

Does Private Insurance Adequately Protect Families of Children With Mental Health Disorders?

AUTHORS: Susan H. Busch, PhD and Colleen L. Barry, PhD

Division of Health Policy and Administration, Yale School of Public Health, Yale School of Medicine, New Haven, Connecticut

KEY WORDS

mental health, health care services, children with special health care needs, CSHCN

ABBREVIATIONS

CSHCN—children with special health care needs

SHCN—special health care need

NS-CSHCN—National Survey of Children With Special Health Care Needs

OR—odds ratio

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Address correspondence to Susan H. Busch, PhD, Yale School of Public Health, 60 College St, PO Box 208034, New Haven, CT 06520-8034. E-mail: susan.busch@yale.edu

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abstract

OBJECTIVE: Although private insurance typically covers many health care costs, the challenges faced by families who care for a sick child are substantial. These challenges may be more severe for children with special health care needs (CSHCN) with mental illnesses than for other CSHCN. Our objective was to determine if families of privately insured children who need mental health care face different burdens than other families in caring for their children.

PATIENTS AND METHODS: We used the 2005–2006 National Survey of Children With Special Health Care Needs (NS-CSHCN) to study privately insured children aged 6 to 17 years. We compared CSHCN with mental health care needs ($N = 4918$) to 3 groups: children with no special health care needs ($n = 2346$); CSHCN with no mental health care needs ($n = 16\,250$); and CSHCN with no mental health care need but a need for other specialty services ($n = 7902$). The latter group was a subset of CSHCN with no mental health care need. We used weighted logistic regression and study outcomes across 4 domains: financial burden; health plan experiences; labor-market and time effects; and parent experience with services.

RESULTS: We found that families of children with mental health care needs face significantly greater financial barriers, have more negative health plan experiences, and are more likely to reduce their labor-market participation to care for their child than other families.

CONCLUSIONS: Families of privately insured CSHCN who need mental health care face a higher burden than other families in caring for their children. Policies are needed to help these families obtain affordable, high-quality care for their children. *Pediatrics* 2009;124:S399–S406

Previous research has demonstrated that the challenges faced by families who care for a sick child are substantial.^{1–5} Although private insurance may provide important protections against the costs of health care, families of children with special health care needs (CSHCN) may still face substantial hurdles in caring for their children, including high out-of-pocket costs, health plan–related barriers, reductions in labor-market participation, and actual or perceived quality-of-care problems. Limited evidence has been available to compare the magnitude of these burdens on families. Two previous studies examined problems associated with caring for children with mental health care and other special health care needs (SHCNs), and these studies identified a significant burden associated with mental health disorders,⁶ and autism specifically.⁷

The challenges for families of having a child with mental health care needs may differ from families of other CSHCN for several reasons. First, the financial burden on families of children with mental health care needs might differ because of inequities in coverage under private insurance. Mental health services are typically offered on a more limited basis than coverage for general medical services. Higher cost-sharing and special coverage limits (eg, 20 outpatient visits and 30 inpatient days/year) may leave families unprotected against larger costs. A federal parity law recently enacted by Congress aimed at eliminating these differences in coverage; however, this law will not take effect until 2010.

Second, adverse selection may increase the burden on families of children with mental health care needs relative to families of other CSHCN. Research has suggested that adverse selection is particularly problematic in mental health insurance.⁸ Selection re-

fers to the incentive by private health plans to enroll people who are relatively healthy and pose a low financial risk. Because mental illnesses tend to be costly and chronic,^{9,10} insurers can benefit financially by discouraging health plan enrollment by families with mental health care needs. Therefore, we might expect a higher level of dissatisfaction with the quality of care received by children with mental illness.

Third, the annual growth rate for spending on prescription drugs to treat mental health conditions was 15% between 1986 and 2003.¹¹ In response to rapid increases in pharmaceutical expenditures, health insurers have increased consumer cost-sharing and the use of tiered formularies.¹² If children with mental health disorders use high levels of brand-name drugs, their out-of-pocket costs may increase.

