CHILDREN'S HEALTH COUNCIL

BEHAVIORAL HEALTH CARE AFTER DISCHARGE FOR CHILDREN WHO WERE HOSPITALIZED WHILE ENROLLED IN HUSKY PART A (MEDICAID MANAGED CARE)

May 2000

INTRODUCTION

The Children's Health Council has been charged by the Connecticut General Assembly with monitoring the impact of managed care on children's health services in HUSKY Part A (Medicaid managed care).[1] After initially focusing primarily on well-child care, the Council has begun to investigate access and quality of care for children with special health care conditions that make them vulnerable to changes in the delivery and financing of care.

Since the inception of the Medicaid managed care program in 1995, there has been widespread concern about the effect of managed care on behavioral health care services. Under fee-for-service Medicaid, families accessed care through community-based providers or emergency rooms. Providers who worked with these families were able to determine the therapeutic approach to treating children with mental disorders. Managed care has changed that therapeutic relationship. Managed care strategies are by design focused on the reduction of intensity, duration, and cost of behavioral health services. The ways and places where families access services have changed and their behavioral health care providers must now comply with additional administrative requirements for continuing treatment or receiving reimbursement. The industry tendency toward strict utilization review, leading to additional administrative barriers to obtaining and continuing care, may impede access to the specialized, individualized mental health care needed by some of Connecticut's most vulnerable children, including those in the custody of the Department of Children and Families (DCF).

Complaints from families, providers, and other community-based sources of care and family support have been widely reported.[2] Oversight of subcontractors, including behavioral health subcontractors, has been cited as a major shortcoming of health plan contract compliance.[3] At various times since the Medicaid managed care program began, calls to the Children's Health

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[1] As of July 1, 1998, Connecticut's Medicaid managed care plan was renamed **H**ealthcare for **U**nin**S**ured **K**ids and **Y**outh (HUSKY Plan Part A). Eligibility was expanded to include older children 14 to 18, though none of the newly enrolled teens would have met the continuous enrollment criterion for inclusion in this study . The benefits available to enrolled children did not change. For the sake of simplicity, the program will be referred to as HUSKY Part A throughout this report.

[2] Solomon J & Lee M A. An evaluation of access and quality of care in the Connecticut Access Program. Hartford, CT: Children's Health Council, April 1997.

[3] Reports on operations audits conducted by Qualidigm, Inc., in 1999 are available from the Connecticut Department of Social Services.

Infoline[4] have suggested that lack of access to ongoing care at appropriate levels of intensity was a systemic problem, though the ability of some health plans and subcontractors to meet these needs varied considerably. Quarterly and annual utilization reports submitted by health plans to Connecticut's Department of Social Services (DSS) have not addressed treatment outcomes, nor do the treatment penetration rates the plans report provide answers to whether children are receiving the care they need.

The purpose of this study was to examine one aspect of behavioral health care, that is the post-discharge care of children hospitalized for behavioral health diagnoses. Specifically, the Children's Health Council determined the rates of readmission and ambulatory care follow-up among children enrolled in HUSKY Part A (Medicaid managed care) who were hospitalized for behavioral health diagnoses in 1998.

METHODS

Study design and analytic approach

In this follow-up study of behavioral health care in HUSKY Part A (Medicaid managed care), the care received by children who were hospitalized for mental health disorders and chemical dependency was described in terms of:

- Rate at which continuously enrolled children were hospitalized;
- Number of hospitalizations these children experienced;
- Length of stay for admissions and readmissions (average, median, range); and
- Leading diagnoses for admissions and readmissions.

The following behavioral health care service measures were determined:

- 30-day readmission rate; and
- 30-day ambulatory care follow-up rate.

Results were reported for all children who were hospitalized and separately for the subset of hospitalized children who were in the custody of the Department of Children and Families (DCF) at the time of hospitalization.

