committee of the board					
B. Executive leadership / executive governance					
C. Chief Medical Information Officer or similar role					
D. Clinical staff and leadership					
E. IT leadership					
F. Analytics and data management leadership					
G. Front lines staff and data leaders					

(PDF-045) Which of the following are reflective of your organization's data governance effort?

NEW QUESTION

- **Data Literacy Program:** An effort designed to assist data analysts/scientists in reading, writing and communicating data in context

(Check all that apply)

- A. Governance is in place overseeing data from all systems of record at the enterprise level
- B. Governance is in place for our critical and primary systems of record
- C. Governance is in place for our analytics and data management platforms and solutions
- D. Governance is in place supporting data and analytics presentation, reporting, and dashboard solutions
- E. Governance is in place supporting a data literacy program
- F. Governance is in place supporting Artificial Intelligence / Machine Learning
- G. Governance is in place supporting data access, privacy, and security of data
- H. Data governance leverages dedicated software
- I. Data governance engages in and supports Master Data Management solutions
- J. Data governance is in place supporting a [technical] analytics solution architecture and infrastructure strategy
- K. Data governance is in place overseeing an analytics program strategy

Interoperability and Population Health

(PDF-046) Which of the following types of healthcare entities external to your organization can your organization’s EHR successfully send discrete patient data electronically to (and for the receiving entity to claim they can incorporate the data into their patient record system)? (Check one per row)

	Yes	No	Not Applicable to our Patient Population
A. Hospital/hospital system			
B. Physician practice			
C. Home health agency			
D. Long-Term/Post-Acute Care facility (Skilled nursing facility, Rehab/extended/chronic care facility)			
E. Retail pharmacy			
F. Government data/records such as immunizations, death records, syndromic surveillance			
G. Laboratories			
H. Health information exchange (HIE)			
I. Insurance companies/payers			
J. Emergency Ambulance agency			
K. Urgent care/Freestanding Emergency centers			
L. Referral networks (US Only)			
M. Community Partners (patient advocacy orgs, behavioral health providers, community orgs.) (US Only)			

(PDF-047) Which of the following types of healthcare entities external to your organization can your organization’s EHR successfully receive discrete electronic patient data from (and incorporate their data into your organization's patient record system)? (Check one per row)

	Yes	No	Not Applicable to our Patient Population
A. Hospital/hospital system			
B. Physician practice			
C. Home health agency			
D. Long-Term/Post-Acute Care facility (Skilled nursing facility, Rehab/extended/chronic care facility)			
E. Retail pharmacy			
F. Government data/records such as immunizations, death records, syndromic surveillance			
G. Laboratories			
H. Health information exchange (HIE)			

I. Insurance companies/payers			
J. Emergency Ambulance agency			
K. Urgent care/Freestanding Emergency centers			
L. Referral networks (US Only)			
M. Community Partners (patient advocacy orgs, behavioral health providers, community orgs. (US Only)			

(PDF-048) For transitions of care and referrals involving automated electronic processes, please indicate the percentage of cases in which your organization provides a summary care record...:

(Check one per row)

	100%	90-99%	50-89%	<50%	0%
A. Directly from your EHR					
B. From an HIE					

(PDF-049) How would you characterize your organization's adoption of an electronic disease registry(s) to identify and manage gaps in care across a population?

- **Fully Adopted:** A condition where the technology/solution has been implemented organization wide and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
- **Partially Adopted:** A condition where the technology/solution has been implemented in at least one area of the organization but not organization wide, or the technology/solution has been implemented organization wide but the relevant users are not utilizing the technology/solution as intended per industry expectations and/or organizational policy.
- **Not Adopted:** A condition where the organization has not yet implemented the technology/solution in at least one area of the organization and has no intention of implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

- A. Fully adopted
- B. Partially adopted
- C. Not adopted

(PDF-050) How would you describe your organization’s use of the following data sources in contributing data electronically to disease registries?

(Check one per row)

	Contributes data to disease registry and registry data is accessible at the point of care	Contributes data to disease registry but registry data not accessible at the point of care	Does not contribute data to disease registry
A. Clinician-reported data			
B. Patient-reported data/patient-generated data			
C. Electronic health records (EHRs)			
D. Ancillary clinical information systems			
E. Clinical data warehouses (CDWs) or integrated data repositories (IDRs)			
F. Administrative (claims) databases			

(PDF-051) How would you characterize the adoption of technology in your organization to track the management of your chronic-care patients?

