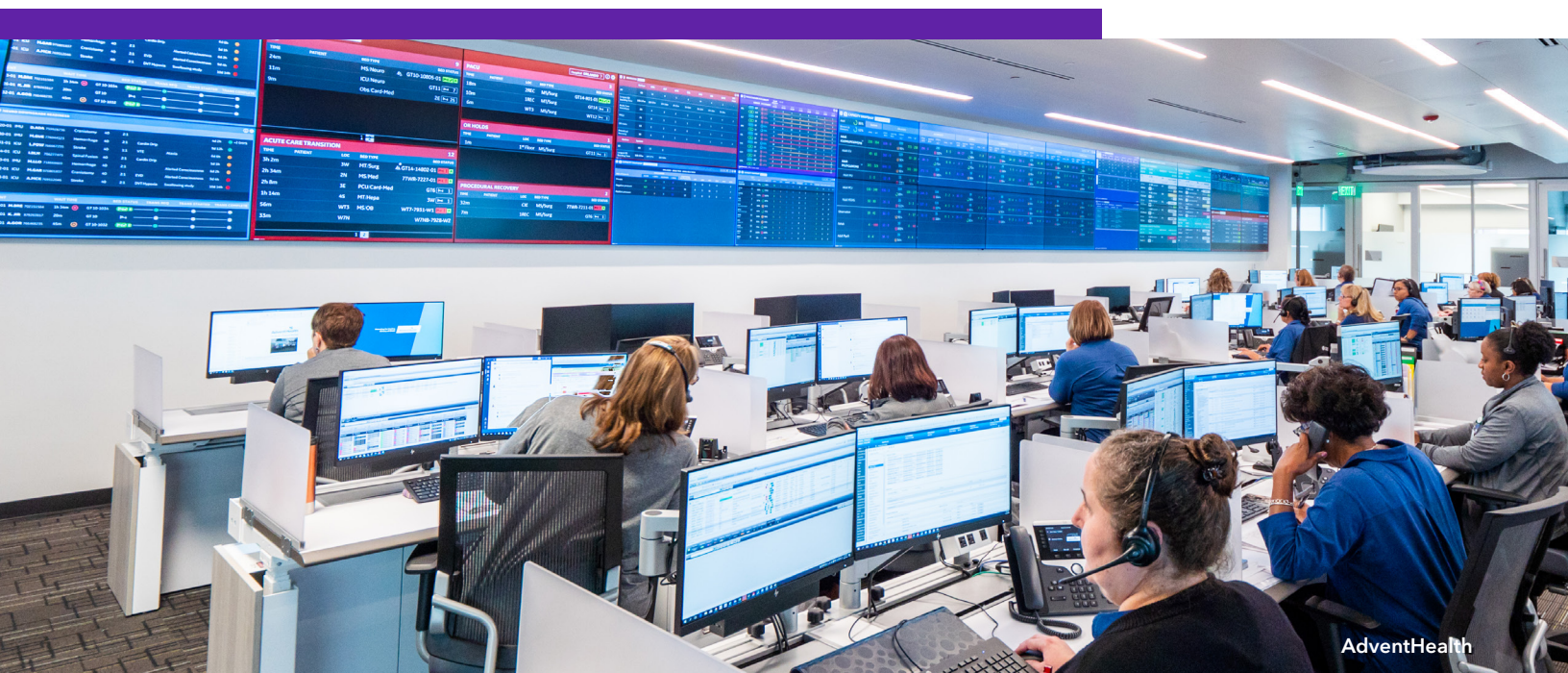


# The AI-powered Technology Hospitals Like Duke Health and The Queen's Health Systems Use to Help Reduce Clinician Burnout and Increase Revenue



AdventHealth

Hospitals today face two major challenges: a tsunami of data overwhelming hospital systems and staffing shortages that compound the problem.