In addition to specific provisions of private insurance contracts, other factors unrelated to insurance may increase the challenges for families who have a child with mental health care needs. A national shortage of child psychiatrists has been well documented¹³ and could pose a barrier to accessing treatment for a child. If a family is unable to obtain treatment from an appropriately qualified provider, satisfaction with care may be lower. Characteristics of mental illness may also play a role. Stigma associated with mental illness may affect family burden to the extent that parents are less able to find appropriate child care services or obtain in-kind support. Mental illnesses may be less stable than other childhood disorders, which could affect the burden on parents. For example, Gould¹⁴ found that children with time-intensive or unpredictable illnesses were more likely to negatively affect parental labor supply.

In this analysis, we used data from the 2005–2006 National Survey of Children

With Special Health Care Needs (NS-CSHCN) to compare the effects on families of children with mental health care needs to the effects for families with other CSHCN. We focused on the privately insured, because many of the insurance barriers noted above specifically pertain to private insurance.

METHODS

Setting

The design of the 2005–2006 NS-CSHCN has been described previously.^{15,16}

Subjects

In all analyses we limited our sample to children aged 6 to 17 years with private insurance coverage. We compared the burden on families of caring for CSHCN with mental health care needs (defined as reporting a need for mental health care or counseling during the previous 12 months) with 3 other groups. The first comparison group is a nationally representative sample of children who were not classified as CSHCN. The second comparison group includes children who had a SHCN but whose parents reported that they did not need mental health care in the previous 12 months. Because we were interested in comparing children who needed mental health care to children with similar levels of general health care need, the third comparison group is the subset of SHCN children in the second comparison group who reported needing care from a specialty doctor in the previous 12 months.

We were also interested in whether the experience of children with a need for mental health care differed according to mental health diagnosis. The NS-CSHCN asks respondents about the presence of 3 categories of mental health conditions: attention-deficit/hyperactivity disorder including both attention-deficit disorder and attention-deficit/hyperactivity disorder; emo-

tional problems including depression, anxiety, eating disorder, or other emotional problems; and autism and autism spectrum disorders. When considering differences in the burden on families according to category, we only considered the experiences of children who indicated both a need for mental health care and the presence of the disorder. Some children may have reported more than 1 disorder.

Measures

As noted in Tables 1 through 3, we examined 4 categories of outcome measures: financial burden; health plan experience; labor-market and time effects; and parent care experiences.

Analysis

We weighted all the analyses to reflect the complex sampling scheme of the

survey. We first assessed unadjusted differences in our outcome measures for (1) children with no SHCNs, (2) CSHCN with no need for mental health care, (3) the subset of group 2 with a need for other specialty care, and (4) CSHCN with a need for mental health care. Next, we conducted adjusted analyses by using logistic regression to control for relevant individual and household characteristics.

We then conducted 4 subgroup analyses. First, we limited the sample to children who resided in the 6 states with broad mental health parity laws. Consistent with previous research, we categorized a state as having a broad parity law if the National Alliance on Mental Illness (NAMI) defines its law as either broad based or comprehensive and if the law had been implemented

before 2005. If differential insurance limits or cost-sharing are driving differences in burden, we expect this subsample to have lower or insignificant odds for our financial and health plan outcomes. Second, to determine if having an adequate supply of child psychiatrists would reduce the differential burden on families of children with and without mental health care need, we limited the sample to children who resided in states with an adequate supply of child psychiatrists, defined by the Graduate Medical Education National Advisory Committee as 14.38 child psychiatrists per 100 000 youth. Six states met this threshold.¹³

Third, we limited the sample to children who did not report ongoing use of prescription drugs. If the cost of prescription drugs is driving differences in out-

TABLE 1 Unadjusted Outcomes for Privately Insured Children According to SHCN Status, 2005–2006

