

# Report on Care Coordination for Children with High-Cost Mental Health Conditions

Chemical and Mental Health Services  
Administration

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## Legislative Report

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Minnesota Department of **Human Services**

**Report on Care Coordination for Children with High-Cost Mental Health Conditions**

**March 20, 2012**

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# **Report on Care Coordination for Children with High-Cost Mental Health Conditions**

## **I. Introduction**

The 2011 Minnesota Legislature (1<sup>st</sup> Special Session, Chap. 9, Art. 6, Sec. 89) required the Department of Human Services to develop a plan to provide care coordination to children enrolled in Minnesota Health Care Programs with high-cost mental health conditions. Concern for a specific group of children identified by needs which are challenging to treat or coordinate has similarly been addressed in recent years through an Acute Care Needs Report (March, 2009) and a report of the Child and Adolescent Intensive Services Workgroup (CAISW), contained in the Chemical and Mental Health Services Transformation Advisory Task Force Report (December, 2010). Relevant findings from these prior studies will be referenced throughout this report, demonstrating the continuity of particular systemic service gaps. In all of these efforts, children whose mental health needs may be considered severe, chronic or complex have been noted to require services from many different child and family-serving systems, with care often challenging to coordinate. This challenge compromises child outcomes, and places inordinate stress on families.

For purposes of the current analysis, the 2011 legislation defined “high cost mental health condition” as mental health and medical expenses for a given child over the past year totaling \$100,000 or more. The population of children receiving fee-for-service (FFS) mental health services in SFY 2011 provided the basis for claims analyses. As a whole, the 26,564 children who received any FFS mental health service had relatively low costs, with a median cost of \$5,396 and a mean of \$15,009. The substantial disparity between median and mean immediately suggests that there are a small number of children with very high costs, but only a very few of these (less than 2%, or fewer than 500 total) exceeded the \$100,000 threshold of the legislative directive. A reduced threshold of \$50,000 yields a group of 1,753 children, or slightly less than seven percent of the FFS population. Since this expanded group has high costs relative to measures of central tendency and is large enough to allow analyses of comparative service use, the lower threshold of \$50,000 is used throughout this report.

## **II. Diagnostic Issues**

Both the Acute Care (2009) and CAISW (2010) studies had established that some children’s mental health diagnoses present greater treatment and coordination challenges, and this finding is consistently reflected in costs. Comparison of the High Cost (>\$50,000) and Not High Cost (<\$50,000) children in terms of FFS claims showed marked differences by diagnosis, defined by the last mental health FFS claim in SFY 2011 with an existing diagnosis indicated. Specifically:

- 33% of the High Cost children (N=566) had a primary diagnosis of Pervasive Developmental Disorders, popularly known as Autism Spectrum Disorders. This contrasted with a frequency of only 8.5% of this diagnosis among Not High Cost children.
- Disruptive Behavior Disorders (which diagnostically includes Attention Deficit Hyperactivity Disorder) constitute the most common childhood mental health diagnoses in the FFS population, accounting for 32% of children in the Not High Cost group. Within the High Cost group, however, this diagnostic group comprised only 21% of the total.
- Other common childhood diagnoses accounted for most of the rest of the High Cost group: Bipolar Disorders (10%); Anxiety Disorders (7%); and Depressive Disorders (6%).

Because children's mental health conditions often co-occur, additional analysis investigated whether specific diagnoses may be related to higher care costs if they have occurred at any time during a year of care. For this analysis, a first-listed diagnosis on any claim during the year was contrasted between High Cost (N=1753) and Not High Cost (N=24811) children. For this analysis, children with repeated claims will have duplicated diagnostic counts. Importantly, this additional analysis confirmed the pattern seen above, and magnified the effect: 38% of claims for children in the High Cost group had Pervasive Developmental Disorders as the first diagnostic claim, in contrast to the appearance of this disorder as the first diagnosis in only 10% of the claims of Not High Cost children. Bipolar Disorders were also more frequent diagnoses in the claims of High Cost (24%) versus Not High Cost (10%) claims. In this analysis, Disruptive Behavior Disorders were actually slightly less likely to occur as first diagnoses on the claims of High Cost versus Not High Cost children, perhaps contributed by the diagnostic complexity (discussed further below) surrounding this group.

