7 HOSPITALS
1,100 BEDS
44 AMBULANCES
3 HELICOPTERS

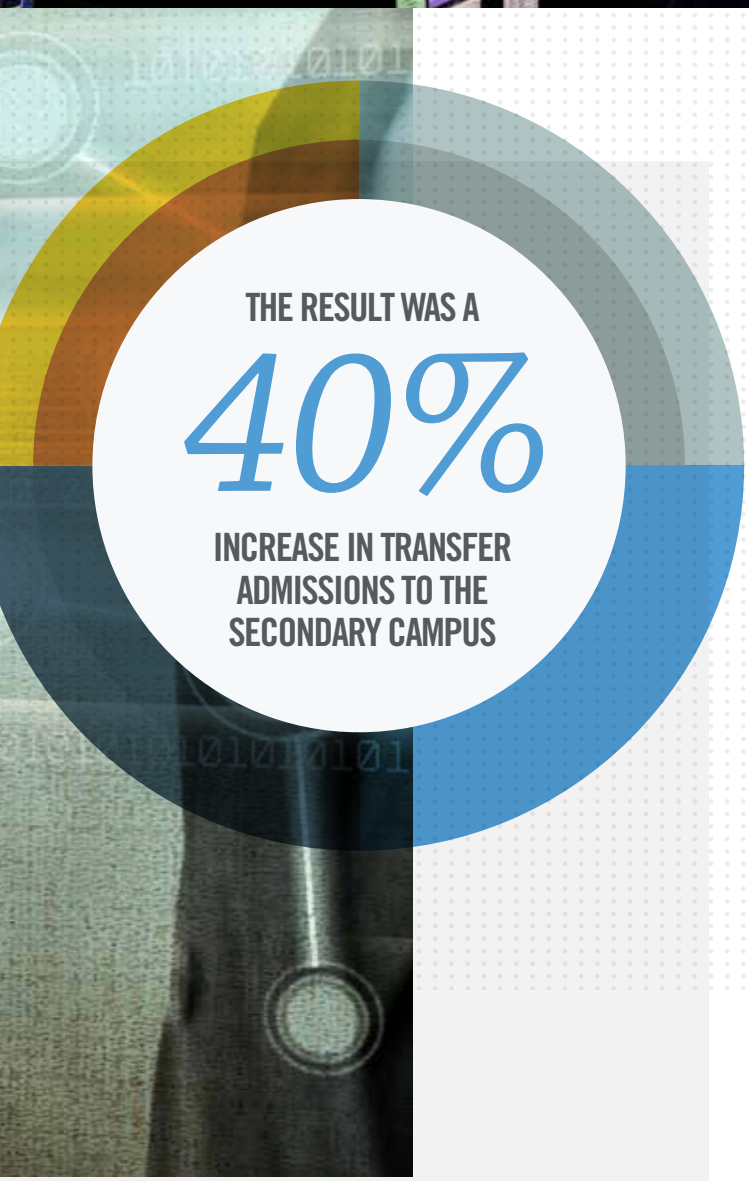
TAKING COMMAND

How a single command center introduces system-wide patient flow efficiencies.

Melanie Morris, senior director, Carilion Clinic Transfer & Communications Center (CTaC), in Roanoke, VA, recently had a peer-reviewed article published in Nursing Administration Quarterly *on the topic of designing a state-of-the-art mission control center. Melanie played an instrumental role in creating the centralized transfer and communications center at Carilion Clinic that allows for the seamless entry of patients into the health system, coordination of the safest, most appropriate transport of patients and the most efficient throughput as they receive care during their stay.*

The CTaC is built on a strong operational foundation that includes a large, open physical space to facilitate collaboration. Its state-of-the-art technology includes TeleTracking's patient flow software, which provides real-time capacity updates. This operations center also plays a central role in emergency operations and disaster management logistics at the local and regional level.

We had the chance to sit down with Melanie to gain her insights on everything from building consensus to the power of data and how it is best applied in practice.



Q Could you share your background and how you got involved in transfer center operations?

A I've been an RN for more than 21 years. I started my career working as a flight nurse and then transitioned into a marketing/business development role in Carilion Clinic's transportation department.

A few years ago, Carilion decided to re-evaluate how transfers came into the system. I became involved in the task force because in my business development role, I was on the front lines talking to customers, so I knew what we were doing well and where there were opportunities for improvement.

The decision was made to move the transfer center under the emergency services wing of the hospital, and I was appointed to manage the center because I was familiar with both the transfer hospitals in the area and our own internal operations.

When we started the planning process, we brought an EMS mind set– establishing clear protocols and consistent processes. This algorithmic approach is helpful because people like knowing what to expect.

Once we established the work flows, we needed to design the physical space and determined that it made sense to put EMS dispatch and transfer center nurses in the same room — it just simplified things to have these two groups in the same place.

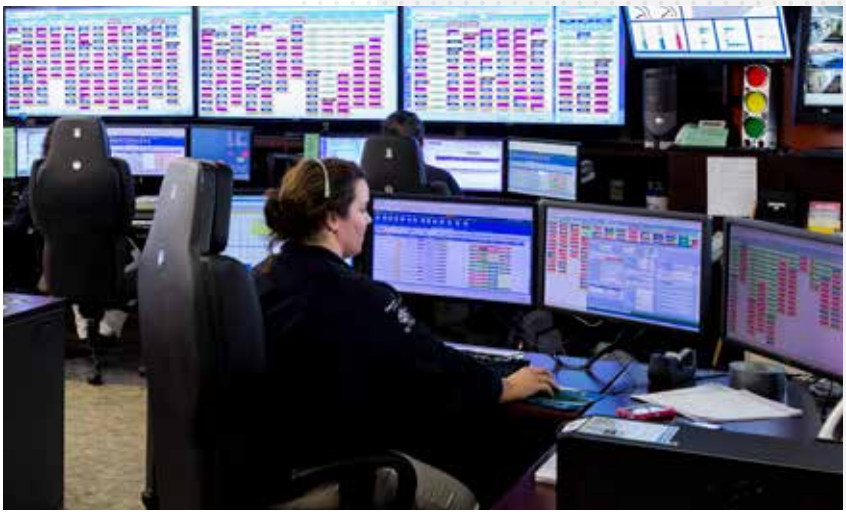
And that was just the first part of the puzzle — we also needed dispatchers to help get the discharges out and the new patients in beds. So we established processes that allowed for better prioritization and a more natural progression.

We're proud that three years later, our center is being recognized for its best practices.

Q Prior to CTaC operations development, what were the main barriers to patient access and throughput at Carilion?

A First of all, from a transfer perspective, we quite simply had more people than beds. We needed to address the length of stay issues and part of that involved determining what services could be administered on an outpatient basis versus an inpatient basis.

We owe it to our patients to make sure we're maximizing efficiencies. Previously, there were a lot of different portals into the system, and when a hospital is running at 95-98% capacity that can be



Carilion Clinic's Transfer and Communications Center, Roanoke, VA. The command center in action — keeping the the whole system flowing from a centralized information hub. For more visit: http://go.teletracking.com/pfq-ctac

dangerous — especially with time-sensitive medical issues.

When we moved to a TeleTracking system that was simplified and centralized, people knew what to expect and knew how to facilitate things so that the right patients were sent to the right facility — whether it was our main facility or one of our six community sites. The result was a 40% increase in transfer admissions to the secondary campus.

Q Who was involved in the design of the physical space of CTaC and the training/blending of employees to help ensure synergies with the new center?

A We were very, very blessed to get the physical space we did. We have a semi-circle layout in the space that used to be the hospital library that works perfectly from a collaboration standpoint. We worked with a wonderful space manager, as well as a project manager who helped us maximize the floor area, create good flow between the nurses and dispatchers, and allow for ample space for monitors and dashboards.

From the employee perspective, it was a big cultural change, so having open communication from the start was important. We brought everyone who was going to be involved to the table — we wanted to know what they liked, what we needed to work on and what was on their wish lists.

We also worked closely with everyone on training and making sure they were comfortable and compliant with the software systems.

And these efforts paid off. A really strong synergy was established in the department with both the EMS and nursing staffs feeling that they were part of the bigger picture and that the entire health system was operating as a cohesive unit.

Q How did you overcome implementation challenges?

A Once everyone saw firsthand the level and timeliness of data that the software provided, the fact that operational decisions could be made based on that data and used for future planning decisions, they embraced the new way of doing things.

Q How has the CTaC impacted physician satisfaction scores — both internal and external?

A The first step was having everyone get to some level of agreement on the new patient flow process. That way, everyone knew the rules and what to expect.

Now, the feedback we've received is that physicians love having a nurse facilitating every transfer and they also love the data that's available to them. And with all of this data, bed priorities and needs can be shuffled in order to ensure patients get to where they need to be. A lot of people have said they don't know how they did this before TeleTracking. The goal is to make things as seamless and full-service as possible. When someone gets off a transfer call, we don't want there to be any unanswered questions.

At the end of the day, it's all about helping providers so they can better focus on helping their patients.

Q How have different departments/clinics/facilities within and outside your healthcare system been engaged in the process?

A The emergency room and PACU are big players. We now also hold a daily operations huddle. Basically, the leaders of all the major departments meet for 30 minutes to review throughput and provide mutual feedback.

Q What are your next steps — what is on the horizon to further enhance your operating model?

A This year, we added a clinical transporter dispatcher and an EVS (environmental services) dispatcher to the transfer center. We're also working on integrating the hospital interpreters into TeleTracking's ServiceTracking application.

We're currently looking at how we can better utilize and integrate case management/social work. We're also looking at our emergency disaster procedures for ways of establishing greater integration.

Q How do you feel your overall quality of care has improved, especially in regard to the six dimensions outlined by the Institute of Medicine (healthcare must be safe, efficient, patient-centric, effective, timely and equitable)?

A We have definitely improved, especially regarding patient safety and efficiency.

We owe it to our patients to give them quick decisions and beds when they get here, since these can be life-or-death matters. We want to be sure the flow is occurring the way we need it to be, so that patients are moving in and out the way they should be.

STORY BY SUSAN MCLAUGHLIN

CHANGE FOR THE BETTER

OSU TEAMWORK GETS IT DONE

University Hospital is the flagship patient care facility of The Ohio State University Wexner Medical Center. It is a 900-bed hospital that is consistently recognized as one of "America's Best Hospitals" by U.S.News & World Report. *In addition to being a Level I Trauma Center, the facility also provides one of the most advanced intensive care units in the area, including a Level III neonatal intensive care unit and a comprehensive burn center.*

The Ohio State University Wexner Medical Center is one of the Midwest's highest ranked hospitals for safety and patient care; has led the region for 23 years in *U.S. News & World Report's* "America's Best Hospitals" rankings; and is one of the most connected hospitals, according to *U.S. News*, for excellence in combining patient safety, patient engagement and clinical connectedness to improve patient care.

It takes a team-wide commitment to create the type of culture that generates such results over the long term. And it was their continuous pursuit of excellence that led the OSU IT and operations teams to decide to implement TeleTracking as an operational complement to their EPIC electronic medical records system.

Dr. Mark Moseley is an emergency room physician who served as Chief Operating Officer during the implementation and then as the project's executive sponsor. He became interested in the power of patient flow after seeing patients experience long wait times in the ED — or simply walking out without being seen.

"IT'S HUMAN NATURE TO BE A LITTLE RESISTANT TO CHANGE. WHEN YOU'RE USED TO SOMETHING, YOU'RE COMFORTABLE AND IT BECOMES A SOURCE OF TRUTH."

DR. MARK G. MOSELEY, MD, MHA, FACEP
Vice Chair of Clinical Affairs & Associate Professor
The Ohio State University
Department of Emergency Medicine

"I went to medical school because I wanted to take care of patients", Moseley says. However, when I saw patients boarding in the ED — and how the back door to get the patients who were in the ED into the right beds in the hospital was broken — I became interested in patient flow and how that would open up the ED to the people who needed care. I knew there needed to be a technology piece if there was a belief in providing superior care. "

This "technology piece" opens up the power of data, which can help with fixing operational challenges. To drive performance, though, the data needs to be easy to use, easy to understand and structured to define success.

"Big organizations thrive on analysis and use it for continuous improvement. Here at OSU, we're using it to fix incremental inconsistencies in care. By solving for these issues, we can help make sure, people aren't walking out because the wait is too long or that we're declining transfers because we don't have open beds," continues Moseley. "The goal is to make sure patients are in the right place for the right level of care, that a room is ready and that the process of patients moving through the system continues seamlessly. It's basically what good hotels do — and what has historically been a challenge for healthcare."

What can seem like an inconsequential delay in the patient flow process can be quite significant when viewed holistically. For example, if there are 10 to 15 minutes of dead bed time with each patient and 200 patients are discharged each day, that adds up to 33 to 50 hours when care isn't being provided. And that means an ambulance might have to be diverted or a transfer request from a partner declined.

Numbers like this make a clear and powerful business case for going beyond an electronic medical record and instead using a complementary operational system. Taking a patient flow strategy to the next level requires collaboration between IT, which is usually responsible for the electronic medical record, and the clinical teams.

"It's human nature to be a little resistant to change. When you're used to something, you're comfortable and it becomes a source of truth," says Moseley. "To help make sure everyone at OSU was on board, we had an extensive due diligence process and looked at dozens of health systems and how they handled implementation. We determined that EPIC and TeleTracking are synergistic; we are able to use the best features of each system. And the bottom line is the patient doesn't care what we use. They just want to get through the system effectively. With TeleTracking, we're able to make that happen with the data that is available to us. We can tackle the inefficiencies and effectively deploy our assets."

This is where it becomes critical to identify the right metrics to analyze, which in turn helps define success and leads to the development of best practices.

"That process can be a little overwhelming," adds Moseley. "We had to take a step back after our implementation and rethink the right questions to ask and the right metrics to focus on in order to derive the right value. We decided to place an emphasis on the percentage discharge time for physicians and transport times. We get the data weekly and share it with all the health system leaders. And if different units are seeing different results, we can give them the resources to create improvement."

With increasing pressure to maximize resources and minimize expenses, building on initial success is important. At the heart of it all, though, is finding ways to help the most patients in the most cost-effective manner.

