Kansas Delivery System Reform Incentive Payment (DSRIP) Pool
Hospital DSRIP Plan

Project Title:

Implementation of the Beacon Program to Improve Coordinated Care for Kansas Children with Medical Complexity (CMC)

Hospital Demographics Information

Date:	December 17, 2014	
Hospital Name:	Children's Mercy Hospital & Clinics	
Medicaid Number:	Main Facility	100080290A
	South Campus	100080290B
	Prof Group	100080290H
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Background

Summary of Hospital's Community Context:

The mission of Children's Mercy Hospital of Kansas City ("Children's Mercy") is to improve the health and well-being of children by providing the highest level of comprehensive, family-centered healthcare and by committing to excellence in research, academics and service. Our vision is to become a national and international leader recognized for advancing pediatric health through innovation and high-value, integrated care.

Since 1897, Children's Mercy has provided high quality clinical and psychosocial care for children and families in our region, regardless of their ability to pay. In FY2013, the amount of uncompensated care totaled more than $135 million, which includes charity care, unreimbursed Medicaid[1], and other means-tested government programs, and subsidized health services. *As the shift continues from acutely ill healthy kids to Children with Medical Complexity (CMC) in the inpatient setting; the strain on the Medicaid and safety net system increases.* Indeed, a key challenge for the state of Kansas is a rapidly growing population of CMC; a population which generally lacks access to high quality care and primary care services. This problem is compounded in rural settings, abundant in Kansas, given that access to primary care services for CMC and their families is extremely limited.

Children's Mercy has a tremendous impact on improving access and quality of healthcare to Kansas kids. For example, in FY 2013, Children's Mercy treated children from all 105 counties in Kansas. Within that same year, approximately 37% of the patient visits to Children's Mercy were from Kansas residents. Of those Kansas children treated at Children's Mercy, 40% were Kansas Medicaid recipients.

While providing quality medical care for sick and injured children has long been a core to Children's Mercy's mission, the rising demands placed on the healthcare system due to increasing levels of uncompensated and unreimbursed care have led to a situation that is not sustainable. Further implementation of the Beacon Program with expanded services and benefits for Kansas Medicaid children provides a unique solution to Kansas' challenge.

Children's Mercy's Beacon Program

Children's Mercy has been committed to providing a coordinated program or medical home for CMC, and the knowledge and experience gained in providing this care has culminated in the current Beacon Program. The Medical Coordination Program (MCP) represented an initial exploratory program and was limited to a consultation visit only, performed once annually, for patients whose primary care was the Pediatric Care Clinic (PCC). The MCP experience yielded knowledge about the resources required to provide service beyond the annual visit and to accept referrals from beyond the PCC and expand the number of patients it would be able to serve.

[1] "Unreimbursed" is the shortfall created when the amount paid by the government-sponsored program is less than the hospital's cost to care for that patient.

In light of a number of external factors, including the DSRIP initiatives, Children's Mercy began exploring new and expanded services to coordinate care for CMC. Over the years, Children's Mercy continued to learn the components necessary for a successful medical home and care coordination program. Based on this experience, Beacon began to formalize with the addition of staff and resources in July 2013. Beacon's staff in late 2013 was comprised primarily of partial FTE's pulled from other clinics within the PCC, rather than a set of dedicated full time health care providers. In October 2013, Beacon designated its first patient. Despite a one-year delay in DSRIP implementation, Children's Mercy continued to develop plans and processes to prepare for Beacon's expansion of its patient population throughout 2014, including chiefly Missouri Medicaid patients seen by other healthcare teams at the PCC. Currently, the Beacon Program is an independent, primary care, medical home for children with medically complex problems and their siblings. Beacon employs dedicated staff to communicate and coordinate with specialists in the medical neighborhood in order to provide the highest level of coordinated care, for the highest value, to these most medically fragile patients. As of December 2014, all patients enrolled in the Program reside in the greater Kansas City area, with 63 patients from Kansas.

Describe the Hospital's Patient Population:

Children's Mercy provides comprehensive, family-centered health care to the children of Kansas and Missouri. Medicaid represents 51% of our annual patient revenue. Children from 44 states accessed services at Children's Mercy in FY13, with more than 14,000 inpatient admissions. During that year, Children's Mercy documented approximately 350,000 clinic and urgent care visits and more than 100,000 emergency room visits.

The greatest population growth and highest resource utilization is occurring among children with life-long chronic conditions that affect more than two organ systems, or are complex, or progressive in nature, or are more severe conditions that have related co-morbidities or are progressive in nature, leading to worsening debility and health. Examples of the children that the Beacon Program is designed to manage and provide care for include children with more than one of the following: cerebral palsy, major congenital heart disease, diabetes, and coagulation disorders. Children with multiple illnesses like these represent some of the patient population with the highest level of complexity in Children and Youth with Special Health Care Needs (CYSHCN) and fits squarely into the category of Children with Medical Complexity (CMC). These patients are defined as children who "have medical fragility and intensive care needs that are not easily met by existing health care models. CMC may have a congenital or acquired multisystem disease, a severe neurologic condition with marked functional impairment, and/or technology dependence for activities of daily living."[2]

Children with Medical Complexity, while heavily concentrated in urban areas (approximately 82% (11,592) of Children's Mercy's inpatient discharges in 2012 were to urban locations), still have a presence in the rural communities. Indeed, nearly 18% (2,552) of Children's Mercy's discharges of CMC were to rural communities.[3] Expanding access to the Beacon Program to

[2] Eyal Cohen, Dennis Z. Kuo, Rishi Agrawal, Jay G. Berry, Santi K. M. Bhagat, Tamara D. Simon and Rajendu Srivastava. (2011). Children With Medical Complexity: An Emerging Population for Clinical and Research Initiatives. *Pediatrics* 127(3): 529 -538.

[3] Children's Hospital Association / Children's Mercy Pediatric Health Information System (PHIS) data (2011-2012). Confidential.

these more remote locations for Kansas Medicaid patients will better support community-based primary care for those children and families.

For Children's Mercy, over 50% of the inpatient charges are attributed to life-long chronic patients with two or more body systems affected, although these patients represent only 15% of the inpatient population. A relatively small group of patients represent a significant portion of costs in the inpatient setting. Therefore, improving care coordination and medical home interventions (central tenets of the Beacon Program) with this population is crucial for success in efficient and effective resource utilization.

Describe the Hospital's Health System:

Children's Mercy is the only ternary care pediatric health system with the ability and capacity to serve CMC between St. Louis and Denver. With more than 450 physicians and nearly 7,000 other employees, Children's Mercy operates its hospitals on two campuses: the main campus (Adele Hall Campus) located on Hospital Hill near downtown Kansas City and the south campus (Children's Mercy South) in Overland Park, Kansas. Children's Mercy also operates six ambulatory care centers in the Kansas City Metro Area; specifically, Children's Mercy Northland (Kansas City, Missouri); Children's Mercy East (Independence, Missouri); Children's Mercy West (Kansas City, Kansas); Children's Mercy Clinics on Broadway (Kansas City, MO); Children's Mercy College Boulevard (Overland Park, Kansas); and Children's Mercy Blue Valley (Overland Park, Kansas).

The following is a list of Children's Mercy's specialty and outreach clinic locations throughout its expansive service area:

- Great Bend, Kansas
- Junction City, Kansas
- Parsons, Kansas
- Pittsburg, Kansas
- Salina, Kansas
- Wichita, Kansas
- Joplin, Missouri
- St. Joseph, Missouri
- Springfield, Missouri

Challenges Facing the Hospital:

There has not been a medical home in the Kansas City region dedicated exclusively to children with medical complexity. Children's Mercy recognized the need for a medical home for children with complex and chronic conditions as a top priority in the institution's strategic plan in 2014, part of our commitment quality outcomes. Additionally, Children's Mercy has recognized this need as one that would benefit greatly from the Triple Aim (better experience for patients, better health for populations, and decreased costs per capita) of providing improved health outcomes and patient experience at a decreased per capita cost.

Recent studies document *a population shift in relation to inpatient care* at Child Health Corporation of America (CHCA) Hospitals. More children with chronic, complex conditions

(CCC) are being hospitalized, while fewer "healthy" children are being admitted with acute illnesses.[4]

Pediatric Health Information System (PHIS) data from 2004 to 2009 was reviewed to identify exactly which patient groups are increasing in volume and use of inpatient resources. The team used Clinical Risk Groups (CRGs), a pediatric risk-adjustment methodology, developed by the National Association of Children's Hospitals and Related Institutions (NACHRI), and 3M to classify each patient into a single group based on hospitalizations over a four-year period. This CHCA report became available to Children's Mercy in 2011. Aggregate data from CHCA Hospitals revealed that the greatest population growth and highest resource utilization is occurring among children with life-long chronic conditions that affect more than two organ systems, or are complex, or progressive in nature, or are severe conditions with related co-morbidities or are progressive in nature, leading to worsening debility and health. This population is defined as children who "have medical fragility and intensive care needs that are not easily met by existing health care models.

For most CHCA Hospitals, as is the case for Children's Mercy, the smaller proportion of complex children are responsible for more charges than the larger group of "not chronic" children. Again, in 2010 we found that over 50% of the inpatient charges were attributed to the life-long chronic patients with two or more body systems affected, although they represented only 15% of the inpatient population. Of those admitted in 2010, approximately 70% of the children 19 years or older were Youth with Special Health Care Needs (YSHCN) who had lifelong chronic conditions in two or more body systems, highlighting the need for transition to adult care for these patients. Nationwide, there remains a critical need for effective strategies, such as Beacon, to better manage CMC at pediatric institutions. It is widely recognized that meeting this need for children and adolescents could ultimately result in reducing costs in the adult institutions that will be providing care for this same kids after transition.

Project Title:

Implementation of the Beacon Program to Improve Coordinated Care for Kansas Children with Medical Complexity (CMC)

Goals of DSRIP Plan:

Implement and expand the Children's Mercy's outpatient primary care center (the Beacon Program) to provide regional comprehensive care coordination for Kansas Children with Medical Complexity.

Other Hospital Initiatives funded by Health and Human Services:

Attached hereto is **Exhibit 1** which provides a full listing of current Health and Human Services funding to Children's Mercy Hospital. Children's Mercy was informed in September, 2014 that

[4] Feudtner C, Hays RM, Hayne G, Geyer JR, Neff JM, Koepsell TD. Deaths Attributed to Pediatric Complex Chronic Conditions: National Trends and Implications for Supportive Care Services. *Pediatrics.* 2001; 107:e99.

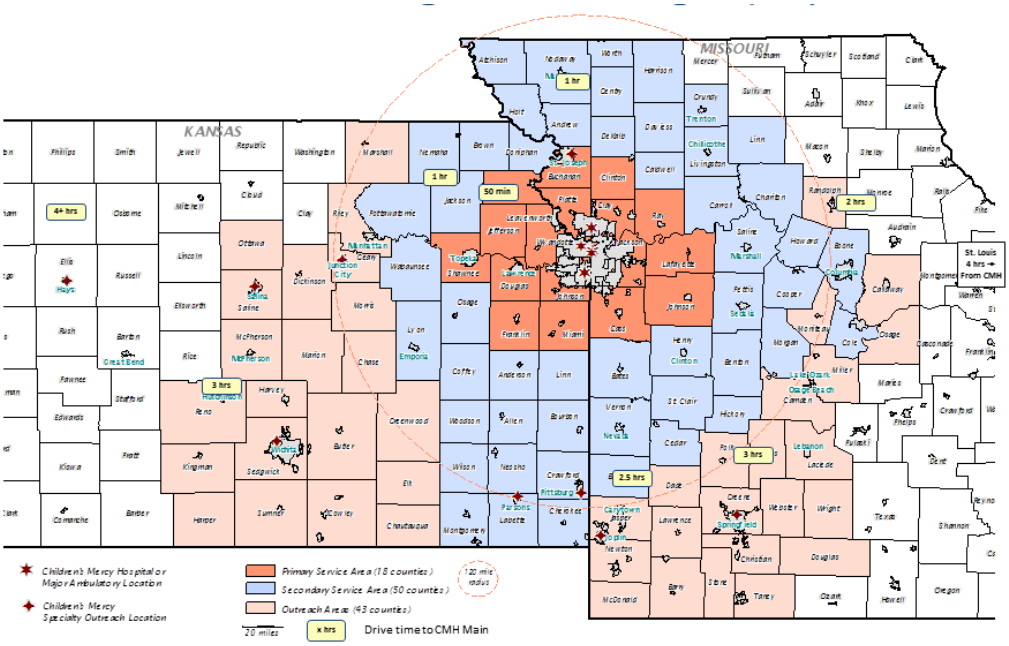
the Children's Hospital Association (CHA) was awarded funding (from the Center for Medicare and Medicaid Innovation) for its Coordinating All Resources Effectively (CARE) proposal. To date, Children's Mercy has not been informed about the amount of funding it will receive in order to further implement the Beacon Program in Missouri. However, we have provided (in the Project Budget Section and Exhibit 2) the budget for this project which provides an allocation, by State, of costs attributable to the Beacon Program.

Hospital Service Area Definition:

Children's Mercy uses varying definitions of service areas that depend upon the clinical service or patient population being discussed. The Primary Service Area (PSA) is comprised of 18 counties surrounding the Kansas City Metropolitan Statistical Area. The pediatric population in our PSA includes approximately 630,000 children ages 0-17. Included within this PSA is the six county Kansas City metro, which includes approximately 470,000 children ages 0-17. These six counties are located in both Missouri (four counties) and Kansas (two counties).

A Secondary Service Area (SSA) is used when focusing on regional services. The SSA includes 50 counties in Missouri and Kansas that form a radius of approximately 120 miles around Children's Mercy Hospital-Adele Hall Campus. The pediatric population in our SSA is comprised of an additional 220,000 children ages 0-17 beyond the population of our PSA. Approximately 20% (2,552) of Children's Mercy's inpatient discharges of CMC were to rural locations. Nearly 50% of those discharges were to locations greater than 100 miles from Children's Mercy's Hospital-Adele Hall Campus. Expansion of Beacon's consultative services and more effective connections to rural, community-based primary care providers will better serve CMC and their families living in these remote areas. Figure 1 below is a geographical depiction of Children's Mercy's broad service area.

Figure 1:



Community Partners Participating in Project:

Given the extensive needs of children with medical complexity, many community partners work collaboratively with us to support our patients in the community. One key measure of a high performing Patient Centered Medical Home is the success of that practice or clinic in supporting patients who need access to community resources. Children with Medical Complexity seen by the Beacon Program require significant resources outside of the walls of the clinic and hosptial. To meet the need, the Beacon Program works regularly with the the following community agencies and healthcare institutions in Kansas:

- Local and regional school districts
- Infant Toddler Program
- Private duty nursing, home health and palliative care agencies
- Kansas City Regional Office
- The Rehabilitation Institute of KC
- Kansas Managed Care Medicaid Case Managers
- Children's Center for the Visually Impaired
- Kansas Services for CYSHCN (services to disabled children ages 3-21)
- Kansas' Legal Aid Referral Program (Partnership with Children's Mercy and Legal Aid)
- Children's Therapeutic Learning Center (TLC)
- Department of Health and Human Services
- Families Together (Kansas)
- Department of Elementary and Secondary Education

Project Description

Identification of Need for Projects

Provide data driven evidence that this is a relevant goal for the hospital and the community. Demonstrate Category 3 metrics align with community needs and these areas have room for improvement:

The federal Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration (HRSA) defines children and youth with special health care needs (CYSHCN) as those who have, or are at increased risk for, chronic physical, developmental, behavioral, or emotional conditions and who require health and related services of a type or amount beyond that required by children in general. The evidence and data supporting improved provision of care for CYSHCN and effective strategies for providing that care is as follows:

1. The Kansas Maternal and Child Health 2015 Needs Assessment[5] (Needs Assessment) has a section dedicated to CYSHCN. The 2005/2006 National Survey of Children with Special Health Care needs represented 16% of all Kansas children younger than 18 years of age, approximately *112,000 children*. The 2007 National Survey of Child Health determined that 69.3% of Kansas CYSHCN's overall health was rated as good or excellent; far below that of 88.0% for non-CYSHCN. Oral health also ranked lower for CYSHCN when compared with non-CYSHCN. The survey indicates that 67.7% versus 72.3 Children with Medical Complexity of course

[5] Kansas Maternal and Child Health 5-year Need Assessment; http://www.kdheks.gov/c-f/downloads/MCH_2015_Summary.pdf

represent a subset of CYSHCN. However, as the Needs Assessment shows, there is significant room for improvement in the larger populations overall health status. The Beacon Program's patient and family-centered approach is designed to meet the needs of this population, producing better health outcomes for CMC.