These differences will be discussed more fully in regard to recommendations, but they immediately suggest that different diagnoses create greater risk of incurring high care costs, with the Autism Spectrum Disorders needing particular attention. Disruptive Behavior Disorders, and perhaps to a lesser extent Bipolar Disorders, are also likely to create higher care costs, although not as dramatically contrasted to their base rates of occurrence.

Finally, the issue of diagnostic complexity – which was prominent in the 2009 and 2010 reports – clearly emerges in the 2011 FFS data as well. A child with a claim that identifies multiple primary diagnostic categories may be a child with complex needs, requiring a range of different services. However, it may also mean that the child's complex needs have made it difficult to unequivocally identify the primary mental health need. Or it may more simply mean that services are not being sufficiently coordinated around a common treatment plan across providers. In any case, the frequency of multiple diagnoses across major diagnostic categories within the High Cost group was striking: more than 29% of High Cost children had claims with three or more different diagnostic categories, compared to less than 12% of Not High Cost children. Any of the three explanations suggested above would clearly lead to a recommendation of better care coordination to address this issue.

### **III. Service Utilization Patterns**

Analyses of use of specific mental health services, chosen for costs and/or coordination challenges, demonstrated a number of similarities between High Cost and Not High Cost children, as well as one very striking difference.

The first mental health service category inspected was children's residential treatment. Despite the relatively high base rates of children with Disruptive Behavior Disorders in both High Cost and Not High Cost groups, which might be expected to result in disproportionate use of this service, the utilization of children's residential treatment is relatively low and shows only modest differences between the two groups. Among High Cost children, 37 (2.1%) accessed this level of care, summing to billings for a total of 1,171 days (mean/child=32 days). Among Not High Cost children, 305 (1.1%) accessed this care, for a total of 7,185 billed days (mean/child=24 days). Relatively low utilization of this service category has undoubtedly been driven by a number of factors, but it is not particularly associated with High Cost presentation.

In contrast, inpatient psychiatric hospitalization shows very substantial differences in both utilization and lengths of stay between High Cost and Not High Cost children. Among High Cost children, 304 (17%) had at least one inpatient hospitalization claim in SFY 2011, with an average length of stay of 24 days; among Not High Cost children, only 4% (N=1,090) accessed this level of care, and with a shorter length of stay averaging just under 10 days. Put differently, the small number of High Cost children accounted for nearly three-quarters as many inpatient bed days as the remaining 93% of the total FFS population receiving mental health services. The significance of this difference points to a clear goal for all new service development and care coordination efforts.

It should be noted, though, that among High Cost children with inpatient admissions, the average number of inpatient days varies widely by diagnosis. High Cost children with autism spectrum diagnoses do not have disproportionately high rates of inpatient hospitalization utilization; while they account for 33% of the High Cost group, they are only responsible for 10% of the inpatient hospitalization days for this group. In contrast, children with Bipolar Disorder comprise 10% of the High Cost group, but consume 37% of inpatient days, and children with schizophrenia and other psychotic disorders account for only 2% of the High Cost group but use 10% of inpatient days.

Two other related service categories were also analyzed because of their relevance to complex presentation and need for cross-system coordination. As with residential treatment, utilization of chemical dependency treatment was relatively low among both High Cost and Not High Cost children, and differed only marginally between them. Among High Cost children, 200 (5.5%) had at least one chemical dependency treatment claim, compared to 4% (N=998) Not High Cost children. And an examination of claims for services provided under special educational Individual Education Plans (IEPs) showed that 8.4% of each group accessed services through this mechanism.

More importantly, the leading cost in general for High Cost children is medical for physical health, rather than mental health or chemical health treatment. These medical costs include well child and sick child visits, as well as emergency room and hospitalization for physical health issues. As mental health costs increase, other health care costs increase even more. On average, only 22% of the spending for High Cost children was for chemical and mental health services, compared with 25% of spending for Not High Cost children. For the 1,753 children designated as High Cost, mean total medical costs in SFY 2011 were more than \$88,000 (median = \$72,000).

