FIERCE
Healthcare

FIERCE INNOVATION AWARDS

Healthcare Edition 2021

AN EXPERIENCE FROM
Questex

Introduction

The COVID-19 pandemic continues to shape health care, sparking a "new normal" for providing care virtually and a need for systems and software to ensure quality and safety.

In this year's Healthcare Innovation Report, we spotlight solutions driving improvements and transforming the industry as we all navigate the ongoing impacts of COVID-19 on healthcare. The 5 award-winning innovations we describe in this report are saving money, empowering patients, and revolutionizing healthcare – from robot companions for connected aging to crowdsourcing real-time cost and variation data.

Our exclusive panel of judges from esteemed U.S. hospitals, health plans, and healthcare organizations reviewed hundreds of applications this year. Applicants were judged in the following categories:

- Clinical Information Management - Clinical information management supports decision making and ensures quality patient information at every touchpoint along the patient journey.

- Data Analytics/Business Intelligence - Innovative data analytics tools enable healthcare organizations to maximize performance, improve customer health and bolster efficiencies through smarter management of resources, risk assessment, quality measurement, clinical resources and predictive modeling.

- Digital/Mobile Health Solutions - Smartphones and tablets have created an intense and perpetual demand for innovative apps, solutions and services designed to engage and educate customers, save money, and enable information sharing among providers, payers and customers alike.

- Financial/Operational Solutions - Healthcare organizations are seeking new ways to streamline their operations, upgrade legacy systems and increase efficiencies.

- Population Health Management/Patient Engagement Solutions - Consumers are making decisions about their coverage and care on their own, leaving healthcare organizations seeking new ways to engage in this new environment that allows consumers to take charge of their healthcare. At the same time, health insurers and providers are seeking tools that promote behavioral changes, enhance communication and improve the patient experience.

We invite you to read about the 2021 finalists and their outstanding innovations. We encourage and support innovators bringing new ideas and solutions that will pave the way forward.

MEET THE JUDGES

Gabe Bullaro
Chief Executive Officer
WEST MARION COMMUNITY HOSPITAL

Jeanne Cunicelli
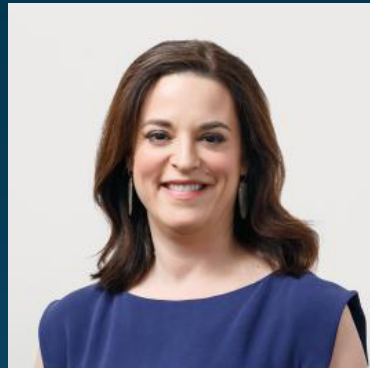EVP, President, UPMC Enterprises
UPMC

Indranil (Neal) Ganguly, CHCIO, FCHIME, FHIMSS
Vice President, Information Technology
HACKENSACK MERIDIAN HEALTH

Brian Kalis
Managing Director, Digital Health
ACCENTURE HEALTH

Curt Kwak, MBA, CHCIO, FCHIME
Chief Information Officer
PROLIANCE SURGEONS

Theresa Meadows
Senior Vice President and CIO
COOK CHILDREN'S HEALTH CARE SYSTEM

Todd Richardson
SVP/CIO
ASPIRUS,INC.

Sushant Shankar
HEALTHPALS
CEO & Founder

Julie Slezak
EVP
GNSHEALTHCARE

CLINICAL INFORMATION MANAGEMENT

CareGauge

EvidenceCare

POPULATION HEALTH MANAGEMENT/PATIENT ENGAGEMENT SOLUTIONS

ElliQ

Intuition Robotics

DIGITAL/MOBILE HEALTH SOLUTIONS

Biofourmis

Biovitals Hospital@Home

DATA ANALYTICS/BUSINESS INTELLIGENCE

ClosedLoop

Healthcare's Data Science Platform

FINANCIAL/OPERATIONAL SOLUTIONS

Disbursement Hub

InstaMed

biofourmis

BEST COST SAVING SOLUTION:

Biofourmis Biovitals Hospital@Home

intuition robotics

BEST ENGAGEMENT SOLUTION:

ElliQ

EvidenceCare
Better Care. Fewer Clicks.

