THE JOHNS HOPKINS STRATEGIC HOSPITAL TRANSFORMATION PLAN CY16-18

Prepared for the Maryland Health Services Cost Review Commission
12/2015

Background

In December of 2009, a Johns Hopkins health system wide taskforce was created to begin to transform acute patient care delivery in order to achieve the "triple aim" of "better health, better care and lower cost." The recommendations from this taskforce were translated into the JHHS "care coordination bundle" informed by CMS demonstration projects and emerging evidence that individual interventions targeting a single aspect of care delivery tended to have limited impact on utilization rates, and that bundled interventions fostering coordinated care processes may have significant impact on care delivery, quality outcomes, and utilization. The basic premise that ALL hospitalized patients were at risk for untoward events or suboptimal transitions back to their prior setting was the foundation for the development of acute illness specific strategies included in the bundle with distinct interventions employed for those patients identified as high risk through the use of validated screening tools and other assessment methods. The model engages all healthcare providers in a "Transdisciplinary" approach to care delivery with the goal of realigning processes of care and roles around the patient and throughout the healthcare continuum while maximizing workforce synergies with intentional role blurring and increased accountability for patient outcomes.

The implementation of these strategies began in earnest in April of 2011 with the initiation of pilot units across all of the JHHS entities. Early support for approaches that were incremental to normal JHH hospital operations was funded by seed money from the HSCRC Admission/Readmission Reduction Program and subsequently sustained and grown from the attainment of a Center for Medicare Medicaid Innovation (CMMI) award that provided increased support for care coordination across the healthcare continuum. The targeted populations for intervention were ALL hospitalized patients and vulnerable Medicare and Medicaid patients from the 7 zip codes surrounding the East Baltimore and Bayview Campuses.

Over the 3 years of the CMMI award, the JHH care coordination bundle was expanded to include the majority of adult inpatients as well as outpatients served in the Emergency Department. The patient-centered care coordination concepts were embedded in the Johns Hopkins Medicine Strategic Plan and continue to be evaluated, modified and expanded as new evidence emerges and our own experience and outcomes analysis inform our strategies. The "bundle" addresses care coordination that transcends the inpatient setting and is focused on transitional care strategies to return patients to their optimal level of care.

Early Outcomes

Our experiences over the last five years in improving care delivery have yielded positive outcomes as well as helped to inform us of the challenges in implementing cross continuum care coordination processes and the identification of factors that influence the success of these strategies. Risk screening tools are highly effective, but low sensitivity requires the use of other methods to augment appropriate patient identification. Patients identified as "high risk" fit a multitude of profiles which do not necessarily suggest a specific collection of chronic conditions, socio-economic disparities, or payer, but reflect other variables not easily measured by severity of illness or other indicators available through administrative data. The definition of what constitutes "high risk" is critical in determining appropriate interventions at the right juncture in the health illness continuum. The current literature expands on the concept that the characteristics of patients most at risk for increased utilization include such factors as

patient activation and healthcare literacy, social support at home, functional status as well as type and amount of disease burden.

From FY 2014—2015, of the 44,376 JHH eligible adult discharges, almost 40% received a high intense care coordination intervention in addition to the standard care coordination bundle for all patients. Of the patients who received high intense interventions (as identified by risk), nearly 50% were Medicare, and 18% were Medicaid or Medicaid Managed care. Two of our major strategies for post-acute follow-up include post-discharge phone calls for all patients returning home (without home care), and home visits by a Registered Nurse "*Transitions Guide"* for our highest risk patients. For both of these programs, adjusted data demonstrate a significant reduction in readmissions for those who received the intervention versus those who could not be reached or refused the intervention. Propensity analyses of these interventions highlight the inherent challenges in improving readmission and utilization rates at Johns Hopkins. The variables that are associated with higher readmission rates are also the same variables that predict whether a patient will be successfully reached by one of the care coordination interventions. In other words, the precise people that we want to reach with our interventions are the patients we are least likely to reach. These results highlight the importance of patient engagement in driving change.

