
OR PROCESS INNOVATION

How technology and process redesign are taking Sarasota Memorial Health Care System to next-level efficiency.

COMMAND CENTER LEADERSHIP

Kettering Health Network's unique journey to optimized patient care.

HIGHER HEALTHCARE IQ

Analytics lead the charge for decision-making and positive change.

EVERY PATIENT'S EXPERIENCE COUNTS

Bringing clinical and operational excellence together for care at the bedside and beyond.



PATIENT FLOW

quarterly[™]

ANSWERING THE CALL

Physicians step up to ensure optimal care and system-wide efficiency through patient flow.



QUALITY CARE STARTS HERE

With physicians at the table helping to lead patient flow conversations, increased patient satisfaction, new efficiencies, and growth are proving to be very real outcomes.

IT TAKES TEAMWORK



The Transformative Role of Physicians for Patient Flow Success

First, my heartfelt thank you to those who attended TeleCon18. It was by far the largest and most well-attended TeleCon in the 17 years that we've been bringing together the best and brightest healthcare professionals. It is truly a credit to each and every one of you who continue to believe in and support our mission—to ensure that no one will ever have to wait for the care they need.

With close to three decades of experience in providing powerful solutions that lead to operational excellence, we know that physician buy-in and support is critical to the success of any type of change—whether that be related to technology, process or culture. A question we often hear, and certainly heard loud and clear the year before at TeleCon17 is, “How do we get physicians involved and passionate about patient flow?”

Lately, we've seen a groundswell of interest from physicians who realize the benefits an operational platform provides to both their teams and their patients. Another reason we've seen this interest is that as payers continue to push providers toward value-based care, and their administrative burdens become heavier, they're looking for ways to do things more efficiently. Not to mention the fact that with the U.S. facing a potential shortage of 120,000 physicians by 2030, the workload for all physicians will end up increasing significantly.*

Interestingly enough, the Advisory Board recently surveyed chief medical officers to find out what their most pressing strategic priorities are, and it is not surprising that optimizing acute care throughput and partnering with other physicians to improve inpatient satisfaction ranked number one and two on the list of five.

So, in this issue we showcase Dr. Eric Brown, Physician Executive from Palmetto Health, who details through the eyes of one patient what home-to-home flow looks like, and Dr. James Fiorica, Chief Medical Officer at Sarasota Memorial Health Care System, who discusses the positive impact technology and process redesign has had on OR efficiency.

Finally, a new year is always marked by a sense of renewal and transformation. One key transformation in 2019 is the launch of SynapseIQ™, TeleTracking's new, cloud-based analytics platform. For this issue of PFQ, we had the opportunity to sit down with Jeanne Iasella, TeleTracking's Vice President of Product Management, who shared how SynapseIQ will provide an enterprise-level view of operations and is also a natural extension of our core capability of managing all patient processes.

I hope you enjoy the issue and find the information you need to continue positive transformation with physicians—and all staff members—at your health system.

KRIS KANETA
Managing Editor
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*Source: <https://www.beckershospitalreview.com/hospital-physician-relationships/why-america-s-physician-shortage-could-top-120k-by-2030-5-things-to-know.html>

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WINTER 2019

A QUARTERLY PUBLICATION FROM



Welcome to the first issue of 2019. A new year is always greeted by a sense of renewal and transformation. We know that physicians are transforming their approach to operational efficiency by realizing the benefits an operational platform provides to both their teams and their patients. Another transformation involves the launch of SynapseIQ™, TeleTracking's new, cloud-based analytics platform—which provides an enterprise-level view of operations and is also a natural extension of our core capability of managing all patient processes.

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WHAT'S HAPPENING

A quick look at what's driving our industry and our work together going forward.

01.

VCU Health System was recognized for their dedication to improved outcomes in the face of significant population challenges with the HIMSS Davies Award of Excellence. The award celebrates the outstanding achievements of organizations that are using health information technology to substantially improve patient outcomes and value.

02.

TeleTracking received the Innovator of the Year: Health IT at the Pittsburgh Technology Council's Tech 50 Awards. TeleTracking was also a finalist in the Culture Leader of the Year category. The Tech 50 honors companies in the Pittsburgh technology community that are making an impact with their ideas and innovation—and it is the second time in three years that TeleTracking's accomplishments have been recognized.

03.

Broward Health's use of TeleTracking's technology platform to power their new Patient Logistics Center was featured in *Becker's Hospital Review*. The goal of the new Patient Logistics Center is to streamline operations, placing patients at the most appropriate level of care in the least amount of time—subsequently freeing up resources and staff to care for patients.

04.

UI Health's creation of a nursing hand-off process that led to a 50% reduction in ED boarding was featured in the September issue of *The Journal of Nursing Administration*: "Improving Patient Flow from the Emergency Department Utilizing a Standardized Electronic Nursing Handoff Process".

05.

TeleTracking launched its newest command center in the U.K. at Southend Hospital. Southend is now the first hospital across mid and south Essex to have centralized, real-time bed status information to help clinicians deliver the best possible patient care.

06.

LifePoint Health named David Asherbraner, Manager of Asset Management and Transport at Frye Regional Medical Center, as the recipient of the 2018 companywide Mercy Award. Asherbraner was recognized for his exemplary dedication to caring for others and for inspiring his fellow employees to join him in his humanitarian efforts, which includes more than two decades as a volunteer at the Hickory Soup Kitchen.

07.

The U.K.'s Countess of Chester Hospital received the 2018 *Nursing Times* award for Technology and Data in Nursing.

EVENTS

Join TeleTracking at one of these upcoming events and learn about our patient flow solutions while sharing ideas with other professionals.

DISASTERS: HOW PREPARED IS YOUR HEALTH SYSTEM?

February 8 at 12:30 PM ET

Presented by Melanie Morris, Senior Director, Transfer & Communications Center, Carilion Clinic, this 30 minute informational webinar on Friday, February 8 at 12:30 PM ET will focus on the updated CMS Emergency Preparedness Rule and what is expected of hospitals;

regional coordination during disasters and patient surges; the role of an operational command center to provide real-time visibility and shared situational awareness; and lessons learned from federal disaster medical responses.