BEST NEW PRODUCT/SERVICE:

CareGauge

EvidenceCare
Better Care. Fewer Clicks.

CLINICAL INFORMATION MANAGEMENT

CEO: BO BARTHOLOMEW
BASED: BRENTWOOD, TN
FOUNDED: 2015
CAREGAUGE FROM EVIDENCECARE

WHAT'S THE SCOOP:

Physician orders are the main driver of hospital cost, yet physicians have zero visibility into what their orders actually cost. This leads to low-value care that could negatively impact the patient and the hospital's bottom line.

EvidenceCare is bringing this information right to the fingers of physicians with its care utilization transparency tool. CareGauge is a powerful tool offering visibility into real-time cost and variation data in the form of gauges embedded directly in the EHR at the point of care.

The patented technology of CareGauge uses a non-disruptive, non-invasive interface. "Like a gas gauge in your car, it's just there," CEO Bo Bartholowew told FierceHealthcare. "Whether you're interacting with it or not, you're responding to it."

What that looks like for physicians is gauges moving in real time as each order is entered - green when the cost is below the average cost, yellow when trending near the average, and red when significantly higher than average.

WHAT MAKES IT FIERCE:

There are hundreds of companies with top-notch analytics and AI tools, but they all exist outside of the EHR. CareGauge exists seamlessly inside the workflow of the physician. That's what led EvidenceCare to be EHR-, content- and data-agnostic. So hospitals can deploy EvidenceCare solutions on any platform and bring in any company's insight right to where doctors interact with it.

The true value for physicians is full insight into peer-based care patterns and whether they're outliers in the treatments they provide.

With CareGauge's real-time visibility and control, physicians are getting meaningful and actionable information to provide the best value care for their patients. And they're changing their behavior and the decisions they make in a positive way, Bartholomew said. For a Texas health system, this meant fewer unnecessary orders and readmissions, a 1/2 day reduction in length of stay, and overall cost savings of $5 million after 10 months of using CareGauge.

Being able to compare their utilization to their peers' data in the EHR taps into that natural competitive nature doctors have with each other. "They want to be the best at what they do and they want to deliver the best care," said Bartholomew.

When physicians see where they stand in comparison to their peers, he explained, it pushes them subconsciously to want to do better. "And so you're reducing care variation simply by providing information. They almost course correct themselves."

WHAT TO LOOK FOR:

While a tool like CareGauge is innovative in and of itself, what excites Bartholomew and the team is that it's sparking new ideas about ways to transform EHR interactions. "It's really caused the physicians to dream a little more and seek out new innovation," Bartholomew said.

The company continues to receive requests for additional features and functions to bring even more useful protocols and insights to empower physicians to deliver higher-quality and more efficient care.

