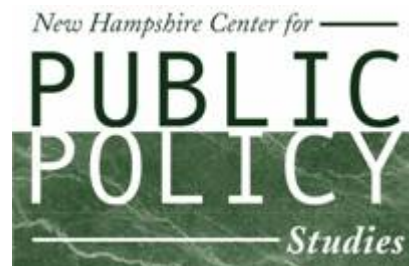


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Children’s Mental Health in New Hampshire

September 2007

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About this paper

This report is one of a series published by the NH Center for Public Policy Studies on the broad topic of mental health in New Hampshire. The Concord-based Endowment for Health has sponsored this work.

We thank the New Hampshire Insurance Department for their analysis of the Comprehensive Health Information System data. The analysis and opinions expressed in this report, however, are those of the Center alone.

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Children’s Mental Health in New Hampshire

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Executive Summary

This paper is one of a series of reports commissioned to inform policy-makers about the status of mental health in New Hampshire. This analysis is designed to answer basic questions about the mental health status of New Hampshire's children through an assessment of mental health prevalence estimates and an analysis of service use in the public Medicaid and privately insurance systems. The first section of the report analyzes national prevalence estimates. The second section of the report analyzes service use in the Medicaid and private sectors.

It is estimated that nationally 14 million children – approximately one in five – have a diagnosable mental health disorder. Eleven percent of children have significant functional impairment¹, and five percent of children have extreme functional impairment – issues that impede their ability to learn, to form social connections, and to function in a family.²

If New Hampshire is consistent with the rest of the nation, these estimates of prevalence would translate to 55,756 children, ages 5-19 that would have a diagnosable mental health disorder and almost 14,000 of 9-17 year olds would have a serious emotional disturbance.³ These estimates have important implications for the behavioral health system, the child welfare system, and the education system across the state.

In addition to prevalence, service use and access are also an important consideration when discussing the scope of mental health issues impacting children as well as the geographic and demographic characteristics that may impact treatment engagement. Over 19,000 - or 12% - of the privately insured children showed evidence of a mental illness diagnosis and/or treatment in 2005. In the Medicaid program, 25% - or 17,680 children - received services for a mental illness during that same time period. These data show only the prevalence of mental health disorders among the children who accessed services, and they should be viewed within the context of the overall prevalence estimates presented.

Much of the variation across the public and private systems raises important questions about the differences in how these populations are served. Further research is needed to determine if the prevalence and services provided for these children are truly different, and what implications there are for the behavioral health system.

¹ U.S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General—Children and Mental Health*. 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. Hereafter referred to as, *Surgeon General's Report, 1999*.

² U.S. Public Health Service. *Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda*. Washington, DC. U.S. Department of Health and Human Services, 2000.

³ Based on 2005 population estimates, NH Office of Energy and Planning.

Data Sources

Identifying individuals with a mental illness is difficult. The best approach to identifying the prevalence of mental illness in a population is through a comprehensive survey. For this analysis, however, we used data from several sources on the prevalence of children's mental health disorders nationally and then extrapolated the estimated number of children afflicted with a certain disorder across the state. New Hampshire specific estimates were used, when available.

It is important to note that the prevalence estimates for mental health presented in this report are based on national estimates. Mental health disorders impact demographically different populations of children differently, and these differences are highlighted throughout the report.

The Center used the administrative claims in the private sector and the public sector to identify individuals with a mental health or substance use disorder who accessed services. Given that many individuals do not access the system, these estimates would understate the true prevalence of mental health issues in these populations. These estimates also will understate the true prevalence of mental health issues because we were unable to include data on the use of drugs prescribed to treat mental illnesses. These qualifications should be kept in mind when interpreting these results.

For the analysis of the private sector, the Center relied on data from the Comprehensive Healthcare Information System (CHIS). In 2005, the Department of Health and Human Services and the Department of Insurance developed the CHIS. This system was designed to collect health care claims information from all private insurers covering people in New Hampshire.

For the analysis of the public Medicaid system, the Center relied on claims files developed from the Dartmouth Psychiatric Research Center (PRC). The Department of Health and Human Services provided the PRC with claims level data for all Medicaid recipients receiving a service during calendar year 2005 and monthly eligibility files identifying who was eligible for Medicaid during that period. The Center used these files – and encrypted individual identifiers – to create analytic files at the claim level and the individual level, as well as creating analytic files which described eligibility across all Medicaid recipients.⁴

Unique counts of Medicaid and privately insured recipients with a mental illness were created based on a methodology developed by the Substance Abuse and Mental Health

⁴ The Medicaid claim level files provided by the PRC were straightforward with one exception: They included administrative adjustments. The Center cleaned these files in two steps. First, to the extent possible given the data, the Center eliminated duplicate claims by matching each individual duplicate claim with its duplicate. In addition, any claim that had a zero paid amount was deleted, as these claims likely reflected administrative adjustments.

Services Administration in 2003.⁵ First, each recipient was assigned to a diagnostic category based on the given type of diagnosis. An implicit hierarchy was established based on the diagnosis, presented in Table 1, beginning with schizophrenia and ending with mental retardation. Second, a child was assigned to have an unknown mental health condition if they received a mental health service without a corresponding diagnosis. The Center used procedure codes that describe the services received by recipients to identify them as having a mental health and substance abuse issue.⁶ Third, in the case of the private claims data, special codes based on provider type were used to identify children with a mental health claim.⁷

⁵ RIT International. "Defining Mental Health and/or Substance Abuse (MH/SA) Claimants. The Medicare, Medicaid and Managed Care Analyses Project. October 2003. Hereafter referred to as, *Defining MH/SA Claimants, 2003*.

⁶ For this analysis, the Center did a search of all New Hampshire Medicaid fee schedules and selected any code with specific mention of psychiatric or substance abuse issues, including inpatient admissions, rehabilitation, counseling and therapy. These codes included CPT codes (the industry standard in describing procedures) as well as local codes (used by states to supplement national codes). A full list of the mental health procedures codes used in the analysis is available upon request.

⁷ The Center used the methodology developed in *Defining MH/SA Claimants, 2003*.

Table 1

Description and ICD-9-CM Codes	
Description	Code
Serious Mental Illnesses (SMI)	
Schizophrenic disorders	295
Major depressive disorder	296.2, 296.3
Other affective psychoses	
<i>Manic disorders</i>	296.0, 296.1
<i>Bipolar affective disorders</i>	296.4 - 296.7
<i>Other & unspecified manic-depressive psychoses</i>	296.8
<i>Other & unspecified affective psychoses</i>	296.9
Other psychoses	
<i>Transient organic psychotic conditions</i>	293
<i>Other organic psychotic conditions, chronic</i>	294
<i>Paranoid states or delusional disorders</i>	297
<i>Other non-organic psychoses</i>	298
<i>Psychoses with origin specific to childhood</i>	299
Other Mental Illnesses (OMI)	
Stress & adjustment disorders	
<i>Acute reaction to stress</i>	308
<i>Adjustment reaction</i>	309
Personality disorders	301, excluding 301.13
Childhood disorders	
<i>Disturbance of conduct, not elsewhere specified</i>	312
<i>Disturbance of emotions, specific to childhood & adolescence</i>	313
<i>Hyperkinetic syndrome of childhood</i>	314
Other mood disorders & anxiety	
<i>Neurotic disorders</i>	300
<i>Cyclothymic disorder</i>	301.13
<i>Depressive disorder, not elsewhere specified</i>	311
Other mental disorders	
<i>Sexual deviations & disorders</i>	302
<i>Physiological malfunction arising from mental factors</i>	306
<i>Special symptoms or syndromes, not elsewhere specified</i>	307
<i>Specific non-psychotic mental disorders due to organic brain damage</i>	310
<i>Psychotic factors associated with diseases specified elsewhere</i>	316
<i>Mental disorders in pregnancy, ante partum & post partum</i>	648.4
Any Alcohol Diagnosis	
Alcoholic psychoses	291
Alcohol dependence/nondependent abuse	303, 305.0
Any Drug Diagnosis	
Drug psychoses	292
Drug dependence/nondependent abuse	304, 305.2-305.9
Other Alcohol and Drug-related Disorders & Conditions	
Pellagra	265.2
Alcoholic polyneuropathy	357.5
Polyneuropathy due to drugs	357.6
Alcoholic cardiomyopathy	425.5
Alcoholic gastritis	535.3
Chronic liver disease & cirrhosis with mention of alcohol	571.0-571.3
Pregnancy and childbirth-related conditions	
<i>Drug dependence in pregnancy, ante partum & post partum</i>	648.3
<i>Suspected damage to fetus from drugs</i>	655.5
<i>Noxious influences affecting fetus via placenta or breast milk</i>	760.7
<i>Drug withdrawal syndrome in newborn</i>	779.5
<i>Excessive blood level of alcohol</i>	790.3
Drug poisoning	
<i>Poisoning by adrenal cortical steroids</i>	962.0
<i>Poisoning by opiates & related narcotics</i>	965.0
<i>Poisoning by sedatives & hypnotics</i>	967
<i>Poisoning by other central nervous system depressants & anesthetics</i>	968
<i>Poisoning by psychotropic agents</i>	969
<i>Poisoning by central nervous system stimulants</i>	970
<i>Poisoning by dietetics</i>	977.0
<i>Poisoning by alcohol deterrents</i>	977.3
Toxic effect of alcohol	980
Tobacco Use Disorder	305.1
Alzheimer's Disease	290, 331.0
Mental Retardation or Developmental Delays	315, 317-319

Prevalence of Mental Health Disorders in Children

For the purposes of these prevalence estimates, mental health disorders in children were grouped into seven broad categories: Autism Spectrum Disorders, Attention Disorders, Mood Disorders, Disruptive Disorders, Anxiety Disorders, Substance Use Disorders, and Eating Disorders. Estimates of the prevalence of each type of disorder are presented in Table 2, based on a review of the national literature.^{8,9,10,11}

Because different age cohorts experience different prevalence measures for a given disorder, Table 2 also includes the prevalence for different age cohorts. These results suggest that approximately 56,000 children in New Hampshire suffer from a mental health disorder. The largest single group of disorders for children, regardless of age, was depressive disorder. Also of note is that approximately one-quarter of children have experienced a traumatic event. These children are at risk for developing Post-Traumatic Stress Disorder, depressive disorders, and/or other anxiety disorders. Almost 10,000 children are estimated to have a serious emotional disturbance - characterized by a high level of functional impairment.

⁸ Centers for Disease Control and Prevention. *Youth Risk Behavior Surveillance, United States, 2005*. Surveillance Summaries, 9Jun2006. MMWR 2006;55 (No. SS-5). Hereafter referred to as, YRBS NH, 2005.