Register at <http://go.teletracking.com/disaster-regulations>.

HIMSS19 CONFERENCE & EXHIBITION

February 11-15, 2019 | Orlando, FL
Orange County Convention Center

The HIMSS Annual Conference & Exhibition brings together 40,000+ health IT professionals, clinicians, executives and vendors from around the world. Exceptional education, world-class speakers, cutting-edge health IT products and powerful networking are hallmarks of this industry-leading conference.

TELECON19

October 20 - 23, 2019 | Miami, FL
JW Marriott Turnberry Resort and Spa
Join us and hundreds of your peers from around the globe to network, share best practices and success stories, and learn about the latest product developments.

Learn more at <http://conference.teletracking.com>.



Kettering Health Network Operational Command Center

A CENTRALIZED VISION

HOW A NEXT-GENERATION OPERATIONAL COMMAND CENTER IS IMPROVING PATIENT CARE.

Kettering Health Network in Dayton, Ohio is a faith-based, nonprofit health system operating with the mission to improve the quality of life of the people in the communities they serve through health care and education.

It is that type of commitment that has resulted in Kettering becoming one of the most recent health systems to launch an operational command center—cutting the ribbon January 21, 2019 on a brand new, nearly 17,000-square-foot center. The first of its kind in southwest Ohio, the NASA-like command center will serve all facilities within the Kettering Health Network, which together comprise eight hospitals, 11 emergency

departments, and 120 outpatient facilities.

To help other leaders who are ready to embark on this type of journey, we had the opportunity to sit down with project lead, John Weimer, Vice President, Network Emergency, Trauma and Operations Command Center. John brings more than 20 years of both administrative and clinical healthcare experience to the project.

As we chronicle Kettering's journey in upcoming issues of *Patient Flow Quarterly*, this first interview focuses on what led Kettering down this path.

Q. What operational challenges were you trying to solve, and what were you looking for in a solution?

A. Like most systems, the focus is on growth and new, easily accessible points of entry for the communities that we serve. One growth tactic was the elevation of our community hospitals—because historically, large, inner-city hospitals have handled high-acuity patients. Over the last six to seven years, Kettering has focused on creating a strong presence in what we call “bedroom communities”—by providing services locally so that patients don’t have to commute. Because as populations age, and with seniors often having no one else to rely on, driving an hour or two just really isn’t feasible.

That strategy alone led to us really growing as a system. We opened five new sites in three years and started to see a whole new influx of patients and needed to figure out how to effectively manage them.

We started researching operational options, learned about Tele-Tracking, attended an event and brought the information back to our leadership teams. The information aligned well, especially with our IT folks—their whole creed is people, process, and technology. They understand the importance of the patients and the clinicians, the processes in the work they do, and if that can be combined with technology it leads to less of a cognitive load for them.

Q. In the midst of those changes, one of your competing hospitals was planning to close its doors. What impact has that had on Kettering, and did that expedite your timeline to launch your center?

A. Good Samaritan Hospital in Dayton operated the second largest emergency department in the community with 70,000 ED visits annually—along with everything else you would expect from a full-service hospital. Before they announced their closure, we thought we had about a 12-month timeline to implement our command center. In order to serve the needs of the community, we knew we had to accelerate the process. In addition, we were also experiencing enormous growth in our own organization—we had more than doubled the emergency patients coming through our door over the past five years and were already on target to see more than 320,000 ED patients this year. With Good Samaritan’s closure, we knew those numbers were only going to increase. In addition to these market changes and the consequent increased volume, we were in the process of opening two additional facilities.

Q. What was your executive team’s reaction to the command center concept and centralized approach to patient care when they realized this could solve challenges related to capacity and visibility across the network?

A. The interest level was very high, and our teams were engaged and ready to collaborate—which led to truthful and trusting conversations with small groups of our most senior leaders, as well

as with some of our community partners. And the result was a clear directive to execute their vision as quickly as possible, with my responsibility tied to getting all the folks at our campuses on board and up to speed with this new approach.

Q. What is your vision for the NOCC (Network Operational Command Center)? What are the phases that you plan to go through?

A. We realize we’re novices with the command center approach and that’s why one of the truly great parts of working with Tele-Tracking are the partnerships—both with your teams of experts and the other clients that you’re able to connect us with.

The result of these different perspectives has been fascinating—and has helped us make sure we have the right people in the room as we’ve been working through the planning process and that they’re all communicating effectively from an operational standpoint. And that means that six months ago, the answer to the question of our approach and vision would have been very different from what it is today because we’re continuing to learn as we implement. The one thing that hasn’t changed is our end goal of making things seamless for both our clinicians and our patients.

That being said though, phase one is focused on bed placement and access—moving folks in and out of our system, including coordinating our internal transports so our lateral moves go smoothly. We are also working with our utilization management and social services teams to make sure we’re doing what’s best for the patient and using our resources most effectively by using system attributes to help properly prioritize the work. Right now, that information is on paper and white boards, with people walking around with patient lists in their pockets. We’re excited about being able to bring this online and connect that information to all of our teams.

We have been taking a highly strategic approach to the overall planning process, knowing that things will be different in year one than it will be in year two. And our construction is allowing for that type of evolution and increased volume. We have our footprint today, plus we’ve saved space for the future, and can look at other areas in the building if we need to.

Q. What have been some lessons learned along the way since the project kicked off in July 2018?

A. Educating key stakeholders in our organization about TeleTracking has been critical. I think that the biggest lesson learned was the initial sell. “This is an operational decision. It has implications to our EMR, it has implications to our clinical folks, it has implications to our finance cycle, but most importantly it has implications to our patients if we chose to do nothing.”



JOHN WEIMER

MS, RN, AEMT, CEN, NEA-BC, FACHE, Vice President, Network Emergency, Trauma and Operations Command Center, Kettering Health Network

John has oversight of Kettering’s Transfer Call Center and Pre-hospital Emergency Services. He is also supervising the development of operations for a new hospital scheduled to open in the summer of 2019 and is leading the Network Operations Command Center project.