Once again, though, there are diagnostic differences in the relative costs of mental health and medical services for specific subgroups of High Cost children. Children with an autism spectrum disorder diagnosis at some point during SFY 2011 had a slightly higher average mental health portion of their total health costs than children with all other diagnoses (29% versus 25%). The mental health portion of total health care costs is even greater for High Cost autism spectrum disorder children than Low Cost autism spectrum disorder children (38% versus 26%). This finding is less pronounced for all other diagnostic categories, demonstrating that there is a group of High Cost children with autism spectrum diagnoses who are consuming particularly large amounts of non-inpatient mental health services, confirmed by additional analysis which finds that while less than 1% (N=231) of all children who received mental health services in SFY 2011 are included in the High Cost service category based on mental health service costs alone, 73% of these (168/231) had an autism spectrum diagnosis.

The High Cost subgroup of children with autism spectrum diagnoses particularly utilize a discrepant amount of rehabilitative services, known in Minnesota Health Care Programs as Children's Therapeutic Services and Supports (CTSS). On average, CTSS costs represent about 7.1% of all health costs for children using any mental health service, 7% of all health costs for Not High Cost children, but 12% of all health costs for High Cost children. For all children with autism spectrum diagnoses, 16% of their health costs are for CTSS services, but this rises to 30% among the High Cost children with autism spectrum diagnoses, and even higher (c. 65%) for children seen by a smaller set of providers offering specialized autism services. Care management questions surrounding this level of utilization could be productively pursued, including whether mental health rehabilitation services are being effectively coordinated with educational services, i.e., Individual Education Plans (IEP) and other medical rehabilitation therapies.

In beginning to investigate the care coordination needs of High Cost children, one beginning point is examination of a current form of care coordination specialized for children with complex needs, children's mental health targeted case management (CMH-TCM). SFY 2011 receipt of CMH-TCM varied somewhat between High Cost and Not High Cost children (32% v. 21%). However, over the entire FFS population, most of the children receiving CMH-TCM are not "high cost:" of a total of 5,765 children with targeted case management, only 10% are in the High Cost category. Put differently, 68% of High Cost children do not receive targeted case management. Diagnoses appear to make some difference, with a higher proportion of High Cost children with diagnoses of schizophrenia or other psychotic disorders receiving CMH-TCM (77%) than for disruptive behavior disorders (44%) or pervasive developmental disorders (16%). It is not clear from these data alone whether these differences reflect differential functional status relative to "Serious Emotional Disturbance," the eligibility criterion for CMH-TCM, different practice patterns at the county level in offering CMH-TCM to different groups, parent awareness of the availability of this option, or other factors.

Given the diagnostic and service utilization patterns which have been found, a number of system modifications are needed in order to better coordinate care, provide service in home and community, reduce unnecessary stresses and burdens on the families of children with high cost conditions, and particularly to reduce hospitalizations, a continuing cost driver for a substantial number of these children. These modifications will be discussed as system reforms, which are in development and must be tracked for their impact on High Cost children; practice changes to existing services and programs which may also be of benefit; and new opportunities, particularly in conjunction with global waiver reform and other state-federal partnerships recently made available.

#### **IV. System Reforms under Development**

Legislative initiatives in 2007 and 2009 have provided the impetus for increased methods of serving children and adolescents with intense or complex needs, and better coordinating their care. The Mental Health Initiative of 2007 provided funding for a crisis response system which is now available in approximately three-fourths of Minnesota counties. The crisis response system has been operating for the longest time in the metro area, where crises responded to by teams are very similar to those which present to local emergency departments. Crisis response, however, is associated with a significantly lower (c. 20%) hospitalization rate in order to resolve the crisis than is emergency room use (c. 50%). Continued refinement of crisis response capability, expansion to areas of the state which have not yet been able to develop this service, and closer working relationships between crisis teams and the families of High Cost children seem highly likely ways to further reduce costs and keep care as community-centered as possible.