Sample

Continuously enrolled children with encounter data indicating that hospitalizations occurred during 1998 were included in the sample. Using Medicaid managed care enrollment data from DSS, children 6 to 19 years of age as of 1/1/98 who were continuously enrolled in HUSKY Part A (any participating health plan) from 1/1/98 to 12/31/98 were identified. Using encounter records submitted by health plans to the Connecticut Children's Health Project (CCHP) through October 15, 1999, hospital discharges for continuously enrolled children that occurred on or between 1/1/98 and 12/1/98 (335 days) were identified. Encounter records with admission and

[4] The Children's Health Infoline is operated by the Connecticut Children's Health Project under a subcontract with United Way/Infoline of Connecticut.

discharge dates and UB-92 codes[5] that indicated inpatient care for the principal diagnoses listed in Tables 1 and 2 were counted as hospitalizations.[6] Only discharges from acute care or psychiatric hospitals were counted; discharges to or from residential care or rehabilitation programs were not included. These sampling and coding criteria were modeled after quality of care measures developed by the National Committee for Quality Assurance (NCQA).[7]

Data

Under a contractual agreement between DSS and participating managed care organizations, encounter records for care received by children enrolled in HUSKY Part A are submitted monthly to the Connecticut Children's Health Project (CCHP). All encounter records for inpatient and ambulatory care that occurred in the 30 days following discharges for children in the study sample were reviewed.[8]

An encounter record with UB-92 codes that indicates inpatient care for one or more of the principal diagnoses listed in Tables 1 or 2 was counted as a readmission if the second admission date was within 30 days of the discharge date for the preceding hospitalization. If there was evidence of readmission, no further search for ambulatory care follow-up after that first discharge was conducted. For all discharges, including readmissions, without evidence of readmission within 30 days, encounter data were searched for ambulatory care follow-up. Therefore, for each child, it was first determined whether a readmission occurred within the first 30 days following discharge, then, in the absence of evidence of a readmission, whether the discharge was followed by behavioral health care in an ambulatory care setting within the 30 days following discharge.[9]

Encounter records representing behavioral health care provided in ambulatory care settings for behavioral health care diagnoses within 30 days of discharge were identified. Ambulatory care visits for behavioral health diagnoses other than the admitting diagnosis were counted. Ambulatory care visits with any of the CPT-4 codes listed in Table 3 were counted, as was care indicated by selected UB-92 revenue codes [10] or outpatient clinic codes.[11] Evaluation and

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[5] 121 (Medical/surgical/gyn/two), 123 (pediatric/two bed), 124 (psychiatric/two bed), 134 (psychiatric/3-4 bed), 190 (subacute), 204 (ICU/psychiatric).

[6] Records submitted to CCHP by the behavioral health subcontractor for Community Health Network were not coded according to HEDIS specifications or the specifications laid out for this study. CHN and Magellan submitted their own review of encounter records for behavioral health care services. These records were reviewed by CCHP according to the same requirements for establishing continuous enrollment, admission and discharge, and follow-up.

[7] National Committee for Quality Assurance. Health plan employer data and information set. Version 3.0/1998 and 1999. Washington, DC: 1998, 1999.

[8] The review committee consisted of Mary Alice Lee, Children's Health Council; Melissa Brett and Amanda Learned, Connecticut Children's Health Project; Kim Weiner DeMichele and Stephen Horan, Connecticut Children's Health Project consultants; and James Linnane and Hilary Silver, Connecticut Department of Social Services.

[9] For example, if 10 children were admitted and discharged in January and 2 were readmitted in February, the readmission rate would be 20%. If 4 of the remaining 8 had an ambulatory care visit within 30 days after discharge, the ambulatory care follow up rate would be 50%. Another admission for any of the 10 children later in the year was counted as another hospitalization, not a readmission. The 30 day period following a second discharge was also checked for readmission and ambulatory care follow up.

[10] UB-92 revenue codes indicating ambulatory care follow-up: 901 (psychiatric/psychological treatments, electroshock treatment), 911 (rehabilitation), 912 (psychiatric/psychological services, day care), 913

management codes for problem-oriented office visits (CPT-4 codes 99201-99205, 99211-9921) were not counted as ambulatory health care for a behavioral health problem, even when accompanied by a behavioral health diagnosis.[12]

Using provider files from health plans, attempts were made to identify behavioral health care providers with tax or Medicaid ID numbers, provider types, and specialties.[13] Since information necessary for identifying the type of provider was missing in such a large percentage of encounter records, the determination that ambulatory care follow-up took place was based solely on behavioral health care procedure codes accompanied by behavioral health diagnoses. No additional attempts to identify the types of providers were made.