Moving forward—The Strategic objectives

Our work in transforming patient care delivery through a model for care coordination has yielded positive results and improved clinical outcomes in numerous domains. Both internal and external (CMS) early evaluation suggests reductions in 30 day readmissions as well as total cost of care for Medicare beneficiaries in the 90-days following discharge.

Strategies to increase acceptance for post-acute services and engagement to recommended follow-up plans are paramount to yield the desired outcomes of better health and lower utilization. Patient/family centered care requires the partnerships between patients/caregivers and providers to empower patients for shared decision making while acknowledging patient goals and preferences for treatment. While we have been able to successfully implement many of our targeted strategies for all hospitalized and high risk patients, many of our challenges are related to systemic processes that contribute to barriers for timely access to care, provider communication and handoffs, as well as the availability of appropriate community services for our high needs populations. Our strategic Johns Hopkins Hospital objectives for Calendar Year 2016 and forward are focused on the expansion of our current cross continuum care coordination model and addressing the major systemic barriers impeding our progress. These include the following and are discussed in detail in the subsequent pages.

- **Access to Urgent Care**: Provide alternatives to ED visits and/or hospitalization for the provision of services to address acute healthcare needs, bridging the service gap between the Medical Home and the Hospital
- **Care Coordination Across the Continuum**: Include care coordination services as a core component in programs that service high risk patients, including those with multiple chronic conditions, mental illness and addictions across the continuum of care.
- **Patient/family Engagement**: Enhance strategies to improve patient engagement for active participation in healthcare decisions and self-care management

- **Provider alignment**: Establish collaborations with community providers to ensure access to primary and specialty care focusing on primary prevention, healthcare maintenance, and effective management of chronic disease.

The Johns Hopkins Hospital's three-year rolling strategic plan to support care coordination and population health builds on the considerable progress that has been made in these arenas and positions the institution to meet new challenges as the role of the hospital continues to evolve. Our strategic goals are designed to sustain successful initiatives and fill gaps in the care continuum that hamper our ability to ensure seamless transitions. We will review all future plans against these objectives and will analyze data from their implementation to design programs that promote better patient outcomes. The strategic alignment of our goals to those of the State of Maryland is illustrated in **Appendix A**.

Strategic Priority #1: Access to Urgent Care

Medicaid expansion under the Affordable Care Act has added more people with complex health needs to the mix of patients seeking hospital and ambulatory care. Access to timely, appropriate and high quality urgent care is critical to optimizing health of the patients that we serve and minimizing disparities based on race/ethnicity, community of residence or economic status. Our strategies to address this challenge include linking patients to primary care, and expanding service hours to meet growing demand.

Strategies:

Timeline	
CY 16-17	**Expand service hours for the After Care Clinic** in the Johns Hopkins Outpatient Center. The multidisciplinary clinic provides a safety net for patients discharged from the hospital or Emergency Department who need rapid follow-up but cannot secure appointments within the necessary timeframe. The goal of the ACC is to serve as a bridge for these patients – offering a setting where they can be assessed, treated and transitioned into primary-care networks. Our business plan outlines moving the clinic from a pilot stage to a full-time operation w/ combination of day-time and evening hours- which includes dedicated staff (FT and/or protected time for providers and staff to cover expanded clinic times). With expansion, explore feasibility of accepting later day/next day appointments for patients triaged through ED.
	Target population: Patients discharged from the hospital or emergency department who need rapid follow-up but cannot secure an appointment with primary care within the necessary time frame.
	Outcome Measures: Reduce potentially avoidable hospital utilization; both ED visits and inpatient stays. Early data suggests that we are achieving this goal. Number of clinic visits, billed charges, accounts receivable and total operating expenses.
	Financial Sustainability: HSCRC Care Coordination Infrastructure investment, billed charges for clinic services.