Prior to joining Kettering Health Network, John worked in healthcare organizations in southwest Ohio and Los Angeles in various leadership and clinical positions.

John is a graduate of Wright State University with a Bachelor of Science degree in Nursing and a Master of Science degree in Nursing Administration and Healthcare Systems. He holds a master’s certificate in Leadership and Executive Development from the University of Dayton.



SETTING THE
BAR FOR
SUCCESS
IN ACTION

BAPTIST HEALTH

Jacksonville, FL

Founded in 1955, Baptist Health is the area's only locally governed health system. Their mission is "to continue the healing ministry of Christ by providing accessible, quality healthcare services at a reasonable cost in an atmosphere that fosters respect and compassion."

Comprised of five hospitals, and three free-standing emergency departments, the system has 1,168 beds and more than 10,000 team members. In 2018, Baptist Health handled 72,391 inpatient admissions, 326,298 emergency room visits, and 46,896 total surgeries.

Baptist Health is also recognized as a national leader in the use of clinical information technology to improve the quality and safety of care. All five hospitals and their home health agency have Magnet® designation, in addition to being Jacksonville's "Most Preferred Healthcare Provider" since 1990 based on the National Research Corporation's Healthcare Market Guide.



SHARON SIMMONS

MSN, RN, CPN

Sharon has worked at Baptist Health / Wolfson Children's Hospital for over 35 years. She is currently the Manager of the Patient Care Logistics Center (PCLC). She was chosen from the Baptist Health System as the Nurse of the Year for Professional Collaboration in 2018.



SHANNON BAUM

MSM

Shannon has worked at Baptist Health / Wolfson Children's Hospital for the past 14 years. She is the Director for FLEX staffing team and the Patient Care Logistics Center.



CHALLENGE

- Jacksonville is a growing area, with close to 30% of their population over the age of 55, putting additional stress on Baptist Health to meet the needs of the community.
- Baptist is surrounded by a number of neighboring health systems—all of which are competing for the same market share.
- Baptist's transfer center was outsourced which made it difficult to operate as a centralized system across the five facilities.
- Data was difficult to access, leading to uncertainty around the reasons that patient transfers were being declined.
- Physicians were unhappy when they had difficulty placing patients, and/or their patients had long hold and wait times.



ACTION

- In August 2017, a logistics center was established for staffing and centralized bed placement. That first step was a significant change for Baptist since prior to that, patient logistics was handled by each of its five hospitals.
- Senior leadership was highly engaged and quickly realized the cost and customer service benefits of having the transfer center on-site. It was Dr. Diane Raines, Senior Vice President & Chief Nursing Officer, who then made arrangements for the planning/implementation team to present to every medical board at all five hospitals to help ensure staff at all levels were just as engaged.
- The new, on-site transfer center had access to all Baptist Health systems, and direct physician access was considered an unequivocal success. The medical director for the transfer center is also the executive in charge of all system emergency departments.
- A daily email is sent to the president of each Baptist hospital regarding any patient that is declined so they can understand the number of declinations and the reason.
- Members of the nursing team started doing additional informatics work regarding scheduling and equity—which led to discussions about the direction the transfer center should take. The team came to the realization that the outsourced transfer center should be brought in-house.
- The transfer center opened on January 2, 2018. In the first 28 days alone, patients being accepted and transferred to Baptist Health increased from 900 to 1500. The center, located in an on-campus pavilion, has four lines—a kid's line, a brain line, a STEMI line, and a general transfer line. A nurse and a coordinator are in the center 24/7, and a third coordinator is also on-site from 11AM-11PM.
- A monthly dashboard was created and includes patient volume, the number of accepted patients, the percentage of accepted cases versus the total, the percentage of patient denials/cancellations and the percentage of yearly accepted volumes.



RESULTS

Baptist Health underwent an amazing cultural shift with the opening of their Patient Care Logistics Center [PCLC]. The PCLC has led to tremendous results over a short period of time, and Baptist Health has been able to provide more services to more members of its growing community.

SPECIFICALLY, IN 2018:

- Patients accepted through the transfer center increased by more than 2000 as compared to 2017
- Less than 5% of patients being transferred to Baptist were denied or cancelled
- Overtime costs were cut by more than 40% as a result of the new centralized staffing model
- ED boarding hours declined 20%
- Patient's leaving without being seen decreased 16%

In addition, the response from executives has been overwhelmingly positive regarding the results to date. John Wilbanks, Executive Vice President & Chief Operating Officer said, "The PCLC has had sustained growth, and this is not a single, not a double, but a HOME

RUN!" And Dr. Diane Raines, Senior Vice President & Chief Nursing Officer, states, "This demonstrates a lot of hard work, and dedication to success. The year over year transfer volume growth is very good, and along with this growth, the PCLC handled staffing across the system. We should definitely recognize the work that this team has done."



EFFICIENCY BY DESIGN

TECHNOLOGY AND PROCESS REDESIGN LEAD
TO ENHANCED OR EFFICIENCY AT SARASOTA
MEMORIAL HEALTH CARE SYSTEM



*Story By James Fiorica, MD, Chief Medical Officer
and David Patterson, Associate Chief Nursing Officer –
Surgical and Cardiovascular Services*

Sarasota Memorial Health Care System [SMH] is one of the largest public health systems in Florida. Located in Sarasota, FL, SMH is a Level II Trauma Center with 829 beds and 900 physicians. The 430 members of the surgical staff perform more than 24,300 inpatient and outpatient surgeries in the 34 operating suites each year. With this volume, finding ways to improve efficiency and maximize capacity was essential to the economic success of the hospital.

As SMH's patient volume continued to increase, staff started looking more closely at operating room utilization [the percentage of available operating room time used vs. the amount of time available] which was 48%, and the average turnover time was 33 minutes, well below national benchmarks. A team was established to determine the cause(s). Was utilization low because of delays in surgical processes? Were more OR suites needed? Was there a way to increase the efficiency of the existing suites?

