INNOVATION

The Innovation section of the survey assess an HCO's performance in three topic areas:

1. Leadership/Structure
2. Governance
3. Focus Areas

Section 1: Leadership/Structure

(PDF-085) 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

The intent of this question is to ascertain whom within the HCO leads the organization's innovation efforts.

(PDF-086) Is your organization formally associated with an Innovation Center involved in healthcare technological innovations? (Check one)

A. Yes
B. No

The intent of this question is to gauge the array of technologies (many would consider innovative) currently used within an HCO.

Healthcare Innovation Center

There is no universally agreed upon definition of an innovation center. The intent of this question is to identify those HCOs that have a formalized effort in place designed to focus on creating new technologies, new services and exploring new business models. This is distinct from process improvement or implementation science, and often needs a different set of incentives to succeed within a large organization.

Section 2: Governance

(NEW-087) Has your organization developed a written IT strategic plan aligned to your organization's business plan to include the following? (Check one per row)

	Yes	No
A. Security		
B. Artificial Intelligence		
C. Innovation		

IT strategic plan

An IT strategic plan is a document that details the comprehensive technology-enabled business management processes an organization uses to guide operations. It serves as a guide to IT-related decision-making, with IT tasks prioritized and implemented using the plan as a framework.

Business Plan

A business plan is a formal written document containing the goals of a business, the methods for attaining those goals, and the time-frame for the achievement of the goals.

(NEW-088) Does your organization have an IT Steering Committee for the following? (Check one per row)

	Yes, and the IT Steering Committee includes an executive level representative	Yes, but the IT Steering Committee does not include an executive level representative	No
A. Security			
B. Artificial Intelligence			
C. Innovation			

IT steering committee

An IT steering committee is an advisory board that is responsible for developing and enforcing an organization's IT priorities. They identify which IT projects and initiatives are the most important for the organization's success and provide support to ensure the IT team achieves its business objectives.

(NEW-089) Are all IT investment proposals for the following reviewed and approved by an IT Steering Committee?
(Check one per row)

	Yes, and we follow specific criteria to evaluate and approve IT investment proposals	Yes, but we do not follow specific criteria to evaluate and approve IT investment proposals	No
A. Security			
B. Artificial Intelligence			
C. Innovation			

IT Investment Proposal

An IT Investment Proposal is a strategic plan outlining the various technology investments and initiatives that an organization needs to make to meet its objectives. This plan should include a detailed description of the objectives, goals, and performance metrics of the organization's technology investments. It should also identify the resources, investments, and timelines required to achieve these objectives. Finally, the proposal should assess the current state of the organization’s technology investments and provide a clear strategy to improve them.

(NEW-090) Do all IT investment proposals for the following include a documented business case? (Check one per row)

	Yes, and we include defined business objectives for each investment project	Yes, but we do not include defined business objectives for each investment project	No
A. Security			
B. Artificial Intelligence			
C. Innovation			

Business Case

The business-case approach is a framework for making these decisions. It is based on the principles that a direct relationship exists between every investment made by the institution and its programs or "business" and that each investment should clearly demonstrate benefits to the institution as a whole.

(NEW-091) Do IT investment proposals for the following involve an executive sponsor from the impacted business area who is responsible for overseeing the business case for IT investments in their area?
(Check one per row)

	Yes, all projects	Yes, some projects	No
A. Security			
B. Artificial Intelligence			
C. Innovation			

(NEW-092) Does your organization have an IT Steering Committee overseeing and tracking the progress of each approved IT implementation project, for the following?
(Check one per row)

	Yes	No
A. Security		
B. Artificial Intelligence		
C. Innovation		

IT implementation project

An IS/IT implementation project involves the installing of a new software product, the upgrading of an existing one, or conversion to a different product, into the information services system within an organization

Section 3: Focus Areas

(PDF-093) 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.

(NEW-094) When thinking about your organization's digital health technological innovation assessment efforts during the past three-years, would you be able to provide evidence demonstrating your organization's use of the following "techquity" tactics?

Techquity: The strategic design, development, and deployment of technology to positively advance health amongst vulnerable, underserved, and marginalized communities (e.g., elderly; socio-economically disadvantage; racial minorities).

Conduct market research with diverse patient populations to understand their needs and experiences (to identify potential biases in the design and development of the technology).

Collect user data from diverse populations (to identify potential variances in outcomes).

