TRENDS IN HEALTH CARE QUALITY

Children with Special Health Care Needs: Building a Quality-of-Care Initiative
by Rebecca Nyman and Henry Ireys

This brief summarizes recent studies conducted by Mathematica Policy Research, Inc., and the Center for Health Care Policy and Evaluation at UnitedHealth Group for the federal Maternal and Child Health Bureau in the U.S. Department of Health and Human Services. These studies investigated utilization and cost patterns among a large sample of children with special health care needs (CSHCN) enrolled in two commercial managed care plans. Available data allowed us to examine the full spectrum of services and costs, including pharmacy and ancillary services.

Most CSHCN Have Private Insurance

National survey data show that nearly two-thirds of children with special health care needs are insured through commercial employer-based health insurance. These CSHCN are an important population for commercial health insurance plans because they incur almost half the total costs of care for children in these plans, even though they represent a small proportion—only 12 percent—of enrolled children. They also have high per member, per month (PMPM) costs, nearly four times higher than those of children in general. Although health plans usually cover major medical services for CSHCN, including inpatient and emergency room care, they provide less coverage for services, such as mental health care and physical therapy, which these children are more likely to use.

Numerous health plans have developed quality initiatives for children with specific conditions, such as asthma and diabetes. However, these approaches leave out a large proportion of the high-risk population. A more comprehensive approach is needed to care for all CSHCN.

A High-Cost Group

We used a clinical grouper—the Clinical Risk Group system—to identify CSHCN age 18 and younger...
enrolled in two commercial open-access managed health plans from 1999 to 2001. We found that 12 percent of enrolled children (26,949 individuals) had special health care needs in 2001. The cost of care that year—$99.4 million—represented 47 percent of the total costs for all children in the two plans.

Not only are their costs high, but their costs are also highly variable. PMPM costs for CSHCN averaged $328, compared with $84 for children in general. Among CSHCN, those with more complex and severe conditions had considerably higher average costs than other CSHCN. For example, children with catastrophic conditions (such as leukemia, cystic fibrosis, and spina bifida) had average PMPM costs of $2,867. Children with a single minor chronic condition, such as attention deficit/hyperactivity disorder (ADHD) or chronic joint disorders, had average PMPM costs of $159.

**Drug Costs Rising Rapidly**

Drug costs for this group loom large. The number of prescriptions written for CSHCN increased only 8 percent from 1999 to 2001, but their pharmaceutical costs increased 56 percent during this period. The overall drug cost on a PMPM basis increased from an average of $28 in 1999 to $44 in 2001.

Other insights from Mathematica’s research into this group’s pharmaceutical costs include the following:

- Prescription drugs accounted for 14 percent of total costs for all covered services for CSHCN in 2001. Inpatient care, specialty physician visits, and primary care visits accounted for 28 percent, 10 percent, and 9 percent of total costs, respectively (Figure 1).

**Emotional/Behavioral Disorders**

Thirty-seven percent of the children in the study had an emotional or behavioral condition in 2001. For some, these disorders were primary conditions; for others, they were secondary to physical conditions, sensory disabilities, or chronic illnesses. These disorders include ADHD, depression, schizophrenia, anxiety disorders, and post-traumatic stress disorders. Outpatient mental health services accounted for 11 percent of total costs of care for CSHCN with emotional or behavioral conditions; prescription drugs accounted for 22 percent (Figure 2).
Other major findings include the following:

- The most common prescriptions for CSHCN with emotional or behavioral disorders were stimulants, prescribed for 64 percent of children ages 6 to 12 and 35 percent of adolescents age 13 and over in this group. Antidepressants were prescribed for 17 percent of those ages 6 to 12 and 40 percent of those ages 13 and over (Figure 3).

- Pediatricians and psychiatrists share responsibility for prescribing most of the medications to children with emotional and behavioral disorders. Pediatricians wrote 46 percent of the prescriptions for stimulants for children and 36 percent of those for adolescents; psychiatrists wrote 21 percent of the prescriptions for stimulants for children and 30 percent of those for adolescents. Specialists prescribed most of the remaining medication for this group of children.

- Of children with emotional and behavioral conditions, 34 percent had a diagnosis of ADHD alone. An additional 22 percent had ADHD in conjunction with another chronic condition in 2001.

**Implications for Health Plans**

Many CSHCN are at risk for poor health outcomes because of their chronic conditions. Furthermore, their frequent use of multiple services increases the likelihood that problems will arise in the delivery of their medical care. Research to date suggests that opportunities exist to enhance their quality of care and decrease the risk for poor outcomes. Health plans also may want to identify subgroups, such as CSHCN with emotional or behavioral conditions, who are at particular risk for poor outcomes.

Key to implementing quality improvement efforts is finding an effective, broad-based strategy for identifying this population of children. Strategies used to date, which involve focusing quality-of-care initiatives on children with a specific chronic condition, may be too narrow an approach, because only a small number of children are affected by any one chronic condition. An effective quality
improvement project will need a team of health plan staff with experience in pediatrics, quality assessment, and data management who can work together to identify, implement, and evaluate the impact and cost of an appropriate strategy.

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<th>STEPS TOWARDS A QUALITY-OF-CARE INITIATIVE</th>
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<tr>
<td>• Recognize that CSHCN are a high-risk, high-cost group</td>
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<td>• Select the best approach from existing methods for identifying CSHCN</td>
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<td>• Conduct analyses to discover opportunities for intervention</td>
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<td>• Select appropriate intervention (for example, pay-for-performance, enhanced care coordination)</td>
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<td>• Track outcomes and return on investment</td>
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Under a contract with the federal Maternal and Child Health Bureau, Mathematica can provide technical support and targeted resources to health plans interested in developing a quality improvement project for CSHCN. Interested health plans should contact senior health researcher Henry T. Ireys at (202) 554-7536, hireys@mathematica-mpr.com, or health analyst Rebecca Nyman at (202) 484-4524, rnyman@mathematica-mpr.com.

For the full reports on which this brief is based, contact Publications at (609) 275-2350 or visit our web site. The reports are “Prescription Drugs for CSHCN in Commercial Managed Care: Patterns of Use and Cost, 1999-2001,” “Mental Health Services for CSHCN in Commercial Managed Care, 1999-2001,” and “Family Cost-Sharing for CSHCN in Employer-Based Managed Care Plans, 1999-2001.” Mathematica® is a registered trademark of Mathematica Policy Research, Inc.