Hartford HealthCare is a fully integrated health system with $2.7 billion in operating revenue. Our system includes a tertiary-care teaching hospital, an acute-care community teaching hospital, an acute-care hospital and trauma center, three community hospitals as well as the state's most extensive behavioral health network, a large multispecialty physician group, a regional home care system, an array of senior care services, a large physical therapy and rehabilitation network and an accountable care organization. Through its institute model, Hartford HealthCare offers the highest standards of care for cancer, heart and vascular services, neuroscience, orthopedics and urology. Hartford HealthCare has nearly 20,000 employees, and provides nearly $280 million in community benefit services.
Message from Our Chief Executive Officer

Thank you for your interest in the 2017 “Hartford HealthCare Value Report.” We used to call this our annual “Hartford HealthCare Quality and Safety Report.” But we switched to “Value.” What’s in a name? Everything.

- HHC Medical Group is using Lean Daily Management to become more responsive.
- Hartford HealthCare at Home is sustaining wound-management outcomes that are better than state and national averages.
- Our Heart & Vascular Institute has improved the speed in which it provides angioplasty to appropriate heart-attack patients.
- The HHC Behavioral Health Network has implemented best practices to address the opioid epidemic by expanding its MATCH™ (Medication Assisted Treatment Close to Home) program, prescription of and education for Naloxone (Narcan®) and integration of recovery-based treatment in emergency departments.

These are just a few of the examples in this year’s report. “Value” has become a bit of a buzzword in American healthcare. But it really comes down to a simple proposition: Excellent and efficient care with a great customer experience – every time. Simple isn’t always easy, which is why the people of Hartford HealthCare work hard every day to get it right – and to set a high bar for the future. I hope you enjoy this snapshot of their efforts on behalf of our communities.

Elliot Joseph
President
Hartford HealthCare
Message from Our Chief Medical Officer

Disruptive forces, including cost containment, consumerism, the transition to value and increasing regulation, are pushing healthcare organizations to rethink their business strategies and operating models. These forces are causing healthcare providers not only to shift their priorities, but also to change the very definition of excellence in healthcare.

As our industry evolves during a dramatic period of change in healthcare, we have a tremendous opportunity to advance our mission through an integrated approach to performance improvement.

Today, the definition of excellent healthcare has expanded far beyond technical quality to include safety, patient-reported outcomes, patients’ perceptions of their care, cost-effectiveness and total cost of care. As our patients with high-deductible health plans bear more and more responsibility for the cost of care, they are seeking information about quality and outcomes. Together, these considerations reflect holistically the care experience and constitute the fundamental elements of safe, high-quality, and patient-centered care.

Safety, quality, experience and engagement are interdependent and mutually reinforcing. We have a commitment to deliver to our patients safe, high-quality and compassionate care. To drive improvement, we need to understand the interconnectedness of these goals.

The theme is this year’s Value Report is to recognize the interdependencies across the care continuum of Hartford HealthCare. We are no longer a hospital company, but a truly integrated healthcare delivery system that stands ready to provide care in a variety of settings – from the hospital, doctor’s office, home, skilled nursing, rehabilitation, urgent care and outpatient surgery. With a cohesive focus on quality, safety and experience, we aspire to be “most trusted for personalized coordinated care.”
Hartford HealthCare Medical Group: Lean Daily Management to Improve Outcomes

The primary care division of Hartford HealthCare Medical Group (HHC MG) spent 2017 focusing on improved patient transitions from hospital or nursing facility to home. Many studies have shown that a telephone call within 48 hours and primary care visit within 14 days will decrease readmissions for most common chronic conditions. Much of this benefit comes from medication review. Cynthia Heller, MD, VP of HHC MG Primary Care and Sue Barrett, VP of HHC MG Primary Care Operations worked with their teams to make this happen. Through multi-division collaboration and lean daily management, the team more than doubled the use of these interventions during the calendar year and sustained these improvements.

HHC MG Primary Care includes 42 offices and 135 primary care providers. Communicating standard work and improvements is challenging across our vast geography. Using the tools of lean daily management, we have been successful.

**Communication:** We have devised a communication system called the “pillar process” where our messages and changes are cascaded via monthly phone call for each job role. For instance the Front Desk employees have a pillar call led by a recognized Front Desk star, where one representative from each office joins the call and then shares the information with their team. This person-to-person communication ensures consistent messaging within the division.

**Daily Huddles:** Each office manager runs a daily 15-minute huddle focusing on recognitions, announcements, office specific drivers, improvement opportunities and standard work observations. This huddle engages the staff in the office in their own site, both in moving our balanced score card objectives and looking for better operations. The standard work observations assure that staff perform in a standard manner. A medical assistant from Avon could substitute in Norwich and there should be no difference in expectations or performance.

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**To improve care transitions Primary Care partnered with Integrated Care Partners (ICP), CareConnect, and other HHC team members.**

**ICP Care Managers performed 48 hour follow up calls on every primary care patient who left the hospital to review medications, assess home care needs and schedule a Primary Care visit.**

**CareConnect built new tools with in our electronic medical record “EPIC” to facilitate both for the call and the follow up visit.**

**Health Stream (HHC’s online learning management platform) loaded a video education for all primary care providers.**

**Revenue Cycle provided audit function and real time feedback to providers on charting and billing.**
Metrics: While the offices choose 3 drivers that they need to improve on a local level, some common ones have been: Co-Pay Collection rate, telephone dropped calls, in network referrals, new patients within 7 days of call, and patient experience scores.

Results: With better communication and recognizing the value of hospital to home follow up, the medical group has more than doubled our care transition appointments (Graph 1). Patients are more clear about post-hospital goals, readmissions, and the improved patient/primary care provider relationship has been remarkable.

HHC MG Commercial Transitions of Care

Graph 1: Transition of Care Growth Post Implementation Daily Lean Management
Patient safety is a core value of Hartford HealthCare at Home (HHC AH). In 2017 the HHC AH Quality Department underwent a redesign to align quality, safety and compliance with the intent of exceeding new Federal guidelines for quality in-home healthcare.

A major component of the redesign was the introduction of Quality and Safety Nurses at each patient service site. The Quality Safety Nurses are service-aligned to build effective relationships with the interdisciplinary teams and leadership, to facilitate the integration of core measures and quality indicators into the work environment and to actively promote a culture of patient safety, and compliance with standards of care. The structure will effectively move quality from regional improvement approaches to a strategic system-wide and coordinated approach to quality.

**Wound program**

HHC at Home nurses are frequently consulted to manage a variety of wounds in the home setting. The wound care program has been enhanced with the addition of weekly wound rounds conducted by certified wound, ostomy and incontinence specialists. Patients with wounds that exhibit delayed healing or worsening wounds are reviewed for treatment and nutritional options to promote healing. In collaboration with HHC wound clinics the program provides patients with optimal treatment resulting in faster healing.

As shown in Graph 1 below, HHC AH remained well below the state and national rate of new or worsening pressure ulcers that is attributed to the collaborative approaches of early recognition of wound deterioration and wound clinic supports where indicated.
The Tallwood Urology & Kidney Institute has fellowship trained physicians who cover six specialty areas including general urology, men’s health (sexual function, fertility/andrology), pelvic health and incontinence, kidney stones and urologic cancer. Care is organized around these specialties in the form of disease management teams. The disease management teams bring together providers for discussion of best practices, evidence-based medicine and quality improvement. One measure of quality the Tallwood disease management teams track are complications following a surgical procedure. Risk adjustment calculations allow a comparison between expected complications and actual or observed complications.