"The key focus is functionality and what it accomplishes for the patient. One system can't care for patients the way we need to," concludes Moseley. "We want to continue to optimize the technology throughout the health system. When we are able to liberate capacity, we're able to care for more patients, move them to the level of care they need and treat them more effectively and efficiently."

DISCHARGES VIA PATIENT TRANSPORT INCREASED FROM

0% TO 54.9%

DISCHARGES BY 2PM INCREASED BY

75%

OUTSIDE TRANSFER HOURS FROM INITIAL CALL TO PATIENT ARRIVAL DECREASED BY

56%

TOTAL ED DIVERSION HOURS DECREASED BY

42%

LEFT WITHOUT BEING SEEN DECREASED BY

38%

Results reflect improvements six months post-implementation.

Rapid City Regional Hospital

Rapid City Regional Hospital, a Level 2 trauma and primary stroke care center serving western South Dakota, overcame a patient diversion problem by using TeleTracking capacity management tools to reduce LOS and increase bed capacity, with diversions dropping from a monthly high of 35 to zero in just five months.

CHALLENGE

RCRH is the region's largest referral center with the closest alternative 300 miles away. In October of 2013, the hospital diverted 35 incoming patients because of capacity issues. It was determined that Length of Stay had to decrease in order to make beds available for incoming patients. While TeleTracking's capacity management system had been installed a few months before, many of its features, including discharge prediction, were not being used.

ACTIONS

Hospital leadership determined that staff needed to be educated regarding how TeleTracking's discharge functionality could predict census and help decrease the amount of bed–related diversions. Nursing units were instructed to enter a "pending" discharge milestone alert within 24 hours of the event. If a "confirmed" discharge was delayed more than two hours, staff was required to enter the "delay" reasons, which revealed standing barriers to discharge that needed to be addressed.

RESULTS

- LOS decreased 1.1 days in seven months
- Bed related diversions went from 35 in October, 2013 to zero in March, 2014
- Bed days increased from 7,305 to 16,374
- Admission capacity increased from 1,353 to 3,484
- Cost of admission was reduced by $2,297 from October, 2013 to July, 2014
- Daily custom reports offer insights into further decreases in LOS
- The ability to staff to demand has increased sharply

"We were an organization that was not very accepting of TeleTracking and were not utilizing the solutions to their fullest potential. Once we started taking advantage of the pending and confirmed discharges, our length of stay decreased 1.1 days from October 2013 to April 2014."

TeleTracking Solutions:

- Capacity Management Suite™
- TransferCenter™
- Patient Flow Dashboard™
- Custom Reporting Solution™

Electronic Health Record:

- Meditech

By the Numbers:

- Beds: 417
- Annual Admissions: 17,674
- Annual ED Visits: 52,508

Awards & Recognitions:

- The Joint Commission Gold Seal of Approval
- Primary Stroke Care Center – The Joint Commission

TeleTracking®

RCRH

September 28, 2016

The Honorable Pat Tiberi
Chairman, Ways and Means Subcommittee on Health
United States House of Representatives
1102 Longworth House Office Building
Washington, DC 20510

The Honorable Jim McDermott
Ranking Member, Ways and Means Subcommittee on Health
United States House of Representatives
1102 Longworth House Office Building
Washington, DC 20510

Dear Chairman Tiberi and Ranking Member McDermott:

The Alliance for Home Dialysis (Alliance) appreciates the opportunity to submit a statement to the House Ways and Means Subcommittee on Health on the hearing held September 14, 2016, "Exploring the Use of Technology and Innovation to Create Efficiencies and Higher Quality in Health Care."

The Alliance is a coalition of kidney dialysis stakeholders representing patients, clinicians, providers, and industry. We have come together to promote activities and policies to facilitate treatment choice in dialysis care, while addressing systemic barriers that limit access for patients and their families to the many benefits of home dialysis.

Today, more than 700,000 Americans are living with End Stage Renal Disease (ESRD) [1]. While the incidence of ESRD has declined slightly over the past decade, prevalent cases continue to rise due to a decline in mortality rates – resulting in an increased demand for dialysis services. The vast majority of ESRD patients, approximately 70%, depend on dialysis to replace kidney function[2].

Home dialysis—peritoneal dialysis (PD) and home hemodialysis (HHD)—is an important treatment option that offers patients significant quality of life advantages, including clinically meaningful improvements in physical and mental health. Those patients who are able to elect home modalities have shown improved clinical outcomes, including reduced cardiovascular death and hospitalization[3],[4] lower blood pressure[5], reduced use of antihypertensive agents[6], and reduced serum phosphorus, which can help prevent cardiovascular events[7]. Studies have also shown that patients have better mental health outcomes,

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[1] U.S. Renal Data System. ESRD Quarterly Update – July 2016. Available online www.usrds.org.

[2] The Medicare Payment Advisory Commission. Report to the Congress: Medicare Payment Policy, Chapter 6, "Outpatient Dialysis Services". Washington, DC: MedPAC, March, 2016. Web.

[3] Weinhandl ED, Liu J, Gilbertson DT, Arneson TJ, Collins AJ: Survival in daily home hemodialysis and matched thrice-weekly in-center hemodialysis patients. J. Am. Soc. Nephrol JASN 23: 895-904, 2012.

[4] Weindhandl ED, Nieman KM, Gilbertston DT, Collins AJ: Hospitalization in daily home hemodialysis and matched thrice-weekly in-center hemodialysis patients. Am. J. Kidney Dis. Office. J, Natl Kidney Found. 65: 98-108, 2015.

[5] Kotanko P, Garg AX, Depner T, et al. Effects of frequent hemodialysis on blood pressure: Results from the randomized frequent hemodialysis network trials. Hemodial Int. Int. Symp. Home Hemodial. 19: 386-401, 2015.

[6] Jaber BL, Collins AJ, Finkelstein FO, Glickman JD, Hull AR, Kraus MA, McCarthy J, Miller BW, Spry LA.; FREEDOM Study Group: Daily hemodialysis (DHD) reduces the need for anti-hypertensive medications [Abstract] J Am Soc Nephrol 20: SA-PO2461, 2009.

[7] FHN Trial Group, et al: In-center hemodialysis six times per week versus three times per week. N. Engl J Med, 363:

including social function, which is vitally important for overall well-being[8].

Despite increases in recent years, still only 11.5% of U.S. dialysis patients receive treatment at home[9]. However, Congress has long realized the advantages offered by home dialysis; its stated intent in the creation of the ESRD benefit was that "the maximum practicable number of patients who are medically, socially, and psychologically suitable candidates for home dialysis or transplantation should be so treated."[10]

The Alliance believes that evolving technology has the potential to increase access to dialyzing at home. Specifically, we support expanding access to telehealth services for home dialysis patients by providing a framework for safe, reliable patient/practitioner interaction.

Dr. Eric Wallace, an assistant professor in the Division of Nephrology and director of the University of Alabama at Birmingham Peritoneal Dialysis Program, is conducting a three-year telemedicine trial for peritoneal dialysis patients. The pilot is assessing the feasibility of the use of telemedicine and remote monitoring as a substitute for two out of 3 monthly face-to-face visits over a 6 month period. Dr. Wallace believes telemedicine is especially important for home dialysis patients because it can result in "improved access to care … [and] improved quality of life; this may improve outcomes as there would be less tendency to miss monthly visits, so it might lead to more medical oversight."[11]

The Alliance agrees with Dr. Wallace's views and below are suggestions which will allow more dialysis patients to take advantage of telemedicine.

Congress should designate the patient's home and dialysis facility as originating sites for telehealth and remove geographic restrictions

Currently, several Medicare policies serve as a barrier to realizing the full potential of telehealth and remote monitoring and management services for home dialysis patients. For instance, current law designates "originating sites" where a patient must be located when using telehealth. Because a patient's home or dialysis facility is not designated as an originating site, patients must travel to a qualifying site, such as a hospital, in order to visit with a provider via telehealth. Congress should include the patient's home and any licensed dialysis facility as originating sites.

Furthermore, originating sites must be located in a rural Health Professional Shortage Area, a county outside a Metropolitan Statistical Area, or to be part of a federal telemedicine demonstration project[12]. Home dialysis patients in rural and urban communities alike can benefit from access to telehealth. Therefore, once designated as an originating site, the patient's home or dialysis facility should not be subject to geographic restriction.

CMS should allow providers and patients to conduct monthly visits via telehealth if both parties agree that it is in the patient's best interest

Permitting patients and their physicians the option to conduct monthly evaluation and assessment visits

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2287-2300, 2010.

[8] Finkelstein FO, Schiller B, Daoui R et al: At-home short daily hemodialysis improves the long-term health-related quality of life. Kidney Int. 82: 561-569, 2012.

[9] U S Renal Data System 2015 Annual Data Report: www.usrds.org/2015/download/vol2_USRDS_ESRD_15.pdf

[10] Section 1881(c)(6) of the Social Security Act.

[11] Zumoff, Rebecca. "An inside look at the UAB home dialysis telemedicine pilot." Nephrology News & Issues. 2016 August http://www.nephrologynews.com/inside-look-uab-home-dialysis-telemedicine-pilot/

[12] Centers for Medicare and Medicaid Services, "Telehealth Services – Rural Health Fact Sheet Series". Available at http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/telehealthsrvcsfctsht.pdf

via telehealth – with in-person visits at least quarterly (every three calendar months) — may incentivize patients to adopt home dialysis as a treatment option, and could benefit those currently on home dialysis. Such telehealth interactions are appropriate when they 1) include a video interaction, 2) are supported by the transmission of clinical data that facilitates physician review and evaluation of patient treatment, and 3) are compliant with federal and state laws protecting privacy of patient health information. A telehealth visit with a physician would be conducted according to facility standards for regular patient consultation and monitoring, and such a visit should not preclude a patient from seeing their dialysis facility-based interdisciplinary team face to face to address emergent issues.

Congress, CMS and the FDA should consider opportunities to evaluate and advance remote patient monitoring and other store-and-forward technologies in telehealth coverage

These technologies, which are presently excluded from the definition of telehealth services, may enable physicians and providers to monitor a patient's home dialysis treatment, track vital signs, and help promote proper adherence to dialysis. We encourage federal stakeholders to evaluate whether reimbursing physicians and other health professionals to conduct remote patient monitoring in addition to other permitted telehealth services can increase patient safety, facilitate earlier and lower-cost interventions, and reduce hospitalizations.

Congress should encourage telehealth by clarifying that technology platforms are not an improper inducement

As lawmakers consider approaches to encouraging the deployment of telehealth and remote patient monitoring technologies, Congress should clarify that the use of technology by patients and provision of technology platforms to enable such interaction in concert with their providers is essential to the success of this effort and is in no way an improper inducement under federal anti-kickback laws.

The Alliance is appreciative and supportive of two legislative initiatives, the *CONNECT for Health Act* and the *Medicare Telehealth Parity Act*, both of which originate in the Ways and Means Committee. The *CONNECT Act for Health Act*, HR 4442, was introduced by Congressman Diane Black (R-TN); the *Medicare Telehealth Parity Act*, HR 2948, was introduced by Congressman Mike Thompson (D-CA).

The *Medicare Telehealth Parity Act* authorizes a patient's home and dialysis facility as originating sites for the specific purpose of enabling monthly clinical visit to be conducted via videoconference. The legislation provides an important safeguard of one in-person visit with a clinician at least quarterly. The *CONNECT for Health Act* authorizes the dialysis facility for these purposes. Furthermore, the *CONNECT for Health Act* would clarify that the provision of telehealth or RPM technologies made under Medicare by a health care provider for the purpose of furnishing these services is not considered "remuneration," and therefore not an improper inducement.

We greatly appreciate the opportunity to provide this feedback, and would be glad to discuss further if it would be helpful. If you have any questions, please contact Elizabeth Lee at elizabeth@homedialysisalliance.org or 202-466-8700.

Sincerely,

Stephanie Silverman
Executive Director

Participating Organizations (2016)

American Association of Kidney Patients
American Nephrology Nurses Association
American Society of Nephrology
American Society of Pediatric Nephrology
Baxter
Cleveland Clinic
DEKA Research and Development
Dialysis Clinic, Inc
Dialysis Patient Citizens
Fresenius Medical Care
Greenfield Health Systems
Home Dialyzors United
International Society for Peritoneal Dialysis, North American Chapter
Medical Education Institute
National Kidney Foundation
Northwest Kidney Centers
NxStage Medical
Outset Medical, LLC
Renal Physicians Association
Satellite Healthcare
Southwest Kidney Institute
The Rogosin Institute
TNT Moborg International Ltd.

Statement of

SAUL LEVIN, M.D., M.P.A.

CEO AND MEDICAL DIRECTOR

On Behalf of the

AMERICAN PSYCHIATRIC ASSOCIATION

For the

COMMITTEE ON WAYS AND MEANS
Subcommittee on Health

Exploring the Use of Technology and Innovation
To Create Efficiencies and Higher Quality in Health Care

September 14, 2016

10:00 a.m.

On behalf of the American Psychiatric Association (APA), the national medical specialty society with over 36,500 psychiatric physicians nationwide, I write to submit into the record a statement with respect to the hearing on September 14, 2016, held by the Ways and Means Committee, Subcommittee on Health: *Exploring the Use of Technology and Innovation to Create Efficiencies and Higher Quality in Health Care*. The APA thanks Chairman Tiberi and Ranking Member McDermott for holding this hearing and facilitating a discussion on this important topic.

The APA believes that health information technology (HIT) systems can play a pivotal role in improving patient safety and quality of care. However, in order for that goal to be fully realized for psychiatric medicine, several barriers must be overcome, including a lack of true interoperability, the originating site restriction under Medicare, and lingering burdens unique to psychiatry in the Advancing Care Information (ACI) category – also under Medicare.

The lack of true interoperability between HIT systems arguably remains the largest challenge facing providers and policymakers today. Some barriers to achieving true interoperability are unique to psychiatry, while others are ubiquitous across the electronic health records (EHR) landscape. Interoperability is predicated on the idea that the patient's record should follow them wherever they go, geographically speaking, without restriction between health systems and providers. This idea has yet to become a reality primarily because larger EHR vendors view this as a direct threat to their business models, which often center on data collection and retention. Consequently, smaller EHR vendors, including those who focus on mental illness and substance use disorders, encounter challenges when designing systems since there is little to no incentive for larger vendors to cooperate with them. Thus, psychiatric patients' records are often kept separate from other health records, preventing the patient's full health history from being reviewed in one place.

