Healthcare and Life Sciences Trends and Signals: 2024 Eye on Innovation Awards and Winners

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Initiatives: Healthcare Provider, Payer and Life Science Industries Ecosystem

Gartner's Eye on Innovation Awards recognize organizations worldwide for their best-in-class technological innovations. Healthcare and life sciences CIOs can use these insights and examples from submissions and winners to inspire their teams and light the path to transformation.

Overview

Key Findings

- Automation technologies, analytics and AI that support data-driven decision making are the top areas of technological innovation among participants in Gartner's 2024 Eye on Innovation Awards for Healthcare and Life Sciences (HCLS). This trend has been consistent since the Awards debuted in 2020.

- Improving efficiency is the top outcome sought for the fourth year in a row. While improving total experience has increased in priority since last year's awards, improving customer centricity has since decreased.

- Awards finalists for 2024 utilized automation technologies at a higher rate than in 2023, demonstrating the substantial impact these technologies have on innovation and outcomes.

- When comparing technology use across different sectors, more healthcare provider organizations used care team collaboration technologies, more U.S. healthcare payers used APIs and more life science organizations used cloud computing.

Recommendations

- Leverage the real-world examples of Eye on Innovation case studies — and the outcomes achieved — to build C-suite support for and secure funding for your initiatives.

- Balance the needs and goals of your consumers, employees and partners to improve HCLS total experience and deliver business and health outcomes.

- Assess your end-to-end technology landscape continuously and relentlessly by prioritizing investments in technologies that increase automation and efficiency, expanding collaboration and helping to create a more connected healthcare ecosystem.

Analysis

Gartner Eye on Innovation Awards for Healthcare and Life Sciences

The Gartner Eye on Innovation Awards for Healthcare and Life Sciences (HCLS) resulted in 123 unique innovation projects from more than 85 unique healthcare provider, payer and life sciences organizations in 2024. Gartner has analyzed innovation patterns and themes, focusing on what finalists and winners did differently than others. HCLS CIOs can use this analysis to make faster and better decisions about allocating resources to support innovation and maximize business outcomes.

Data-Driven Efficiency Technologies Dominate Top Innovations

Automation and data and analytics (D&A) were mentioned in 55% of cases, making them the most commonly deployed in 2024 submissions. AI/machine learning (ML) was also frequently used, with 42% of submissions employing it. These technologies help drive intelligent health, Gartner's vision for the future of HCLS (see Intelligent Health: A Vision for the Healthcare and Life Science Industry).

From 2020 to 2023, digital platforms were consistently among the top three most frequent technologies used by Eye on Innovation participants. In 2024, only 36% of submissions cited the use of digital platforms, making it the sixth most used technology. A similar decrease in prominence was seen with interoperability/clinical data integration technologies, dropping from the fourth to the ninth most used technology.

Examples of these top technologies from Eye on Innovation finalists include:

- A robotic process automation (RPA) bot that uses predefined rules in electronic health record (EHR) software to automatically identify accounts eligible for additional documentation submission based on remittance codes, optimizing what was once a very manual process.

- A data-driven intervention framework that streamlines disparate views and priorities across providers and payers to create a common, patient-centric framework of care to reduce delays in access to medication.