Timeline	
CY 16	**Explore urgent care center development** - Conduct a feasibility study to examine creation of (solely or in partnership with an outside organization) an urgent care center to support the JHH campus – whether freestanding, embedded in another office/site, or mobile.
CY16-18	**Same- day Ambulatory Infusion Services:** Expand capacity to accept same day appointed infusions/injections in the Johns Hopkins Hospital Outpatient Infusion Center. Capacity will continue to expand when construction is completed on the new Infusion Center to be located in the former Pediatric Emergency Department space in CY 16.
	Target population: Adults needing intravenous infusion therapy and injections according to established protocols or physician orders.
	Outcome Measures: Reduce potentially avoidable hospital utilization; both ED visits and inpatient stays. Number of clinic visits, billed charges, accounts receivable and total operating expenses.
	Financial Sustainability: HSCRC Care Coordination Infrastructure investment, billed charges for clinic services.
CY17-18	**Expand service hours for Oncology urgent care**. The Oncology Urgent/Acute Care Clinic (OUACC) in The Johns Hopkins Sidney Kimmel Cancer Center was established approximately two years ago with the goals of: reducing emergency room visits; reducing one- and two-day lengths of stay; reducing avoidable admissions; preparing patients for admission while waiting for beds to be available. The OUACC provides rapid assessments and interventions for Oncology patients experiencing acute side effects of treatments and/or their underlying diseases. The Clinic is staffed by a nurse practitioner (NP) and physician's assistant (PA), Infusion Center RNs, and a Clinical Technician. Following assessments and emergent interventions, the NP/PA collaborates with the patients' primary oncologists to develop follow-up plans of care. The OUACC's capacity is limited to six or seven patients at one time, occasionally resulting in an inability to accept all patients who need to be seen in the Clinic. An average of 8 to 10; often 12-15 patients are seen each day, and the average time in the Clinic is 3.5 hours. The vast majority (81%) of patients are discharged home; 18.3% are admitted. To accommodate growing demand, the Clinic proposes to expand hours of operation from 5 to 6 days a week (8:00 AM to 8:00 PM). The ultimate goal is for the Clinic to be open 24 hours each day, seven days a week.
	Target population: Adult oncology patients experiencing acute side effects of treatments and/or underlying diseases.
	Outcome Measures: Reduce potentially avoidable hospital utilization; both ED visits and inpatient stays. Inpatient length of stay, Number of clinic visits.
	Financial Sustainability: HSCRC Care Coordination Infrastructure investment, billed charges for clinic services, accounts receivable and operating costs.

Strategic Priority #2 Care Coordination across Care Settings

A bundle of evidenced-based transitional care strategies paired with a multidisciplinary team of embedded staff across the continuum of care are key ingredients in our recipe to improve health outcomes and reduce potentially avoidable utilization.

Strategies:

Timeline	
CY 16	**Expand Care Coordination "Bundle" (Appendix B)** Continue the work to scale and spread the Care Coordination Bundle across the institution, implementing programs to include: discharge phone calls, transition guides, Bridge to Home/Health Buddy, bedside delivery of prescriptions at discharge, and web-based patient/family education library in remaining units and enhancing services already deployed.
	Target population: Patients discharged from the hospital or Emergency Department
	Outcome Measures: Reduce potentially avoidable hospital utilization; both ED visits and inpatient stays. Number of patients received transitional care services, number of patients receiving filled prescriptions at discharge, number of patients completing interactive patient's education modules, number of patients identifying a health buddy.
	Financial Sustainability: HSCRC Care Coordination Infrastructure investment.
CY16-18	**Embed Community Health Worker/Navigator Function in Emergency Department (ED) (Regional Partnership Initiative)** Develop Community Health Worker/Neighborhood Navigator function in collaboration with community-based organizations and embed in ED to provide real-time referral/"hand-offs" for high-risk/high-utilizer patients requiring post-visit support for up to 60 days. The program proposes to use CHWs to connect unaffiliated patients with medical homes, promote primary care and help vulnerable patients address barriers to care.
	Target population: Adult patients evaluated and treated in the ED.
	Outcome Measures: Reduce potentially avoidable hospital utilization; both ED visits and inpatient stays. Number of patients served.
	Financial Sustainability: HSCRC Regional Partnership Implementation Grant
CY16-18	**Develop Expedited Consults for Psychiatry/Substance Use** – Expand consultative services for Psychiatry and substance abuse to enable timely consultations (inpatient and ED) for patients requiring assessment and complex care planning. Research indicates that better integration of behavioral health care into the broader health continuum can have a positive impact on quality, costs and outcomes.