- **Fully Adopted:** A condition where the technology/solution has been implemented organization wide and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
- **Partially Adopted:** A condition where the technology/solution has been implemented in at least one area of the organization but not organization wide, or the technology/solution has been implemented organization wide but the relevant users are not utilizing the technology/solution as intended per industry expectations and/or organizational policy.
- **Not Adopted:** A condition where the organization has not yet implemented the technology/solution in at least one area of the organization and has no intention of implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

- A. Fully adopted
- B. Partially adopted
- C. Not supported
- D. Not Applicable to our Patient Population

(PDF-052) For each of the following conditions, which electronic-based chronic and/or care disease management services do you provide to patients “outside the walls” of your facility? Include only fully implemented programs (not pilots) for relevant patient population.

(Check all that apply)

	Self-test results entered manually online	Self-test results submitted using internet-enabled monitoring device	Medication management/compliance using secure e-mail	Real-time care management	Care management data integrated with EHR	Not Applicable to our Patient Population
A. Asthma						
B. Behavioral health						
C. Cancer						
D. Chronic obstructive pulmonary disease						
E. Congestive heart failure						
F. Dementia (e.g., Alzheimer's)						
G. Diabetes						
H. End stage renal disease (ESRD)						
I. Heart disease						
J. Hypertension						
K. Obesity						
L. Sickle cell anemia						

(PDF-053) Which technologies does your organization use in addressing the following population health activities?

(Check one per row)

A. Data aggregation:

Activities	EMR	3 rd Party Solution	Home Grown Solution	Not Applicable
A. Compilation of a longitudinal patient record to include clinical, claims, and care-management data				
B. Creation of a reliable master patient index (to include duplicate record merging/deletion)				
C. Aggregation of other data sources (social determinants of health, genomics, imaging data, etc.)				

B. Data analysis:

Activities	EMR	3 rd Party Solution	Home Grown Solution	Not Applicable
A. Stratify patients according to risk				

B. Tailored advanced predictive/prescriptive analytics (i.e. AI, machine learning)				
C. Ability to identify and tag patient groups to develop internal registries				
D. Prioritized Worklist				

C. Care management:

Activities	EMR	3 rd Party Solution	Home Grown Solution	Not Applicable
A. Identify gaps in care				
B. Empower care management workflow with data-driven intelligence				
C. Chronic disease management				
D. Use of social care networks for Social Determinants of Health (SDoH) referrals to community organizations				

D. Administrative and financial reporting:

Activities	EMR	3 rd Party Solution	Home Grown Solution	Not Applicable
A. Financial performance tracking under risk-based contracts (US Only)				
B. Total cost of care analytics (US Only)				
C. Network utilization tracking and network optimization analysis (e.g., leakage and steering)				
D. Tool to monitor care management performance				

E. Patient engagement:

Activities	EMR	3 rd Party Solution	Home Grown Solution	Not Applicable
A. Target patients for outreach				
B. Secure messaging between patient, care-providers and care-managers				
C. Full CRM that includes integrated patient portal, outreach, education, and satisfaction (US Only)				

F. Clinician engagement:

Activities	EMR	3 rd Party Solution	Home Grown Solution	Not Applicable
A. Ability to track clinician usage of population health tools and activities				
B. Quality measures and analytics at the physician level (e.g., MIPS, MACRA, etc.)				
C. Prioritized guidance on patient care-gaps and statuses				

(PDF-054) Which of the following care coordination activities involving your clinical partners are performed leveraging information technologies?

(Check all that apply)

- A. Manage care transitions
- B. Build linkages to community-based resources
- C. Coordinate and monitor exchanges of information with specialists and other facilities
- D. Use call center to support care coordination
- E. Secure messaging with patients and health professionals
- F. Electronic medication and diagnostic ordering/management
- G. Consult/referral management and follow-up communications with electronic authorizations
- H. Wellness and prevention

Patient Engagement

(PDF-055) Whom on your executive team is primarily responsible for leading your organization's patient engagement/experience efforts?

(Check one)

- A. Chief Experience Officer, Vice President of Patient Experience or similarly titled role in your executive suite
- B. An executive other than a Chief Experience Officer (e.g., CFO; COO; CIO)
- C. A non-executive team member (e.g., Director of Patient Engagement/Experience)
- D. We outsource this function (external leader/vendor)
- E. No patient engagement/experience leader

(PDF-056) Which of the following capabilities are available to patients through your organization's web site or patient portal?