Robotic surgery complication rates

The Tallwood Urology and Kidney Institute is a leader in robotic surgery. With 10 robots in use across Hartford HealthCare, the Institute’s urologists and urogynecologists performed more than 700 robotic surgeries in 2017 and more than 1,700 robotic cases since 2015. In 2017, the Hartford HealthCare Robotics Council leveraged this expertise by standardizing a training and credentialing to include proctoring from the Institute’s surgeons in both the operating room and in the Center for Education and Simulation (CESI) training facility.

Industry research suggests that higher volume hospitals have lower complication rates for robot assisted laparoscopic radical prostatectomies and incur lower associated costs. Further, for individual surgeons, high surgical volumes of robotic partial nephrectomies are associated with superior outcomes. Consistent with this literature, complication rates following any robotic surgery performed by Tallwood robotic surgeons are consistently lower than expected, as noted in Graph 1 below.

### Tallwood Robotics: Complication Rates

<table>
<thead>
<tr>
<th></th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observed Rate</td>
<td>5.59%</td>
<td>9.48%</td>
<td>7.51%</td>
</tr>
<tr>
<td>Expected Rate</td>
<td>8.09%</td>
<td>12.10%</td>
<td>11.90%</td>
</tr>
</tbody>
</table>

Source: Premier Data
Cystectomy complication rates

Patients undergoing cystectomies for bladder cancer are vulnerable to complications, including infection, failure to thrive, blood clots and gastrointestinal problems. To address these clinical challenges, the Tallwood team developed an Enhanced Recovery After Surgery (ERAS) protocol in 2016, establishing a standard post-operative treatment protocol involving a multidisciplinary team of dieticians, pain specialists, pharmacists, respiratory therapists, physical therapists, ostomy nurses and urologic surgeons. Since implementing the standard protocol, complication rates following cystectomy are consistently lower than expected, as illustrated in Graph 2 below.
ECMO on the Go

Extracorporeal Membrane Oxygenation (ECMO) refers to an outside the body (“extracorporeal”) system that can directly add oxygen and remove carbon dioxide from the blood. ECMO functions as a temporary artificial heart and/or lung to work in addition to the patients failing heart and/or lung. This advanced resuscitation system is reserved for vulnerable patients who are acutely ill. ECMO provides temporary support with the heart/lung machine to allow the patient to recover.

Hartford Hospital established an Extracorporeal Membrane Oxygenation (ECMO) Program in April of 2013. Under the direction of Medical Director Dr. Jason Gluck and Surgical Director Dr. David Underhill Hartford Hospital is the only organization in New England that provides “ECMO On-the-Go” services. This program enlists a multidisciplinary team from Hartford Hospital to bring ECMO to another hospital when a patient needs life-saving intervention. After intervention the team transfers the patient to Hartford Hospital for definitive care.

The ECMO program uses a patient-centered, disease-specific model for this potentially life-saving therapy. All forms of support, including non-ECMO modalities, are considered carefully for each patient. The ECMO patient is cared for in the Cardiothoracic ICU where the multidisciplinary care team cares for the patient. This ensures the immediate availability of relevant medical expertise based on the patient’s underlying condition. In addition to physicians, the team includes perfusionists, critical care nurses, advanced practice providers, respiratory therapists, pharmacists, physical and occupational therapists, nutritionists, speech therapists, social workers and staff from pastoral care.

Graph 1 below illustrates the growth of the “ECMO on the go” program and survival data from 2013 to 2017. Patients who are part of the mobile program have an equal chance at survival as compared to those patients where ECMO was initiated at Hartford Hospital, demonstrating the importance of mobile ECMO.
ECMO On the Go

Patient story: Nahomi Borges Torres

A 19 year old female delivered a healthy baby girl at Windham Hospital. After transitioning home she returned to the Windham Emergency Department several times with fever, chills, headaches, cough, abdominal pain, nausea and vomiting.

Over a month after her baby was born, she returned to the emergency department again with a serious problem – a blood stream infection and sepsis. The cause of the life-threatening situation was unknown and she was transferred to The Hospital of Central Connecticut (HOCC) Critical Care Unit by LIFE STAR.

Upon arrival at HOCC, she deteriorated rapidly. She had trouble breathing, required a ventilator and had a low blood pressure requiring IV medications. After extensive evaluation of the infection's source, an MRI scan of the head demonstrated an inter-cranial abscess that required surgery. Following surgery she again had signs of worsening sepsis, requiring aggressive support by the intensive care team.

Her situation could not be corrected with traditional interventions. Advanced technology was required however, the patient was too ill to be moved safely for definitive care. The only hope was ECMO (Extracorporeal membrane oxygenation) – essentially a temporary artificial lung.

Figure 1: Patient on ECMO with her boyfriend and favorite stuffed animal

Figure 2: Patient after being seen in the office
The Hartford Hospital ECMO-On-the-Go team was called and a skilled team of experts placed the patient on ECMO. Her clinical situation immediately improved after ECMO initiation and the patient was safely transferred to Hartford Hospital. She was treated in the ICU and underwent surgery to treat the abscess and source of the infection. She was weaned off the ventilator and ECMO in March of 2018.

This patient has made a full recovery and went home six weeks later. She was seen in follow-up care and is happily at home with her family. ECMO is offered by a small number of medical centers. This powerful patient story illustrates the great work of the Hartford Hospital ECMO team.

**Figure 3: Patient with her daughter after recovery**

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**The ValveNet Quality Program: timely access to valvular heart disease (VHD) patients diagnostic results**

Survival after onset of symptoms of severe aortic stenosis (AS) is as low as 50% at 2 years and 20% at 5 years without aortic valve replacement. Surprisingly, a large number of patients with valvular heart disease (VHD) are untreated. In order to achieve best practice and improved outcomes for patients with VHD, the Heart & Vascular Institute launched a quality initiative called the ValveNet Quality Program. The ValveNet Program is designed to capture under-diagnosed or under-managed patients using an evidence-based approach to identify, evaluate, refer, and treat patients with VHD.

The key focus areas include physician outreach, system standardization, and timely disease management. Echocardiogram remains the gold standard of VHD detection and severity quantification. All system echocardiographers were educated regarding standard practice in measuring and documentation of VHD following 2014 AHA/ACC Guideline for the Management of Patients with Valvular Heart Disease, with the goal of reducing variability.

Medical records of patients who are diagnosed with moderate or severe aortic stenosis by ECHO throughout the HHC system are reviewed by the ValveNet Program Coordinator. The Coordinator established a protocol to notify the care team of patients’ valve-specific findings and ensures that Primary Care Providers (PCPs) and Private Cardiologists have timely access to updated test results, discharge summaries, and consults.

Since the launch of the initiative in November 2017, 67% of PCPs and 63% of Cardiologists who received notification from the ValveNet Coordinator of patient diagnosis of AS by Echo did not have access to the most recent results. Enhanced communication allows for more timely medical and surgical management. Although the data is preliminary given the start date, this new process of communication has resulted in 15.6% (7/45) of patients identified being referred for further care.
Improvement in door-to-balloon time (DTB) and first medical contact for STEMI patients

The American College of Cardiology and the American Heart Association guidelines state that hospitals treating STEMI (S-T Elevation Myocardial Infarction) patients with emergency percutaneous coronary interventions (PCI) should reliably achieve a door-to-balloon time (DTB) of 90 minutes or less. Studies have demonstrated an association between time to primary PCI and in-hospital mortality. In addition, the AHA recommends that all STEMI patients should be transported directly to a primary PCI facility and that the time to device should also be 90 minutes or less.

