State Report

Mental Health Benefits Under SCHIP

States may be better off covering children with serious mental health problems under their Children's Health Insurance Program than under Medicaid.

by Embry M. Howell, Jeffrey A. Buck, and Judith L. Teich

In response to the persistent lack of health insurance among children and its impact on their health, Congress enacted the State Children's Health Insurance Program (SCHIP) in 1997. Congress authorized more than $20 billion in federal funds for health insurance expansions over five years to cover low-income uninsured children. Within broad guidelines, states have considerable flexibility in designing their programs.

States can provide coverage by expanding Medicaid, designing a separate insurance program, or combining these two approaches. States expanding Medicaid coverage must offer the full Medicaid benefit package, and states designing new programs must offer a benefit package that is comparable to one of three private benchmark insurance plans: the Federal Employees Health Benefits Program (FEHBP) Blue Cross standard option plan, the state's employee health benefit plan, or the health maintenance organization (HMO) with the largest number of commercially insured members in the state.

Of particular importance for mental health services, a state's SCHIP plan must include coverage that is equivalent to 75 percent of the actuarial value of the benchmark plan for four specific services: prescription drugs, mental health, vision, and hearing.

SCHIP plans are still evolving, and states are experimenting with the structure of their mental health and substance abuse benefits. Indeed, as SCHIP enters its third year of implementation, there is a particular need for estimates of the cost of mental health services for SCHIP children and adolescents, information that is not readily available from any of the SCHIP plans.

This paper is designed to fill that knowledge gap. After showing the initial coverage choices that states have made under SCHIP and briefly reviewing the literature from previous studies, we provide some estimates of the range of costs that states could face under alternative benefit designs.

States' Choices For SCHIP Mental Health Coverage

Because information on SCHIP mental health benefits is not readily available in one central location, we merged information from several sources. This information shows that mental health coverage differs greatly between Medicaid-expansion and benchmark plans. While both types of plans cover traditional inpatient and outpatient care, Medicaid-expansion plans are much more likely to cover residential, partial hospitalization, case management, and school health services.

States with benchmark SCHIP plans are allowed to charge copayments for services, which generally are not allowed for Medicaid-expansion plans. Although day and visit limits are allowed under both options, most states do not use such limits extensively in

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their Medicaid-expansion plans. As a result, day and visit limits for mental health services are more common under benchmark plans. Further, copayments exist for pharmacy benefits in half of these plans but are almost completely absent in Medicaid-expansion plans.

Findings From The Literature

A variety of factors influence states' SCHIP choices, and it is unlikely that concerns about mental health coverage have dominated these choices. Nevertheless, it is important to assess these choices in light of what we know about mental health services for children and adolescents and their needs for such services.[1]

■ **Prevalence of mental disorders.** The literature shows that between one-tenth and one-third of children and adolescents have a diagnosable mental health problem. A smaller, but still substantial, percentage have a serious emotional disturbance (SED). Prevalence of mental health problems is lowest among preschool children, rises in the primary school years, and rises again in adolescence. It is highest among boys.

Poverty is associated with mental health problems: Prevalence rates are somewhat higher for the poorest children than for higher-income children. Insurance-based estimates show a more pronounced difference between Medicaid and private insurance, with the uninsured resembling the privately uninsured. Given that SCHIP children must be uninsured to qualify, insurance-based data suggest that SCHIP-eligible children will have a lower prevalence of mental health conditions than Medicaid-eligible children have. While prevalence rates for near-poor and poor children are similar, some (perhaps most) SED children and adolescents who are eligible for SCHIP ultimately may qualify for Medicaid by enrolling in Supplemental Security Income (SSI) or through medically needy provisions. This will depend on state-specific procedures for qualifying for SSI, the types of mental health benefits offered in SCHIP, and alternative programs for caring for such children. Consequently, prevalence of serious mental health problems in the SCHIP-covered population will likely vary by state.

■ **Service use.** Research shows that at least one in twenty children and adolescents in the United States use some mental health services each year. Generally, the Medicaid population has the highest rates of mental health service use, and privately insured children, the lowest.[2] There are few detailed data available on use among the uninsured, from which the SCHIP population is drawn.

The recent surgeon general's report on mental health cited studies that demonstrate that many children and adolescents in need do not receive any mental health services at all.[3] Further, the dropout rate is high for those starting treatment. Underuse of services is more pronounced among lower income groups. The report goes on to note that providing services in schools and instituting case management services have been effective in addressing these access problems.