(Check all that apply)

- A. Test results
- B. Discharge/checkout instructions
- C. OpenNotes (progress notes, H&P, discharge summary, operative notes)
- D. Self-management tools for chronic conditions
- E. Immunization records
- F. Wayfinding via wireless guidance
- G. Parking assistance and payments
- H. Secure messaging with provider/care team
- I. Provide medical history elements that can be directly included in EHR
- J. Asynchronous provider visits
- K. Complete questionnaires that can be directly included into EHR
- L. Transmission of information about a hospital admission to another care provider
- M. Access patient specific education
- N. Access patient specific education in non-English language(s)
- O. Access family (or care team) education
- P. Access family (or care team) education in non-English language(s)
- Q. Prescription renewal request tool
- R. Bill payment/ bill status check
- S. Symptom checker
- T. Ability to update insurance information (US Only)
- U. Access to electronic copy of medical record
- V. Ability to share electronic copy of medical record with external organizations (US Only)
- W. Ability to create and/or edit a personal health record
- X. List of procedures/services and associated price (US Only)
- Y. Comparison of prices based on insurance network (US Only)
- Z. Comparison of prices based on insurance plan/types (US Only)

- AA. Comparison of prices based on region (US Only)
- BB. Filter and compare price information based on types of procedures/services (US Only)
- CC. Filter and compare price information based on clinician (Ambulatory) (US Only)
- DD. Provide definitions of key terms related to pricing, insurance, and/or service types (US Only)
- EE. Ability to estimate patients' cost burden based on insurance type without human intervention (US Only)
- FF. Provide access to education regarding services listed, price estimates, patient estimates, co-pays etc. (US Only)
- GG. Access to patient gifting/fundraising tools that integrates patient bills with social media to help with healthcare fundraising efforts and transparency (US Only)
- HH. Filter and compare price information based on hospitals/health systems (Acute) (US Only)
- II. Visit summary (Ambulatory)
- JJ. Self-check-in (Ambulatory)
- KK. Appointment self-scheduling tool (Ambulatory)
- LL. Appointment reminders (Ambulatory)
- MM. Family/caregiver collaboration tools
- NN. Transportation arrangement

(PDF-057) Which of the following services designed to empower patients and their families outside of your facility setting does your organization support via electronic tools? Please do not include pilots. All services/capabilities should be fully deployed HIT based products and services.

(Check all that apply)

- A. Orienting patients and families to the care environment
- B. Introduce the patient and family to the services that will be delivered
- C. Review the education and other materials provided to the patient and family during a visit
- D. Where applicable, exchange secure e-mails with their care team members
- E. Continue the care pathway that was initiated prior to or during the clinical encounter
- F. Use videos to educate patient and family about procedures
- G. Use videos to educate patient and family about medications
- H. Use videos to educate patient and family about lab tests and results when available
- I. Participate in virtual patient visits (clinician and patient)
- J. Email appointment reminders
- K. Participate in virtual visits (patient and family)
- L. Remote patient monitoring
- M. Self-scheduling (Ambulatory)
- N. Automated check-in on arrival/self-check-in (Ambulatory)
- O. Wayfinding via wireless guidance

(PDF-058) Which of the following services designed to empower patients and their families inside of your facility setting does your organization support via electronic tools? Please do not include pilots. All services/capabilities should be fully deployed HIT based products and services. (Check all that apply)

- A. Complete patient satisfaction/feedback surveys
- B. Recognize staff who have performed above satisfaction
- C. Use videos to educate patient and family about procedures
- D. Use videos to educate patient and family about medications
- E. Use videos to educate patient and family about lab tests and results when available
- F. View health education videos
- G. Staff video introductions
- H. Voice assistants/activated devices (e.g., Amazon Echo Dot, Google Nest, etc.) to streamline some patient/exam room tasks
- I. Control the environment such as reporting problems that are not clinical in nature such as room temperature (Acute)
- J. Order meals and snacks subject to dietary restrictions (Acute)
- K. View patient care functions on the traditional “white board” (staffing identification, schedule, patient goals, family goals, contact information) (Acute)
- L. Participate in the discharge/checkout planning process (Acute)
- M. Use e-mail, browsing, and entertainment (Acute)
- N. Real-time patient satisfaction tools

(PDF-059) Which of the following functionalities are included in mobile apps your organization provides to your patients? (These should be apps created for a mobile handheld device and should NOT include responsive designed websites) (Check all that apply)

- A. Alerts/notifications from mHealth devices
- B. Click-to-call contact directory
- C. Electronic insurance card
- D. E-visit/virtual assistant
- E. Health library
- F. Patient portal
- G. Personal health record
- H. Personal health tracker
- I. Real-time news and blog feed
- J. Renew prescription
- K. Secure messaging (one way/two way)
- L. Wayfinding with floor plans and maps
- M. Price list for different services (US Only)
- N. Location Sharing for assistance
- O. Health Maintenance Campaigns
- P. Mobile Check In
- Q. Telemedicine Integration
- R. Event Alerts
- S. ER wait times (Acute)

- T. Text appointment reminders (Ambulatory)
- U. Schedule visit (Ambulatory)

(PDF-060) 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? Please do not include pilots. All services/capabilities should be fully deployed HIT based products and services.