In order to achieve best practice and improve outcomes for STEMI patients, the cardiac catheterization laboratory at Hartford Hospital in collaboration with the Emergency Department and Emergency Medical Service, launched a quality initiative to reduce DTB and FMC. The initiative began in 2017 and included workflow evaluation and process improvements as well as education for staff and physicians across all three areas. Since the launch of the initiative, improvements in median DTB from 2016 to 2017 have been demonstrated (Graph 1); 63 min to 55 min, respectively. Median FMC for 2017 was 79.5min. The percent of patients who received a device within 90 min of FMC improved to 72% compared to only 47.9% in 2016.
Battling the opioid crisis

Connecticut continued to see an increasing number of fatalities resulting from the opioid crisis in 2017. According to the Connecticut Office of the Chief Medical Examiner, there were 1,038 fatal drug overdoses in 2017 compared to 917 in 2016. Fatal drug overdoses have tripled since 2012 and 2017 was the first year in which the state has had more than 1,000 opioid related deaths in a single year. While the number of heroin related deaths decreased in 2017, deaths attributed to the powerful synthetic opioid fentanyl were on the rise with 677 reported deaths in 2017.

The Behavioral Health Network (BHN) continues to fight the battle against opioid addiction and overdose deaths. Continued expansion of MATCH™ (Medication Assisted Treatment Close to Home) programming, prescription of and education for Naloxone (Narcan), integration of recovery-based treatment in Emergency Departments, and the participation in and development of Hartford HealthCare-wide clinical councils specifically designed to tackle the epidemic are some of the initiatives the BHN is undertaking to lead the way in addressing the opioid crisis. In 2017, more than 2,500 clients with Opioid Use Disorders were supported through BHN programming.

Expansion of medication assisted treatment

Prior success of the MATCH clinics and ongoing community need for medication assisted treatment of clients with Opioid Use Disorders has led to ongoing expansion of this service model. Medication Assisted Treatment is evidence-based and shown to be the most effective treatment for opioid use disorders. MATCH programs help people into recovery using a combination of medications such as Suboxone or Naltrexone XRT, which reduce opiate cravings, in combination with small relapse-prevention groups and support services. The BHN expanded capacity among its MATCH programs to nearly 2,000 in 2017 and added six additional medical staff credentialed through Suboxone waivers, expanding waivered providers to 36. The number of BHN ambulatory clients prescribed medication-assisted drugs, Suboxone or Naltrexone XRT, in 2017 increased by 50% compared to 2016.

Recovery coaches and medication assisted treatment in emergency departments

With the continued rise of the opioid epidemic in Connecticut and an uptick in patients seeking care through the emergency departments of our Hartford HealthCare acute care hospitals, the BHN has made Recovery coaches available in the emergency departments of Backus Hospital, Windham Hospital, and MidState Medical Center. Recovery coaches have “lived experience” with substance abuse and work directly with patients after they receive emergency care for a substance use disorder. They do everything from providing support in the ED to driving patients to their appointments. Recovery coaches in emergency departments have helped connect 95% of patients to care, including detox, community support, inpatient, outpatient, intensive outpatient, and medication-assisted treatment.

If a person isn’t interested in getting into treatment at that time, recovery coaches will continue to make contact with the person, as long as the person is willing, and will call daily to offer support and to try to get them into treatment. The onus is on us to get these individuals in the door and keep them engaged.

~ Pat Rehmer, President
Behavioral Health Network
There was a patient who was active in our programming. His parents attended our family day where we provided family members with education around the use of “Narcan” and provided families with Narcan kits. Sometime later, a friend was visiting with their son in their home and overdosed after using opiates. They called upon the education they received from Rushford and administered Narcan to their son’s friend while waiting for emergency responders to arrive. They saved his life.

~ Dr. Samuel Silverman, Rushford

The BHN also received $100,000 from the Connecticut Department of Mental Health and Addiction Services in 2017 for a new initiative to incorporate medication-assisted treatment within our Hartford HealthCare Emergency Departments. The two-pronged approach will couple Suboxone initiation with a next day appointment at a MATCH program site to continue ongoing treatment. By starting medication-assisted treatment in the ED there is less likelihood the person will discharge from the ED and use as they have already started their engagement with treatment.

**Saving lives with Naloxone**

Naloxone, an opioid antagonist medication designed to rapidly reverse an opioid overdose, has saved lives and continues to be an integral part of the BHN’s patient care initiatives for individuals with Opioid Use Disorder. In 2017 more than 2,500 patients were provided with Naloxone training, more than 700 patients in ambulatory care were provided with prescriptions for Naloxone – a 72% increase compared with 2016, and the inpatient unit of Natchaug Hospital implemented practice where all patients with an opioid use disorder were discharged with a prescription for Naloxone. Through education and prescribing practices we are working to prevent opioid deaths, not only for our client population but also within the communities in which we operate. In 2017, the BHN received over $25,000 in grants allocated to the Central and Eastern regions for the purchase and distribution of more than 200 Naloxone kits. Kits were distributed to first responders, school nurses, and community members within Meriden, New London, and surrounding areas and included a training component. In Meriden, where Rushford operates as a Local Mental Health Authority, Rushford’s Prevention team provided Naloxone training to every nurse in Meriden Public Schools.
Addressing the opioid epidemic as a collaborative effort across Hartford HealthCare

Ongoing from previous years, BHN leaders continue to collaborate with HHC in an effort to utilize a system approach in addressing the opioid epidemic in our state. BHN leaders participate on and add expertise to Hartford HealthCare-wide initiatives such as the Hartford Hospital Addictions Committee, the Neonatal Abstinence Program, and the HHC Opioid Council. Additionally, beginning in 2017 Hartford HealthCare established a new clinical council – the Addiction Clinical Council – led by Rushford’s Medical Director Dr. J. Craig Allen. Some initiatives of these groups include educating prescribers on alternative strategies for pain management, identifying higher risk patients, and utilizing technology to support prescribing practice.

Accomplishments of the Opioid Council

Leadership:
Dr. Sherry Kroll
Primary Care

Dr. Jonathan Kost
Pain Management

The group has developed guidelines for safe opioid prescribing, is monitoring opioid prescription patterns and has created patient education materials.

Additionally, 1,600 providers have been trained in safe opioid prescribing and multi-modal pain management.

Chronic Opioid Tapering

This brochure is designed to guide your provider and you in a discussion to safely decrease your daily intake of chronic opioid/narcotic pain medications and to educate you on the risks associated with long term use of these medications.

If you have any questions you are always advised to talk to your provider.
Zero Suicide initiative

The Behavioral Health Network (BHN) introduced evidence-based practices related to Suicide Prevention from the Zero Suicide Academy in 2015. Suicide prevention has been and continues to be a core focus of the BHN.

The overarching philosophy of the Zero Suicide Academy is that suicide is preventable and health care systems need to embrace and work toward the aspirational goal of preventing all suicide deaths for patients in their care. The Zero Suicide philosophy challenges the thinking that simply reducing suicide rates is enough and no death by suicide should be regarded as acceptable. Zero Suicide relies on a system-wide approach to improve outcomes and close gaps.