THE IMPACT OF DELAYS

Delays are inefficiencies that can have negative impacts on patients, physicians and staff. Frustrations and anxiety associated with delays are unnecessary stressors for those in the peri-operative arena. A first case delay has an exponential trickle-down effect on all cases in a particular OR suite for the day, which also impacts a surgeon's time and their ability for rounding or seeing patients in the office prior to arriving in the OR.

To help address the delays, actions included observations in pre-op and timing in- to-incision times and analyzing all components within those processes to identify bottlenecks to flow. However, the challenges of communication and lack of transparency that emerged posed particular difficulties. A new, cross-functional approach that integrated technology and process redesign was needed.

PROCESS REVIEW AND AREAS IDENTIFIED FOR IMPROVEMENT

Recognizing that change was necessary, members of the OR team took another deep dive and reviewed every step of the OR process to determine where positive changes could be implemented. The team looked at everything from when the patient rolled into the operating room, the prep time, and the time out of the operating room, to the time the surgeon walked in the operating room, to the time the anesthesiologist arrived. In the end, four key areas for improvement emerged—ones that could be changed without an expensive and time-consuming capital investment:

- Redesigning OR processes for the patient and the staff—from patient registration to the OR to the PACU, as well as the processes that staff follow to prep the OR for surgery.
- Ensuring availability of all equipment and instrumentation that surgeons need to start on time.



JAMES FIORICA,
MD, Chief Medical Officer

James Fiorica, MD is the Chief Medical Officer for Sarasota Memorial Health Care System where he serves as the liaison between hospital administration and 1,313 credentialed staff members. Dr. Fiorica specializes in Gynecological Oncology and also serves as the Medical Director of the Women's Cancer Care Program.



DAVID K. PATTERSON,
RN, BSN, MBA, Associate
Chief Nursing Officer –
Surgical and Cardiovascular
Services

David K. Patterson, RN, BSN, MBA is the Associate Chief Nursing Officer – Surgical and Cardiovascular Services at Sarasota Memorial Health Care System where he is responsible for strategy and business development. Prior to joining SMH, Patterson was the Assistant Vice President-Cardiovascular Services of HCA West Florida Division.

- Improving communication between pre-op and OR suites to know what the real-time status of patients is.
- Eliminating manual processes and educating staff on the new automated approaches.

Drilling down even further, the team determined a critical step in the OR process that needed to be improved was the in-to-incision time—a step that has a significant impact on subsequent activities. Being able to improve this metric depended on two key processes:

- Transporting the right equipment and instrumentation to the room in a timely manner, along with making sure it was working properly, and;
- Improving communication in the OR and between staff in all areas of the surgical suite. Staff members were using hard-wired phones, pagers, overhead pages, etc.

A TECHNOLOGY SOLUTION

The team believed that a technology solution could help streamline these processes and started researching options to improve communications so that the staff in the OR suite could understand what was happening in pre-op and vice versa. The solution emerged while touring another hospital on a different matter, when the team discovered a technology solution that they believed could deliver the improved efficiency and communication they needed—TeleTracking's Clinical Workflow™ Suite [CWS].

"I was on the visit and immediately said, 'We have to have this,'" says Charlotte Damato, Lean Six Sigma Manager at SMH. "So, we added TeleTracking CWS to our system-wide capacity improvement project and provided the ROI analysis and efficiency gains to our C-Suite. They agreed that this technology would be beneficial."

PROCESS CHANGES

The decision to move forward became one component of a wide-reaching project that was also supported with operational, process and staffing changes. From the process perspective, lean techniques were used to redesign workflows, including:

- Factoring in the time necessary for sterile processing of equipment.
- Working closely with the transport manager to determine the causes of delays and removing them in order to get patients to the pre-op area in a timely manner.
- Creating a surgery pre-check process—including having a

liaison from the OR review the checklist with the unit nurse the day before a procedure to discuss the tasks/procedures that need to be completed before a surgery can proceed. For instance, a cardiac clearance, MRI, CT, special medications, etc.

- Educating surgeons on the updated pre-op to wheels-in process, which involved checking in electronically when they were in pre-op and again when they entered the OR. This helps ensure that all the staff members who need to be in the OR for a surgery to proceed are there at the designated time.
- Eliminating the manual processes that lead to delays and making Clinical Workflow Suite [CWS] the single, comprehensive source for patient flow information.
- Using the data generated by the technology to further refine underperforming processes.

COMMUNICATION AND TRANSPARENCY

After implementation, the first thing noticed by staff was how quiet it was—instead of the constant stream of phone calls, staff could simply look on the board in the pre-op area and see every patient who was in registration or the surgery check-in area. And because they knew these patients were going to be coming to the pre-op area, they were able to proactively assign them a bay, which immediately alerted the volunteer to escort the patient to a ready bay in pre-op. That level of improved communication extended to the OR.

"I love the system. For me, it really helps when I'm running the board," says Jeffrey Torine, MD, Anesthesiologist. "Our anesthesiology team saw the benefits and took the time to work closely with TeleTracking on the design and implementation because we saw how it could work to the betterment of the whole perioperative system. Perioperative staff could look at the boards and through a system of icons to quickly assess whether the anesthesiologist had been to pre-op, whether the surgeon had been to pre-op, and if the nurse had completed all pre-op functions to ready the patient for surgery. It was true transparency."

Enhanced transparency also resulted from the data capabilities. Reports go to the C-suite, the hospital's capacity management team, and basically anyone else who needs to know OR performance metrics. It contains the percentage of on-time patients for the first case of the day, so it's possible to see early on if there are any potential issues that could impact the rest of the day. When there are delays, nurses enter specific delay codes—late surgeon; late anesthesiologist; medication, pre-op or equipment

delay—and then they can troubleshoot the problem and develop contingency plans to maintain flow. Another important benefit is the reduction of administrative tasks and phone calls for nursing staff, giving them even more time at the patient's bedside.

STAFFING

From a staffing perspective, a major change involved creating a dual OR Director/Associate Chief Nursing Officer role. This combined role continues to provide the authority to make the necessary changes to improve OR efficiency.