(Check all that apply) (Acute)

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

Telehealth (a.k.a. virtual care): the use of telecommunication technology for patient/physician office, hospital visits and other services that would generally occur via an in-person setting

(PDF-061) Whom on your executive team is primarily responsible for leading your organization's telehealth efforts?

(Check one)

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

(PDF-062) Which of the following reflect how telehealth services are provided at your organization?

(Check one)

- A. We outsource our telehealth program in its entirety to a third party
- B. We only operate our own telehealth program
- C. We operate our own telehealth program AND leverage the services of an outsourced telehealth program
- D. We do not have a defined telehealth program

(PDF-063) Please indicate the percentage of your organization's...

- A. Associated physicians/clinicians who have integrated telehealth services as part of their face-to-face practice
- B. Total patient visits conducted via telehealth during the last 12 months

**(PDF-064) Of the following diagnostic and therapeutic medical exchanges between patients and providers in your organization, what percentage are conducted via telehealth?
(Check one per row)**

	>=10%	>0% and <10%	0%	Not Applicable to our Patient Population
A. Scheduled Consultations and office visits				
B. Pharmacologic management				
C. Behavioral Health				
D. Addiction treatment and counseling				
E. Rehabilitation				
F. Maternity				
G. Stroke care				
H. Genetic counseling				
I. Remote monitoring in the home				
J. e-ICU (Acute)				
K. Inpatient management (Acute)				

(PDF-065) 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?

(PDF-066) 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)?

(Check all that apply)

- A. Capture email addresses for every patient
- B. Train your staff and providers so they understand the benefits to the patient and to the organization
- C. Provide informational handouts to patients
- D. Promote digital health tools on video displays within the facility (e.g., patient rooms, exam rooms, lobby, etc.)
- E. Place a computer kiosk or tablet in key locations (e.g., lobby; waiting areas; etc.) allowing patients to register for the portal and then use it to complete necessary registration forms
- F. Send postcards to patients introducing the patient portal, mobile app and/or telehealth services
- G. Add a promotional tag line to appointment cards, statements, newsletters, and other communication
- H. Use the organization’s telephone on-hold messaging system to promote the patient portal, mobile app and/or telehealth services
- I. Display a link to the patient portal, mobile app and/or telehealth services on your organization’s website
- J. Make the patient portal and/or mobile app your organization’s preferred way of sending information to patients

(PDF-067) How would you describe your organization's use of personal health tracking data from patient wearables?

(Check one from each row)

	Always	Sometimes	Never
A. A patient's wearable data is integrated into the patient portal			
B. A patient's wearable data is integrated with the EHR			
C. A patient's wearable data is used by clinicians to track changes in a patient's conditions			

Clinical Quality and Safety

(PDF-068) Which of the following nurse activities are electronically enabled in your organization?

(Check all that apply)

- A. Discharge/checkout/ADT checklist sends alerts for unmet criteria
- B. Discharge/checkout/ADT risk assessment
- C. Embedded links to relevant research and quality measures
- D. Evidence-based plan of care with links to reference literature
- E. Post-discharge/checkout follow-up
- F. Standardized care transition process
- G. Capture patient education assignments and status
- H. Provider hand-off tools
- I. Routine Regulatory Assessments
- J. Taking/Recording vital signs
- K. Medication Administration Documentation

(PDF-069) Which of the following capabilities are delivered via a wireless network to care team members using handheld devices at the point of care?

(Check all that apply)

- A. Secured messaging
- B. Discrete patient data
- C. Waveform data
- D. Alerts
- E. Order entry
- F. Charting

(PDF-070) What percent of your clinicians are using the following real-time quality reporting resources? If none, put 0%.