The Office of the National Coordinator (ONC) for Health Information Technology has taken some steps to addressing the above issue, but both Congress and ONC could do more by developing a single performance standard for interoperability. Such an action, whether taken through legislative or regulatory means, could ensure that all vendors, large and small, have fewer reasons to compete and more incentive to share data, because a single performance standard could be based around payment reform. Such a standard would have to be designed in a way that does not place any undue burden on smaller vendors, especially those designing systems for mental health.

True interoperability would lead to increased quality of care for psychiatric patients who are at risk for continued readmissions due to poorly controlled symptoms of various disorders. Better HIT systems that share information across practices could find patterns to patients' readmissions (i.e., psychosocial reasons for decompensating; medication non-compliance; persistent suicidal ideation, etc.) and thus be able better to prevent repeated presentation at the emergency department.

Another barrier to HIT is the originating site restriction under Medicare, which restricts a patient setting to a clinical site, such as a doctor's office, outpatient facility, or hospital. Eliminating the restriction would be of particular benefit to psychiatry and the in-home treatment of mental illness and substance use disorders. This would especially benefit patients with

chronic/persistent diseases, as well as those with conditions that have demonstrated greater efficacy of treatment for telepsychiatry vs. in-person care. Furthermore, eliminating the originating site restriction would broaden access to psychiatric medicine for the treatment of mental illness in general by eliminating the stigma of going into the office for treatment.

Finally, the Advancing Care Information (ACI) category, which carries over many facets of the Meaningful Use program, still carries substantial administrative burdens unique to psychiatry compared to other specialties. Specifically, the objectives around engaging the patient within the EHR (e.g., View, Download, Transmit; Secure Patient Messaging, etc.) is a challenge for psychiatry due to the inherent symptoms in various psychopathologies that make this type of behavior difficult (e.g., major depressive disorder; schizophrenia and other cognitive disorders). Many psychiatrists practice within solo or small group settings and have slow to adopt EHRs, compared to the high level of adoption by large hospital systems, as reported by the ONC. The reasons behind this tend to be that the EHRs that are specifically designed for mental health are lacking in functionality that would allow the psychiatrist to use the system in a "meaningful" way, as defined by the ACI. EHR systems designed for larger practices tend to be expensive and require greater administrative support to bring online into practice and to integrate into existing workflows, which also is a reason as to why psychiatrists have been slow to adopt. Thus, not having an EHR results in a "zero" score on the ACI category, which will disproportionately, negatively affect small/solo providers, and may force some to decline Medicare patients.

The APA applauds the Subcommittee's attention to the important issue of health information technology, and we look forward to staying engaged with you moving forward. If you have any questions, please contact Ariel Gonzalez, Chief of Government Relations, at agonzalez@psych.org.

CAPE FEAR VALLEY HEALTH SYSTEM
1638 Owen Drive
Fayetteville, NC 28304

September 15, 2016

The Honorable Pat Tiberi
House Ways and Means Committee
U.S. House of Representatives
Washington, DC 20515

Submission on behalf of:

TeleTracking Technologies Inc.
The Times Building
336 Fourth Avenue
Pittsburgh, PA 15222

Frank Campbell, (CSM Ret.), EJD, MBA/HRD, BS
Cape Fear Valley Health System
Director, Patient Transportation
1638 Owen Drive
Fayetteville, NC 28304
Office (910) 615-4605 Fax (910) 321-6160

Dear Committee members

Thank you for allowing me to submit my testimony on "exploring the use of technology and innovation to create efficiencies and higher quality in healthcare" on behalf of TeleTracking Technologies. My testimony expounds on the computer link attached in PDF format; written and published as a client profile by TeleTracking Technologies. My journey as a healthcare professional started in August of 2000 with Cape Fear Valley Health System. I made a choice to join Cape Fear Valley Health System because I believed the organization constantly strived to improve organizational performance and provide quality care.

Once I started working as a healthcare professional, I noticed there were similarities with the military and healthcare with respect to using technology and innovation to create efficiencies. With respect to the military, the task is somewhat simplified, because the military has reorganized based on advances in technology and innovation in preparation for transitioning to an elite 21st century fighting force. This in my opinion, created transparency within the conventional and regimental systems. The military success is further advanced with effective use of lessons learned, which negates duplicating previous errors made by units in training or combat.

Healthcare uses technology and innovation to create efficiencies as well. As with most health systems when I started working for Cape Fear Valley Health System, I observed that our patient flow information technology wasn't fully interfaced. This had a negative impact on improving our operational efficiency, while simultaneously negating patient flow transparency within the health system. Consistent with the attached computer link, I've always been a leader that desired to step up to a challenge, therefore, I volunteered to take on the task of synchronizing both Patient Transportation and Environmental Services into the health system patient flow workflow. Patient flow and throughput quickly became my top priorities. I observed inefficiencies and a moderate decline in staff productivity during my initial assessment period. In my opinion, this had a profound impact on patient flow, which by default affected patient satisfaction. I immediately starting using a simple methodology I learned while serving in the military by applying four pillars of leadership; leading, training, maintaining and sustaining. This enabled me to gain the trust of staff to support patient flow initiatives.

My health system had a Teletracking patient flow module called Patient Tracking VIP ® and Bed Tracking ® which focused on Patient Transporters and Environmental Services workflow. Both were products of TeleTracking Technologies and were used as a stand-alone system. This hindered transparency in the organization. Consistent with the challenges the majority of health systems in a similar position encountered with transparency and mastering patient flow, cost reduction eventually emerged as a financial strategy to ensure operational effectiveness. I felt the desire to make something happen so I embarked on a search for a much better and reliable product that could satisfy customer needs, while having a positive effect on efficiency and patient flow.

After attending a TeleTracking client conference, I was introduced to a new product that would improve operational efficiency, patient flow and productivity called Capacity Management Suite ™. My challenge appeared simple on its surface. If the system interfaces, mission accomplished. The system had an immediate impact with improving my patient transport average response time, bed turn-around time, and enhance measuring staff productivity. Transparency enhanced as well because the system interfaced with our health system ADT system. The thought often crossed my mind during the implementation process; if I could have located a link though web searches on lessons learned, I would not have to reinvent the wheel on patient flow. Unfortunately, when I did locate several links through web searches of lessons learned they were often broad, with a primary focus on the relationship between a specific vendor and their client. In other words, what I was attempting to accomplish and what I found on my web search failed my matching test. Therefore, the lessons learned were deemed useless.

In my opinion, technology and innovation to create efficiencies will only succeed if shared among health systems. We should never forget that our reason for existence is the patient. I firmly believe if technology and innovation advances can be shared as one joint link to provide lessons learned that's similar to what the military established, then success with efficiencies and higher quality will follow. This can be achieved through vendor collaboration that synchronizes all respective health systems client lessons learned, to include addressing specific topics such as patient flow. In addition, information technology sharing on lessons learned, if shared properly, will have a significant impact in providing quality care.

The outcome of technology sharing is likely to yield higher quality and better access; a possible decrease with patient insurance, versus a rise with consumer-surance. I've given my own definition to consumer-surance as insurance cost increases impacted by fierce competition.

I would be remiss if I didn't mention the success and significant achievement my health system has realized using people with technological advances. It's not surprising to me why my health system continues to be the healthcare provider of choice for thousands of families in the region. Our commitment to allow stakeholder participation and collaboration in my opinion is the standard setter for other health systems to emulate. Below is a marketing extract about Cape Fear Valley Health System and its significant achievements.

ABOUT CAPE FEAR VALLEY

Cape Fear Valley is a 916-bed, 8-hospital regional health system, the 8th largest in North Carolina, with more than 1 million inpatient and outpatients annually. A private not-for-profit organization with over 7,000 employees and 850 physicians, it includes Cape Fear Valley Medical Center, Highsmith-Rainey Specialty Hospital, Cape Fear Valley Rehabilitation Center, Behavioral Health Care, Bladen County Hospital, Hoke Hospital, Health Pavilion North, Health Pavilion Hoke and Harnett Health.

Cape Fear Valley has been nationally recognized by:

- Leapfrog Group Hospital Safety Score A Rating
- The Joint Commission Top Performer on Key Quality Measures® for Heart Attack, Heart Failure, Pneumonia and Surgical Care, Stroke and Perinatal Care
- North Carolina-Designated Level Three Trauma Designation
- Society for Cardiovascular Patient Care: **Chest Pain Center Accreditation**
- The Joint Commission: Disease Specific Certification in **Hip Replacement Surgery**
- The Joint Commission: Disease Specific Certification in **Knee Replacement Surgery**
- The Joint Commission: Disease Specific Certification in **Heart Failure**
- The Joint Commission: Disease Specific Certification in **Advanced Stroke**
- The Joint Commission: Disease Specific Certification in **AMI: Acute Myocardial Infarction**
- The Joint Commission: Disease Specific Certification in **Pneumonia**
- The Joint Commission: Disease Specific Certification in **Sepsis (Cape Fear Valley Medical Center and Bladen County Hospital)**
- The Joint Commission: Disease Specific Certification in **Wound Care (Highsmith-Rainey Specialty Hospital)**
- American College of Surgeons Commission on Cancer: **Cancer Center Accreditation**
- American College of Surgeons National Accreditation Program for Breast Centers: **Breast Care Center Accreditation**

I'm proud to be a leader at Cape Fear Valley Health System. I will continue to lead on my feet, not my seat, empower my staff, while constantly raising the bar to exceed our patient experience.

Sincerely yours,

Frank Campbell

CASE STUDY

Transfer Center drives 300 percent volume increase at San Antonio Healthcare System

Automated Transfer Centers (TCs) are an increasingly popular way for health systems to streamline the referral process and gain referral share. Aided by patient flow technology, TCs maximize existing capacity, reduce diversions and save lives. They also maintain good referral links, generate substantial new revenue and point the way to new business opportunities in existing service areas.

Creation of a Transfer Center, staffed 24/7 by specially trained RNs and supported with a computerized electronic patient flow system, increased external transfer volume at San Antonio's nine-hospital Methodist Healthcare System by over 300 percent.

In 2010, Methodist chose to invest in capacity management automation as a healthcare reform strategy rather than investing in EMRs. Increased congestion from a decade of population growth in its 26-county service area was delaying patient care, including access to the nation's top live donor kidney transplant center and paired kidney exchange. ER diversions averaged 700 hours per month, patient placement averaged seven hours, and ED hold hours were increasing. A home-grown electronic bed request system yielded no real-time data, isolation status was not being effectively communicated, and departmental "silos" produced constant communication breakdowns.

This resulted in lost business and dissatisfaction among physicians, employees and patient families. In addition, the system

was dealing with an aging citizenry and the prospect of thousands of newly insured seeking medical care under provisions of the Affordable Care Act.

Twenty of the 26 counties in the service area are rural, with older populations, presenting a great growth opportunity for Methodist. But in 2010, competitors admitted 18,000 of the 35,000 patients from those areas.

The situation prompted executive leadership to make capacity management Priority No. 1 in order to serve a higher patient volume with existing capacity and ward off competition.

Methodist's first step in correcting the problem was to institute an enterprise-wide multidisciplinary throughput steering committee to lead all patient throughput initiatives for the health system. Then it created an executive level office of Vice President-Patient Management to underscore the importance of improving patient flow.

MHS also engaged TeleTracking's consulting services group, Avanti®, to review existing patient flow practices and identify improvement opportunities. During the engagement, Avanti worked closely with MHS leadership and staff to gather and examine data which would help to assess existing practices.

Avanti performed a gap analysis to assess operations at Methodist Hospital, Methodist Specialty and Transplant Hospital, Metropolitan Methodist Hospital, Northeast Methodist Hospital, Methodist Stone Oak Hospital, and Methodist Children's Hospital. The analysis compared effectiveness of centralized vs. dispersed capacity management by asking the following questions, among others:

- Is there a wide spread redundancy of resources?
- Are the smaller hospitals meeting their budgeted missions?
- Are you cancelling staff, losing revenue, leaving beds empty at the smaller hospitals while patients are waiting at the tertiary facility?
- Are you really looking out for the patient? Are patients really safe if they're sitting at home waiting for a call or in the wrong facility for their needs?

The Operational Platform

A core initiative called for centralizing enterprise-wide patient logistics into an operational hub, which included an automated transfer center linked to existing patient flow automation. The transfer center was staffed round the clock with experienced critical care nurses who determined all internal and external patient movement throughout the MHS campuses. The center included call recording capabilities, multi-caller conferencing options, and physician specialty algorithms. This truly centralized approach, using best practice standards, made Patient Placement Services (PPS) the true 'hub' for all patient flow activities throughout the system.

As a key part of the changeover, MHS invested in TeleTracking's TransferCenter™, an application which automates the referral process and links the center to the units system-wide, providing a single, efficient electronic access point to streamline patient placement from outlying facilities.

This link, through integration with TeleTracking's enterprise-wide patient flow software, makes information about bed availability, transport, etc., accessible in real time to transfer center staff, who can then request the correct bed for a patient's condition without a flurry of phone calls and negotiation. In addition, all data regarding the transfer is recorded, including referral source and timeliness of response, for future analysis.

The TransferCenter™ solution replaces manual processes which can no longer keep up with today's demands for specialty services, like phone calls, faxes, email, manual bed checks, locating an admitting physician and arranging transportation. These manual processes

At Rush University Medical Center, outside hospital transfers and improved patient flow have contributed over $40 million per year to the medical center's margin. At the University of Utah, annual net margin increased by over $5.3 million after implementation of TeleTracking's TransferCenter® application

"The streamlined flow of referral patients has been a great help to outlying referring physicians and has increased physician satisfaction both inside and outside of Methodist Healthcare. Physicians are getting patients to the needed level of care quicker and surgeries are not being cancelled."

