OSF INNOVATION **BOARD REPORT**

for Fiscal Year 2025

OSF HealthCare

OSF INNOVATION

CONTENTS

A CULTURE OF INNOVATION
DRIVING HEALTH CARE FORWARD

By: **Becky Buchen,** *senior vice president, OSF Innovation*

At OSF Innovation, we believe the future of health care isn't something to wait for – it's something we are actively creating. Powered by bold ideas, breakthrough technologies, translational research, novel education deployment and relentless execution, innovation is ingrained in the fabric of our health care Ministry.

We are building a culture where every doctor, nurse and Mission Partner has the opportunity to dream big, collaborate fearlessly and transform those ideas into better care for our patients and communities. This spirit of innovation has earned OSF recognition as one of **America's most innovative companies**, but our true success is measured in the lives improved and the communities strengthened every single day.

Progress happens when we unite patients, Mission Partners and academic collaborators to design solutions that tackle real challenges. Whether it's reducing surgical cancellations through smarter patient guidance, reimagining personalized care delivery with advanced technology or addressing social drivers of health, our focus is on **solutions that make health care more accessible, more effective and more human**.

Every initiative begins with a clear purpose, bold goals and disciplined execution. By blending creativity with rigorous evaluation, we ensure ideas move beyond concept to create lasting impact across our Ministry and beyond. And because innovation is in our DNA, everyone, at every level, has a voice and a role in shaping the future of care.

Looking ahead, OSF Innovation will continue to lead on the **local, national and global stage**. By harnessing leading-edge research, AI-powered insights and patient-centered design, we are not just imagining the future of health care. We are building it, one transformative idea at a time. Together.

BREAKTHROUGH **FOCUS AREAS**

At OSF INNOVATION

we strive to be

a **world-class** innovation center

elevating clinical excellence through

bold ideas,* *meaningful technology,

translational research *and*

immersive learning.

New models of care

We develop and implement innovative, patient-centered care models that integrate advanced technologies to enhance accessibility, improve outcomes and streamline care delivery.