(Slide percent bar next to each option)

- A. Clinical decision support rule for high-priority hospital/health condition
- B. Critical values
- C. Dose checking (max/min)
- D. Dose suggesting (e.g., renal failure)
- E. Drug allergy alerts
- F. Drug formulary check
- G. Drug-diet checking
- H. Drug-to-drug interaction alerts
- I. Duplicate order alerts
- J. Predictive analytics
- K. Radiology decision support
- L. Medication Management
- M. Deprescribing / Polypharmacy
- N. Pharmacogenomics

(PDF-071) Which care sites in your organization automatically load patient data directly into the EHR, from the monitoring technologies listed below?

(Check all that apply) (Acute)

	Critical Care Units	Step-Down Units	Med-surg Units	Not Applicable to our Patient Population
A. Temperature				
B. Cardiovascular catheter output				
C. Fetal monitor				
D. Intracranial monitor				
E. IV pump				
F. Ventilator				
G. Medication Dispensing cabinet				

(PDF-072) How would you characterize the adoption of your EHR-integrated surveillance system in conducting the following? (Acute)

(Check one per row)

- **Fully Adopted:** A condition where the technology/solution has been implemented organization wide and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
- **Partially Adopted:** A condition where the technology/solution has been implemented in at least one area of the organization but not organization wide, or the technology/solution has been implemented organization wide but the relevant users are not utilizing the technology/solution as intended per industry expectations and/or organizational policy.
- **Not Adopted:** A condition where the organization has not yet implemented the technology/solution in at least one area of the organization and has no intention of implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

	Fully Adopted	Partially Adopted	Not Adopted
A. Monitor medication administration			
B. Monitor to prevent falls			
C. Monitor to prevent pressure ulcers			
D. Monitor change of condition through vital signs and lab results			
E. Send electronic alert notifying caregivers (e.g. deterioration in patient's condition; possible adverse event)			

**(PDF-073) Which of the following healthcare-associated infection (HAIs) bundles do you leverage technology to electronically track within your EHR?
(Check all that apply)**

	Yes	No	Not Applicable to our Patient Population
A. Bundles for the prevention of central line-associated bloodstream infections (CLABSI)			
B. Bundles for the prevention of catheter-associated urinary tract infections (CAUTI)			
C. Bundles for the prevention of ventilator-associated pneumonia (VAP)			
D. Bundles for the prevention of surgical site infection			

(PDF-074) Please estimate the percentage of discharge/check-out medication orders (for new or changed prescriptions) transmitted as an electronic prescription.

(Check one)

- A. 100%
- B. 90-99%
- C. 50-89%
- D. <50%
- E. 0%

(PDF-075) Which of the following solutions are part of your enterprise imaging system?

(Check all that apply)

- A. Picture Archiving and Communication System (PACS)
- B. Vendor Neutral Archive (VNA)
- C. Diagnostic Universal Viewer
- D. Referential Universal Viewer
- E. Image exchange

(PDF-076) Which of the following diagnostic images can be accessed via your enterprise imaging system?

(Check all that apply)

- A. Radiology ("plain films," CT, MRI, ultrasound)
- B. Interventional radiology static and video images
- C. Cardiac catheterization static and video images
- D. Echocardiography static and video images
- E. Endoscopy static and video images
- F. Bronchoscopy static and video images
- G. Intraoperative static and video images
- H. Ophthalmology images
- I. Microscopic pathology images
- J. Photography (dermatology, trauma, etc.)
- K. 3-D reconstruction images (CT, MRI, angiography)
- L. Cardiology diagnostic images

(PDF-077) How would you characterize the adoption of your decision support system to identify the following possible prescribing anomalies?

(Check one per row)

- **Fully Adopted:** A condition where the technology/solution has been implemented organization wide and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
- **Partially Adopted:** A condition where the technology/solution has been implemented in at least one area of the organization but not organization wide, or the technology/solution has been implemented organization wide but the relevant users are not utilizing the technology/solution as intended per industry expectations and/or organizational policy.
- **Not Adopted:** A condition where the organization has not yet implemented the technology/solution in at least one area of the organization and has no intention of implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

	Fully Adopted	Partially Adopted	Not Adopted
A. Unusual/unsafe drug interactions			
B. Prescriptions outside dosing guidelines			
C. Unusual/unsafe drug use			
D. Abnormal prescribing practices			
E. Age-related prescribing			

(PDF-078) Which of the following resource functions can providers associated with your organization access remotely?