Since 2015, the BHN has adopted several Zero Suicide best practices

All Behavioral Health Network entities performed organizational self-assessments based on standards of the Zero Suicide Academy. The self-assessment was comprised of 18 questions, rated on a scale of 1 through 5 where a score of 5 is the “gold standard.” Entities scored mostly 2s and 3s.

The BHN also developed a leadership structure to support the work of Zero Suicide at each of our entities. This structure included Zero Suicide Leadership teams, Champions groups, and Project Management support.

The Seven Components of Zero Suicide

LEAD: Create a leadership-driven, safety-oriented culture committed to dramatically reducing suicide among those in our care.

TRAIN: Develop a competent, confident, and caring workforce.

IDENTIFY: Systematically identify and assess suicide risk among people receiving care.

ENGAGE: Ensure every individual has a pathway to care that is both timely and adequate to meet his or her needs. Include collaborative safety planning and restriction of lethal means.

TREAT: Use effective, evidence-based treatments that directly target suicidal thoughts and behaviors.

TRANSITION: Provide continuous contact and support, especially after acute care.

IMPROVE: Apply a data-driven quality improvement approach to inform system changes that will lead to improved patient outcomes and better care for those at risk.
Additionally, the Medical Directors Executive group of the BHN reviewed two years of suicide data, inclusive of 24 completed suicides and 69 suicide attempts. Trends were identified and actions were taken to improve environment, handoff communication, assessment protocols, and development of safety plans. The story below highlights the importance of the BHN’s Zero Suicide Initiative.

I received an after-hours emergency call at 1:00 AM on a Thursday morning from a 17-year-old female client. The client was having significant anxiety symptoms and thoughts of harming herself. She was having urges to cut herself. I asked for her location and she willingly gave it to me. I then asked her who else was in the home, and she stated her mother and two brothers, one older and one younger. I explained to her that her safety is very important and together we needed to come up with how to keep her safe. She stated that she did not want to go to the ED or hospital; and she had been admitted to the Joshua Center from Natchaug inpatient. She was very tearful and stated “this is the worse I have felt.”

At this point I asked her if she could go wake up her mother so that I could explain to her mother that she was having a hard time. She reluctantly did so, and I explained to her mother what was going on. I then asked to speak to the client again, and she seemed calmer, stated that she was having a hard time being alone while the rest of her family was sleeping and felt better that her mother was informed. I then asked her if she had a safety plan. She stated that she did, that she had originally constructed a safety plan with her therapist on inpatient, and then again with her therapist at the Joshua Center. We went through her coping skills and other safety strategies and chose a few to utilize to get through the night.

Her mother agreed to stay up with her and to keep her home from school the next day until it was time to go into the program at Joshua Center. I asked the mother to call me with any updates and she called me at 6:00 AM to state that the client felt much better and was going to go to school.

~ Carrie Pichie, Director of Ambulatory Care Services  
Natchaug Hospital
The Hartford HealthCare Bone & Joint Institute Celebrates First Anniversary

The Bone & Joint Institute (BJI) celebrated the first anniversary in the new building on January 9, 2018. Several milestones were reached over the past year:

- Opening of Operating Suites 9 and 10
- Construction initiated to expand the inpatient unit to include additional patient rooms and a medical hotel suite.
- Expansion of the Rheumatology Program: opening of the Rheumatology Infusion Center and onboarding of several new physicians at various sites in the HHC Network.
- On-boarding of several new Orthopedic surgeons resulting in an increase in surgical volume. (Graph 1)

Graph 1

Bone & Joint Institute Surgery Volume by Fiscal Year

- FY2014
- FY2015
- FY2016
- FY2017
Quality metrics and outcomes

The Bone & Joint Institute conducts a comprehensive quality improvement program supported by an Orthopedic Surgery patient registry. The research, quality staff and volunteers conduct sixty-day post-operative patient calls which allow for the capture of complications, emergency department visits, readmissions and other quality data.

The Joint Commission has awarded Disease Specific Certification for Total Knee Arthroplasty, Total Hip Arthroplasty, Total Shoulder Arthroplasty and Spine Surgery. There are sixteen performance measures specific to these certifications which are measured and reported monthly to BJI staff.

BJI Key Performance Indicators (KPI) reported monthly via Control Charts to staff, leaders, and annually at the Hartford Hospital QAPIC. KPIs include: 30-day post-operative blood clots (VTE) and Readmission and 90-day post-operative Deep Surgical Site Infections for TKA, THA, Orthopedic Trauma and Orthopedic Spine patients. Graph 2 and illustrates the KPI data for 2017.

**Complication Rates by Total Knee Arthroplasty**

![Graph 2](image-url)
Additional metrics include Transition to Skilled Nursing Facility vs. Home for elective surgery patients. For Total Joint Arthroplasty, FY 2017: 22.5% of patients transitioned home compared to FY16: 23.3%. Though this does not appear to be a significant improvement, we have noted that more elective total joint replacements are being performed in outpatient surgical centers, and the patient's at BJH are higher risked based on age and comorbidities.

The Fragility Fracture patients are co-managed by an orthopedic trauma surgeon and the hospitalist. This collaborative approach to care has resulted in a reduction in venous thromboembolic events, surgical site infections, sepsis and length of stay. Our goal is to achieve surgery time within 30 hours of diagnosis.
The Connecticut Orthopaedic Institute at MidState Medical Center celebrated its one year anniversary on April 3, 2017. The Institute has expanded to include a total of 44 surgeons who specialize in joint replacement, spine surgery, sports injuries and hand/foot surgery. The vision is to provide an exceptional patient experience while delivering world-class quality and safe care.

Patient Experience and Clinical Redesign: Designed by Doctors – Inspired by Patients

The facilities have been renovated and remodeled. The beautiful 2,600 sq. ft. galleria and 14,500 sq. ft. pavilion were redesigned to not only impress, but afford patients and family members some of the amenities of home. The facility includes 11 operating rooms, private consultation rooms, 21 private patient rooms, kitchens dedicated to the patients on the floor, spacious state of the art rehabilitation facilities, and concierge discharge pharmacy program allowing patient’s to leave the hospital with all of their medications.
The vision of providing an exceptional experience has come to life. Compared to peer groups within the state and nationally, the Institute is ranked in the 99th percentile for overall patient satisfaction and 99% of patients would recommend our Institute to a family member or friend.

In addition to the facility design there was a complete clinical redesign as well. It begins with the patient making the decision to undergo a procedure at the Connecticut Orthopaedic Institute, and it has been the mission to take the patient from that point through their first year after surgery and make it a seamless, caring, safe, and educational process. Nurse navigators reach out to the patients once surgery is booked, provide educational guidebooks, and schedule them for a pre-op class. The pre-admission center, a one-stop location for pre-operative testing and evaluation recently opened.

**Quality Metrics**

The Connecticut Orthopaedic Institute has an industry leading length of stay for total hips and knees of 1.2 days well below the national average of 2.6 days. The readmission rate of 1% is well below the 4% national standard. 95% of patients are able to be discharged home demonstrating the success and efficacy of the best practices at the Connecticut Orthopaedic Institute.
Development of cutting edge, system-wide treatment protocols in stroke

This year, when the national guidelines for acute stroke treatment experienced a monumental shift, the Ayer Neuroscience Institute’s Stroke Clinical Council was ready and waiting for the opportunity to respond. New studies (DAWN Trial, Defuse 3) showed overwhelmingly that acute interventional treatment was successful up to 24 hours from first onset of symptoms, for patients meeting specific criteria. These results signaled a seismic change from the standard of treating patients up to 6 hours from symptom onset.