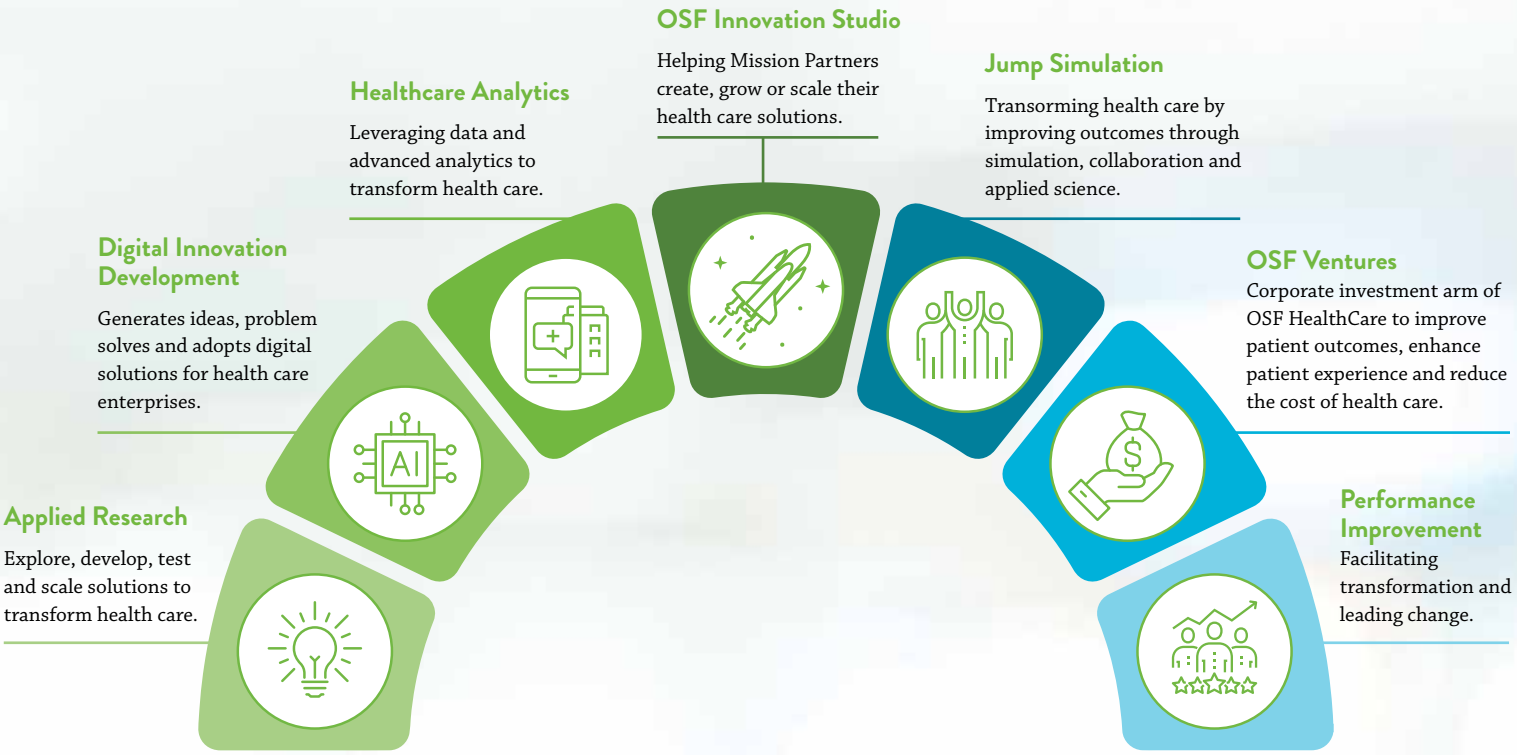
Social drivers of health

We address social drivers of health by integrating support services into patient care, ensuring equitable access to treatment and improving overall patient well-being.

Intelligent enterprise/big data

We leverage big data analytics and AI-driven insights to optimize clinical decision-making, personalize treatment and drive continuous improvements in care delivery.

THE OSF INNOVATION **ECOSYSTEM**



OSF Innovation brings together multiple departments, each with unique expertise, to work as one team in tackling the most complex health care challenges. Ideas are welcomed, explored and developed through a collaborative process that combines creativity, data, research and practical testing.

This collaboration extends to every Mission Partner, empowering all to share ideas and contribute to shaping the future of health care. By connecting resources and perspectives, OSF Innovation turns challenges into opportunities and helps Mission Partners improve outcomes, enhance patient experiences and lower costs for the communities we serve.

HOW IT WORKS

APPLIED **RESEARCH AND TRANSLATION**

Applied research drives the work at OSF Innovation, translating ideas into solutions that improve patient care. Through the Innovation Academic Incubator (IAI), OSF clinicians collaborate with university faculty, students, other partners and the departments of OSF Innovation to explore new procedures, develop medical devices and translate discoveries into real-world applications.

This collaborative approach helps teams tackle complex health care challenges more efficiently. By combining diverse expertise like clinical insight, engineering and modeling, researchers can test concepts, refine techniques and create innovations that might not be possible within a single institution.

Each IAI project is supported through philanthropy, with costs intentionally shared between OSF and university partners. This joint investment lowers the operational burden on either side while ensuring that resources are directed toward advancing breakthrough research. By leveraging philanthropic support in this way, we are able to maximize impact, foster innovation and sustain projects that benefit both the Ministry and the broader academic community.

ACADEMIC

$3,364,297
IN GRANTS AWARDED IN FY25

36
PROJECTS FUNDED

$21,533,583
IN GRANTS AWARDED IN 11 YEARS

University of Illinois Urbana-Champaign
University of Illinois College of Medicine Peoria
University of Illinois Chicago
Bradley University
Illinois State University — Illinois' first public university.

Applied research at OSF Innovation is about more than experimentation. Each project, whether in early-stage lab testing or simulation, builds toward a translational solution that can enhance outcomes, improve quality of life and expand what's possible in health care.

INCUBATOR/ACCELERATOR

MassChallenge
KidsX — Accelerating Pediatric Innovation
High Alpha Innovation
BIOSTL — Driving St. Louis Innovation
MATTER
SCALE HEALTH
gener8tor
DREAMIT
EST. 2020 DISTILLERY LABS

We understand the value of fresh perspectives and seek to work with innovators outside our walls. We partner with start-ups, corporations, universities, health care institutions and our own Mission Partners to maximize solutions using existing assets.