intuition robotics

POPULATION HEALTH MANAGEMENT/PATIENT ENGAGEMENT SOLUTIONS

CEO: DOR SKULER
BASED: ISRAEL
FOUNDED: 2016
ELLIQ

[Photo: Intuition Robotics]
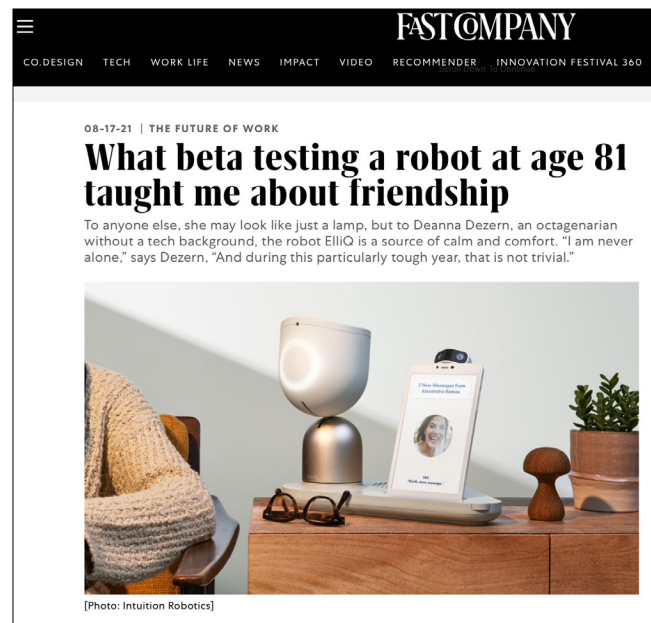
WHAT'S THE SCOOP:

The COVID-19 pandemic increased social isolation and loneliness, especially among seniors. But technology can help foster connection and companionship. Case in point: The world's first empathetic digital companion robot, ElliQ.

Intuition Robotics' ElliQ, which looks more like a table lamp than "The Jetsons," is an AI-driven robot that connects older adults to the world around them and encourages an active and engaged lifestyle.

"We are looking to create an empathetic digital companion that joins them on the journey of life and tries to find opportunities to improve their quality of life," Dor Skuler, co-founder and CEO of Intuition Robotics, told The Guardian.

While older adults are often overlooked when it comes to new devices and apps, ElliQ was designed with seniors in mind. It's user-friendly, uncomplicated, and intuitive. "I have zero technical experience, but I was able to beta test ElliQ simply by talking to her," 81-year-old Deanna Dezern, wrote in Fast Company. "If you can have a conversation, you can use this technology."

WHAT MAKES IT FIERCE:

Digital assistants like Siri and Alexa carry out commands and reactively respond to requests. ElliQ, a digital companion, communicates with seniors both reactively and proactively, initiating conversation and engagement. Moreover, these interactions come in many forms - voice, on-screen text, lights, and movement, for a dynamic experience.

ElliQ also learns and remembers important information - likes and dislikes - and adapts to the personalities and interests of the seniors to create personalized interactions. As Dezern wrote, "Because ElliQ is powered by such adaptive machine learning, every time she makes me laugh or reminds me I have someone looking out for me, I'm actually sharpening her technology and making her a better companion for my entire generation."

Throughout 2020 alone, ElliQ units spent 20,000+ days in older adults' homes across the U.S. Over the course of the year, users engaged in 35,000+ total interactions with ElliQ, including 40,000+ minutes of interaction, ~35% of which were conversational. ElliQ also mapped 115,000+ user intents, and users accepted ElliQ's proactive suggestions over 60% of the time, totaling about 5 daily interactions on average.

WHAT TO LOOK FOR:

As eldercare continues to shift into the home, ElliQ is moving beyond wellness and companionship into the healthcare ecosystem. The social robot has the potential to influence care quality and patient experience by offering a direct channel of communication between providers and patients.

ElliQ offers seniors proactive health check-ins, communication with their care team, care plan reminders, and support - giving seniors better control of their condition and treatment and higher-quality care. And primary care providers gain insights into self-reported data and patterns, notifications - empowering early detection and intervention.

DIGITAL/MOBILE HEALTH SOLUTIONS

CEO: KULDEEP SINGH RAJPUT
BASED: BOSTON
FOUNDED: 2015
BIOFOURMIS BIOVITALS HOSPITAL@HOME

WHAT'S THE SCOOP:

While the hospital at home concept has existed for decades, it really picked up steam during the pandemic. To help address hospital capacity issues due to COVID-19, the Centers for Medicare & Medicaid Services (CMS) made regulation and reimbursement changes for home healthcare, accelerating the adoption. As the pandemic continued, CMS has approved nearly 180 waivers for its Acute Hospital at Home program, up from just 10 the year before.