- An AI prediction system that transforms the agile software development process and predicts the user stories that are likely to lead to bugs, with the intent to identify pitfalls early, reduce the need for rework, increase quality and mitigate negative downstream impacts.
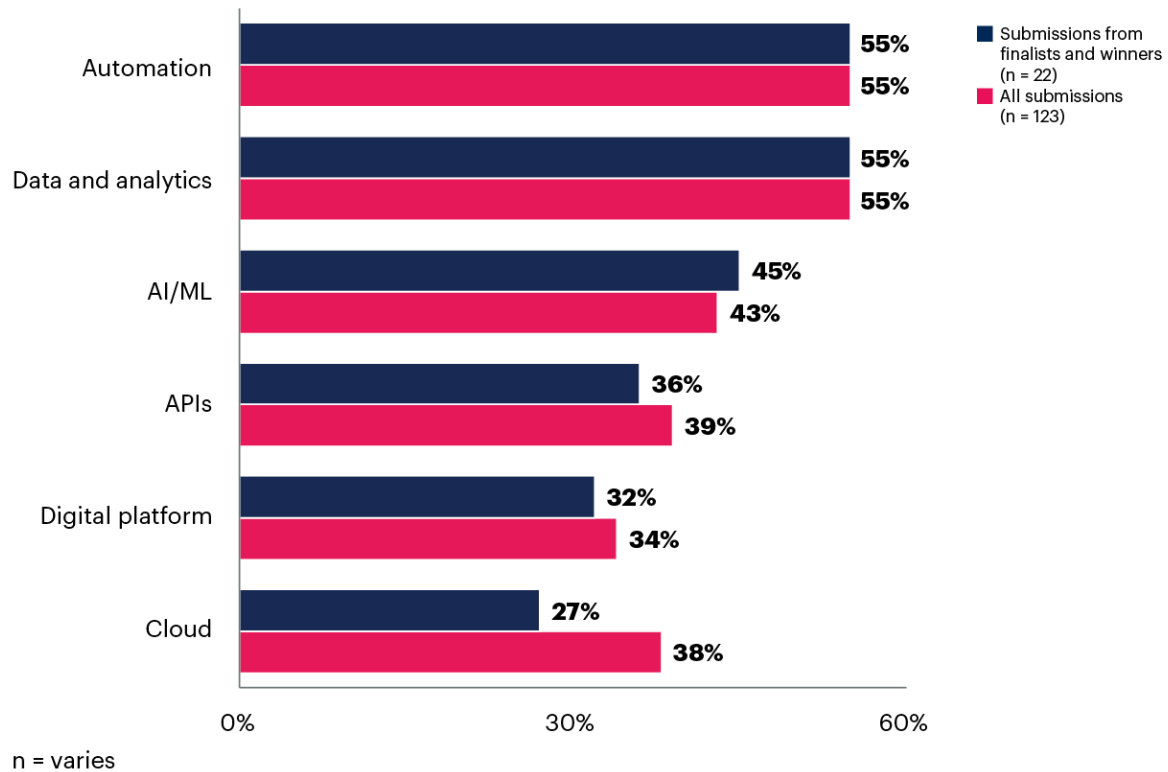
Leading Eye on Innovation Submissions Marked by Automation and D&A Technologies

Award finalists used top technologies at similar rates as Eye on Innovation participants overall (see Figure 1). As HCLS organizations aim to advance transformation efforts and overcome industry challenges like increasing financial pressures, talent shortages and competing priorities across sectors, we expect to see similar investments in technologies like automation, D&A, AI/ML and APIs.

Top Technologies Among 2024 Eye on Innovation Submissions
Percentage of submissions representing each technology area, healthcare and life sciences

Legend:
- Submissions from finalists and winners (n = 22)
- All submissions (n = 123)

Technology	Finalists and winners	All submissions
Automation	55%	55%
Data and analytics	55%	55%
AI/ML	45%	43%
APIs	36%	39%
Digital platform	32%	34%
Cloud	27%	38%