The Needs Assessment lists potential priority issues for CYSHCN that include access to care, family-centered care, medical home, and transition. Current CYSHCN priority strategies for Kansas include:

- **Priority #1**: All CYSHCN receive coordinated, comprehensive care within a medical home.
    - Strategy 1.1: Inform, educate, and involve families and providers about medical home components and initiatives to promote effective and successful systems change
    - Strategy 1.2: Mobilize community partnerships (between policymakers, healthcare providers, families, and the public) by coordinating services for eligible CYSHCN and linking children and families to providers and community services/resources
- **Priority #2**: Improve the capacity of CYSHCN to achieve maximum potential in all aspects of adult life, including appropriate health care, meaningful work, and self-determined independence
    - Strategy 2.1: Enhance community partnerships by identifying community resources, integrating service delivery systems, and streamlining the transition process for children and youth
    - Strategy 2.2: Inform and educate children, youth, and families about available transition services and about where and how to access these services
- **Priority #3**: Financing for CYSHCN services minimizes financial hardship for their families
    - Strategy 3.1: Link families to providers who are contracted with or referred by the CYSHCN program and accept negotiated reimbursement rates
    - Strategy 3.2: Ensure that CYSHCN Clinic/Field staff assists families in applying for and maximizing benefit of funding sources and family supports
    - Strategy 3.3: Support expansion of primary and specialty care services to minimize travel time and missed work/school days

Beacon offers a number of strategies designed to meet the challenges outlined in these Priority Areas. Beacon will transform the Program via the PCMH recognition process which will, in turn, support nearly all of the strategies listed above. Further, the Beacon Program provides value by making its operational process and structures more readily available for Kansas CMC. These include optimal processes relating to better access to and coordination of care, including availability of appointments and, access to a primary care provider, referrals, and consults.

Access to Beacon's Services

A variety of appointment types are available for Beacon patients. All patients in Beacon receive well child check-ups per the American Academy of Pediatrics Bright Futures guidelines. Additional appointments are available for urgent and non-urgent ill appointments. Urgent ill needs are triaged by the nurse practitioner case manager. The nurse practitioner case manager either gives home care recommendations, or schedules the patient for a same-day appointment. Since a key outcome measure of this DSRIP Plan is to reduce emergency room utilization, primary, secondary, and tertiary plans are in place for scheduling same day urgent ill appointments. Non-urgent appointments, such as hospital follow-ups or weight checks, can also be scheduled same day. In addition to these regular primary and continuing care types of appointments, the complex Beacon patients are also scheduled for a two hour, initial visit, called a Health and Service Evaluation (H&S). This annual visit is used to summarize all care during the past year, ensure appropriate follow-up, and make a comprehensive care plan for the next year. All Beacon patients will receive an annual Health and Service Evaluation. When necessary, some patients are given a one hour new patient appointment for urgent needs to be addressed, prior to their initial Health and Service Evaluation.

In addition to having access to a primary care provider during daytime hours, all Beacon patients are offered access to their primary care provider via email and Children's Mercy's patient portal. Families sign consent forms if they elect to participate. Email access is provided only for Beacon patients, and is not available for patients seen in the Children's Mercy Pediatric Care Clinic (PCC). After normal business hours, Beacon providers take patient and families calls, to ensure that the person providing recommendations is familiar with the child and his or her baseline and history. The PCC uses a general nurse line for on-call after hour triage. The illness protocols used by these nurses would normally send the vast majority of complex patients to the emergency room; due to the fact the baseline vital signs and symptoms are abnormal for typical healthy or well children. However, the availability and responsiveness of a Beacon physician/advanced practice nurse practitioner who is experienced and comfortable with the care of children with medical complexity allows for more of these patients to be cared for via phone or an office visit the next day, thus decreasing emergency room utilization and overall cost of caring for this population. Such interventions also decrease the risk of iatrogenic exposure to illness in the emergency room. Anecdotal parent and family satisfaction with this process is significant.

Beacon providers are also available for inpatient consults for coordination of care at Children's Mercy as needed on existing patients. Additionally, the Beacon providers visit any Beacon patient who is inpatient to assist with care coordination and facilitation of outpatient care plans while inpatient at our hospitals, while also planning for discharge and follow-up outpatient visits. Since the Beacon providers know all Beacon patients well, they facilitate earlier discharges, sometimes when the patient is still on oxygen or still advancing feeds. In a typical inpatient setting, this kind of planning would not be considered. With the Beacon provider's knowledge and close follow-up with patient and families, such planning not only increases patient and family satisfaction, but also decreases overall lengths of stay and ultimately the costs to the system.

Beacon Referrals

In the beginning of 2014, referrals were accepted to the Beacon Program only from PCC providers. In the summer and fall of 2014, after rather extensive external and internal communication campaigns, referrals were accepted from any healthcare provider within the Children's Mercy system and then from primary care providers in the community. However, all patients accepted in 2014 were accepted with the understanding that Beacon would be their primary care provider.

If a patient has an existing primary care provider, then the referral to Beacon must come from that primary care provider. If the family or another healthcare provider believes that Beacon is a good option for the child, then that provider and/or the family needs to broach the topic with the primary care provider. The primary care provider then fills out the paperwork on the Beacon website for a patient "with an existing PCP."

If a patient does not have an existing primary care provider, then the referral to Beacon can come from any healthcare provider within or outside the Children's Mercy Hospital's system. An example would be a patient with a ventilator and feeding tube who has moved from another state to Kansas City and presents to the emergency room for care and does not yet have a primary care provider in the area. The healthcare provider then fills out the paperwork on the Beacon website for a patient "with no PCP." We do not accept self-referrals from families alone.

Development and Implementation of Beacon Consults

The Beacon Program is still working to establish the procedures and processes to best provide primary care to complex patients. A goal of the Program has always been to expand to more remote areas and to support existing community primary care providers in caring for complex patients where they live. These are what we deem "Beacon consults."

In this role, the Beacon primary care provider does not assume the primary care role for these patients. The referrals for "Beacon consults" come from remote community primary care providers. With acceptance of a Beacon consult patient, the Beacon team will perform a two-hour, Health and Service Evaluation to summarize all care in the past year, ensure appropriate follow-up, and make a comprehensive care plan for the next year. This plan is then delivered to the community primary care provider for implementation over the next year. Consult patients receive an annual Health and Service Evaluation. This evaluation can be performed with telehealth technology to prevent the need for the family to travel a long distance to Children's Mercy from remote locations.

Beacon consult families do not have access to the Beacon providers via phone or email, during the day or after hours. However, the Beacon consult patients' community provider does have access to the Beacon providers via phone or email, during the day or after hours. This will help support the patient and the provider while keeping their care in their local community. It also does not usurp the role of the local primary care provider, but rather augments their care. If a Beacon consult patient is admitted to a Children's Mercy Hospital, Beacon providers will provide inpatient consultative services for them, assist with care coordination, and facilitate the

outpatient care plan for discharge and follow-up with their community primary care provider as an outpatient.

Children's Mercy has an existing telehealth location in Wichita, Kansas. Thus, when the consultation piece of the Beacon Program is started, referrals will be accepted from any community primary care provider in the state of Kansas, whose patient is willing to go to Wichita for the annual Health and Service Evaluation. Wichita was selected due to its existing telehealth structure and its central location for many other rural Kansas communities.

2. In response to *Healthy People 2010*[6], the national health care agenda for the United States of America, the federal MCHB has identified six key outcomes for CYSHCN and their families. These six outcomes and the percent of CYSHCN in Kansas achieving these outcome measures for 2005-2006 are as follows[7]:

1. Families of CYSHCN will participate in decision making at all levels and will be satisfied with the services they receive. **65.6%**
2. CYSHCN will receive ongoing, comprehensive care within a Medical Home. **55.3%**
3. CYSHCN will have adequate private and/or public insurance to pay for the services they need. **62.9%**
4. Children will be screened early and continuously for special health care needs. **68.5%**
5. Services for CYSHCN and their families will be organized in ways that families can use them easily. **92.5%**
6. Youth with special health care needs will receive the services necessary to make appropriate transitions to all aspects of adult life, including adult health care, work, and independence. **50.3%**

3. Family-centered care is a viable strategy to improve care for CYSHCN. This care identifies additional needs in subgroups of CYSHCN that must be addressed. The family-centered care outcome measure was achieved far more often for younger versus older CYSHCN (71.2% vs. 62.4%). Those without a medical home were half as likely to be satisfied with partnered decision-making (41.4% vs. 86.8%). CYSHCN in the 0-5 age range achieved early and continuous screening 52.9% of the time. And only 34.6% of Kansas YSHCN without a medical home received services necessary for transition, though this population represents a higher percentage of CYSHCN and is growing. For example, CYSHCN prevalence in Kansas by age group (2005-2006) was 0-5 years (10.3%), 6-11 years (17.3%), and 12-17 years (20.3%). Finally, financial or employment problems for Kansas parents of CYSHCN are present in 21.4%, according to the 2007 National Survey of Child Health for children ages 0-5 years. Of these families, 20.1% were forced to cut back or stop working to care for their child's needs. These numbers show a great need for constructing a Patient Centered Medical Home (PCMH) in order to care for Kansas' population of Children with Medical Complexity. The value of the medical

[6] *Healthy People 2010*, available at http://www.healthypeople.gov/2010/redirect.aspx?url=/2010/.
[7] Healthy Kansans 2020, available at http://healthykansans2020.org/KHAIP/Health-Assessment-Section-10.pdf.

home is that it drives higher patient engagement and satisfaction, and pediatric patients are more likely to transition to adult services more successfully.

4. Children's Mercy has further assessed the magnitude of need using additional data sources and metrics. The Beacon Program has also analyzed the CMC population using other categorization sources. For example, Feudtner, et al. constructed a scheme of Chronic Complex Conditions (CCC) based on the definition of any medical condition that can be reasonably expected to last at least 12 months and involve either different organ systems or one organ system severely enough that subspecialty is warranted.[8] This list was used to construct nine different large CCC categories. Hospitalization rates for children with more than 1 CCC category are increasing, from 83/100,000 in the early 1990s to 166/1000 to the mid-2000s. Patients with cerebral palsy and more than 1 CCC, and bronchopulmonary dysplasia and more than 1 CCC both increased significantly over this time period. The consequence of this growth is that it is putting a strain on Kansas families and its healthcare systems, particularly its Medicaid system. The proportion of inpatient pediatric admissions and hospital day charges increased from 1997-2006 for every CCC group except hematology. As the number of CCCs increased, so did the increase in number of admissions, charges, and inpatient days.[9, 10]

Within Children's Mercy there were pockets of family-centered, coordinated care for groups of patients with primarily single-system disorders, such as those with cancer or end-stage renal disease, however, there was not a coordinated system/program that effectively collaborates between primary (medical home) and subspecialty (medical neighborhood) health care professionals on an inpatient and outpatient basis and with integration into community resources for many CMC populations. Attainment of the above outcomes, as well as the outcomes addressed in this Proposal would be very challenging without a foundation for providing a PCMH for Children with Medical Complexity. Expansion of Beacon in Kansas is designed to address that foundational challenge.

Below is a table representing the estimates of CMC, specifically for Kansas Medicaid, that Beacon will be able to provide care for and manage as part of the implementation of this project.

Table 1: Patient Enrollment Projections for Beacon Program - Kansas

	DY1 2013	DY 2 2014	DY 3 2015	DY 4 2016	DY5 2017[1]
Beacon (CMC)	0	53	75	108	141
Beacon HOMES sibling[2]	0	2	8	12	15
Beacon sibling	0	23	52	68	74

[8] Feudtner C, Hays RM, Hayne G, Geyer JR, Neff JM, Koepsell TD. Deaths Attributed to Pediatric Complex Chronic Conditions: National Trends and Implications for Supportive Care Services. *Pediatrics.* 2001; 107:e99.
[9] Burns KH, Casey PH, Lyle RE, Bird TM, Fussell JJ, Robbins JM. Increasing Prevalence of Medically Complex Children in US Hospitals. *Pediatrics. 2010*; 126:638-46.
[10] Simon TD, Berry J, Feudtner C, Stone BL, Sheng X, Bratton SL, Dean JM, Srivastava R. Children with Complex Chronic Conditions in Inpatient Hospital Settings in the United States. *Pediatrics*. 2010; 126:647-55.

Beacon consult [3, 5, 6]	0	0	21	44	66
Total	0	78	156	232	296[4]

Notes / Assumptions:

1. 2015-2017 estimates based on current utilization. Actual numbers may vary. HOMES sibs are ~ 10% of total Beacon patients. Siblings are ~48% of total Beacon patients. ~65% of Beacon patients are from MO and ~35% of Beacon patients are from KS.
2. Beacon HOMES Siblings represent siblings of CMC that are not quite as complex, but not generally healthy siblings. A part of the Health and Services Evaluation, Beacon patients and their level of medical complexity are assessed. There are three potential groupings of our patients: (1) CMC or Children with the highest level of medical complexity; (2) Beacon HOMES siblings, one sibling of CMC that have same moderate level of complexities and C3 Beacon siblings or generally healthy siblings of CMC.
3. Without CMMI, additional Beacon patients from 2015 – 2017 in MO may not happen at the same rate and the consultative piece will not be built for MO.
4. Eventually there will be a steady state achieved as attrition equals referrals for Beacon. Attrition will be due to patient's transitioning out of BEACON; either by death, transition to adult, or transition to regular PCPs, based on decreased medical needs. Since this Program is new and has not started the consultation piece, that steady state number is currently unknown.

   Additionally, space may be a limiting factor (6 clinic rooms in 2016).
5. The consult piece is planned to start in July of 2015 and the hope is to provide care via telemedicine to prevent clinic room use.
6. When consults start, providers will need time to see inpatient Beacon and Beacon Consults in addition to inpatient APRN.

In 2013, referrals to Beacon came from the PCC. In 2014, Beacon was able to add patients in anticipation of the DSRIP Project, but these were primarily to CMC patients who were new to the Kansas City area, needed a PCP, and met criteria for the Program. Its growth has been fairly limited until more providers can be added to the care team. Consultative services will not be developed until 2015 and relate specifically to the DSRIP Project Plan. Further implementation of Beacon as a PCMH and expanding Beacon consults to Kansas' rural and frontier locations, via telehealth visits, is Children's Mercy's solution to a unique Kansas challenge facing Children with Medical Complexity and their families.

Project Goals:

The main goal of the project is to expand and promote the Patient Centered Medical Home (PCMH) model for CYSHCN with the highest level of medical complexity in the region, improving family-centered, coordinated care while the services addressed above represent aspects of PCMH, it is important to note that Beacon is a separate clinic that has yet to be able to achieve PCMH NCQA (National Committee for Quality Assurance) recognition. CMH's expansion of medical homes DSRIP Project focuses on four community-based practices that exist outside of CMH's system.

