

Case Study

Trinity Health System Improves Patient Flow with Clinical Collaboration



Executive Summary

Healthcare modernization is about more than just technology. It's about using modern tools and approaches to enhance outcomes for patients, reduce frustrations for clinicians, and improve the financial position of healthcare organizations. Change management is never easy. It requires clinical leadership, staff buy-in and the data to show that change is working throughout the system. Workflows must be improved for everyone's benefit. Doing so requires careful analysis of the issues impacting efficient care, thoughtful implementation of a solution and the establishment of key metrics to confirm success.

All of which is made easier by selecting a partner with deep expertise in workflows as well as a robust platform for innovation. This is the story of one healthcare organization's journey to improved care and better capacity management.

Trinity Health System targeted a range of clinical workflows for improvement as it sought to accelerate patient throughput. Using the TigerConnect suite of products and professional consulting services, Trinity successfully streamlined workflows with specific goals and Key Performance Indicators (KPIs) to measure results. Clinical leaders led the change and demonstrated to everyone that their workflows were less chaotic and patient outcomes improved.



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Dr. Matthew Colflesh
Chief Medical Officer
Trinity Health System

Overview

Trinity Health System is part of CommonSpirit Health, one of the largest non-profit healthcare systems in the US serving more than 20 million patients across 23 states. CommonSpirit is a faith-based system focused on underserved communities, aiming to improve health equity for those impacted by healthcare impairments based on race, location or means to pay.

Trinity includes 1,200 staff spread across two facilities in Ohio, serving a population of 200,000 potential patients. The health system was one of the systems within CommonSpirit with the largest opportunities for improvement. Like other healthcare facilities, Trinity struggled with moving patients efficiently through its care system which impacted patient experience, staff frustration, and the financial bottom line.

“The challenges we had involved an archaic system of communication,” said Dr. Matthew Colflesh, Trinity Health System chief medical officer (CMO). “What we had was a lot of relay systems where you call an answering service or you page somebody or you call through the nurse, or the doctor might communicate through the nurse.”

Poor communications impact patient care, staff satisfaction, and hospital profitability. Dr. Colflesh noted that Trinity used traveling nurses – one of the many changes in the hospital labor force in recent years – who would come to Trinity and feel very unhappy because of the burden to find or field phone calls for doctors. Low staff satisfaction can raise the cost of labor for hospitals as they must pay more to retain staff or contract with outside providers to supply clinical staff.

Trinity is not alone in dealing with communication challenges. Such issues plague the healthcare system in general. The Peter G. Peterson Foundation found that there is as much as \$750 billion a year in wasted healthcare spending that includes significant increments of operational waste and failures in care coordination including the lack of communication and coordination between providers of care.¹

Against that industry-wide backdrop, Trinity recognized it needed to streamline workflows to help patients, staff, and the financial health of the system. The first step was to characterize the problems in a way that empowered the process of finding solutions.



¹ www.pgpf.org/blog/2023/04/almost-25-percent-of-healthcare-spending-is-considered-wasteful-heres-why

Challenge

Improving patient flow across the care delivery system

Patient flow, or patient throughput, touches on almost every aspect of patient care and efficiency. The patient experience is impacted by delays in care or processing among the various departments in the hospital. Staff frustration rises when nurses and other staff can't make connections with providers, specialty departments such as the laboratory, or support personnel in charge of transport via wheelchair. Throughput also impacts capacity. The longer a patient is in an emergency department (ED) bed waiting for admission, the more likely someone in the ED waiting room gets tired of waiting and leaves, depriving the hospital of revenue.

Patient flow at Trinity Health System was a problem all throughout the system. Getting people admitted took time. Managing the many parts of care delivery could be challenging with clinicians communicating across too many different systems. Coordinating all the many departments and clinicians who needed to sign off on discharge was challenging and had cascading effects on all the administrative steps in getting a patient officially discharged after clinician approval.



We had many challenges with patient flow due to the number of calls that were being made and the wrong people were being called. I've seen situations that really go badly because of communication. It's not any individual's fault, it's a system problem, and people are set up for failure.