Health plan review

Health plans and subcontractors were informed in November 1999, about the study, given a copy of the study protocol, and asked to provide additional information at a later date if there were questions about follow-up of individual children. In order to develop the most complete and accurate picture of follow-up after hospitalization for behavioral health diagnoses, the health plans were asked to review cases with missing or inconsistent data and all cases where no ambulatory care follow-up was identified in encounter data from the 30 days after hospital discharge. Health plans were not asked to identify the types of providers who did provide what appeared to be behavioral health care in the 30 days after discharge. Several additional data issues presented challenges for reviewers and health plans. First, at the request of CCHP, records for children hospitalized while enrolled in a plan that withdrew from the program (MD Health Plan) had to be reviewed by the behavioral health subcontractor which was under contract with that plan in 1998. Second, hospital data submitted to CCHP by Community Health Network (CHN) was coded with procedure codes rather than hospital revenue codes, so CHN's behavioral health subcontractor (Magellan) identified all children who were hospitalized in 1998 for behavioral health diagnoses so that CCHP could review ambulatory care encounter records for the 30-day period following discharge of CHN members. Third, since 1998, two health plans that participated in Medicaid managed care (Oxford, HealthRight) withdrew from the program; therefore, the review committee had to make service determinations for each case based solely on the information available in the encounter records. Finally, no additional clarification or information on ambulatory care follow-up was received from Yale Preferred One.

(psychiatric/psychological services night care), 914 (individual therapy), 915 (group therapy), 916 (family therapy), 910-919 (partial hospitalization), or 513, 514 (clinic-psychiatric) ("Follow-up After Hospitalization for Mental Illness," NCQA HEDIS 1999).

[11] Outpatient clinic codes: 3004Y (psychiatric/dual-diagnosed partial), 3006Y (psychiatric/dual-diagnosed intermediate).

[12] Since is was not possible to identify most providers as behavioral health care providers, these findings for ambulatory care are based on the combination of behavioral health procedure codes and behavioral health diagnoses only.

[13] Behavioral health care providers are practitioners whom patients are able to see for mental health services, including appropriately certified or licensed MDs, DOs, psychologists, clinical social workers, RNs, therapists, and counselors credentialed by the respective health plans to provide behavioral health care ("Follow-up After Hospitalization for Mental Illness," NCQA HEDIS 1999).

RESULTS

Description of the sample

In 1998, there were 75,513 children 6 to 19 years of age that were continuously enrolled in HUSKY Part A (Medicaid managed care). The sociodemographic and enrollment characteristics of these children are shown in Table 4 and compared to characteristics of hospitalized children. Hospitalized children were more likely to be male, more likely to be white, and more often in the custody of DCF than continuously enrolled children who were not hospitalized. Compared to the enrollment distribution, children in BlueCare, Oxford, and Preferred One were hospitalized at disproportionately higher rate, while children enrolled in MD Health Plan and PHS were less likely to have been hospitalized.

Hospitalized children: Among the continuously enrolled children, there were 509 children (0.7%) who were hospitalized at least once during the year (see Table 5). The majority of these children (83.9%) were hospitalized just once, but 16.1% were hospitalized two or more times during the year, for a total of 781 hospitalizations. Among DCF children, 165 were hospitalized (hospitalization rate: 3.5%). In addition, one in four DCF children was hospitalized more than once, for a total of 299 hospitalizations among these children.

Hospitalizations: Overall, there were 781 hospitalizations for these 509 children, including 299 hospitalizations for the 165 children in DCF custody (see Table 6). Encounter data and information from health plans could be used to investigate care in the 30-day period following discharge for 703 hospitalizations (90.0%, including 91.3% of admissions for children in DCF custody).[14] The average length of stay was longer for readmissions than admissions. Length of stay was also longer for admissions and readmissions of children in DCF custody. Admissions ranged from 1 to 180 days and readmissions from one to 110 days in length. The leading diagnoses for admissions and readmissions are shown in Table 7.

