Children with complex medical conditions comprise 6 percent of the pediatric Medicaid population and 40 percent of the spend in Medicaid. For pediatric academic medical centers, these children may represent up to 80 percent of the total hospital days. Children's hospitals are beginning to explore new care delivery models resulting in smarter spending, healthier children and better care for this important population. To understand progress to date, we highlight important variables children's hospitals must consider related to the impact of care transformation on the healthcare spend of these children.

Ten children's hospitals implemented new care delivery concepts under the CARE Award, resulting in better care and healthier children. We tracked changes in care spend for the 8,000 enrolled children prior to and over the three-year award period.

Here is the process the hospitals undertook to impact health care spend.
CARE Award hospitals began with the following activities to evaluate the impact of care transformation on spend for this population.

- Collection of data to analyze patterns of spend and resource use
- Implementation of care delivery model change concepts designed to impact the patients’ utilization of services
- Calculations of the unreimbursed cost of the care management which guided needed changes for payment to support the program

**Know Baseline Patterns of Spend and Resource Use**
Children enrolled in the CARE Award use the following health care resources. At the high end, some individuals spend up to $2M on health care in a single year. Here’s an example of what a child and family might experience:

- **$50,000** spent annually on health care services
- **16** home health visits per year
- **13** mental health visits per year
- **34** prescriptions each year
- **2** Emergency Department (ED) visits per year
- **6** days in the hospital each year

**Understand Infrastructure Costs**
Many large pediatric academic medical centers began developing complex care clinics in early 2000. Nine of the 10 CARE Award sites have an established complex care clinic. The tenth site hosts a virtual care management structure. Most of the infrastructure costs for these clinics as well as the cost of infrastructure for the new care delivery model are not reimbursed in the traditional fee-for-service (FFS) insurance model. To achieve the triple aim and support smarter spending, we must first understand the cost of the new model. We can then assess the impact of the new model on decreasing overall spend in excess of these new costs. We calculated care coordination costs for these children at an average $150-$400 per child per month.
Implement a New Care Delivery Model
The care delivery model implemented across each of the CARE Award sites focuses on four elements:

- 24/7 access for the family to reach qualified providers familiar with the child’s needs
- Family-driven care plans specific to each child and developed around family goals
- A team of care providers, across both primary and subspecialty care, who regularly share information on the status of the patient amongst themselves and with the child and family
- Use of access plans and contingency plans to reduce ED utilization and preventable hospitalizations

We believe these elements work together as follows to impact unnecessary utilization and spend, and decrease the burden of care for the family.

- **A focus on partnerships with families.** Partnerships are designed to recognize and enhance the family’s role and expertise in the provision of care. Families with customized care plans and access plans centered on their needs will better recognize escalation of conditions and know how to respond. These resources make it easier to reach a provider familiar with the child’s care, preventing potential emergency room and hospitalization visits.

- **A focus on the use of care coordinators.** Care coordinators with specific skill sets in proactive planning will enable easy access to the system of care. They can prioritize family goals across the many providers of care required for these children. Families must be in agreement with what they are doing and why they are doing it.

- **Enhanced relationships between primary care physicians, specialty physicians and community services.** Patients can receive the most appropriate care closer to home when primary care and medical home providers actively support families while ensuring access to specialists. Functioning as a team, so families know “who’s on first,” will prevent lapses in the system of care.
Other factors outside of care management impacting utilization and spend include: severity of the child’s illness, the resources available within a community to support health outside the hospital, and state Medicaid reimbursement for appropriate access to specific services such as home health. We understand the ultimate outcome will rely on the family’s discernment of the provision of care. Results from effective care coordination showed improved family satisfaction with:

- Convenient and personalized access to the child’s health care team
- Care planning that enhances the families’ sense of well-being
- Goal setting that results in fewer emergency room visits
- Improved family-provider partnerships

**Calculate Impact on Spend**
In a three-year collaborative, the spend and utilization changed as follows. Of note are significant proportions of spend related to home health and outpatient prescriptions. Together these comprised 30 percent of the total spend across the continuum of care. Both the cost and utilization of prescription drugs rises increased more than projected for this population, and thus further analysis of the opportunity for prescription management will be required.

<table>
<thead>
<tr>
<th>Spend decreased from projected by</th>
<th>2.6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED discharges decreased by</td>
<td>26%</td>
</tr>
<tr>
<td>Hospital days decreased by</td>
<td>32%</td>
</tr>
</tbody>
</table>

**Aim for a New Payment Model**
Sustaining a new care delivery model will require a change to traditional reimbursement structures. Four new payment models were implemented at children’s hospitals under the CARE Award. These models were designed to specifically meet the needs of this complex population.

**Active Care Award Payment Models**

- Care management PMPM fee with state for the provision of specific care coordination tasks
- Upside shared savings model aligning incentives across the system-owned hospital, physician network and Medicaid HMO
- State Health Home PMPM for service integration across providers
- Care management team infrastructure support with potential for shared risk
- Care management PMPM fee with local Medicaid managed care organization

Other payment model options to explore for this population include primary care capitation, ACO models, case management FTE support, and state based health homes modified for a pediatric population. The best option for understanding the opportunity to impact the spend is to work in partnership with a payer to adopt a new payment model, however simple, and monitor the population over time. New payment models enable providers to gain experience and understand the underlying utilization and spend patterns. Without the experience of piloting a new payment model, data and experience are difficult to come by for this small, high acuity, highly variable population of children.
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