– Susan Kilgore, VP-Patient Management, MHS

often resulted in inconsistent data, limited reporting, increased liability risks, strained referral relationships, reduced volume potential and ultimately, poorer patient care.

The solution coordinates all admissions requests from other hospitals and local physicians through a single phone number, and digitally captures patient medical and demographic information, eases physician communications and handles bed requests, registration and transportation. It also automatically records critical timestamps and milestones in the referral process and provides post-referral analytics to measure transfer center performance and provide business insight regarding the referral process.

This centralized, automated transfer center concept has been implemented in several other major hospitals with great success. For example, at Rush University Medical Center, outside hospital transfers and improved patient flow have contributed over $40 million per year to the medical center's margin.

At the University of Utah, annual net margin increased by over $5.3 million after implementation of TeleTracking's TransferCenter™ application.

The Transfer Center Application Includes:

- An active work list of all open transfer requests/cases
- One-click creation of a new referral case
- Ability to manage multiple open referrals simultaneously
- Intake forms to capture patient demographic and medical information, referring facility information, reasons for transfer request, and requested service
- A facility for recording referring and admitting physician information
- An ability to timestamp important communication milestones, including time of request, when MD has been paged or re-paged, when MD returned call, and when referring and admitting physicians spoke
- A screen to capture final disposition of transfer case including assigned Unit, Bed and/or Service if the patient is admitted
- Robust set of standard reports and a custom reporting tool

The Metrics Dashboard of the "Hub" shows:

- Accepted/Declined/Cancelled/Consults
- Time of Transfer request to Acceptance
- Time of Day
- Day of week
- Breakdown by Specialty
- Origin Unit of Incoming Patients
- Payor Status (by Specialty)
- Surgical Procedure
- Transport Mode
- Accepting Physicians
- Physician/Facility Survey
- Transfer Center Scorecard

Avanti, which is predominantly comprised of former nurses and nursing executives, was also actively involved with process and culture changes. The consultants quickly won the credibility of their peers because they could share their own experiences with those changes and how they made a difference for both patients and nurses.

A Real-Time Enterprise

In addition, the system widely deployed new dashboard technology, which permitted leadership to monitor physical operations in real-time and intervene whenever and wherever capacity management problems would arise, thus avoiding major bottlenecks. This digital bird's eye view of system-wide capacity also permits intra-system patient movement for optimum capacity utilization, which helped reduce ED hold hours by 50 percent.

Real-Time Capacity Management essentially provides a "motion picture" of the entire operation on the desks of Methodist's top management and any decision-makers involved in the operations process. Among other things, this running report, delivered via dashboard, provides a constant update of census, indicates which units are complying with 11 AM discharge goals, which are accepting patients within a 90-minute window and whether staff levels are matching volume requirements.

Analysis of real-time data identified root causes of process delays and wait times for space, materials, staff and patients, producing actionable opportunities to improve overall performance. The data yield also has helped MHS identify shifting referral trends and new service opportunities by region and demographics.

Methodist is also matching capacity management data with financial data to gain additional insights into the impact of real-time operations monitoring.

Overall, capacity management technology has played a key role in alleviating overcrowding, increasing transfer and admissions volume, dramatically reducing waste, promoting on-time discharges and shortening LOS by allowing hospitals to manage capacity and resources in real time.

RESULTS

The results at Methodist have far exceeded expectations. Within the first year:

- Transfer Center volume **more than tripled** within three months of centralization, jumping from 300/month to 1,000/month. The response from referring physicians and MHS department heads has been extremely positive and data analysis has yielded several revenue generating service opportunities.
- The transfer acceptance rate is now at **99 percent** and monthly ED diversions dropped from 700 hours to just eight hours.
- Bed assignment time has **decreased 68%**.
- Lost bed time went **from 76 minutes to 35 minutes**.
- Time from bed request to bed occupation is **down 45 percent**.
- The system gained an additional **4.5 percent share** of the rural market and exceeded overall budget projections by **7.9 percent**.
- Centralized placement has **eliminated "silo" problems** in the process because placement and transfer decisions are made in real-time at an all-encompassing enterprise level.
- System-wide bed searches and confirmation are completed **within 10 minutes** of a request.
- At MHS' Stone Oak facility, confirmed discharge compliance went **from 50% to 90%** after electronic dashboards were installed in administrators' offices.
- **Digitized** patient demographics, history, diagnosis, transfer logistics, referral source, which helps determine shifting trends in referrals and identify opportunities to deliver new services by region and demographics.
- Stronger, more **productive** referral patterns
- A **shift in the hospital culture** from competitive to collaborative, from silos to shared organizational goals, and from linear to parallel thinking by making patient tracking information available in real time.

TeleTracking®

Statement from the College of Healthcare Information Management Executives

House Committee on Ways and Means
Subcommittee on Health

Hearing on "Exploring the Use of Technology and Innovation to Create Efficiencies, Higher Quality, and Better Access for Beneficiaries in Health Care"

1100 Longworth House Office Building

September 14, 2016

The College of Healthcare Information Management Executives (CHIME) is pleased to submit a statement for the record of the September 14, 2016, Committee on the Ways and Means Subcommittee on Health hearing entitled, "Exploring the Use of Technology and Innovation to Create Efficiencies, Higher Quality, and Better Access for Beneficiaries in Health Care." We appreciate the committee's interest in this timely issue and welcome the opportunity to offer perspective from the nation's healthcare chief information officers.

CHIME is an executive organization serving nearly 1,900 CIOs and other senior health information technology leaders at hospitals and clinics across the nation. CHIME members are responsible for the selection and implementation of clinical and business technology systems that are facilitating healthcare transformation. CHIME members are among the nation's foremost health IT experts and our organization is a strong proponent of health IT and its ability to enable improvements in health care quality, increase affordability, and improve healthcare outcomes.

Healthcare IT Transforming Care Delivery

Since enactment of the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH), the healthcare industry has made a significant shift in the way technology is used to treat and engage with patients. The prolific adoption of electronic health records (EHRs) and other health IT resources by clinicians and patients will pay dividends as we continue to transition to value-base care. A robust digital health infrastructure — built around highly functional and user-friendly EHRs and health IT tools that are also secure and protective of privacy — is key for physicians and hospitals to be successful in new payment and care models, as well as to stimulate patient engagement and education.

Promoting Interoperability

Improving quality of care and lowering costs depends on the free flow of patient data securely across care settings. Unfortunately, we are missing out on opportunities to advance population health management and improve the nation's overall health status because major obstacles still remain in enabling information exchange. Most notably, robust information exchange and nationwide interoperability can only flourish once we can confidently identify a patient across providers, locations and IT systems.

Patient Identification

As the need grows to exchange health information across unaffiliated providers — in order to coordinate care — and as patients increasingly access and share their own data, it becomes even

more important to ensure that patients are accurately identified and matched to their data. This is also the first step toward effectively protecting and securing identities and moving toward an interoperable healthcare system. Recognizing that the industry can no longer wait and patients deserve better, CHIME, through its Healthcare Innovation Trust, in coordination with HeroX, launched a $1 million crowd-sourcing challenge to find a safe, private and secure approach to ensure accurate patient identification. The first phase of the competition saw 113 innovators from around the world submit ideas; more than 370 individuals and teams from 40 countries have registered for the National Patient ID Challenge. The challenge winner and final solution is expected to be announced in April 2017.

Still, the industry will be saddled by a 20-year-old policy that continues to impede progress even once a solution is identified and adopted by the private sector. The most significant hurdle is posed by the language included in the Labor-HHS Appropriations bill that prohibits the Department of Health and Human Services (HHS) (in Sec. 510) from using any federal funds to "promulgate or adopt any final standard …. providing for the assignment of a unique health identifier for an individual."

Technology has provided for alternatives to a numeric or alphanumeric identifier as a solution, and the government does not need to be the arbiter of the identification solution, but HHS must be able to provide technical assistance to private sector initiatives. Unfortunately, HHS has interpreted the annual funding ban to prohibit them from collaborating or assisting with private sector efforts to improve patient identification on a national level.

Data Standards

Even as we work to accurately identify patients and match them to their records, the industry and policymakers need to accelerate work on developing data standards. It is imperative that clinicians have faith and trust in the integrity of the data that's moving across the continuum. Great variation exists in how IT systems set data standards to capture critical information. This includes everything from date of birth to vital signs. The result is that IT systems often can't communicate with one another effectively or efficiently. This greatly limits the ability to move data quickly from one provider to another.

While a focus on standards may seem overly simplistic, a more defined technical infrastructure is needed to catalyze innovations in digital health. The Office of the National Coordinator for Health IT (ONC) administers the EHR certification program with which EHR developers must comply in order to be competitive in the marketplace. Providers must use certified EHRs (CEHRT) in order to avoid financial penalties under the Medicare Meaningful Use program and in some cases as a condition of reimbursement for other programs and services. Increasingly, HHS is mandating the requirement to use CEHRT as a way to drive interoperability across the healthcare system. However, variability in the standards used by EHR vendors persists which creates ongoing challenges when exchanging and using data between and among providers for patient care.

The federal government should continue to drive standards identification and adoption in the following nine categories:

1. Patient identification,
2. Resource locators (e.g. provider directories),
3. Terminologies,
4. Detailed clinical models,
5. Clinical data query language based on the models and terminology,
6. Security (defined minimum requirements for security, standard roles and standards for naming types of protected data, a common security framework, and standards for sharing cyber information),
7. Application program interfaces (APIs),

8. Transport protocols, and
9. Expressing clinical decision support algorithms.

It's imperative that ONC continue to leverage relationships with the private sector to capitalize on the progress made to date across the industry.

Medical Device and Develop Technologies Standards

While emphasis is often placed on the exchange of data across providers, health systems and between EHRs, it's also vital to recognize the myriad of other data sources that are intended to be interoperable in order to facilitate automatic entry into the EHR for which standards are absent or immature. Biomedical devices are populating data in EHRs and patients are populating data through their patient portals or wearables which can ultimately be included in their EHR. Thus, a standards-based digital architecture must be present for the capture and exchange of data first within the four walls of a provider setting then between and among different providers, and all IT systems across the care continuum.

Strengthening Federal Telehealth Policies

Another key component to advancing value-based healthcare is keeping patients out of expensive care settings. Telehealth has long shown promise in extending the consultative reach of clinicians in tertiary settings to those in smaller or rural communities. In today's wired environment, telehealth can also be used to keep more routing cases from clogging emergency departments and physician's offices. However, Medicare telehealth policies need to mature and expand in order to achieve the transformational potential that widespread remote patient monitoring (RPM) and telemedicine adoption hold to improve care. Hospitals and health systems are embracing the use of telehealth technologies because it offers benefits, including the ability to perform high-tech monitoring without requiring patients to leave their homes, which can be less expensive and more convenient for patients. Telehealth services come in many forms, from post-discharge remote monitoring programs resulting in the potential for reduced hospital readmissions, to emergency departments using remote video consultations to enable patients to receive a telepsychiatric screening. Unfortunately, the proliferation of telehealth and remote monitoring technologies has been limited, not by technical restraints, but policy barriers.

Adequate reimbursement for hospitals and other healthcare providers for employing such services, is a complex and evolving issue and, as a result, has been a barrier to standardizing the provision of these valuable services. In fact, private payers' reimbursement policies are often far more favorable than federal ones. Inconsistencies in the definition and reimbursement policies of telehealth services in federal and state programs are hurdles to widespread adoption. Despite the expanded opportunity for reimbursement under the Medicare Access & CHIP Reauthorization Act (MACRA), we remain concerned with the limited coverage in place today. Geographical limitations currently restrict the provision of telehealth services. The demand for "parity" in reimbursement for services provided in-person by a physician and those via telemedicine has never been greater. The realignment of federal payment structures will be a key factor to increasing access to telehealth services to those patients who desperately need them.

Further, while Medicaid encourages states to use flexibility to create innovative payment methodologies for services that incorporate telemedicine, there are still significant coverage gaps from state-to-state. Differences in state laws, definitions and regulations create a confusing environment for hospitals and health systems that may care for a patient across state lines. These are just some of the barriers that we would suggest the committee consider as they finalize their telehealth-related priorities and policies.

The committee should consider how to address cross-state licensure concerns, often imposing troublesome legal barriers to a physician wishing to offer telehealth services to a patient in another state. CHIME supports policies to allow licensed healthcare providers to offer services to patients, using telemedicine, regardless of what state a patient resides in, notwithstanding whether the patient is within a traditional care setting or in one's home.

Federal telehealth policies lag those of both state and private payers, thus the federal government should leverage existing resources to explore alternative care models in order to accommodate and encourage innovation in healthcare delivery.

The Promise of Healthcare Technology

The future of healthcare transformation hinges on the ability for technology to meet clinician needs and maintain consumer/patient confidence. Federal policies that can result in the rapid deployment of life-saving and life-changing technologies to patients in the fashion desired by providers will be paramount. Technologies, from applications to devices, EHRs to wearables, must be safe, secure and reliable.

Improved outcomes, decreased costs and gained efficiencies will materialize most substantially when technology can be leveraged to exchange data seamlessly and securely and when reimbursement models allow providers the flexibility to determine the best technologies with which treat their patients, but federal incentives must be in place to keep pace. The federal government must avoid a heavy-handed approach to determining what technologies providers and patients must use. Further, regulators should take an approach that allows innovation to continue to flourish rather than prematurely try to certify or mandate these innovative technologies. The importance of reducing administrative duplication and redundant policies that may hinder success or interfere with other federal policy priorities should be a priority.

The promise of health information technology is undeniable and the rapid evolution of the field suggests innovation is not slowly, nor will it anytime soon. As the nation shifts to a value-based, outcomes-focused delivery system, it will be imperative that the role of health information technology is acknowledged and appreciated as policy and the industry matures.

Healthcare Information and Management Systems Society
Statement for the Record
Hearing on "Exploring the Use of Technology and Innovation to Create Efficiencies and Higher Quality in Health Care"
Committee on Ways and Means Health Subcommittee
September 28, 2016

HIMSS is a global, cause-based, not-for-profit organization focused on better health through information technology (IT). In North America, HIMSS focuses on health IT thought leadership, education, market research, and media services. Founded in 1961, HIMSS North America encompasses more than 64,000 individuals, of which more than two-thirds work in healthcare provider, governmental, and not-for-profit organizations, plus over 640 corporations and 450 not-for-profit partner organizations, that share this cause.