The department also focused on enhancing training of surgical techs. Some delays could be linked to a shortage of surgical techs due to difficulties associated with preparation and training of the specific skill set needed for a busy OR. The year-over-year increase in surgical volume also increased the need for surgical techs. To address these barriers, in 2017, SMH collaborated with the local technical college to establish a program for training surgical tech students in all types of surgical services.

The students actively participate in scrubbing all service lines and are also taught about the unique culture of SMH, the hospital's specific processes and general role expectations. Upon employment, these students enter with increased knowledge of process and culture and a better surgical skill set. Since the program started, job satisfaction among the surgical techs has been high. The feedback from members of the surgical teams has been positive and the techs have integrated successfully into specialty teams. They are also building on the success of the OR RN internship program at SMH—which has a 70% retention rate of nurse interns beyond their contract over the past four years—by establishing similar principles and processes to build the surgical tech internship programs.

“From improved communications and streamlined processes to having the right staffing levels and specialty teams, physician satisfaction has increased,” says Damato. “With the specialty teams, the surgeons like knowing who they're going to be working with on a day-to-day basis. The specialty teams are happy because they know what the surgeons on their team expect, what their needs are, what equipment they want, and what special instruments they might want to have. We now have the metrics and reports to help us continue to drive positive change.”

MOBILE APP/ POST-IMPLEMENTATION GAINS

We also have a mobile application, which provides transparency to the surgeon and other team members. Surgeons know in real-time, from any location, where their patient is and can plan their time accordingly. If there is a roadblock, it is quickly known, and corrective actions can be taken immediately. In addition, the mobile application is surgeon specific and available at all hours. Staff can look at the overall schedule when trying to add a case to determine OR availability. The increased efficiency in the OR as a whole has decreased the time patients have to wait for procedures.

THE RESULT: TRUE TRANSPARENCY FOR IMPROVED PATIENT CARE

The integrated approach of people, process and technology give surgical staff access to real-time patient information and transparency across the surgical continuum—and has led to more satisfied and informed staff and surgeons. Communication improvements include staff alerts for issues that need immediate action, which has significantly reduced phone calls and gives staff more time to focus on patient needs. Robust reporting capabilities make it possible to track daily, weekly and monthly performance metrics, along with the ability to track staff compliance with the streamlined processes and a surgical scorecard.

From an outpatient perspective, surgical staff now has visibility into the pre-op area to see every patient who is either in registration, or the surgery check-in area. This lets them know who's coming to the pre-op area so that a nurse is assigned. And, once in the OR, several large monitors display the patient's journey thus far, if the anesthesiologist and surgeon have been to pre-op, if all other pre-op tasks have been completed and if the patient is ready. True transparency is the result.

THE ASSOCIATED METRICS INCLUDE:

- An increase of first-case on-time surgery starts from 39% to 61%
- A decrease in turnover time from 33 minutes to 29 minutes
- An increase in utilization from 48% to 71%

At the end of the day, it's all about the patient. We use technology and processes to make sure a positive experience is delivered to every patient, every time. And getting the patient to the OR in a timely manner is critical to that goal, so they can get the care they need, recover and return to their normal activities.



A NEW LEVEL OF IQ THROUGH ANALYTICS

*A CONVERSATION WITH JEANNE IASELLA,
VICE PRESIDENT OF PRODUCT MANAGEMENT*



Analytics are the lifeblood of operations for a health system. They make it possible to know precisely what is happening across the health system in any given moment—and make the decisions that drive the best outcome for a patient. Analytics empower an executive to see how operations have performed historically and chart a new course for change. And ultimately, they allow a health system to predict what will likely occur in the future and adapt their operations in order to be ready to respond. This is why the launch of TeleTracking’s new, cloud-based, analytics platform SynapseIQ™ is such an important step forward.

Jeanne Iasella, Vice President of Product Management—who has responsibility for continuing to innovate and refine the solutions that help health systems deliver excellent patient care—shares her thoughts on what makes this such a defining moment for TeleTracking.

Q. How does TeleTracking’s new data platform, SynapseIQ, fit into our overall strategic approach to optimizing patient flow?

A. Analytics are a critical part of our role as a provider of comprehensive operational solutions for healthcare systems. SynapseIQ supports all of our solutions and makes it possible to have an enterprise level view—so whether a system has two hospitals or 20 they now have a comprehensive view of everything they need to efficiently run their operations.

What distinguishes analytics from data is a simple question—“Is it actionable?”. SynapseIQ is a natural extension of TeleTracking’s commitment to implement patient flow across the care continuum, down to the individual patient level. To be successful, you really need both—analytics that allow you to drill down to the root cause of the specific item that needs attention and supporting systems

that allow you to then act on that insight, in that moment.

And, this is just the first step. Our ultimate vision is for SynapseIQ to provide the analytic capabilities to support our home-to-home strategy—tracking a patient from their first point of contact, through their entire healthcare journey and then back to their home.

Q. How does data empower teams to make the right decisions?

A. SynapseIQ is designed to remove the uncertainty in healthcare operations, allowing individuals and teams to make better decisions faster—all in the interest of their patients. It does this in three key ways:

1. First, SynapseIQ provides real-time shared situational awareness. It helps individuals and teams have a full appreciation for what is going on in any given moment; what is the next best

decision for them to make; and where they need to intervene. It does this by providing a comprehensive view of hospital operations in an easy to access and understandable format, and by alerting them to situations that are potentially problematic or out-of-defined bounds.

2. SynapseIQ helps to create and reinforce a culture of continuous improvement, by incorporating best practices and benchmarks gleaned from TeleTracking’s 28 years of history and expertise. Allowing teams to compare themselves to peers and see their performance against best practices encourages individuals to challenge the status quo and conventional wisdom of their own health system and set new goals for their operations.

3. Finally, and ultimately, SynapseIQ provides health systems with predictive and prescriptive metrics—allowing them to simulate and predict future scenarios, so they can better plan and

A NUMBER OF ANALYTICS SOLUTIONS ON THE MARKET ARE DESIGNED TO THROW AS MANY PRETTY CHARTS ON A WALL AS POSSIBLE— WITHOUT ALWAYS UNDERSTANDING THE IMPLICATIONS OF THE DATA AND THE ACTIONS THAT WOULD NATURALLY FOLLOW FROM IT.

adapt in real-time to serve their patients and their mission.