⁹ U.S. Department of Health and Human Services. *New Hampshire: 2005 State Estimates of Substance Abuse and Mental Health*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Office of Applied Studies, National Institutes of Health, National Institute of Mental Health, 1999. Hereafter referred to as, SAMHSA, 2005.

¹⁰ U.S. Department of Health and Human Services, Rockville, MD: National Institute of Mental Health, National Institutes of Health, National Institute of Mental Health. www.nimh.nih.gov Hereafter referred to as NIMH. Accessed 27 July 2007.

¹¹ Centers for Disease Control and Prevention. *Prevalence of Autism Spectrum Disorders – Autism and Developmental Disabilities Monitoring Network, 2002*. Surveillance Summaries, 9Feb2007. MMWR 2007;56 (No. SS-1). Hereafter referred to as, CDC, Autism Surveillance, 2007.

Table 2

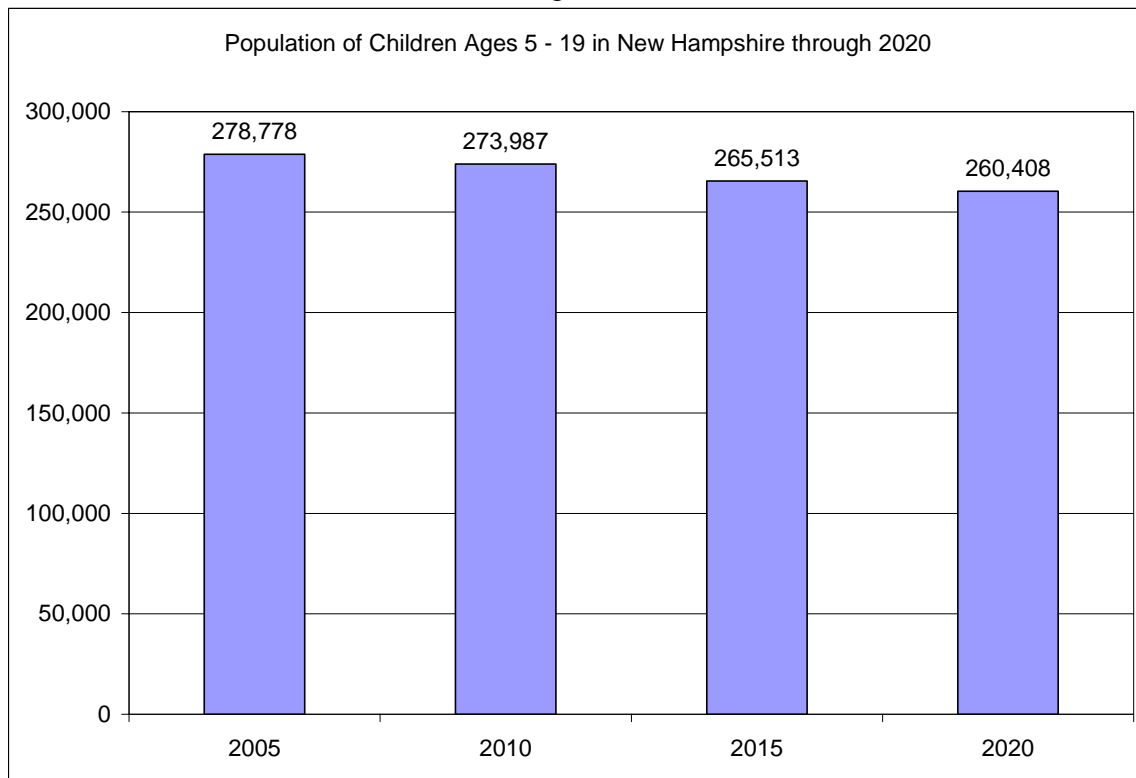
Prevalence estimates of major mental health disorders of children in NH			
Disorder¹²	Age bracket	Prevalence Estimate	Estimated number of children affected in NH
Any mental health disorder^a	5-19	20%	55,756
Serious emotional disturbance^a	9-17	5%	9,557
Mood disorders			
Any depressive episode ^a	9-17	10-15%	19,113 - 28,670
Any depressive episode ^b	14-18	25%	23,849
Major depressive episode ^c	12-17	10%	19,113
Dysthymic disorder ^a	14-18	3%	2,862
Bi-polar disorder ^d	14-18	1%	954
Anxiety disorders			
Any anxiety disorder ^a	9-17	13%	24,847
General anxiety disorder ^a	9-17	5%	9,557
Separation anxiety ^a	9-17	4%	7,645
Social phobia ^a	9-17	3-13%	5,734 - 24,847
Obsessive compulsive disorder ^a	5-13	0.2-0.8%	175 - 701
Obsessive compulsive disorder ^a	14-18	2%	3,823
Traumatic stress episode ^d	9-17	25%	47,783
Attention disorders^a	5-19	3-5%	8,363 - 13,939
Disruptive disorders			
Conduct disorder ^a	9-17	1-4%	1,911 - 7,645
Oppositional defiant disorder ^a	9-17	1-6%	1,911 - 11,468
Autism spectrum disorders^e	5-19	0.7%	952
Eating disorders (girls only)^a	12-25	3%	8,077
Substance use disorders^c	12-17	9%	17,202
Suicide related (within past year)			
Suicidal thoughts ^b	14-18	14%	26,758
Any suicide attempt ^b	14-18	7%	13,379
Suicide attempt causing injury ^b	14-18	2%	3,823

An answer to the question of children's mental health needs in the future is clouded by both changes in the incidence and/or measurement of mental health issues as well as demographics. National data suggest that the prevalence of child emotional disorders is increasing, particularly in very young children.¹³ This growth in the population with mental health needs, however, may be offset by a generally declining population of children. As Figure 1 shows, in New Hampshire population projections suggest that the cohort of children ages 5-19 will actually decline over the next 15 years. With these demographic realities, it is within the realm of possibility that the number of children with mental illness will decline, even if the incidence of mental health increases. However, without knowledge of how the incidence of mental health disorders is changing, the opposite may also be true.

¹² Prevalence data sources: a) Surgeon General's Report, 1999 (national estimates); b) YRBS NH, 2005 (NH specific data); c) SAMHSA, 2005 (NH specific data); d) NIMH, 1999 (national estimates); e) CDC, Autism Surveillance, 2007 (national estimates). National estimates were used to extrapolate NH specific prevalence. All estimates are calculated using 2005 population estimates, NH Office of Energy and Planning.

¹³ L Huang, G MacBeth, J Dodge, and D Jacobstein. "Transforming the Workforce in Children's Mental Health." *Administration and Policy in Mental Health*. 32(2), 167-187. November 2004.

Figure 1



Correlates of Prevalence

The association of mental illness with particular characteristics of an individual is helpful to policymakers in identifying which individuals would be likely to benefit from treatment and prevention activities. In what follows, we discuss three factors which the literature has suggested are associated with increased risk of prevalence.

Income

The literature is clear that children and youth from low income families are at an increased risk for mental health disorders. Twenty-one percent of low income children ages 6 – 17 have mental health problems. Fifty-seven percent of these children live in households with incomes at or below the federal poverty level.¹⁴ Studies also have shown that youth living in unsafe and/or very poor neighborhoods are more likely to develop anxiety disorders than low-income children living in mixed income areas.¹⁵

Among the various socio-economic indicators, income plays the clearest role in defining, or acting as a proxy for, increased risk of mental illness. To the extent that particular groups – such as minorities – are over-represented in low-income categories, they are

¹⁴ E Howell. "Access to Children's Mental Health Service under Medicaid and SCHIP." The Urban Institute. Washington, DC. 2004.

¹⁵ T Leventhal and J Brooks-Gunn. "Moving to Opportunity: an Experimental Study of Neighborhood Effects on Mental Health." American Journal of Public Health. 2003;93:1576-82.

more likely to see higher prevalence in those groups. In fact, some studies have suggested that virtually all of the differences in mental health prevalence can be explained by income, or by factors highly associated with income (including education and age).

Race and Ethnicity

Attempts to describe the impact of race and ethnicity on the prevalence of mental health are confounded by other socio-economic characteristics. Overall rates of mental illness among minorities appear to be similar to those of the white population. However, differences in prevalence do exist when analyzing specific illnesses. African Americans, for example, have a higher prevalence of phobias and somatization. There is also evidence that Latino youth experience more anxiety-related behaviors and depression than do non-Hispanic white youth. To the extent in which minorities are over-represented in high risk categories – such as low-income families, the homeless, or lower income children in the child welfare-system - may influence the prevalence of mental health disorders in these populations.¹⁶

Gender

Most studies looking at specific mental health disorders have documented variation in prevalence based on gender. For example, for every 3-7 boys afflicted with autism spectrum disorder (ASD), there is one girl with the disorder. Children with an early onset of ASD (before age 10) are usually male. According to most studies, ADHD affects boys roughly five times more often than girls. Before puberty, oppositional defiant disorder is more common in boys. After puberty, it is equally common in girls and boys.¹⁷

However, other studies have suggested that the gender difference in prevalence is explained by the differences in the way boys and girls present their symptoms, or with the system that diagnoses and treats children. For example, with attention disorders, hyperactivity mostly presents in boys, therefore, are more often diagnosed. Girls more often present symptoms of attention deficit disorder without any hyperactivity. Therefore, it is a concern that girls may not be screened, diagnosed, and/or treated as often as boys.¹⁸

Geography

In rural areas, the prevalence of children with mental health disorders is similar to that in urban areas, but there are increased barriers to care. Among the most significant is that far fewer psychiatrists, psychologists, and clinical social workers practice in rural areas. In large sections of rural America, mental health and addictions treatment services are nonexistent. As a result, treatment of children in rural areas often is delayed until

¹⁶ U.S. Department of Health and Human Services. "Mental Health: Culture, Race, and Ethnicity." Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, 2001.

¹⁷ Surgeon General's Report, 1999.

¹⁸ National Institute of Mental Health. "Mental Health Topics." and "Child and Adolescent Mental Health" U.S. Department of Health and Human Services. National Institutes of Health. Updated 2007. <http://www.nimh.nih.gov/healthinformation/index.cfm> Accessed 27 July 2007.

symptoms are more serious and disabling.¹⁹ This issue, therefore, may underestimate the prevalence of less severe mental health disorders as well as show a higher prevalence of serious mental illnesses in rural areas.