1. Develop and expand the consultative services that Beacon provides to rural Kansas CMC and families
    - The population of CMC is growing rapidly across the states of Kansas and Missouri as well as across the nation. Beacon, as it currently exists, will be unable to accept all these patients into the program for various reasons. The child may reside many hours away from the physical location of the Beacon Program. He or she would need to receive all primary care at the Beacon Program, necessitating sometimes hours of travel, even for appointments when the child is ill. Such children would be better served if they were able to stay in their local environment to receive care. In addition, community primary care providers, and

even more so rural providers, often feel uncomfortable providing primary care to CMC patients. In response, the Beacon program plans, during the demonstration period, to develop an educational program as well as a consultative service to support these non-Beacon primary care providers. Resources and videos will be placed on the Children's Mercy public website. Further, a consultation program will be developed through which the non-Beacon primary care provider will be able to reach a Beacon provider 24/7 to answer questions about management and to obtain support or clinical advice. This service will reach providers not located near Kansas City and will allow patients to stay in their home environments, while still ensuring appropriate care. The plan is to begin this service in 2015, and then expand these services through 2017.

2. Achieve NCQA recognition as a PCMH

    - Children's Mercy's Expansion of the PCMH DSRIP Project relates to community-based practices. Those providers are not employed or otherwise affiliated with Children's Mercy. The Beacon Program is a clinic that currently borrows space in the PCC, a large teaching setting for general academic pediatrics. PCMH transformation in such a setting is more complicated than a community based pediatric practice that isn't involved with training pediatric residents and medical students. This complication significantly differentiates Beacon's PCMH recognition from the practices outlined in Children's Mercy's other DSRIP Project. Although the PCC will be applying for NCQA recognition in the future, Children's Mercy will be applying separately from Beacon and have separate policies and procedures from the Beacon clinic.

3. Increase the effective and efficient use of population health management through health information technology (HIT)

    - Beacon, as a part of the PCMH transformation, will build disease registries specific to Beacon patients that will allow our team, providers, care coordinators, social workers, etc. to provide better health management services to our patients and families.

4. Expand chronic and complex care management models

    - In this proposal we have discussed at length the use of Beacon consults as a means to better facilitate care management of CMC in the rural and more remote communities in which those patients and families live. The annual Health and Services Evaluation completed as part of the Beacon consult will allow us to build a Care Plan which can then be used by the patient's community-based PCP to better manage that patient's care. The provision of primary care services remains the responsibility of the patient's community PCP, but it allows Beacon providers to consult in a manner that has a much broader geographic reach. This distinguishes the traditional care management model for complex patients from one that has a hospital-based clinic focus to one that provides supports to community PCPs in order to empower those PCPs to better manage those patients.

Project Timeline:

Below is a timeline relating Beacon's Category 1 and Category 2 Project Milestones, Fig. 2. Beacon has also developed a specific timeline relating to Beacon's implementation and expansion from 2012 to 2017. See Fig. 3 below for that graphic and **Exhibit 3** attached hereto.

Figure 2: Project Milestones – Category 1 & 2

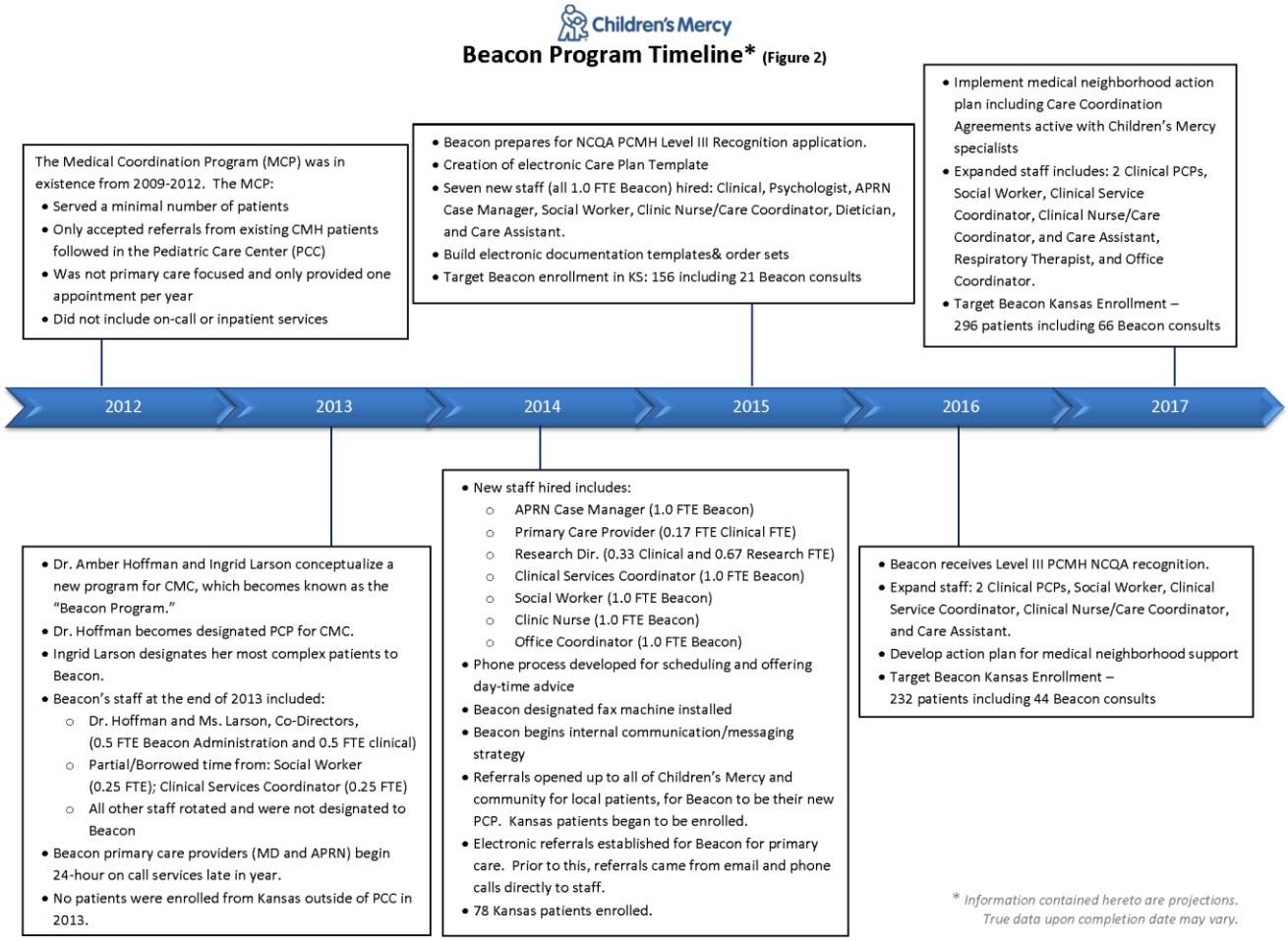
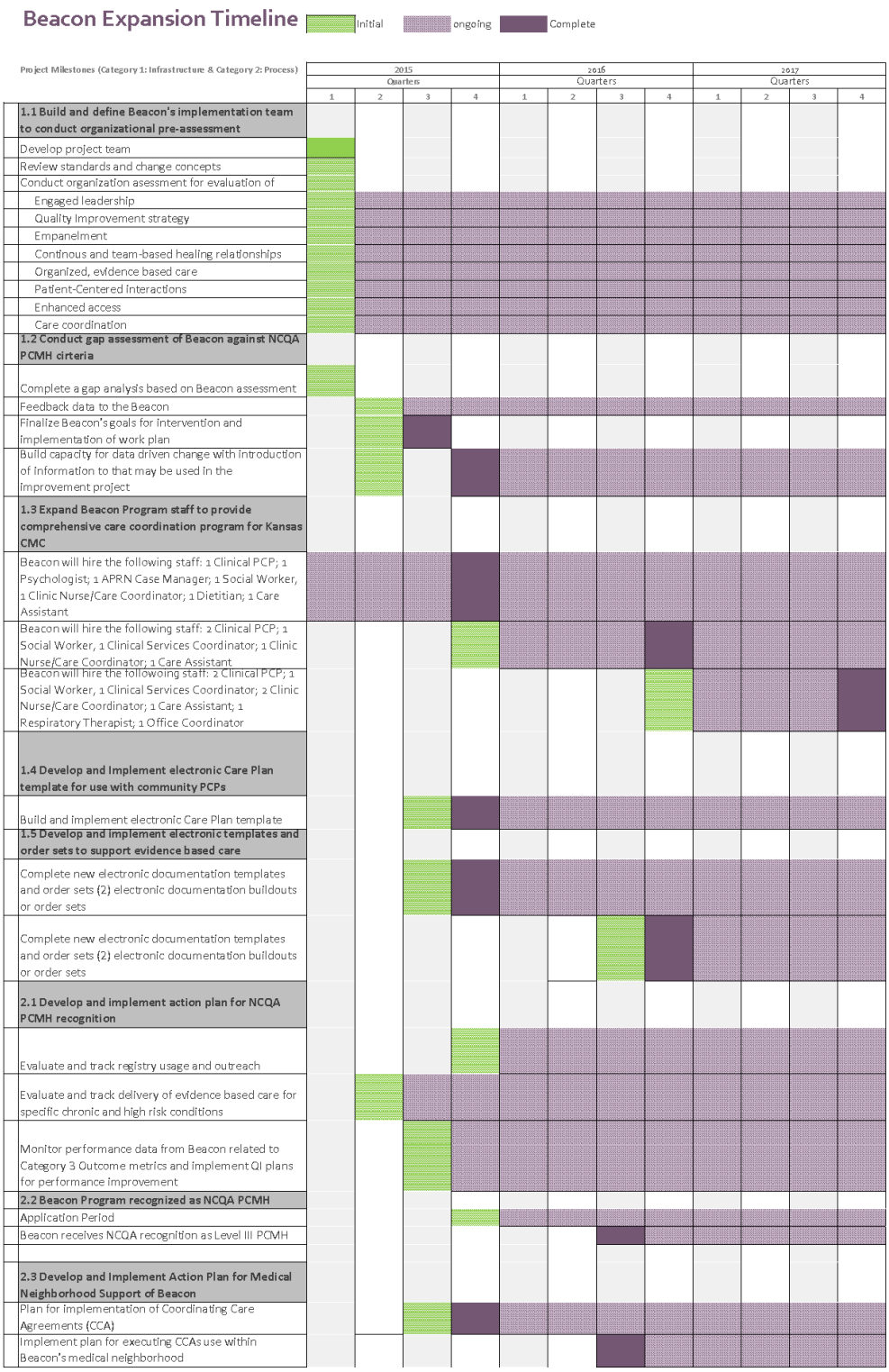


Figure 3: Beacon Program Expansion Timeline – 2012 to 2017



Expected Results:

The Beacon Program, as a PCMH, will implement primary care that is: (1) patient-centered, (2) comprehensive, (3) coordinated, (4) accessible, and (5) high quality. The Beacon Program will engage with inpatient, subspecialty, and outside healthcare delivery systems with effective processes that are patient-centered, integrated, and demonstrate high levels of quality and safety of care.

Relationship to Other Projects:

The Beacon Program is involved with Children's Mercy's hospitalists in a program called the "Silver Link", in which a pilot group of Beacon patients are admitted to the same team and floor each time they are admitted to the hospital. Additionally, the Beacon Program is integrated into the Children's Mercy's Orthopaedic High Risk Surgery Conference to discuss pre and post management of CMC. The Director of the Beacon Program is in charge of the Pediatric Resident Family Centered Care Curriculum which incorporates a home visit to a family of a child with medical complexity. Unlike an ill visit, a home visit is one in which the resident has dinner with the family and spends two-hours with them to gain experience with what life is like with a child with medical complexity. The Beacon Program additionally works closely with the Children's Mercy Pediatric Care Network (CMPCN) and its care management program.

Relationship to other participating providers' projects and plan for Learning Collaborative:

Children's Mercy providers have met with representatives from the Kansas Department of Health and Environment (KDHE) and were included in their D-70 grant application for the "State Implementation Grant for Enhancing the System of Services for Children and Youth with Special Health Care Needs through System Integration." This grant would have allowed Beacon providers to participate as contractors to help with in-person educational activities as well as to develop and sustain electronic education that would be available to all providers. The only funding Beacon providers would have received is an hourly rate of compensation for our providers time to produce any instructional videos or presentations. Our understanding is that the D-70 grant application was not funded so, to our knowledge, no resources will be forthcoming from these sources. One of our goals is to design our website as a resource center for health care practitioners and families. The website will house videos, advice, community, and national resources. By working collaboratively with the CMPCN, we will be able to perform analysis of shared patients to evaluate our processes and areas for improvement.

This project meets the following Health Kansans 2020 goals and ties into the tri-part aim in the following ways:

One of the main objectives of the Healthy Kansans 2020 goals is effective promotion of health and health services for CMC, a system of care that is integrated, comprehensive, coordinated, family-centered, and consistent across the life course (or lifespan). Of the six core outcomes that the Federal Maternal and Child Health Bureau established to facilitate integrated systems of care for CMC mentioned earlier, this project will primarily on creating a Medical Home, assuring

early and continuous screening, and the ease of community-based service.

The Beacon Program will provide a PCMH for CMC at the highest level of need. The Program will provide routine well care to these children as to their siblings or foster children living with the family. The Program will allow families to have one medical home for all of their children if desired. The Beacon Program will provide same day sick appointments for children Monday-Friday to help avoid the ED and Urgent Care visits when possible. When a Beacon patient is determined to need intensive services, the child will either be directly admitted to the hospital or the ED/Urgent Care will receive a phone call from a team member to communicate concerns and a preliminary plan of action.

The traditional nurse contact center for after-hours concerns is bypassed by the Beacon Program. A program physician or advanced pediatric nurse practitioner will be paged by the operators and speak directly with families in an attempt to manage the illness remotely, avoid the ED, and either set up an appointment for the following day or refer to emergency services. This model avoids the standard practice for a primary care nurse triage that would almost always send a child from this patient population to the ED. The care management model offered by the Beacon Program will provide timely interventions to families and CMC with much better value to the Medicaid system, by ensuring that patients are receiving the right care at the right time in the right setting.

Beacon patients who are admitted to Children's Mercy will be seen Monday-Friday by a team member to facilitate the existing care plan, provide long-term perspectives on the patient's health, and to transition to outpatient care as soon as possible. Inpatient physicians who are often hesitant to discharge complex patients requiring supplemental oxygen or less than full feedings, will be more empowered to do so knowing that there is close follow-up of the patient.

The Beacon Program is designed to provide seamless integration within the Children's Mercy care system. The Beacon Team will consult on admitted patients who have sustained a new devastating neurologic injury or new medical complexities that would benefit from having a PCP familiar with medical complexity and networking within the Children's Mercy healthcare system. The child can be seamlessly discharged with immediate, informed back-up for their needs and follow-up.

Children who currently cannot travel to the Beacon Program clinic due to severe health care issues will have home visits with the goal of expanding these services further with telehealth visits. This plan will protect fragile children with medical complexity from the risk of iatrogenic exposure to waiting rooms and hospital settings and to the risk of travel during bad weather.

The Beacon Program staff includes a social worker to assist in services such as transportation, food, clothing, financial assistance, counseling, education, crisis intervention, and school-based concerns. Staff includes a clinical services coordinator who is an LPN who is additionally wound care certified, able to assess and arrange for durable equipment needs, nursing and home care services, and nutritional supports. Additionally, she can provide complex gastrostomy tube granuloma treatment, and pressure sore assessment and treatment. The nutritionist who sees our patients is particularly valuable to children with medical complexity, who often gain nutrition

from a feeding tube and are often at risk for nutritional deficiencies and complications of those deficiencies, such as anemia, osteopenia, and poor wound healing.

Challenges:

Children with medical complexity require significant care coordination that is often unreimbursed. For example, a typical new patient evaluation for an 8 year old patient would incorporate a chart review of a child who might have had 14 surgeries, 9 subspecialists, an active problem list of, say, 10 diagnoses, 45 radiographic studies, and numerous laboratory tests. That information would be synthesized into creating the whole picture of the patient, aiming to discover unmet needs, and to prioritize the needs recognized. This evaluation, however, would not be finalized until the patient and family gives voice to their concerns, problems, goals, and priorities. This additional information, followed by a physical exam, would result in the creation of a care plan. This process does not take place during a 20-minute patient slot. Much of this activity occurs away from the family and often requires hours of review and thoughtful consideration. After a care plan is created and in place, it requires frequent changes, incorporation of new information, coordination between subspecialty services, and many hours of paperwork.