(Check all that apply)

- A. Access to EHR (Complete/sign medical record, place orders, see other facilities' results, exchange patient data and orders with other facilities, etc.)
- B. Access to diagnostic quality PACS/images
- C. Communicate with patients (email, alerts)
- D. Secure texting
- E. Support virtual patient visits
- F. Secure messaging with other providers
- G. Monitor chronic patients through alerts/notifications
- H. Receive Data on smart devices from connected implants, RFID/RLTS
- I. Access clinician guidelines/pathways or evidence-based order sets (to include links to reference literature)
- J. Access to referential quality PACS/images from outside organizations

(PDF-079) Which of the following e-prescribing functions do you provide for independent providers associated with your organization? (US Only)
(Check all that apply)

- A. Capture pharmacy dispense history
- B. Check payer-based formulary
- C. Check allergies, drug-drug interactions
- D. Prescription automatically faxed to retail pharmacy
- E. Prescription sent electronically to retail pharmacy (do not include fax)
- F. Prescription discontinued transmitted electronically to retail pharmacy (do not include fax)
- G. Renewal request received by fax from retail pharmacy
- H. Renewal request received electronically from retail pharmacy (do not include fax)
- I. Electronic prescribing of controlled substances
- J. Connection to prescription drug monitoring program integrated within EHR

(PDF-080) What percentage of controlled substances (schedule 2-4) are electronically prescribed to patients in the following areas of your organization?
(Slide bar)

		Not Applicable to our Patient Population
A. Oncology	Slide bar	
B. Palliative Care	Slide bar	
C. Skilled Nursing Facilities	Slide bar	
D. Inpatient Discharges (Acute)	Slide bar	
E. Emergency Department (Acute)	Slide bar	
F. Peri-operative (Acute)	Slide bar	
G. Outpatient/Ambulatory Clinics (Ambulatory)	Slide bar	

(PDF-081) How would you characterize the adoption of technology designed to support the following opioid use reduction mechanisms in your organization?

(Check one per row)

- **Fully Adopted:** A condition where the technology/solution has been implemented organization wide and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
- **Partially Adopted:** A condition where the technology/solution has been implemented in at least one area of the organization but not organization wide, or the technology/solution has been implemented organization wide but the relevant users are not utilizing the technology/solution as intended per industry expectations and/or organizational policy.
- **Not Adopted:** A condition where the organization has not yet implemented the technology/solution in at least one area of the organization and has no intention of implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

	Fully Adopted	Partially Adopted	Not Adopted	Not Applicable to our Patient Population
A. Order sets that contain opioid options default or suggest limiting doses/duration AND default or offer non-opioid options				
B. Automated patient opioid education and/or instructions for patients prescribed opioids				
C. System identifies patients with elevated risk of Overdose or Substance Use Disorder (SUD)				
D. System is digitally integrated with community resources for SUD treatment				
E. System identifies patients who may be appropriate for MOUD (medication for opioid use disorder)				
F. System prompts to prescribe Narcan for patients at elevated risk of overdose				
G. System prompts creation of a controlled substance agreement with appropriate patients				
H. System alerts appropriate treating providers about patients with an opioid agreement on file				
I. Use of a reporting tool such as a dashboard that monitors prescribing patterns for opioids in order to identify potential outliers				
J. System prompts to initiate treatment (e.g. buprenorphine) while inpatient or in ER (Acute)				

Innovation

(PDF-082) Whom on your executive team is primarily responsible for leading tactical technological innovation efforts in your organization?

(Check one)

- A. Chief Innovation Officer, Chief Technology Officer (or similar technology related type title)
- B. CIO
- C. A non-technology C-level executive (e.g., CFO; COO)
- D. A non-C-level executive team member (Vice President of Innovation; Director of Innovation)
- E. We outsource this function (external innovation leader/vendor)
- F. No one individual leads this effort
- G. We do not currently have a formalized technological innovation effort in our organization

(PDF-083) When thinking about technological innovation in your organization, which of the following statements best characterize your organization's strategic management

LEADERSHIP approach? (Check one)

- A. Little to no organizational awareness of strategic leadership
- B. Knowledge exists, but no owner and sponsor for strategic management activities
- C. An employee is assigned to strategic projects and activities
- D. A team performs strategic activities; the team leader engages with other department managers
- E. A particular office leads strategic management activities effectively; leaders and employees fully engage in strategic management processes
- F. Strategic leadership encourages innovation at all levels; leaders transform the business and culture to become more innovative

(PDF-084) When thinking about technological innovation in your organization, which of the following statements best characterize your organization's approach to the strategic management of PLANNING and EXECUTING?