CONSORTIUMS

Abundant Venture Partners
avia
iiN Illinois Innovation Network
ChicagoARC

BREAKTHROUGH **LABS**

Working with universities, business partners and philanthropists, the OSF Innovation Labs explore, develop, test and scale solutions aligned with focus area goals. With more than 30 projects underway, these labs bring together the best resources to move project work forward.

Advanced Imaging and Modeling Lab

Creates 3D and 4D models and virtual reality anatomy tools that transform surgical planning, medical education and patient care

Children's Innovation Lab

Develops and tests solutions designed to meet the unique health care needs of children and their families

Clinical Intelligence and Advanced Data Lab

Harnesses health data, analytics and AI to improve clinical decision-making and deliver more personalized, efficient care

Design Lab

Applies human-centered design to create practical health care solutions that address real needs in hospitals and communities

Interprofessional Education Lab

Develops training and simulations that strengthen teamwork skills to improve health care delivery and patient outcomes

Neuro Health Lab

Explores new ways to diagnose, treat and support patients with neurological conditions while advancing clinician education

Nursing Innovation Lab

Designs tools, technologies and processes that empower nurses, enhance care quality and improve patient experiences

Rural Health Access Innovation Network

Builds sustainable, scalable care models that improve access to affordable, high-quality health care in rural communities

OSF STEAM

Inspires students to explore health care careers through hands-on learning in science, technology, engineering, art and math

HEALTHCARE **ANALYTICS**

Data and analytics services

This team leverages the OSF HealthCare data ecosystem, Enterprise Data Warehouse and business intelligence tools to turn data into insights about operations, patients and the communities we serve. The team ensures data quality, security and accessibility while driving analytics integration across the Ministry.

Advanced Analytics

This team develops and deploys operational AI in the pursuit of making OSF an AI-empowered organization. They have implemented a suite of intelligent solutions designed to optimize workflows, enhance decision-making and drive measurable efficiency gains across the Ministry.

Data and analytics services in action

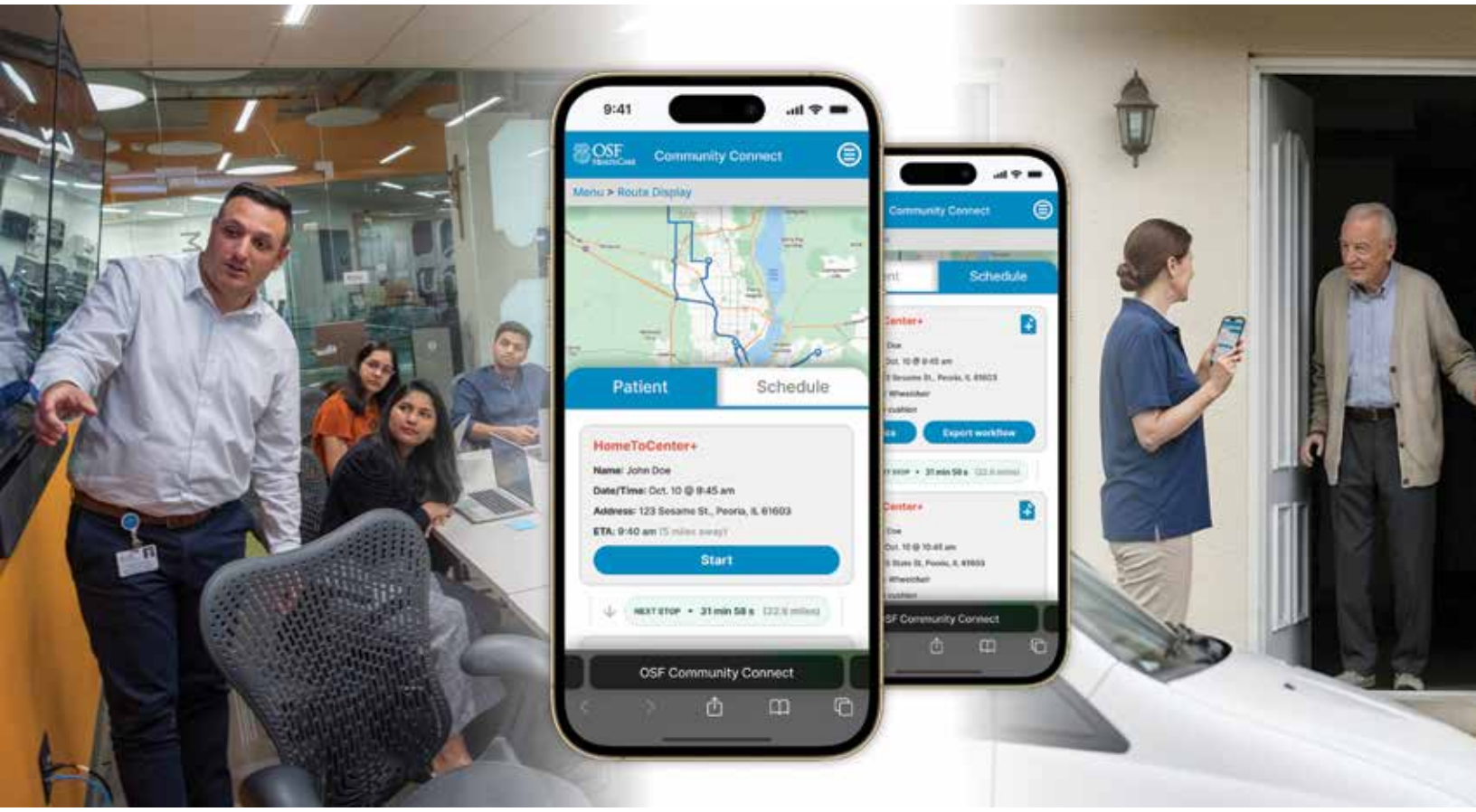
The team developed the quality app to track performance on key metrics that move OSF toward five-star quality. It provides service line summaries with data that can be viewed by region, facility and provider. The tool also includes detailed reports on core quality results such as mortality, avoidable conditions, infections and readmissions.