The Stroke Clinical Council developed a system-wide protocol and HHC invested in a new technology called RAPID, which allows nearly instant CT scan results to be emailed directly to a physician’s cell phone. This quick action and thorough work ensures that these patients are recognized quickly at the local hospital, and in partnership with our Care Logistics Center, are quickly transported for the highest level of interventional treatment.

This work has allowed HHC to be a leader in advancing treatment protocols to respond to these new treatment guidelines.

Responding to stroke STAT calls

When signs of stroke arise, a fast response is critical for timely and efficient care. However, when an in-house acute stroke occurs, it can present anxiety for nurses unfamiliar with responding to the event, due to the infrequent nature. This can lead to delayed recognition, assessment, and treatment. In-house strokes (IHS) are typically seen after surgical procedures, or with cardiac disorders. At Hartford Hospital, the only Comprehensive Stroke Center within the HHC Ayer Neuroscience Institute, in-house strokes account for between 12-15% of the annual stroke team calls.

With this level of volume, it was apparent that expert stroke nurses at Hartford Hospital needed to respond to the home calls, to assist the bedside nurses and responding Neurologists – to optimize patient outcomes. To accomplish this, the stroke unit step-down staff developed and implemented protocols for these expert stroke nurses to respond to the calls immediately, to guide and support the bedside nurse, to educate the patient and family, and guide the next phase of care.

This change in practice resulted in earlier identification and treatment of at home stroke cases. As shown in Graph 1, onset to call, call to scan, and call to intravenous intervention decreased from pre-to post trial. This initiative successfully reduced unnecessary delays, shortened treatment decision making times, and implemented a reliable new standard process.

Stroke Care Improvement

Graph 1
The impact of nursing to achieve door-to-drug times of under 45 minutes in acute ischemic stroke

In the treatment of stroke, timing is everything to ensure efficient and appropriate care. The American Heart Association estimates that for every minute saved in the treatment of stroke, 1.8 days of healthy living is saved; and for every 15 minutes, 1 month of healthy living is saved. This time makes a difference! A key component is the ability to achieve targets for the time from door-to-drug administration (the time between a patient’s arriving until clot dissolving drugs are given to restore blood flow). Our goal is to administer medication in under 45 minutes.

The team at the Comprehensive Stroke Center set out to identify opportunities to reduce unnecessary delays in this process, and improve our ability to provide this care in a timely manner. Historically, this critical drug (alteplase) was reconstituted outside of the emergency department, by the pharmacy, and brought to the patient bedside – which added an average of 15 minutes for the pharmacy to prepare it and for it to be picked up and brought to the emergency department.

With an intervention that included nurses preparing the drug at the bedside (in the emergency department, the results were outstanding) Compared to the prior practice protocols, the door-to-drug time was 15 minutes shorter with the new practice (Graph 2). This change proved to be a safe and efficient method to save this important time.
The Hartford HealthCare Cancer Institute provides comprehensive care to our communities in many ambulatory locations and at cancer centers in five hospitals across Connecticut – Hartford Hospital, The Hospital of Central Connecticut, Backus Hospital, MidState Medical Center and Windham Hospital. Total cases per hospital shown in Graphic below:

**Total New Cases by Hospital: 5,598**

Our model is organized around disease management teams. The disease management model brings together all members of the care team to diagnose, coordinate care, and determine best practices based on tumor profile. This holistic approach leads to exceptional patient satisfaction and better patient outcomes.

In 2013, the Hartford HealthCare Cancer Institute became the charter member of the Memorial Sloan Kettering (MSK) Cancer Alliance. Membership in the MSK Cancer Alliance means access to highly skilled specialists and advanced, leading-edge treatments. Through the MSK Cancer Alliance, many of MSK’s world-renowned clinical research trials are available to cancer patients across the Institute.
Top five treatment types by Hartford HealthCare Cancer Institute

The five most common types of cancer treated by teams of specialists at the Hartford HealthCare Cancer Institute are cancer of the bladder, breast, colon, lung and prostate. Each patient is treated with a personalized plan, as shown in the graphics below.

Breast Cancer
Many women are enrolled in one of several collaborative Memorial Sloan Kettering (MSK) therapeutic programs designed for women who have breast cancers that do not respond to standard hormonal treatment.

Lung Cancer
Patients with lung cancer have enrolled in the MSK IMPACT study, and received genomic testing of their tumor tissue to identify actionable mutations that may respond to treatment.

Prostate Cancer
The MSK-HHC symposium for advanced prostate cancer was attended by more than 100 participants from Hartford HealthCare, Memorial Sloan Kettering, Lehigh Valley and Miami Baptist Hospitals.

Bladder Cancer
Patients with muscle invasive bladder cancer have been enrolled in a MSK collaborative therapeutic trial designed for this high risk patient population. More studies are currently in the MSK-Alliance pipeline for patients with muscle invasive and metastatic bladder cancer.

Colon Cancer
HHC is a participant in the COMMIT study, designed for patients with metastatic colorectal cancer and has multiple clinical trial options for this patient population.
Survival outcomes
Data available from The National Cancer Database (NCDB), reflects that the Cancer Institute has among the highest five-year survival rates in the State of Connecticut for Breast, Colon, Lung, Prostate and Rectum. Five-year survival rates indicate the percentage of people who survive a certain type of cancer five years after diagnosis or starting treatment. Overall survival rate includes all stages and individuals of all ages and health conditions who have been diagnosed with cancer. Survival rate does not distinguish between hospitals that may treat a larger volume of higher acuity cases or advanced stage cancer.

Five-Year Survival Rate for All Stages
Stage at initial diagnosis outcomes

Earlier stage diagnosis leads to more treatable and potentially curable cancer. The HHCCI offers numerous screenings and early detection programs with the goal of diagnosing patients as early as possible. Breast and colon cancer mortality reduction is achieved through the use of screening for these diseases with mammography and colonoscopy. HHCCI clinicians reach out to the communities we serve to provide lifesaving screening messages and to overcome barriers to screening for the medically underserved. We also completed a pilot study of lung cancer screening with low-dose CT scanning based on a large national trial, and through screening 1,000 high-risk people, we demonstrated that we could successfully reproduce the outcomes seen in the national study with a primary care-based model in our community. We now offer lung cancer screenings to those at risk (30 or greater years of smoking, active smoker or quit, 15 years ago, ages 55-77) at five of our Hartford HealthCare hospitals.

![Stage at Initial Diagnosis](image-url)
Integrated Care Partners (ICP) is Hartford HealthCare’s physician led clinically integrated network. Its mission is to assist members in providing the highest quality at the most reasonable cost for patients. ICP coordinates care for patients and measures clinical quality outcomes.

As part of the ongoing work to support the five ones – one registration, one health record, one standard of excellence, one bill, and one relationship – Hartford HealthCare implemented Healthy Planet in August 2017. As part of the Epic electronic health record, Healthy Planet provides a comprehensive approach to population health management that allows clinicians to manage patients in a given population across the continuum of care. Healthy Planet incorporates external data from claims, cost accounting systems, and other electronic health records into actionable analytics and care management workflows. Healthy Planet facilitates tracking and management of high-risk patients using evidence-based protocols and identifies groups of patients with common care needs, such as those with diabetes or congestive heart failure, through registries. Healthy Planet also provides physicians, practices, and leadership with insight into performance on select ACO and commercial quality measures.