Parental and Family Influence

Several parental and family factors can influence the risk for mental health issues in children. Large families and overcrowded living may lead to a conduct disorder. Family members who also have a mental health disorder may predispose related children to a mental health disorder. And often, traumatic events, such as domestic violence, occur in the home. Child maltreatment – physical or psychological – is associated with anxiety and/or depressive disorders and can impair social and cognitive functioning. Moreover, children of depressed parents are at increased risk for developing a mental health disorder themselves as these parents often are withdrawn from their child's care, potentially causing anxiety and emotional disturbances.²⁰

How New Hampshire compares

As mentioned previously, to understand prevalence in New Hampshire we are forced to rely largely on national studies of mental health. To understand whether these national prevalence estimates would result in a biased perspective on the total scope of mental illness in New Hampshire, Table 3 provides a comparison of the socio-economic characteristics one would expect to have an impact on overall prevalence. With the exception of gender – where NH is comparable to the rest of the country – New Hampshire tends to have a lower share of populations at risk for mental illness. This would suggest that, if anything, the national estimates of prevalence slightly over-estimate prevalence in New Hampshire. And, it raises questions as to the magnitude of the impact these risk factors have on these particular populations across New Hampshire.

¹⁹ New Freedom Commission on Mental Health, "Subcommittee on Rural Issues: Background Paper." U.S. Department of Health and Human Services. SMA-04-3890. Rockville, MD. 2004.

²⁰ Surgeon General's Report, 1999.

Table 3²¹

Demographic Comparison NH to the Nation		
Characteristic	NH	US
White	96%	80%
Hispanic	2%	14%
Female	51%	51%
Living in a non-metro area	38%	17%
Family Income (median dollars)	\$67,354	\$55,832
Families w/children - income below poverty level	8.3%	15.6%
Income gap ratio ²²	6.0	7.3
Rent Price (median dollars)	\$854	\$728
Median Home Price (median dollars)	\$240,100	\$167,500
Unemployment ²³	3.4%	4.6%

Service Use in Medicaid and the Private Sector

Figures 2 and 3 present the share of the population within the Medicaid and private insurance markets with an indication of a mental health issue. It is not surprising that a significantly higher share of Medicaid eligible children (24%) had a mental health service compared to the private sector (12%). The higher prevalence in the Medicaid population is due to the fact that the program serves the population of children at a higher risk for mental health disorders, including those in low-income families, the child welfare system and the juvenile justice system. There were approximately 19,403 individuals in the private market with evidence of a mental health issue and 17,680 in the Medicaid program in 2005.²⁴

²¹ U.S. Census Bureau. American Community Survey 2005. New Hampshire and the U.S. www.factfinder.census.gov. Accessed 27July2007.

²² Income gap ratio measures the percent of income from the top 20% over the bottom 20% of income earners. U.S. Department of Labor. Bureau of Labor Statistics. <http://www.bls.gov/sae/home.htm>. Accessed 27July2007.

²³ Ibid.

²⁴ Due to the possibility that children may enroll or drop out of Medicaid and/or private insurance at any time during a year, adding the claims of the two groups will likely be an overestimate of the true number of children accessing services.

Figure 2

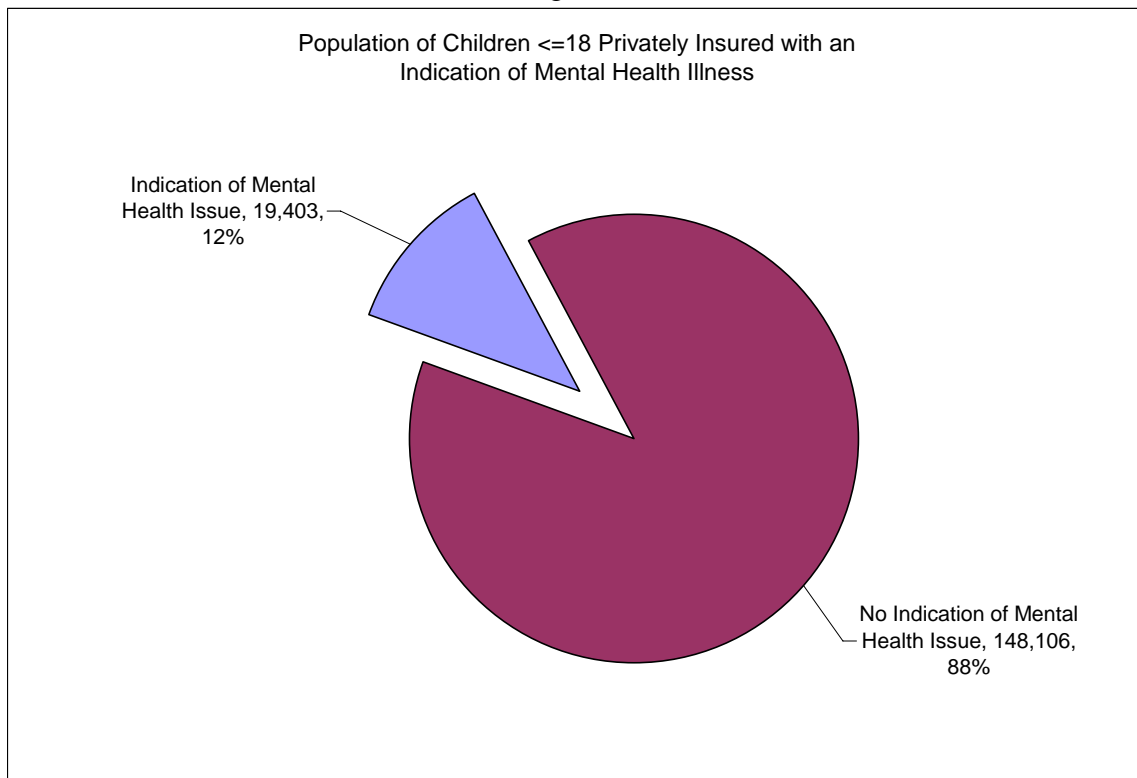
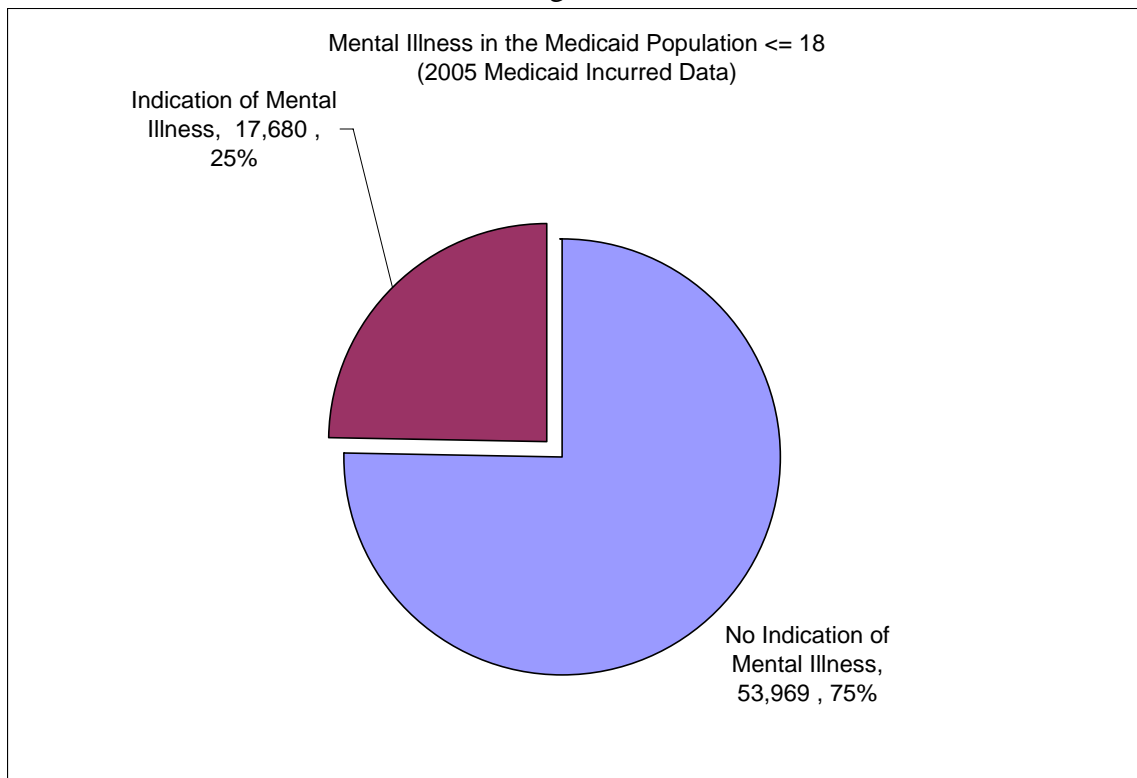


Figure 3



Type of Diagnosis

Table 4 shows the distribution of diagnoses for privately insured children and Medicaid eligible children with documented evidence of service use for a mental illness, grouped by type of mental illness.

Table 4

Distribution of Enrollees <= 18 Years by Mental Health Diagnosis and Payer				
Diagnosis	Medicaid		Private Insurance	
	Number	Percent with MH Diagnosis	Number	Percent with MH Diagnosis
NON-MENTAL HEALTH CLAIMS	53,969	-	148,106	-
SCHIZOPHRENIC DISORDERS	34	0.2%	31	0.2%
MAJOR DEPRESSIVE DISORDERS	642	3.6%	1,620	8.3%
OTHER AFFECTIVE DISORDER	850	4.8%	910	4.7%
OTHER PSYCHOSES	654	3.7%	858	4.4%
STRESS AND ADJUSTMENT	3,989	22.6%	4,127	21.3%
PERSONALITY DISORDERS	17	0.1%	35	0.2%
CHILDHOOD DISORDERS	4,818	27.3%	6,653	34.3%
OTHER MOOD DISORDERS AND ANXIETY	1,175	6.6%	2,811	14.5%
OTHER MENTAL DISORDERS	266	1.5%	760	3.9%
ANY DRUG OR ALCOHOL	149	0.8%	318	1.6%
ALZHEIMERS	1	0.0%	2	0.0%
MENTAL RETARDATION	1,738	9.8%	1,188	6.1%
MENTAL HEALTH SERVICE W/O DIAGNOSIS INDICATED	3,347	18.9%	90	0.5%
TOTAL WITH EVIDENCE OF MENTAL ILLNESS	17,680	100%	19,403	100%
ALL CHILDREN	71,649	-	167,509	-
PERCENT WITH MH DIAGNOSIS	24.7%	-	11.6%	-