Approximately 36% of the world's digital data is generated by healthcare<sup>1</sup>, and this figure is growing rapidly. This data deluge leads to workflow inefficiencies, delayed care, and a risk of medical errors. For example, Emergency Department boarding remains a significant issue, with up to 30% of patients in certain hospitals experiencing boarding due to a lack of inpatient bed capacity and delays in admissions.<sup>2</sup>

<sup>1</sup> Jane Thomason, Big tech, big data and the new world of digital health, Global Health Journal, Volume 5, Issue 4, 2021, Pages 165-168, ISSN 2414-6447, <https://doi.org/10.1016/j.glohj.2021.11.003>.

<sup>2</sup> JAMA Network Open (2023), *Trends in Emergency Department Boarding and Associated Outcomes in the United States, 2009-2021*.



Additionally, clinical staffing shortages are a pressing concern, with about 100,000 nurses leaving the workforce during the COVID-19 pandemic and nearly half of clinicians reporting high levels of burnout.<sup>3</sup> These challenges result in significant turnover, increased costs, and hindered care delivery.

To reduce these challenges, hospitals and health systems are leveraging GE HealthCare's Command Center to help reduce clinician burnout and drive operational efficiencies. To give a few examples<sup>4</sup>:

- **Duke Health** achieved a 6% productivity boost and cut bed assignment times by 66%, streamlining patient flow and reducing wait times. With a high accuracy in predicting staffing needs two weeks in advance, they proactively filled gaps while staying on budget. Their reliance on temporary labor dropped by 50%, enabling consistent care from familiar providers. These changes created capacity for 500 additional patients annually, enhancing access to care without facility expansion.

- In only six months, **The Queen's Health Systems** cut length of stay by 0.7 days, boosting bed availability and patient capacity. Without expanding infrastructure, they achieved faster admissions, smoother patient flow, better care coordination, and reduced operational costs.
- **Children's Mercy Kansas City** reduced 24-hour admission waits by 86%, significantly reducing patient wait times, deferrals, and delays. In only seven months, they also cut avoidable days by 24%, creating capacity for 300 more Medical-Surgical patients – all without facility or resource expansion.
- **Humber River Health** decreased emergency department patient boarding times by 23% and increased estimated discharge date documentation compliance by 58%.
- **Deaconess Health System** increased annual patient volume by 2,000 year over year. This capacity surge improved access, reduced wait times, and enhanced operational efficiency – serving more patients without additional resources.

<sup>3</sup> [www.ncsbn.org/news/ncsbn-research-projects-significant-nursing-workforce-shortages-and-crisis](http://www.ncsbn.org/news/ncsbn-research-projects-significant-nursing-workforce-shortages-and-crisis).

<sup>4</sup> [www.gehccommandcenter.com/2025-outcomes-source-data](http://www.gehccommandcenter.com/2025-outcomes-source-data).

## EMRs Can Solve Problems Faced by Hospitals—but Only to a Point

Electronic Medical Records (EMRs) are the cornerstone of modern healthcare systems, allowing for digital documentation of patient information and supporting clinical workflows. EMRs provide a centralized repository of patient data, making it accessible to relevant healthcare providers, which reduces redundancy and ensures continuity of care. They also support the documentation of care and the management of workflows, helping to improve consistency and reduce errors.

Yet, despite these benefits, EMRs have limitations. They often operate in isolation, limiting interoperability between departments and preventing a comprehensive view of the patient's journey. Customization is another challenge: tailoring EMR systems to meet specific hospital needs can be cumbersome, with updates and enhancements taking years to implement. Additionally, while EMRs store a wealth of data, extracting actionable insights is often labor-intensive, requiring substantial effort that leaves care teams with data but no clear direction on how to act.

While EMRs are a step forward in helping address operational inefficiencies, they can fall short in addressing the root causes of clinician burnout and increased workflow inefficiencies.

## GE HealthCare Command Center: A Solution for Today's Challenges

Unlike EMRs, which primarily focus on documentation, GE HealthCare's Command Center is an AI-powered software that helps hospitals and health systems manage patient flow, streamline operations, and make data-driven decisions in real time. This centralized system acts like a hospital's "central nervous system," providing care teams with actionable insights that improve patient throughput and resource allocation. The Command Center integrates data from various systems, providing a holistic view of clinical operations that can help hospitals reduce bottlenecks and ensure patients receive timely care.