n = varies

Source: 2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences
AI/ML = artificial intelligence/machine learning
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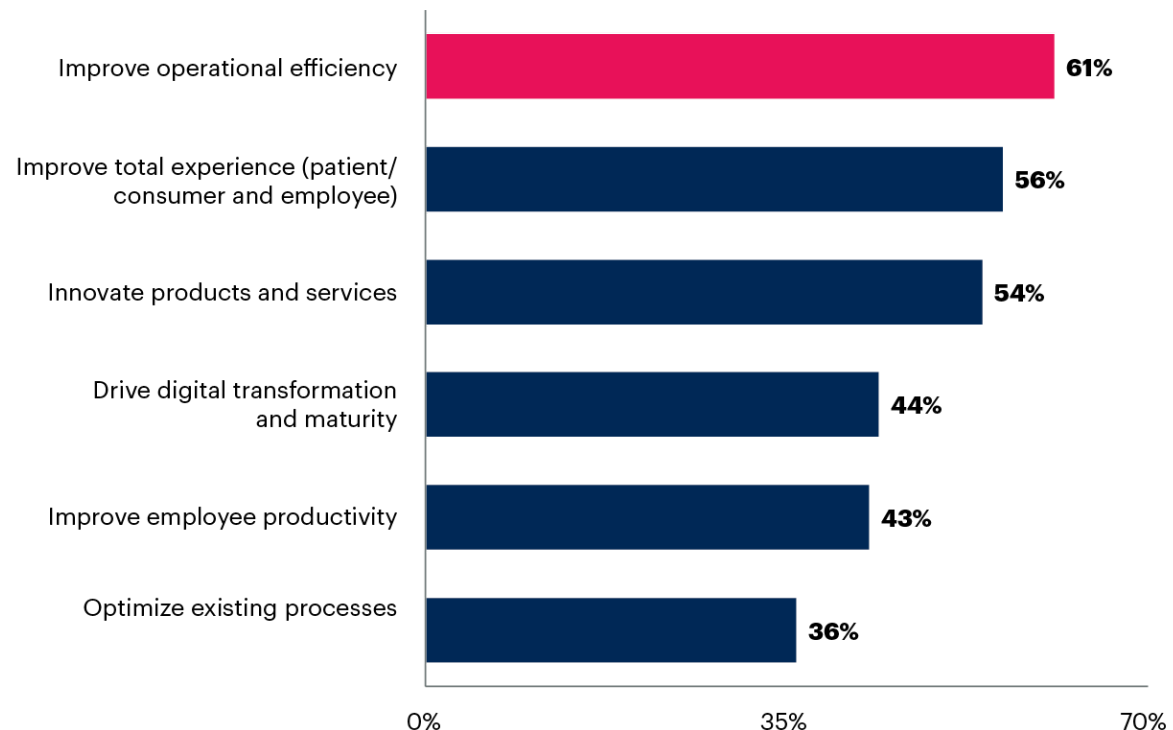## Efficiency Improvement Is the Top Outcome Sought for the Fourth Year in a Row

The top outcome sought by HCLS leaders is improving operational efficiency (see Figure 2). It is also the top outcome targeted by this year's top technologies: automation and D&A. In addition, finalists across sectors addressed inefficiencies, optimized manual processes, and unlocked a higher level of insights and intelligence with the use of APIs, AI and generative AI (GenAI). While efficiency does remain a top priority for HCLS leaders, it has diminished in prominence across the last four years when compared to other outcomes. In relation to previous years, driving digital transformation and maturity and improving employee productivity have risen in prominence in 2024.

Top Outcomes Represented in Eye on Innovation Awards Submissions
Percentage of submissions that target each outcome, healthcare and life sciences

n = varies

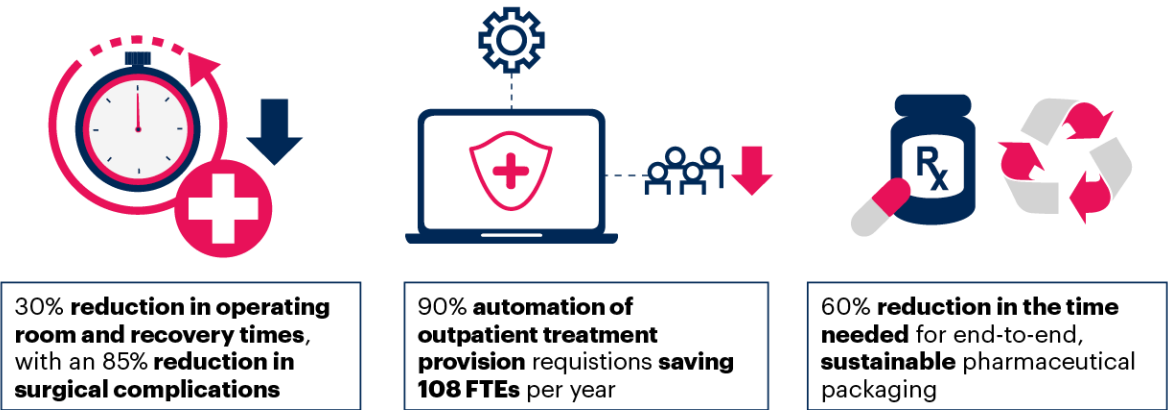Source: 2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences
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Improvements to efficiency and total experience are also the most frequent outcomes sought from this year's award finalists (see Figure 3). Notably, few finalists sought to innovate products and services, despite over half of submissions targeting this outcome. Examples of efficiency results achieved include:

- 30% reduction in operating room and recovery times, with an 85% reduction in surgical complications

- 90% automation of outpatient treatment provision requisitions with 95% accuracy, saving 108 full-time equivalent positions per year

- 60% reduction in the time needed for end-to-end, sustainable pharmaceutical packaging

Figure 3: Selected Results Achieved by 2024 Finalists

Selected Results Achieved by 2024 Finalists

30% **reduction in operating room and recovery times**, with an 85% **reduction in surgical complications**

90% **automation of outpatient treatment provision** requisitions **saving 108 FTEs** per year

60% **reduction in the time needed** for end-to-end, **sustainable** pharmaceutical packaging

Source: 2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences
FTE = full-time equivalent
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The Winners: 2024 Eye on Innovation Awards for Healthcare and Life Sciences

The winners and finalists for this global awards series were selected by a panel of peer senior industry executives for three sectors: healthcare provider, healthcare payer and life sciences (see Figure 4).

Figure 4: 2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences Winners and Finalists

2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences Winners and Finalists

❶ Regional winner
❷ Second runner-up
❸ Third runner-up

Provider	Payer	Life sciences
❶ Personalized Medicine through Pharmacogenomics — King Faisal Specialist Hospital & Research Centre	❶ Harnessing the Power of Generative AI to Drive Enterprise Value — Arkansas BlueCross BlueShield	❶ AI Diagnosis and Care Pathway for Afib Patients — Johnson & Johnson
❷ 3D Printing: Innovation Meets Compassion — King Faisal Specialist Hospital & Research Centre	❷ Premera Landing Zone — PREMERA BLUE CROSS	❷ Smart Green Packaging and Distribution Excellence — ALKEM
❸ Health NaviGator: Connecting Home Care to Health Care — Help at Home, Care to Live Your Life.	❸ Unleashing the Power of AI for Boosting Health Claims Automation — Allianz	❸ TruMatch Scan2Health - Patient-Specific Case Management Platform — Johnson & Johnson

Source: 2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences
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Healthcare Provider

Common themes among healthcare provider finalists:

- **Personalized medicine:** Some finalists are customizing their care to a patient's biology, such as personalized medical devices and genomics for personalized therapy. Others are using AI to optimally deliver care, such as using AI and natural language processing (NLP), by analyzing unstructured clinical notes that document social determinants of health.
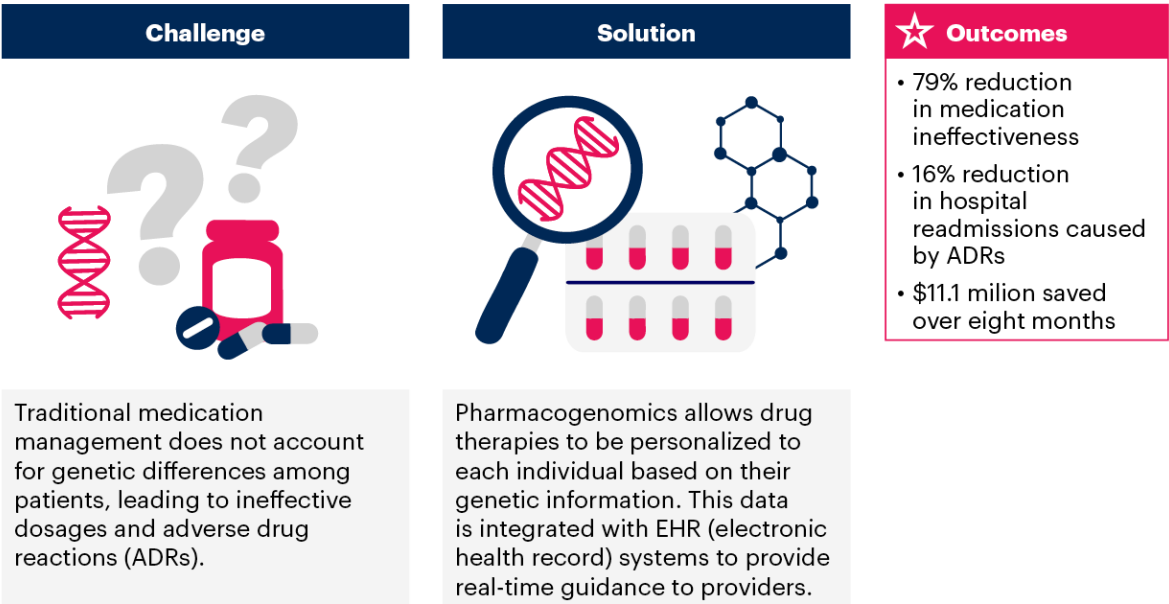
- **In-home and remote care:** Provider organizations continue to struggle with patient throughput and capacity management, in addition to ongoing clinician shortages. Multiple finalists worked to overcome these strains by innovating virtual and in-home care provisions, such as two digital platforms that integrate data to support in-home care.