Other 2007 infrastructure investments have similarly proved promising, despite also needing further resources to be effectively available statewide. School-linked services have been able to identify and provide therapeutic interventions to children with serious needs before these reach crisis proportion, and school-linked providers are also able to work with families and educators to improve care coordination. Similarly, a relatively small investment in respite funding made available to counties, in combination with existing county funds for this purpose, is producing enhanced capability for case managers to avert crisis situations and to reduce stresses on families. As discussed further below, mechanisms which could provide respite care more routinely could have substantial payoff in reducing use of hospitalization and other intensive services.

In 2009, the Minnesota Legislature instructed the Department of Human Services (DHS) to develop a new service which will specifically increase the integration of physical and mental health services and provide support to primary care physicians, advanced practice nurses and specialists in coordinating care. This new Psychiatric Consultation Service, scheduled for implementation in early 2012, will provide consultation from psychiatrists and mental health professionals to primary care providers on the basis of guidelines developed by DHS, working with diverse stakeholder groups over the past two years. These guidelines provide a form of detailed guidance for the development of mental health management plans between primary and specialty care for both acute and recurrent problems; they will be the basis of the “organization of medical, treatment and therapy information” which the current legislative directive calls for to inform care coordination. Guidelines produced to date cover both medication and psychotherapeutic services for most of the common children’s mental health disorders, and can be viewed at [http://www.dhs.state.mn.us/dhs16\\_158267](http://www.dhs.state.mn.us/dhs16_158267).

## **V. Practice Changes in Existing Services**

One of the most vexing problems in the children’s mental health system identified by both the Acute Needs report (2009) and CAISW (2010) is the lack of continuity in treatment and care as children and adolescents with complex needs move from one level or type of care to another. This is clearly illustrated by analysis conducted by the Acute Needs Children’s Subcommittee. At the time of their work, they were able to identify a group of 210 children and adolescents – 10% of those hospitalized for psychiatric care in a given year – whose average length of stay was 33 days (versus a median for the total group of 8 days), totaling 16,672 of the 36,320 bed days paid for in FFS health care programs that year. More simply, 10% of children and adolescents used 46% of total bed days. Additionally, they were admitted an average of 2.4 times/year versus an overall admission rate for the total group of 1.3, and 37% of the target group had also been admitted in the preceding year.

The target group of 210 high-use children and adolescents also had illustrative service use patterns. A higher percentage received case management (70%) in comparison to all children and adolescents hospitalized (18%), and more had received residential treatment services (20% versus 1%) and intensive services such as day treatment or partial hospitalization (44% versus 24%). But strikingly, a smaller percentage of this group had actually received outpatient services (79% versus 95%). The report comments that “What was interesting to note was that the average unit of service received per child was nearly the same between these more complex children and adolescents and all children and adolescents hospitalized” (p. 11). Further, 71% of this group had received some sort of mental health services in the year before but still required hospitalization in the following 12 months; “these were not NEW children and adolescents to the system.”



All of this raises serious questions about the adequacy of planning, coordination and follow through to be sure each child's needs are appropriately identified and treated. A number of practice reforms have been identified by the 2009 and 2010 studies as well as being reinforced in the analysis of SFY 2011 data, and include:

- Thorough, comprehensive diagnostic assessment to clarify a child's circumstances and needs as fully as possible;
- Routine use of standardized level-of-care assessments, such as the Child and Adolescent Service Intensity Instrument (CASII), and planning based on the identified level of service need;
- Provision of sufficient intensity and duration of services at a child's needed level, regardless of programmatic limits;
- Case management plans (sometimes identified as a "master plan") which incorporate and closely monitor all of a child and family's service needs and response to services, and make rapid, effective modifications as needed;
- Organization of service networks to minimize or ease transitions, especially for youth leaving inpatient or residential programs; and
- Supplementation or enhancement of treatment services with interventions and supports which promote developmental competencies and increase likelihood of successful transition to school and community functioning.