But when the CMS program was introduced, many health systems didn't have a technology platform in place that allowed for continuous monitoring and clinical decision support - so clinicians wouldn't know in real time whether a patient's condition may be deteriorating at home, Kuldeep Singh Rajput said in an interview with FierceHealthcare.

That's where the Biofourmis Biovitals Hospital@Home comes in. Biofourmis offers an end-to-end, turnkey Hospital@Home solution that includes an AI-based platform, medical-grade wearable biosensor, patient and clinician apps, telehealth and video conferencing.

Rajput said the company focuses on safety, and operational and economic benefits for hospital systems to scale the program. "The first question that comes to your mind really is can you do it safely? Can you provide that hospital level of care in the comfort of a patient's home safely while being able to reduce all the cost?" Kuldeep Singh Rajput noted.

Biofourmis co-developed and has scaled this solution in partnership with Brigham and Women's Hospital. Brigham published a January 2020 study in the Annals of Internal Medicine that showed delivering hospital-level care in patients' homes through the Biofourmis solution led to improved outcomes, lower costs, and a more positive patient experience.

WHAT MAKES IT FIERCE:

With Biofourmis Biovitals Hospital@Home, any hospital can quickly deploy the necessary workflows and technologies to a patient's home. Machine learning technology creates a customized baseline within 6 hours of monitoring, and that baseline is continuously monitored and refined for a better snapshot of a patient's condition and personalized patterns over time. AI-based analytics notify clinicians of any decompensation early on, so clinicians can intervene and prevent a medical crisis.

The solution is modular, so it can be easily and quickly adapted and customized for various disease states and applications, an important feature as the CMS program includes 60 conditions for home hospitalization.

WHAT TO LOOK FOR:

Rajput said he sees digital technologies continuing to push healthcare to be more predictive and proactive. New advancements and software will focus not just on monitoring patients but also intervening - such as software to guide medication changes safely and effectively to ensure optimal therapy.

When it comes to hospital care at home, "the future is enabling patients to have a unified experience across the journey of care where they can switch between low-touch and high-touch services," Rajput said. This will mean consolidating from 10-15 different solutions for different diseases or clinical use cases. "Hospitals really want to embrace one single platform to use from acute to post-acute to long-term longitudinal care," he explained, building dynamic care pathways for different disease areas in a personalized approach.

DATA ANALYTICS/BUSINESS INTELLIGENCE

CEO: ANDREW EYE

BASED: AUSTIN, TX

FOUNDED: 2017

CLOSEDLOOP - HEALTHCARE'S DATA SCIENCE PLATFORM

WHAT'S THE SCOOP:

Using data to get the right treatments to the right patients at the right time often involves a process that could take months or even years. That's why speed is a key factor for ClosedLoop and its AI-based data analytics solutions. It's enabling healthcare organizations to quickly produce predictive models tailored to their specific populations and data sources, in less than a week.

In leveraging machine learning, artificial intelligence, and big data, healthcare organizations can accurately predict which people are most at risk of costly, preventable, adverse health outcomes. "You've got to be able to spot bad things before they happen," ClosedLoop CEO Andrew Eye told FierceHealthcare. And do so faster and smarter.

For example, with the ClosedLoop platform, you can spot people with chronic kidney disease who are most likely to have emergency-initiated dialysis and get them scheduled to see a nephrologist, ultimately avoiding the high costs and adverse events associated with dialysis started at the hospital. "We predict the future so you - the doctor, patient, nurse - can change it,"Eye said.

The benefits of the ClosedLoop data science platform extend to predicting unplanned hospital admissions, chronic disease onset and progression, ongoing total cost, opioid abuse, and even severe illness from COVID-19.

WHAT MAKES IT FIERCE:

The company sees healthcare as the biggest opportunity to demonstrate AI for good. In addition to serving us ads and automating stock trades, AI can change lives for the better - improving patient care and outcomes, increasing equity, and reducing suffering. "Frankly, we're angry the technology industry hasn't focused on healthcare sooner and we intend to fix that," Eye said.