The winner for healthcare provider was King Faisal Specialist Hospital & Research Centre (see Figure 5).

Figure 5: Healthcare Provider Winner — King Faisal Specialist Hospital & Research Centre

Healthcare Provider Winner: King Faisal Specialist Hospital & Research Centre
Personalized medicine through pharmacogenomics

Challenge	Solution	☆ Outcomes
		• 79% reduction in medication ineffectiveness
		• 16% reduction in hospital readmissions caused by ADRs
		• $11.1 milion saved over eight months
Traditional medication management does not account for genetic differences among patients, leading to ineffective dosages and adverse drug reactions (ADRs).	Pharmacogenomics allows drug therapies to be personalized to each individual based on their genetic information. This data is integrated with EHR (electronic health record) systems to provide real-time guidance to providers.	

Source: 2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences
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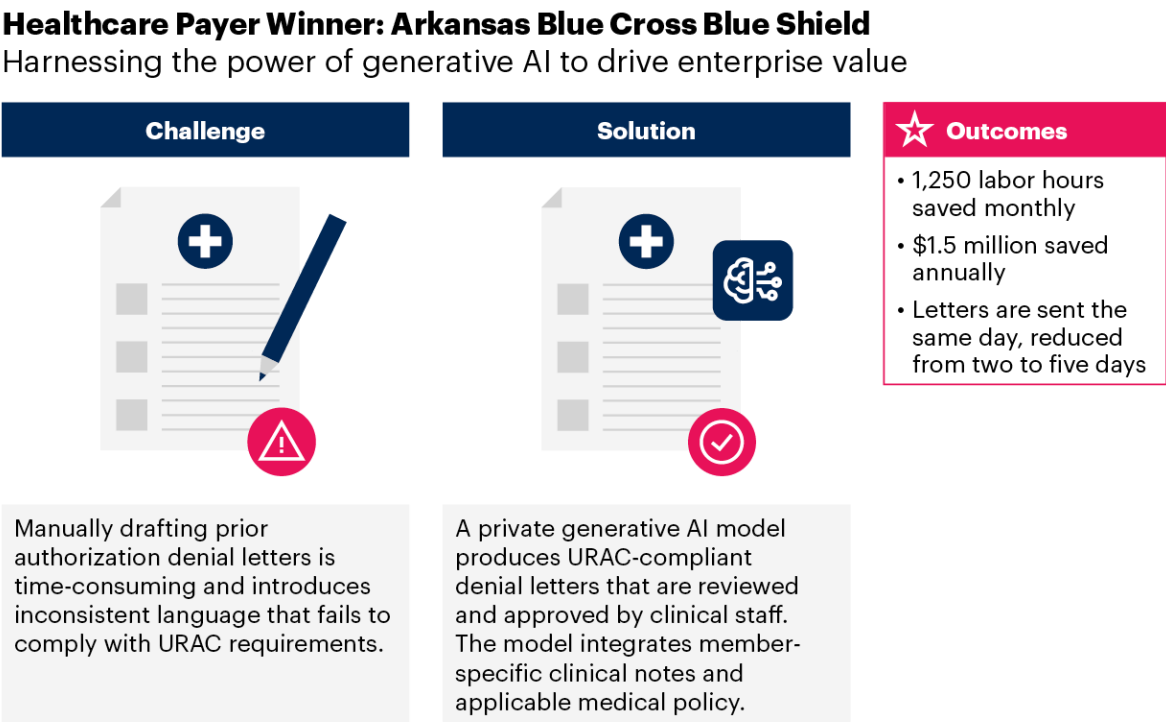**Gartner**

Healthcare Payer

Common themes among healthcare payer finalists:

- **AI text generation:** Healthcare payers are utilizing various AI models to generate letters and responses to patients. One finalist leveraged AI to generate an initial draft of a patient encounter for providers; it includes several safeguards that ensure providers fully review the generated documentation.