None of these are radical or even particularly novel ideas, but they require commitments of providers, county and state agencies, health plans and family and advocacy organizations to common vision, coordinated work, and data-driven quality improvement in order to be successful. One such effort, spearheaded by the Minnesota Council of Child Caring Agencies (MCCCA) and growing from a demonstration project in Dakota County, may help to develop templates for practice reforms which will benefit all children with complex, intensive needs.

## **VI. New Opportunities for Enhanced Care Coordination and System Integration**

### **A. Health Care Homes/Pediatric Accountable Care Organizations (ACOs)**

In 2007, Minnesota passed "medical home" legislation, also called "provider directed care coordination" for patients with complex illness in the Medicaid population. This was followed in 2008 by a requirement that health care homes be made available for all Medicaid recipients, state employees and privately-insured Minnesotans (statute 256B.0751). Minnesota's approach to health care homes borrowed from the state's five-year Maternal Child Health (MCH) Bureau and state funded Medical Home Learning Collaborative, concluded in 2009. This collaborative included 24 pediatric practices serving more than 7,000 children and families. Many of these and other pediatric practices have now become certified health care homes, or are in the process of applying for certification. Key elements of the certification standards for health care homes include patient tracking and registry functions, care coordination, care plans for all patients, and performance reporting and quality improvement activities. In the MCH pediatric demonstration, all of these activities – led by local teams which prominently incorporated parent input – notably improved family satisfaction and reduced hospitalizations and emergency care.

The next extension of the health care home with particular promise for children with complex mental health and health care needs may be the development of Accountable Care Organizations (ACOs) in

which a wider variety of care needs can be integrated. As defined by the Centers for Medicaid and Medicare Services (CMS), an ACO is “an organization of healthcare providers that agrees to be accountable for the quality, cost, and overall care of...beneficiaries who are assigned to it.” The ACO would comprise a management structure which could effectively engage patients, provide needed access to care, and receive and distribute shared savings. While a number of different types of health care organizations might organize to become ACOs, the ACO must have strong and robust primary care infrastructure and health information technology to capture performance data/quality metrics and to share evidence-based or best practices among its clinicians. The American Academy of Pediatrics has voiced commitment to the development of pediatric ACOs in which the family-centered medical (health care) home serves as the organization’s anchor. In 2011, Minnesota participated in a Substance Abuse and Mental Health Services Policy Academy (SAMHSA) Policy Summit on addressing health care disparities through health care reform, and its delegation created a prototype for a pediatric ACO, based in community organizations capable of integrating local resources to provide care for children with diverse care and cultural needs and their families. Funding under the Affordable Care Act (ACA) may be made available between 2012 and 2016 for pediatric ACO demonstration projects.

## **B. Health Homes**

The most promising specific opportunity for enhanced care coordination offered to states under the Affordable Care Act (ACA) is Section 2703, the provision which allows development of health home services for Medicaid beneficiaries with chronic conditions. A Health Home is a Medicaid State Plan Option that provides a comprehensive system of care coordination for children and/or adults, with providers integrating and coordinating all primary, acute, mental and chemical health and long-term services and supports to treat the “whole person” across the lifespan.

Eligibility for Health Home services clearly fits the complex needs of children and adolescents identified as High Cost; specifically, it is designed to serve Medicaid-eligible individuals with:

- two or more chronic conditions;
- one chronic condition and risk for a second; or
- a serious and persistent mental health condition.

States have flexibility in who is eligible to be a Health Home provider: these may be individual providers, a team of health care professionals, or a health team that provides the Health Home services and meets established standards and system infrastructure requirements.

The Health Home makes use of services already available through the state’s Medicaid plan, but allows development of six additional services which are targeted toward increased integration and coordination. These are:

- comprehensive care management;
- care coordination;
- health promotion;
- comprehensive transitional care/follow-up;
- patient and family support; and

- referral to community and social support services.

In addition, Health Home applications by states may include use of health information technology (HIT) to link services as feasible. All new services developed under a Health Homes application are eligible to receive 90% federal match (rather than the state's customary rate, which is approximately 50% for Minnesota) for eight quarters.