Prior to the Healthy Planet implementation, care managers who coordinate care for patients seen at Hartford HealthCare Medical Group and community practices that are part of the ICP network relied on data from Excel spreadsheets tracked through homegrown assessments and documentation in Microsoft Word. There was limited coordination of care management activities with inpatient partners during transitions of care and no universal risk stratification tools. With Healthy Planet, care managers now have access to automated reporting, tracking, and notification of in-network emergency department visits, admissions, and transitions from hospital care; standardized evidence-based assessments with specific focus on chronic conditions, greater insight and collaboration with inpatient care coordination partners, and a predictive analytics tool to risk stratify the entire attributed population.
Care management reports with risk stratification scores

Healthy Planet also provides tools to manage quality at the provider, practice, and organization level through dashboards that display performance on select ACO and commercial quality measures. These dashboards (Graphic 1) are available to HHC providers at the point of care through the Epic EHR and community providers that are part of the ICP network through a Web portal called EpicCare Link. Drill-down reports on the dashboards identify patients with gaps in care to facilitate discussions regarding recommended tests and services and shift the focus from problem-based care to preventive care and health maintenance activities. The dashboards also provide an opportunity to identify areas where there are no workflows in place to discretely capture data required for quality reporting purposes. In addition to improving the care of our patients, expanding data capture provides an opportunity to enhance revenue through incentives offered by CMS and commercial payors for achieving benchmarks on various quality measures.

Graphic 1: Provider quality dashboards
Clinical Care Redesign

With the changing healthcare landscape, organizations are being tasked to rethink the way they deliver care with the goal of improving clinical outcomes and reducing costs. HHC has identified care redesign as a strategic priority and has launched the Clinical Care Redesign (CCR) program. The CCR focuses on opportunities to reduce care variation, improve quality and reduce cost. CCR is founded on the principle that variations in care – from both a quality and cost perspective likely represent opportunities to improve results.

The identification of care variation begins a process to re-examine and challenge the assumptions about how we provide care. First, we need alignment with the physicians providing care – specifically a willingness to look at new models to treat a particular condition. Second, we need data to define the outcomes in terms of both quality and cost. Third, we need to assess best practice based upon the experiences of other health systems and published literature. This approach allows us to develop new care paths for a particular condition – paying close attention to the data that will measure our success.

HHC identified four target areas: Cardiovascular Services, Colorectal Surgery, Hospital Medicine, and Imaging Services. A robust governance structure supports the redesign program with Executive Leadership and a commitment to place the patient at the epicenter. Physician and nurse dyad leaders execute the redesign projects at HHC hospitals. This work requires a multidisciplinary approach with partnership from Supply Chain Management, Information Technology, Informatics, Project Management, Nursing Education, and Revenue Cycle.

Collaboration as a system has led to early success. In the Cardiovascular space, Hartford Hospital has reached the National Cardiovascular Data Registry (NCDR) top decile performance in door-to-balloon time for acute myocardial infarction. By focusing as a system on early access to interventional care, Hartford Hospital has achieved 100% door-to-balloon time within 90 minutes in the past quarter. The COPD CCR team has improved care for the COPD patient population by decreasing unnecessary steroid utilization. Additionally, COPD patients have seen a reduction in length of stay of 1.25 days and readmission rate reduction of 12%. Colorectal Surgery providers have fully implemented the best practice, Enhanced Recovery after Surgery (ERAS) initiative which has led to a reduced length of stay for colorectal surgical patients.

It is the effort behind the numbers that is a true testament to HHC’s commitment to excellence. Clinical Care Redesign is an example of a system initiative that has rallied support from team members across the organization. Collectively this work helps to drive our organization's mission of “Most trusted for personalized coordinated care.”
Improvement in Clostridium difficile infections

Hartford HealthCare is committed to keeping our patients safe by eliminating hospital acquired infections. This is an important balanced score cared and safety goal with a focus on blood stream infections, urinary tract infections, surgical site infections (colon surgery and hysterectomy) and infections from Clostridium difficile.

Clostridium difficile is a bacterium that is responsible for a variety of gastrointestinal manifestations ranging from asymptomatic carriage to severe diarrhea to life threatening inflammation of the colon. Its incidence is on the rise and often occurs in those taking antibiotics, older adults and individuals that receive medical care. However, recent studies show increased prevalence among those not traditionally considered at high risk – i.e. younger and healthy individuals and those without healthcare contact. HHC has driven a 20% reduction in C. difficile infections through education, active monitoring for appropriate C. difficile testing, thorough cleaning and early identification and isolation of cases (Graph 1). Inappropriate use of antibiotics is one of the drivers of C. difficile infections. HHC, through the antimicrobial stewardship council is implementing the seven core elements of antimicrobial stewardship. These include commitment by leadership, designation of antibiotic stewards with drug expertise, education, development of policies and procedures around appropriate antibiotic use, and tracking of antibiotic use with appropriate feedback of this information to prescribers. Hartford Hospital is piloting a program whereby an infectious disease physician and pharmacist review antibiotic use on a daily basis and provide recommendations to clinicians.

<table>
<thead>
<tr>
<th>Year</th>
<th>C. difficile HO Infections</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>315</td>
</tr>
<tr>
<td>2016</td>
<td>287</td>
</tr>
<tr>
<td>2017</td>
<td>258</td>
</tr>
</tbody>
</table>

Graph 1
Hand hygiene compliance improvement

In January 2013, Hartford HealthCare embarked on a journey to improve hand hygiene compliance. Considering that it is the best way to prevent the spread of infections, our goal was to reach and sustain over 90% compliance. We introduced a dual auditing system to drive best practice. We trained and embedded secret observers throughout our organization to monitor true compliance with hand hygiene. In addition, we deployed accountability agents to observe and provide real time feedback highlighting opportunities for improvement. In two years we reached compliance of over 90% and maintained this level for an additional 2.5 years.

In December 2016, we shifted some of our focus away from hand hygiene and by July 2017 realized that we had slipped back into previous habits. We immediately responded and reinvigorated our previous processes. Currently we are at 82% and are on the same trajectory to improvement.

Hand Hygiene % Compliance

Graph 2
On October 1, 2017, The William H. Backus Hospital became the fifth Hartford HealthCare hospital to go-live on Epic—our integrated Electronic Health Record (EHR). This implementation helps to complete the promise of One Patient Record. Now, a patient seen at an HHC ambulatory practice, acute facility, urgent care center, surgical center, or clinic will have one chart that is shared amongst all facilities. Providers, nurses, and staff now have immediate access to complete medical records and data from throughout the system, with the associated increase in efficiencies and safety. Patients no longer have to carry files and boxes of medical records between provider visits, and providers no longer have to wait for records to arrive by fax or mail. Unnecessary and duplicate testing is decreased, because the full record is available. Through Care Everywhere (another Epic module), records can be shared with Epic institutions throughout the country—we have exchanged records with institutions in all 50 United States.