While ClosedLoop is focused on addressing some of the biggest, most costly issues in healthcare, including chronic disease and health inequities,

it's looking to AI to improve health for everyone, not just the sickest 5%. "We won't stop until explainable AI is used to improve every decision made by every doctor on the planet every day," said Eye.

According to Eye, ClosedLoop's biggest success has been its impact on patient lives, and the proactive care the models help to target. "A lot of times you're looking at spreadsheets and miss out on the patient story."

Chicago-based Medical Home Network used the ClosedLoop platform to maximize the impact of its care management programs and promote patients' well-being. The ACO could integrate multiple data sources and monitor patient risk over time, enabling them to apply the right interventions to the right patients at the right time - with a 63% increase in predictive accuracy, 80% reduction in false positives, and $1.5M in annual savings.

WHAT TO LOOK FOR:

Explainability, transparency, and equity will play a major role in the future of AI and machine learning in health care, according to Eye. These factors are built into the ClosedLoop model to ensure predictions are easily understood and adopted by end-users, from data scientists to community health workers.

With first-gen healthcare AI and machine learning, firms spent millions of dollars building proprietary black box tools and algorithms that couldn't be widely adopted and didn't provide visibility into how they work or potential biases. "It's not about some magic algorithm somebody else built on somebody else's population," Eye said.

Healthcare data must be accessible and easy to understand. So ClosedLoop is "smashing the black box" to show its customers exactly what each model has learned and how predictions are made, driving faster adoption and better clinical results.

InstaMed®
a J.P.Morgan company

FINANCIAL/OPERATIONAL SOLUTIONS

CEO: BILL MARVIN
BASED: PHILADELPHIA, PA
FOUNDED: 2004
DISBURSEMENT HUB FROM INSTAMED

InstaMed®
a J.P.Morgan company

Case Study:
Excellus BlueCross BlueShield Increases ERA/EFT Transactions by 145% in Six Months With InstaMed

Six months after partnering with InstaMed, Excellus BCBS went from delivering 22 percent of all transactions via electronic remittance advice/electronic funds transfer (ERA/EFT) to delivering 54 percent of all transactions via ERA/EFT.

BACKGROUND ON EXCELLUS BCBS
Excellus BCBS, headquartered in Rochester, NY, is part of a $6.6 billion family of companies that finances and delivers healthcare services across upstate New York and long-term care insurance nationwide. Collectively, the enterprise delivers health insurance to nearly 1.5 million members.

CHALLENGE
Ten years after launching ERA/EFT in 2006, Excellus BCBS was delivering just 22 percent of transaction volume as ERA/EFT, and provider adoption of ERA/EFT was stagnant.

SOLUTION
Excellus BCBS partnered with InstaMed to deliver Integrated ERA/EFT® transactions, launch the full-service Provider Adoption Program and connect to the InstaMed Network of healthcare providers.

Results With **InstaMed:**
- **145% increase in ERA/EFT transaction volume in the first six months after go-live with InstaMed**
- **Over 50% of all provider payment transactions delivered via ERA/EFT in less than a year**
- **Over $400k in cost savings in the first year of launch**

CHALLENGE:
Stagnant ERA/EFT Adoption

In 2006, Excellus BCBS implemented an ERA/EFT solution to reduce print and mail costs and offer a faster and more convenient payment option to their provider network. Initial provider adoption of ERA/EFT looked promising, with a substantial increase in adoption during the

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WHAT'S THE SCOOP:

Operating rules for electronic healthcare transactions took effect in 2014, yet the healthcare industry is still slow to adopt electronic payments. Even though 84% of providers prefer to receive electronic funds transfer (EFT) and electronic remittance advice (ERA) from health plans, according to InstaMed, 62% of payers still pay providers with paper checks.