	1. Children Without SHCNs (Referent Sample)	2. CSHCN With No Mental Health Care Need	3. CSHCN With No Mental Health Care Need Reporting Some Need for Specialist Care	4. CSHCN With Mental Health Care Need
<i>N</i>	2346	16 250	7902	4918
Financial outcomes, %				
Out-of-pocket costs > \$500	19.4	40.1	50.8	61.0
Out-of-pocket costs > \$1000	10.3	22.4	30.9	42.5
Out-of-pocket costs > \$5000	0.8	2.4	3.7	6.9
Child's health care has caused financial problems	2.5	11.5	15.1	27.0
Need additional income to care for child	3.0	10.5	13.5	22.6
Health plan experience outcomes, %				
Health insurance meets child's needs (1 = never, sometimes)	6.8	8.4	9.6	18.0
Costs not covered by insurance are reasonable (1 = never, sometimes)	24.0	29.0	30.1	40.0
Insurance allows child to see provider that child needs (1 = never, sometimes)	4.6	5.7	6.0	15.3
Labor-market and time outcomes, %				
Spent >10 h providing care	0.8	2.3	4.1	4.7
Spent >10 h arranging care	0.7	1.6	2.0	3.0
Stopped work	0.8	5.3	7.6	13.0
Stopped work or cut work hours	2.1	12.7	17.4	30.0
Parent care experience outcomes, %				
Satisfaction with services child receives (1 = somewhat/very dissatisfied)	2.7	5.4	6.2	13.7
Doctors spend enough time with you (1 = never/sometimes)	17.3	16.1	12.6	18.5
Doctors listen carefully to you (1 = never/sometimes)	5.6	7.1	6.7	11.4
Doctor sensitive to values and customs (1 = never/sometimes)	6.5	6.4	6.3	9.9
Received specific information you needed from doctors (1 = never/sometimes)	12.2	12.6	12.0	20.4
Doctors help you feel like a partner in your child's care (1 = never/sometimes)	8.7	8.4	7.7	15.0

The sample included children aged 6 to 17 with private insurance coverage. Means were weighted to reflect complex sampling scheme. Column 3 is a subset of column 2.

TABLE 2 Adjusted Outcomes for Privately Insured CSHCN According to Need for Mental Health Care, 2005–2006

	Comparing CSHCN (No Needed Specialty Care) With and Without Mental Health Care Need, OR (95% CI) ^a	Comparing CSHCN (Needed Specialty Care) With and Without Mental Health Care Need, OR (95% CI) ^b	Comparing CSHCN With ADHD ^c With Mental Health Care Need to CSHCN Without Mental Health Care Need, OR (95% CI) ^a	Comparing CSHCN With Emotional Problems ^d With Mental Health Care Need to CSHCN Without Mental Health Care Need, OR (95% CI) ^a	Comparing CSHCN With Autism ^e With Mental Health Care Need to CSHCN Without Mental Health Care Need, OR (95% CI) ^a
<i>N</i>	15 746	9856	13 910	14 079	11 857
Financial outcomes, %					
Out-of-pocket costs > \$500	1.88 (1.63–2.15) ^f	1.31 (1.12–1.52) ^f	1.80 (1.53–2.11) ^f	2.13 (1.80–2.53) ^f	2.36 (1.52–3.65) ^f
Out-of-pocket costs > \$1000	1.94 (1.69–2.23) ^f	1.32 (1.13–1.54) ^f	1.78 (1.51–2.11) ^f	2.09 (1.77–2.46) ^f	2.20 (1.45–3.33) ^f
Out-of-pocket costs > \$5000	1.69 (1.26–2.25) ^f	1.30 (0.95–1.78)	1.34 (0.96–1.88) ^h	1.86 (1.34–2.58) ^f	1.64 (0.93–2.87) ^h
Child's health care has caused financial problems	1.74 (1.48–2.05) ^f	1.35 (1.13–1.61) ^f	1.60 (1.31–1.96) ^f	2.18 (1.80–2.63) ^f	2.31 (1.47–3.62)
Need additional income to care for child	1.57 (1.32–1.87) ^f	1.22 (1.01–1.47) [§]	1.42 (1.15–1.75) ^f	1.89 (1.55–2.31) ^f	2.63 (1.66–4.17) ^f
Health plan experience outcomes, %					
Health insurance meets child's needs (1 = never, sometimes)	1.65 (1.38–1.97) ^f	1.50 (1.22–1.83) ^f	1.63 (1.31–2.04) ^f	1.75 (1.42–2.16) ^f	3.20 (1.91–5.34) ^f
Costs not covered by insurance are reasonable (1 = never, sometimes)	1.39 (1.21–1.59) ^f	1.30 (1.12–1.51) ^f	1.45 (1.23–1.72) ^f	1.49 (1.26–1.75) ^f	2.23 (1.49–3.33) ^f
Insurance allows child to see provider that child needs (1 = never, sometimes)	2.16 (1.77–2.63) ^f	2.12 (1.70–2.65) ^f	2.22 (1.74–2.84) ^f	2.24 (1.76–2.85) ^f	3.20 (1.77–5.80) ^f
Labor-market and time outcomes, %					
Spent >10 h providing care	0.90 (0.67–1.21)	0.70 (0.51–0.95) ^h	0.830 (0.58–1.19)	0.87 (0.62–1.22)	1.26 (0.75–2.09)
Spent >10 h arranging care	1.23 (0.86–1.77)	1.33 (0.89–2.00)	1.29 (0.85–1.95)	1.27 (0.83–1.93)	1.85 (0.95–3.60)
Stopped work	1.51 (1.20–1.91) ^f	1.16 (0.91–1.48)	1.40 (1.05–1.86) ^h	1.62 (1.24–2.13) ^f	2.10 (1.41–3.14)
Stopped work or cut work hours	1.68 (1.42–1.99) ^f	1.290 (1.08–1.54) ^f	1.69 (1.38–2.06) ^f	1.74 (1.44–2.12) ^f	2.39 (1.61–3.54)
Parent care experience outcomes, %					
Satisfaction with services child receives (1 = somewhat/very dissatisfied)	1.59 (1.29–1.97) ^f	1.54 (1.23–1.93) ^f	1.74 (1.36–2.23) ^f	1.64 (1.27–2.10) ^f	1.73 (1.07–2.81)
Doctors spend enough time with you (1 = never/sometimes)	0.97 (0.81–1.15)	1.21 (1.01–1.45) [§]	0.98 (0.80–1.20)	1.025 (0.83–1.26)	1.01 (0.67–1.50)
Doctors listen carefully to you (1 = never/sometimes)	1.22 (0.99–1.50) ^h	1.41 (1.11–1.78) ^f	1.24 (0.97–1.58) ^h	1.31 (1.03–1.68) [§]	1.36 (0.84–2.22)
Doctor sensitive to values and customs (1 = never/sometimes)	1.20 (0.96–1.49)	1.31 (1.02–1.68) [§]	1.36 (1.04–1.77) [§]	1.39 (1.06–1.82) [§]	1.26 (0.76–2.10)
Received specific information you needed from doctors (1 = never/sometimes)	1.22 (1.02–1.46) [§]	1.37 (1.13–1.67) ^f	1.28 (1.07–1.58) [§]	1.33 (1.08–1.65) ^f	1.36 (0.90–2.05)
Doctors help you feel like a partner in your child's care (1 = never/sometimes)	1.36 (1.10–1.66) ^f	1.55 (1.26–1.92) ^f	1.34 (1.06–1.71) [§]	1.50 (1.16–1.93) ^f	1.24 (0.73–2.11)