(Check one)

- A. Little to no organizational awareness of strategic planning
- B. No strategic plan; some goals and objectives are defined
- C. Strategic planning is the responsibility of one person and a multi-year strategic plan is prepared
- D. A structured and interactive strategic planning process exists; actions plans are developed
- E. Strategic plan/action plans are revised regularly; strategic initiatives are updated as deemed necessary
- F. Strategy drives all critical organizational decisions; innovation is an important agenda of the strategic plan

(PDF-085) When thinking about technological innovation in your organization, which of the following statements best characterize your organization's approach to the strategic management of PROCESSES and TOOLS?

(Check one)

- A. Little to no process and tools for strategic management activities
- B. Some ad-hoc reports and tools are used, but processes are undocumented
- C. A few key processes are documented; some basic tools are used for strategic planning and management
- D. All strategic management processes are mapped out and analyzed, and strategy drives process improvements
- E. All strategic processes are redesigned for continuous innovation; advanced tools/methods are used for strategic planning and innovation management
- F. There is a structured innovation, management process; strategy guides selection of tools and technologies; all tools/systems are integrated into strategies

(PDF-086) When thinking about technological innovation in your organization, which of the following statements best characterize your organization's approach to the strategic management of ORGANIZATIONAL STRUCTURE and BUSINESS MODEL?

(Check one)

- A. Organizational structure and business model are unknown
- B. Ill-defined organizational structure; some components of business model are model are known
- C. Functional organizational structure is created; business model is defined
- D. Rigid structure (hierarchy is important and extensive); business model is not innovative; structure and model do not support strategies
- E. Organizational structure and business model are redesigned to foster innovation and empower strategies; flat organization with low hierarchy
- F. Organizational structure and business model are fully integrated into strategies; a unique/innovative business model; an agile structure

(PDF-087) When thinking about technological innovation in your organization, which of the following statements best characterize your organization's approach to the strategic management of PEOPLE and CULTURE?

(Check one)

- A. Few or no common values and personas
- B. Values are undefined; an organizational culture is not formed yet
- C. People share a common vision and values are understood; innovation is a critical value
- D. Vision, goals and values are communicated; organizational culture is fully formed but culture is not linked to strategy; bureaucratic culture
- E. Organizational culture is redesigned to support innovation strategies; less bureaucracy, a more adhocratic culture is forming
- F. Organizational culture fully integrated into strategies; culture is innovation focused; people are encouraged to come up with new ideas

(PDF-088) When thinking about technological innovation in your organization, which of the following statements best characterize your organization's approach to the strategic management of PERFORMANCE MANAGEMENT?

(Check one)

- A. No assigned performance indicators
- B. Few performance indicators are identified but no available data
- C. All performance indicators and metrics are identified; no Key Performance Indicators (KPIs) for innovation
- D. Strategic indicators are measured, and overall performance is managed at a broad level; KPIs are designed for innovation activities
- E. Strategic indicators are revised according to performance results; innovation performance is managed at all levels
- F. Systems are implemented for disruptive innovation; performance of radical innovation is measured on a daily basis

(PDF-089) When thinking about technological innovation in your organization, which of the following statements best characterize your organization's APPROACH to the strategic management of innovation?

(Check one)

- A. Innovation is not a strategic priority
- B. Random innovations, not results of a structured approach
- C. Innovation management process is defined but no tool and method are used for innovation
- D. Innovation initiatives are started; structured innovation tools/techniques/methods are used at some organizational levels; mostly incremental innovation takes place
- E. People fully engage in innovation activities at all levels; some radical innovations occur; characterized as a semi-innovative organization; a gap between strategy and innovation still exists
- F. Innovation initiatives are well-aligned with corporate strategies; disruptive innovation is part of organization DNA; organizational collaboration is powered by a significant increase in the adoption of new tools amongst the workforce

(PDF-090) Which of the following types of digital health tools have your technological innovation assessment efforts addressed within the past three-years?

(Select all that apply)

Remote monitoring for operational efficiencies: Smart versions of common clinical devices such as thermometers, blood pressure cuffs, and scales that automatically record readings in the patient record eliminating the need for staff/clinicians to enter the data.

Remote monitoring for improved care and management: Apps and devices for use by chronic disease patients for daily measurement of vital signs such as weight, blood pressure, blood glucose, etc.; Readings are visible to patients and transmitted to the physician's office. Alerts are generated as appropriate for missing or out of range readings to assist in the management of care.

Clinical decision support: Modules used in conjunction with the EHR or apps that integrate with the EHR that highlight potentially significant changes in patient data (e.g., gain or loss of weight, change in blood chemistry).