Clinical Informatics and CareConnect continue to design and add Best Practice Alerts (BPAs) and Clinical Decision Support tools into Epic. These alerts point out potential medication interactions, evidence-based options and guidelines, and reminders to providers and nurses. Many of these alerts come from Stanson Health, and are based on the national Choosing Wisely guidelines. The use of BPAs increase patient safety, averts potential complications, closes gaps in care, and allows us to provide evidence-based medicine in a fiscally responsible manner. A robust analytics platform provides data to monitor compliance with the BPAs and identify opportunities for improvement and education.

Another important step of Epic Implementation is MyChartPlus—a robust patient portal. MyChartPlus patient portal use continues to grow. Patients are offered the ability to sign up for MyChartPlus during visits and transitions of care. Through MyChartPlus, patients and their proxies can access their medical record, including problem lists, medication lists, laboratory and imaging reports, immunizations, allergies, and instruction. These can be viewed on a PC, laptop, tablet, or smartphone. Patients can also send a message to the practice, requesting advice, medication refills, and appointments. A new function was added in November 2017, Open-Notes. Through this, patients can view the actual provider note that was written during an ambulatory visit. In December 2017, patients viewed their notes more than 20,400 times.
Image Connect

ImageConnect – Hartford HealthCare’s enterprise imaging platform

ImageConnect is HHC’s foundational platform to enable HHC’s vision of “a seamless scalable integrated clinical imaging solution, to allow viewing of a patient’s imaging history regardless of where, how or in what format the image was acquired. The strategy of ImageConnect includes consolidation of our imaging informatics assets across all specialties, clinical campuses, and imaging practices in our ecosystem of integrated healthcare delivery and beyond. ImageConnect harmonizes with our Epic electronic health record investment, supporting our drive to enhance efficiency, improve clinical provider experience, and quality outcomes. Provides platform to leverage advanced analytics, machine learning & artificial intelligence imaging applications.

How is ImageConnect accomplishing this?

All medical images from our ecosystem are transferred to HHC’s vendor neutral archive (VNA) “cloud.” Our patients’ images are accessible to our clinical providers on a unified system-wide viewer that can be launched from within Epic, from within other EHRs that reside within our Integrated Clinical Partner (ICP) entities, or with a secure link from any browser.

All images from Radiology, Cardiology, Pathology and all other specialties can coexist on one system and viewer. VNA is an intelligent imaging management solution that provides scalable image information and life cycle management so that images and related information can be queried, stored and retrieved in a manner that is defined by open standards at multiple department, enterprise and regional levels while maintaining privacy and security of our patients’ data. It affords HHC “future proofing” opportunities by mitigating the expense and efforts of picture archiving system (PACS) upgrades without having to migrate, convert or change data formats or expensive interfaces. Leveraging HHC’s strong innovation culture continues to have a multiplying effect on the significant investment we’ve made in our information technology (IT) infrastructure in partnership with the collective intellectual property of our IT teams, clinical councils and services.
Where are we along the ImageConnect journey?

All Radiology images from HHC’s acute care facilities with the exception of Charlotte Hungerford Hospital (planned with 2020 Epic implementation), are now available via an integrated EPIC user interface. We are also in the process of connecting our Hartford HealthCare Medical Group (HHC MG) ambulatory office point of care ultrasounds to the VNA to add to the growing number of entities connected to the platform. Comprehensive portfolio of provider access including Epic, EpicCare Link, phones, tablets. Patients can access their imaging reports via MyChart and images to follow soon. Integration of all the other medical specialty imaging (Cardiology, Pathology, Wound Care, Gastroenterology, OB/GYN, etc.) is in evolution.

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Connectivity to other affiliated non-HHC facilities is evolving with our “Image Exchange” technology, to provide time sensitive access to images acquired at non-HHC practices and hospitals. Integrated enterprise advanced post-processing visualization tools are continuously being deployed to facilitate interpretation of complex disease and therapeutic intervention planning. Currently we are exploring opportunities to apply advanced analytics, artificial intelligence and machine learning algorithms to improve quality and safety of image acquisition and interpretation, and operational efficiency of our departments and practices.
ImageConnect Driving Value for HHC

Quality
• Reduced need to repeat studies on patients, as their presence across the HHC imaging ecosystem is now known
• Reduces need for unnecessary radiation exposure to the patient population
• Reduces need to use CDs to transfer images from one facility to another

Customer Experience
• Imaging data follows patient across the healthcare system and beyond

Clinical Provider Experience
• Significantly increases healthcare provider efficiency not having to access multiple different imaging systems

Cost
• Scalable image platform supporting HHC growth through acquisitions & alliances
• Meets demands of interoperability and costs associated
• Positions HHC for simplified integration into future private and public healthcare exchange models
Hartford HealthCare is making Patient Experience a primary focus in order to become #1 in patient experience in the Northeast by 2023. Providing the best patient experience centers around how we collectively participate in the moment to moment interactions with patients and their families. Ultimately, this commitment to the patient experience will elevate the mission and vision of HHC to cultivate health and healing in our communities and build and sustain trusting relationships in coordinated care. As an organization, Hartford HealthCare has committed to practicing the following strategies to strategically improve the customer experience.

**Making Every Moment Matter Educational Series:** Training for leaders, team members and our caregivers/medical providers that will enhance and increase their knowledge and engagement in providing exceptional patient/customer experiences. The training developed will focus on Empathy, Sympathy and Apathy and will include a mandatory 4 hour session for all new employees to HHC.

**Values Based Interactions:** Living the Vision through Values Based Interactions geared towards patient facing employees in order to enhance interactions and promotes a culture of caring supporting our core values and our vision of “Most trusted for personalized coordinated care.”

**Service Recovery (CLEAR and CARE):** Training for patient facing employees which will include an introduction to the concepts of Human Centered Care for the purposes of Service Recovery.

**Clinical Care Best Practices:** The Patient Experience team successfully rolled out the following best practices to improve our customer’s experience:

- **Interactive Leadership Rounding:** Directors and Executives conduct purposeful rounds on staff and customers, as well as a debrief session. In the debrief, we share recognition, information and capture and assign global issues. Directors are expected to do a pre-meeting consult with the leader of the respective unit via email or in person to increase the value of their visit.

- **Clinical Manager Rounding:** Clinical Managers purposefully round on new patients to establish an interpersonal connection, reassure patients that they have a leadership resource to contact and address any service recovery needs. Service recovery categorical data is collected through the rounding and trended for resource allocation and ongoing process improvement.

- **Intentional Hourly Rounding:** In order to connect with our patients, reduce fear and proactively address needs, a member of the nursing team will round on every patient every hour.

The graph noted shows the detail of our rounding for HHC since the implementation of these follow up questions (approx. 6 months) with 68% of the noted responses stating they were visited by a nurse leader during their stay.
Patient and Family Advisory Councils: Advisory councils meet a specified frequency per year and consist of organization staff, previous customer and/or family members. The council serves to develop and sustain a positive partnership and communication structure between HHC system-wide services and the people/communities they serve. These partnerships create an opportunity for councils to provide feedback and recommendations for improvement and innovation.

The graph 2 noted shows the detail of hourly rounding for HHC since the implementation of these follow up questions with 39% of the noted responses stating they were visited hourly during their stay. (Approximately 6 months).

Patient Care Organizer: The patient care organizer is a booklet patients receive upon arrival to the hospital. This tool is used to engage our patients in their care by keeping them informed and connected before, during and after a hospitalization. The organizer offers important reference materials and serve as a health diary for people in our care. The opportunity to take notes, ask questions and have important information available in one booklet serves as a guide for treatment consistency and compliance.