The sample included children aged 6 to 17 with private insurance coverage. Estimates were weighted to reflect complex sampling scheme. In all models we controlled for severity of the child's condition (minor, moderate, severe); how severely the condition affected the child's ability to do things (a great deal, some, very little); number of adults in the household; family income (9 categories plus 1 additional category for households for which income data are missing); mother's education; race and ethnicity; number of children in the household; child's age category (6–9, 10–12, 13–17 years); child's gender; and whether the interview was conducted in a language other than English. To control for state-level factors that may have influenced our outcome measures, we also included state dummy variables. CI indicates confidence interval.

^a Comparison group composed of CSHCN with no mental health care need.

^b Comparison group composed of CSHCN with no mental health care need but reporting some need for specialty care.

^c ADHD includes attention-deficit disorder or attention-deficit/hyperactivity disorder.

^d Emotional problems include depression, anxiety, eating disorder, or other emotional problems.

^e Autism includes both autism and autism spectrum disorder.

^f *P* < .01.

[§] *P* < .05.

^h *P* < .10.

comes, we expect this subsample to have lower or insignificant odds for these outcomes. Finally, children who need mental health care may have a differential burden, particularly for labor-market outcomes, if their health care needs are unstable. We limited our sam-

ple to children whose health care needs are usually stable; if the instability in health care needs is behind differences in burden, differences between children with and without mental health care need will be reduced or eliminated in this subsample.