Additionally, since there has not been a medical home for children with medical complexity in the region, providers who work with the usual silos of care are not accustomed to working collaboratively with a PCP at the helm of the care plan management with the family. In this respect, we envision the Beacon Program as a new paradigm for delivering high value, quality care to CMC and their familes.

As the Beacon Program is still relatively new, we continue to establish efficient clinics, staffing, and service lines. We have been actively working to increase awareness of the Beacon Program and its available services. We have been working to describe appropriate patients to refer to the program across the broader Children's Mercy system, principally by moving from section to section within the institution and speaking at numerous meetings, in addition to using web-based information sharing processes to reach our audience.

We want to aim to provide consultation services to community primary care providers without usurping their ability to manage their own patients effectively. The Beacon Program focuses on providing support to the community and to rural providers so that they are better able to manage CMC in their local communities. The Program enables community providers who are located well outside of Children's Mercy Primary Service Area to confidently manage CMC much closer to the patient and families homes with high quality care. It is not our goal to have providers cut themselves out of their patient management by telling their patients to call the Beacon Program with all of their questions. This is a practice that can erode the families' confidence in their local community providers and furthers the belief that they may need to travel over a hundred miles to receive high quality care.

5-Year Expected Outcomes for Provider and Patients:

- Reduction in inpatient visits
- Reduction in ED department use
- Reduction in hospital readmissions
- Improvement in immunization rates
- Improvement in routine laboratory evaluation
- Improvement in patient satisfaction
- Patient Centered Medical Home recognition

Starting Point/Baseline:

Currently, no Beacon consults are offered to the CMC population in rural areas of Kansas. Therefore the starting point for growing that Beacon Program service is at the ground level. As stated above; Beacon began in earnest in October 2013 in anticipation of the DSRIP Project development as well as participation in the Children's Hospital Association's (CHA) Center for Medicare & Medicaid Innovation (CMMI) proposal. It is important to note that the CHA / CMMI Grant focuses on *Missouri Medicaid* and specifically how care coordination programs for children with medical complexity can utilize community based practices to expand services and ulitmately save costs for the Medicaid system. CHA has not informed Children's Mercy of a final budget so we do not know how much funding over the next three years will be forthcoming, however, we can state that the project is focused on Missouri Medicaid's pediatric population, with contracted community-based Missouri providers.

Further, expanding Beacon's consultative servcies to community providers in Kansas is a key project goal of the Beacon Program. Without the DSRIP project, those consultative services would not be available for Kansas Medicaid patients.

Medicaid represents more than seventy percent (70%) of Beacon's assigned patient population, which is currently more than 200 patients. Kansas Medicaid respresents approximately 35% of Children's Mercy's overall Medicaid population as well. The starting point for this project will be late 2014 for Kansas Medicaid DSRIP purposes which is when Beacon will have new providers and staff in places. Further, we will have our service and data systems available to provide the information needed to identify and manage the Beacon Program patients within the existing Pediatric Care Clinic (PCC) at Children's Mercy.

Beacon will remain at the Broadway Campus location for the near future, likely through 2016. To date, Beacon has been largely borrowing space and staff from the PCC which has made the establishment of our processes for care of this population and our outcomes limited. However, any move from Broadway to the Main Campus, will not affect the delivery model that we have developed and will begin fully implementing in DY3. To that end, Beacon only received a full time dedicated support staff in 2014, including a social worker, clinic nurse, and office coordinator.

The Beacon Program is located at the Broadway building which is several blocks from the main

hospital. This location makes it challenging for us to be nimble in seeing inpatients or seeing patients in other subspecialty clinics for combination appointments. The laboratory services, pharmacy and radiology services are limited at the Broadway building requiring many of our patients to travel to the main hospital to complete their visit or pick up specialized compounded medications. This provides additional challenges for patients utilizing Medicaid transportion benefits which have to be arranged in advance and cannot include additional travel without a four hour notice in general. Beacon will continue to build capacity and infrastructure in the Broadway location, but we have included as part of our long-term strategic plan; determining whether a Main Campus location would better serve our patients and families.

As of November 2014, dedicated Beacon staff that have been approved and hired include: a Medical Director, a Program Director, 0.75 FTE Research Director, an office coordinator, 1.42 FTE primary care providers, a nurse practitioner case manager, a clinical services cooordinator (for DME and nursing orders), a social worker and a clinic nurse. There are no oustanding approved positions that have not been hired at this time. Beacon continues to borrow a dietitian, respiratory therapist and care assistant. We will train our new staff, complete our electronic record note templates and reports, and be ready to begin in full force implementation after January 1, 2015 and plan to begin the consultative service in July of 2015.

In order to more completely address the medical and care coodination needs for CMC, and to expand to additional patients, Beacon plans to hire additional staff in each Demonstration Year. See **Table 2** below for the description of staff we plan to add to implement and expand services to Kansas Medicaid children. In order to more fully address the social concerns for CMC and expand services, Beacon also plans to hire a psychologist, and an additional social worker in FY 2015. Other members of the care team focused on social concerns of the patients include the primary care provider and the nurse practitioner case manager, all of whom will routinely participate in patient care. This additional staff will allow for enhanced Beacon involvement in IEP development and monitoring, care conferences specifically for psychosocial or mental health concerns, increased referrals for community support and therapy, provision of therapy, group clinics, sibling support and community placement.

Table 2: Beacon Program Staffing Model for DSRIP Project Plan

Provider Type	2013	2014	2015	2016	2017
Program Co-Directors	1	1	1	1	1
Clinical Primary Care Provider	1	1.54	2.54***	4.54	6
Psychologist	0	0	0.75	1	1
Nurse Practitioner Case Manager	1*	1	2	2	2
Clinical Services Coordinator	0.25	0.5	1	2	3
Social Worker	0.25	1**	2	3	4
Clinic Nurse/Care Coordinator	0	1**	3	4	6
Care Assistant	0	0	1	2	3
Dietitian	0	0	1	1	1
Respiratory Therapy	0	0	0	1	1
Office Coordinator	0	1**	1	1	2
Total FTE	3.5	7.04	15.29	22.54	30
New FTE	1	3.33	8.08***	7.25	7.46
Total Beacon	**33**	**148**	**240**	**340**	**440**

*Did not start until Jan 2014
** Did not start until Nov 2014
***An existing provider will go from 0.5 clinical FTE to 0.67 clinical FTE during FY 2015, but no one needs to be hired. Thus, 0.17 is not included in the 2015 budget as a new PCP employee.

The numbers for FTE are high because we're essentially doubling the entire number of patients that we see and adding on mental health support.

FTE allocated to KS patients is ~35% of the total FTE for each year.

- 2015 = 5 FTE KS
- 2016 = 7.5 FTE KS
- 2017 = 10.15 FTE KS

Rationale for the Project:

There are pockets of family-centered, coordinated care for groups of patients with primarily single-system disorders, such as those with cancer or end-stage renal disease, however, there is not a coordinated system/program that effectively collaborates between primary (medical home) and subspecialty (medical neighborhood) health care professionals on an inpatient and outpatient basis and with integration into community resources for many CMC populations. Attainment of the above outcomes is very challenging as a result.

Children with Medical Complexity come with a variety of underlying diagnoses. Many of them may meet criteria for additional waiver programs, based on those underlying diagnoses, which can aid in helping them get therapies and equipment necessary to maximize their health. Examples of these waivers are the autism waiver and the technology assistance waiver.

The purpose of the Kansas Autism Waiver is to provide eligible Kansans the option to receive early intensive interventions in their home and community in a cost-efficient manner. The

Beacon Program will refer all enrolled patients, under age five with a diagnosis of autism and who are enrolled in Kansas Medicaid (or may be eligible to be enrolled), to a Children's Mercy financial counselor in order to apply for this waiver. This will be coordinated via our Beacon social worker and Beacon case manager. The financial counselor will aid the families in gathering the appropriate information and applying for the waiver, as applicable. This will help ensure that all Beacon patients who are eligible receive early intervention therapies for their autism, to maximize the child's ability to develop communicative and interpersonal skills.

Additionally, the Beacon Program has screening tools that are performed at specified intervals to help identify children that may have autism as early as 18 months of age. If a child has an abnormal screening result for autism he or she will be immediately referred by the Beacon Program for additional testing, and if diagnosed, will be referred to our financial counselor to see if he or she qualifies for the autism waiver.

The purpose of the TA (Technology Assisted) Waiver is to provide individuals who are medically fragile and require life-sustaining medical technology the opportunity to access long term care services intended to assist individuals in managing their healthcare limitations to progress towards independence, productivity, and community integration and inclusion. The Beacon Program will refer all enrolled patients with a requirement of life-sustaining equipment and who are enrolled in Kansas Medicaid (or may be eligible to be enrolled), to a Children's Mercy financial counselor to apply for this waiver. This will be coordinated via our Beacon social worker and Beacon case manager. The financial counselor will aid the families in gathering the appropriate information and applying for the waiver, as applicable. This will help ensure that all Beacon patients who are eligible receive long-term services to assist in their healthcare management and opportunity for an independent future.

The Beacon Program also has procedures in place to help ensure that a child, regardless of the waiver status, who needs specific medical technology, receives that equipment. The Beacon Program is part of the larger Children's Mercy Hospital system, which has a home health department. The Beacon Program has forged relationships with this department so that if barriers to receiving equipment are in place, for instance, a patient cannot be discharged because they cannot find coverage for a specific piece of necessary equipment, Children's Mercy Home Care will work with the Beacon Program to help meet this child's needs. Additionally, this child will also be referred to speak with our financial counselors about whether he or she is eligible for the TA waiver program.

The on-site social worker will perform initial psychological assessments and refer to our on-site psychologist for mental health services as needed with a provider referral.

This project represents a new initiative or significantly enhances an existing delivery system reform initiative in the following ways:

There is no regional medical home for children with medical complexity. Additionally, the Beacon Program is unique in that it provides not only primary care, but also consultative services, inpatient management, home visits, and telehealth.

As stressed throughout this DSRIP Project Plan, children with medical complexity have significant health and psychosocial needs. Beacon patients, are seen an average of 5 times per year compared with a national average of 2.8 times per year for a general pediatric population. Beacon performs a two hour Health & Service Assessment for each new patient in order to provide comprehensive planning for the patient and family. Beacon provides direct access to our primary care providers 24 hours a day, seven days a week. This kind of coverage is time and resource intensive but it is absolutely necessary in order to manage CMC effectively and efficiently. In order to expand this level of service to CMC in Kansas, Beacon has to add resources as identified throughout the plan.

Additionally, we know that CMC patients with an already established primary care medical home prefer to receive care locally instead of driving multiple hours for routine problems. We also know that a proportion of CMC patients live far enough away from the Kansas City metropolitan area that it is not feasible to come to Beacon for primary care services. However, some community providers are not comfortable providing this care because of the complexity of the patient. Thus, Beacon plans to develop an infrastructure of support and education for these community providers, in a consultative manner, to provide excellent care to CMC patients in their local communities. In order to expand this level of service and include consultations to CMC in Kansas, Beacon has to add resources as identified throughout the plan.

Rapid Cycle Evaluation:

Include a rapid cycle evaluation informing CMS of the progress in a timely fashion and how it will drive transformation, which will be accountable for results, organizational structure and the process to oversee the evaluation:

Rapid cycle evaluations are the foundation of the continuous quality improvement methodologies that have been developed to support medical home model implementation. Children's Mercy uses rapid cycle improvement extensively throughout the entire organization. The Beacon Program, in this project, will be assigned a Quality Improvement team to help support, evaluate and oversee progress. Plan-Do-Study-Act Cycles will be used to plan and document the tests of change that are associated with Beacon's PCMH implementation.

Business object reports as well as modifications to the Electronic Medical Record are underway now in order to collect and disseminate data to the Beacon care team. Beacon's clinical and administrative leadership team will meet frequently (twice monthly) to review data collection efforts and determine if changes or modifications need to be undertaken in order to meet the requirements of the DSRIP Project Plan. This same team is responsible for reporting to executive leadership at Children's Mercy Hospital (quarterly) regarding outcomes/metrics for this project plan.

The entire Beacon care team meets weekly to discuss new referrals, inpatients, outpatients with active issues, DSRIP plans, PCMH plans, CCMI project, research, and other administrative plans. This two hour meeting allows the team to review the events of the past week and make changes rapidly if needed. Minutes are kept for the meetings and available to team members on a shared protected drive. Additionally, Beacon will collect feedback from the Learning Collaborative that it will help facilitate as a part of its Rapid Cycle Evaluation process. Any

relevant findings from the internal evaluation can be readily disseminated to the Learning Collaborative.

An example of one outcome of this meeting that was rapid cycle was the first drive through influenza immunization clinic. We identified in a September 2014 meeting that all Beacon patients and siblings need influenza immunizations due to the high risk of them being inpatient if they acquire influenza. We additionally identified that current flu clinics were offered once a week, in the evening. Many of our families had communicated that this did not work with their schedules and they experienced barriers in getting their complex Beacon patients in wheelchairs to the clinic for the shot. They explained that it took more time to move their child out of the car, into their wheelchair, to the elevator, to the floor, sign-in, and get back to the car then to obtain the actual immunization.

Thus, the Beacon Program immediately planned a drive through flu clinic for those Beacon patients in wheelchairs, as well as any other family members that were also in the car. This meant that nurses stood outside in the parking lot and Beacon families arrived in cars and the immunizations were provided to everyone in the car. No one was required to even leave the vehicle. This was done to increase the number of our patients who have been immunized against influenza this year and respond to the parental request/need to not have to lose a significant amount of time obtaining this immunization. This rapid cycle improvement, based on clinical and parental need, was very positively received by the families and is planned for next year as well.

Rapid Cycle Evaluations progress and results will be collected by Children's Mercy and shared with KDHE and CMS as directed.

Project Budget

Below is a summary of the budget Beacon has developed for this project. There is a more detailed budget attached as **Exhibit 2.**

Implementation of Beacon Program for Kansas Medicaid
Children with Medical Compexity - Budget

	DY 3 (2015)		DY 4 (2016)		DY 5 (2017)	
Staffing	**FTE[1]**	**DSRIP Cost**	**FTE[1]**	**DSRIP Cost**	**FTE[1]**	**DSRIP Cost**
Program Co-Directors	0.35	$45,063	0.35	$45,063	0.35	$45,063
Clinical Primary care provider	0.89	$300,038	1.59	$958,561	2.10	$1,674,213
Psychologist	0.26	$19,406	0.35	$34,500	0.35	$34,500
Nurse practitioner Case Manager	0.70	$144,900	0.70	$144,900	0.70	$144,900
Clinical Services Cooordinator - DME/Nursing/Wound Care	0.35	$19,241	0.70	$76,964	1.05	$173,168
Social worker	0.70	$90,884	1.05	$204,488	1.40	$363,534
Clinic Nurse / Care Coordinator	1.05	$179,525	1.40	$319,155	2.10	$718,099
Dietitian	0.35	$24,432	0.70	$97,727	1.05	$219,885
Office Coordinator	0.35	$16,846	0.35	$16,846	0.35	$16,846
Respiratory Therapist	0.00	$0	0.35	$20,609	0.35	$20,609
Care Assistant	0.35	$10,687	0.35	$10,687	0.70	$42,748
		851,020		**1,929,499**		**3,453,565**

Benefits and Payroll Taxes	The project will pay the following benefits and payroll taxes for the above staff: FICA, Health, Dental, Life Insurance, etc. with the benefit % rate of total salary expense equal to 21.25%		
	DY 3 (2015)	**DY 4 (2016)**	**DY 5 (2017)**
	180,842	**410,019**	**776,229**
Other Direct Expense	Data Management System / Reporting Buildout/Analytics		
	DY 3 (2015)	**DY 4 (2016)**	**DY 5 (2017)**
	42,000	**42,000**	**42,000**
Total Project Cost	**1,073,862**	**2,381,518**	**4,271,794**

[1] FTE's are allocated based on percent of Kansas patients served by Beacon ~35%

Project Governance

Describe how the hospital will govern its community partners:

The Beacon Program is working collaboratively with community partners as mentioned above. The Beacon Program is governed by the Division of General Academic Pediatrics in the Department of Pediatrics at Children's Mercy.