Q. What are three key things you hope SynapseIQ will deliver to clients?

A. Ultimately, everything we do is designed to ensure that no patient will ever have to wait for the care they need. SynapseIQ will help us deliver on that promise for a number of different constituencies. For executives, they will know they have the right information at the right time—and are armed with the right data to make critical, operational performance decisions across their enterprise. For clinicians, they can be confident they have the right information to manage their operations moment to moment. And for patients, it means they are receiving care in a health system with smooth, efficient operations that ensures a more seamless patient experience.

Q. What are you most excited about for SynapseIQ?

A. Operational improvements make for a long journey—with many hills and valleys along the way. SynapseIQ helps customers move past their initial plateaus by giving them the right data

to continue to evolve and optimize their operations. It provides a steady stream of information for continuous improvement. It also allows for a platform-like approach where all components of TeleTracking's operational platform are supported—allowing for a synergistic relationship between all solutions.

It is also integral to the relationship we establish with our clients and the strong partnership we form to help them continuously improve—we don't install and walk away—we are there for the journey. SynapseIQ embodies our 28-plus years of insights and best practices. We view analytics as the "glue" between our operational software platform, and the expertise of our Services organization. Combining all three components allows healthcare systems to take their operations to the next level—because better never stops.

Q. How was customer feedback used to design SynapseIQ?

A. We have taken a very collaborative approach with our product design. A number of analytics solutions on the market are designed to throw as many pretty charts on a wall as possible—

without always understanding the implications of the data and the actions that would naturally follow from it. We've worked with customers to design SynapseIQ more like a decision tree—mirroring the questions and decision-making process of a clinician, providing extensive drill-down capabilities, and always focusing on driving towards a specific action that is the outcome of a given analytic.

Q. What are the future capabilities for SynapseIQ?

A. SynapseIQ will continue to evolve—the same way the health systems we serve do. We will be providing both predictive and prescriptive metrics, as well as integrating AI technology like machine learning to continue refining the power of our technology. This information helps generate value, create personalized experiences and automate manual processes.

We will also be significantly expanding SynapseIQ by incorporating the ability to integrate third party data sources to enrich the breadth and depth of analytics available to our customers.

HOW SITUATIONAL AWARENESS COMES TO LIFE IN AN OPERATIONAL COMMAND CENTER

It's a typical Wednesday morning when the Command Center Director grabs her first cup of coffee and takes a quick look at the 'Wall of Insights' powered by SynapseIQ. In real-time, patient-level data aggregates from individual bed status, to unit census, to clinical service lines capacity, to hospital occupancy—up to the health system enterprise level. Across the board, the priority areas in need of attention are immediately and clearly visualized.

She can see that cardiology and neurology require additional resources to expedite discharges to open up beds so that patients having procedures or being admitted from the emergency department don't have to wait for care. She can also see which clinical service lines are congested and which have breathing room—the cath lab schedule is full, while the orthopedics procedure schedule is light.

Because there are no information silos, and key leaders and frontline staff from across the system are working together closely. Resources are prioritized and redirected in real-time to where they are needed most—so staffing is moved to the cath lab from orthopedics in order to avoid delays. Centralized resource coordination by the Command Center staff means that delays are reduced, and efficiency increased across the entire health system, something that was not previously possible.

In addition, because everyone is working from a common set of measures in real-time, they can use those analytics to track performance, respond and react to issues, and anticipate and predict future needs—scaling across the organization from the basement to the boardroom. And with this forward-facing data, along with centralized communication and coordination past events such as diversions, long emergency department boarding and OR/PACU can be avoided—ensuring no one waits for the care they need.



JEANNE IASELLA

Jeanne Iasella brings broad experience in technology, strategy and management to her role as Vice President of Product Management.

Prior to TeleTracking, Jeanne worked with Aesynt/Omniceil, leading their operations in pharmacy supply chain optimization. She also spent a number of years with Bayer Healthcare, most recently as the Vice President of Mergers and Acquisitions for medical devices. Earlier roles included the medical device company MEDRAD, where she served as Chief Information Officer. Jeanne began her career with Arthur Andersen, as a CPA, management consultant, and leader of the tax software development division.

Jeanne received a bachelor's degree in Accounting from Villanova University.

Meet Mr. Smith

HOW EACH PATIENT'S STORY BRINGS US
CLOSER TO EXCELLENCE IN CARE.



**STORY BY ERIC A. BROWN, MD, FACEP
PHYSICIAN EXECUTIVE,
PALMETTO HEALTH**

Enterprise systems. Operational command centers. Patient portals. Data and analytics. These are common terms in the world of healthcare technology, and terms I frequently use when I'm focused on operational efficiency as a physician executive at Palmetto Health. However, my other role at Palmetto Health is as an emergency room physician—and that's where I see the positive or negative impact operational efficiency, or inefficiency, has on the human side of health care.

The patients that come through our doors are sick, nervous and scared—and looking at us to treat them with warmth, kindness and compassion. They are the reason we do what we do every single day. Patient care is why we try to streamline operations, so these patients get to the right bed, the first time. It's also why we add transparency to improve communications between caregivers. And, why we provide support for every step of a patient's journey, to make it as seamless as possible for the patient and their family. Here's a short story to illustrate how I view the ideal state of operational excellence.

CARING FOR MR. SMITH— A PALMETTO HEALTH PATIENT STORY

* Mr. Smith is a 72-year-old gentleman with diabetes, high blood pressure, high cholesterol and a history of mini-strokes. Earlier this year, he also had neurological episodes where he had difficulty speaking and walking. Because of his medical history, he is actively case-managed and has access to the full complement of Palmetto Health services. He also has a strong relationship with his primary geriatrician, as well as specialists that include neurology. As part of Palmetto's progressive case management model, he is enrolled in TeleHealth at Home, which offers him convenient, timely contact by smart phone with a panel of providers.

* During one of those online visits, Mr. Smith began having a neurological episode that included weakness on his left side and slurred speech. 911 was dispatched and he was transported to Palmetto Health Richland.