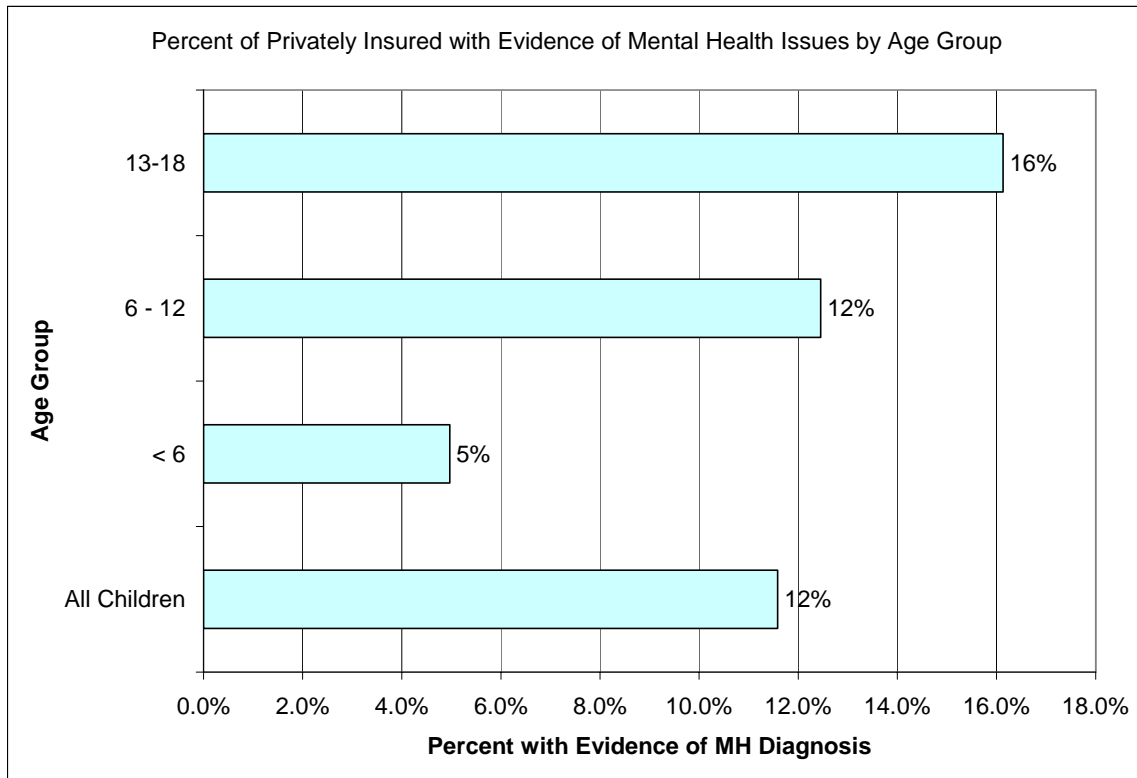
Among the 19,403 children who received a service for a mental health diagnosis, over one third of them were for childhood disorders – predominately hyperkinetic syndromes. Furthermore, one-fifth of these children were treated for stress and adjustment disorders. Of note, more children with mental retardation are present in the Medicaid population – 10% versus 6% of privately insured children.

Unfortunately, a significant share – 19% – of the children in the Medicaid program has documented mental health services being provided with no associated mental health diagnosis. This is due to limitations of the claims data, primarily the availability of diagnostic information on school-based mental health and rehabilitation services for these children. For the remaining 13,621 of children, a third of children are treated for a childhood specific disorder and one-quarter of children received services for a stress and adjustment disorder. Further study of these children and the services they received is indicated.

Age

Figure 4 provides the prevalence of service use for various child age groups within the privately insured population. Younger children in the privately insured population have significantly lower prevalence than children age 6 years and older; whereas, teens have the highest prevalence of service use for mental health issues.

Figure 4



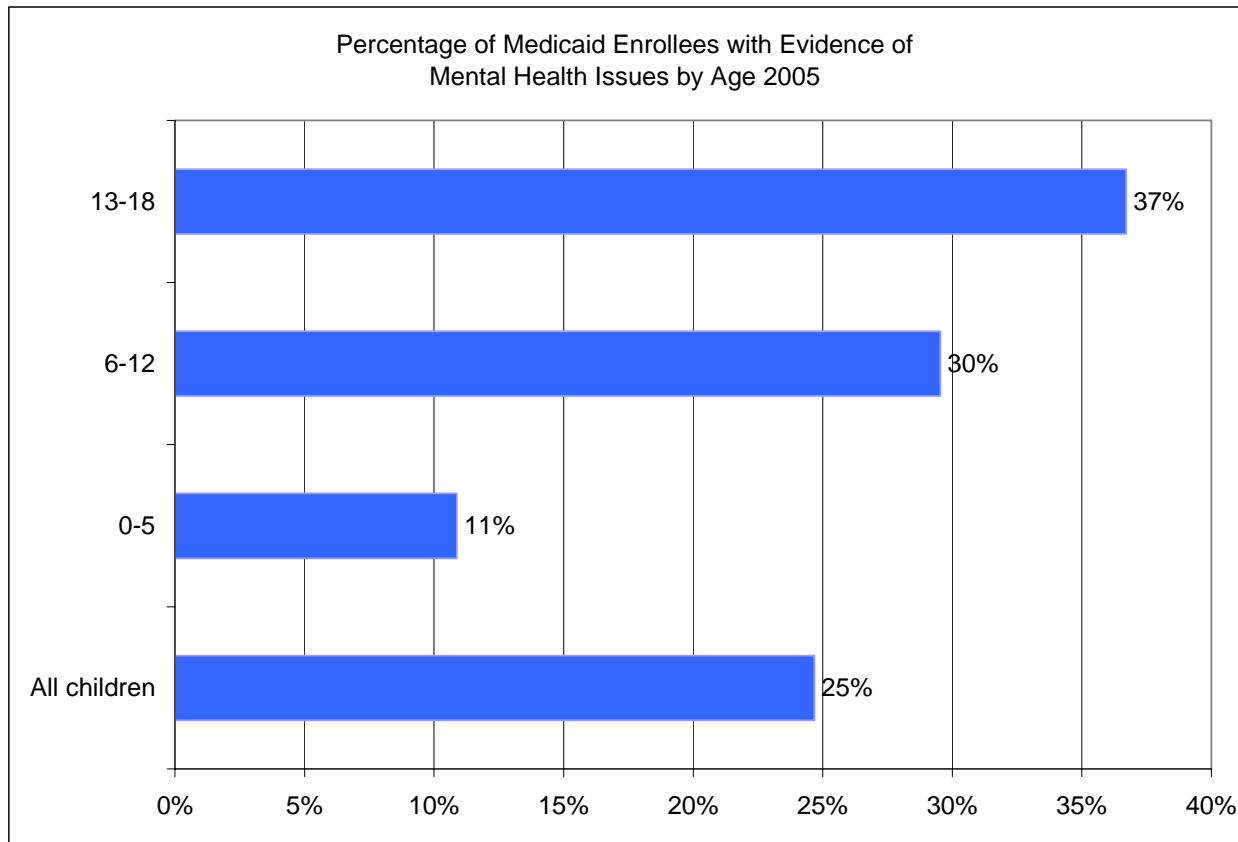
There are also significant differences in the types of diagnoses across these age groups, as shown in Table 5. For children less than 6 years, mental retardation and developmental delays account for almost 40 percent of the diagnoses. The distribution of mental health issues shifts as children mature. Children aged 6-12 predominately present with childhood specific disorders (conduct disorders, emotional disturbances, and hyperkinetic syndrome), which represents 45 percent of all mental health diagnoses in this age group. Furthermore, among those with childhood specific disorders, three-quarters of them are for hyperkinetic syndrome, including attention deficit disorders. Teens also present most often with attention disorders like the 6-12 year old age group. However, the prevalence of major depressive disorder and neurotic disorders greatly increased as a percent of all mental health diagnoses.

Table 5

Distribution of Privately Insured Children by Mental Health Diagnosis and Age Group						
Diagnosis	< 6 years	Percent of all MH Diagnoses	6–12 years	Percent of all MH Diagnoses	13-18 years	Percent of all MH Diagnoses
NON-MENTAL HEALTH CLAIMS	48,229	-	46,483	-	53,394	-
SCHIZOPHRENIC DISORDERS	0	0.0%	4	0.1%	27	0.3%
MAJOR DEPRESSIVE DISORDERS	19	0.8%	154	2.3%	1,447	14.1%
OTHER AFFECTIVE DISORDER	41	1.6%	251	3.8%	618	6.0%
OTHER PSYCHOSES	210	8.3%	346	5.2%	302	2.9%
STRESS AND ADJUSTMENT	431	17.1%	1,624	24.6%	2,072	20.2%
PERSONALITY DISORDERS	8	0.3%	5	0.1%	22	0.2%
CHILDHOOD DISORDERS	471	18.7%	2,967	44.9%	3,215	31.3%
OTHER MOOD DISORDERS AND ANXIETY	126	5.0%	791	12.0%	1,894	18.4%
OTHER MENTAL DISORDERS	223	8.8%	255	3.9%	282	2.7%
ANY DRUG OR ALCOHOL	34	1.3%	8	0.1%	276	2.7%
ALZHEIMERS	0	0.0%	0	0.0%	2	0.0%
MENTAL RETARDATION	940	37.3%	186	2.8%	62	0.6%
MENTAL HEALTH SERVICE W/O DIAGNOSIS INDICATED	18	0.7%	21	0.3%	51	0.5%
TOTAL CHILDREN IDENTIFIED WITH MH DIAGNOSIS	2,521	100%	6,612	100%	10,270	100%
ALL CHILDREN	50,750	-	53,095	-	63,664	-
PERCENT WITH MH DIAGNOSIS	5.0%	-	12.5%	-	16.1%	-

Figure 5 presents the service use prevalence for various age groups within the Medicaid program. Although, as previously discussed, a higher percent of children in the Medicaid system access services for a mental health issue, the pattern across the age groups is similar to that of the privately insured. Overall, the Medicaid population presents with twice the service use prevalence compared to privately insured children. Also, the difference among these children is the magnitude at which service use increases between the youngest children and children 6-12 years old. The prevalence among Medicaid eligible children increases almost 3-fold compared to only twice in the privately insured group. This raises questions about how the prevalence of disorders and/or service use may differ between these groups.

Figure 5



As Table 6 shows, there are also significant differences in the types of diagnoses across age groups, although the pattern is similar to that of privately insured children.