RESULTS

A total of 4918 CSHCN with private insurance coverage reported a need for mental health care in 2005–2006. We compared the health care experience of these children with (1) 2346 pri-

TABLE 3 Adjusted Outcomes for Privately Insured CSHCN Using Selected Subsamples, 2005–2006

	Comparing CSHCN With and Without Mental Health Care Need in States With Broad Mental Health Parity Laws, OR (95% CI) ^a	Comparing CSHCN With and Without Mental Health Care Need in States With Adequate Supply Of Child Psychiatrists, OR (95% CI) ^b	Comparing CSHCN With and Without Mental Health Care Need Among Those not Reporting Prescription Drug Needs, OR (95% CI) ^c	Comparing CSHCN With and Without Mental Health Care Need Among Those Whose Conditions Are Usually Stable, OR (95% CI) ^d
<i>N</i>	1898	2423	2779	11 070
Financial outcomes, %				
Out-of-pocket costs > \$500	2.73 (2.02–3.70) ^e	2.12 (1.54–2.93) ^e	1.61 (1.22–2.14) ^e	1.80 (1.53–2.11) ^e
Out-of-pocket costs > \$1000	2.95 (2.17–4.00) ^e	2.03 (1.46–2.82) ^e	1.70 (1.27–2.28) ^e	1.88 (1.58–2.24) ^e
Out-of-pocket costs > \$5000	1.85 (0.98–3.50) [§]	3.09 (1.80–5.30) ^e	1.48 (0.86–2.56)	1.76 (1.18–2.70) ^e
Child’s health care has caused financial problems	2.44 (1.67–3.56) ^e	1.62 (1.08–2.45) ^f	1.42 (1.04–1.94) ^f	1.70 (1.36–2.14) ^e
Need additional income to care for child	1.62 (1.08–2.44) ^f	1.62 (0.99–2.63) [§]	1.55 (1.12–2.16) ^e	1.47 (1.16–1.87) ^e
Health plan experience outcomes, %				
Health insurance meets child’s needs (1 = never, sometimes)	1.74 (1.08–2.82) ^f	1.83 (1.13–2.96) ^f	1.25 (0.92–1.71)	1.65 (1.30–2.10) ^e
Costs not covered by insurance are reasonable (1 = never, sometimes)	1.78 (1.29–2.45) ^e	1.34 (0.93–1.93)	1.57 (1.20–2.06)	1.31 (1.10–1.55) ^e
Insurance allows child to see provider that child needs (1 = never, sometimes)	2.39 (1.51–3.79) ^e	2.25 (1.42–3.58) ^e	1.43 (1.01–2.03) [§]	1.98 (1.52–2.57) ^e
Labor-market and time outcomes, %				
Spent >10 h providing care	0.92 (0.42–1.20)	1.23 (0.59–2.56)	0.78 (0.40–1.51)	1.03 (0.65–1.55)
Spent >10 h arranging care	0.66 (0.23–1.9)	0.47 (0.16–1.40)	1.15 (0.58–2.28)	1.40 (0.77–2.54)
Stopped work	1.40 (0.83–2.37)	1.36 (0.81–2.27)	1.13 (0.75–1.70)	1.68 (1.20–2.35) ^e
Stopped work or cut work hours	1.78 (1.23–2.55) ^e	1.86 (1.25–2.77) ^e	1.52 (1.11–2.09) ^e	1.73 (1.37–2.19) ^e
Parent satisfaction outcomes, %				
Satisfaction with services child receives (1 = somewhat/very dissatisfied)	1.58 (0.89–2.83)	1.37 (0.74–2.51)	1.15 (0.79–1.68)	1.73 (1.32–2.28) ^e
Doctors spend enough time with you (1 = never/sometimes)	0.93 (0.62–1.40)	0.66 (0.44–.99) ^f	0.94 (0.66–1.34)	0.99 (0.78–1.24)
Doctors listen carefully to you (1 = never/sometimes)	0.79 (0.48–1.31)	0.74 (0.45–1.21)	0.99 (0.68–1.44)	1.28 (0.97–1.68) [§]
Doctor sensitive to values and customs (1 = never/sometimes)	1.32 (0.78–2.23)	1.16 (0.66–2.04)	1.04 (0.66–1.62)	1.47 (1.10–1.97) ^f
Received specific information you needed from doctors (1 = never/sometimes)	1.64 (1.12–2.42) ^f	0.98 (0.65–1.48)	0.94 (0.66–1.34)	1.29 (1.03–1.63) ^f
Doctors help you feel like a partner in your child’s care (1 = never/sometimes)	1.00 (0.65–1.54)	1.20 (0.70–2.05)	0.97 (0.63–1.47)	1.47 (1.12–1.94) ^e