Advanced Analytics in action

In partnership with Revenue Cycle, the Advanced Analytics team developed automations to resolve non-valid credit balances, including statute of limitations and credit corrections, and to flag accounts for refunds. These tools have streamlined work and improved results:

- Reduced Epic work queue backlogs by 19%
- Replaced a $460,000-per-year vendor contract with an in-house solution

DIGITAL INNOVATION **DEVELOPMENT**



Digital Innovation Development seeks, designs, tests, builds and executes digital products that help OSF HealthCare provide more effective and efficient care as well as greater outreach and service for every community the Ministry serves. By leveraging expertise in AI digital experience, cloud computing, data engineering, innovation and applied research, Digital Innovation Development brings ideas to fruition, sources external products, executes on the Ministry strategy and builds in-house solutions that create new value from our existing data.

Digital Innovation Development in action

The OSF Community Connect logistics platform is being designed as an advanced solution that can improve health care operations through intelligent, real-time optimization and automation. Leveraging NVIDIA cuOpt, a GPU-accelerated engine, the platform will address complex logistics challenges such as nurse visit routing, medical deliveries, patient transfers, referral triage, pharmacy workflows, clinical rounding and patient transportation. Its core capabilities will include real-time scheduling adjustments, automated workflow orchestration, continuous operational improvement and seamless integration with existing electronic medical records. By connecting data, decisions and actions across care settings, the platform aims to help OSF enhance efficiency, reduce delays and improve patient experiences.

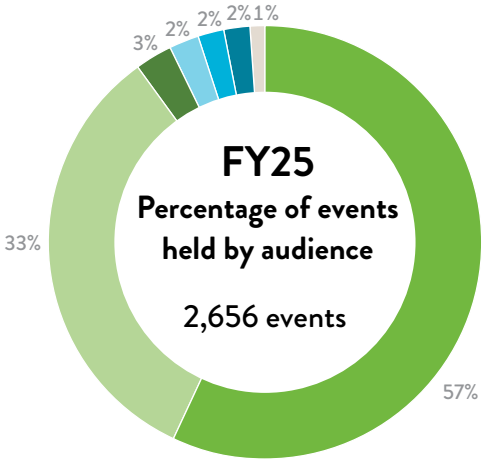
JUMP **SIMULATION**

Jump Simulation is a leader in health care education, simulation and innovation. A collaboration between OSF HealthCare and University of Illinois College of Medicine Peoria, Jump applies simulation, research, discovery, collaboration and applied science to dramatically improve outcomes and lower health care costs. As part of OSF Innovation, Jump shares its years of expertise with institutions around the world to transform health care. Jump applies the power of simulation to not only educate and train, but to test new methods, technologies and devices in health care and create solutions for clinical training and health care delivery.