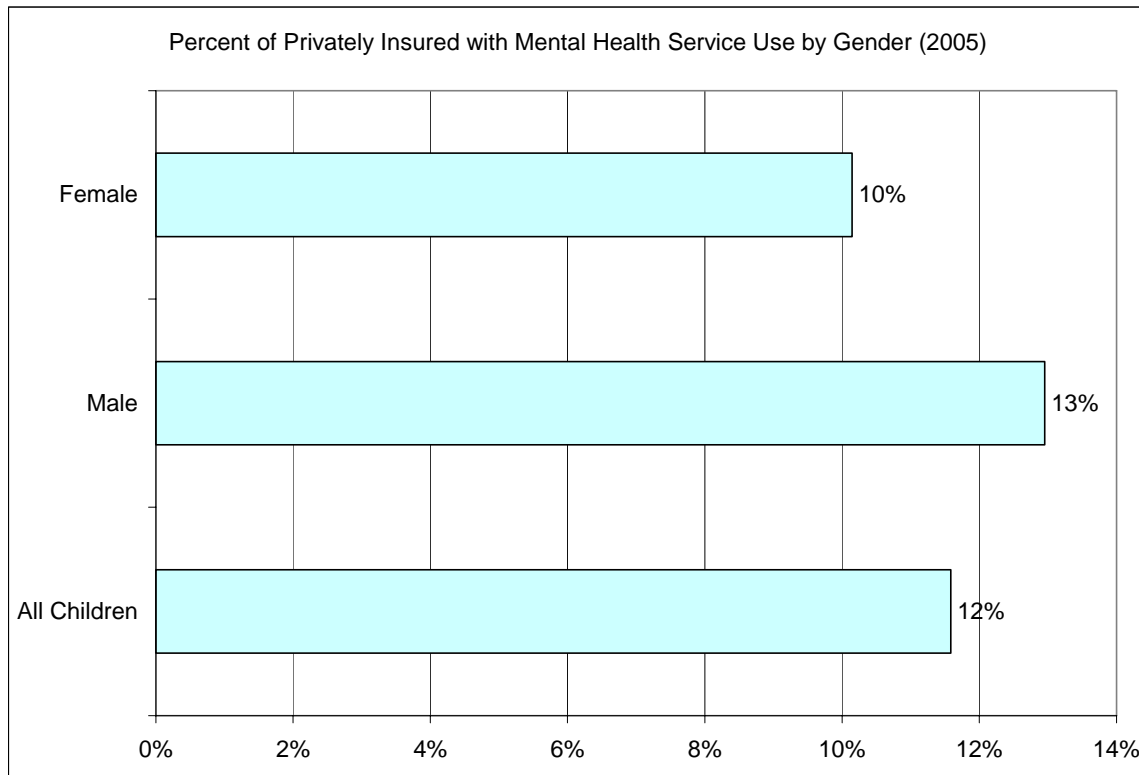
Table 6

Distribution of Medicaid Enrolled Children by Mental Health Diagnosis and Age Group						
Diagnosis	< 6 years	Percent of all MH Diagnoses	6–12 years	Percent of all MH Diagnoses	13-18 years	Percent of all MH Diagnoses
NON-MENTAL HEALTH CLAIMS	23,442	-	17,971	-	12,556	-
SCHIZOPHRENIC DISORDERS	-	0.0%	6	0.1%	28	0.4%
MAJOR DEPRESSIVE DISORDERS	2	0.1%	97	1.3%	543	7.5%
OTHER AFFECTIVE DISORDER	20	0.7%	327	4.3%	503	6.9%
OTHER PSYCHOSES	107	3.7%	327	4.3%	220	3.0%
STRESS AND ADJUSTMENT	454	15.9%	2,089	27.7%	1,446	19.9%
PERSONALITY DISORDERS	2	0.1%	5	0.1%	10	0.1%
CHILDHOOD DISORDERS	416	14.5%	2,646	35.1%	1,756	24.1%
OTHER MOOD DISORDERS AND ANXIETY	35	1.2%	358	4.8%	782	10.7%
OTHER MENTAL DISORDERS	83	2.9%	117	1.6%	66	0.9%
ANY DRUG OR ALCOHOL	52	1.8%	6	0.1%	91	1.2%
ALZHEIMERS	-	0.0%	-	0.0%	1	0.0%
MENTAL RETARDATION	1,168	40.8%	319	4.2%	251	3.4%
MENTAL HEALTH SERVICE W/O DIAGNOSIS INDICATED	523	18.3%	1,237	16.4%	1,587	21.8%
TOTAL CHILDREN IDENTIFIED WITH MH DIAGNOSIS	2,862	100.0%	7,534	100.0%	7,284	100.0%
ALL CHILDREN	26,304	-	25,505	-	19,840	-
PERCENT WITH MH DIAGNOSIS	10.9%	-	29.5%	-	36.7%	-

Gender

As mentioned earlier, boys are more often diagnosed with a hyperkinetic disorder than girls – despite not knowing if the prevalence is truly different between genders. It is not surprising then for boys to show an overall higher percentage of service use, as shown in Figure 6. Furthermore, there are significant differences in the types of mental illness for which services were accessed by boys and girls who are privately insured.

Figure 6



As Table 7 illustrates, over 40% of boys used services for childhood disorders. Most of these diagnoses are for a hyperkinetic disorder – representing one-third of all mental health diagnoses among boys. Girls, however, have a more widely distributed array of mental health diagnoses treated, also shown in Table 7. Stress and adjustment disorders are the most prevalent disorder for girls treated. Compared to boys, girls have a lower treatment prevalence of hyperkinetic disorders, but have a higher prevalence of stress and adjustment disorders and almost twice the service use prevalence of other mood and anxiety disorders.

Table 7

Distribution of Privately Insured Children with Evidence of Mental Illness by Diagnosis and Gender				
Diagnosis	Boys	Percent with MH Diagnosis	Girls	Percent with MH Diagnosis
NON-MENTAL HEALTH CLAIMS	74,642	-	73,464	-
SCHIZOPHRENIC DISORDERS	15	0.1%	16	0.2%
MAJOR DEPRESSIVE DISORDERS	621	5.6%	999	12.0%
OTHER AFFECTIVE DISORDER	523	4.7%	387	4.7%
OTHER PSYCHOSES	688	6.2%	170	2.0%
STRESS AND ADJUSTMENT	1,943	17.5%	2,184	26.3%
PERSONALITY DISORDERS	21	0.2%	14	0.2%
CHILDHOOD DISORDERS	4,784	43.1%	1,869	22.5%
OTHER MOOD DISORDERS AND ANXIETY	1,118	10.1%	1,693	20.4%
OTHER MENTAL DISORDERS	373	3.4%	387	4.7%
ANY DRUG OR ALCOHOL	170	1.5%	148	1.8%
ALZHEIMERS	1	0.0%	1	0.0%
MENTAL RETARDATION	799	7.2%	389	4.7%
MENTAL HEALTH SERVICE W/O DIAGNOSIS INDICATED	51	0.5%	39	0.5%
TOTAL WITH EVIDENCE OF MENTAL ILLNESS	11,107	100.0%	8,296	100.0%
ALL CHILDREN	85,749	-	81,760	-
PERCENT WITH MH DIAGNOSIS	13.0%	-	10.1%	-

Figure 7 shows the treatment prevalence across genders among Medicaid eligible children. As shown with the privately insured children, boys in the Medicaid population also have a higher prevalence of service use for mental health disorders. However, there appears to be a greater disparity between boys and girls in the Medicaid population than in the privately insured group. This raises questions of whether girls may be treated differently in the public system versus the private sector.

Figure 7

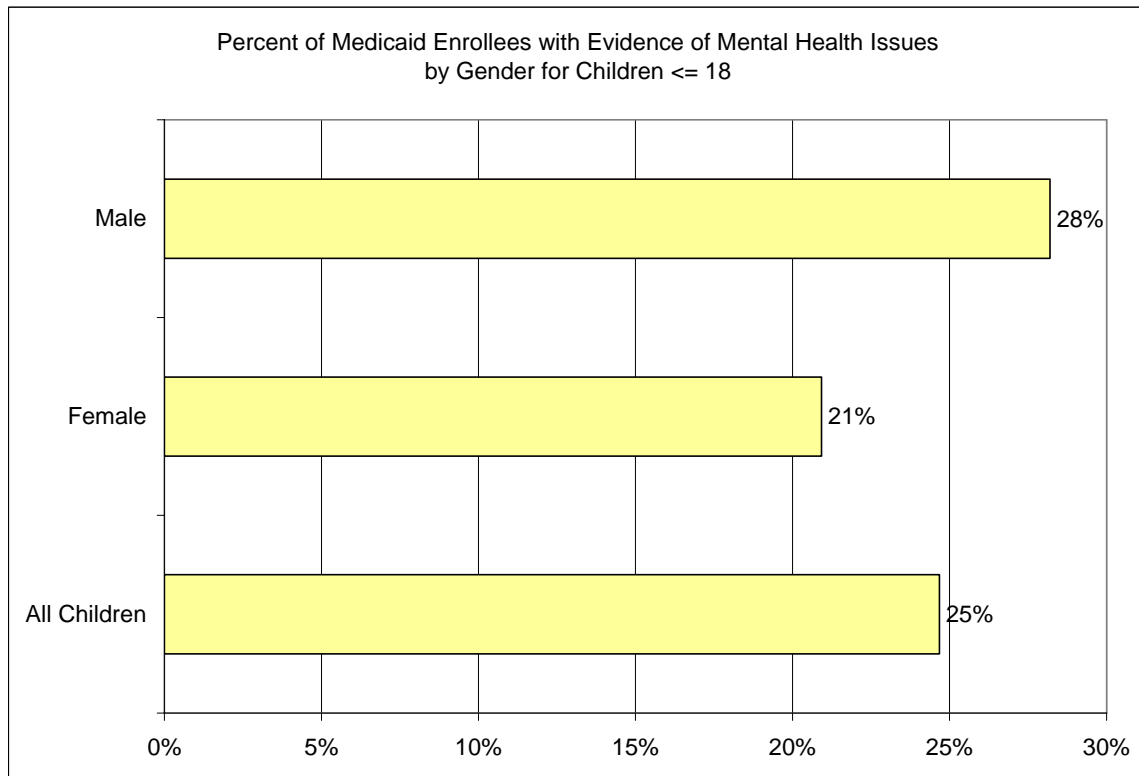


Table 8 illustrates that girls in the Medicaid program are likely to show evidence of stress and adjustment disorders more often than their male counterparts. Boys, on the other hand, are more likely to be diagnosed with childhood disorders – which includes disturbance of conduct and hyperkinetic syndromes.