This organizer received a Gold (first place) Lamplighter Award which is an award given by the New England Society of HealthCare Communications (NESHCO) and recognize the best communications work of hospitals and healthcare systems across all of the New England states.

Behavioral Health Network – Making Every Moment Matter

The Behavioral Health Network team at The Hospital of Central Connecticut is driven to take the patient experience to the next level incorporating “Discharge Celebrations” into their daily work. Working together, the treatment team, referring professional, family and patient develop an appropriate discharge and continuing care plan. The discharge plan now includes a “celebration” honoring the progress that our patients make in treatment and taking the time to recognize their growth for their continued and ongoing recovery.

The goal is threefold:
1. Appreciation for recognition from the patient
2. Ability to have a last team conversation with the patient for clarity and needs
3. Staff feeling their work is validated
Awards & Recognition

- Hartford Hospital received recognition from the American College of Surgeons (“ACS”) National Surgical Quality Improvement Program, for achieving “Meritorious” status with regard to their composite quality score in the outcome areas of: Mortality, Cardiac, Respiratory (pneumonia), Unplanned Intubation, Ventilator > 48 hours, Renal Failure, Surgical Site Infection, and Urinary Tract Infection for all Surgery cases for the Performance Period of January 1, 2016 – December 31, 2016. Hartford Hospital was recognized at the ACS Clinical Congress, held October 22-26, 2017 in San Diego, CA.

- Hartford Hospital has been verified as a Level I Trauma Center by the Verification Review Committee, of the Committee on Trauma of the ACS. This achievement recognizes Hartford Hospital trauma center’s dedication to providing optimal care for injured patients.

- Dr. Jenifer Ash, Dr. Premkumar Padmanabhan, and Julie Michaelson presented on Clinical Care Redesign for Chronic Obstructive Pulmonary Disease (COPD) Management at the New England Epic User Group conference on January 17, 2018.

- HHC’s Credentialing Verification Office achieved Lean Management Bronze Certification. The team displayed great commitment to incorporating Lean methodologies and concepts into their daily work.

- HHC was well represented at the Institute for HealthCare Improvement (“IHI”) National forum on Quality Improvement in Health Care. HHC employees will present at the annual conference held in Orlando, Florida December 10-13:
  - IHI Pre-Conference Podium Presentation
    > Wendy Martinson; HHC Center for Healthy Aging, Innovative Population Management for Older Adults.
  - IHI Walk Around Rapid Fire Focus Boards
    > Dr. Deborah Weidner; Hartford HealthCare Behavioral Health Network, East Region
      Reducing Risk: Rapid Behavioral Health Access
  - IHI Story Board Poster Presentations
    > Jo Friese; SSO Quality and Safety, Policy Management: One Role – One Methodology
    > Dr. Rehka Singh; Central Region, Chief of Surgery, Beyond ERAS
      Implementation: the Maturation Phase
    > Christine Wazynski APRN Geriatric Program/Dr. Bob Dicks Program Director Geriatric Medicine, Hartford Hospital, Delirium: An Interdisciplinary Improvement Model
    > IHI Pre-Conference Podium Presentation, Wendy Martinson; HHC Center for Healthy Aging, Innovative Population Management for Older Adults.
    > IHI Walk Around Rapid Fire Focus Boards, Dr. Deborah Weidner; Hartford HealthCare Behavioral Health Network, East Region, Reducing Risk: Rapid Behavioral Health Access
    > Kathryn Galvin, MS, MT(ASCP), CIC received the 2017 Implementation Science Abstract Award from Association for Professionals in Infection Control and Epidemiology (APIC)
• Chaplain Erica Richmond, M.Div, MA presented at the 2017 Center for Advanced Palliative Care Seminar. Her poster presentation Living on a Prayer: Miracle Language and Goals of Care was chosen from among over 100 submissions and received special recognition at the Poster Session and Reception at the national conference.

• The HHC Spine Program received Joint Commission re-certification for the eight consecutive year. At this year’s Association for Professionals in Infection Control and Epidemiology (“AIPIC”) annual conference held in Portland, Oregon June 14-16, our team members made the following presentations:
  > Contact Precautions for Colonized MRSA and VRE Patients: Are They Really Necessary?, Amanda Lester, MSN, RN, CNL and Tracy Corl, BSN, RN
  > Catheter Associated Urinary Tract Infections (CAUTIs) Through a Multi-Disciplinary Approach Implementing Skill-Based Validations, Kathryn Galvin, MS, MLS(ASCP)CM, CIC
  > 2017 winner of the Sealed Air, Diversity Care APIC Scholarship, Catheter Associated Urinary Tract Infections (CAUTIs) Through a Multi-Disciplinary Approach Implementing Skill-Based Validations

• Hartford Hospital has been re-accredited as a Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (“MBSAQIP”) Comprehensive Center by the American College of Surgeons and The American Society for Metabolic and Bariatric Surgery through March of 2020.

• The Hospital of Central Connecticut was recognized by the American Heart Association as a Gold Plus Mission: Lifeline STEMI Receiving Center. This accomplishment signifies a commitment to guideline adherence and quality improvement for the STEMI and NSTEMI patient population.

• Natchaug Hospital recently had a successful visit by the Joint Commission that will result in re-accreditation.

• Laurel Reagan, APRN: “Behavioral Health Homecare Program” accepted as a poster presentation at The Department of Medicine 2nd Annual ADVANCED PRACTITIONERS SYMPOSIUM on Friday, April 28, 2017 in the Innovation category.

• Michelle Wyman, LSW, CDP, life enrichment coach with HHC Center for Healthy Aging, received the 2016 Excellence in Caregiving Award from the Alzheimer’s Association Connecticut Chapter.

• Jefferson House in Newington, Jerome Home in New Britain, and Southington Care Center were Best Nursing Home designees by U.S. News & World Report published in the Nov. 16 issue.

• MidState Medical Center received distinction as an Optum Bariatric Center of Excellence. This accreditation requires facilities to meet clinical quality qualifications and maintain cost effectiveness for participation.

• The Ayer Neuroscience Institute’s Stroke Center team had 19 oral and poster presentations featured at the 2018 International Stroke Conference in Los Angeles, CA.

• Nationally, Hartford Hospital was re-certified as a Comprehensive Stroke Center by the Joint Commission, and both MidState Hospital and The Hospital of Central Connecticut were re-certified as Primary Stroke Centers. Backus Hospital successfully gained Primary Stroke Center certification, adding another distinguished recognition to the system.
• **Jefferson House** launched the grant-funded Tele-Rehabilitation Program under the direction of Christopher Peterson, PT, DPT, principal investigator and Tele-rehabilitation Program director, and Kathleen Sullivan, MSPT, MHA, Jefferson House director of rehabilitation and co-investigator. This is the first-ever tele-rehabilitation program in a post-acute setting in a US-based healthcare system. Dr. Courtland Lewis presented on tele-rehabilitation at Jefferson House.

• **Healthgrades** “2017 Distinguished Hospital Award for Clinical Excellence” to 258 hospitals, recognizing facilities performing in the top 5 percent nationwide based on risk-adjusted clinical outcomes for dozens of common procedures and conditions. Only 5 CT hospitals were among the 258 hospitals. Three of the five were HHC hospitals: Hartford Hospital, MidState Medical Center (“MidState”) and HOCC (St. Francis and Middlesex hospitals were the other 2).