	Target population: Adult patients with mental health condition and/or substance abuse disorder
	Outcome Measures: Reduce potentially avoidable hospital utilization; both ED visits and inpatient stays. Number of patients served
	Financial Sustainability: HSCRC Care Coordination Infrastructure investment
CY 16-18	**Skilled Nurse Collaborative (Regional Partnership Initiative)** Scale and spread the Skilled Nursing Collaborative to Skilled Nursing Facilities utilized by regional partner hospitals to create a Preferred Provider Network that capitalizes on best-practices for handoffs, reduces variation in care management and fosters care coordination across the continuum of care.
	Target Population: Patients discharged to participating Skilled Nursing Facilities
	Outcome Measures: Readmission rate, ED visit rate, protocol adherence
	Financial Sustainability : HSCRC Regional Partnership Implementation Grant

Strategic Priority #3 Patient/Family Engagement

Patients' knowledge, skills, and confidence to take on a greater role in their health care are a barometer to measure the quality of our health care delivery system. Our strategies help to equip patients and families as well as the health care team with the necessary knowledge and capacity to participate in self-care management.

Strategies:

Timeline	
CY16-18	**Bridge to Home/Health Buddy Initiative** –A program is designed to support patient education, self-care management and safe transitions from hospital to home using a resource kit and instructional materials for the Health Buddy Initiative. A Health Buddy is someone the patient chooses to provide them with extra support when they leave the hospital or visit their provider. Since inception of the program in 2014, over 639 buddies have been identified. We plan to scale and spread this initiative across the Hospital and expand to outpatient practice sites.
	Target population: Adult discharges from JHH or seen in JH clinic sites
	Outcome Measures: Number of Health Buddies identified

Timeline	
CY 16-18	**Johns Hopkins Medicine Center for Patient & Family Education** – In a continuation of the work begun by the JHM Patient/Family Education Steering Committee, the organization will create a "Center for Patient and Family Education" to lead and direct activities within this critical domain. Under the auspices of a Senior Director, the Center will coordinate the work of groups throughout the JHM enterprise, ensuring adherence to best practices with regard to literacy, adult learning needs, and teaching modalities as well as consistency of content throughout the care continuum. Preliminary goals include identifying common content vendors as well as establishing processes for vetting home-grown material and creating a common library.
	Target population: All patients seen at JHH or its outpatient clinics
CY 16-18	**Implement Patient Engagement Training (PET)/Mental Health First Aid (Regional Partnership Initiative)** Research has shown that hospitals that implement training programs to increase patient engagement and activation observe improved patient experience and reduce preventable utilization. Mental Health First Aid helps providers and staff assist someone experiencing a mental health related crisis. In the Mental Health First Aid course trainees learn risk factors and warning signs for mental health and addiction concerns, strategies for how to help someone in both crisis and non-crisis situations, and where to turn for help. We plan to scale and spread the programs developed under Johns Hopkins Community Health Partnership to collaborating providers within our Regional Partnership and incorporate this skillset as part of orientation and ongoing assessments.
	Target population: Providers and staff at JHH, and across collaborating regional partners
	Outcome Measures: Reduce potentially avoidable hospital utilization; both ED visits and inpatient stays. Number of patient's completion interactive patient education modules.
	Financial Sustainability: HSCRC Regional Partnership Implementation Grant
CY 17-18	**Explore opportunities to provide early access to rehabilitation in the Emergency Department.** Nationally, physical therapists have been embedded within the emergency department to expedite access and throughput for patients with musculoskeletal injury, balance and vestibular disorder and general mobility issues to enhance patients' capacity for self-care management. We plan to pilot this model in our ED Department as a proof of concept model of care and scale and spread the intervention based on program evaluation.
	Target Population: Adult patients evaluated in the Emergency Department at JHH
	Outcome Measures: ED capacity and wait times, patient cost, prevention of hospital admission, LOS of admitted patients
	Financial Sustainability: HSCRC Care Coordination Infrastructure investment, billed charges for consultation

Strategic Priority #4 Provider Alignment

Collaborations with community providers and our Accountable Care Organization to promote access to primary and specialty care and alternative payments models that reward value is the focus behind our provider alignment strategies.