Data Sharing and Confidentiality

Metrics must be collected in a uniform and valid fashion by the DSRIP hospital and its community partners. Provide provisions for appropriate data sharing arrangements that permit this and appropriately address all HIPAA privacy provisions:

Data will be de-identified and gathered by the quality improvement department of the hospital for our reports. Additionally, NRC Picker Data is presented to the hospital in a de-identified

manner already consistent and compliant with HIPAA statutory and regulatory requirements.

Expectation of Sustainability

Explain how the outcomes of this project will be sustained at the end of DSRIP:
Given that the Beacon Program is integrated into the strategic plan for the hospital, it will be an area of continued focus for Children's Mercy. We would like to continue to broaden our staff and system so that we are able to continue to manage a greater and greater number of patients. Additionally, we plan on transitioning patients out of the Beacon Program should they reach a level of lessened medical complexity. Further, the PCMH transformation effort will lead to a cultural and organizational change that provides Beacon with greater patient, provider and staff satisfaction. The tools and process changes lead to greater efficiencies and effectiveness that provide long-term benefits of improved outcomes. The ability to deliver improved outcomes via PCMH will allow the Beacon Program to thrive in the value-based payment environment that is rapidly evolving.

Health Home providers provide services such as:

- Comprehensive care management;
- Care coordination and health promotion;
- Comprehensive transitional care from inpatient to other settings, including appropriate follow-up;
- Individual and family support;
- Referral to community and social support services, if relevant; and
- The use of health information technology to link services, as feasible and appropriate.

As referenced throughout, the Beacon Program is designed to incorporate many of these services into its patient and family-centered model. For instance, we are developing processes to obtain copies of all documentation from mental health facilities where our Beacon patients receive services. This is imperative for the complete care of the child and also ensures that the primary care providers are well informed about all aspects of that child's care. Additionally, we have procedures in place to refer to social work, functioning as behavioral consultants, and then have a psychologist resource available for consult when a specific mental health need is identified in clinic. One of the psychologist fellows at Children's Mercy is also shadowing in our clinic so that we can begin to develop a plan to integrate a psychologist or other Behavior and Developmental staff member into the Beacon Program. Caring for patients with medical complexity is extremely challenging and families and patients will significantly benefit from the Beacon Program being able to offer these services. It is our intent to embed these services into our program in the future, and we will continue to explore opportunities relating to developing the Health Home model.

Management of children with medical complexity is also a topic garnering much attention not only in academia but also in federal and state policy arenas. Children's Mercy is one of 9 participating hospitals in a grant received by the Children's Hospital Association from the Center

for Medicare and Medicaid Innovation (CMMI). The ultimate objective of the grant is to inform sustainable change in health care delivery through new payment models supporting improved care and reduced costs for CMC. The goals of the Beacon Program align clearly around the goals of this particular CMMI award which will ensure continued focus and sustainability for the Program.

We believe implementation and expansion of services offered by the Beacon Program creates a paradigm shift in the care delivery model we are creating for children with medical complexity. Transforming the Beacon Program into a Patient Centered Medical Home creates the foundation for exploring new payment models designed to pay for high value instead of volume related business. Sustainability is achieved by embracing this shift and aligning the care and payment models accordingly.

Project Milestones and Performance Indicators

Submit project milestones from categories 1 through 4 for each demonstration year.

Category 1 measures are meant to focus on *infrastructure milestones.* These milestones lay the foundation for delivery system transformation through investments in technology, tools, and human resources. As such, Children's Mercy has revised its Category 1 milestones and metrics to better address this purpose. Attached is Exhibit 4, which includes all related Category Measures.

Related Category 1 Outcome Measures:

- 1.1 Build and define Beacon's PCMH implementation team
    - *Metric:* Identification of a mulitdisciplinary team from Beacon to conduct an initial assessment of the clinic's readiness
    - Complete an organizational assessment that includes evaluation of the following components:
        - Engaged leadership
        - Quality Improvement strategy
        - Empanelment
        - Continous and team-based healing relationships
        - Organized, evidence based care
        - Patient Centered interactions
        - Enhanced access
        - Care coordination

- 1.2 Conduct gap assessment of Beacon Program against NCQA PCMH criteria
    - *Metric:* Develop and implement a work plan to complete gap analysis against NCQA PCMH recognition criteria
        - Complete a gap analysis based on Beacon assessment
        - Feedback data to Beacon
        - Finalize Beacon goals for intervention and implementation of work plan

        - Build capacity for data driven change with introduction of information to that may be used in the improvement project

- 1.3 Expand Beacon Program staff in order to provide a more complete and comprehensive care coordination program for Kansas Medicaid CMC
    - *Metric*: Develop a multidisciplinary team to implement and expand the Beacon Program for Kansas Medicaid CMC
        - In order to expand the Beacon Program's care delivery model, it must hire and train additional staff. This is a major undertaking in order to expand the Beacon Program to Kansas Medicaid CMC. Beacon will hire and onboard the following members of its mulitdisciplinary team to demonstrate completion of this metric:
    - *Targets:*
        - DY 3: 1 Clinical PCP; 1 Psychologist; 1 APRN Case Manager; 1 Social Worker, 1 Clinic Nurse/Care Coordinator; 1 Dietitian; 1 Care Assistant
        - DY4: 2 Clinical PCP; 1 Social Worker, 1 Clinical Services Coordinator; 1 Clinic Nurse/Care Coordinator; 1 Care Assistant
        - DY5: 2 Clinical PCP; 1 Social Worker, 1 Clinical Services Coordinator; 2 Clinic Nurse/Care Coordinator; 1 Care Assistant; 1 Respiratory Therapist; 1 Office Coordinator
- 1.4 Create reporting mechanisms (for example an electronic Care Plan template created from the Health and Services Evaluation) in order to share information regarding the CMC's outpatient clinic appointments with subspecialists and families, in a timely way, and extend this to community based PCPs who utilize Beacon in a consultative manner
    - *Metric*: Submission of Care Plan delivered to internal and community based PCPs.
    - The Health and Services Evaluation appointment culminates in the creation of a care plan. It summarizes the multispecialty care for the patient and provides guidance for the upcoming year. All consult patients will receive this annual Health and Service Evaluation. In remote locations in Kansas, this visit is planned to be performed utilizing telehealth technology, to prevent the family from having to travel a long distance to Children's Mercy. This is an entirely new aspect of the Beacon Program which will be developed and implemented in DY 3 and expanded in DY 4, including electronic template development.
    - *Target:* Build and implement in DY 3 and expand in DY 4 to more CMC and familes in rural/remote areas.
- 1.5 Develop electronic documentation templates and order sets to support the evidence based care of and the reporting on the CMC patients served by this clinic
    - *Metric*: Completion of new electronic documentation templates and order sets
    - Identify components needed in the EMR redesign to create electronic documentation templates and order sets that will adequately address Beacon's

patient's needs, based on the evidence base

- *Target:* Complete two (2) electronic documentation templates or order sets in DY 3 and two (2) more in DY 4.

Related Category 2 Outcome Measures:

- 2. 1 Develop and implement action plan for NCQA PCMH recognition and track processes associated with PCMH implementation
  - Evaluate and track registry usage and outreach
  - Evaluate and track delivery of evidence based care for specific chronic and high risk conditions
  - Monitor performance data from Beacon related to Category 3 Outcome metrics and implement QI plans for performance improvement
  - *Metric:* Documentation submission of the PCMH implementation work plan with periodic updates of progress in the areas decribed above.
  - *Targets:*
    - DY 3: Beacon completes PCMH implementation work plan
- 2.2 Beacon Program recognized as NCQA PCMH
  - *Metric:* Beacon Program is recognized as a Level III PCMH
  - Target:
    - DY 3: Application Period
    - DY 4: 2 Beacon recieves Level III certification/recognition
  - Rationale: PCMH recognition for a clinical progam within an academic pediatric primary clinic will provide the necessary path for tranformation allowing Beacon to organize care teams and resources more efficiently and effectively.
- 2.3 Develop and implement the action plan for Medical Neighborhood support of Beacon
  - Implementation of care service agreements (CSA) with mechanisms to ensure timely and appropriate consultation with bi-directional communication with Children's Mercy's subspecialty clinics relating to co-management strategies.
  - Metric: CSA use by Beacon with intial referral to Children's Mercy Specialists
  - Target:
    - DY 3: Plan for Implementation of Care Service Agreements
    - DY 4: Implement the Plan for executing CSAs including significant changes to the EMR as well as staff training on use of CSAs to effectuate medical neighborhoods
    - DY 5: 10% of Beacon referrals to Children's Mercy specialists and subspecialists contain CCAs

Related Category 3 Outcome Measures: From Appendix B

- 3.1 Increase Immunization Rate in Children
    - *Metric*: Increase Immunization Rates for Children 2 yoa and Children 6 yoa.
    - **#1 Numerator**: The number of patients assigned to Beacon primary care provider who received each of the following vaccines on or before their 2nd birthday: 4 DTaP; 3 IPV; 1 MMR; 3 HIB; 3 HepB; 1 VZV; 2 Influenza; and 2 Rotavirus (on or before 8 months of age).

      #1 Denominator: The number of patients assigned to Beacon primary care provider who turn 2 years old during the measurement period.
    - *Current baseline* for #1 is 38% for Beacon patients.[11]
    - *Annual target:* increase percentage by at least 10% annually through DY 5, or a 10% reduction in the gap to the goal (90th Percentile)
    - **#2 Numerator:** The number of patients who are up-to-date on the following immunizations, including boosters: MMR, VZV, DtaP, IPV, Hep A, Hep B

      #2 Denominator: The number of patients assigned to Beacon primary care provider who turn 6 years old during the measurement period.
    - *Current baseline* for #2 is 75% for Beacon patients.[12]
    - *Annual target:* increase percentage by at least 10% annually through DY5, or a total goal of at least 90%.
- 3.2 Increase Immunization Rate in Adolescents and Adults
    - *Metric:* Increase the percent of patients assigned to Beacon primary care provider who have completed recommended immunizations - adolescents.
    - **#1Numerator:** The number of patients that have each of the following on or before their 13th birthday: 1 MCV, 1 Tdap or 1 Td.

      #1 Denominator: The number of patients assigned to Beacon primary care provider who turn 13 years old during the measurement period.
    - *Current baseline* for #1 is 75% for Beacon patients.[13]
    - *Annual target:* increase percentage by at least 10% annually through DY5, or a 10% reduction in the gap to the goal (90th Percentile).
    - **#2 Numerator:** The number of patients assigned to Beacon primary care provider who receive the meningococcal vaccine (MCV) booster between their 16th and 18th birthdays.

      #2 Denominator: The number of patients assigned to Beacon primary care provider who turn 17, or 18 during the measurement period.

[11] The national benchmark (HHS Region 7) for this HEDIS measure (90th percentile) is 86%.
[12] There isn't a national benchmark equivalency for this measure (children 6 years of age).
[13] The national benchmark (HHS Region 7) for this HEDIS measure (90th percentile) is 86%.

- *Current baseline* for #2 is 18% for Beacon patients.
- *Annual target*: increase percentage by at least 10% annually through DY5, or a total goal of at least 50%.

- 3.3 Asthma Influenza Vaccine
  - *Metric:* Increase the percent of patients assigned to Beacon primary care provider with a diagnosis of asthma who receive an annual influenza vaccination.
  - **Numerator**: Number of patients assigned to Beacon primary care provider with diagnosis of asthma who have a record of an influenza immunization in the previous 12 months.

    Denominator: Number of patients assigned to Beacon primary care provider with a diagnosis of asthma.
  - *Current baseline* is 68% for Beacon patients.
  - *Annual target:* increase percentage by at least 10% annually through DY5, or a total goal of at least 90%.
- 3.4 Anemia in Children
  - *Metric:* Increase the percentage of children two years of age who had hemoglobin/hematocrit testing by their second birthday.
  - **Numerator:** Children assigned to Beacon primary care provider who turn two years of age during the measurement year with a hemoglobin/hematocrit test on or before the child's second birthday

    Denominator: Children assigned to Beacon primary care provider who turn two years of age during the measurement year.
  - *Current baseline* is 88% for Beacon patients.
  - *Annual target:* increase percentage by at least 10% annually through DY5, or a total goal of at least 98%.

In the previously submitted Appendix B, NRC Picker questions were submitted that do not correspond to our current survey and cannot be changed. They have been adjusted to questions that are in our current survey that are closely related.

- 3.5 Patient/Family Experience Coordination of Care
  - *Metric:* Improve the patient/family experience Coordination of Care
  - **Previous question submitted**- "If your provider ordered labs/x-rays, or other studies, did someone call to follow up the results in a timely manner?" (Yes 90% of time).
  - **New question**- Question #41-“During your child’s most recent visit, did this provider order a blood test, x-ray, or other test for your child? If Yes, it goes to Question # 42 which is, “Did someone from this provider’s office follow up to give you those results?”

- *Current baseline* is 68.2%for Beacon patients.
- *Annual target:* increase percentage by at least 10% annually through DY5, or a total goal of at least 80%.

- 3.6 Establish Emergency Information Form (EIF)
  - The Emergency Information Form, which is also referred to as the File of Life or Pediatric Emergency Form, is a condensed document that is geared toward EMS response in the community. The family is given a copy to place on their refrigerator or keep with them so that if they need to call 911 or seek emergency services, the critical, essential information for their child is available. It is our goal to have this completed for our enrolled eligible Beacon patients.
  - *Metric:* Increase the percent of Beacon patients who have an Emergency Information Form for use by EMS and receiving health organizations.
  - **Numerator:** Number of Beacon patients who have a Pediatric Information Form for EMS completed in a 12 month period.
  - **Denominator:** Number of Beacon patients
  - Current baseline is 3% for Beacon patients.
  - Annual target: increase percentage by at least 25% annually through DY5, or a total goal of at least 90%.
- 3.7 Care Plan Development
  - *Metric:* Improve the number of Beacon patients who receive effective care coordination of healthcare services when needed.
  - **Numerator:** Number of eligible Beacon patients with a documented Health and Services care plan in the previous 13 months.
  - **Denominator:** Number of eligible Beacon patients.
  - The Health and Services computerized template is not completed yet so our current baseline is 0% for Beacon Patients.
  - Annual target: increase percentage by at least 30% annually through DY5, or a total goal of at least 90%.

Related Category 4 Outcome Measures:

Care Outcomes

- 4.1 ED Utilization for Asthma
    - Metric: X CMH ED visits with primary diagnosis of asthma/1000 CMH patients with Kansas Medicaid and diagnosis of asthma
    - Numerator: Number of CMH pts 2-17 yrs with a diagnosis of asthma who have 1 or more ED visits with primary diagnosis of asthma in the last 6 months.
    - Denominator: Number of CMH pts 2-17 yrs with a diagnosis of asthma
  - Target:
    - Year 3- 305/1000 CMH patients
    - Year 4- 2.5% decrease from baseline
    - Year 5- 5% decrease from baseline
  - Rationale: ED Utilization is a measure of access to effective primary and urgent care.
- 4.2 Decrease readmissions
    - Metric: 30 day all-cause readmission rate following hospitalization
    - Denominator: number of CMH inpatient hospitalizations among Kansas Medicaid patients that occur within 30-days of admission to the hospital after an inpatient hospital stay.
    - Numerator: the number of Kansas Medicaid patients admitted to CMH that had an inpatient hospital stay during the evaluation period..
    - Target:
      - Year 3- Baseline Data Collection
      - Year 4- 1% decrease from baseline
      - Year 5- 2% decrease from baseline
    - Rationale: all-cause readmission is not an important measure for pediatrics as the readmission rate is very low with the exclusion of planned readmissions for chemotherapy, staged surgeries, etc.
- 4.3 Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents

    - Metric: Percentage of patients 3-17 years of age with Kansas Medicaid who had an outpatient visit with a CMH Primary Care Physician (PCP) in a Children's Mercy Primary Care Clinic with:
        - Height, weight, and body mass index (BMI) percentile documentation.
        - Counseling for nutrition.