"Healthcare is drowning in paper," Jeff Lin, Chief Product Officer, InstaMed, a J.P. Morgan company, told FierceHealthcare. "At the same time, delivering coverage to employees has become increasingly complex for health plans, as employers seek out self-managed plans, also known as Administrative Services Only (ASO) options," he explained.

InstaMed is committed to reducing the amount of paper in healthcare, and through its Disbursement Hub, guarantees health plans can deliver at least 80% of their claim payment transactions electronically within the first year. By switching from manual payments to electronic payments, this solution decreases print and mail costs, reduces the administrative effort for paper-based payments, and meets provider demands for compliant ERA/EFT transactions that fit into their existing workflow.

"Our innovative solution is allowing payers to do more with fewer resources and driving better experiences for all," Lin said.

WHAT MAKES IT FIERCE:

Thanks to its Disbursement Hub offering, InstaMed's payer customers increased ERA/EFT transaction adoption rates. For example, Geisinger Health Plan turned to Disbursement Hub to eliminate manual, labor-intensive, error-prone processes for provider payments. It now delivers more than 90 percent of provider payment transactions via ERA/EFT.

And for Excellus Blue Cross Blue Shield, Disbursement Hub helped them reach providers who were slow to adopt electronic payments, increasing ERA/EFT transactions by 145% in the first six months.

The shift to digital payments introduces new security challenges. Yet with Disbursement Hub, the risks and costs of a multi-vendor approach are eliminated. Because InstaMed is regulated as a bank, payment processor, card issuer and integrated clearinghouse, "we are the one platform that payers can trust with end-to-end security and accountability," according to Lin.

WHAT TO LOOK FOR:

InstaMed continues to innovate to meet the evolving needs of payers with Disbursement Hub, including dynamic messaging to members and enhanced support for ASO business. "We've been in lockstep with our clients as funding models grow, provider networks expand, employer group needs increase, and member demands rise," Lin said.

As COVID-19 pushes provider payments online, Lin said the future is frictionless, and the digitization of healthcare payments and processes will happen at scale. "Stakeholders – payers, providers, employer groups – will move data and funding electronically to their collective benefit," he said.

And there are significant benefits on the table. The healthcare industry could save more than $16 billion a year by transitioning away from paper to fully electronic transactions. "Our future vision is simple," said Lin, "don't stop innovating until there is no paper in healthcare payments."

FINALISTS

CLINICAL INFORMATION MANAGEMENT

CAREGAUGE
EVIDENCECARE

NVIEW HEALTH SOLUTION

VIM

POPULATION HEALTH MANAGEMENT/PATIENT ENGAGEMENT SOLUTIONS

ELLIQ
INTUITION ROBOTICS

HELIX POPULATION GENOMICS
HELIX

LARK HEALTH DIABETES PREVENTION PROGRAM AND DIABETES CARE
LARK HEALTH

DIGITAL/MOBILE HEALTH SOLUTIONS

B.WELL
CONNECTED HEALTH

BIGHEALTH

BIOFOURMIS BIOVITALS HOSPITAL@HOME

BRIGHT.MD

DATA ANALYTICS/BUSINESS INTELLIGENCE

CODOXO
FORENSIC AI PLATFORM

DDP'S® ENABLED BY DXRX – THE DIAGNOSTIC NETWORK®
DIACEUTICS PLC

FINANCIAL/OPERATIONAL SOLUTIONS

CONSUMER ONLINE ENROLLMENT EXPERIENCE
SCAN HEALTH PLAN

DIAGNOSS EHR ASSISTANT
DIAGNOSS INC.

DISBURSEMENT HUB
INSTAMED, A J.P. MORGAN COMPANY

INSTAMED PATIENT PAYMENT EXPERIENCE INSTAMED, A J.P. MORGAN COMPANY

PA CHECKPOINT
ITILITI HEALTH

HEALTHCARE'S DATA SCIENCE PLATFORM CLOSEDLOOP

HOSPITAL IQ OPERATIONS MANAGEMENT PLATFORM