2024

HOSPITAL TREND REPORT

A FORECAST OF THE TOP HOSPITAL TRENDS AND INNOVATIONS OF 2024

eso

IN 2024, MORE ACCESS TO DATA AND TECHNOLOGICAL ADVANCEMENTS ARE DRIVING CHANGE THROUGHOUT THE INDUSTRY.

With budgets not stretching as far as they once did and inflation still on the rise, hospitals are having to get creative to keep up with the growing demand for high-quality care. This is especially true in the more rural areas, where the most vulnerable populations – who are often the most isolated and remote – suffer most.

It is this predicament that has been pushing many in the industry to turn to new technologies and data-driven insights to drive their next move. The effective use of data allows organizations to overcome limited resources and constrained budgets while pursuing new avenues of care and partnerships that were once not possible. Because of this, 2024 marks the year of shared data and outcomes between hospitals within a system, EMS and hospital partners, and providers across the globe. The impact of interoperability is more pronounced today than ever before, allowing for insight-driven decision-making every step of the way, leading to a more cohesive and improved experience throughout the entire continuum of care.

So, what are the technological trends and advancements we can expect to see the industry turning to in 2024? How will data help shift the current healthcare landscape and help fill gaps in quality care? What technologies are hospitals incorporating into their operations to help them keep up with demand? And with innovations happening at an ever-increasing speed, how will organizations build processes around data sharing and usage while keeping their patient information safe?

1 GETTING CREATIVE IN COMBATTING ECONOMIC CHALLENGES

Hospital systems, continuing to feel the impact of global economic pressures like inflation and supply chain challenges, are responding to the increasing demands for higher care standards. This has sparked innovative approaches in several key areas. From improving staffing processes to exploring new care models, hospitals are finding ways to adapt. They're also looking at ways to better support healthcare providers and streamline operations, hinting at broader changes in how care is delivered and managed.

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Monitoring and Improving Staffing

There's progress being made in better understanding how staffing shortages affect operational areas like bed availability, emergency department throughput and ambulance off-load delays. By closely monitoring and adapting staffing models with more effective strategies, hospitals can directly impact the quality of patient care and overall workflow efficiency.

Implementing Patient Predictability Models

In an effort to improve staffing workflows and in turn patient care, we'll see hospitals turning to AI to better predict what patients are arriving and departing, when they are coming in, as well as what department they'll need to be in. This approach is continuously improving through the integration of a growing supply of EMS data, including Mobile Integrated Health (MIH) initiatives coupled with care management. By looking both upstream and downstream to identify optimization opportunities, this integration validates EMS in making critical prehospital decisions, refining AI-driven patient predictability models and advancing hospital outcomes.

Revisiting Evidence-Based Care Models

Hospitals are shifting focus to virtual nursing and 'hospital at home' models, catering to patient preferences for more convenient care while also reducing exposure risks for their staff. These changes are especially important in rural areas, where access to healthcare can be challenging. Alongside patient care, the importance of Employee Assistance Programs (EAP) and Peer Support Teams is being recognized to ensure that healthcare providers receive the support they need, reflecting a balanced focus on both patient and staff well-being.
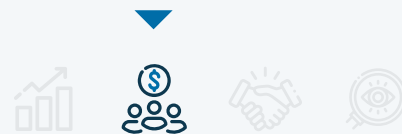
Modernizing Outdated Interoperability Processes

Hospitals are leveraging new technologies to overhaul their outdated interoperability processes, particularly focusing on the tedious task of transcribing and abstracting data from EMS records. By streamlining and automating this process, there is potential for substantial time savings and a reduction in resource expenditure each year.

Unlocking Alternative Underwriting Strategies

Facing economic pressures, healthcare organizations are increasingly exploring alternative underwriting strategies such as philanthropy, grants, and partnerships with third parties. Leveraging data to see how these resources can be applied effectively and then transforming that data into actionable initiatives helps unlock opportunities and mitigate costs. Funding for essential equipment or even helicopters can be sourced through these channels, directly reducing operational costs while maintaining high-quality care.

2 INVESTING IN BETTER UNDERSTANDING AT-RISK COMMUNITY CHALLENGES

A lack of resources and budget aren't the only two challenges that put health and safety at risk for many rural and at-risk communities. Longer transport times can also lead to adverse effects for patient outcomes. The 2023 ESO Trauma Index found this to be especially true for penetrating trauma patients who had higher mortality rates in rural areas with limited access to trauma centers. These challenges are impacted by Social Determinants of Health (SDOH), which significantly affect these communities. In order to combat these difficulties, hospitals are turning to new technologies and communication methods. They're connecting with communities through channels like social media, increasingly incorporating telehealth into practice for isolated members, and using AI to assess and reduce care inequalities, carefully avoiding the amplification of existing biases.

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Pursuing New Forms of Communication

By connecting through new communication channels including social media, hospitals can improve their relationships with their community, while also sharing vital lifesaving health information.

Embracing Telehealth

In order to remotely provide care and prescribe medications for more isolated members of the community, hospitals will start to incorporate more telehealth into their practice. This is particularly happening due to rural hospital closures and a lack of specialties. Technologies such as telestroke and teleICU are enabling hospitals to handle cases remotely that would have traditionally required transfers. Alongside this, the hospital-at-home model and EMS facilitated telemedicine are emerging a key strategies, offering patient-centered care right in their homes.

