

# Emergency Department Dashboard

an OSF Innovation Case Study

## THE OPPORTUNITY

If you've ever had to go to an emergency department, you've probably expected to wait – wait to get triaged, wait to be roomed, wait for the provider to see you, wait for a diagnosis and wait for a hospital room or discharge paperwork. What you might not know is that there are national benchmarks on how long it takes to get through these phases of care in the emergency department. OSF HealthCare wanted to know if it was meeting those standards, but did not have a reliable way to access data and gain insights for emergency departments across the Ministry.

## THE SOLUTION

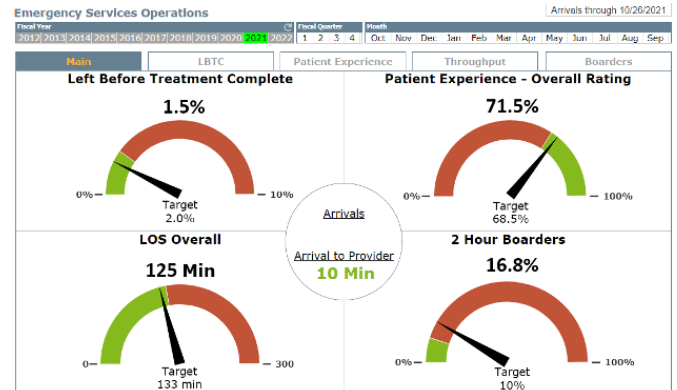
The Emergency Department Advisory Council for OSF HealthCare partnered with Healthcare Analytics, a part of OSF Innovation, to build a dynamic dashboard that captures this type of information for all OSF emergency departments– all in one tool. This includes department and provider-level information on throughput times, patient experience and provider productivity. The overall goal is to give hospitals and clinicians the data needed to improve emergency department care.

## THE IMPACT

Hospital leaders use the ED Dashboard to see where bottlenecks occur and demonstrate the connection between hospital capacity constraints and longer lengths of stay in the emergency department. The tool also provides insights into patient volumes and the severity of their illnesses, which has been useful for clinician staffing planning during the COVID-19 pandemic.

*“The data allows us to anticipate needs and respond with agility to adhere to safe and benchmarked productivity standards. Using this tool, we are able to practice good stewardship of provider time, energy and resources by reducing shifts when volume dropped, but also justify return to the original schedule when volumes rebounded.”*

– DR. LEON YEH, VICE PRESIDENT OF EMERGENCY SERVICES FOR OSF HEALTHCARE



## OSF INNOVATION

Launched in 2016, OSF Innovation is the overall umbrella initiative for the planning, structure, goals and services OSF HealthCare uses to innovate for the improvement and transformation of health care.

## OSF HEALTHCARE

OSF HealthCare is an integrated health system owned and operated by The Sisters of the Third Order of St. Francis, headquartered in Peoria, Illinois. OSF HealthCare employs nearly 24,000 Mission Partners in 150 locations, including 15 hospitals throughout Illinois and Michigan. The OSF HealthCare physician network employs more than 1,500 primary care, specialists and advanced practice providers.

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## INSIGHTS INTO EMERGENCY DEPARTMENT STRENGTHS AND OPPORTUNITIES

There are national standards for how long your journey takes in an emergency department, from the time you arrive and see a nurse or physician to the time you are either admitted into the hospital or discharged. Before 2017, OSF HealthCare didn't have insights into standardized data across the organization.

All hospital sites were manually pulling information in different ways on everything from how many individuals visited the emergency department on a daily basis to how long patients were staying at OSF hospitals. And facilities still couldn't get an overall look at the performance of the organization as a whole.

As a result, the Emergency Department Advisory Council for OSF HealthCare partnered with Healthcare Analytics, a part of OSF Innovation, to build a dashboard that could automatically collect these figures and more at every emergency department across the Ministry. The goal was to have the information needed to improve emergency department care.

"There's a saying that you can't manage what you don't measure. Our ED dashboard has been a key tool for us to have visibility of metrics, and drive performance of our EDs at both the department and provider level," said Dr. Leon Yeh, vice president of Emergency Services for OSF HealthCare.

## WHAT'S IN THE DASHBOARD?

The ED Dashboard includes more than 50 measurements that leaders at each hospital can use to make decisions that will improve care. This includes department and provider-level information on patient experience, how long it takes to room a patient and clinical performance.

"Hospital leaders can slice the data in any way they want and compare themselves to not only other facilities within OSF HealthCare but also to in-patient care entities across the U.S.," said Ricky Hall, data architect with Healthcare Analytics. "There are graphical depictions of trends and performance to make it easier for leaders to visualize."

The dashboard includes patient-specific information, such as how many flu cases are coming into the emergency department. This is how leaders know when to set up restrictions on who should and shouldn't come to the hospital to visit family or friends.

There's also a set of reports on individual members of the care team that are provided to emergency department medical directors, so

they can see how their clinicians are performing and partner with them for ideal outcomes.

"The ED dashboard allows front line leaders to drill down into performance and show improvements," said Megan Brennan, vice president of Service Line Administration, which includes Emergency Services, for OSF HealthCare. "If a facility has made changes in processes to make improvements in patient care, we can see, in real-time, whether those modifications are making a positive impact. If it's not, we can pivot quickly to find the right solution."

The ED Dashboard became an important tool when COVID-19 first hit OSF hospitals. It helped medical directors and hospital leaders see trends in patient census.

"We've found that many of the patients we used to see with less critical illnesses or issues have virtually disappeared from the emergency department," Brennan said. "However, we are also seeing an increase in patients with COVID-19 or who are more acutely ill and require more physician attention throughout the Ministry."

As a result, hospital leaders are using the dashboard to maneuver physician and provider scheduling as needed.

"The data allows us to anticipate needs and respond with agility to adhere to safe and benchmarked productivity standards," said Dr. Yeh. "Using this tool, we are able to practice good stewardship of provider time, energy and resources by reducing shifts when volume dropped, but also justify return to the original schedule when volumes rebounded."

## WHAT DOES THIS MEAN FOR PATIENTS?

With access to a variety of data, emergency department leaders can get a better understanding of the strengths and opportunities within their facilities and work with their clinicians to improve.

That means ensuring patients are seen, treated, admitted or discharged in a timely manner. It means changing processes to improve patient experience. It means understanding how many individuals are in the emergency department on a daily basis and what their statuses are. And it means finding out how many people end up returning to the emergency department.

Leaders can also see which OSF sites are performing well, and share best practices from those facilities with others in the Ministry, breaking down silos between hospital emergency departments. Having a handle on all of this information empowers leaders to make the right decisions, so patients can receive the best care possible.

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