Table 8

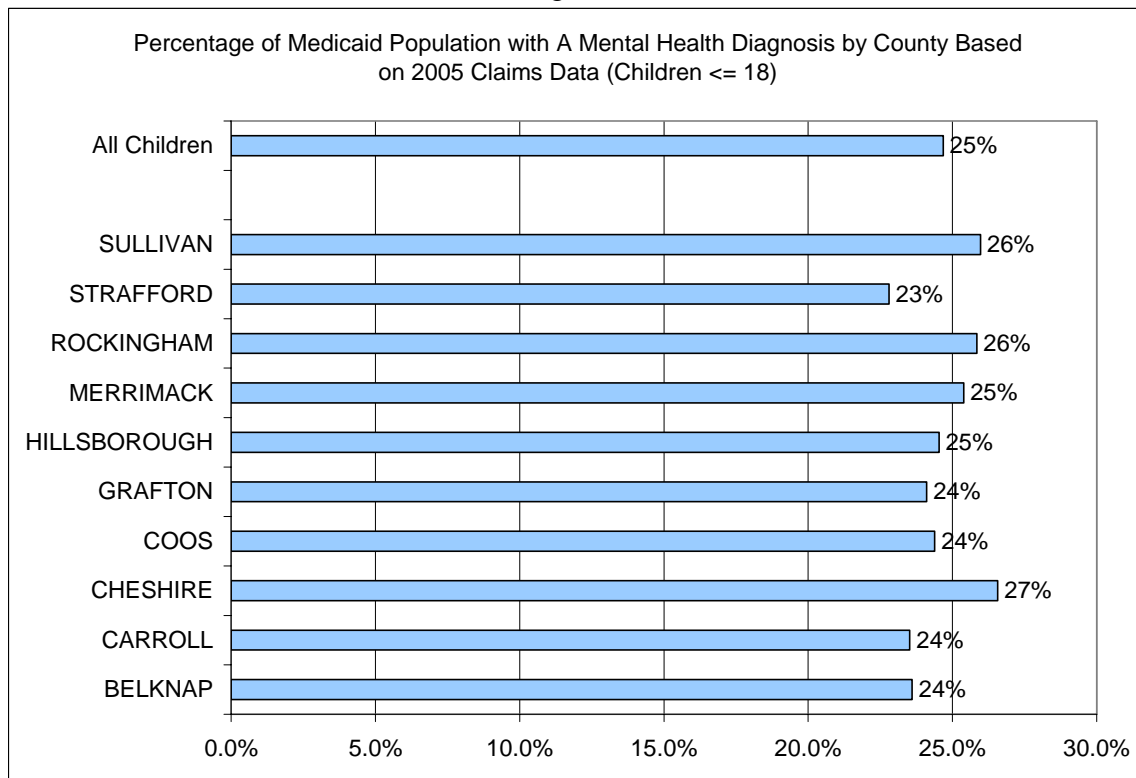
Distribution of Medicaid Enrolled Children with Evidence of Mental Illness by Diagnosis and Gender				
Diagnosis	Boys	Percent with MH Diagnosis	Girls	Percent with MH Diagnosis
NON-MENTAL HEALTH CLAIMS	26,553		27,415	
SCHIZOPHRENIC DISORDERS	19	0.2%	15	0.2%
MAJOR DEPRESSIVE DISORDERS	251	2.4%	391	5.4%
OTHER AFFECTIVE DISORDER	509	4.9%	341	4.7%
OTHER PSYCHOSES	513	4.9%	141	1.9%
STRESS AND ADJUSTMENT	1,917	18.4%	2,071	28.6%
PERSONALITY DISORDERS	12	0.1%	5	0.1%
CHILDHOOD DISORDERS	3,431	32.9%	1,387	19.1%
OTHER MOOD DISORDERS AND ANXIETY	484	4.6%	691	9.5%
OTHER MENTAL DISORDERS	134	1.3%	132	1.8%
ANY DRUG OR ALCOHOL	87	0.8%	62	0.9%
ALZHEIMERS	1	0.0%	-	0.0%
MENTAL RETARDATION	1,096	10.5%	642	8.9%
MENTAL HEALTH SERVICE W/O DIAGNOSIS INDICATED	1,973	18.9%	1,375	19.0%
TOTAL WITH EVIDENCE OF MENTAL ILLNESS	10,427	100.0%	7,253	100.0%
ALL CHILDREN	36,980	-	34,668	-
PERCENT WITH MH DIAGNOSIS	28.2%	-	20.9%	-

Other Characteristics of the Medicaid Children's Population

County of Residence

Figure 8 provides prevalence by county of residence for children within the Medicaid program. National studies have suggested fewer service resources are available to children living in rural areas. Despite that almost 40% of the state's residents live in non-metropolitan areas, service use prevalence measures tend to be consistent across counties.

Figure 8

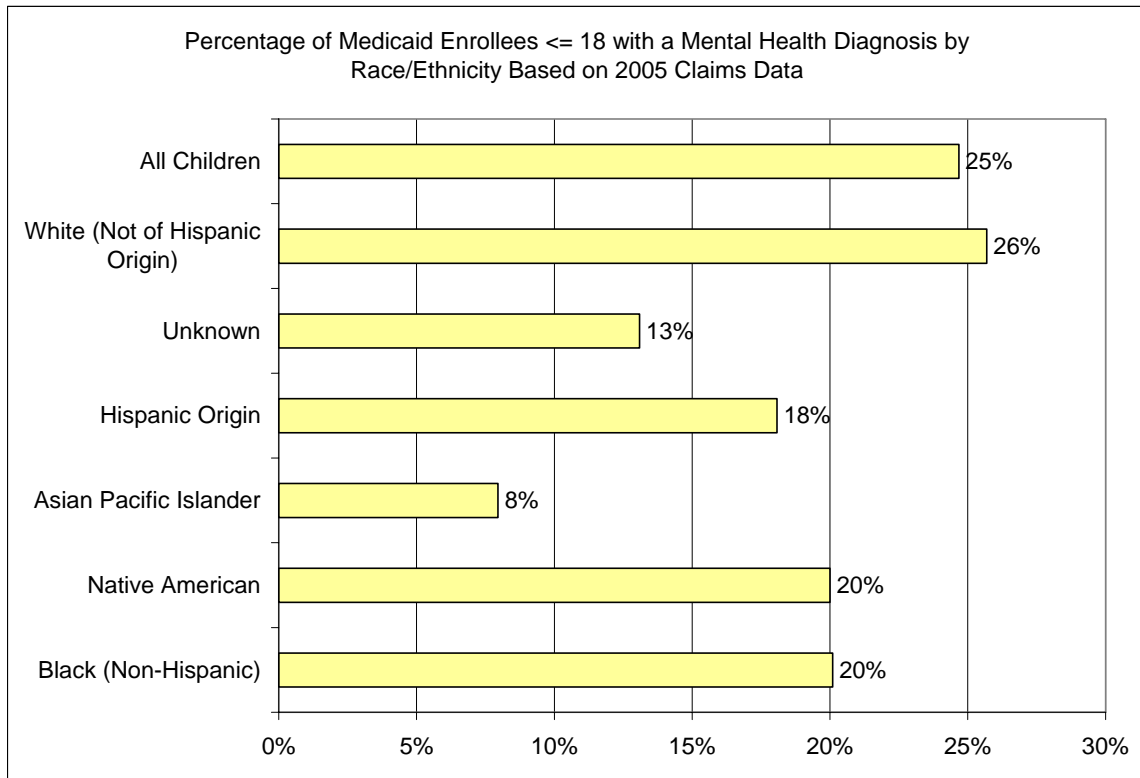


Ethnicity

Figure 9 shows service use prevalence by race/ethnicity for children within the Medicaid program. These results suggest there are significant differences in the prevalence of mental illness by race/ethnicity in the Medicaid child population. These results are surprising, however, given national analyses of mental health and its relationship to race and ethnicity. In national studies, non-Hispanic blacks are significantly more likely to experience mental illness than whites. The explanation for the results presented here is not clear.

One could argue that the results imply that access to mental health services for non-white children is different - either because of a lack of services or a lack of seeking out services - than for white children in New Hampshire. An alternative explanation is that the data capturing an individual's race is problematic. It is not clear, given the self-reported nature of the indicator, what the race ethnicity indicator is actually capturing - 13% of Medicaid claims were missing ethnicity and race data. Furthermore, this may simply be due to the fact that New Hampshire's population is almost entirely white. Regardless, these results suggest further analysis of the relationship between ethnicity and race and mental illness in the children Medicaid population is warranted.

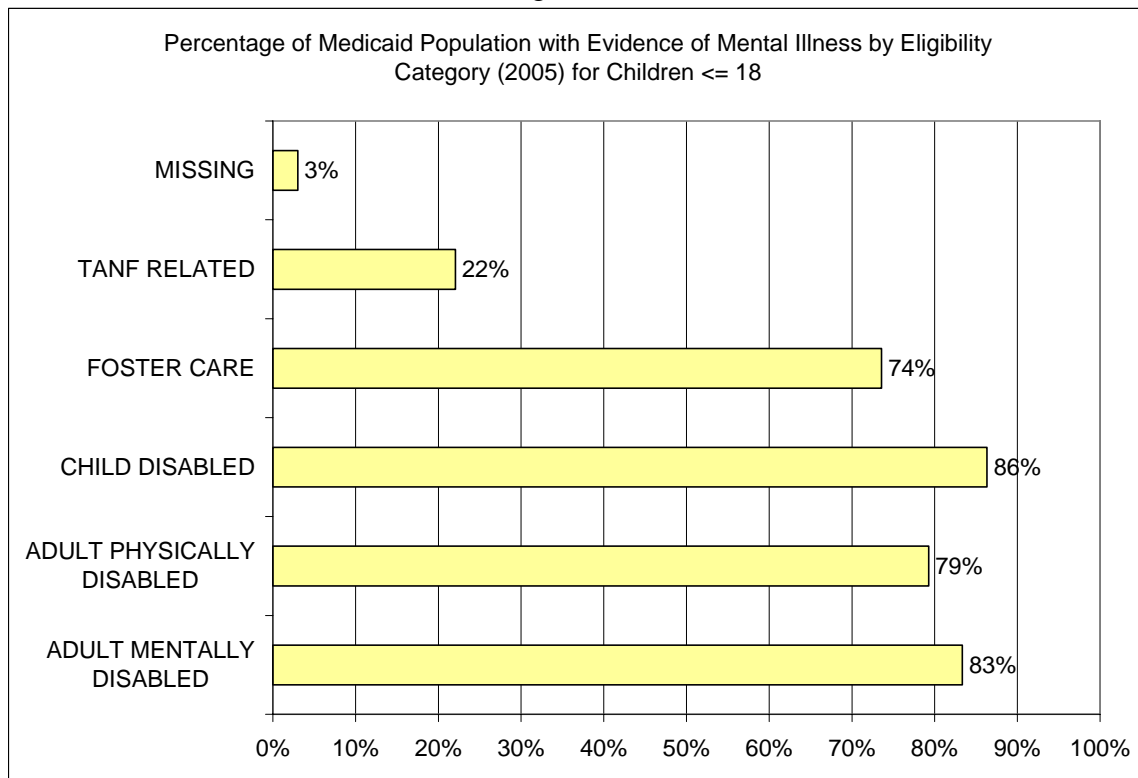
Figure 9



Eligibility Category

Figure 10 provides mental illness service use prevalence by eligibility category in children for 2005. Children with a long-term mental and physical disability show a high prevalence of service access; however, these represent a very small proportion of the total Medicaid eligible children - at less than one percent. Surprisingly, a large share of children are not eligible for Medicaid via disability pathways, however, also show evidence of mental illness. Approximately 22% of TANF (temporary aid to needy families) related eligible children have accessed services for a mental health diagnosis. Seventy-three percent of children who are eligible for Medicaid due to their foster care status show evidence of a mental illness. In the TANF and foster care categories, adjustment and stress disorders are the predominant mental health diagnoses.