Readmission rate

Among 703 discharges from hospitalizations for behavioral health diagnoses that occurred between 1/1/98 and 12/1/98, there were 175 readmissions (24.9%) within 30 days, including 80 readmissions after discharge of children in DCF custody (29.3% readmission rate) (see Table 8).[15]

Ambulatory care follow-up rate

According to analysis of encounter data and follow-up with health plans, 51.5% of all children who were not readmitted to the hospital received ambulatory care within 30 days of discharge

[14] Most of the missing information consisted of discharge dates for hospitalizations that members of Oxford and HealthRight experienced; no additional information could be obtained from these health plans that no longer participate in the program.
[15] Revised from rates reported in draft report 5/8/00.

(see Table 8).[16] Among children in DCF custody, just 39.4% had behavioral health care services in an ambulatory care setting in the 30 days following discharge.[17]

Among children who did not have services that met study criteria, 40 (15.6%) received ambulatory care for a variety of conditions in the 30 days following discharge. Just nine children without evident follow-up (3.5%) had visits coded with evaluation and management procedure codes accompanied by behavioral health diagnoses. Among children in DCF custody, 15 (12.8%) received ambulatory care in the 30 days following discharge, including 2 (1.8%) who had visits coded with evaluation and management procedure codes accompanied by behavioral health diagnoses.

DISCUSSION

In a recent report to the nation on mental health, the U.S. Surgeon General reported on children's mental health and behavioral health care, but not on hospital readmission rates and ambulatory care follow-up rates that would have provided some information against which to judge the performance of this program.[18] Themes common to the problems in Connecticut are reviewed, however. The report includes useful information on mental health in childhood and the estimated prevalence of functional impairments in children. The existence of efficacious psychosocial and pharmacological treatments is reported, but the need for additional studies of the effectiveness of these therapies in children is also cited. The importance of the family in obtaining mental health care and the importance of schools in delivering mental health care are highlighted. Barriers to obtaining care, especially the cultural differences that prevent families from seeking care or obtaining appropriate care, are also identified.

The results of this study indicate that there are serious problems with the duration, intensity, and adequacy of behavioral health services after hospitalization for children enrolled in the HUSKY A program. High readmission rates and low ambulatory care follow-up rates suggest that the need for services far exceeds utilization of services that are so critically important for a child's reintegration into family, school, and community settings. Hospital stays of the lengths reported in this study may not provide adequate time for identifying, much less mobilizing, the family and community resources necessary for a successful transition to ambulatory care. Problems with discharge planning, barriers to care (language, transportation, wait lists), and lack of case management may be contributing to high readmission rates and low ambulatory care follow-up rates. When behavioral health care is difficult to obtain, responsibility for follow-up care, including medication management, may be shifted to pediatricians, though these results suggest otherwise.

[16] Encounter record coded with a behavioral health care procedure code and a behavioral health diagnosis; provider unspecified.
[17] Rates revised from the rates reported in draft report.
[18] U.S. Department of Health and Human Services. Mental health: a report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

Comparison to results of DSS report on behavioral health studies

At the request of the Connecticut General Assembly, DSS reported on the delivery and financing of children's behavioral health services.[19] While some differences in results may be attributable to methodology, the similarities and differences are important as a context for understanding the findings reported here. Using data from HUSKY Part A for the period between April 1, 1998 and March 31, 1999, DSS determined that 12% of children ever enrolled in the program received any behavioral health services. Approximately 0.6% of these children were hospitalized, a rate nearly identical to the rate determined in this study of continuously enrolled children. In the DSS study, children in DCF custody comprised 40% of the total number of hospital stays, a figure comparable to the percentage of hospitalizations for DCF children (38.3%) in this report. Average length of stay was not reported by DSS. Despite similarities in the hospitalization rate and distribution of DCF children in the study populations (5% among those ever enrolled, as reported by DSS; 6% among the continuously enrolled), the readmission rates were dramatically different. DSS reported a readmission rate of 13%, compared to the 24.9% reported in this study. The difference may be largely due to the fact that DSS made an assumption that short gaps in service were due to short-term passes to leave the hospital. DSS did not count as readmissions any admission that occurred without at least a 3-day gap between discharge (service to date) and new admission (service from date) dates. This study used a one-day gap in service as an indication that discharge had occurred and readmission occurred soon thereafter.[20] The percentage of hospitalized children who received community and home-based behavioral health care services within a specified period of time after discharge was not reported by DSS.