Simulation in action

Jump is advancing Destination OSF by supporting programs that build the clinical workforce and expand access to specialized care. In partnership with University of Illinois College of Medicine Peoria, a new anesthesia residency was launched in 2024 to help address the national shortage of providers. The three-year curriculum includes subspecialties in cardiovascular care and pediatrics. Jump supports the program with a dedicated learning space and helps design the simulation education and assessment tools that are essential to training.

JUMP UTILIZATION METRICS



39,579
LEARNERS

49,118
EVENT ATTENDEES

PERFORMANCE **IMPROVEMENT**

Performance Improvement facilitates innovation efforts to support leaders in building OSF HealthCare as a high-performing health care system. This is done by focusing on transforming the core business while also building the future. By applying rigor, Performance Improvement can improve existing products, processes or services, as well as develop new models. These efforts eliminate unnecessary waste or variation and ultimately improve the quality of care for patients.

Performance Improvement in action

Performance Improvement has been helping to drive transformation both regionally and Ministrywide for OSF HealthCare.

Ministrywide

- Partnered with OSF HealthCare Cardiovascular Institute to accelerate time-to-treatment for aortic dissections through a streamlined auto-accept process, resulting in zero transfer denials in the first month.
- Collaborated with OSF HealthCare Cancer Institute to implement a streamlined workflow to improve care continuity and reduce time-to-diagnosis. This reduces the average time-to-treatment from **over 80 days to approximately 42 days**.
- Worked with OSF Medical Group to enhance access and efficiency by **reducing patient wait time by 20 days** for endocrinology and diabetes and reducing referral-to-appointment times and waitlist durations for rehab appointments.

Regions

- Partnered with leadership from the Western Region on a future-back strategy to align long-term strategic vision with actionable initiatives by helping to develop and prioritize key initiatives for Fiscal Year 2026.
- Collaborated with OSF HealthCare Saint Francis Medical Center in the Central Region to redesign labor and delivery services for enhanced efficiency and patient experience, optimizing operations through improved triage, operating room efficiency and scheduling.
- Worked with OSF HealthCare Saint James – John W. Albrecht Medical Center in the Eastern Region to enhance operating room efficiency, communication and team alignment resulting in a direct increase to contribution margin, improving Mission Partner Opinion Survey results and enabing future growth in surgical procedures.

126

Mission Partners and leaders strengthened their skills with training in change management

401

Leaders completed continuous improvement training

OSF INNOVATION **STUDIO**

OSF Innovation Studio shepherds the concepts of Mission Partners into impactful solutions at OSF HealthCare and beyond. As the development and commercialization engine for OSF HealthCare, the OSF Innovation Studio team bridges the gap between idea and impact. Empowering Mission Partners to fast track their innovative health care solutions, OSF Innovation Studio provides the tools and resources to guide them from concept to validated solution within or beyond the Ministry. Utilizing a collaborative approach combined with expertise in areas such as engineering, rapid prototyping, user experience, design and development, the team ensures that innovative concepts are nurtured, protected and brought to life.

3
PATENTS ISSUED

110
SUBMITTED INVENTION IDEAS

OSF Innovation Studio in action

Brad Hayes, RN, a Mission Partner on the clinical resources team at OSF HealthCare Saint Anthony Medical Center, recognized the challenges nurses face when managing chest drains. Tubes can easily shift, tip over or obscure important measurements, posing risks for patient safety. While completing a fellowship through the Nursing Innovation Lab, Brad worked with OSF Innovation Studio to develop ZoDe, a 3D-printed stabilizing device for the Atrium Oasis chest drain. With a non-slip base and a design that preserves visibility of fluid levels, ZoDe improves stability, accuracy and ease of use. Thanks to OSF Innovation Studio, Brad's patent-pending idea has moved from concept to reality, providing a safer and more efficient solution for bedside care.

OSF **VENTURES**

OSF Ventures, the corporate-investment arm of OSF HealthCare, invests financially, operationally and strategically in opportunities with the potential to improve patient outcomes, enhance patient experience and reduce the cost of health care.

OSF Ventures evaluates potential solutions such as technology, software and devices based on what will help OSF HealthCare meet its key objectives and strategic goals. Investments are made in companies that see the value in collaborating with OSF HealthCare clinicians and other professionals within the organization.