Figure 10²⁵



Discussion

Mental health disorders have far reaching implications for the children affected with them. Mental health issues can impact a child’s emotional, intellectual, and behavioral development. It can hinder proper family and social relationships. And, mental health disorders, if left untreated, can persist through development and into adulthood. Half of all lifetime mental illnesses start by 14 years old; three-quarters of them start by age 24.²⁶

Children with mental health problems are less likely to succeed in school, are absent more days from school, and have suspension and expulsion rates that are three times as high as their peers. As many as 44% of high school youth with mental illness eventually drop out of school.²⁷

These children are more likely to be involved with the child welfare system and the criminal justice system. In the child welfare system, half of children have mental health

²⁵ The Adult Physically/Mentally Disabled categories refer to children with long-term disabilities.

²⁶ RC Kessler, P Berglund, O Demler, R Jin, et al. “Lifetime Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National Comorbidity Survey Replication.” *Archives of General Psychiatry*. 2005;62:593-602.

²⁷ M Wagner. “Youth with disabilities leaving secondary school.” *Changes Over Time in the Early Post School Outcomes of Youth with Disabilities: A Report of Findings from the National Longitudinal Transition Study (NTLS) and the National Longitudinal Transition Study-2 (NTLS2)*. Menlo Park, CA: SRI International. 2005.

needs.²⁸ And, in the juvenile justice system, 67-70% of youth have a mental health issue.²⁹

Although mental health problems appear in children of all backgrounds and social classes, certain children are at increased risk due to a variety of factors. These include family history of emotional and/or substance issues, abuse and neglect, low birth weight, and other physical and cognitive disabilities.³⁰

As the data present, there is a higher use of mental health services in the Medicaid population compared to the privately insured. This variation raises questions about the differences in risk between the populations and how services are provided for these children.

Boys in both the Medicaid and the privately insured are accessing services more often, supporting the idea that girls mental health disorders may be overlooked. Furthermore, the differences between the public and private sectors in the rate of increase across age brackets raises questions of risk factors and service access that need more study.

Furthermore, the Center did not study how many children are diagnosed with two or more psychiatric disorders, co-occurring with developmental disabilities, learning disabilities, and/or substance use disorders.³¹ This points to the complexity of care needed to care for these children, which – among many other areas – requires further research.

²⁸ B Burns, S Phillips, H Wagner, R Barth, D Kolko, et al. "Mental health need and access to mental health services by youths involved with child welfare: A national survey." *Journal of the American Academy of Child and Adolescent Psychiatry*, 43(8);960-970. 2004.

²⁹ KR Skowrya and JJ Coccozza. "Blueprint for change: A comprehensive model for the identification and treatment of youth with mental health needs in contact with the juvenile justice system." The National Center for Mental Health and Juvenile Justice and Policy Research Associates, Inc. 2006.

³⁰ Surgeon General's Report, 1999

³¹ L Huang, G Macbeth, J Dodge, and D Jacobstein, "Transforming the Workforce in Children's Mental Health." *Administration and Policy in Mental Health*. 32(2); 167-87. 2004.

Appendix

Description of Disorders³²

In what follows, we describe each of the major mental health disorders and any other pertinent issues important to understanding these disorders, as a reference.

Mood Disorders

Clinically, these disorders are characterized by persistent sad or “empty” mood, feelings of hopelessness, loss of interest in pleasurable activities, and thoughts of death or suicide, among others. Mood disorders, most notably major depressive disorder, dysthymic disorder, and bipolar disorder, are more commonly known as depression.

However, childhood depression differs from adult depression in several ways. Depressed children are more likely to show anxiety symptoms, such as headaches and stomach aches, than depressed adults. And, psychotic components are much less common in depressed children than they are in adults.

Major Depressive Disorder

Major depressive disorder - the most severe form of depression – is characterized by having five symptoms of depression for at least two weeks.

The majority of children diagnosed with depression experience a recurrence. Twenty to forty percent of children relapse within 2 years. And, most - 70% - will experience a relapse by adulthood. The earlier a child experiences his or her first depressive episode, the more likely the disorder is to persist into adulthood.

About two-thirds of children and adolescents with major depressive disorders have a co-occurring disorder. The most common are dysthymic disorder, anxiety, a conduct disorder, and/or substance use disorder.

Dysthymic disorder

Dysthymic disorder - a less severe, yet persistent, form of depression - commonly makes its first appearance in childhood or adolescence. The average duration of a dysthymic period in children is four years. As a result, dysthymia is especially likely to hinder normal adjustment. The majority of children with dysthymia – 70% - eventually have an episode of major depression.

Bi-Polar Disorder

Bi-polar disorder is characterized by extreme mood swings involving periods of intense highs and lows. The episodes tend to be very well defined in adults. Children with the

³² All information in this section of the appendix (unless otherwise noted) comes from: National Institute of Mental Health. “Mental Health Topics.” and “Child and Adolescent Mental Health” U.S. Department of Health and Human Services. National Institutes of Health. Updated 2007.
<http://www.nimh.nih.gov/healthinformation/index.cfm> Accessed 27July2007.

bi-polar disorder, however, tend to cycle between depression and mania more quickly – having as many as five episodes per day. Often in children, the illness presents as persistent mood dysregulation involving a combination of elation, depression, and irritability. Bi-polar children may also have less of a need for sleep and an excess amount of energy. Since these latter two symptoms are also present in children with ADHD, it is often difficult to distinguish between the two.

Although the disorder typically manifests for the first time in late adolescence or early adulthood, some people have their first symptoms during childhood. Furthermore, children whose parents have bi-polar disorder are more likely to be affected.

Anxiety Disorders

Anxiety disorders include: separation anxiety, generalized anxiety disorder, social phobia, and obsessive compulsive disorder. Anxiety disorders are characterized by an excessive worry about all things, upcoming events, etc. outside what is considered to be normal for a stressful situation, such as taking a test or walking through a dark alley. The combined prevalence of this group of disorders is higher than that of all other mental disorders of children and adolescents. Furthermore, children who have experienced a traumatic episode are more likely to develop an anxiety disorder, particularly Post-Traumatic Stress disorder.

Hyperkinetic Disorders

Hyperkinetic Disorders - including Attention-Deficit Hyperactivity Disorder (ADHD) and Attention-Deficit Disorder (ADD) – are characterized by impulsiveness, hyperactivity, and/or extreme difficulty in paying attention. ADHD usually first becomes apparent during the early school years and affects an estimated 3-5% of children; in a classroom of at least 25 students there will likely be a child with ADHD.

ADHD is often accompanied by other disorders: (1) Learning Disability – Approximately 20-30 percent of children with ADHD also have a learning disability. (2) Tourette's Syndrome - a relatively small proportion of children with ADHD also have a neurological disorder called Tourette's syndrome; (3) Oppositional Defiant Disorder - as many as 33-50% of all children with ADHD also have the condition oppositional defiant disorder (ODD); (4) Conduct Disorder: Anywhere from 20 to 40 percent of ADHD children may develop conduct disorder (CD), which is characterized by a more serious pattern of antisocial behavior. (5) Anxiety and Depressive Disorders: Children with ADHD often have co-occurring anxiety or depression; (6) Bi-polar disorder: There are no accurate statistics on the number of children with co-occurring ADHD and bipolar disorders.

Conduct Disorders

Conduct Disorder and Oppositional Defiant Disorder (ODD) affect up to 6% of children aged 9-17 years. The disorder is more common in urban areas. Risk factors are both biological and psychosocial. Oppositional and misconduct are part of normal development for toddlers and young adolescents. However, overly aggressive and destructive behaviors associated with conduct disorders are problems. Often, conduct

disorder and ODD are truly fronts for other mental health issues, such as ADHD, PTSD and other anxiety issues, substance use, and/or learning disabilities.

Autism and Pervasive Developmental Disorders

Autism Spectrum Disorder (ASD)³³ - characterized by “severe and pervasive impairment in thinking, feeling, language, and the ability to relate to others” – often appears first in early childhood. ASDs range from the more severe kind, called autistic disorder, to a much milder form, called Asperger’s syndrome. Also included on the spectrum are two relatively rare disorders, Rett syndrome and Childhood Disintegrative Disorder. Nationwide, approximately 560,000 children have autism.³⁴ The prevalence is higher than previously estimated. Prior estimates indicated that between 1 in 500 and 1 in 168 children have autism. The most recent studies estimate the prevalence to be 1 in 150.³⁵ The reasons for the increased prevalence of ASD are not yet clear. The increase may be due to the changes in the way ASD is defined. Over time, the definition has expanded to include both the severe and the milder forms. The increase also may be due to a true increase in the number of children with the disorder.

Rett syndrome is a relatively rare form of autism, characterized by a regression in a child’s social and mental development around the age of 6-18 months. Approximately one out of 10,000 to 15,000 children who has ASD has Rett syndrome. This disorder almost always affects girls.

Childhood Disintegrative Disorder (CDD) is another relatively rare form of autism affecting fewer than two autistic children per 100,000. The average age of onset is between 3 and 4 years, although symptoms may appear as early as age two. CDD affects mostly boys.