Hospitals using the Command Center have reported significant improvements in operational efficiency, patient throughput, and overall care quality. For instance, Children's Mercy Kansas City successfully opened up capacity for 300 additional patients while also achieving a 99% compliance rate with discharge planning. Deaconess Health System served over 2,000 new patients annually through better bed assignments and capacity utilization.<sup>5</sup>



Children's Mercy Kansas City



The Queen's Health Systems

## Deep Dive: The Queen's Health Systems

The Queen's Health Systems faced significant challenges related to patient flow and capacity constraints across its six hospitals. As Hawaii's major tertiary and quaternary referral center, as well as the operator of the busiest emergency department in the state, The Queen's Health Systems struggled to manage patient throughput effectively. Long waits for essential services, such as imaging, often led to increased length of stay for patients, which in turn put additional strain on overall capacity.

To address these issues, The Queen's Health Systems partnered with GE HealthCare to implement a Command Center specifically focused on inpatient flow called the Aukahi Center. The solution enables hospital leaders to monitor operations in real time across all six facilities, and provides a holistic view of patient status, resource allocation, and operational needs. The centralized visibility allows for more informed decision-making, helping to reduce bottlenecks and improve the coordination of care.

Jason Chang, President and CEO of The Queen's Health Systems, emphasized the importance of understanding the entire patient journey, noting, "There's no one solution that will solve patient flow. A patient may have been waiting three hours for a MRI, but the order hasn't been entered yet. This can lead to inefficiencies that result in an extra day at the hospital. As you try to reduce length of stay and improve access, all of those things matter."

By utilizing AI-powered insights enabled by the GE HealthCare Command Center, The Queen's Health Systems is able to better manage patient flow, reduce unnecessary delays, and improve the quality of care for both local and transfer patients.

Within six months of implementation, they experienced a 0.7-day reduction in patient length of stay. The technology also allowed the health system to balance workloads more effectively across its hospitals, ensuring that each facility operated at optimal efficiency.

This success can be attributed not only to the innovative technology but also to GE HealthCare's extensive expertise in hospital operations and change management. Their deep understanding of healthcare challenges, coupled with their collaborative approach, helped The Queen's Health Systems achieve sustainable improvements.

Bree Bush, General Manager, Command Center at GE HealthCare, highlighted the significance of these results, stating, "To see that kind of movement in six months is impressive. We helped The Queen's Health Systems design and implement the technology that allows them to see issues in real time, predict where problems may arise, and identify how to resolve them."

## Achieving Success with GE HealthCare Command Center

To achieve success with the Command Center, hospitals need to focus on several key factors. Bush emphasizes that a crucial first step is listening to the people directly involved in operations—such as nurses, case managers, and physicians. “The devil is in the details,” Bush notes. “You have to put yourself in the shoes of the people running the operations and performing the specific tasks that will be affected by the technology.”

Deployment teams must also focus on change management. Implementing the Command Center is not just about technology—it’s about transforming processes to ensure sustainable outcomes. Bush points out, “Organizations always wish that things could go faster, but there’s only so much change that teams can absorb. We focus on helping hospitals and health systems with sustained change, not just a blip on the radar.” Successful adoption requires a gradual and collaborative approach, where all stakeholders are aligned and engaged in the process.

Choosing the right partner also impacts success. Bush highlights that not all vendors possess the deep healthcare domain expertise needed for effective solution implementation and long-term maintenance. “Some companies enter the market and are happy to build whatever you want, but your care team has to sit with them at every moment to ensure that the right thing is developed,” she says. In contrast, GE HealthCare’s team, many of whom have worked in hospital operations for years, understands the root causes of operational challenges and knows how to extract and apply meaningful analytics.

Finally, success with Command Center relies on setting clear, measurable goals. GE HealthCare works closely with each customer to help them achieve their goals. Bush adds, “We are more than a software vendor. We work closely with each customer to help achieve meaningful outcomes, ensuring the solutions we implement lead to lasting improvements.”

[Learn more about how GE HealthCare Command Center can help to solve your operational challenges.](#)