HIMSS applauds the Ways & Means Health Subcommittee for exploring the important role technology can play in improving care delivery and health outcomes for America's Seniors. As the Subcommittee continues its examination of how technology can drive greater quality, efficiency and value in the Medicare program, we offer the following comments to inform your efforts.

Supporting Value and Innovations in Healthcare Delivery

Health IT helps to support improved quality and value by capturing data and supporting the decision-making needed to measure and improve performance, increase safety and efficiency and reduce costs. Since the implementation of the HITECH Act, rates of adoption of advanced EHR capabilities have increased significantly. A white paper published by HIMSS Analytics in 2014 highlights the relationship between advanced EMR capabilities and improved patient outcomes using data from the Centers for Medicare and Medicaid Services (CMS). One important finding of this was that hospitals with advanced health IT capabilities saw 6.5 percent fewer mortalities from heart attack than hospitals without these advanced capabilities.

In 2012, HIMSS launched the HIMSS Health IT Value Suite to capture valuable examples of the health sector's advancement in the use of IT. Since that time, the Value Suite has grown to contain thousands of examples connecting people, process, and technology to generate value derived from the use of health IT, including many related to chronic care management and care coordination across diverse care settings and geographic locations. As the next step in the process to measure the value of health IT adoption and use, HIMSS established the Value Score, which helps healthcare delivery organizations measure, and optimize, their return on health IT investments.

Adoption and utilization of interoperable health IT solutions, including EHRs, patient portals and other existing and emerging technologies can support innovative healthcare payment and delivery models that incentivize higher quality, help control costs and promote system sustainability. These models include value-based purchasing, shared savings/risk models, bundled payments and accountable care

organizations - all of which require an IT infrastructure. The Merit Based Incentive Payment System, established in the Medicare Access and CHIP Reauthorization Act of 2015, further cemented the interconnectivity between quality, cost and IT by including measures of each category in the new Medicare physician reimbursement calculation. Future Medicare payment and delivery reforms should reflect ways to incentivize use of interoperable IT and other technologies to support their policy goals.

Enhancing Care Coordination and Collaboration

Health IT is a critical enabler of better continuity of care (coordination and collaboration across multiple care settings and providers) for patients, ensuring that the right information follows the patient and their caregivers to inform better care decisions. Health IT provides a mechanism for patients and caregivers to have access to information and participate as active members of the care team. And, health IT provides an opportunity for patients to tell their story, outlining their goals and wishes, to ensure every member of the care team is informed.

Although there are many examples of health IT being used to facilitate coordinated, collaborative care, it is clear that challenges remain, including a lack of methods to track performance across settings and, in many cases, lack of interoperability among providers. Silos of health information result in silo'ed care delivery which, in turn, leads to inefficiencies, redundant services, higher cost and sub-optimal patient care outcomes.

Addressing barriers to effective continuity of care requires ongoing assessment of the effectiveness of the capabilities required to support it. To support this assessment process, HIMSS Analytics developed the Continuity of Care Maturity Model (CCMM). The CCMM model focuses on four key areas - effective health information exchange, coordinated patient care, advanced analytics and patient engagement. The CCMM model escalates the capabilities in each of these areas as providers progress, and is unique in its assessment of success in actually providing continuity of care across health settings. Policies that incentivize better continuity of care to improve quality and reduce costs should be accompanied by tools and methods that help providers gauge performance and identify improvement opportunities.

Expanding Access to Care

HIMSS believes that better utilization of telehealth technologies, including remote patient monitoring, is vital to improving care and value for Medicare patients, particularly those with chronic conditions. This patient population, in particular, requires active monitoring and regular touch points with providers. Telehealth can remove barriers to patients receiving the services they need (especially those in rural and underserved areas) and promotes more active participation in their care. This can lead to lower costs for beneficiaries, and for Medicare, as well as lead to greater patient satisfaction.

However, in order to fully leverage these benefits, outdated restrictions to telehealth deployment must be removed. Current Medicare restrictions contained in Section 1834(m) of the Social Security Act based on technology modalities (stipulation that telehealth requires real-time, interactive voice and video, no "store-and-forward" technologies), geographic location, and originating site requirements, among others, continue to inhibit access to new and innovative technologies. Policies should be enacted to encourage use of broader types of technologies that will expand access to high quality, cost-effective care for Medicare patients.

We look forward to working with you to identify opportunities to leverage technology to improve value, care delivery and health outcomes for patients.

INTERNATIONAL ASSOCIATION OF FIRE CHIEFS

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September 29, 2016

The Honorable Patrick Tiberi
Chairman
Subcommittee on Health
Committee on Ways and Means
U.S. House of Representatives
1102 Longworth House Office Building
Washington, DC 20515

The Honorable James McDermott
Ranking Member
Subcommittee on Health
Committee on Ways and Means
U.S. House of Representatives
1139E Longworth House Office Building
Washington, DC 20515

Dear Chairman Tiberi and Ranking Member McDermott:

On behalf of nearly 12,000 chief fire and emergency medical services officers (EMS) of the International Association of Fire Chiefs (IAFC), thank you for the opportunity to submit comments on the importance of technology and innovation in healthcare. The IAFC strongly supports efforts to improve the use of technology by emergency responders in healthcare and many other areas. The IAFC encourages the members of the Ways and Means Subcommittee on Health to support the development and implementation of the First Responder Network Authority (FirstNet) as a way to improve and enhance the provision of emergency pre-hospital medical care.

As you are likely well aware, fire departments are one of the primary providers of EMS in communities throughout the United States. Our nation's fire departments stand ready to address a wide range of medical emergencies including trauma, heart attacks, strokes, accidental poisoning, public health crises, trouble breathing, diabetic complications, and other emergencies. Some communities also are beginning to utilize fire departments as a means of providing non-emergent preventative healthcare in programs known as "community paramedicine" and "mobile integrated healthcare."

Fire departments currently have to rely upon voice communications systems to share patient information between emergency responders and receiving hospitals. Some fire departments are able to share limited real-time patient data with a receiving hospital; however, this is far from being a national standard. Fire departments would be better positioned to address the medical needs of their communities if they had access to better and more reliable communications systems.

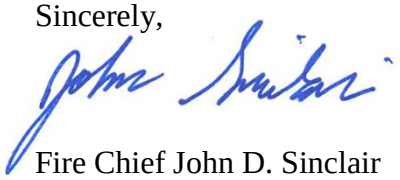
In 2012, Congress created FirstNet by passing the Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96). This law gave FirstNet the directive to establish a nationwide, interoperable public safety broadband network dedicated for first responders. When it is launched, this network will serve as one of the most robust tools to enhance public safety operations across the United States. The IAFC believes FirstNet will have many applications in EMS including sharing a greater amount of real-time patient information, expanding access to a patient's medical history, and enabling a virtual connection with physicians in a receiving hospital. These improvements will be especially helpful in rural communities where transportation times to a receiving hospital can exceed 30-60 minutes.

Current technology, employing both government or private radio systems and cellular networks, is limited in its capability to carry and efficiently share video, large files and packets necessary for communication between EMS and other medical providers. These same capabilities are vital in mass casualty incidents, active shooter and other hostile events where real-time video feeds are imperative to responders. In such critical situations, current communications systems are readily overloaded, severely limiting the ability of both responders and incident managers to view and share essential data.

The IAFC strongly encourages the members of this subcommittee to ensure FirstNet is supported and developed in such a way as to maximize its operability with the Centers for Medicare and Medicaid Services (CMS). Medicare beneficiaries represent one of the largest groups of EMS patients each year. Ensuring proper development and implementation of FirstNet for EMS operations will be crucial to improving the quality of care that Medicare beneficiaries receive. This subcommittee should pay careful attention to this issue and ensure that CMS' communications systems are compatible with FirstNet.

Thank you again for your attention to this important issue. Millions of patients enter the healthcare system through the back of an ambulance each year. FirstNet can be a great asset in allowing these patients to receive the best care possible. Our nation's fire departments already provide exceptional pre-hospital emergency medical care to their communities. FirstNet is an important opportunity to ensure fire departments can continue providing an exceptional level of medical care. I strongly encourage the Ways and Means Subcommittee on Health to continue supporting the development and implementation of FirstNet.

Sincerely,



Fire Chief John D. Sinclair
President and Chairman of the Board

/ed

NACDS NATIONAL ASSOCIATION OF CHAIN DRUG STORES

Statement

Of

The National Association of Chain Drug Stores

For

United States House of Representatives
Committee on Ways and Means
Subcommittee on Health

Hearing on:
"Exploring the Use of Technology and Innovation to Create Efficiencies, Higher Quality, and Better Access for Beneficiaries in Health Care"

September 14, 2016
10:00 A.M.

1100 Longworth House Office Building

National Association of Chain Drug Stores (NACDS)
1776 Wilson Blvd., Suite 200
Arlington, VA 22209
703-549-3001
www.nacds.org

The National Association of Chain Drug Stores (NACDS) thanks Chairman Tiberi and the members of the Subcommittee on Health for the opportunity to submit the following statement for the record regarding exploring the use of technology and innovation to create efficiencies, higher quality, and better access for beneficiaries in health care. NACDS and the chain pharmacy industry are committed to partnering with Congress, HHS, patients, and other health care providers to improve access to, as well as the quality and efficiency of, health care services.

NACDS represents traditional drug stores and supermarkets and mass merchants with pharmacies. Chains operate more than 40,000 pharmacies, and NACDS' chain member companies include regional chains, with a minimum of four stores, and national companies. Chains employ more than 3.2 million individuals, including 179,000 pharmacists. They fill over 2.9 billion prescriptions yearly, and help patients use medicines correctly and safely, while offering innovative services that improve patient health and healthcare affordability. NACDS members also include more than 850 supplier partners and over 60 international members representing 22 countries. For more information, visit www.NACDS.org.

As the face of neighborhood healthcare, community pharmacies and pharmacists provide access to prescription medications and over-the-counter products, as well as cost-effective health services such as immunizations and disease screenings. Through personal interactions

with patients, face-to-face consultations, and convenient access to preventive care services, local pharmacists are helping to shape the healthcare delivery system of tomorrow—in partnership with doctors, nurses, and others.

NACDS believes retail pharmacists can play a vital role in improving beneficiary health while reducing program spending, particularly in the Medicare program, through improving access for underserved beneficiaries and the better use of medication therapy management (MTM) services.

Pharmacists as Providers

As the U.S. healthcare system continues to evolve, a prevailing issue continues to be the adequacy of access to affordable, quality healthcare. The national physician shortage coupled with the continued expansion of health insurance coverage in recent years will have serious implications for the nation's healthcare system. Access, quality, cost, and efficiency in healthcare are all critical factors – especially to the medically underserved. Without ensuring access to requisite healthcare services for this vulnerable population, it will be very difficult for the nation to achieve the aims of healthcare reform.

The medically-underserved population includes seniors with cultural or linguistic access barriers, residents of public housing, persons with HIV/AIDS, as well as rural populations and many others. Significant consideration should be given to innovative initiatives within the medically underserved population to enhance healthcare capacity and strengthen

community partnerships to offset provider shortages and the surge in individuals with healthcare coverage.

Pharmacists play an increasingly important role in the delivery of services, including key roles in new models of care beyond the traditional fee-for-service structure. Pharmacists are engaged with other professionals and participating in models of care based on quality of services and outcomes, such as accountable care organizations (ACOs).

In addition to medication adherence services such as MTM, which is discussed in greater detail below, pharmacists are capable of providing many other cost-saving services, subject to state scope of practice laws. Examples include access to health tests, helping to manage chronic conditions such as diabetes and heart disease, plus expanded immunization services. However, the lack of pharmacist recognition as a provider by third-party payors, including Medicare and Medicaid, limits the number and types of services pharmacists can provide, even though fully qualified to do so. Retail pharmacies are often the most readily accessible healthcare provider. Research shows that nearly all Americans (89 percent) live within five miles of a retail pharmacy. Such access is vital in reaching the medically underserved.

We urge you to foster innovation in health care delivery by supporting H.R. 592/S. 314, the *Pharmacy and Medically Underserved Areas Enhancement Act,* which will allow Medicare Part B to utilize pharmacists to their full capability by providing those underserved

beneficiaries with services, subject to state scope of practice laws, not currently reaching them. This important legislation would lead not only to reduced overall healthcare costs, but also to increased access to healthcare services and improved healthcare quality, all of which is vital to ensuring a strong Medicare program.

The Benefits of Pharmacist-Provided MTM

Poor medication adherence costs the U.S. healthcare system $290 billion annually. Pharmacist-provided services such as MTM are important tools in the effort to improve medication adherence, patient health, and healthcare affordability. Studies have shown that patients who are adherent to their medications have more favorable health outcomes, such as reduced mortality, and use fewer healthcare services (especially hospital readmissions and ER visits). These studies included patients with cardiovascular disease, chronic obstructive pulmonary disease (COPD), high cholesterol, and diabetes. Current MTM restrictions require that Medicare Part D beneficiaries suffer from multiple chronic conditions, be prescribed multiple medications, and meet a minimum annual cost threshold for their prescriptions before they are eligible for Part D MTM. According to the CMS MTM Fact Sheet, approximately 85% of programs opt to target beneficiaries with at least three chronic diseases in 2014. This is a contributing factor to the lower than projected eligibility levels in the MTM program.

NACDS has long been supportive of exploring new and innovative approaches to improve the Part D MTM program. One of the approaches we believe can be successful is the Center

for Medicare and Medicaid Innovation's Enhanced MTM Model pilot. The pilot, scheduled to begin in 2017, will provide Part D plans the opportunity to utilize new and innovative approaches to MTM, such as more efficient outreach and targeting strategies and tailoring the level of services to the beneficiary's needs. The Enhanced MTM Pilot program presents an opportunity to create better alignment of program incentives and has the potential to lead to improved access to MTM services for beneficiaries and greater medication adherence. NACDS believes a successful model test must include retail community pharmacists. Medication management services provided by community pharmacists improve patient care; improve collaboration among providers; optimize medication use for improved patient outcomes; contribute to medication error prevention; improve hospital and readmission cost avoidance; and enable patients to be more actively involved in medication self-management.