    - Counseling for physical activity

  - Denominator: number of patients 3-17 yoa with Kansas Medicaid who had a well-child visit.

  - Numerator: number of pts 3-17 yoa with Kansas Medicaid who had height, weight, BMI documented during the measurement year. #2 Numerator: number of pts 3-17 yoa who had nutritional counseling during the measurement year. #3 Numerator: number of patients 3-17 yoa who had counseling for physical activity

- Target:
  - Year 3- BMI- 39.2%; Counseling for Nutrition50%; Counseling for Physical Activity 47%
  - Year 4- 10% reduction in the gap to goal) in the number of patients in targeted population will have documented Weight Assessment & Counseling for Nutrition and Physical Activity
  - Year 5- 10% reduction in the gap to goal) in the number of patients in targeted population will have a documented Weight Assessment & Counseling for Nutrition and Physical Activity

- 4.4 Appropriate Testing for Children with Pharyngitis

  - Metric: Percentage of children 2-18 Years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode.

  - Denominator: The number of children 2-18 years of age who were diagnosed with pharyngitis and dispensed an antibiotic

  - Numerator: A group A streptococcus test in the seven day period from three days prior to the Index Episode Start Date (IESD) through three days after the IESD

Project Valuation

DSRIP Pool Funding and Valuation:

Children's Mercy will be participating in the Border City Children's Hospital (BCCH) portion of the DSRIP Pool. The total funding available in the BCCH Pool after DY 5 is $15 million.

Of each year's funding, 75% is considered the base valuation. As stated in the DSRIP Protocols, Children's Mercy will be eligible for secondary valuation payments based on the number of Medicaid/CHIP beneficiaries served through the project, and the percent of patients primarily served by external community partners. If at least 20 percent of the patients served through the project are served through affiliated external community partners, Children's Mercy will be eligible for an additional 20% of the available BCCH Pool, called the 'Partner valuation payment.' The final 10% of the BCCH Pool, or the 'Trailblazer valuation payments,' will be available to Children's Mercy if the organization includes outreach and capacity-building components that disseminate the project's outcomes and methods to rural and underserved areas of Kansas in order to expand access to best practices.

In total, Children's Mercy may be eligible for $2.5 million in DY 3, $5 million in DY 4, and $7.5 million in DY 5. Children's Mercy proposes that this project (Coordinated Care for CMC) and its related Metric Milestone Categories represent 50% of the overall valuation formula used to determine the applicable BCCH Pool payment.

Exhibit 1

FEDERAL AWARD NUMBER	PRINCIPAL INVESTIGATOR	FULL TITLE	Current period funding	Start date	End date	DIRECT SPONSOR NAME	PRIME SPONSOR NAME
HHSN275201000003I	Abdel-Rahman, Susan	PTN Baby Tape study	$ 32,584	09/01/14	03/14/16	Duke University	National Institutes of Health
R01GM099773	Allen, Geoffrey	Stratification of Pediatric Septic Shock	PP	09/01/13	08/31/15	Children's Hospital Medical Center	National Institutes of Health
K23HD071967	Anderst, James	Occult Injury Screening and the Detection of Physical Abuse in Young Children	$ 3,000	04/01/14	03/31/15	Children's Hospital of Philadelphia	National Institutes of Health
U01AR057956	Bass, Julie	Pediatric PROMIS: Advancing the Measurement and Conceptualization of Child Health	$ 7,000	11/01/14	06/30/15	Children's Hospital of Philadelphia	National Institutes of Health
5P01AR048929-08	Becker, Mara	Gene Expression in Pediatric Arthritis	PP	09/01/14	08/31/15	Children's Hospital Medical Center	National Institutes of Health
5U01NS076788-03	Bickel-Young, Jennifer	Amitriptyline and Topiramate in the Prevention of Childhood Migraine (CHAMP)	PP	09/01/14	08/31/15	Cincinnati Children's Hospital	National Institutes of Health
1U01HL114623-01A1	Black, Philip	OPTIMIZing Treatment for Early Pseudomonas Aeruginosa Infection in Cystic Fibrosis: The OPTIMIZE Multicenter Randomized Trial - Clinical Coordinating Center	$ 87,450	09/15/13	06/30/18	Seattle Children's Hospital	National Institutes of Health
5H30MC24051 / 0008966L	Carpenter, Shannon	Hemophilia Treatment Centers (SPRANS)	$ 31,426	06/01/14	05/31/15	The University of Texas Health Science Center at Houston	Health Resources and Services Administration - HRSA
ATHN: ATHN2011-VI; CDC: 1U27DD000862-03	Carpenter, Shannon	Public Health Surveillance for the Prevention of Complications of Bleeding and Clotting Disorders	$ 31,426	06/01/14	05/31/15	University of Texas Health Science Center at Houston	American Thrombosis and Hemostasis Network / CDC
1R01HD072267-01A1	Carter, Brian	Neonatal Neurobehavior and Outcomes and Very Preterm Infants [NOVI]	$ 43,209	09/01/14	08/31/15	Women and Infants Hospital of Rhode Island	National Institutes of Health
1R01DK100779	Clements, Mark	Longitudinal test of adherence & control in kids new to T1 diabetes & 5-9 yrs old [TACKLE]	$ 77,292	08/01/14	07/31/15	University of Kansas Medical Center	National Institutes of Health
5R01AR061513-04	Connelly, Mark	WebSMART: Efficacy of web-based self-management for adolescents with JIA	$ 281,475	07/01/14	06/30/15		National Institutes of Health
2R44HD066920-03A1	Connelly, Mark	An intervention to improve adolescent headache self-management	$ 9,269	10/01/14	09/30/15	Inflexxion, Inc.	National Institutes of Health
5R01HL085707-05	Dalal, Jignesh	RD Safe: A Multicenter Study of Hematopoietic Stem Cell Donor Safety and Quality of Life	PP	10/01/09	06/30/50	National Marrow Donor Program	National Institutes of Health

FEDERAL AWARD NUMBER	PRINCIPAL INVESTIGATOR	FULL TITLE	Current period funding	Start date	End date	DIRECT SPONSOR NAME	PRIME SPONSOR NAME
U10HL069294	Dalal, Jignesh	NMDP BMT-CTN Clinical Protocol #0501	PP	06/24/13	06/23/50	Children's Hospital of Philadelphia	National Institutes of Health
1R41AI108016-01	Domen, Adrianus	Novel indication for myeloid progenitor use: Induction of tolerance	$ 107,567	02/27/13	07/31/15	Cellerant Therapeutics, Inc.	National Institutes of Health
1R21HD076116-01A1	Dreyer-Gillette, Meredith	Modifiable Behavior & Dietary Predictors of Overweight in Children with ASD	$ 65,051	01/01/14	12/31/14	University of Kansas Medical Center	National Institutes of Health
R01DA035736	Gaedigk, Andrea	CYP2D6 Genotype and Cognitive Deficits in Methamphetamine Users with/without HIV	$ 51,866	03/01/14	02/28/15	University of California - San Diego	National Institutes of Health
1R01CA165277-01A1	Gamis, Alan	Toxicity Monitoring on Phase III Trials with Administrative Data	$ 1,400	08/03/12	05/31/15	Children's Hospital of Philadelphia	National Institutes of Health
5R01HD076673-02	Goggin, Kathy	Evalution of the HITSystem to Improve Early Infant Diagnosis Outcomes in Kenya	$ 43,355	05/01/14	04/30/15	University of Kansas Medical Center	National Institutes of Health
1R24MD007951-01	Goggin, Kathy	Multilevel Health Promotion in African American Churches	$ 32,247	01/01/14	12/31/14	University of Missouri Kansas City (UMKC)	National Institutes of Health
1R01HD072633	Goggin, Kathy	Determinants of Use of Safer Conception Strategies Among HIC Clients in Uganda	$ 50,187	04/01/14	03/31/15	RAND Corporation	National Institutes of Health
1R01DK093592-01A1	Goggin, Kathy	System CHANGE: An RCT for Medication Adherence in Kidney Transplant Recipients	$ 9,832	06/01/14	05/31/15	University of Missouri Kansas City (UMKC)	National Institutes of Health
1R01MH099981-01A1	Goggin, Kathy	Assessing HIV Screening in African American Churches	$ 12,203	05/01/14	02/28/15	University of Missouri Kansas City (UMKC)	National Institutes of Health
HHSN275201000003I	Goldman, Jennifer	Safety and Pharmacokinetics of Multiple-Dose Intravenous and Oral Clindamycin in Pediatric Subjects with BMI ≥ 85th Percentile	PP	04/18/13	03/27/15	Duke University	National Institutes of Health
HHSN272200800008C; PO #1000920057	Harrison, Christopher	MRSA decolonization practices in the Neonatal Intensive Care Unit	$ 100,000	06/08/11	12/06/14	University of Iowa	National Institutes of Health
HHSN272200800008C	Harrison, Christopher	A Phase II Open-Label Study in Healthy Pediatric Populations to Assess the Safety, Reactogenicity, and Immunogenicity of an Intramuscular Unadjuvanted Subvirion Monovalent Inactivated Influenza H3N2 Variant (H3N2v) Vaccine	$ 290,178	08/01/14	07/31/15	University of Iowa	National Institutes of Health
UM1CA097452	Hetherington, Maxine	Phase I Per Case Reimbursement	PP	01/13/14	06/30/50	Children's Hospital of Philadelphia	National Institutes of Health

Exhibit 1

FEDERAL AWARD NUMBER	PRINCIPAL INVESTIGATOR	FULL TITLE	Current period funding	Start date	End date	DIRECT SPONSOR NAME	PRIME SPONSOR NAME
1R18 HS021163-03	Humiston, Sharon	School Located Influenza Vaccinations for Children: Community-Wide Dissemination	$ 66,019	08/01/14	07/31/15	University of Rochester	Agency for Healthcare Research & Quality
5U01IP000502-03	Humiston, Sharon	Optimizing the Practical Application of Immunization Information System Use in Primary Care Settings	$ 40,831	09/01/14	08/31/15	University of Rochester	Centers for Disease Control and Prevention
5U66IP000671-03	Humiston, Sharon	Increasing Adolescent Immunization through Pediatric Partnerships	$ 20,000	09/01/14	08/31/15	American Academy of Pediatrics	Centers for Disease Control and Prevention
1U66IP000673-03	Humiston, Sharon	National Partnerships for Adolescent Immunization	$ 31,353	09/01/14	08/31/15	American Pediatric Association	Centers for Disease Control and Prevention
1U38OT00167-01	Humiston, Sharon	PPHF 2013: OSTLTS Partnerships - CBA of the Public Health System	$ 28,169	07/01/14	06/30/15	American Academy of Pediatrics	Centers for Disease Control and Prevention
3U38OT000167-01S1	Humiston, Sharon	PPHF 2013: OSTLTS Partnerships - CBA of the Public Health System [HPV-specific]	$ 85,827	09/30/14	09/29/15	American Academy of Pediatrics	Centers for Disease Control and Prevention
1H23IP000952-01	Humiston, Sharon	Improving Immunization Rates and Enhancing Disease Prevention through Partnerships with Providers	$ 85,827	09/30/14	09/29/15	American Academy of Pediatrics	Centers for Disease Control and Prevention
R01FD003341	Iqbal, Corey	Phase III Multicenter Trial of Magnetic Alteration of Pectus Excavatum	$ 16,750	05/01/14	04/30/15	University of California - San Francisco	Food and Drug Administration
5K23HL105783-04	Jones, Bridgette	Characterization of the Role of Histamine in Children with Asthma	$ 128,625	05/01/14	04/30/15		National Institutes of Health
R01HD060543	Kearns, Gregory	Metabolism and Toxicity of Acetominophen in Preterm Infants	$ 19,681	06/01/14	05/31/15	Children's Research Insitute	National Institutes of Health
HHSN275201000003I	Kearns, Gregory	PTN Clinical Trials Manager Salary	$ 499,626	05/08/12	02/14/15	Duke University	National Institutes of Health
HHSN275201000003I	Kearns, Gregory	Pediatric Trials Network: Core Chair Agreement	$ 177,040	09/30/11	09/29/15	Duke University	National Institutes of Health
HHSN275201000003I	Kearns, Gregory	The Effect of Obesity on the Pharmacokinetics of Pantoprazole in Children and Adolescents (Task Order 23) [Protocol development]	$ 73,032	12/01/13	07/28/15	Duke University	National Institutes of Health
5T32HD069038-04	Kearns, Gregory	Children's Mercy Hospital Collaborative Fellowship Program in Pediatric Pharmacology	$ 196,857	05/01/14	04/30/15		National Institutes of Health
1R01DK091823-02	Kingsmore, Stephen	Identification of Common and Uncommon Gene Variants in PBC	$ 186,432	09/01/14	08/31/15	Regents of the University of California	National Institutes of Health
1U19HD077693-01	Kingsmore, Stephen	Clinical and Social Implications of 2-day Genome Results in Acutely Ill Newborns	$ 1,141,278	09/01/14	08/31/15		National Institutes of Health

FEDERAL AWARD NUMBER	PRINCIPAL INVESTIGATOR	FULL TITLE	Current period funding	Start date	End date	DIRECT SPONSOR NAME	PRIME SPONSOR NAME
8UL1TR000001-02	Lantos, John	Heartland Institute for Clinical and Translational Research	$ 44,280	03/01/14	02/28/15	University of Kansas Medical Center Research Institute, Inc.	National Institutes of Health
U10NS077356	Le Pichon, Jean-Baptiste	Heartland Unit for Neuroscience Trials	$ 6,000	07/01/14	06/30/15	University of Kansas Medical Center	National Institutes of Health
5R01HD058556-05	Leeder, J. Steven	Exogenous and Endogenous Biomarkers of CYP2D6 Variability in Pediatrics	$ 561,688	03/01/14	02/28/15		National Institutes of Health
HHSN275201000003I	Lowry, Jennifer	Pharmacokinetics of Multiple Dose Methadone in Children	PP	12/12/13	07/21/15	Duke University	National Institutes of Health
1UM1AI109565-01	Moore, Wayne	TIDAL - Inducing Remission in New Onset T1DM with Alefacept (Amevive®)	$ 19,046	05/01/14	12/31/15	Benaroya Research Institute	National Institutes of Health
HHSN26700800019C	Moore, Wayne	Natural History Study of the Development of Type I Diabetes	PP	12/02/11	06/30/15	University of South Florida	National Institutes of Health
HHSN26700800019C	Moore, Wayne	Oral Insulin for Prevention of Diabetes in Relatives at Risk for Type 1 Diabetes Mellitus	PP	11/17/11	06/30/15	University of South Florida	National Institutes of Health
HHSN26700800019C	Moore, Wayne	TN10	PP	07/01/13	06/30/15	University of South Florida	National Institutes of Health
6119-1144-00-F	Moore, Wayne	TN07	PP	07/01/13	06/30/15	University of South Florida	National Institutes of Health
6119-1144-00-F	Moore, Wayne	DPT TrialNet	PP	07/01/14	06/30/15	University of South Florida	National Institutes of Health
HHSN26700800019C	Moore, Wayne	CTLA-4 Ig (Abatacept) for prevention of abnormal glucose tolerance (AGT) and diabetes in relatives at-risk for Type 1 diabetes mellitus (T1DM)	PP	11/08/11	06/30/15	University of South Florida	National Institutes of Health
HHSN275201000003I	Neville, Kathleen	Pharmacokinetics of Understudied Drugs Administered to Children per Standard of Care [POPS extension]	PP	09/26/12	06/25/15	Duke University	National Institutes of Health
U10CA098543	Neville, Kathleen	Temozolomide, Irinotecan Plus Bevacizumab (NSC #704865, BB-IND #7921) for Recurrent/Refractory Medulloblastoma/CNS PNET of	PP	01/13/14	06/30/50	Children's Hospital of Philadelphia	National Institutes of Health
UM1CA097452	Neville, Kathleen	Phase I Per Case Reimbursement	PP	01/13/14	06/30/50	Children's Hospital of Philadelphia	National Institutes of Health
5U54HD071598-03	Pearce, Robin	Indiana University Center for Pediatric Pharmacology	$ 10,000	07/01/14	06/01/15	Indiana University	National Institutes of Health
2R01AR052113-07	Price, Nigel	Bracing in Adolescent Idiopathic Arthritis [BrAIST]	$ 10,574	09/01/12	08/31/15	University of Iowa	National Institutes of Health