* While he was being transported, EMS initiated a brain-attack alert so that the emergency medicine and neurology teams could assess him immediately upon his arrival to the emergency department. The team noted that his slurred speech and left side weakness of his upper and lower extremities is consistent with a stroke. He had a CT scan completed and read within

15 minutes of arrival and was deemed to be a candidate for TPA (the IV clot-buster medicine). He was immediately transferred from the ED to an available bed in the NeuroICU that had been pre-assigned as soon as central patient placement learned of the brain attack alert triggered by EMS.

* After two days in the NeuroICU, Mr. Smith had met all the stroke care milestones and was transferred to an available bed in the neurology accountable care unit. Neurologists, physical therapists, occupational therapists, speech therapists and other members of the care team worked with Mr. Smith—and his family—in a coordinated and transparent fashion to help him meet his additional stroke care milestones.

* Mr. Smith's expected length of stay—given his acute stroke diagnosis and customized care plan—was eight days. Because his patient ID bracelet was equipped with Real Time Location System (RTLS) capabilities, each step of his care was tracked and time-stamped (data performance improvement teams can use to further improve Palmetto's processes for other patients).

* On day six of the hospitalization, discharge planning milestones were reviewed by the entire care team during multi-disciplinary rounds. A pre-discharge order was initiated alerting team members that Mr. Smith was expected to be discharged the following day but would need rehab before he could return home. Palmetto Health was able to proactively match Mr. Smith's rehab needs to the available post-acute beds via a digital platform that makes it possible to see where the best openings are. A match was completed for a rehab near his home and the bed was confirmed as part of the pre-discharge checklist.

* On the day of discharge, the care team rounded on Mr. Smith first thing in the morning and because all the prep work was done the preceding day—including filling his prescriptions and bringing them to his room, arranging transport for 11AM, and educating him and his family on the next steps—he was discharged via private ambulance service at exactly 11AM, just as planned.

* As the ambulance service wheeled Mr. Smith out of the unit, they removed his RTLS bracelet and dropped it in the kiosk by the elevator. The technology automatically turned his bed status to empty in the electronic bedboard and sent a notification to an available housekeeping staff member to let them know the room was ready to be cleaned. Housekeeping had the room cleaned in 45 minutes, and when they indicated the job was complete via their handheld device, the bed was automatically identified to centralized patient placement as clean, available, and ready to accommodate the next new patient.

A new patient was in the room less than one hour after Mr. Smith was discharged.

* Mr. Smith spent two weeks in rehab and upon returning home, his progress—including adherence to medication and physical therapy regimens—were monitored via technology that linked him to his care team and case management. He was able to self-schedule his series of follow-up appointments via Palmetto's online community application and completed updates to his clinical history and insurance forms in the comfort of his home prior to his appointments.

* The day of his neurology follow-up, he and his wife were in Walmart when he received a text message from the office that they were running about 30 minutes behind schedule. He and his wife kept shopping and arrived promptly at the adjusted appointment time.

* Mr. Smith has regained almost full function and is a lifelong fan of Palmetto Health. He gives back by being a member of the Patient & Family Advisory Council.

Mr. Smith is a fictional patient, but this scenario isn't fictional—it absolutely is the healthcare system we are striving to become. It is the healthcare system we must become in order to deliver efficient, patient-centered, high-quality care at a lower cost. Mr. Smith's story demonstrates many of the facets of operational improvement that we are aggressively tackling. Most importantly, it highlights the critical blend of both clinical AND operational excellence. We will transform health care and provide a dramatically different experience for both our patients and our healthcare workforce.



DR. ERIC A. BROWN

*Physician Executive,
Palmetto Health*

Dr. Eric A. Brown has served as the System VP for Patient Flow & Care Innovation for Palmetto Health in Columbia, SC since August of 2016. In this capacity, he has led the construction of a comprehensive flow improvement strategy for this four-hospital system by chartering a dedicated team, reengineering countless processes to improve efficiencies across the organization, and optimizing health IT systems, including TeleTracking, to create a data-driven enterprise.

Dr. Brown has served as the Physician Executive (CMO) at Palmetto Health Richland, the flagship academic hospital of the Palmetto Health system, since February of 2014.

He is a board-certified Emergency Medicine physician, faculty member with the Palmetto Health Emergency Medicine Residency Program, and Fellow of the American College of Emergency Physicians.

MINING GOLD

How the invaluable role of data is driving outcomes.



The job market for nurses is incredibly strong. According to the Bureau of Labor Statistics it will rise by 26% in 2020 because people are living longer, which in turn is increasing the demand for many healthcare services. These factors are also leading to an increase in demand for nursing informatics analysts to help control costs and increase efficiency in order to deliver better care. In fact, as many as 70,000 nursing informatics specialists/analysts may be needed over the next five years.

Erika Turner is Sharp HealthCare's informaticist—a field that she became interested in after taking an elective class while obtaining her nursing degree. After spending five years working at the bedside in neurology and oncology, Erika enrolled in the University of San Diego's healthcare informatics MSN program. And while she was expanding her education, Erika also became interested in the role that operational efficiency plays in caring for patients—and began working as a bed placement coordinator for Sharp's four acute care hospitals.

"This was such a wonderful opportunity for me, and I was fortunate to have great co-workers to help me get up to speed. I was really able to get the pulse of the organization by interacting with other departments such as Environmental Services and Patient Transport," says Turner. "With their insight, I was able to create reporting that provided us with actionable data to identify trends and see where we could make improvements. Data in healthcare is unmined gold, and I am always ready to start mining!"

Once Erika completed her master's degree, she moved into the informaticist role at Sharp—taking her experience and evolving Sharp's use of TeleTracking to deliver excellent patient care by finding more efficient ways to manage care delivery and generate positive outcomes.

"Working at the bedside first gave me confidence. It also gave me the ability to see the bigger picture—and see the places where technology could create a better patient experience," says Erika. "When the healthcare side, the data side and the technology side all understand each other it's possible to really create meaningful change."