Since the pilot is scheduled to last for five years beginning in 2017, we also urge lawmakers to explore new and innovative approaches to improving the Part D MTM program that could be implemented in the short term. NACDS believes one short term approach is more efficiently targeting beneficiaries who can most benefit from the services that will improve medication adherence and overall program effectiveness. Congress recognized the importance of MTM on a bipartisan basis, including it as a required offering in the Medicare Part D program. We urge Congress to build on this earlier action and strengthen the MTM benefit in Medicare Part D through support of legislation such as that introduced by Sen. Pat Roberts (R-KS) and Sen. Jeanne Shaheen (D-NH), S. 776, the *Medication Therapy*

Management Empowerment Act of 2015, which will provide access to MTM for beneficiaries with diabetes, cardiovascular disease, COPD, and high cholesterol.

Conclusion

NACDS thanks the Subcommittee for consideration of our comments. We look forward to working with policymakers and stakeholders on using innovative approaches to create efficienceies, enhance quality, and improve access to beneficiaries, particularly in the Medicare program.

care pathways

28.09.16

Better management and better care – Piloting a different approach for patients

Bernard Quinn, programme director for improvement at NHS Improvement, explains how the regulator is looking into ways hospitals can improve the way they manage patient journeys.

When you're at the coalface, it can be hard to find opportunities to improve the way you do things. We know that hospitals need to focus on their day-to-day work making sure services are being delivered and patients are being cared for. That is where we come in.

NHS Improvement is about more than just setting the pace for financial rebalance and supporting improvement. We are there to help do the research: speaking to trusts and reaching out to health professionals to see how we can help hospitals do things differently.

We scour the NHS and international health systems for innovative solutions to the challenges trusts face on a daily basis, looking for examples of successful improvements.

One area we are especially interested in is seeing how hospitals manage patient journeys and how they can use digital operational systems to do things differently.

Use of workflow management systems is well developed in the industrial sector where process planning, scheduling and flow control software are routinely used. This approach is beginning to move into the healthcare sector and we are keen to see how it can be used to improve patient experience.

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We have seen examples of how quality of care, capacity, costs, planning, leadership or processes (to name a few) can be improved. But rarely do we come across an innovation that addresses all these, and rarer still is an innovation that potentially results in a 10-25% gain in bed capacity across emergency and elective systems.

In the US we have seen how using systems that bring together clinical, financial and operational information can transform a patient journey from admittance to discharge. There are more than 800 hospitals in the US working with systems that help co-ordinate patient administration, theatres timetables, pathology and allied health systems to provide real-time insight into the operation and capacity of the whole hospital, helping to identify patients who might be at risk of delays against their expected pathway.

We have talked to some providers that have connected their operational systems through process flow software with their clinical systems and found that on average the capacity was improved by 15%, with some improving by as much as 25%.

Graph: US model of integrated patient pathway systems (N= 820 Hospitals)

A&E Breach reduction due to bed availability	Reduced 50-80%
Average Length Of Stay (AVLOS)	Reduced 0.5 -1 days
ITU discharge delays	Reduced 75%
Dead Bed Time	Reduced 80%
Theatre utilisation	Increased 10-20%
Hospital acquired pressure ulcers	Reduced 15-50%
Staff productivity	Increased 10-20%

Some trusts are already taking the initiative with similar approaches. In Lord Carter's report we referenced that Wolverhampton Hospitals NHS Trust used technology to track patients and medical equipment, such as pressure mattresses, using real- time ward screens and what is known as a centralised patient placement and co-ordination centre to work out which patients are behind their treatment plan, and how to resolve the delay. This is exactly the sort of innovation, and technology, which when used well can give trusts the opportunity to transform the way they deliver their services. It releases ward staff from chasing delayed results and helps patients have a better experience.

There are providers out there who are already working hard to improve the way they use up-to-date tools, but there are still too many using dry wipe boards and bed meetings to track thousands of complex patient journeys.

We want to expand on the work at Wolverhampton by piloting the technology programme with three acute, multi-site providers who are willing to invest and test out this approach and improve the way they manage their flow of patients in 2016-17.

So far we have two trusts who are looking to resource and test this approach and share the results with us, we are looking to find a third.

We will include these pilots in the national elective care plan for this year so that all regions and all providers get to see what's happening in these trusts, the issues they have to overcome and the benefits they see delivered.

I look forward to sharing the learning from these examples and hope to set a new standard of excellence in managing the patient's journey through the hospital in the same way we are used to seeing in the delivery of clinical care.

It will take a few months for the pilots to get going and we plan to share the learning from them, starting in 2017.

Have you got a story to tell? Would you like to become an NHE columnist? If so, click here.

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Oklahoma University Medical Center

Oklahoma University Medical Center [OUMC] is a collaboration between OU Medical System, OU Physicians and The University of Oklahoma College of Medicine. The system includes a 600 bed tertiary academic medical center, the only level one adult and pediatric trauma center in Oklahoma, a 50 bed community hospital and a free standing emergency department. Prior to shifting from an outsourced transfer center to their own centralized patient placement and transfer center, OUMC was experiencing a lack of connectivity with their bed management process, 46 different protocols for specialty services and no concrete contingency plans for times of high utilization.

Challenge

With an outsourced transfer center, OUMC was experiencing significant access issues. The center had the reputation among physicians that it was nearly impossible to get into, that the doctors weren't available to consult with, and that it took multiple calls to get to the right person and/or get a patient admitted.

OUMC recognized that large numbers of patients were being denied due to a lack of connectivity to a dynamic bed management process, 46 different protocols for specialty services, lack of access to the latest call schedules, and a lack of resources to develop contingency plans during times of high utilization.

They knew the focus needed to be on improving the referral process, increasing the number of accepted patients and decreasing the number of denied patients.

Actions

The goals of bringing the transfer center in-house and combining it with patient placement were to:

- Improve customer service by decreasing physician bouncing and adding satisfaction scripting
- Implement accurate time stamping
- Determine where performance improvements needed to be focused
- Develop a protocol for issue tracking and follow-up
- Develop robust reporting
- Decrease the number of calls by getting the right information up front

The implementation process included:

- Developing a coalition of advocates within hospital administration and creating an executive role to oversee the entire patient logistics center.

Products:

- Capacity Management Suite™
- PatientTracking Portal™
- TransferCenter®
- Custom Reporting Solution™
- Patient Flow Dashboard™
- RTLS

By The Numbers:

- Beds: 796
- Annual ER Visits: 96,900+
- Inpatient Admissions: 38,000+
- Annual Transfers: 12,600+
- Referring Agencies: 300+
- Specialty Services: 46

Electronic Medical Record

- Meditech

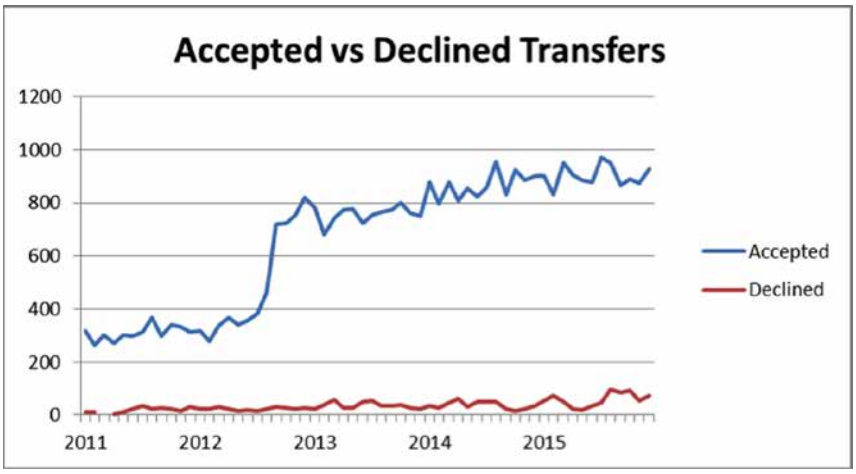
Awards:

- *U.S. News & World Report* Best Hospitals
- The Joint Commission Gold Seal of Approval
- Best ER in Metro Family

- Developing specific protocols with continuous process improvement at the center.
- Bringing housekeeping, patient transport, patient placement and transfer center staff to a single location to improve communication and efficiencies between departments in order to solve challenges in real-time.
- Staffing requirements – 24/7 for patient placement and transfer center staff; 12/5 for housekeeping and patient transport.
- Establishing partnerships between Cardiology for STEMI auto-accept; Neurology for streamlined communication; High Risk OB to streamline referral and transport; Flight Service for STEMI/Stroke acceptance and OB transport; and Radiology for interventions from system facilities.

Results

Since the implementation of the centralized patient logistics center in 2011, bottlenecks have been reduced with the improved communications, with metrics such as:



In addition, customer service improved significantly with improved relationships between referring and receiving physicians. Accurate time stamping with TeleTracking's TransferCenter® made it possible to accurately evaluate the times patients checked in and out, as well as track physician call backs, re-pages and follow-up. The improved reporting also made it possible to provide information about the payor source to specialty services and detailed information about quality and payer mix. Furthermore, the number of calls decreased because staff was able to get the placement right the first time and trust increased between the transfer center and the other service areas.

LEADERSHIP
VISION LEADS TO PATIENT FLOW SUCCESS

Baptist Memorial Gets It Right From The Top

STORY BY SUSAN MCLAUGHLIN

Baptist Memorial Health Care recently celebrated the one-year anniversary of its centralized patient placement center. A tremendous amount of work went into achieving that milestone: coordination between multiple locations, engaging physicians, collaborating with IT and training not only frontline clinicians but staff within patient placement, patient transport and EVS. Central to Baptist's success is leadership that engages employees at all levels, and that's where Derick B. Ziegler, Vice President of Regional Operations, comes in.

"Clearly, there's no question that strong senior leadership is paramount to a successful implementation of this magnitude, especially when you're talking about changing the culture of an organization," says Ziegler. "Unfortunately, it doesn't happen overnight and you can't just wave a magic wand."

Baptist had experience with large-scale IT implementations, having recently installed Epic as its EHR to help manage clinical information. Yet health system leaders realized they still needed a solution to manage patient flow.

"TeleTracking drives the enterprise solution for patient movement, which allows us to accept and retain patients within the system, predict and manage not only work but staff too, reduce patient wait times, etc",

says Ziegler. "We had an aggressive timeline for our TeleTracking implementation, and the operational integration has gone well to date. We're looking forward to greater integration between Epic and TeleTracking when we upgrade in the fall. We believe this will further optimize the patient experience and elevate the transparency of real-time information for safe and effective patient flow."

The implementation process started with a strategic planning and goal-setting process headed by Baptist's CEO. One success factor was growing volume, both inpatient and outpatient, within the 14-hospital system and determining the tools that could be leveraged to make that happen. Senior leaders knew that they were not keeping patients within the Baptist system and in many cases were sending them to the competition.

"TeleTracking really lent itself to a partnership that aligned with our efforts in growing volume," continues Ziegler. "The senior leadership team then made sure the system, individual hospital and department goals aligned. There was active engagement from those at the top of the organization communicating to employees at all levels. Even now, the leadership team meets every 90 days to review the scorecard and help ensure that goals and objectives are aligned. And to further enhance the alignment, each hospital also has a supporting scorecard, as well as each department within each of our hospitals."

This alignment would not have been possible without strong physician engagement and support. In the case of Baptist, the leadership and advocacy of the medical director was critical. He was an established, practicing surgeon with 20 years of experience and had held leadership roles within Baptist. He went to all 14 hospitals and met with leadership because he understood how important it was to educate staff and explain the "why."

For example, the staff learned about how using the Bed Ahead feature within TeleTracking and reviewing the Processing Time Analysis report made it possible to manage operations in real time. Consequently, the staff learned how to be appropriately responsive.

Responsibility for improving patient flow went beyond the medical staff. EVS was the other area that played an important role in streamlining patient flow. EVS leadership was, and continues to be, at the table for all meetings, and the department is one of the top 10 performance measures that Baptist looks at regularly. Furthermore, members of the EVS department are able to see the direct link between what they're doing and how that rolls up to the hospital and overall system results.

"There is a lot of talk about management engagement, and that is important. However, what truly differentiates Baptist's success is the focus that is placed on the details, numbers and metrics," says Michael Gallup, TeleTracking's President. "When we started our collaboration, we advised Baptist to focus on a couple of key metrics and build from there. They have done an amazing job of doing that and continue to build on their initial success."

"Success goes beyond technology. It takes great technology, combined with the right processes and dedicated people," SAYS Ziegler.

The power of these three factors (technology, people and process) is exponentially magnified when combined with real-time data and how that data helps identify and solve challenges. For example, demand in the departments goes up and down on a minute-by-minute basis. Since data from the TeleTracking system is real-time, it can be used to manage the flow of patients so that departments can deliver on their goals and patients are provided with an optimal experience.

"With the reporting, we can forecast workloads and modify schedules accordingly, especially in EVS and Transport," continues Ziegler. "For example, in the past, the majority of our staff worked from 7AM-3PM. When we discovered that the highest number of admissions occurred between 3PM-11PM, we were able to make changes and better meet the needs of our patients."

Another report that is having an impact on patient experience and contributing to the "just say yes" cultural shift at Baptist is the daily distribution of the TransferCenter™ declination/cancel report. At 6AM, it goes to every member of the senior leadership team and clearly shows, by facility, if any referral patients were declined or cancelled.

"SUCCESS GOES BEYOND TECHNOLOGY. IT TAKES GREAT TECHNOLOGY, COMBINED WITH THE RIGHT PROCESSES AND DEDICATED PEOPLE," SAYS ZIEGLER.

"We want to get to the root cause of why we have transfers that we can't accept," says Ziegler. "This really pushes our CEOs. They have one day to do a deep dive and find out what happened so we can eliminate the barrier and accept the patient the next time. This has proven to be a very valuable tool, and the CEOs appreciate this level of detail. Previously, they weren't aware of the cancellations and the impact to the system's bottom line."