FUND INVESTMENTS

250M
ASSETS UNDER MANAGEMENT

34
DIRECT INVESTMENTS

5
FUND INVESTMENTS

21
ACTIVE PORTFOLIO

13
EXITS

Ascension Ventures

LEAVITT EQUITY PARTNERS

LRVHEALTH
Insightful Capital

Investment in action

In September 2020, OSF Ventures made an early investment in Inflammatix, a molecular diagnostics innovator focused on transforming emergency care for patients with suspected acute infections or sepsis. The company's flagship offering, the TriVerity™ Test System, leverages precise measurements of a patient's immune response to deliver rapid, AI-enhanced scores for bacterial infection, viral infection and illness severity. This helps clinicians make fast, informed triage decisions while reducing unnecessary diagnostics, hospital stays and readmissions. Each of these improvements supports ED efficiency, better outcomes and lower cost of care.

Inflammatix recently received FDA approval for TriVerity, a significant regulatory milestone that underscores the test's clinical promise and paves the way for broader adoption. OSF HealthCare is one of only two systems – alongside Johns Hopkins University – participating in Inflammatix's first prospective interventional study. Known as the TIMED study, this trial focuses specifically on emergency department "sneaky sepsis" patients whose symptoms can be difficult to identify early. By incorporating TriVerity results into care decisions, OSF investigators are evaluating its impact on early sepsis recognition, appropriate antibiotic use, ED throughput and compliance with the sepsis bundle. Early findings at OSF suggest meaningful reductions in unnecessary antibiotics, hospital admissions and length of stay, underscoring TriVerity's potential to reshape emergency care. A commercial opportunity for TriVerity at OSF is under active evaluation.

REVOLUTIONIZING CANCER CARE

OSF Innovation fuels the progress behind more personalized, accessible and effective cancer care, improving outcomes and experiences for patients at every stage of their journey.

MY VISIT **GUIDE**

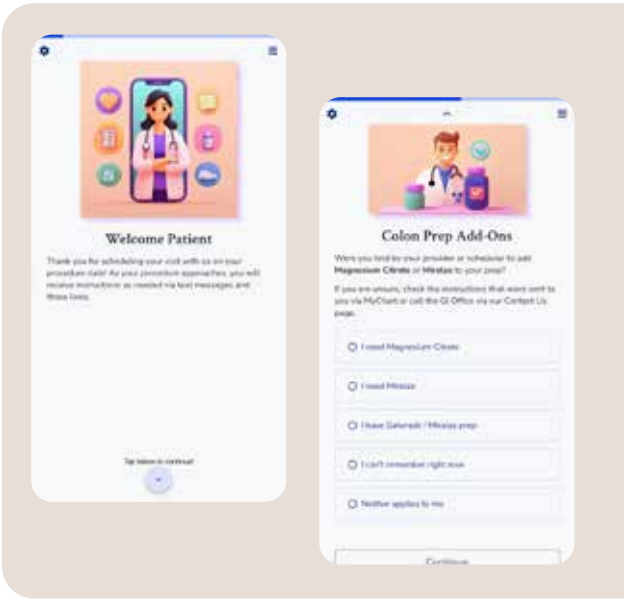
TODAY

Streamlining patient prep for better procedure success

SEE THE INNOVATION SHOWCASE POSTER

My Visit Guide streamlines the GI procedure preparation process in an effort to reduce cancellations and no-shows. By addressing common barriers like prep misunderstandings, time conflicts and transportation challenges, this solution uses automation, human-centered design and personalized patient management to provide clear, timely guidance. The result is a smoother experience for patients and fewer last-minute cancellations. The pilot has served over 3,500 patients with an engagement rate of 78%.

"As a former nurse, the instructions were amazing. They were clear and easy to understand." - My Visit Guide user



BREAST CANCER RISK ASSESSMENT **PROGRAM FOLLOW-UP**

TODAY

Using technology to streamline the MRI scheduling process

LISTEN TO THE PODCAST

The breast cancer risk assessment program uses Cancer IQ to identify high-risk patients based on personal and family history. Offered at all OSF mammography locations, the process starts with a short survey during a mammogram. Those flagged as high risk may meet with a provider to review history, consider genetic testing and, if appropriate, add a breast MRI to their screening. The screening is typically six months after the mammogram, followed by a clinical exam and imaging review.