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Chief Medical Officer
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Poor communication was identified as a key factor creating patient flow issues. Staff spent significant amounts of time waiting for callbacks for consults and waiting to admit patients due to difficulty connecting with hospitalists, charge nurses, and other clinicians. Multiple communication tools were employed and simply added to the confusion among staff.

Several areas to improve patient experience, speed care delivery and increase patient throughput were identified. For instance, Trinity's Left Without Being Seen (LWBS) rate was one of the highest in the CommonSpirit system at 7 percent, compared to the national average of 2 percent. That was revenue literally walking out the door as a result of bottlenecks in getting timely consults and efficient admissions from the ED.

Solution

Combine Clinical Collaboration Platform with scheduling and roles

After identifying the need to address patient flow, Trinity Health System turned to TigerConnect to plan a pilot study in the fall of 2022. After multiple conversations with Trinity stakeholders and TigerConnect regarding goals and the unique needs for the health system, Trinity decided to implement the TigerConnect Clinical Collaboration Platform and TigerConnect Physician Scheduling. This allowed Trinity to find the right person on-call by eliminating the need to manually look-up the schedule, dramatically improving communication and patient care.

Messages are automatically routed to on-call clinicians by their role, such as "Hospitalist" or "Trauma Surgeon." Nurses and other caregivers do not need to know the name of the person on-call or stop and look it up. This feature eliminated the delays caused by waiting for callbacks or hunting for the right person for a consult.

"So as an example," Dr. Colflesh said, "A patient comes in through the emergency department, and they're going to need attention from multiple providers. Some of those providers might not even be in the hospital, such as certain consults or specialists. And for the ER to know exactly who that is at all times, not to go over and look at a list to see who's on call, but actually see that in real time – that's huge time savings."

With TigerConnect, Trinity was able to eliminate layers of wasted steps, delays in making connections with team members and obstacles to sharing information. Trinity went beyond those top-line benefits, taking a more strategic approach to tailor the entire program to specific goals that helped patients, staff, and the bottom line.

Implementation

Up-front planning and analysis lead to smooth transition

At Trinity Health System, focus during the TigerConnect implementation wasn't just about the technology. Trinity laid meticulous groundwork to effectively drive adoption and manage change. The process began with thorough planning and analysis, long before the actual implementation began. TigerConnect Clinical and Professional Services team members worked with Trinity IT staff and leadership to help define organizational goals for the project and the KPIs that would make success measurable, designing backward from publicly available operational performance metrics. This collaborative effort ensured that the IT initiative was closely aligned with the hospital's overarching objectives.

Crucially, the involvement of medical, nursing, and operational leadership, including Dr. Colflesh in his capacity as CMO, ensured that the IT efforts were firmly rooted in the realities of hospital operations. These leaders took an active role in the process, ensuring that Trinity's clinical workflows and challenges were clear to all, which helped TigerConnect recommend solutions that were practical and effective.

Trinity Health System targeted specific goals, including:

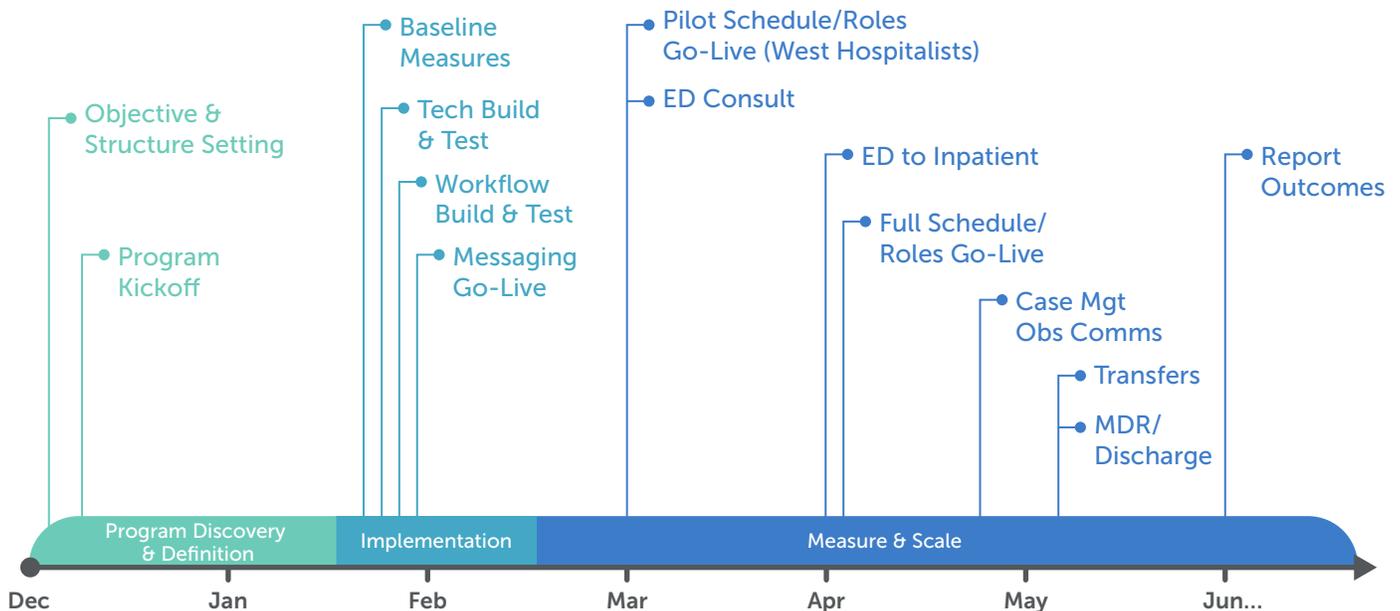
- Decrease LWBS and increase ED capacity
- Improve length of stay with faster patient discharges
- Improve quality of patient care

The result of that strategic effort was a plan that targeted key workflows, starting with two ED Workflows: ED Consults and ED to Inpatient Admission. Additionally, Trinity targeted Case Management Communication and Multidisciplinary Discharge Rounds (MDR) Workflows. These workflows were pertinent to address Trinity's goal of improving patient flow and reducing LWBS rates.

TigerConnect and Trinity staff mapped out the workflows as they existed, noting places where communication could break down and introduce waiting periods for callbacks, or other care-collaboration needs that impede efficient patient flow. These included issues of being able to find the correct person on-call. At each step, metrics were established to confirm that the technology had positively impacted the workflow and ultimately the hospital's financial situation.

The success of the implementation at Trinity was not just about deploying a new technology but about creating an ecosystem of high engagement, where medical, nursing, and operational leaders actively collaborated to iron out wrinkles and optimize workflows. This proactive approach, coupled with a deep understanding of clinical processes and unwavering commitment to improving patient flow, paved the way for a smooth transition and tangible improvements in patient care delivery.

Measurement Timeframe



This timeline shows the key implementation milestones from discovery & design, building and training, deployment, and monitoring.

86%

reduction in left without being seen (LWBS) rates

0.9day

reduction in length of stay (LOS)

46%

improvement in sepsis bundle compliance

Results

Dramatic improvements in LWBS and patient flow metrics

Trinity Health System started the pilot project in February 2023 the results were apparent right away. Additionally, word of mouth from those directly involved helped bring new staff on board quickly.

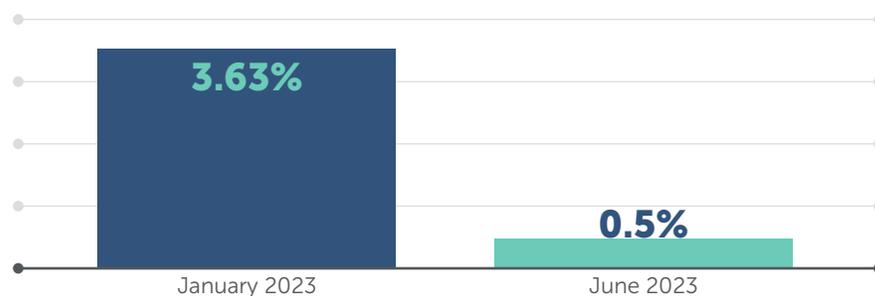
“Those communication barriers had been there so long,” Dr. Colflesh said. “And when you start to get rid of them, everybody starts to gain momentum with communication. As soon as they realize that dealing with things directly improves their quality of life, they start to accept it more and more. And that’s how things gain momentum. So, every particular clinical protocol you have that is time sensitive gets better.”