"It comes down to the fact that the results are amazing when it all comes together, with everyone actively engaged, buying into the overall goals and taking ownership for their part. That's how we're driving results and changing culture," concludes Ziegler.

ED BOARDING: LARGER EDS EXPERIENCED

25-50%

REDUCTION IN MONTHLY HOLD HOURS

OUTPATIENT REGISTRATIONS:

15% INCREASE

ED DISCHARGE TIME:

5%

DECREASE IN TOTAL MINUTES

17%

INCREASE IN VOLUME

PATIENT PLACEMENT CENTER AVERAGES

1,500

PLACEMENTS (DIRECT ADMITS & TRANSFERS) PER MONTH

ED LENGTH OF STAY, DISCHARGE AND ADMIT TURNAROUND:

10% DECREASE

BAPTIST MEMORIAL HOSPITAL-UNION CITY TRANSFERS:
PREVIOUSLY SENT 80% TO COMPETITORS; DECLINED TO

40% IN NINE MONTHS

DERICK B. ZIEGLER
Vice President of Regional Operations for Baptist Memorial Health Care Corporation

Ziegler joined BMHCC in August 2008 upon his retirement as a colonel in the United States Army, having served 23 years on active duty.

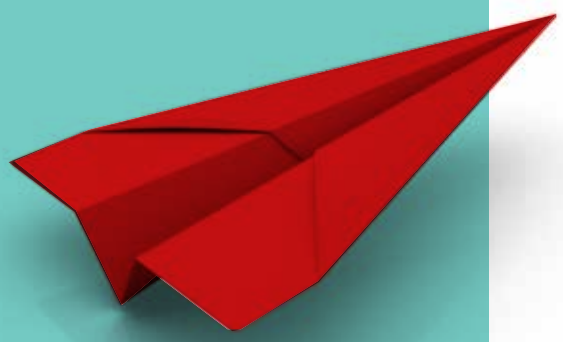
His initial positon at BMHCC was CEO and Administrator for Baptist Memorial Hospital - Union City, TN, a positon he held from August 2008 to July 2010. From August 2010 to June 2014, he served as CEO and Administrator for Baptist Memorial Hospital – Memphis, TN.

While in the Army, Ziegler served in a variety of senior health care administration roles in acute care and managed care settings, including: Chief Operating Officer for the Pacific Regional Medical Command and Administrator for Tripler Army Medical Center in Honolulu, HI; Administrator for Landstuhl Regional Medical Center, Landstuhl, Germany; Administrator for Martin Army Community Hospital, Fort Benning, GA; Director of Operations for TRICARE Latin America and Canada, Fort Gordon, GA; and Administrator at Kimbrough Army Community Hospital, Fort Meade, MD.

An "army brat," Ziegler has lived overseas in Korea, Germany and Guatemala, and in the United States in places such as Hawaii, Oklahoma, Kansas, California, Maryland, Texas and Georgia. Ziegler holds bachelor of science degrees in psychology and sociology from the University of Pittsburgh; a master of social work degree from the University of Pittsburgh; and a master of healthcare administration from Baylor University. He is a fellow in the American College of Healthcare Executives; a certified managed healthcare professional with America's Health Insurance Plans (AHIP); and a certified professional in the Academy for Healthcare Management.

BEST-IN-CLASS LEADERSHIP LEADS TO BEST-IN-CLASS PATIENT FLOW

- FOUNDED IN 1912
- 14 HOSPITALS ACROSS TENNESSEE, ARKANSAS AND MISSISSIPPI
- MORE THAN 2,300 BEDS SYSTEM-WIDE
- 350,000+ ANNUAL ED VISITS SYSTEM-WIDE
- IN 2015, THE JOINT COMMISSION NAMED BAPTIST-HUNTINGDON, BAPTIST-GOLDEN TRIANGLE, BAPTIST-MEMPHIS, BAPTIST-UNION CITY AND BAPTIST-UNION COUNTY AS TOP PERFORMERS ON KEY QUALITY MEASURES.
- IN 2014, BAPTIST MEMORIAL HOSPITAL-MEMPHIS WAS NAMED ONE OF *BECKER'S HOSPITAL REVIEW'S* "100 GREAT HOSPITALS IN AMERICA.



RCSPG
Remote Cardiac Services Provider Group

STATEMENT FOR THE RECORD

Submitted to the House Committee on Ways and Means
Health Subcommittee

Wednesday, September 14, 2016

Hearing on "Exploring the Use of Technology and Innovation to Create Efficiencies, Higher Quality, and Better Access for Beneficiaries in Health Care"

10:00 AM | 1100 Longworth

House Committee on Ways and Means, Health Subcommittee members:

The Remote Cardiac Services Provider Group (RCSPG) is very pleased that the House Ways and Means Subcommittee on Health is a holding hearing on "Exploring the Use of Technology and Innovation to Create Efficiencies, Higher Quality, and Better Access for Beneficiaries to Health Care."

As an organization whose members have been at the forefront in providing remote cardiac monitoring services to hundreds of thousands of patients, including Medicare beneficiaries, we are very familiar with the clinical benefits and cost savings to the health care system associated with the use of innovative new technologies.

We think it would be useful for committee members to know how remote cardiac monitoring technology can create efficiencies through stroke prevention and reduction in hospital admissions and submit the following information for their consideration.

Clinical Benefits of Remote Cardiac Technology

- ***Who benefits from these technologies?***
    - ***Each year patients with a wide range of cardiac symptoms benefit from remote cardiac technology. About 10% of all Medicare beneficiaries receive some form remote cardiac services using these technologies.***
    - ***Remote cardiac technologies are especially appropriate for patients with difficult to diagnose cardiac conditions, such as***:
        - Patients with atrial fibrillation (AFib) that may be asymptomatic
            - Patients with AFib have a 4-5 times greater risk of stroke and an approximately two-fold increase in mortality.
            - **AFib accounts for 15-20 percent of ischemic strokes or between 120,000 and 160,000 strokes annually**.
            - As many as 48% of patients with AFib may have no symptoms (i.e., "silent Afib").
            - Prompt and accurate diagnosis can be lifesaving.
            - Understanding the amount and frequency of AFib may aid in treatment decisions.
            - Remote cardiac monitoring can improve detection of AFib and lead to appropriate treatment.
        - Patients with syncope and collapse (fainting which may be caused by arrhythmia that requires treatment such as a pacemaker implant, etc.)
        - Other difficult to diagnose heart conditions such as conduction disorder, ventricular tachycardia, and palpitations.
- ***What is AFib?***

- AFib is characterized by irregular asynchronous beating of the upper chambers of the heart (the atria).
- It is the most common serious heart abnormality in older individuals.
- **Approximately 2.66 million Americans have AFib**.
- Patients with AFib are at increased risk for stroke.

❖ ***What is "Silent" AFib?***

- In a large number of cases, possibly as many as 48%, the patient experiences no symptoms and thus is unaware that AFib is occurring. This is known as "silent AFib."
- Untreated AFib doubles the risk of heart related deaths.

❖ ***What is relationship between AFib and Stroke?***

- Stroke is the 4th leading cause of death in the United States.
- Annually, about 795,000 individuals in the United States suffer a stroke and approximately 140,000 die from it.
- AFib increases the risk of stroke by 4 to 5 times and accounts for 15-20 percent of strokes or between 120,000 and 160,000 strokes annually.
- Recent studies using remote Mobile Cardiac Telemetry (MCT) have shown that 17-38% of patients with cryptogenic strokes experienced episodes of AFib.
- Strokes resulting from AFib are often major strokes causing significant disability or death.
- Fifty percent of AFib patients who experience a stroke die within one year.

❖ ***What are healthcare costs associated with stroke?***

- Overall U.S. healthcare costs associated with stroke were approximately $53.9 billion in 2011.
- All-payer costs for a stroke inpatient admission are $18,439 (based on 2007 dollars).
- Medicare DRG payments for a stroke admission are between approximately $4300 and $14,716 depending on severity.
- <u>These costs do not include</u> the additional rehabilitation costs or societal costs associated with long-term or permanent disability.

❖ ***Why is prompt diagnosis of AFib important?***

- Diagnosis of AFib is essential if medical treatment and lifestyle changes are to be initiated.
- A recent study shows that use of outpatient cardiac monitoring after an ischemic stroke would detect 44 new cases of AFib for every 1000 patients monitored and would result in a gain of 34 quality-adjusted life-years because of the timely initiation of anticoagulation therapy.

<u>Remote Cardiac Technologies</u>

❖ ***Holter monitoring*** is a relatively inexpensive way for physicians to obtain short term, 24-48 hours, of electrocardiographic (ECG) diagnostic data. Downside is the relatively short time frame that may result in missing critical events needed for diagnosis.

❖ ***Cardiac Event Monitors (CEM)*** are longer term, up to 30 days, and have the capacity to record a number of events of 10-20 minutes of ECG storage which can be transmitted electronically to

a monitoring center. These devices may be patient activated or auto-triggered using an internal arrhythmia-detecting algorithm.

- ***Mobile Cardiac Telemetry (MCT)***. MCT is the first technology to use a wireless device to record and monitor, in real-time and continuously, patient ECG heart information for the purpose of identifying heart conditions and arrhythmias. MCT is based on a sophisticated arrhythmia detection algorithm and the recording and transmission of arrhythmias, through advanced wireless communication technology and is designed to capture every heart beat
- ***Other Technologies.*** Monitoring of Pacemakers and Implantable Cardiac Defibrillators (ICD); INR/PT monitoring; Implantable Cardiac Monitor (ICM)

Sources
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Thank you for your consideraiton of this important information for the Medicare patients served by these important technologies. For questions about the attached or for further information from our remote cardiac monitoring provider experts, please contact...

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On behalf of RCSPG
Powers Pyles Sutter & Verville PC
1501 M Street, N.W. | Washington, DC 20005-1700
Work: 202-872-6752 | Cell: 202-256-6241 | peggy.tighe@ppsv.com | ppsv.com

Year-over-year transfer volume jumped 19 percent, far exceeding a projected rise of five percent.

Rush University Medical Center

Rush University Medical Center, an internationally respected academic medical center in Chicago, has contractual agreements throughout the Midwest to provide care to transferred patients. As part of an expansion program, Rush knew it needed to do a better job of managing capacity in order to accommodate incoming patients from its transfer center. They've achieved amazing results since 2011 when they implemented the automated transfer center software by TeleTracking – an additional $53 million to their bottom line in 2014.

Challenge

Rush had been operating its large patient transfer operation manually, with two nurses using clipboards to record open bed space. Inefficient capacity management limited the number of patients the medical center could accept. Also, the volume of transfers created huge amounts of data which caused challenges for staffing, care coordination and the movement of patient information across the system. It was anticipated that an automated update of its transfer center would help Rush maintain financial stability and grow strategic service lines.

Actions

Rush wanted a centralized, unified, interconnected platform to coordinate patient documentation, location and flow. Already a TeleTracking patient flow client from the early 2000's, leadership decided to implement TeleTracking's TransferCenter™ solution to not only streamline patient transfers, but to integrate with its bed management, patient placement and transport solutions so that they could identify choke points in care support operations. The data collected from this integrated system allowed Rush to identify potential areas for improvement, and features within TeleTracking not be utilized that would have a significant impact for both patients and caregivers. To promote buy-in, Rush management explained the criticality of the solutions in providing patients with not only access to care, but also the best care throughout their length of stay.

Results

- Patient transfer volume increased from 1,200 per year to 4,000 per year.
- Transfer increases contributed $53 million in revenue for Rush in 2014.
- Year-over- year transfer volume jumped 19 percent, far exceeding a projected rise of five percent.
- Performance reports spurred staff to reach or exceed established goals.

TeleTracking Solutions:

- Capacity Management Suite™
- TransferCenter™
- Custom Reporting Solution™
- Patient Flow Dashboard™

Electronic Medical Record

- Epic

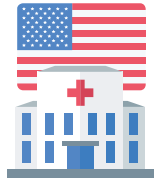
By The Numbers:

- 664 Beds
- Non-profit

Awards & Recognitions:

- Magnet Institution
- "Best Hospitals" Top 50
- Leapfrog Group Top Safety award

- Increased awareness and use of features like Instant Notify, Ready to Move and Three-Bed Ahead have been sustained.
- Decrease in the number of phone calls, and an increase in the use of automated alerts and notifications.
- TeleTracking data provided justification to hire staff to meet added demand.
- Volume prediction extended two days forward permitted daily "right-sizing" of staff to meet expected demand.
- A one-way interface which could pull data from their EMR provided robust medical records which would follow patients throughout the system.
- System-generated reports reduce the time-consuming manual process of collecting wait time data points.



THE WAITING GAME

and why

PATIENTS & CAREGIVERS ARE LOSING

Waiting is ***robbing*** us.	*Time* **20 MILLION** UNNECESSARY PATIENT DAYS	*Capacity* **3-5 MILLION** ADDITIONAL PATIENTS COULD BE SERVED	Operational efficiencies and effective patient flow could unlock tens of millions of days in latent capacity and dramatically reduce the average length of stay.
Waiting is ***costing*** us.	*Lives* **37 THOUSAND** DEATHS CORRELATED WITH ED BOARDING PER YEAR	*Money* **$100 BILLION** PER YEAR IN HOSPITAL OPERATIONAL INEFFICIENCY	Patient boarding for 6+ hours while waiting for a bed has been correlated to a 1.7% increase in mortality rate and an additional 1.5 days in length of stay.
Waiting is ***frustrating*** us.	**1.9 MILLION** PATIENTS LEAVE WITHOUT BEING SEEN EVERY YEAR	*while...* **39 PERCENT** OF HOSPITAL BEDS REMAIN UNOCCUPIED	With 39% of all hospital beds typically unoccupied (~330K beds), no patient should ever be denied timely access to care.