- **Technology integration:** As diverse systems become increasingly vital to deliver a strong total experience to patients, healthcare payers are integrating their systems with those of provider and life science organizations. For example, a finalist developed an app that integrates with existing pharmacy management software to provide pharmacy staff real-time, member-specific information and incentivise them to educate members on adherence. To read more about integration, see Essentials for Healthcare and Life Science CIOs in Data Strategy, Execution and Delivery.

The winner for healthcare payer was Arkansas Blue Cross Blue Shield (see Figure 6).

Figure 6: Healthcare Payer Winner — Arkansas Blue Cross Blue Shield

Healthcare Payer Winner: Arkansas Blue Cross Blue Shield
Harnessing the power of generative AI to drive enterprise value

Challenge	Solution	Outcomes
Manually drafting prior authorization denial letters is time-consuming and introduces inconsistent language that fails to comply with URAC requirements.	A private generative AI model produces URAC-compliant denial letters that are reviewed and approved by clinical staff. The model integrates member-specific clinical notes and applicable medical policy.	• 1,250 labor hours saved monthly • $1.5 million saved annually • Letters are sent the same day, reduced from two to five days

Source: 2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences
URAC = Utilization Review Accreditation Commission
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Life Sciences

Common themes among life sciences finalists:

- **Support for the full patient journey:** Many finalists position the patient journey as a central concern of their innovation, whether their solution specifically addresses issues along the patient journey or serves one specific step within it. One finalist — a maker of patient-specific medical devices — developed a surgeon collaboration and case management platform to efficiently scale the adoption of its devices.

- **AI diagnostics and discovery:** AI is beginning to revolutionize our ability to diagnose patients with greater accuracy and less demand for trained diagnostic experts. Additionally, AI can analyze billions of potential therapeutics, such as one finalist's AI model that predicts gene expression changes induced by different compounds.

- **Digitized and automated manufacturing:** To increase the speed, quality and sustainability of therapeutic manufacturing and packaging, finalists digitized and automated large parts of their manufacturing processes.

The winner for life sciences was Johnson & Johnson (see Figure 7).

Figure 7: Life Sciences Winner — Johnson & Johnson

Life Sciences Winner: Johnson & Johnson
AI diagnosis and Care Pathway for patients with Afib

Challenge	Solution	★ Outcomes
1 cardiologist / 10,000 Brazilians		• 9,000 ECGs performed • More patients receiving treatment; 80% increase in monthly ablations • Results show reduced symptoms, decreased drug use, fewer hospital visits, better health outcomes, improved quality of life and lower medical costs
Afib can be silent, and when untreated, can cause serious complications, increasing the risk of heart failure by five times and mortality by two times. In Brazil, less than 1% of these patients receive treatment because ECGs are complex to analyze and require trained cardiologists. There is just one cardiologist per every 10,000 Brazilians.	The AI tool reads ECGs and identifies arrythmias, generating a highly accurate report in just five minutes, eliminating the need for a trained cardiologist while increasing the potential for identifying Afib patients. Care Pathway helps coordinate care for and manage Afib patients, while optimizing patient experience and improve health outcomes.	

Source: 2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences
Afib = Atrial fibrillation; ECG = electrocardiogram
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For HCLS CIOs interested in learning more about the 2024 award winners and finalists, see the awards main page: Gartner Eye on Innovation Awards for Healthcare & Life Sciences.

Evidence

2024 Gartner Eye on Innovation Awards for Healthcare and Life Sciences. The main objective was to understand innovative uses of technology to drive best-in-class initiatives at healthcare and life science organizations. Submissions were accepted online from 1 February through 31 May 2024. In total, we received 123 submissions from respondents who worked in healthcare and life science organizations. Respondents were sorted by region: U.S. (n = 75), EMEA (n = 29), APAC (n = 16) and Americas (not including the U.S. — n = 3).

Document Revision History

Recommended by the Author

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