Readmission and follow-up rates reported elsewhere

The NCQA reports periodically on access and quality measures for managed care organizations that seek NCQA accreditation. Selected national averages reported in 1999 included rates of follow-up after hospitalization ranging from 72.3% n 1996 to 67.4% in 1998.[21] Ninety-day readmission rates, no longer a measure of quality used by NCQA, were not reported.

The State of New York Department of Public Health Office of Managed Care recently reported on ambulatory care follow-up after hospitalization for mental illness.[22] Among commercially

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[19] Child Health and Development Institute of Connecticut, Incorporated. Delivering and financing children's behavioral health services in Connecticut (report and technical appendix). Hartford, CT: Connecticut Department of Social Services, February 1, 2000..

[20] In a managed care environment, with strict control on admissions and number of inpatient days for psychiatric care, the practice of granting temporary leaves-of-absence (passes) seems unlikely to be common. Therefore, for the purposes of this study, the review team decided that when there was more than one day between service to and service from dates, that this discontinuity in service dates indicated discharge and readmisson. Also, this possible explanation for discontinuous days of inpatient care was not raised by health plans or behavioral health subcontractors when the protocols for this study were reviewed. Neither NCQA nor DSS utilization reporting specifications address gaps in service in their definitions of readmission.

[21] National Committee on Quality Assurance. NCQA's state of managed care quality—1999. Selected national averages 1996-1998. Available on NCQA Web site: www.ncqa.org. These figures represent national averages for predominantly commercial lines of business.

[22] State of New York Department of Public Health Office of Managed Care. 1998 quality assurance reporting requirements: a report on managed care performance. Albany, NY: Department of Public Health, January 2000.

insured people who were hospitalized for mental illness, the statewide average for follow-up within 30 days after discharge was 60%. The rate in New York City (47%) was considerably lower than in the rest of the state (74%). Among Medicaid beneficiaries who were hospitalized, the 30-day ambulatory care follow-up rate was 42% statewide (37% in New York City and 53% in the rest of the state).

The negative effect of utilization management policies on readmission rates for privately insured patients with mental health disorders has recently been reported.[23] Review of utilization management decisions revealed that, on average, the number of days requested for inpatient care (22.4) was less than the number of days approved (15.5). The 60-day readmission rate was 7.9%, and was clearly related to utilization management decisions. For every day that the requested length of stay was reduced when authorized, the odds of readmission increased significantly. The authors concluded that cost containment measures increase the risk of readmission.

In a related study, the effect of utilization review and management for privately insured pediatric patients with hospitalizations for medical, obstetric, surgical, and mental health care was investigated.[24] Nearly all pre-admission requests were approved. Concurrent review of mental health admissions (27% of all admissions studied) resulted in 80% of the total number of restricted additional days of hospitalization. Adolescent patients with depression or substance abuse diagnoses accounted for nearly 40% of the restricted days. Over time, the effect of utilization management decisions was greater for mental health care than medical care. For each day that concurrent review restricted the length of stay, the 60-day readmission rate increased significantly (6.9%) for patients with mental disorders. Nearly half the readmissions occurred within the first 21 days after discharge.

Recent evidence suggests the ways that managed care has changed children's behavioral health care in Medicaid. State Medicaid staff in six of seven states studied by the DHHS Office of the Inspector General reported that psychiatric hospital readmission rates were generally 4% to 9% higher in managed care than in their previous fee-for-service systems.[25] With respect to children's mental health services, most of the states reported substantially greater reductions in inpatient care, more restrictive admission criteria, and more difficulties accessing outpatient services, compared to adult services in Medicaid managed care.[26]

CONCLUSION

Apparently, significant barriers to ongoing appropriate treatment exist in Connecticut and may have been exacerbated by Medicaid managed care. Whether it is stigma or lack of pediatric behavioral health care providers or geographically inaccessible services or other systemic