Working to Reduce Bias

By turning to AI to measure and assess bias, hospitals are working to reduce inequalities in care. However, there's concern that AI prediction models, if based on already biased systems, could potentially increase bias. It's essential to move these models forward with caution, reworking them to ensure that they do not amplify existing biases.

Understanding Social Determinants of Health

There's a growing focus on understanding SDOH and their impact on various communities. It's becoming clear that people who face bias often have health issues linked to their social and environmental conditions. By studying these social factors, healthcare providers can offer more tailored and fair care to everyone, especially those in disadvantaged situations.

3 OPTIMIZING PARTNERSHIPS, CARE, AND VALUE THROUGH NEW TECHNOLOGY

Data interoperability has wide-ranging benefits for both EMS and hospitals alike. Not only does it close the feedback loop for EMS partners, but it also allows hospitals to quickly gain insight into prehospital care, giving them the ability to improve clinical care, drive patient safety, efficiency and reimbursement optimization. A good example of how improving these partnerships leads to better patient outcomes is early blood transfusions. A huge concern for trauma patients, hemorrhaging accounts for over 30% of trauma-related deaths or 50,000 deaths annually. According to the 2023 ESO Trauma Index, EMS agencies who worked hand and hand with hospitals were able to quickly administer whole blood transfusions to at-risk patients, leading to improve outcomes. So, how are hospitals using data and new technologies to improve the continuum of patient care in this area and others? In 2024, we'll see further advancements in data sharing, training, and standardization. Hospitals will enhance data interoperability, training methods will evolve, and a greater emphasis will be placed on standardization in healthcare to improve care efficiency and patient outcomes.

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Enhancing the Interoperable Flow of Data

Through automatic sharing of patient records, hospitals will strengthen partnerships with EMS agencies and other professional organizations. This move, in line with Integrating the Healthcare Enterprise (IHE) protocols and Office of the National Coordinator for Health Information Technology (ONC) expectations for outcome sharing, aims to provide real-time feedback, improving care and closing the loop on patient outcomes.

Incorporating New Innovations in Training

Training for nurses and physicians is evolving with more virtual courses and simulation labs that are designed to mirror real-life situations. These methods are proving effective for adult learning patterns and are key in improving care through regular outcome reviews and performance improvement cycles. Support for these training approaches is often being funded from grants and philanthropic sources.

Embracing Standardization in Healthcare

Healthcare is using standardization to make care and partnerships better, especially in EMS. This means getting different systems and technologies to work well together. By using common standards like Health Level Seven (HL7®) Fast Healthcare Interoperability Resources (FHIR®), it's easier to share healthcare data between different systems. This leads to smoother sharing of information and better care for patients.

4 DRIVING CHANGE THROUGH REAL-TIME DATA-DRIVEN INSIGHTS

As the medical industry evolves in the digital era, it is embracing new technologies and data-driven insights mentioned above to improve patient care and EMS partnerships, while streamlining outdated processes. The focus now is on real-time data capture and workflow enablement, which is reflected in training programs where hospitals have begun to integrate data collection to better prepare staff. This turn towards concurrent data entry supports real-time process and care improvements, feeding into predictive modeling for earlier interventions. To fully embrace the benefits of real-time data-driven insights, it's important to first understand the role that it will play within the industry, while also constructing policies to ensure it will be leveraged safely.

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Focusing on Real-Time Data Collection

Recognizing its importance, hospitals are integrating real-time data collection into training programs to better prepare staff for concurrent data entry. This allows for immediate process and care improvements while providing a foundation for predictive modeling and early intervention strategies.

Pulling More Actionable Insights in Real Time

The true power of data lies in extracting actionable insights contemporaneous with workflow execution. Between improving everything from patient care, increasing budgets, to streamlining processes, data is only as good as the insights pulled from it. An increase in educating staff on how to analyze the data captured will allow hospitals to pull more actionable insights that help push forward change.

Implementing Smarter Management Policies

With the growing importance of real-time data within our industry, hospitals are evolving their policies to respond to patient data requests. The goal is to integrate real-time data collection seamlessly into care delivery, so that it helps rather than interrupting patient care. These policy updates can leverage real-time insights for timely interventions, predictive models, and enhanced decision support – all while applications are being optimized to better support these real-time demands.

Overview

Focus Area 1
Getting Creative in Combatting Economic Challenges

Focus Area 3
Optimizing Partnerships, Care, and Value Through New Technology

Focus Area 2
Investing In Better Understanding At-Risk Community Challenges

Focus Area 4
Driving Change through Real-Time Data-Driven Insights

Look Ahead

The trends and innovations for 2024 put technology and data on the forefront—whether it's leveraging insights to protect more vulnerable populations, improving partnerships with EMS teams, streamlining outdated processes or just improving overall care across the entire patient experience.

But to make the most of these new technologies and insights, it is important that the industry embrace responsible use frameworks, as well as detect and mitigate the potential for bias.

ABOUT US

ESO (ESO Solutions, Inc.) is dedicated to improving community health and safety through the power of data. Since its founding in 2004, the company continues to pioneer innovative, user-friendly software to meet the changing needs of today's EMS agencies, fire departments, hospitals, and state EMS offices. ESO currently serves thousands of customers throughout North America with a broad software portfolio, including the industry-leading ESO Electronic Health Record (EHR), the next generation ePCR; ESO Health Data Exchange (HDE), the first-of-its-kind healthcare interoperability platform; ESO Fire RMS, the modern fire Record Management System; ESO Patient Registry (trauma, burn and stroke registry software); and ESO State Repository. ESO is headquartered in Austin, Texas. For more information, visit www.eso.com.