	Yes	No
Conduct market research		
Collect diverse user data		

The intent of this series of questions is to gauge the efforts of the HCO in working to ensure technological innovations are sensitive to the needs of historically marginalized, underserved and/or vulnerable users.

(PDF-095) Of the following types of innovations, which do you currently use in your organization? (Select all that apply)

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

The intent of this question is to gauge the array of technologies (many would consider innovative) currently used within an HCO.

"currently used"
There are no stipulations regarding the extensiveness of the technology's used.

A. Artificial Intelligence (Acute/Ambulatory)
AI in healthcare is an umbrella term to describe the application of machine learning (ML) algorithms and other cognitive technologies in medical settings. In the simplest sense, AI is when computers and other machines mimic human cognition, and are capable of learning, thinking, and making decisions or taking actions.

B. Robotics (Clinical / Non-clinical) (Acute/Ambulatory)
A medical robot is a robot used in the medical sciences. They include surgical robots. These are in most telemanipulators, which use the surgeon's activators on one side to control the "effector" on the other side.

C. 3-D printing (Acute/Ambulatory)
Medical 3D printing is increasingly deployed in both clinical and research-based healthcare activities. It involves the creation of physical replicas of anatomical structures using 3D printing (also known as additive manufacturing) processes.

D. Nanotechnology (Acute/Ambulatory)
Nanomedicine refers to the area of science that combines nanotechnology with drugs or diagnostic molecules to improve the ability to target specific cells or tissues.

E. Biotechnology (Acute/Ambulatory)
Medical biotechnology is a branch of medicine that uses living cells and cell materials to research and then produce pharmaceutical and diagnosing products. These products help treat and prevent diseases.

F. Quantum computing (Acute/Ambulatory)

Using quantum computers, fed with huge amounts of health parameters, genetic information, sensory data, and other personal health information, might be able to give a comprehensive prediction about a given person's future health. That's what we could really call predictive health.

G. Point-of-care (POC) diagnostics

Point-of-care (POC) diagnostics produce rapid, reliable results that aid in identification and monitoring of acute infections or chronic disease. POCT involves screenings and tests at or near the point of care, which produce actionable results within minutes.

H. Virtual reality (VR)

Virtual Reality solutions allow both healthcare professionals and patients interact with simulated environments tailored for medical education (including simulative surgery training), pain management or rehabilitation.

I. Leveraging social media to improve patient experience

Social media is vital to raising public awareness about new, emerging, and annual health concerns. Bringing awareness to health issues can be as simple as reminding followers about common sense health practices.

J. Biosensors and trackers

Devices that track biological processes and provide insightful analytical data for doctors and patients. Biosensors also have the benefit of making biological activity such as the levels of blood oxygen minimally invasive.

(NEW-096) How would you characterize the deployment of Generative Artificial Intelligence in your organization to support the following activities?
(Check one per row)

Generative Artificial Intelligence: Artificial intelligence capable of generating text, images, or other media, using generative models. Generative AI models learn the patterns and structure of their input training data and then generate new data that has similar characteristics.
Deployed: A condition where the technology/solution has been tested and implemented in at least one area of the organization and the relevant users are generally utilizing the technology/solution as intended per industry expectations and organizational policy.
Piloting: A condition where the technology/solution is being tested in at least one area of the organization but not organization wide.
Not Supported: A condition where the organization has not yet tested the technology/solution in at least one area of the organization, has no intention of testing/implementing the technology/solution at this time or has not yet achieved funding approval for the acquisition of the technology/solution.

Assisting in clinical diagnosis

	Deployed	Piloting	Not Supported
A. Generating high-quality medical images			
B. Diagnosing diseases			
C. Answering medical questions			

Automating administrative tasks

	Deployed	Piloting	Not Supported
D. Extract data from patients' medical records and populate the corresponding health registries			
E. Transcribe and summarize patient consultations, fill this information into the corresponding EHR fields, and produce clinical documentation			
F. Generate structured health reports by analyzing patient information, such as medical history, lab results, scans, etc.			
G. Produce treatment recommendations			
H. Answer queries from clinicians			
I. Find optimal time slots for appointment scheduling based on patients' needs and doctors' availability			
J. Generate personalized appointment reminders and follow-up emails			
K. Review medical insurance claims and predict which ones are likely to be rejected			
L. Compose surveys to gather patient feedback on different procedures and visits, analyze it, and produce actionable insights to improve care delivery			