[23] Wickizer T, Lessler D. Do treatment restrictions imposed by utilization management increase the likelihood of readmission for psychiatric patients? Medical Care 1998; 36(6): 344-350.
[24] Wickizer T M, Lessler D, Boyd-Wickizer J. Effects of health care cost-containment programs on patterns of care and readmissions among children and adolescents. American Journal of Public Health 1999; 89 (9): 1353-1358.
[25] DHHS Office of the Inspector General. Mandatory managed care: changes in Medicaid mental health services (OEI-04-97-00340). Washington, DC: DHHS, January 2000.
[26] DHHS Office of the Inspector General. Mandatory managed care: children's access to Medicaid mental health services (OEI-04-97-00344). Washington, DC: DHHS, January 2000.

problems that contribute to the abysmal readmission rates and ambulatory care follow-up rates reported here, there is a desperate need to help children and their families overcome these problems. Along with proven therapeutic modalities, there is also a need for development and evaluation of well-funded, culturally competent, accessible, affordable, and innovative services for these most vulnerable children and for all Connecticut's children with mental health disorders.

Fortunately for Connecticut's children, there is widespread concern about behavioral health care and significant potential for developing solutions. The Connecticut General Assembly is considering legislation aimed at strengthening local systems of care and developing a more coordinated approach to service delivery and funding. The Governor has also convened a Blue Ribbon Task Force on Children's Mental Health that will issue recommendations shortly. The Children's Health Council will monitor these legislative and policy developments. The Council will also work with the DSS and DCF to plan for, implement and evaluate any new policies or pilot projects aimed at improving behavioral health care. The Children's Health Council will continue to study children's behavioral health care services in HUSKY Part A.

RECOMMENDATIONS

- **The Children's Health Council** should:
    - Use analyses of quantitative and qualitative data about children's mental health services in HUSKY Part A to inform the current policy discussions on enhancing local systems of care, fostering interagency collaboration, and managing care for seriously emotionally disturbed children.
    - Work with DSS and other state agencies on interagency efforts to improve the accessibility and delivery of behavioral health care to children.
    - Establish goals for reduced readmission rates and increased ambulatory care follow-up rates for children discharged after hospitalization for behavioral health diagnosis.
    - Monitor health plan performance toward achievement of these goals.
- **The Department of Social Services** should:
    - Establish and enforce contract standards for provider network capacity for children's behavioral health care.
    - Develop contractual standards for providing case management for each and every child who is discharged after hospitalization for a behavioral health diagnosis. Case management protocols should be developed according to professional case management guidelines, begin during hospitalization, and continue through successful transition to ambulatory care of appropriate intensity and duration provided by behavioral health care professionals. Case management should be well coordinated with DCF Health Care Advocates, therapeutic foster homes, and foster parents when children are in DCF custody.

- Continue to enforce contract requirements for submission of timely and complete encounter data, on pharmacological therapies and provider types, so that these dimensions of behavioral health care can be closely monitored and tied to outcome data.

- **Hospitals, behavioral health care providers, health plans, and state agencies** with responsibility for children's mental health should collaborate to:

  - Develop protocols for discharge planning and case management that will ensure successful and timely referrals to appropriate community-based providers.

  - Develop and implement collaborative efforts to reduce barriers to care, such as linguistic barriers, transportation problems, and wait lists.

  - Develop, implement, and evaluate innovative approaches to providing community-based case management and follow-up.

Table 1. ICD-9-CM Discharge Diagnoses Indicating a Mental Health Disorder*

Code	Diagnosis
295	Schizophrenic disorders
296	Affective psychoses
297	Paranoid states
298	Other non-organic psychoses
299	Psychoses with origin specific to childhood
300.3	Obsessive-compulsive disorders
300.4	Neurotic disorders
301	Personality disorders
308	Acute reaction to stress
309	Adjustment reaction
311	Depressive disorder, not otherwise classified
312	Disturbance of conduct, not elsewhere classified
313	Disturbance of emotions specific to childhood and adolescence
314	Hyperkinetic syndrome of childhood

*Mental health diagnoses specified for measurement of "Follow-up After Hospitalization for Mental Illness" and "Readmission for Selected Mental Health Disorders;" National Committee for Quality Assurance (NCQA) HEDIS 3.0/1998 and 1999.