Exhibit 1

FEDERAL AWARD NUMBER	PRINCIPAL INVESTIGATOR	FULL TITLE	Current period funding	Start date	End date	DIRECT SPONSOR NAME	PRIME SPONSOR NAME
1U01AI087881-01A1	Puls, Henry	Prospective Cohort Study of Severe Bronchitis and Risk of Recurrent Wheezing	$ 3,257	09/01/14	08/31/15	Massachusetts General Hospital	National Institutes of Health
5U01IP000460-04S1	Selvarangan, Rangaraj	Enhanced Surveillance for New Vaccine Preventable Diseases	$ 391,529	08/01/14	07/31/15		Centers for Disease Control and Prevention
3U01IP000460-03W1	Selvarangan, Rangaraj	Enhanced Surveillance for New Vaccine Preventable Diseases [ACA supplement]	$ 191,291	08/01/14	07/31/15		Centers for Disease Control and Prevention
HHSN275201000003I	Shakhnovich, Valentina	The Effect of Obesity on the Pharmacokinetics of Pantoprazole in Children and Adolescents (Task Order 23)	PP	03/27/14	08/28/15	Duke University	National Institutes of Health
5UM1DK100866-02	Srivastava, Tarak	Integrative Proteomics & Metabolomics for Pediatric Glomerula Disease Biomarkers	$ 9,705	06/01/14	05/31/15	Nationwide Children's Hospital	National Institutes of Health
R01CA16281-06	Stegenga, Kristin	Music Video and parent Intervention for Family Resilience during Cancer Treatment	$ 29,377	06/01/14	05/31/15	Indiana University	National Cancer Institute
90CB0194-02-00	Templeton, Oneta	Team for Infants Endangered by Substance Abuse (TIES)	$ 475,000	09/30/14	09/29/15		Department of Health and Human Services / Adminstration for Children and Families
U01HL094338	Truog, William	TOLSURF capitation	PP	04/15/10	06/30/50	The Regents of The University of California (University of California San Francisco)	National Institutes of Health
U01HL112748	Truog, William	NRN capitation	PP	04/01/11	03/31/15	RTI International	National Institutes of Health
U01HL094338	Truog, William	Trial of Late Surfactant to Prevent BPD - Clinical Coordinating Center	$ 2,250	08/01/14	07/31/15	The Regents of The Univesity of California (University of California San Francisco)	National Institutes of Health
5U10HD068284-04	Truog, William	The Children's Mercy-Truman-UMKC Center: A New Addition for the Next 5 Years [Neonatal Research Network]	$ 280,150	04/01/14	03/31/15		National Institutes of Health
5U01DK061230-11	Ugrasbul-Eksinar, Figen	TODAY Study Group Genetics Protocol	PP	03/01/13	02/28/15	The George Washington University	National Institutes of Health
2U01DK066143-11	Warady, Bradley	Chronic Kidney Disease in Children (CKiD III)	$ 1,016,466	08/01/14	07/31/15		National Institutes of Health
U10 EY11751	Waters, Amy	Amblyopia Treatment Study ATS15: Increasing Patching for Amblyopia	PP	07/01/09	12/31/18	JAEB Center for Health Research, Inc.	National Institutes of Health

Exhibit 1

FEDERAL AWARD NUMBER	PRINCIPAL INVESTIGATOR	FULL TITLE	Current period funding	Start date	End date	DIRECT SPONSOR NAME	PRIME SPONSOR NAME
U10 EY11751	Waters, Amy	Intermittent Exotropia Study 1 (IXT1). A Randomized Trial of Bilateral Lateral Rectus Recession versus Unilateral Lateral Rectus Recession with Medical Rectus Resection of Intermittent Exotropia	PP	12/07/09	12/31/18	Jaeb Center for Health Research, Inc.	National Institutes of Health
U10 EY11751	Waters, Amy	ATS16 Augmenting Atropine Treatment for Amblyopia	PP	05/22/12	12/31/18	Jaeb Center for Health Research, Inc.	National Institutes of Health
U10 EY11751	Waters, Amy	HTS1-Glasses Vs. Observation for Moderate Hyperopia in Young Children (LEVEL A)	PP	05/22/12	12/31/18	Jaeb Center for Health Research, Inc.	National Institutes of Health
U10EY11751	Waters, Amy	Pediatric Cataract Surgery Outcomes Registry (CO2)	$ 1,200	05/22/12	12/31/18	Jaeb Center for Health Research, Inc.	National Institutes of Health
R01Ai03315	Yin, Dwight	Multi-Center Studies to Improve Diagnosis and Treatment of Pediatric Candidiasis	PP	01/01/14	12/31/17	Duke University	National Institutes of Health

Implementation of Beacon Program for Kansas Medicaid
Children with Medical Compexity - Budget

DY 3 (2015)

Salary

Salaries supported	Annual Salary	Total FTE	Indicate FTE portion *being requested from DSRIP* [1]	DSRIP Cost	Other	In-Kind [2]	Total
Program Co-Directors	128750	1	0.35	$45,063	$0	$83,688	$128,750
Clinical Primary care provider	132874	2.54	0.89	$300,038	$0	$557,213	$857,250
Psychologist	98571	0.75	0.26	$19,406	$0	$36,040	$55,446
Nurse practitioner Case Manager	103500	2	0.70	$144,900	$0	$269,100	$414,000
Clinical Services Cooordinator - DME/Nursing/Wound Care	54974	1	0.35	$19,241	$0	$35,733	$54,974
Social worker	64917	2	0.70	$90,884	$0	$168,784	$259,667
Clinic Nurse / Care Coordinator	56992	3	1.05	$179,525	$0	$333,403	$512,928
Dietitian	69805	1	0.35	$24,432	$0	$45,373	$69,805
Office Coordinator	48131	1	0.35	$16,846	$0	$31,285	$48,131
Respiratory Therapist	58884	0	0.00	$0		$0	$0
Care Assistant	30534	1	0.35	$10,687	$0	$19,847	$30,534
Total Salary				**$851,020**	**$0**	**$1,580,466**	**$2,431,486**

Benefits and Payroll Taxes

The project will pay the following benefits and payroll taxes for the above staff: FICA, Health, Dental, Life Insurance, etc.			Benefit % rate of total salary expense (e.g. 20%)	DSRIP Cost	Other	In-Kind	Total
FICA, Health, Dental, Life Insurance (Co-Directors)	128750	1	21.25%	$9,576	$0	$17,784	$27,359
FICA, Health, Dental, Life Insurance (PCP)	132874	2.54	21.25%	$63,758	$0	$118,408	$182,166
FICA, Health, Dental, Life Insurance (Psychologist)	98571	0.75	21.25%	$4,124	$0	$7,659	$11,782
FICA, Health, Dental, Life Insurance (NP Case Manager)	103500	2	21.25%	$30,791	$0	$57,184	$87,975
FICA, Health, Dental, Life Insurance (CSC)	54974	1	21.25%	$4,089	$0	$7,593	$11,682
FICA, Health, Dental, Life Insurance (SW)	64917	2	21.25%	$19,313	$0	$35,867	$55,179
FICA, Health, Dental, Life Insurance (RN)	56992	3	21.25%	$38,149	$0	$70,848	$108,997
FICA, Health, Dental, Life Insurance (Dietitian)	69805	1	21.25%	$5,192	$0	$9,642	$14,834
FICA, Health, Dental, Life Insurance (Office Coord)	48131	1	21.25%	$3,580	$0	$6,648	$10,228
FICA, Health, Dental, Life Insurance (RT)	58884	0	21.25%	$0	$0	$0	$0
FICA, Health, Dental, Life Insurance (Care Assistant)	30534	1	21.25%	$2,271	$0	$4,218	$6,489
Total Benefits and Payroll Taxes				**$180,842**	**$0**	**$335,849**	**$516,691**

Other Direct Expense:

	DSRIP Cost	Other	In-Kind	Total
Data Management System / Reporting Buildout/Analytics	$42,000	$0	$0	$42,000
Total Other Direct	**$42,000**	**$0**	**$0**	**$42,000**

***Equipment & Supplies:**

	DSRIP Cost	Other	In-Kind	Total
None	$0	$0	$0	$0
Total Equipment/Supplies	**$0**	**$0**	**$0**	**$0**

Total All Expenses	**$1,073,862**	**$0**	**$1,916,315**	**$2,990,177**

Implementation of Beacon Program for Kansas Medicaid
Children with Medical Compexity - Budget

DY 4 (2016)

Salary

Salaries supported	Annual Salary	Total FTE	Indicate FTE portion *being requested from DSRIP*	DSRIP Cost	Other	In-Kind	Total
Program Co-Directors	128750	1	0.35	$45,063	$0	$83,688	$128,750
Clinical Primary care provider	132874	4.54	1.59	$958,561	$0	$1,780,185	$2,738,746
Psychologist	98571	1	0.35	$34,500	$0	$64,071	$98,571
Nurse practitioner Case Manager	103500	2	0.70	$144,900	$0	$269,100	$414,000
Clinical Services Cooordinator - DME/Nursing/Wound Care	54974	2	0.70	$76,964	$0	$142,932	$219,896
Social worker	64917	3	1.05	$204,488	$0	$379,763	$584,251
Clinic Nurse / Care Coordinator	56992	4	1.40	$319,155	$0	$592,717	$911,872
Dietitian	69805	2	0.70	$97,727	$0	$181,492	$279,219
Office Coordinator	48131	1	0.35	$16,846	$0	$31,285	$48,131
Respiratory Therapist	58884	1	0.35	$20,609	$0	$38,275	$58,884
Care Assistant	30534	1	0.35	$10,687	$0	$19,847	$30,534
Total Salary				**$1,929,499**	**$0**	**$3,583,356**	**$5,512,855**

Benefits and Payroll Taxes

The project will pay the following benefits and payroll taxes for the above staff: FICA, Health, Dental, Life Insurance, etc.			Benefit % rate of total salary expense (e.g. 20%)	DSRIP Cost	Other	In-Kind	Total
FICA, Health, Dental, Life Insurance (Co-Directors)	128750	1	21.25%	$9,576	$0	$17,784	$27,359
FICA, Health, Dental, Life Insurance (PCP)	132874	4.54	21.25%	$203,694	$0	$378,289	$581,984
FICA, Health, Dental, Life Insurance (Psychologist)	98571	1	21.25%	$7,331	$0	$13,615	$20,946
FICA, Health, Dental, Life Insurance (NP Case Manager)	103500	2	21.25%	$30,791	$0	$57,184	$87,975
FICA, Health, Dental, Life Insurance (CSC)	54974	2	21.25%	$16,355	$0	$30,373	$46,728
FICA, Health, Dental, Life Insurance (SW)	64917	3	21.25%	$43,454	$0	$80,700	$124,153
FICA, Health, Dental, Life Insurance (RN)	56992	4	21.25%	$67,820	$0	$125,952	$193,773
FICA, Health, Dental, Life Insurance (Dietitian)	69805	2	21.25%	$20,767	$0	$38,567	$59,334
FICA, Health, Dental, Life Insurance (Office Coord)	48131	1	21.25%	$3,580	$0	$6,648	$10,228
FICA, Health, Dental, Life Insurance (RT)	58884	1	21.25%	$4,379	$0	$8,133	$12,513
FICA, Health, Dental, Life Insurance (Care Assistant)	30534	1	21.25%	$2,271	$0	$4,218	$6,489
Total Benefits and Payroll Taxes				**$410,019**	**$0**	**$761,463**	**$1,171,482**

Other Direct Expense:

	DSRIP Cost	Other	In-Kind	Total
Data Management System / Reporting Buildout/Analytics	$42,000	$0	$0	$42,000
Total Other Direct	**$42,000**	**$0**	**$0**	**$42,000**

*Equipment & Supplies:

	DSRIP Cost	Other	In-Kind	Total
None	$0	$0	$0	$0
Total Equipment/Supplies	**$0**	**$0**	**$0**	**$0**

Total All Expenses	**$2,381,518**	**$0**	**$4,344,819**	**$6,726,337**

Implementation of Beacon Program for Kansas Medicaid
Children with Medical Compexity - Budget

DY 5 (2017)

Salary

Salaries supported	Annual Salary	Total FTE	Indicate FTE portion *being requested from DSRIP*	DSRIP Cost	Other	In-Kind	Total
Program Co-Directors	128750	1	0.35	$45,063	$0	$83,688	$128,750
Clinical Primary care provider	132874	6	2.10	$1,674,213	$0	$3,109,252	$4,783,465
Psychologist	98571	1	0.35	$34,500	$0	$64,071	$98,571
Nurse practitioner Case Manager	103500	2	0.70	$144,900	$0	$269,100	$414,000
Clinical Services Cooordinator - DME/Nursing/Wound Care	54974	3	1.05	$173,168	$0	$321,598	$494,766
Social worker	64917	4	1.40	$363,534	$0	$675,135	$1,038,669
Clinic Nurse / Care Coordinator	56992	6	2.10	$718,099	$0	$1,333,613	$2,051,712
Dietitian	69805	3	1.05	$219,885	$0	$408,358	$628,243
Office Coordinator	48131	1	0.35	$16,846	$0	$31,285	$48,131
Respiratory Therapist	58884	1	0.35	$20,609	$0	$38,275	$58,884
Care Assistant	30534	2	0.70	$42,748	$0	$79,389	$122,138
Total Salary				**$3,453,565**	**$0**	**$6,413,764**	**$9,867,329**

Benefits and Payroll Taxes

The project will pay the following benefits and payroll taxes for the above staff: FICA, Health, Dental, Life Insurance, etc.			Benefit % rate of total salary expense (e.g. 20%)	DSRIP Cost	Other	In-Kind	Total
FICA, Health, Dental, Life Insurance (Co-Directors)	128750	1	21.25%	$9,576	$0	$17,784	$27,359
FICA, Health, Dental, Life Insurance (PCP)	132874	6	21.25%	$355,770	$0	$660,716	$1,016,486
FICA, Health, Dental, Life Insurance (Psychologist)	98571	1	21.25%	$7,331	$0	$13,615	$20,946
FICA, Health, Dental, Life Insurance (NP Case Manager)	103500	2	21.25%	$30,791	$0	$57,184	$87,975
FICA, Health, Dental, Life Insurance (CSC)	54974	3	21.25%	$36,798	$0	$68,340	$105,138
FICA, Health, Dental, Life Insurance (SW)	64917	4	21.25%	$77,251	$0	$143,466	$220,717
FICA, Health, Dental, Life Insurance (RN)	56992	6	21.25%	$152,596	$0	$283,393	$435,989
FICA, Health, Dental, Life Insurance (Dietitian)	69805	3	21.25%	$46,726	$0	$86,776	$133,502
FICA, Health, Dental, Life Insurance (Office Coord)	48131	1	21.25%	$3,580	$0	$6,648	$10,228
FICA, Health, Dental, Life Insurance (RT)	90889	1	21.25%	$46,726	$0	$86,776	$133,502
FICA, Health, Dental, Life Insurance (Care Assistant)	30534	2	21.25%	$9,084	$0	$16,870	$25,954
Total Benefits and Payroll Taxes				**$776,229**	**$0**	**$1,441,567**	**$2,217,796**

Other Direct Expense:

	DSRIP Cost	Other	In-Kind	Total
Data Management System / Reporting Buildout	$42,000	$0	$0	$42,000
Total Other Direct	**$42,000**	**$0**	**$0**	**$42,000**

*Equipment & Supplies:

	DSRIP Cost	Other	In-Kind	Total
None	$0	$0	$0	$0
Total Equipment/Supplies	**$0**	**$0**	**$0**	**$0**

Total All Expenses				**$4,271,794**	**$0**	**$7,855,331**	**$12,127,125**

Notes/Assumptions

1 FTE's are allocated based on percent of Kansas patients served by Beacon ~35%

2 In Kind allocaction represents the percent of Missouri patients served by Beacon ~65%

Beacon Expansion Timeline

Initial ongoing Complete

Project Milestones (Category 1: Infrastructure & Category 2: Process)	2015 Quarters				2016 Quarters				2017 Quarters			
	1	2	3	4	1	2	3	4	1	2	3	4
1.1 Build and define Beacon's implementation team to conduct organizational pre-assessment												
Develop project team												
Review standards and change concepts												
Conduct organization asessment for evaluation of												
Engaged leadership												
Quality Improvement strategy												
Empanelment												
Continous and team-based healing relationships												
Organized, evidence based care												
Patient-Centered interactions												
Enhanced access												
Care coordination												
1.2 Conduct gap assessment of Beacon against NCQA PCMH cirteria												
Complete a gap analysis based on Beacon assessment												
Feedback data to the Beacon												
Finalize Beacon's goals for intervention and implementation of work plan												
Build capacity for data driven change with introduction of information to that may be used in the improvement project												
1.3 Expand Beacon Program staff to provide comprehensive care coordination program for Kansas CMC												
Beacon will hire the following staff: 1 Clinical PCP; 1 Psychologist; 1 APRN Case Manager; 1 Social Worker, 1 Clinic Nurse/Care Coordinator; 1 Dietitian; 1 Care Assistant												
Beacon will hire the following staff: 2 Clinical PCP; 1 Social Worker, 1 Clinical Services Coordinator; 1 Clinic Nurse/Care Coordinator; 1 Care Assistant												
Beacon will hire the following staff: 2 Clinical PCP; 1 Social Worker, 1 Clinical Services Coordinator; 2 Clinic Nurse/Care Coordinator; 1 Care Assistant; 1 Respiratory Therapist; 1 Office Coordinator												
1.4 Develop and Implement electronic Care Plan template for use with community PCPs												
Build and implement electronic Care Plan template												
1.5 Develop and implement electronic templates and order sets to support evidence based care												
Complete new electronic documentation templates and order sets (2) electronic documentation buildouts or order sets												
Complete new electronic documentation templates and order sets (2) electronic documentation buildouts or order sets												
2.1 Develop and implement action plan for NCQA PCMH recognition												
Evaluate and track registry usage and outreach												
Evaluate and track delivery of evidence based care for specific chronic and high risk conditions												
Monitor performance data from Beacon related to Category 3 Outcome metrics and implement QI plans for performance improvement												
2.2 Beacon Program recognized as NCQA PCMH												
Application Period												
Beacon receives NCQA recognition as Level III PCMH												
2.3 Develop and Implement Action Plan for Medical Neighborhood Support of Beacon												
Plan for implementation of Coordinating Care Agreements (CCA)												
Implement plan for executing CCAs use within Beacon's medical neighborhood												

METRICS – Exhibit 4

TITLE OF PROJECT: Implementation of Beacon Program to Improve Care for CMC										
Measure Count	**Measure Name**	**Metric**	**NQF#**	**Measure Steward**	**Data Source**	**Baseline Performance Level (include numerator/denominator)**	**Anticipated Completion Date** if applicable	**Report Deliverables to State**	**Data Periodicity**	**Anticipated target level for triggering payment**
CATEGORY										
1.1	Build and define Beacon's PCMH implementation team	Identification of a mulitdisciplinary team from Beacon to conduct an initial assessment of the clinic's readiness assessment of the practice readiness	N/A	N/A	Report	N/A	Q1 2015	Q4 2015	Annual	Documentation of the Beacon implementation team
1.2	Conduct gap assessment of Beacon Program against NCQA PCMH criteria	Develop and implement a work plan to complete gap analysis against NCQA PCMH recognition criteria	N/A	N/A	Report	N/A	Q3 2015	Q4 2015	Annual	Report of Gap Assessment
1.3	Expand Beacon Program staff in order to provide a comprehensive care coordination program for Kansas Medicaid CMC	Develop a multi-disciplinary team to implement and expand the Beacon Program for Kansas Medicaid CMC	N/A	N/A	Report	N/A	Q4 2015 Q4 2016 Q4 2017	Q1 2016 Q1 2017 Q1 2018	Annual	Submission of annual FTE report
1.4	Create reporting mechanisms/Electronic Care Plan Template	Submission of Care Plan delivered to internal and community based PCPs	N/A	N/A	Report	N/A	Q4 2015	Q4 2015	Annual	Care Plan report submission
1.5	Develop electronic documentation templates and order sets to support the evidence based care of and the reporting on the patients served by this clinic	Completion of electronic documentation templates and order sets	N/A	N/A	Report	N/A	Q4 2015 Q4 2016	Q4 2015 Q4 2016	Annual	Order sets report submission

CATEGORY 2 MEASURES	**Measure Name**	**Metric**	**NQF #**	**Measure Steward**	**Data Source**	**Baseline Performance Level (include numerator/denominator)**	**Anticipated Completion Date**	**Report Deliverables to State**	**Data Periodicity**	**Anticipated target level for triggering payment**
2.1	Develop and implement action plan for NCQA PCMH recognition and track processes associated with PCMH implementation	Documentation submission of the PCMH implementation work plan with periodic updates of progress in the areas decribed above.	N/A	N/A	Report	N/A	Q4 2015	Q1 2016	Annual	Work plan submission
2.2	Beacon Program recognized as NCQA PCMH	Beacon Program is recognized as a Level III PCMH	N/A	N/A	Report	N/A	Q4 2016	Q4 2016	Annual	Year 3- Application Period Year 4- Beacon recieves Level 3
2.3	Develop and implement the action plan for Medical Neighborhood support of Beacon	CSA use by Beacon with initial referral to CMH Specialists	N/A	N/A	Report	N/A	Q4 2015 Q4 2016 Q1-4 2017	Q4 2015	Annual	DY 3: Plan for Implementation of Care Service Agreements DY 4: Implement the Plan for executing CSAs including significant changes to the EMR as well as staff training on use of CSAs to effectuate medical neighborhoods DY 5: 10% of Beacon referrals to Children's Mercy specialists and subspecialists contain CSAs

CATEGORY 3 MEASURES	Measure Name	Metric	NQF#	Measure Steward	Data Source	Baseline Performance Level (include numerator/denominator)	Anticipated Completion Date	Report Deliverables to State	Data Periodicity	Anticipated target level for triggering payment
3.1	Increase Immunization Rate in Children	Increase Immunization Rates for Children 2 yoa and Children 6 yoa.	NQF 038	NCQA/CIS	DAI	**#1 Numerator**: The number of patients assigned to Beacon primary care provider who received each of the following vaccines on or before their 2nd birthday: 4 DTaP; 3 IPV; 1 MMR; 3 HIB; 3 HepB; 1 VZV; 2 Influenza; and 2 Rotavirus (on or before 8 months of age). **#1 Denominator:** The number of patients assigned to Beacon primary care provider who turn 2 years old during the measurement period. **#2 Numerator:** The number of patients who are up-to-date on the following immunizations, including boosters: MMR, VZV, DtaP, IPV, Hep A, Hep B **#2 Denominator:** The number of patients assigned to Beacon primary care provider who turn 6 years old during the measurement period.	Q4 2017	Q4 2015	Annual	*Current baseline* for #1 is 38% for Beacon patients.[1] *Annual target:* increase percentage by at least 10% annually through DY 5, or a 10% reduction in the gap to the goal (90th Percentile) *Current baseline* for #2 is 75% for Beacon patients.[2] *Annual target:* increase percentage by at least 10% annually through DY5, or a total goal of at least 90%.

[1] The national benchmark (HHS Region 7) for this HEDIS measure (90th percentile) is 86%.
[2] There isn't a national benchmark equivalency for this measure (children 6 years of age).

3.2	Increase Immunization Rate in Adolescents and Adults	Increase the percent of patients assigned to Beacon primary care provider who have completed recommended immunizations - adolescents	NQF 1407	NCQA/IMA	DAI	**#1Numerator:** The number of patients that have each of the following on or before their 13th birthday: 1 MCV, 1 Tdap or 1 Td. **#1 Denominator:** The number of patients assigned to Beacon primary care provider who turn 13 years old during the measurement period. **#2 Numerator:** The number of patients assigned to Beacon primary care provider who receive the meningococcal vaccine (MCV) booster between their 16th and 18th birthdays. **#2 Denominator:** The number of patients assigned to Beacon primary care provider who turn 17, or 18 during the measurement period.	Q4 2017	Q4 2015	Annual	*Current baseline* for #1 is 75% for Beacon patients.[3] *Annual target:* increase percentage by at least 10% annually through DY5, or a 10% reduction in the gap to the goal (90th Percentile). *Current baseline* for #2 is 18% for Beacon patients. *Annual target*: increase percentage by at least 10% annually through DY5, or a total goal of at least 50%.
3.3	Asthma Influenza Vaccine	Increase the percent of patients assigned to Beacon primary care provider with a diagnosis of asthma who receive an annual influenza vaccination.	N/A	HRSA Asthma Collaborative	Claims, Vaccine Registry	**Numerator:** Number of patients assigned to Beacon primary care provider with diagnosis of asthma who have a record or influenza immunization in the previous 12 months. **Denominator:** Number of patients assigned to Beacon primary care provider with a diagnosis of asthma.	Q4 2017	Q4 2015	Annual	**Current baseline** is 68%for Beacon patients. **Annual target:** increase percentage by at least 10% annually through DY5, or a total goal of at least 90%.

[3] The national benchmark (HHS Region 7) for this HEDIS measure (90th percentile) is 86%.

3.4	Anemia in Children	Increase the percentage of children two years of age who had hemoglobin/hematocrit testing by their second birthday.	N/A	AAP Bright Futures	Hybrid Measure – Claims Data and Chart Review	**Numerator:** Children assigned to Beacon primary care provider who turn two years of age during the measurement year with a hemoglobin/hematocrit test on or before the child's second birthday **Denominator**: Children assigned to Beacon primary care provider who turn two years of age during the measurement year.	Q4 2017	Q4 2015	Annual	**Current baseline** is 88% for Beacon patients. **Annual target:** increase percentage by at least 10% annually through DY5, or a total goal of at least 98%.
3.5	Patient/Family Experience Coordination of Care	Improve the patient/family experience Coordination of Care; *"If your provider ordered labs/x-rays, or other studies, did someone call to follow up the results in a timely manner?" (Yes 90% of time)*	N/A	NRC Picker Standard Question #57	Survey	**Numerator**: Number of adolescent patients with two or more chronic conditions or one chronic condition at risk for a second that receive depression screening with a standardized tool. **Denominator**: Number of adolescent patients with two or more chronic conditions or one chronic condition at risk for a second in the measurement period	Q4 2017	Q4 2015		**Current baseline** is 68.2%for Beacon patients. **Annual target:** increase percentage by at least 10% annually through DY5, or a total goal of at least 80%.
3.6	Establish Emergency Information Form (EIF)	Increase the percent of Beacon patients who have an Emergency Information Form for use by EMS and receiving health organizations.	N/A	AAP Policy Statement	Medical Record Review	**Numerator:** Number of Beacon patients who have a Pediatric Information Form for EMS completed in a 12 month period. **Denominator**: Number of Beacon patients	Q4 2017	Q4 2015		**Current baseline** is 3% for Beacon patients. **Annual target:** increase percentage by at least 25% annually through DY5, or a total goal of at least 90%.

3.7	Care Plan Development	Improve the number of Beacon patients who receive effective care coordination of healthcare services when needed.	NQF #0719	HRSA-MCH	Medical Record Review	**Numerator:** Number of eligible Beacon patients with a documented Health and Services care plan in the previous 13 months. **Denominator**: Number of eligible Beacon patients.	Q4 2017	Q4 2015		The Health and Services computerized template is not completed yet so our current baseline is 0% for Beacon Patients. **Annual target:** increase percentage by at least 30% annually through DY5, or a total goal of at least 90%.

CATEGORY 4 MEASURES	**Measure Name**	**Metric**	**NQF#**	**Measure Steward**	**Data Source**	**Baseline Performance Level (include numerator/denominator)**	**Anticipated Completion Date**	**Report Deliverables to State**	**Data Periodicity**	**Anticipated target level for triggering payment**
4.1	ED utilization for asthma –	X CMH ED visits with primary diagnosis of asthma/1000 CMH patients with Kansas Medicaid and diagnosis of asthma	N\A		Report\ EHR	Baseline rate 305/1000 patients **Numerator**: Number of CMH pts 2-17 yoa with a diagnosis of asthma who have 1 or more ED visits with primary diagnosis of asthma in the last 6 months. **Denominator**: Number of CMH pts 2-17 yoa with a diagnosis of asthma	Q4 2017	Q4 2015	Annual	Year 3- 300/1000 Year 4- 2.5% decrease from baseline Year 5- 5% decrease from baseline
4.2	Decrease readmissions	30 day all-cause readmission rate following hospitalization for patients with Kansas Medicaid	N\A			**Numerator**: number of CMH inpatient hospitalizations among Kansas Medicaid patients that occur within 30-days of admission to the hospital after an inpatient hospital stay. **Denominator**: the number of Kansas Medicaid patients admitted to CMH that had an inpatient hospital stay during the evaluation period.	Q4 2017	Q4 2015	Annual	Year 3- Baseline Data Collection Year 4- 1% decrease from baseline Year 5- 2% decrease from baseline

4.3	Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents	Percentage of patients 3-17 years of age with Kansas Medicaid who had an outpatient visit with a CMH Primary Care Physician (PCP)in a Children's Mercy Primary Care clinic with: ▪ height, weight, and body mass index (BMI) percentile documentation. ▪ counseling for nutrition. ▪ counseling for physical activity	NQF 0024	NCQA	EHR\Claims	**Baseline**: BMI- 34.7%- goal; Counseling for Nutrition 46.9%; Counseling for Physical Activity 44% **National benchmark-90th=** BMI- 80% ; Counseling for Nutrition 78%; Counseling for Physical Activity 65% **Numerator:** number of pts 3-17 yoa who had height, weight, BMI documented during the measurement year. **#2** **Numerator**: number of pts 3-17 yoa who had nutritional counseling during the measurement year. **#3** **Numerator:** number of patients 3-17 yoa who had counseling for physical activity **Denominator:** number of patients 3-17 yoa	Q4 2017	Q4 2015	Annual	Year 3- BMI- 39.2%; Counseling for Nutrition50%; Counseling for Physical Activity 47% Year 4- 10% reduction in the gap to goal) in the number of patients in targeted population will have documented Weight Assessment & Counseling for Nutrition and Physical Activity Year 5- 10% reduction in the gap to goal) in the number of patients in targeted population will have a documented Weight Assessment & Counseling for Nutrition and Physical Activity

4.4	Appropriate Testing for Children with Pharyngitis	The percentage of children 2–18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode	NQF 0002	NCQA	EHR\Claims	**Baseline:** 51.6% **National benchmark-90th=**95 **Numerator:** A group A streptococcus test in the seven-day period from three days prior to the Index Episode Start Date (IESD) through three days after the IESD **Denominator** The number of children 2-18 years of age who were diagnosed with pharyngitis and dispensed an antibiotic	Q4 2017	Q4 2015	Annual	Year 3= 55.9% Year 4- 10% reduction in the gap to goal) in the number of patients in targeted population will have Appropriate Testing for Children with Pharyngitis Year 5- 10% reduction in the gap to goal) in the number of patients in targeted population will have Appropriate Testing for Children with Pharyngitis