The sample included children aged 6 to 17 with private insurance coverage. Estimates were weighted to reflect complex sampling scheme. In all models we controlled for severity of the child’s condition (minor, moderate, severe); how severely the condition has affected the child’s ability to do things (a great deal, some, very little); number of adults in the household; family income (9 categories plus 1 additional category for households for which income data are missing); mother’s education; race and ethnicity; number of children in the household; child’s age category (6–9, 10–12, 13–17 years); child’s gender; and whether the interview was conducted in a language other than English. To control for state-level factors that may have influenced our outcome measures, we also included state dummy variables. CI indicates confidence interval.

^a States with broad parity laws are Connecticut, Maine, Maryland, Minnesota, New Mexico, and Vermont.

^b States with an adequate supply of child psychiatrists are Connecticut, Washington, DC, Hawaii, Maryland, Massachusetts, New York, Rhode Island, and Vermont.

^c Prescription drug needs were defined on the basis of the child’s current need or use of medicine prescribed by a doctor (other than vitamins) because of any medical, behavioral, or other health condition that has lasted or was expected to last ≥12 months.

^d Stability of health condition was defined as respondent reporting that child’s health care needs are usually stable.

^e *P* < .01.

^f *P* < .05.

[§] *P* < .10.

vately insured children without SHCN (the referent sample), (2) 16 250 privately insured CSHCN who did not report a need for mental health care, and (3) a subset of group 2 that consists of 7902 privately insured CSHCN who did not report a need for mental health care but did report a need for specialist care.

Children who needed mental health care had greater out-of-pocket costs on average than all 3 comparison groups (Table 1). For example, 61% of children who needed mental health care reported annual out-of-pocket costs greater than \$500 compared with only 19% of the referent sample. Less than 1% of the referent sample

had annual out-of-pocket costs greater than \$5000 compared with 7% of the sample of those who needed mental health care. The 2 groups of CSHCN with no mental health care need (columns 2 and 3) had more families with high out-of-pocket costs than the referent sample but fewer than the CSHCN who needed mental health care. Finan-

cial outcomes were worse for children with a need for specialty care compared with children with no need for specialty care.

Results for health plan experience outcomes were similar; children who needed mental health care were more likely to have negative health plan experiences than other children. Regarding labor-market and time outcomes, CSHCN who needed mental health care had caregivers who spent more time arranging and providing care, and these caregivers were more likely to stop work or cut work hours to care for their child.

Examining parent care experience outcomes, parents of children with mental health care needs were more likely than those in the other 3 groups to report that they were dissatisfied with services received. Although almost 14% of parents of CSHCN who needed mental health care were dissatisfied, only 3% of the parents of the referent sample were dissatisfied. Parents of CSHCN who needed mental health care were more than twice as likely as parents of other CSHCN to report dissatisfaction with services (14 vs 5%).

In Table 2 we list the adjusted results. Column 1 reports the odds of each of our outcomes comparing CSHCN with and without mental health care needs. The results were similar to the unadjusted outcomes. For all financial and health plan experience outcomes, CSHCN with mental health care needs fared worse than their counterparts with no mental health care need (column 1), even when comparing them to CSHCN with no mental health care need but a need for specialty care (column 2).

For labor-market and time outcomes, we saw fewer differences than in the unadjusted results. CSHCN with no mental health care needs but with a need for specialty care were less likely than CSHCN with mental health care

needs to spend >10 hours/week providing care.

Parents of CSHCN who needed mental health care had lower overall patient satisfaction compared with parents of CSHCN with no need for mental health care (OR: 1.59) and with parents of CSHCN who needed specialty care (OR: 1.54). When considering individual components of patient satisfaction (using measures of family centered care), only 1 component (received specific information from doctors) was significantly different ($P < .05$) when comparing parents of CSHCN with and without mental health care need.

In columns 3 through 5 of Table 2, we list results for the subset of CSHCN with specific categories of disorders. Generally, we found that children with autism experienced the greatest difference in outcomes.