Table 2. ICD-9-CM Discharge Diagnoses Indicating Chemical Dependency*

Code	Diagnosis
291	Alcohol psychoses
292	Drug psychoses
303	Alcohol dependence syndrome
304	Drug dependence
305	Nondependent abuse of drugs
965	Poisoning by opiates and related narcotics**
966	Poisoning by other specified analgesics and antipyretics**
967	Poisoning by sedative and hypnotics (glutethimide group)**
969	Poisoning by psychotropic agents**

* Chemical dependency diagnoses included in measure of "Chemical Dependency Utilization—Percentage of Members Receiving Inpatient…Services" and "Readmission for Chemical Dependency;" in NCQA HEDIS 1999 and HEDIS 3.0/1998, respectively.
** With secondary diagnosis of chemical dependency

Table 3. CPT-4 Codes for Ambulatory Behavioral Health Care Follow-Up*

Codes	Procedure
90801	Diagnostic assessment
90802	Interactive psychiatric diagnostic interview
90804-90809	Individual psychotherapy
90810-90815	Interactive psychotherapy
90816-90822	Individual psychotherapy
90823-90829	Interactive psychotherapy
90841	MD psychotherapy
90842	MD psychotherapy
90843	MD psychotherapy
90844	MD psychotherapy
90845	Medical psychoanalysis
90847	Family psychotherapy
90849	Multifamily group therapy
90853	Group psychotherapy
90855	Individual psychotherapy
90857	Group psychotherapy
90862	Pharmacology management
90870-90871	Electroconvulsive therapy
99213-99215	Office or other outpatient visit

*Ambulatory care procedure codes used to measure "Follow-up After Hospitalization for Mental Illness," NCQA HEDIS 1999, Volume 2. Note: CPT-4 code 99354 was not counted as follow-up unless is was very clearly provided by a behavioral health care provider or in an exclusively ambulatory behavioral health care setting.

Table 4. Description of Continuously Enrolled Children and Children Who Were Hospitalized

	Total[a]	Hospitalized children	Children in DCF custody[a]	Hospitalized DCF children
Total	75,513	509 (0.7%)	4,739	165 (3.5%)
Age (average)	12.0 years	13.2 years	12.3 years	12.6 years
Gender:				
Female	38,669 (51.2%)	216 (42.4%)	2,203 (46.5%)	63 (38.2%)
Male	36,844 (48.8%)	293 (57.6%)	2,536 (53.5%)	102 (61.8%)
Race/ethnicity:				
White	23,862 (31.6%)	218 (42.8%)	1,784 (37.6%)	66 (40.0%)
African-American	24,004 (31.8%)	129 (25.3%)	1.943 (41.0%)	52 (31.5%)
Hispanic	26,734 (35.4%)	160 (31.4%)	988 (20.8%)	46 (27.3%)
Other	913 (1.2%)	2 (<1.0%)	24 (<1.0%)	1 (<1.0%)
County:				
Fairfield	15,387 (20.4%)	93 (18.3%)	722 (15.2%)	18 (10.9%)
Hartford	24,720 (32.7%)	123 (24.2%)	1,426 (30.1%)	50 (30.3%)
Litchfield	1,831 (2.4%)	17 (3.3%)	197 (4.2%)	4 (2.4%)
Middlesex	1,921, 2.5%)	25 (4.9%)	393 (8.3%)	18 (10.9%)
New Haven	23,364 (30.9%)	186 (36.5%)	1,263 (26.7%)	55 (33.3%)
New London	4.288 (5.7%)	38 (7.5%)	440 (9.3%)	17 (10.3%)
Tolland	1.282 (1.7%)	9 (1.8%)	100 (2.1%)	2 (1.2%)
Windham	2,716 (3.6%)	18 (3.5%)	196 (4.1%)	1 (<1.0%)
Coverage group:[b]				
TFA, related groups	51,435 (68.1%)	243 (47.7%)		
Expansion groups	19,140 (25.3%)	99 (19.4%)		
DCF	4,739 (6.3%)	165 (32.4%)	4,739	4,739 (34.8%)
Other	199 (<1.0%)	2 (<1.0%)		
Health plan:				
BlueCare	22,729 (30.1%)	173 (34.0%)	1,477 (31.2%)	63 (38.2%)
Community Health Network	7,854 (10.4%)	48 (9.4%)	371 (7.8%)	11 (6.7%)
HealthRight	10,502 (13.9%)	55 (10.8%)	649 (13.7%)	24 (14.5%)
Kaiser Permanente	1,669 (2.2%)	7 (1.4%)	88 (1.9%)	1 (<1.0%)
MD Health Plan	8,895 (11.8%)	28 (5.5%)	659 (13.9%)	11 (6.7%)
Oxford	9.997 (13.2%)	95 (18.7%)	705 (14.9%)	26 (15.8%)
Physicians' Health Services	6,805 (9.0%)	35 (6.9%)	384 (8.1%)	10 (6.1%)
Yale Preferred One	7,062 (9.4%)	68 (13.3%)	406 (8.6%)	19 (11.5%)

