Ediatric care has always presented a unique set of challenges to our care delivery systems. Historically, children were admitted to hospitals with episodic illnesses, often of infectious origin, or were hospitalized due to problems arising from poor management of chronic conditions. Over time, improvements in outpatient care, the development of effective immunizations and other advances in more comprehensive approaches to care all resulted in a decreasing numbers of inpatient admissions for preventable and controllable conditions.

Fortunately, only about 5 percent of all children will ever need inpatient hospital care. Ninety-five percent of all pediatric care is delivered in the outpatient setting. But for others with congenital and chronic health conditions, the number of hospital stays can be significant. They will account for 60 percent of pediatric admissions, 70 percent of patient days and 75 percent of the total cost of care.¹

At Mercy Children’s Hospital, we are creating an integrated system of care aimed at providing accessible, coordinated health care for these vulnerable children and their families. Our goal is to provide the necessary level of pediatric care within a given patient’s community without the need for travel to a distant hospital or specialist. Our approach is part of a larger, ministry-wide effort to expand services and transform the health care experience for all those we serve.

There is one Mercy Children’s Hospital with two primary physical locations, St. Louis and Springfield, Mo. Mercy Children’s Hospital is responsible for the care of children in all Mercy facilities.

Through Mercy Clinic, our ministry-wide multispecialty physician group, we are looking to fully integrate hospital and physician care for patients wherever they live in our four-state region of Missouri, Oklahoma, Arkansas and Kansas.

Mercy Clinic includes over 1,200 physicians in 70 clinical specialties. There are over 100 primary care pediatricians and 90 pediatric specialists in Mercy Clinic and on the medical staff of Mercy Children’s Hospital. They work with the hundreds of family physicians, physician assistants and pediatric nurse practitioners who also provide primary care to children within the Mercy ministry.

Mercy’s roots date back to 19th century Ireland when Catherine McAuley founded the Sisters of Mercy to serve the needy and uneducated on the streets of Dublin. In the tradition of the sisters who blazed the trail before us, Mercy co-workers believe that service begins in the heart of the community and that our strength lies in a cooperative effort to meet those needs.
Fortunately, only about 5 percent of all children will ever need inpatient hospital care.
In that spirit, and with the aid of new information technologies that make clinical integration possible, Mercy has evolved beyond a hospital-centric culture to a model of care that is highly integrated. Our approach to care coordination in pediatrics is transforming how we treat children across our system, especially those with chronic disease and special health needs.

These children stress the health care system and unfortunately pose unique challenges to their families and caregivers. Access to primary care medical homes and pediatric specialists for these children often is a challenge due to an inadequate number of primary care physicians in rural areas and pediatric specialists in general. The risk of fragmented care leads to potential errors and complications. Parents are faced with the daunting task of coordinating their child’s care with many providers. Funding for this care also becomes a challenge. In today’s economic environment of increasing costs and potentially decreasing reimbursement, it is imperative that we work to decrease the cost of caring for children and youth with special health care needs. It is also the right thing to do — to provide accessible coordinated care for these children and their families.

Within Mercy, we are pursuing two complementary approaches to this situation. First, through Mercy Clinic and our ministry-wide children’s hospital, our hospitals and physician clinics are working together to establish a system of integrated care in order to provide the necessary level of pediatric care close to home. The second is comprehensive care coordination using tools and processes that reach across our service regions.

**THE SCOPE OF SERVICES**

To provide effective care delivery to patients, we must first understand each other’s capabilities. Within the Mercy ministry, there are over 100 pediatricians, eight internal medicine/pediatricians, almost 270 family physicians and over 350 pediatric nurse practitioners and physician assistants caring for children in Mercy primary care offices in our service region. We are preparing both web-based and printed guides to pediatric care within our system so that every provider in every location has access to information about where to find services for their pediatric patients within Mercy. Most importantly, we are working to establish relationships among the primary care providers and the pediatric specialists within Mercy Children’s Hospital. By the exhaustive process of establishing these personal relationships, we will be able, with few exceptions, to maintain care of our patients within Mercy.

We must also learn each other’s needs. The majority of pediatric specialists are located at Mercy Children’s Hospital, St. Louis, with a smaller but significant number practicing at Mercy Children’s Hospital in Springfield. For Mercy patients living outside these metropolitan areas, access to these specialists is not always easy. As a result, we are establishing a telemedicine network allowing specialists within Mercy to provide consultations to patients who can remain in their home communities.

Initially, we will provide telemed pediatric cardiology consultations to all full-term nurseries. Using remote transmission of EKG, radiographic, echo graphic images and heart sounds, pediatric cardiologists based in St. Louis or Springfield can provide diagnoses and arrange follow-up of newborns with heart murmurs detected by the primary care physician while the babies are still in the nursery where they were born. We envision a significant number of pediatric specialty consultations can be accomplished using telemedicine technology.