Strategies:

Timeline	
CY 16-18	**Build capacity for open-access or same day appointments with Primary Care providers** Work in collaboration with our accountable care organization, Johns Hopkins Medicine Alliance for Patients (JMAP) to explore options to increase daily capacity on physicians schedules and /or reduce the backlog of appointments at Johns Hopkins Medicine and and Johns Hopkins Community Physicians.
CY16-18	**Target Population:** Patients receiving care at Johns Hopkins Medicine and/or Johns Hopkins Community Physicians practice sites.
	Outcome Measures: Potentially avoidable hospital utilization; both ED visits and inpatient stays. Number of appointment scheduled, appointment wait time, CAHP scores.
	Financial Sustainability: Billed charges for clinic care
CY 16-17	**Launch web-based appointment scheduling tool in Epic Mychart** to allow patients to self-schedule their appointments. It has been reported that no-shows are dramatically reduced and patient experience scores improved when patients are able to self-schedule their appointments.
	Target population: Adult patients in primary care at JHCP sites
	Outcome Measures: Potentially avoidable hospital utilization; both ED visits and inpatient stays. Number of appointments scheduled/completed, CAHP scores
	Financial Sustainability: Billed charges for clinic care

Timeline	
CY16-18	**Create Primary Care Hub- (Regional Partnership Initiative)** The Community Hub will be a community based, community placed intervention team made up of a Primary Care Provider, a lead social worker (LCSW), a Nurse (RN), a Psychiatrist, and a peer support specialist. The main purpose of the Community Hub will be to manage and coordinate the short-term health needs of Medicare high utilizers across the region who are currently not connected into appropriate care and to help facilitate positive relationships between these individuals and a primary care team who can meet their needs longer term, particularly for those individuals for whom quick connections into primary care are not possible. Given the high prevalence of poverty and social challenges in the Johns Hopkins Regional Partnership zip codes, this team will also work closely with community partner organizations to focus on connecting these individuals to needed community services such as housing, transportation, and food assistance.
	Target population: Medicare and Dual-eligible beneficiaries in target zip codes with behavioral health and substance abuse disorders
	Outcome Measures: Potentially avoidable hospital utilization; both ED visits and inpatient stays. Medicare care management benefit
	Sustainability: HSCRC Regional Partnership Implementation Grant
CY 16-17	**Optimize Access to Specialty Care** – Long waits for specialty care/testing has been identified as a contributing factor to potentially avoidable ED visits. Work with Johns Hopkins Community Physicians to explore feasibility of creating a similar specialty access program developed within the Johns Hopkins Medicine Alliance for Patients (JMAP) for select high-risk patients who may otherwise be sent to the ED as a pathway to specialty care.
	Target population: Patients seeking specialty care appointments with JHM providers
	Outcome Measures: Number of specialty appointments scheduled, wait time for appointment
	Financial Sustainability: Billed charges for clinic care

Conclusion

The Johns Hopkins Hospital is uniquely positioned to succeed in the continually evolving landscape that is health care today and become a model for academic medical centers in Maryland. The old hospital model, in which the economics of health care were largely based on serving those who are acutely ill, is no longer viable. The “Future” is a hospital model growing from the need to serve the community across the care continuum as a place of healing, with a culture of safety, quality, efficiency and financial stewardship. In proactively addressing these priorities, The Johns Hopkins Hospital is at the forefront in reimagining the role of the modern academic medical center in the 21st century.