The following clinical workflows that Trinity identified for the pilot program began to show dramatic improvements.

Left Without Being Seen (LWBS)

Trinity struggled with high LWBS rates, reaching 7 percent in July 2022. With TigerConnect, Trinity saw an 86 percent improvement in LWBS, from 3.63 percent in January down to 0.5 percent in June. In fact, ED traffic at Trinity increased as knowledge of reduced wait times spread through word of mouth in the community. Patients naturally went to the hospital where they knew they wouldn’t be kept waiting.

“Left without being seen was in the 7 percent range in July 2022, and we dropped that over the course of time with TigerConnect helping us down to less than 2 percent. Our goal as a hospital system is less than 2.5 percent. The goal now is just to maintain,” said Dr. Colflesh. “So, what happens when you have better flow and you have less people in waiting rooms, that means more people come to your hospital, and so your systems are tested even further, and that’s a good thing, and that’s where we’re at.”



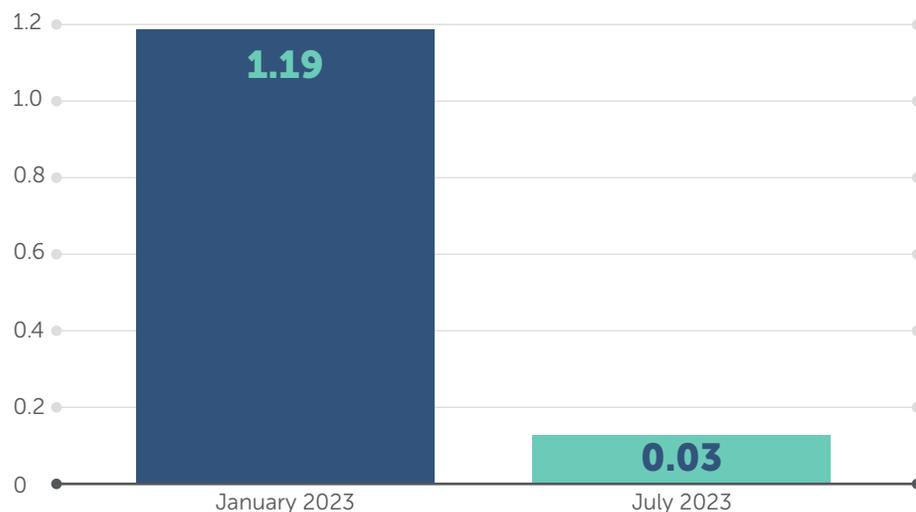
Left Without Being Seen (LWBS) rates: measuring the number of patients who leave a healthcare facility before receiving medical attention – improved 86 percent post-implementation.

We looked at everything moving forward from the patient discharge from the ER, to the floor, to the time that a provider puts in a discharge order to the time they leave the hospital. For folks that deal with this, it's the minutes, it's the half hour, it's the hour that all adds up together that drastically reduces Length of Stay. We ended up really moving the needle on that one because we started chopping up those little sections.

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Chief Medical Officer
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Length of Stay (LOS)

Prior to implementing TigerConnect, Trinity's LOS opportunity index was 1.19 days. After implementation, LOS opportunity days dropped to 0.03 in just six months. Additionally average inpatient length of stay decreased by 0.9 days. This was the result of improved communication between case management, and ancillary staff and more efficient multidisciplinary discharge rounds planning. LOS improvements show very tangible value for both patients and the hospital's financial health from Trinity's focus on moving patients through the system.