To further meet needs, we will establish a coordinated system of care. Management and quality improvement staff and resources focused solely on pediatrics are currently available only at Mercy’s two children’s hospital sites. By leveraging these resources, we will be able to establish ministry-wide standards of care and achieve consistent excellence across all of the system. We will expand our transport service, currently available only in St. Louis and Washington, Mo., to provide transport of ill patients requiring a level of care higher than what is available in their home communities to the closest facility that offers the appropriate level of care.

We will also optimize use of the Epic electronic health record system, already implemented ministry-wide, to facilitate communication in real time between remote providers of care and the patient’s medical home. Epic’s “one patient, one record” format is well suited for this as it allows complete sharing of all medical documents among all Mercy providers, regardless of location.

**FROM INTEGRATION TO INNOVATION**

Through the implementation of a new integrated model of care, we are transforming our cultural landscape from one based on many individual service units, each entirely locally managed and independent, to a model of care coordination across our region. Through Mercy Clinic, pediatrics and other specialties are benefitting from shared decision-making among providers and hospitals to achieve the highest quality of care.

The second approach to clinical integration, complementary to those already discussed, is comprehensive care coordination. Throughout Mercy, a system of care coordination has been established using software that tracks all episodes of care and links to the Epic electronic health record system. At Mercy Children’s Hospital, St. Louis, we have established a program.
called POINT (Pediatric Outpatient and Inpatient Navigation Team). The POINT team is composed of a pediatric nurse practitioner, one RN trained in care coordination and one social worker. A pediatric oncologist and the department chair provide medical direction.

**Integration is necessary because the existing model of health care delivery in the U.S. is not sustainable.**

POINT will serve chronically ill children and adolescents who suffer from a wide range of problems including but not limited to cystic fibrosis, genetic anomalies, hematology/oncology disorders, severe respiratory disease and the complications and effects of prematurity.

Mercy Children's Hospital, St. Louis, is located within the St. John's Mercy Medical Center. At Mercy, 8,500 newborns are delivered annually. We have an excellent maternal-fetal care program and a 98-bed newborn intensive care unit with 1,250 to 1,300 admissions annually. A small but significant number of these newborns, born profoundly premature, will benefit from the care coordination provided by POINT. The POINT team is involved in their care prior to discharge and assumes the responsibility of care coordination for these babies following discharge.

Patients are enrolled in POINT through referral from their primary care physician, a specialist or a pediatric hospitalist. The POINT team evaluates the patient and develops a coordinated plan of care with the family, primary care physician and all pediatric specialists involved in the care of the child. The POINT team oversees and coordinates all aspects of care including home health nursing, respiratory therapy, physical and occupational therapy, speech therapy, etc. All care is coordinated with the primary care medical home. Indeed, we consider POINT to be Mercy Children's Hospital's extension of the medical home.

The majority of the primary care pediatricians and many of the specialists caring for these children are members of Mercy Clinic.

Children will remain in POINT until their health status has improved and they no longer need care coordination services, or until they leave the area. Potential benefits to the families, and to Mercy, include increased patient autonomy, increased patient and family satisfaction, improved provider satisfaction and reduction in emergency visits, admissions and lengths of stay for this vulnerable and resource-intensive population.

POINT is in large part funded by the St. John's Mercy Foundation, which has agreed to support staffing for this program for a three-year period, and by the Mercy ministry. It is critical that the effectiveness of this program be measured. We will track outcomes that will include the number of emergency visits, hospitalizations, days in hospital, calls to POINT team (available 24 hours daily via Mercy call center), parent, provider and patient satisfaction levels and payer data regarding reduction in costs.

**WHY DO IT?**

Clinical integration across multiple institutions, involving hundreds of providers over a four-state area is a daunting challenge. A program like POINT is costly, resource-intensive and in and of itself a money loser. Why do it?

**Integration is necessary because the existing model of health care delivery in the U.S. is not sustainable.**

The fragmentation and lack of coordination among providers leads to excess cost and inefficient care. A way of operating in which physicians understand the needs of their patients, supported by an enthusiastic administrative team, is Mercy's model for the present and plan for the future.

There are three children's hospitals in the St. Louis market. There are eight located within the extended Mercy market. The other two children's hospitals in St. Louis are well-established, freestanding operations affiliated with medical schools. All six of the other children's hospitals geographically located within Mercy's service area are university-affiliated teaching hospitals as well.

Mercy Children's Hospital views POINT as a differentiator for us in this marketplace. By partnering with our primary care pediatricians, providing a care coordination service not available elsewhere and offering a unique model of care to families in need, we hope to increase the level of service we offer.

Mercy's mission statement is short and straightforward: “As the Sisters of Mercy before us, we bring to life the healing ministry of Jesus through our compassionate care and exceptional service.” With programs like POINT and through our model of ministry-wide pediatric clinical integration, we strive to live out our mission as we deliver the best quality of care to our patients.

**JOSEPH KAHN** is chairman of the department of pediatrics at Mercy Children's Hospital in St. Louis and medical director, pediatrics, of Mercy Clinic East, St. Louis.

**CHRISTINE CRAIN** is senior vice president of operations, Mercy Children's Hospital, St. Louis.

**NOTE**