To streamline follow-up, the Digital Innovation Development team automated MRI scheduling using a digital platform that flags when six months have passed, sends reminders and contacts patients via their preferred method. This reduces manual tracking, ensures timely screenings and allows clinicians to focus on care.

RESHAPING PEDIATRIC CARE

PERSONALIZED HYBRID CARE

ADVANCED DIAGNOSTIC APPS

STEAM LEARNING TOOLS

ADVANCED MONITORING TOOLS

AI-POWERED PREDICTIVE SCREENINGS

OSF Innovation drives advancements that make pediatric care more connected, proactive and personalized to support healthier outcomes for children and families.

PORTGUARD

TODAY

Providing peace of mind for pediatric cancer patients

LISTEN TO THE PODCAST

PortGuard protects the central venous access port for pediatric cancer patients who want to stay active. Designed to prevent damage during contact activities, it fosters a sense of normalcy and inclusion while ensuring patient safety. With prototypes tested, appropriate approvals in place and initial use underway, this solution aims to enhance quality of life and provide peace of mind for families.

11 DEVICES DELIVERED LAST YEAR

PATIENT AND PARENT **EDUCATION**

TOMORROW

Helping OSF Children's Hospital share valuable information

EXPLORE THE BOOK

OSF STEAM is collaborating with OSF HealthCare Children's Hospital of Illinois to create more engaging education for patients and parents, building on the success of a patient-focused coloring book. The book helps children feel more comfortable with their care team by introducing health care careers they may encounter during a visit.

This approach will extend into a new project for the hospital's ENT team, focusing on hydration education. With support from OSF Innovation Studio, OSF STEAM will create materials that make learning more interactive and accessible. If this first effort proves successful, similar educational tools may be developed for other departments at OSF Children's Hospital.

REIMAGINING CARDIAC CARE

ADVANCED MONITORING TECHNOLOGY

MEDICATION ASSISTANCE TOOL

PROACTIVE PERSONALIZED MEDICINE

REDUCTION IN HEALTH COST

IMAGING AUTOMATION

AI-INTEGRATED HEALTH ASSISTANCE

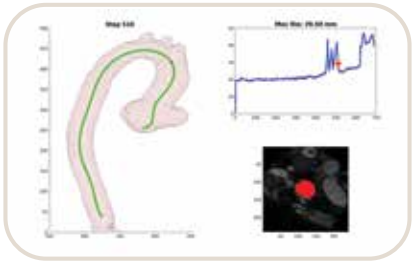
VR PRE-SURGICAL PLANNING

By advancing technology that enhances precision, prediction and prevention, OSF Innovation is improving the quality of life for those with heart conditions.

TOMORROW

AUTOMATED AORTIC ARCH **SEGMENTATION**

Improving surgical planning with 3D modeling



The Advanced Imaging and Modeling Lab developed and tested a tool that automatically measures the aorta using 3D models to accurately track its size from the diaphragm to the aortic root. These automated measurements match closely with traditional clinical methods, showing that 3D modeling can be a reliable alternative to standard 2D approaches.

This work could have a major impact on the future of surgery. By automating measurements, doctors can save time, reduce the risk of errors and make better-informed decisions about serious conditions like aortic dissection. This innovation also lays the foundation for using fully automated 3D models in surgical planning, which will help surgeons visualize anatomy more clearly and plan interventions with greater precision and confidence.

TODAY

4D **HEARTS**

The future of surgical modeling

LISTEN TO THE PODCAST

OSF HealthCare is home to the nation's only lab capable of automatically creating 4D beating heart models from CT scans. Using machine learning to segment and stitch together time-sequenced 3D images, the Advanced Imaging and Modeling Lab has transformed static visuals into dynamic digital twins that replicate every phase of a patient's cardiac cycle.

Already integrated into surgical planning, this breakthrough is changing decisions in real time – from complex pediatric cases to valve procedures where motion is critical. What once took months of manual work can now be generated with a single click, giving surgeons unprecedented insight into both anatomy and function. Hospitals nationwide are sending scans to OSF, and as this technology advances, it promises to set a new standard of care.

"Wow, this is just unbelievable. It's the next frontier!" – Physician quote from anonymous survey

REINVENTING NEURO CARE

By advancing scalable technologies that streamline diagnosis, support clinicians and expand access, OSF Innovation is reinventing neuro care for faster answers and more precise treatment.