States may make more than one Health Home application in order to serve discrete populations, which allows for the specific developmental needs of children and adolescents to be addressed differently than might be the case for adults with Serious and Persistent Mental Illness (SPMI). In particular, a Health Home option for children and adolescents may focus on integration of pediatric/primary care and specialty mental health care; coordination of health/mental health care and educational services; supports to families; and health promotion which could bolster mental health, prevent development of co-morbid mental health and substance abuse disorders, and reduce risk for development of common physical problems, including those entailed in metabolic syndrome.

Stakeholder participation in planning a Health Home application is critical, and this means of detailing the design of a child and adolescent Health Home could begin in tandem with other infrastructure and practice reforms discussed above.

### **C. Use of Money Follows the Person (MFP) Demonstration**

In 2010, Minnesota was awarded a federal Money Follows the Person (MFP) grant, with targeted populations including children and adolescents leaving institutional care for community tenure. The initial population for service development comprises the children and adolescents in the only facility which meets the MFP definition of "institutional care," the Child and Adolescent Behavioral Health Services (CABHS) facility of state-operated services in Willmar. Once developed, however, services may be expanded to related populations with similar characteristics and needs, i.e., to children transitioning out of residential treatment or inpatient psychiatric facilities. Minnesota's plan for this group of children under MFP includes:

- positioning a care specialist on the facility's discharge planning team, who can then follow the discharged child or adolescent for one year to assure provision of adequate services to maintain community tenure;
- development of needed intermediate services in the community, such as therapeutic foster care;
- family psychoeducation, a service to identify and support the needs of families as they work to reintegrate their child in home, school and community.

These services are billable to the grant through its duration, allowing cost-effectiveness studies (particularly savings against institutional care) which could provide the basis for adding some components to the state Medicaid plan. In Minnesota's case, the services to be developed and studied could represent relatively minor adjustments to what is already available under Medicaid, providing incentive to some of the practice reforms regarding discharge planning and follow-up described earlier.

#### **D. Special Needs Basic Care (SNBC) expansion to include Children and Adolescents with Disabilities**

2011 legislation (256B.69, subd. 28) requires that adults and children with disabilities receiving Medical Assistance be assigned to a Special Needs Basic Care (SNBC) health plan, unless individuals choose to opt out of enrollment. Adults ages 18-64 have been the target group for enrollment which began January 1, 2012, but approximately 11,000 children with disabilities could also be candidates for enrollment. While there are stakeholder concerns about enrollment of children in a health plan that has to this point been specifically targeted to adults, there may be advantages for children with disabilities and accompanying complex needs. SNBC includes the basic care services of Minnesota's Medicaid State Plan, including mental and chemical health, skilled nurse visits and home health aide services, but also includes the health care home benefit for any certified health care home in a given plan's network, as well as navigators, care coordinators or care guides to assist SNBC enrollees with accessing benefits.

#### **E. Home and Community-Based Service Options**

Section 6086(a) of the 2008 Deficit Reduction Act added a new Section 1915(i), known as the State Plan Home and Community Based Services Benefit. Section 1915(i) provides states with the ability to offer a variety of home and community-based services to individuals with disabilities, including:

- case management, with involvement during the transition from institutional care to community living
- homemaker/home health aide
- personal care
- habilitation
- respite care, and
- for individuals with chronic mental illness:
  - day treatment or partial hospitalization services
  - psychosocial rehabilitation services
  - clinical services

Section 1915(i) has generated considerable interest in the mental health community because unlike earlier waiver programs, beneficiaries do not have to meet an institutional level of care in order to be eligible for the program, nor does the state have to show cost neutrality in the operation of the program.

To access this option, a state must develop needs-based criteria for the benefit, and may also develop criteria for each specific service offered. Potential beneficiaries must undergo an independent evaluation based on these needs-based criteria and an assessment of service needs; from these processes, a plan of care is established through a person-centered planning process. Individuals (families) may self-direct their care if they choose and if adequate supports to self-direction are included in the plan of care.