[a] Continuously enrolled in HUSKY Part A (Medicaid managed care) in 1998. [b]Medicaid coverage groups: TFA and related (F01, F07, F08, F09, F12, F95, F99), expansion (F03, F04, F25, F26), Department of Children and Families (DCF) custody (D01, D02), all other coverage groups.

Table 5. Children Who Were Hospitalized

		All hospitalized children	Children who were hospitalized while in DCF custody
Total number of children hospitalized		509 (0.7%)	165 (3.5%)
Hospitalizations per child:	**One**	427 (83.9%)	124 (75.2%)
	Two	66 (13.0%)	29 (17.6%)
	Three or more	16 (3.1%)	12 (7.3%)

Table 6. Hospitalizations

	All hospitalized children	Children who were hospitalized while in DCF custody
Total hospitalizations	781	299
Hospitalizations with missing information[1]	78	26
Hospitalizations with encounter data for determining readmission, follow-up rates	703	273
Average length of stay for admissions (median)	11.3 days (5)	16.8 days (7)
Average length of for readmissions (median)	19.1 days (4)	23.8 days (5)

Note: The average length of admission or readmissions based on hospitalizations that occurred during the study period and does not include length of hospital stays that extended beyond the end of the study period.

[1]Missing information consisted primarily of discharge dates. No additional information could be obtained from health plans that left the program in 1998 (Oxford, HealthRight). In addition, some admissions occurred after 12/2/98 and some discharges occurred after 12/31/98, so follow-up information on these hospitalizations is also missing.

Table 7. Leading Diagnoses for Admissions and Readmissions

	All hospitalized children	Children who were hospitalized while in DCF custody
Admissions	Affective psychoses	Affective psychoses
	Conduct disturbance NEC	Conduct Disturbance NEC
	Emotional disorder child/adolescent	Emotional disorder child/adolescent
	Adjustment reaction	Adjustment reaction
	Depressive disorder NEC	Depressive disorder NEC
Readmissions	Affective psychoses	Emotional disorder child/adolescent
	Emotional disorder child/adolescent	Affective psychoses
	Neurotic disorders	Adjustment reaction
	Conduct disturbance NEC	Neurotic disorders
	Depressive disorder NEC	Other non-organic psychoses

ICD-9-CM codes: Affective psychoses (296), conduct disturbance not elsewhere classified (NEC) (312), emotional disorder child/adolescent (313), adjustment reaction (309), depressive disorder NEC (311), other non-organic psychoses (298), neurotic disorders (300).

Table 8. Readmissions and Ambulatory Care Follow-up in the First 30 days After Discharge

	All hospitalized children	Children who were hospitalized while in DCF custody
Hospitalizations	703	273
Readmissions within 30 days after discharge	175 (24.9%)	80 (29.3%)
Hospitalizations without readmission	528	193
Ambulatory care follow-up after discharge	272 (51.5%)	76 (39.4%)
No ambulatory care follow-up after discharge	256 (48.5%)	117 (60.6%)