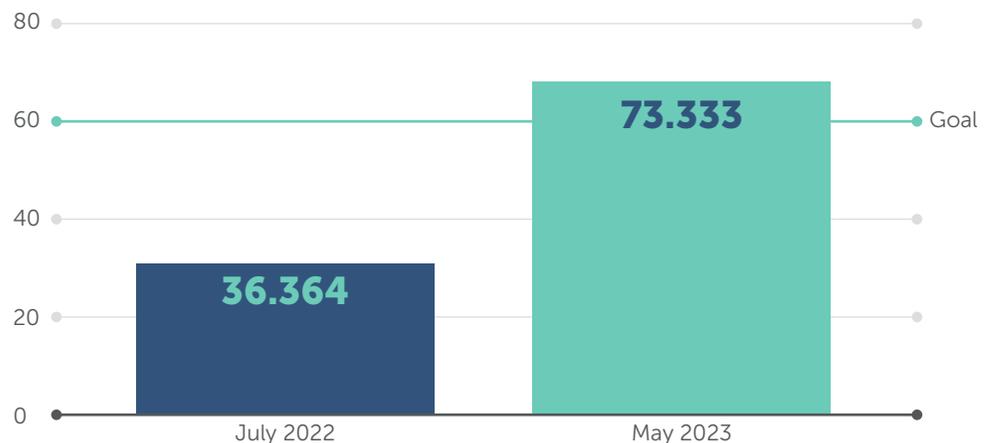
Length of Stay Opportunity Days is a term used to communicate how inefficiencies or lack of care management capacity contributes to average Length of Stay (ALOS).

I'm super proud of this Sepsis Bundle Compliance. We struggled with this, not for months, but for years. With SEP-1 Bundle, you have to meet all those measures, and that's really just a measure of efficiency. So, when we actually put into place TigerConnect for the communication between those individual elements, like lab, like the nurse who's overseeing this, like the providers, the ER, the hospitalists, as you start to tighten that up, then those minutes start to go down.

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Chief Medical Officer
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Sepsis Bundle Compliance

By improving the ease of communication between care teams and providers with secure messaging, Trinity was also able to improve the quality of patient care, specifically with sepsis bundle compliance. By enabling the Sepsis Team within TigerConnect, when a patient screened positive for sepsis, care team members were able to expedite communication and provide faster patient care. Better communication and faster care coordination resulted in a 46 percent improvement in sepsis bundle compliance. Dr. Colflesh noted that for the first time, Trinity achieved the organization's goal for sepsis bundle compliance, marking it as the most remarkable outcome of TigerConnect implementation.



Sep-1 Bundle Compliance is a quality measure pertaining to adherence to the protocol for timely sepsis recognition and intervention.

The Impact of Efficient Clinical Workflows

The staff at Trinity Health System embraced the improved workflows. By setting up defined teams and roles, and integrating with cloud-based schedules within TigerConnect, staff could feel their efficiency improving. Staff noticed the improved communication around ED protocols including faster connections for consults. Positive experiences and acknowledgment of the workflow improvement accelerated adoption rates among staff across departments.

The analytics available through the TigerConnect platform also boosted conversations between administrators and individual providers. The data collected not only allowed providers to see baselines, but also to chart the improvements – including their own responsiveness. This proved much more motivational than anecdotal accounts. There is also evidence that the ability to track data and show improvements to the working environment increased the success of nursing recruitment which charted a 64 percent improvement in offers accepted after implementation.

“Change in healthcare is really hard to do,” Dr. Colflesh said, “especially when you have different factions of people around a health system that have something they’ve been using or doing something a certain way for a decade or more. That’s usually the hardest part is driving change. But when you can show someone what the benefits are, that really makes the change a lot easier.”

Future

More Workflows, More Improvement

Communication and patient flow at Trinity Health System have improved dramatically and this transformation will continue. The health system started out as one of the greatest opportunities for improvement within CommonSpirit and has become one of its trailblazers.

Trinity partnered with TigerConnect to improve communication so that patients moved through the system more efficiently, resulting in faster, better patient care. Together, Dr. Colflesh, staff and TigerConnect experts delved deeply into key workflows to identify the bottlenecks and then redesign those workflows to eliminate glitches, delays, and missed connections among staff and providers. The successes of the program are clear to staff, administrators and even to the community around Trinity who know they can visit the ED without frustrating wait times.

Trinity’s work with TigerConnect is ongoing. Critical response, inpatient, and operating room workflows are being targeted for improvement, including reducing time devoted to observation cases and improving decision-making around admissions. Time to physical discharge after discharge orders is also under examination as well as reducing readmission rates, and transfers between Trinity and their Critical Access Hospital.

“When you start to look at the fine points about how you move a patient through the system,” Dr. Colflesh said, “I think a lot of clinical staff might think this is for the CFOs, that it’s about money. But this is really for the patients.”