For children and adolescents with High Cost needs – who are by definition at risk of hospitalization – the provision of supports for community tenure in this option are potentially very beneficial. Many

families who had previously accessed personal care assistance (PCA) services to help in the daily management of their child's mental health disorder but are now unable to do so could benefit from the personal care provision, as well as respite. And for at least some of the large portion of the High Cost population affected by Autism Spectrum Disorders, habilitation services may be appropriate and may be a useful ancillary to other treatment services available to them. In short, 1915(i) might make available both a more flexible case management option and some of the needed supports which can enable families to care for their children at home.

## **F. Respite Care**

Both the inclusion of respite care in the infrastructure investments described above and the discussion of the 1915(i) Medicaid option, help to direct attention to the fact that improvements in care coordination as a strategy to reduce high costs have their limitations if the appropriate service array is not available to coordinate. In Minnesota, parents and advocates have long called attention to the need for crisis services and respite care as foundational to adequate support of families raising children with complex, high intensity mental health needs. While crisis services need some additional resources to operate effectively statewide, the state and county resources devoted to respite care have been very limited. Investment in respite care has been supported by states such as Vermont, which found that both planned and crisis respite care availability was extraordinarily cost-effective in preventing hospitalization and residential treatment placement, and that it also improved child functional outcomes. Very recently, a Pennsylvania group (Mandell, et.al., 2012) found that the same was remarkably true for children with autism spectrum disorders. In a retrospective cohort study examining the associations of service use in the preceding 60 days with the risk of hospitalization, these researchers found that each \$1,000 increase in spending on respite care in this time frame resulted in an 8% decrease in the odds of hospitalization. Use of therapeutic services – which may be necessary and useful relative to other outcomes – was not associated with reduced risk of hospitalization. This very low cost ancillary service may be worth much more careful examination as part of a larger plan for creating the community options which can finally reduce high cost hospital or institutional care.

## **VII. Conclusion**

The 2011 Minnesota Legislature requested that DHS develop a plan to provide care coordination to children enrolled in Minnesota Health Care Programs with mental health and medical expenses totaling \$100,000 or more over the last year. Since there were fewer than 500 children meeting this cost criteria, DHS analyzed service use of the 1,753 children who incurred mental health and medical expenses totaling \$50,000 or more over the past year.

### Findings

A review of the diagnoses of children with high costs suggests that a small set of diagnoses create greater risk of incurring high cost care, and the frequency of multiple diagnoses within the high cost group is striking. It was also found that children with high costs had much longer average inpatient psychiatric hospitalization stays (24 days), compared to children who were not high cost (10 days).

The leading cost in general, for children with high costs, is medical expenses for physical needs rather than for mental health or chemical health care. But as mental health care costs increase, other health care costs increase even more.

The existing children's mental health targeted case management (CMH-TCM) provides care coordination statewide for children with a legislatively defined "serious emotional disturbance." Most of the children receiving CMH-TCM are not children with high costs. Given the diagnostic and service utilization patterns found, system modifications are needed in order to better coordinate care and provide needed services in home and community, to reduce hospitalizations.

#### Current System Reforms

There are already a number of system reforms that have taken place since 2007 to better serve children and adolescents with intense or complex mental health needs. These reforms include mobile crisis response teams, school-linked mental health services, and the new psychiatric consultation service to primary care providers.

A number of practice changes, such as "master plan" care coordination, have been identified that could address the lack of continuity in the treatment and care of children and adolescents with complex needs.

#### New Opportunities

There are also some new opportunities for enhanced coordination and system integration that have recently emerged or been identified. These opportunities include the following:

- 1) Growth in the number of pediatric practices certified as health care homes, and their incorporation into larger networks of care, known as pediatric Accountable Care Organizations (ACOs).
- 2) The development of health home services for Medicaid beneficiaries with chronic conditions.
- 3) Targeting children and adolescents leaving institutional care for community living through the federal Money Follows the Person grant.
- 4) The expansion of Special Needs Basic Care health plans to include children with disabilities.
- 5) The expansion of Home and Community-based Service Waiver options.
- 6) The increase of respite care to families with children who have complex, high intensity mental health needs.