■ **Treatment effectiveness.** The surgeon general's report also found that outpatient treatment shows the strongest evidence of effectiveness. Reasonable evidence also exists that partial hospitalization improves child behavior and family functioning. Evidence for the effectiveness of residential treatment centers and inpatient care is limited, and community care generally is considered to be more cost-effective than these settings are. However, these more restrictive settings are still necessary for some children with severe disorders. Some types of disorders are effectively treated with psychotropic medication, particularly attention deficit/hyperactivity disorder. For many disorders, however, evidence for the effectiveness of drug treatment is limited or nonexistent.

■ **Cost-sharing effects.** SCHIP plans with significant copayment requirements may disproportionately affect children and adolescents with mental disorders. Harriet Fox and colleagues found that annual copayments under SCHIP for families with a child with a psychiatric disorder would likely be much higher than for other families.[4]

■ **Sources of care.** A recent study found the most common provider of care to be schools, which treated about 70 percent of

children receiving mental health services.[5] In particular, schools were the sole source of care for nearly half of the SED children. Another broad-based study found that about half of treated children received care from mental health specialists.[6]

■ **Expected turnover.** Turnover in the SCHIP population creates issues of consistency in benefit coverage and source of care. One of the problems with Medicaid is that a child is eligible only while his or her family meets the program's eligibility criteria. Marilyn Ellwood and Kimball Lewis found that 23.5 percent of children enrolled in California's Medicaid program in January 1995 were no longer enrolled by December of the same year.[7] In Florida the turnover was more than twice as high. In SCHIP it is likely to be even greater. Chyongchiou Lin and Judith Lave found that in Pennsylvania's subsidized state program for children below 185 percent of the poverty level, children remained in the program an average of ten months.[8] Children in higher-income families stayed in the program only an average of eight months.

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Modeling SCHIP Expenditures

To develop estimates, we performed a comprehensive review of utilization patterns for mental health services and the cost of those services. Although we reviewed more than 100 sources, we ultimately relied on fourteen core sources.[9]

■ **Methodology.** We used a conceptual model of costs that assumes that costs are driven by (1) the number of children and adolescents covered by SCHIP; (2) the prevalence of mental health conditions in those populations; (3) the probability of using various types of mental health services for those with a mental health condition; (4) the amount of services used by those who use them; and (5) the expenditure per service unit.[10]

While none of the existing studies reports data on all of these cost components for the income groups affected by SCHIP, some report on one or more of them. Those diverse sources of information can be used to develop a synthesis, or "best guess," of what costs might be. When more than one estimate was available in the literature for a particular parameter, we developed ranges of estimates to model costs under alternative scenarios. The results presented here will provide state policymakers with some empirical information on which to base their SCHIP design decisions while waiting for more solid data from actual SCHIP experience, which may not be available for several years.

We used only population-based studies that report prevalence by either income or insurance. Unfortunately, the sample sizes of uninsured, low-income children in all of the studies reviewed are too small to report accurate estimates of prevalence by age, condition, income, and insurance group, so we relied primarily on estimates by income, when known. Some of the studies also provided estimates of the proportion of children and/or adolescents with mental health conditions who use certain services, but this information is sparse, especially for services that are uncommon.

Most of the available utilization data are from Medicaid and the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), with only limited information from privately insured groups and almost none on uninsured children. Since both private mental health coverage and the availability of mental health services have been limited in many geographic areas, it is difficult to extrapolate from these studies of programs with relatively generous mental health benefits to SCHIP programs, many of which still have substantial benefit limits. While it is clear that uninsured children have lower utilization rates than Medicaid children have, it is unknown whether these rates will rise greatly once services are covered.

Using what was found in the literature, we developed a range of estimates of the prevalence of SED and other mental health condi-

tions for three age groups: birth to five years, six to eleven years, and twelve to eighteen years. Given the evidence that offering some nontraditional services—such as school health services, case management, and partial hospitalization—is important to children and adolescents, we included these services in the model along with traditional outpatient and inpatient services.

■ **Total spending.** Lacking data on the number of SCHIP enrollees, we hypothetically assumed that there are 1,000 children in each of the three age groups. For the two older groups, we divided the estimates into services for youths with SED and those with other mental health conditions. (There was insufficient information in the literature on the prevalence of SED in the youngest children to separate them.) For these 3,000 children, a hypothetical state would spend $638,100 for mental health services in a year (Exhibit 1).