In Table 3 we compare CSHCN with and without mental health care need within relevant subsamples. In analyses not shown, we also examined these subsamples comparing CSHCN with mental health care need to CSHCN with no mental health care need but with a need for specialty care. In almost all cases, the results were qualitatively similar; we only mention below when results diverged from those listed in Table 3.

Column 1 of Table 3 lists results when limiting the sample to children in 6 states with a broad mental health parity law. Somewhat surprisingly, we found that these families had a greater difference in financial outcomes compared with residents of all states. Otherwise, there were few differences between these analyses and those presented in column 1 of Table 2 (what we refer to below as the full sample). In some cases, the ORs were similar but no longer significant because of the smaller sample size. In column 2, we limited the sample to residents of states with an adequate supply of child

psychiatrists. Generally, results were similar to those of the full sample in Table 2. One exception was the patient-satisfaction variables. In this subsample, there were fewer differences in patient satisfaction between those with and without mental health care needs. In all cases, the point estimate suggests that those with no mental health care needs have similar or greater satisfaction.

Column 4 of Table 3 lists the results for the subsample with no prescription drug needs. This sample is much smaller than the full sample in Table 2 and may represent children with different health care needs and health statuses. We detect differences in financial outcomes comparing those with and without mental health care need similar in magnitude to the full sample. However, within this subsample, comparing children with mental health care need to CSHCN with no need for mental health care but with a need for specialty health care (results not shown), differences in financial outcomes were not found. This suggests that, at least among those with no prescription drug needs, there are few differences in the financial burden between those with and without a need for mental health care. Finally, column 5 of Table 3 lists results for the subsample of children whose conditions were usually stable. We found few differences when compared with the full sample.

DISCUSSION

Families of children with mental health care needs with private insurance coverage face significantly greater financial barriers, have more negative health plan experiences, and are more likely to reduce their labor-market participation to care for their child than other families. These families are also somewhat more likely to report dissatisfaction with services than

other families. In absolute terms, this burden is substantial. Among the privately insured, 43% spend more than \$1000 out-of-pocket on their child's health care, indicating that private insurance coverage does not protect families from the expenses associated with mental health treatment.

A number of factors may explain the increased financial burden and other challenges faced by families of privately insured CSHCN with mental health care needs. Federal parity has long been advocated as a means of eliminating inequities in private insurance coverage for mental health care, and research has indicated that parity can lower the out-of-pocket costs of treating children with mental illness.^{17,18} The passage of a comprehensive federal parity law by Congress in the fall of 2008 may have reduced the financial burden on privately insured families of children with mental health disorders, but we did not find that living in a state with a broad state mental health parity law eliminated differences in financial outcomes between children who needed mental health care and other children. Also, federal parity will not address the growth in prescription drug costs for the treatment of mental health conditions and

does not directly affect the labor-market and time costs of caring for a mentally ill child. Other policies should be aimed at addressing these significant costs imposed on families.

A number of limitations are important to note. First, information on a child's condition and experiences with health care were reported by the respondent, usually a parent. One concern is that children with mental health care needs may be more likely to have a parent with mental health care needs who may have responded to questions about the child's condition and its consequences differently from other parents. A second concern is that the average disease severity of children with mental health care needs may differ from that of other CSHCN. If children with mental health care needs are sicker, for example, then differences in outcomes may be caused by differences in the underlying severity of the condition rather than the condition itself. The comparison with children with no mental health care need but need for other specialty services mitigates this concern, although differences may still exist. Third, there are limits with state parity laws that we were unable to control for in our study. Most importantly, health insurance

obtained by a self-insured firm is not subject to state parity laws. In some states, more than half the workforce is employed by self-insured firms.¹⁹ Another limitation is that we limited our sample to children with private insurance coverage. Children with mental health care needs with public coverage may also face different challenges than other CSHCN, and outcomes for these children would also be interesting to study.

Although we found that, under private insurance, CSHCN with mental health care needs face greater barriers than other CSHCN, we were unable to definitively determine the causes of these differences. Our results do suggest that the shortage of child psychiatrists may have some impact on parent satisfaction and that the out-of-pocket cost of psychotropic medications may play a role in the high financial burden on these families. More research needs to be performed to better understand the cause of these differences and to develop policy solutions that may ameliorate these effects.

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