Erika is known around Sharp as someone who delivers perfectionism with a smile. Who is strong, stoic and a thoughtful communicator—and because of that, can motivate and encourage people across departments. She is also known as an observer, who takes things in, gains an understanding and then digs in to get to the root of problems. And once she gets to that root, she uses her clinical and informatics skills—along with Lean Six Sigma techniques—to create evidence-based process improvements by using trusted methodologies and TeleTracking technology.

"The transparency and visibility generated from TeleTracking solutions provide a tremendous impact on the patient placement process," concluded Erika. "The enterprise dashboard lets me anticipate challenges right away, gives me the tools to make decisions and keep things running smoothly by maximizing patient throughput. The goal is always to get the right patient, into the right bed, at the right level of care, the first time."

TOP 10 OF 2018

2018 was a transformative year for TeleTracking—with every effort, every day, of every employee focused on our mission to ensure that no one will ever have to wait for the care they need. This shared focus led to great accomplishments—for both TeleTracking and our clients. We'd like to share and celebrate what we're grateful for.

**To get the whole story,
visit our blog: bit.ly/2018TeleTopTen**

01

LEADERSHIP MATTERS

With a sharp vision for how TeleTracking can—and will—operationalize the care continuum, TeleTracking’s Chief Solutions Officer, Christopher Johnson, was promoted to President in May.

03

TOP HONORS

For the second time in three years, TeleTracking was named Innovator of the Year by the Pittsburgh Technology Council. We were also named as a finalist in the Culture Leader of the Year category.

02

TAKING COMMAND

Kettering Health Network took a bold leap forward for the health of their community with the construction of a 17,000-square-foot operational command center.

04

CARING FOR THE COMMUNITY

TeleTracking is proud to be the founding sponsor of Mission of Mercy Pittsburgh, a free, two-day dental clinic for under-served people living in Pittsburgh and the surrounding area.

06

RECORD ATTENDANCE

Our annual Client Conference—TeleCon18—was the most well-attended TeleCon in the 17-year history of the event.

CLIENT SUCCESSES

VCU Health works with our team to decrease discharges by noon, free up space for 1,500 new admissions, and increase compliance with Medicare discharge standards to over 90 percent—which has resulted in them earning a prestigious HIMSS Davies award.

05

UK MAKING WAVES

The United Kingdom’s MSB Group, comprised of Mid Essex, Southend and Basildon hospitals—and which serves a major part of the Essex community—launched a Patient Flow Control Centre in October.

07

08

HOT NEW TECH

Community Scheduling & Workflow, TransferCenter IQ, and SynapselQ™—were all introduced by TeleTracking in 2018. Have you seen these in action?

10

READY FOR ANYTHING

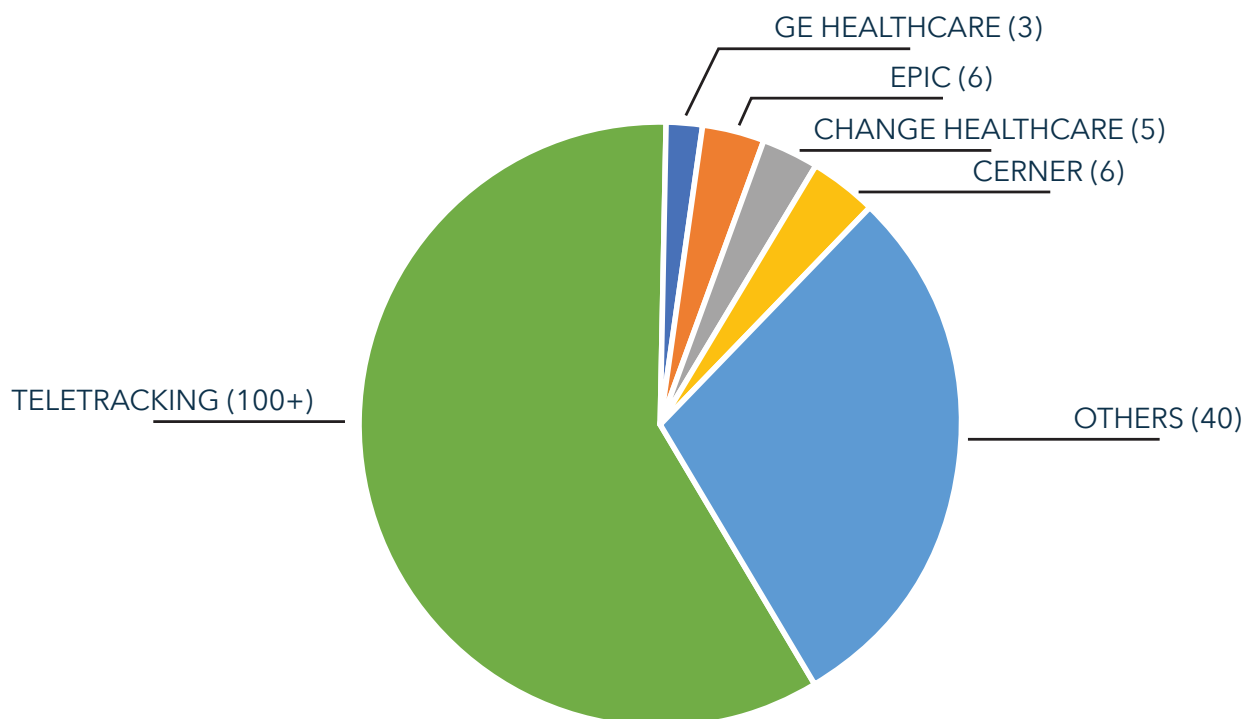
Responding to feedback from our clients, we developed an in-depth Disaster Readiness program, designed to help health systems prepare and empower their teams to handle the multitude of challenges that occur in a disaster situation.

09

CENTER OF IT ALL

Broward Health, located in Ft. Lauderdale, FL, launched a new Patient Logistics Center to reduce patient length of stay and bed turnover time, as well as prevent diversions.

TELETRACKING POWERS MORE **OPERATIONAL COMMAND CENTERS** THAN ALL OTHER VENDORS **COMBINED**



KLAS Operational Command Center Performance Report | December 2018