About 70 percent of these expenditures would be for inpatient hospital, residential, and partial hospitalization services. A large percentage would be for SED children (30.6 percent) and adolescents (42.4 percent). Should a state choose to carve out services for such conditions, as some have done, or should a large number of such children be covered by Medicaid or other state programs, the cost of covering a fairly broad package of services for the remaining SCHIP children would be only about a quarter of our estimated total.

■ **Spending per enrollee.** Monthly and annual expenditures per SED child and adolescent are quite high: $271 and $251, respectively, per month and $3,254 and $3,011, respectively, per year (Exhibit 2). For children with less severe mental health needs, the expenditure rates are $33 per month for the youngest children and about twice as much for older children and adolescents.

When the expenditures are spread across all SCHIP children and adolescents, the rates are much lower. States have generally established capitation rates across broad age groups for their Medicaid programs, although many have developed separate rates for different severity groups. Although program policy regarding SCHIP capitation approaches and rate setting is still under development, it is likely that most states will choose to use managed care approaches and to construct capitation rates using broad age groups. Using our simulation, if a rate for the entire SCHIP population were constructed, the rate based on these estimates would be $18 per month, or $213 per year (Exhibit 2).

■ **Spending under alternative scenarios.** Given that states may or may not choose to support this level of expenditure, we tested the sensitivity of the estimates to alternative

EXHIBIT 1
Estimated Total Spending Per Year, Thousands Of Dollars, For Mental Health Services For 3,000 SCHIP Children And Adolescents

		Children (ages 6–11)		Adolescents (ages 12–18)		All SCHIP children	
Type of service	Children (ages 0–5)	SED	Other	SED	Other	Total costs	Percent of total costs
Inpatient hospital	$10.2	$136.0	$51.1	$151.4	$46.3	$395.0	61.9%
Residential	0.0	10.2	2.3	34.8	2.3	49.6	7.8
Partial hospitalization	0.0	0.0	0.0	12.5	0.8	13.3	2.1
Outpatient	5.4	30.2	11.4	46.1	13.8	107.0	16.8
Case management	6.4	12.1	6.3	16.2	6.4	47.5	7.4
School health	0.0	4.3	1.4	6.5	1.7	13.8	2.2
Pharmacy	1.4	2.3	2.1	3.5	2.5	11.8	1.8
Total	23.4	195.2	74.6	271.0	73.9	638.1	100.0
Percent of total	3.7%	30.6%	11.7%	42.4%	11.6%	100.0%	–

SOURCE: Authors' simulation using parameters from literature review.
NOTES: Expenditures are expressed in thousands of 1998 constant dollars. Substance abuse services are excluded. SCHIP is State Children's Health Insurance Program. SED is serious emotional disturbance. Each subgroup contains 1,000 children.

EXHIBIT 2
Estimated Spending Per SCHIP Enrollee For Mental Health Services

Diagnosis/age group	Per month	Per year
Children and adolescents with SED		
Ages 6–11	$271	$3,254
Ages 12–18	251	3,011
Children and adolescents with mental health disorder but not SED		
Ages 0–5	33	390
Ages 6–11	69	828
Ages 21–18	56	672
All SCHIP children and adolescents (with and without mental health problems)		
Children (ages 0–11)	12	147
Adolescents (ages 12–18)	29	345
Children and adolescents (ages 0–18)	18	213

SOURCE: Authors' simulation using parameters from literature review.
NOTES: Expenditures are expressed in 1998 constant dollars. Estimates exclude substance abuse treatment but include all of the following mental health services: inpatient hospital, residential, partial hospitalization, outpatient, case management, school health, and pharmacy. SCHIP is State Children's Health Insurance Program. SED is serious emotional disturbance.

assumptions. We found that expected expenditures depend critically on assumptions about the prevalence of SED in the population. Spending could be as low as $12 per month per SCHIP enrollee if the prevalence of SED is 30 percent below the default assumption in the model or even lower if prevalence or utilization rates are lower still. This could be achieved, for example, if many SCHIP-eligible children and adolescents with SED receive SSI benefits and consequently are covered by Medicaid (a situation that exists in many states). Alternatively, if states cover services under SCHIP that they otherwise would cover with state funds, average monthly spending per SCHIP child could be higher.