Patient engagement: Solutions to promote patient wellness and active participation in their care for chronic diseases (e.g., adherence to treatment regimens).

Tele-visits/virtual visits: An audio/video connection used to see patients remotely (i.e., simple acute illness, adjusting therapy, etc.).

Point of care/survey workflow enhancement: Communication and sharing of electronic clinical data to consult with specialists, make referrals and/or transitions of care.

Consumer access to clinical data: Secure access allowing patients to view clinical information such as routine lab results, receive appointment reminders and treatment prompts, and to ask for prescription refills, appointments and to speak with their physician.

- A. Remote monitoring for operational efficiencies
- B. Remote monitoring for improved care and management
- C. Clinical decision support
- D. Patient engagement
- E. Tele-visits/virtual visits
- F. Point of care/survey workflow enhancement
- G. Consumer access to clinical data
- H. We do currently/have had a technological innovation effort in our organization but not in one of the above areas
- I. We do not currently/have not had a technological innovation effort in our organization.

(PDF-091) Of the following types of innovations, which do you currently use in your organization? (Select all that apply)

- A. Artificial Intelligence
- B. Robotics (Clinical / Non-clinical)
- C. 3-D printing
- D. Nanotechnology
- E. Biotechnology
- F. Quantum computing
- G. Point-of-care (POC) diagnostics
- H. Virtual reality (VR)
- I. Leveraging social media to improve patient experience
- J. Biosensors and trackers

(PDF-92) Is your organization formally associated with an Innovation Center involved in healthcare technological innovations? (Check one)

- A. Yes
- B. No

Digital Transformation Priorities

(This section not scored)

(PRI-01) The following lists the various sections of the Digital Health Most Wired survey. To what extent do you project each of the following areas will be a priority for your organization during the next 12-months?

(Check one per row)

DHMW Section	Essential	High Priority	Medium Priority	Low Priority	Not a Priority
A. Infrastructure					
B. Security					
C. Administrative and Supply Chain					
D. Analytics and Data Management					
E. Interoperability and Population Health					
F. Patient Engagement					
G. Clinical Quality and Safety					
H. Innovation					

(PRI-02) Imagine an ideal healthcare provider organization transformed by digital technologies and capabilities that improve processes, engage talent across the organization, enable better patient care and drive new and value- generating business models. How close is your organization to that ideal?

Please rate on a scale of 1–10 where 1 = "Not at all close" and 10 = "Very close"

(PRI-03) Where do you see your own organization currently when it comes to becoming more digital?

(Check one)

- A. We are ahead of our schedule when it comes to becoming more digital
- B. We are right on schedule when it comes to being more digital
- C. We are behind schedule when it comes to being more digital
- D. We have not started to become more digital yet, but are planning our approach
- E. We have not started to become more digital yet, and have no plans to
- F. We have achieved our digital goals

(PRI-04) What are the biggest challenges that your organization has experienced in trying to undertake a successful digital transformation?

Rank your top 3 challenges from this list.

	First Challenge	Second Challenge	Third Challenge
A. Over reliance on legacy technology			
B. Internal politics			
C. Lack of dedicated budget			
D. Lack of the right in-house skills			
E. Lack of the right technology/tools			
F. Cultural resistance			
G. Tendency for short-term thinking over long-term planning			
H. Data silos			
I. Lack of central coordination/ownership			
J. Lack of formal strategy/plan			
K. Lack of senior management sponsorship			
L. Unable to project a clinical improvement use case			
M. Other			
N. There are no challenges to digital transformation			

(PRI-05) What are the most critical steps to enable a successful digital transformation?

Rank your top 3 steps from this list.

	First Step	Second Step	Third Step
A. Invest in the right technologies and tools			
B. Involve all departments in developing a strategy			
C. Invest in staff training			
D. Draw up a comprehensive, yet flexible/adaptable budget			
E. Assign a board-level or c-level sponsor to the project			
F. Pilot the project in one part of the business first			
G. Communicate strategy and goals with employees			
H. Communicate plans with customers			
I. Ensure Executive Commitment and Alignment			
J. Clearly define (clinical) improvement use case			
K. Other			
L. I don't know			

(PRI-06) What percent of your organization's current fiscal year overall budget is earmarked for healthcare IT systems and initiatives?

(PRI-07) What percent of your organization's current fiscal year healthcare IT budget do you anticipate spending on net-new technologies?

(PRI-08) What percent of your organization's current fiscal year healthcare IT budget do you anticipate spending on process improvement/optimization?