MIGRO

TOMORROW

Revolutionizing migraine diagnosis

READ THE ARTICLE

OSF Innovation Studio, in collaboration with University of Illinois College of Medicine Peoria and OSF HealthCare Illinois Neurological Institute, is developing the Migraine Referral Optimization (MiGRO) app with phase 2 funding from the Innovation Academic Incubator. The app aims to improve migraine diagnosis and management, especially in rural and underserved communities. The app uses a simple algorithm to provide accurate diagnoses, recommend initial treatment and streamline referrals to specialists. MiGRO helps reduce misdiagnosis and addresses barriers such as limited access to care, transportation challenges and cultural or language differences. Early testing at OSF INI shows MiGRO outperforms traditional referral methods and prioritizes urgent cases for specialty care.

Increased accuracy of diagnosis by 30% in the initial pilot

DIAGNOSTIC OPERATING PLATFORM

TOMORROW

Getting patients to care faster through digital technology

The Clinical Intelligence and Advanced Data Lab is working on an advanced agentic AI tool designed to accelerate diagnosis and treatment by integrating with electronic medical records. It identifies patients who receive repeated diagnoses without follow-up, may be misdiagnosed or are not responding to treatment. By proactively recognizing these gaps, the platform facilitates timely referrals to the appropriate facility, ensuring patients receive the right care when they need it. This can be especially important for neurological conditions that are hard to diagnose or are difficult to get a referral for.

VISIT 1: Diagnosis: Numbness → **VISIT 2:** Diagnosis: Fatigue → **Diagnostic Operating System recognizes failure to get an actual diagnosis and facilitates rapid referral** → **VISIT 3:** Diagnosis: Multiple Sclerosis

INNOVATING **FOR THE FUTURE**

Designing the future health system

PATIENTS

NEW MODELS

PROVIDERS

OPERATIONS

Precision care

Genomic data and research partnerships create more **precise treatments**

AI-assisted workflows

AI will help automated administrative tasks resulting in greater efficiency

Advancing care through connection, precision and compassion

Transforming health care by pairing provider insights with artificial intelligence

Active participation

AI and wearable insights enable care tailored to me

Empowered care providers

In-home connected technology help family caregivers manage care

Reimagining health care for the individual

The future of health care innovation is rooted in delivering a more **personalized, proactive experience** for every patient. In the years ahead, advances in large language models (LLMs), genomics, wearable technologies and simulation will allow care to be designed around each individual rather than the average patient. This shift will **empower** people to have greater insight into their own health while giving providers the tools to **anticipate needs and intervene earlier**.

Wearable devices will increasingly serve as everyday companions, offering continuous health insights and enabling **proactive management** of chronic conditions. Genomic medicine will guide treatment decisions with greater precision, ensuring therapies are both targeted and effective. LLMs will help organize complex information, reducing the administrative weight on providers while improving the clarity and accessibility of health information for patients. Together, these innovations will **foster care experiences that are more efficient, accurate and centered on what matters most to the individual**.

Building the expertise to power innovation

The research and translation of these innovations require health care systems to create value in their existing data and leverage next-generation resources that benefit patients and providers. Delivering meaningful health insights, proactive care and personalized experiences requires new kinds of expertise from the health care workforce. Using tools like agentic AI and bots doesn't replace people – it reshapes their roles. Health care organizations must retrain their workforce and attract talent with specialized skills to fully realize the potential of these technologies.

Simulation and collaboration with academic institutions will also play a central role in shaping this future. Simulation will **accelerate learning and validation**, allowing new technologies and care models to be tested in safe, controlled environments before reaching patients. Partnerships with universities will drive research, spark new ideas and connect clinical challenges with scientific discovery.

Advancing care through connection, precision and compassion

By weaving these advancements together, health care can achieve a future where **patients feel known, providers feel supported and outcomes are consistently improved**. The promise of innovation is not simply new tools, but a system of care that adapts to each person.

Achieving this vision will depend on people as much as technology. As health care systems embrace innovation, they must also invest in the skills and curiosity of their workforce. Equipping clinicians, data scientists and operational leaders to work side by side will **turn insight into action** and sustain a culture of learning. When technology and talent evolve together, health care becomes not only more advanced, but **more compassionate, connected and capable of meeting each person's needs.**

FORTUNE

statista

AMERICA'S MOST INNOVATIVE COMPANIES | 2025

OSF HEALTHCARE

OSF INNOVATION