Implications For Mental Health Benefit Design Under SCHIP

The literature suggests several features that are likely to be important in designing effective mental health benefits under SCHIP. Prevalence data suggest that the extent and severity of mental disorders in the SCHIP-eligible population will be more similar to those in lower income groups. This implies that to be fully responsive to need, the type and scope of mental health benefits should be broader than that found in typical private insurance plans. The literature also suggests that, historically, uninsured children and adolescents have underused noninstitutional services. Therefore, case management services and school-based health services are needed to improve access to such services.

■ **Copayments.** In designing state SCHIP policy, policymakers should consider limiting copayments for mental health services. SCHIP requires that annual copayments be below 5 percent of family income. Families with an SED child or adolescent could easily exceed this criterion, given their high average costs as shown above.

■ **Turnover.** Turnover in the SCHIP population has important implications for program design, since changes in benefits could lead to possible disruptions in care. A family with a SCHIP-enrolled child with a serious mental health problem is probably much more likely to return to Medicaid, with its more generous benefits, than to private insurance. Covering SCHIP children in a Medicaid-expansion plan thus will allow for a smoother transition if the family returns to Medicaid. Also, states will discover that the higher rate of federal cost sharing under SCHIP makes it desirable to keep such children in SCHIP and to reduce

their incentives to return to Medicaid. Continuity of care is also likely, since covered plans and providers are likely to be the same if the family does enroll in Medicaid.

■ **Accuracy of cost estimates.** Our cost modeling shows that a broad range of mental health services can be supported under SCHIP for about $18 per month in 1998 constant dollars (or less if lower prevalence and utilization is assumed). Some reviewers have suggested that these estimates are too high because they are based on Medicaid and CHAMPUS utilization rates, which are likely to be much higher than SCHIP rates. In support, they cite a recent study of Medicaid capitation rates that suggests that our estimates should be lower.[11]

There are several reasons to be cautious in using capitation rates to make such judgments. Medicaid capitation rates often do not include the full scope of services that we have used in our estimates. Further, a recent case study illustrated how such rates may greatly underestimate actual cost experience.[12] In support of this view, Barbara Burns and colleagues found that levels of Medicaid mental health spending for children and adolescents in North Carolina were well above our estimates.[13] Nevertheless, differences such as these highlight the limits of evidence upon which our estimates were developed. For this reason, it may be best to consider our estimates as an upper bound for what could be expected under SCHIP should a broader range of services be covered.

■ **Effect of managed care.** To the extent that states are adopting managed care approaches and capitation rates that are similar to those used for their Medicaid programs, mental health services, if covered and used at the level supported by our literature review, would account for approximately 20 percent of the current SCHIP capitation rate in the median state.[14] Consequently, many states might have to increase proposed capitation rates under SCHIP to cover a broad mental health benefit package. However, in many cases the additional cost could be offset by a reduced cost of services that a state is already covering under alternative state programs.

Since states are already largely responsible for low-income children with serious mental health problems through various state-funded programs, they should consider broadening SCHIP coverage to include the range of treatments that are considered effective. While states may be initially reluctant to do this because of concerns that this would increase SCHIP costs or lead to "crowding out" by encouraging families to leave private plans with limited benefits, closer reflection shows that families with a high-cost child or adolescent will probably eventually become a state responsibility through Medicaid or through fully state-funded programs. States may be better off covering such children under SCHIP, since they have more flexibility in benefit design and since the federal match rate is higher than for other programs. Indeed, SCHIP provides an opportunity for states to carefully consider how they are providing critical mental health services to a vulnerable population whose mental health is a prominent public concern.