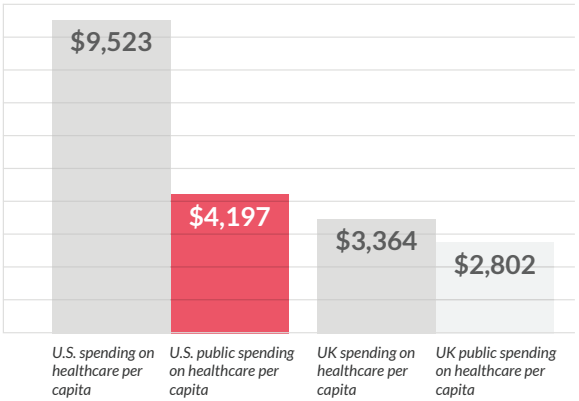
Our spending and inefficiencies *don't add up.*

U.S. RANKS 44TH OUT OF 51 COUNTRIES IN OPERATIONAL EFFICIENCY

Bloomberg ranks the United States 44th out of 51 in healthcare efficiency, right between the Dominican Republic (43) and Bulgaria (45).

U.S. PUBLIC SPEND PER CAPITA ON HEALTHCARE EXCEEDS TOTAL U.K. SPEND PER CAPITA ON HEALTHCARE

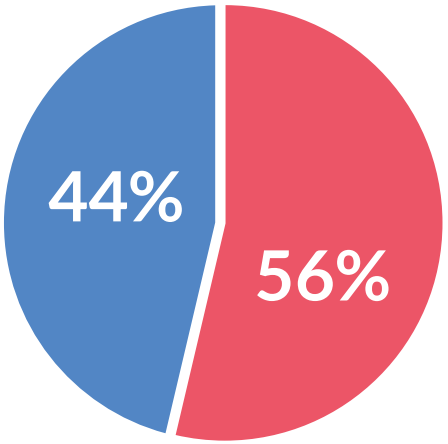
Approaching 20% of GDP, total U.S. healthcare spending is an estimated $3.3T. Federal healthcare spending exceeds federal spending on education and defense combined.



PROJECTED NURSING SHORTAGE OF 260 THOUSAND BY 2025

DEMAND **INCREASE**: An aging population with half suffering at least one chronic condition, and more than a quarter suffering multiple chronic conditions.

SUPPLY STRAIN: Research shows the U.S. will enter the worst nursing shortage in more than five decades.



56% OF NURSE TIME SPENT ON DOCUMENTATION AND CARE COORDINATION

THE WAITING GAME
HAS NO WINNERS.

Each year...

136 MILLION PATIENTS VISIT THE EMERGENCY DEPARTMENT

500 THOUSAND AMBULANCES ARE TURNED AWAY FROM THEIR INTENDED HOSPITAL.

1.9 MILLION PATIENTS LEAVE WITHOUT EVER BEING SEEN

16.2 MILLION ADMITTED PATIENTS **WAIT 4.3 MILLION DAYS FOR A BED***

*An additional 18.7 million patients are admitted outside of the emergency department.

AFTER BEING ADMITTED **2.2 MILLION PATIENTS BOARD 6+ HOURS** EACH WAITING FOR A BED

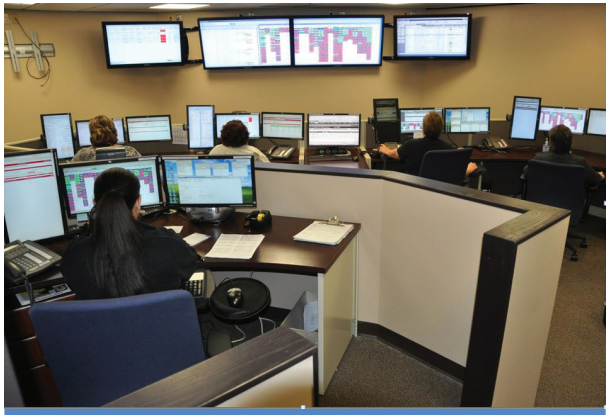
WHY ARE WE WAITING WHEN THERE ARE...

SEVEN OPEN BEDS *for every* **TWO PATIENTS ADMITTED ?**

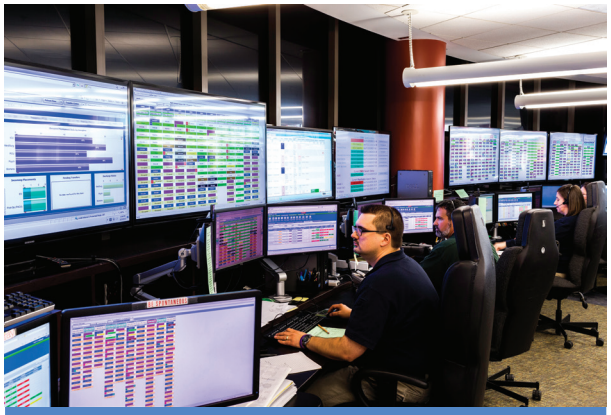
U.S. healthcare systems *answering the call.*

NewYork-Presbyterian, New York, NY
Patient Placement Operations Center

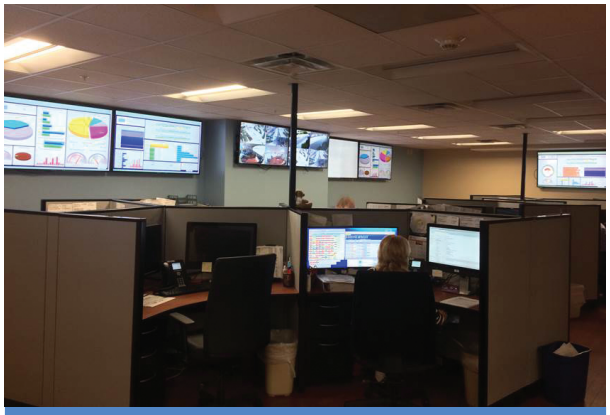
Baptist Memorial Health Care, Memphis, TN
Patient Placement Center



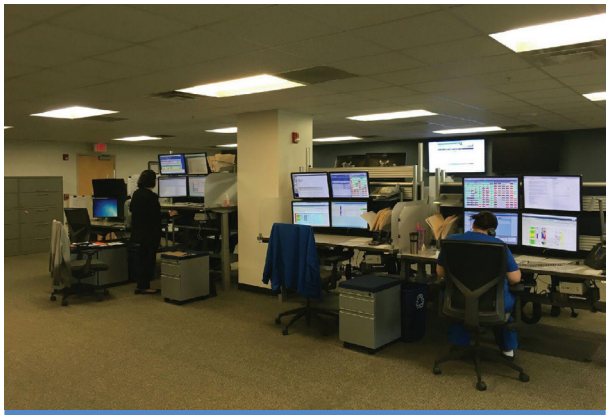
Oklahoma University Medical Center, Oklahoma City, OK
Patient Placement Center



Carilion Clinic, Roanoke, VA
Transfer and Communications Center



Sarasota Memorial Hospital, Sarasota, FL
Patient Logistics Center



BayCare Health System, Clearwater, FL
Central Placement Center

PROVEN TECHNOLOGY AND PRACTICES IN OVER 100 OPERATIONAL COMMAND CENTERS

TeleTracking

Utilizing Technology to Create a Centralized Hospital Operations Center
Carilion Clinic

Not unlike many health systems, Carilon Clinic is faced with daily challenges surrounding patient flow and throughput. This is especially challenging at our primary campus which runs at 98% capacity or greater. Recognizing the importance of capacity and patient flow issues led us to develop a task force several years ago to recommend solutions.

In 2012, we created a centralized operations center, which housed our bed placement/patient transfer center, transportation dispatch center, and clinical transport dispatch. Our goals for this center were to facilitate seamless entry of patients into our health system, coordinate the safest, most appropriate transport for these patients, and efficiently manage all hospital throughput needs. We also identified the need for improved processes, and in our design we were guided by the California Healthcare Foundation model of best practice for patient tracking.

As a result of our efforts, immediate synergies were created in the center to improve patient throughput and provide better customer service to our referral network. At the hub of our operations is Teletracking's patient flow technology, which includes an electronic system that provides real-time capacity updates, including projected discharges and incoming bed placement needs.

<u>Outcomes</u>
Immediate improvements created by this new "mission control" model quickly became apparent from both a throughput and customer service perspective. Results include the following:

- 15% increase in patient transfer requests from 2012-2014 (this increase has been sustained through 2016).
- Addition of nearly 1000 patients accepted per year, while running at an average occupancy of 95-98%
- Successfully added 38 adult inpatient beds based upon projected census needs
- 50% reduction in "stat" environmental services cleans resulting from earlier notification and prediction of work flows
- Reduction in inpatient bed assignment times for ED patients (avg. 6 minute reduction per patient, which equates to 1,480 hours or 62 days of reduced ED wait time).
- Reduction in inpatient bed assignment times for post-op patients (8 % reduction is bed assignment times once patients are deemed ready to move).
- Reduction in ICU dwell time (compared to our 2012 baseline, the avg. patient transfer time out of an intensive care unit has improved by 175 minutes per patient. At 3.438 transfers in the 2016 time period, this improvement eliminated 10,028 hours (or 418 days) of wait time in an ICU bed. These efforts allow more readily accessible capacity for the sickest of our patient population.
- Better utilization of our secondary campuses, allowing more capacity at our tertiary care center: after implementing centralized operations for our second largest campus, we saw a 73% annual increase in their accepted transfer cases, and 84% increase in overall transfer volumes.
- We have maximized our ability to achieve real-time situational awareness of current and projected capacity. This is critical from an emergency management standpoint, and allowing us to report to our region what our surge capabilities are at any given time during any type of large scale event.

Healthcare Information and Management Systems Society
Statement for the Record
Hearing on "Exploring the Use of Technology and Innovation to Create Efficiencies and Higher Quality in Health Care"
Committee on Ways and Means Health Subcommittee
September 28, 2016

HIMSS is a global, cause-based, not-for-profit organization focused on better health through information technology (IT). In North America, HIMSS focuses on health IT thought leadership, education, market research, and media services. Founded in 1961, HIMSS North America encompasses more than 64,000 individuals, of which more than two-thirds work in healthcare provider, governmental, and not-for-profit organizations, plus over 640 corporations and 450 not-for-profit partner organizations, that share this cause.

HIMSS applauds the Ways & Means Health Subcommittee for exploring the important role technology can play in improving care delivery and health outcomes for America's Seniors. As the Subcommittee continues its examination of how technology can drive greater quality, efficiency and value in the Medicare program, we offer the following comments to inform your efforts.

Supporting Value and Innovations in Healthcare Delivery

Health IT helps to support improved quality and value by capturing data and supporting the decision-making needed to measure and improve performance, increase safety and efficiency and reduce costs. Since the implementation of the HITECH Act, rates of adoption of advanced EHR capabilities have increased significantly. A white paper published by HIMSS Analytics in 2014 highlights the relationship between advanced EMR capabilities and improved patient outcomes using data from the Centers for Medicare and Medicaid Services (CMS). One important finding of this was that hospitals with advanced health IT capabilities saw 6.5 percent fewer mortalities from heart attack than hospitals without these advanced capabilities.

In 2012, HIMSS launched the HIMSS Health IT Value Suite to capture valuable examples of the health sector's advancement in the use of IT. Since that time, the Value Suite has grown to contain thousands of examples connecting people, process, and technology to generate value derived from the use of health IT, including many related to chronic care management and care coordination across diverse care settings and geographic locations. As the next step in the process to measure the value of health IT adoption and use, HIMSS established the Value Score, which helps healthcare delivery organizations measure, and optimize, their return on health IT investments.

Adoption and utilization of interoperable health IT solutions, including EHRs, patient portals and other existing and emerging technologies can support innovative healthcare payment and delivery models that incentivize higher quality, help control costs and promote system sustainability. These models include value-based purchasing, shared savings/risk models, bundled payments and accountable care

organizations - all of which require an IT infrastructure. The Merit Based Incentive Payment System, established in the Medicare Access and CHIP Reauthorization Act of 2015, further cemented the interconnectivity between quality, cost and IT by including measures of each category in the new Medicare physician reimbursement calculation. Future Medicare payment and delivery reforms should reflect ways to incentivize use of interoperable IT and other technologies to support their policy goals.

Enhancing Care Coordination and Collaboration

Health IT is a critical enabler of better continuity of care (coordination and collaboration across multiple care settings and providers) for patients, ensuring that the right information follows the patient and their caregivers to inform better care decisions. Health IT provides a mechanism for patients and caregivers to have access to information and participate as active members of the care team. And, health IT provides an opportunity for patients to tell their story, outlining their goals and wishes, to ensure every member of the care team is informed.

Although there are many examples of health IT being used to facilitate coordinated, collaborative care, it is clear that challenges remain, including a lack of methods to track performance across settings and, in many cases, lack of interoperability among providers. Silos of health information result in silo'ed care delivery which, in turn, leads to inefficiencies, redundant services, higher cost and sub-optimal patient care outcomes.

Addressing barriers to effective continuity of care requires ongoing assessment of the effectiveness of the capabilities required to support it. To support this assessment process, HIMSS Analytics developed the Continuity of Care Maturity Model (CCMM). The CCMM model focuses on four key areas - effective health information exchange, coordinated patient care, advanced analytics and patient engagement. The CCMM model escalates the capabilities in each of these areas as providers progress, and is unique in its assessment of success in actually providing continuity of care across health settings. Policies that incentivize better continuity of care to improve quality and reduce costs should be accompanied by tools and methods that help providers gauge performance and identify improvement opportunities.

Expanding Access to Care

HIMSS believes that better utilization of telehealth technologies, including remote patient monitoring, is vital to improving care and value for Medicare patients, particularly those with chronic conditions. This patient population, in particular, requires active monitoring and regular touch points with providers. Telehealth can remove barriers to patients receiving the services they need (especially those in rural and underserved areas) and promotes more active participation in their care. This can lead to lower costs for beneficiaries, and for Medicare, as well as lead to greater patient satisfaction.

However, in order to fully leverage these benefits, outdated restrictions to telehealth deployment must be removed. Current Medicare restrictions contained in Section 1834(m) of the Social Security Act based on technology modalities (stipulation that telehealth requires real-time, interactive voice and video, no "store-and-forward" technologies), geographic location, and originating site requirements, among others, continue to inhibit access to new and innovative technologies. Policies should be enacted to encourage use of broader types of technologies that will expand access to high quality, cost-effective care for Medicare patients.

We look forward to working with you to identify opportunities to leverage technology to improve value, care delivery and health outcomes for patients.