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NOTES

1. The information in this paper is drawn in part from the final report of a study conducted by Mathematica Policy Research, Inc., under contract to the Office of Managed Care, Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. The full report is E.M. Howell, S. Roschwalb, and M. Satake, *Design and Costs of Mental Health Benefits under the State Children's Health Insurance Program (SCHIP)*, DHHS Pub. no. (SMA)01-3473 (Rockville, Md.: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 2000), <www.mentalhealth.org/CMHS/ managedcare>.
2. S. Glied et al., "Children's Access to Mental Health Care: Does Insurance Matter?" *Health Affairs* (Jan/Feb 1997): 167–174.
3. DHHS, *Mental Health: A Report of the Surgeon General* (Washington: U.S. Government Printing Office, 1999).
4. H.B. Fox, R.R. Graham, and M.A. McManus, *States' SCHIP Policies and Children with Special Health Care Needs*, Issue Brief no. 4 (Washington: Maternal and Child Health Policy Research Center, 1998).
5. B.J. Burns et al., "Children's Mental Health Service Use across Service Sectors," *Health Affairs* (Fall 1995): 147–159.
6. P.J. Leaf et al., "Mental Health Service Use in the Community and Schools: Results from the Four-Community MECA Study," *Journal of the American Academy of Child and Adolescent Psychiatry* 35, no. 7 (1996): 889–897.
7. M.R. Ellwood and K. Lewis, *The Ins and Outs of Medicaid: Enrollment Patterns for California and Florida in 1995*, Draft Report (Washington: Mathematica Policy Research, 1999).
8. C.J. Lin and J.R. Lave, "Duration in and Pattern of Utilization under Children's Health Insurance Programs," *Health Care Financing Review* 19, no. 4 (1998): 101–116.
9. R.M. Friedman et al., "Prevalence of Serious Emotional Disturbance in Children and Adolescents," in *Mental Health, United States, 1996*, ed. R.W. Manderscheid and M.A. Sonnenschein, DHHS Pub. no. (SMA)96-3098 (Washington: U.S. GPO, 1996), chap. 6; E.J. Costello et al., "The Great Smoky Mountains Study of Youth—Goals, Design, Methods, and the Prevalence of DSM-III-R Disorders," *Archives of General Psychiatry* 53, no. 12 (1996): 1129–1136; E.J. Costello et al., "The Great Smoky Mountains Study of Youth—Functional Impairment and Serious Emotional Disturbance," *Archives of General Psychiatry* 53, no. 12 (1996): 1137–1143; E.J. Costello et al., "The Prevalence of Serious Emotional Disturbance: A Re-Analysis of Community Studies," *Journal of Child and Family Studies* 7, no. 4 (1998): 411–432; B.J. Burns et al., "Insurance Coverage and Mental Health Service Use by Adolescents with Serious Emotional Disturbance," *Journal of Child and Family Studies* 6, no. 1 (1997): 89–111; Leaf et al., "Mental Health Service Use"; Glied et al., "Children's Access to Mental Health Care"; B.B. Lahey et al., "The NIMH Methods for the Epidemiology of Child and Adolescent Mental Disorders (MECA) Study: Background and Methodology," *Journal of the American Academy of Child and Adolescent Psychiatry* 35, no. 7 (1996): 855–864; M.J. Coiro, N. Zill, and B. Bloom, *Health of Our Nation's Children*, Vital and Health Statistics Series 10, no. 191, DHHS Pub. no. (PHS)95-1519 (Washington: National Center for Health Statistics, 1994); B.J. Burns et al., "Managed Behavioral Health Care: A Medicaid Carve-Out for Youth," *Health Affairs* (Sep/Oct 1999): 214–225; B.J. Burns, J.W. Thompson, and H.H. Goldman, "Initial Treatment Decisions by Level of Care for Youth in the Campus Tidewater Demonstration," *Administration and Policy in Mental Health* 20, no. 4 (1993): 231–241; L. Bickman et al., *Evaluating Managed Mental Health Services: The Fort Bragg Experiment* (New York: Plenum Press, 1995); SAMHSA, "Trends in Medicaid MH/SA Coverage, 1993 Table Set" (Unpublished data, 1999); and G. Wright, S. Smolkin, and D. Bencio, *Medicaid Mental Health and Substance Abuse 1992 Use and Expenditure Estimates for Michigan and California: Final Report* (Washington: Mathematica Policy Research, 1995).
10. Howell et al., *Design and Costs of Mental Health Benefits.*
11. J. Holahan, S. Rangarajan, and M. Schirmer, *Medicaid Managed Care Payment Methods and Capitation Rates: Results of a National Survey*, Occasional Paper no. 26 (Washington: Urban Institute, 1999).
12. S. Hoag, J. Wooldridge, and C. Thornton, "Setting Rates for Medicaid Managed Behavioral Health Care: Lessons Learned," *Health Affairs* (July/Aug 2000): 121–133.
13. Burns et al., "Managed Behavioral Health Care."
14. Anecdotal information from states suggests that some states have adopted rates that are lower than their Medicaid rates, and some states have adopted higher rates.