Eating Disorders

Eating disorders include anorexia nervosa, bulimia, and binge-eating disorder. Anorexia is characterized by an extreme fear of gaining weight, and distorted body image. Bulimia is marked by episodes of binge-eating followed by purging either through self-induced vomiting, intense exercise, laxative misuse, and/or diuretic abuse. Binge-eating is defined as periods of compulsive over-eating, but without the purging present in bulimia.

Approximately 8 million people in the United States have an eating disorder. The majority of sufferers are women. Over 90 percent of those who have eating disorders are women between the ages of 12 and 25. However, the number of men and boys with eating disorders may be increasing. Three percent of all young women and girls suffer from anorexia; 3-4% suffer from bulimia; and 15% of young women have disordered eating patterns.

Eating disorders typically develop during adolescence or early adulthood, but they sometimes occur during childhood. The mean age of onset of anorexia is 17 years of age.

³³ ASD are also known as Pervasive Developmental Disorders (PDDs).

³⁴ CDC, Autism Surveillance, 2007.

³⁵ Ibid.

Eating disorders have the highest mortality rate of any mental illness. Co-occurring disorders, such as depression and anxiety, are extremely common.³⁶

Substance use disorders

Substance use disorders often stem from a person trying to cope with another mental illness, most often depression and/or anxiety disorders. A disorder is not simply experimenting with a drug for recreation, but a continued pathological use that eventually impairs function.³⁷

The top three drugs used by teens in New Hampshire are marijuana, alcohol and cocaine. According to two independent surveys, a significantly higher percentage of New Hampshire teens use marijuana compared to youth across the nation. Alcohol and cocaine use is also slightly higher than the national average.³⁸

Suicide³⁹

In the U.S., suicide is the third leading cause of death for young people age 15 – 24, and the sixth leading cause of death among children age 5 – 14. The age specific mortality rate from suicide for 10 to 14 year olds was 1.6 per 100,000. For 15 to 19 year olds the rate was 9.5 per 100,000.

Suicide incidence rates in young people have risen dramatically over the last several decades. From 1952 – 1996, the incidence of suicide in adolescents and young adults increased nearly 3-fold. From 1980 to 1996, the rate of suicide increased by 14% in the 15-19 age group and by 100% in the 10-14 age group.

There are differences in youth suicide incidence rates in both gender and racial groups. Among 15-19 year olds, boys are four times as likely to commit suicide as girls. American Indian and Alaskan Natives have the highest rate of suicide in the 15 to 24 age group. Youth with disorders such as depression, substance use disorder, and aggression are at an increased risk for suicide attempts.

³⁶ Surgeon General's Report, 1999.

³⁷ National Institute on Drug Abuse. "Drugs, Brains, and Behavior: The Science of Addiction." (07-5605) Rockville, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Institute on Drug Abuse, 2007.

³⁸ YRBS, NH, 2005

³⁹ All information in the section on suicide comes from: National Institute of Mental Health. "Suicide in the US: Statistics and Prevention." U.S. Department of Health and Human Services. National Institutes of Health. Updated 2007. <http://www.nimh.nih.gov/healthinformation/index.cfm> Accessed 27July2007.

Data Tables

Table A - 1

MH Diagnoses in the Privately Insured Population in 2005 Age <= 18 Years		
Diagnosis	Number	Percent
Schizophrenic Disorders (295)	31	0.16%
Major Depressive Disorder (2962, 2963)	1,620	8.35%
Manic Disorders (2960, 2961)	31	0.16%
Bipolar Affective Disorders (2964-2967)	226	1.16%
Other and Unspecified Manic-Depressive Psychoses (2968)	213	1.10%
Other and Unspecified Affective Psychoses (2969)	440	2.27%
Transient Organic Psychotic Conditions (293)	63	0.32%
Other Organic Psychotic Conditions, Chronic (294)	64	0.33%
Paranoid States or Delusional Disorders (297)	3	0.02%
Other Non-Organic Psychoses (298)	96	0.49%
Psychoses with Origin Specified to Childhood (299)	632	3.26%
Acute Reaction to Stress (308)	132	0.68%
Adjustment Reaction (309)	3,995	20.59%
Personality Disorders (301 with no 30113)	35	0.18%
Disturbance of Conduct, Not Elsewhere Specified (312)	870	4.48%
Disturbance of Emotions, Specific to Childhood & Adolescence (313)	825	4.25%
Hyperkinetic Syndrome of Childhood (314)	4,958	25.55%
Neurotic Disorders (300)	2,194	11.31%
Cyclothymic Disorders (30113)	6	0.03%
Depressive Disorder, Not Elsewhere Specified (311)	611	3.15%
Sexual Deviations and Disorders (302)	12	0.06%
Physiological Malfunction Arising from Mental Factors (306)	25	0.13%
Special Symptoms or Syndromes, Not Elsewhere Specified (307)	660	3.40%
Specific Non-Psychotic Mental Disorders Due to Organic Brain Damage (310)	52	0.27%
Psychotic Factors Associated with Diseases Specified Elsewhere (316)	5	0.03%
Mental Disorders in Pregnancy, Antepartum and Postpartum (6484)	6	0.03%
Drug Psychoses (292)	16	0.08%
Drug Dependence/Nondependent Abuse (304,3052-3059)	117	0.60%
Polyneuropathy Due to Drugs (3576)	0	0.00%
Drug Dependence in Pregnancy, Antepartum and Postpartum (6483)	0	0.00%
Suspected Damage to Fetus from Drugs (6555)	0	0.00%
Noxious Influences Affecting Fetus via Placenta or Breast Milk (7607)	8	0.04%
Drug Withdrawal Syndrome in Newborn (7795)	5	0.03%
Poisoning by Adrenal Cortical Steroids (9620)	0	0.00%
Poisoning by Opiates and Related Narcotics (9650)	0	0.00%
Poisoning by Sedatives and Hypnotics (967)	1	0.01%
Poisoning by Other Central Nervous System Depressants and Anesthetics (968)	0	0.00%
Poisoning by Psychotropic Agents (969)	12	0.06%
Poisoning by Central Nervous System Stimulants (970)	3	0.02%
Poisoning by Dietetics (9770)	0	0.00%
Tobacco Use Disorder (3051)	156	0.80%
Alzheimer's Disease (3310, 290)	2	0.01%
Mental Retardation or Developmental Delays (315, 317-319)	1,188	6.12%
CPT Identified Patients	39	0.20%
ICD-9 Procedure Code Identified Patients	48	0.25%
Total Distinct MH Patients Identified by Revenue Codes	3	0.02%
Total with MH Diagnosis	19,403	
All Children	167,509	
Percent with MH Diagnosis	11.6%	

Source: NH Department of Insurance, analysis of NH Comprehensive Healthcare Information System Data

Table A - 2

MH Diagnoses in the Medicaid Enrolled Population in 2005 Age <= 18 Years		
Diagnosis	Number	Percent
Non-Mental Health Diagnoses	53,969	75.32%
Schizophrenic Disorders (295)	34	0.05%
Major Depressive Disorder (2962, 2963)	642	0.90%
Manic Disorders (2960, 2961)	312	0.44%
Bipolar Affective Disorders (2964-2967)	538	0.75%
Transient Organic Psychotic Conditions (293)	17	0.02%
Other Organic Psychotic Conditions, Chronic (294)	33	0.05%
Paranoid States or Delusional Disorders (297)	2	0.00%
Other Non-Organic Psychoses (298)	61	0.09%
Psychoses with Origin Specified to Childhood (299)	541	0.76%
Acute Reaction to Stress (308)	51	0.07%
Adjustment Reaction (309)	3,938	5.50%
Personality Disorders (301 with no 30113)	17	0.02%
Disturbance of Conduct, Not Elsewhere Specified (312)	961	1.34%
Disturbance of Emotions, Specific to Childhood & Adolescence (313)	875	1.22%
Hyperkinetic Syndrome of Childhood (314)	2,982	4.16%
Neurotic Disorders (300)	813	1.13%
Cyclothymic Disorders (30113)	1	0.00%
Depressive Disorder, Not Elsewhere Specified (311)	361	0.50%
Sexual Deviations and Disorders (302)	6	0.01%
Physiological Malfunction Arising from Mental Factors (306)	6	0.01%
Special Symptoms or Syndromes, Not Elsewhere Specified (307)	239	0.33%
Specific Non-Psychotic Mental Disorders Due to Organic Brain Damage (310)	8	0.01%
Mental Disorders in Pregnancy, Antepartum and Postpartum (6484)	7	0.01%
Alcoholic psychoses (291)	7	0.01%
Alcohol dependence/nondependent abuse (303,305)	39	0.05%
Drug Psychoses (292)	6	0.01%
Drug Dependence/Nondependent Abuse (304,3052-3059)	44	0.06%
Chronic liver disease & cirrhosis with mention of alcohol (571.0-571.3)	1	0.00%
Suspected Damage to Fetus from Drugs (6555)	1	0.00%
Noxious Influences Affecting Fetus via Placenta or Breast Milk (7607)	15	0.02%
Drug Withdrawal Syndrome in Newborn (7795)	23	0.03%
Poisoning by Opiates and Related Narcotics (9650)	4	0.01%
Poisoning by Psychotropic Agents (969)	8	0.01%
Poisoning by Central Nervous System Stimulants (970)	1	0.00%
Alzheimer's Disease (3310, 290)	1	0.00%
Mental Retardation or Developmental Delays (315, 317-319)	1,738	2.43%
Mental Health Service w/o Diagnosis Indicated	3,347	4.67%
Total with MH Diagnosis	17,680	
All Children	71,649	
Percent with MH Diagnosis	24.7%	

Table A - 3

MH Diagnoses in the Privately Insured Population in 2005 Age <= 18 Years by Age Group			
Diagnosis	< 6 years	6-12 years	13-18 years
Schizophrenic Disorders (295)	0	4	27
Major Depressive Disorder (2962, 2963)	19	154	1,447
Manic Disorders (2960, 2961)	1	8	22
Bipolar Affective Disorders (2964-2967)	10	63	153
Other and Unspecified Manic-Depressive Psychoses (2968)	15	54	144
Other and Unspecified Affective Psychoses (2969)	15	126	299
Transient Organic Psychotic Conditions (293)	4	19	40
Other Organic Psychotic Conditions, Chronic (294)	13	23	28
Paranoid States or Delusional Disorders (297)	1	0	2
Other Non-Organic Psychoses (298)	10	35	51
Psychoses with Origin Specified to Childhood (299)	182	269	181
Acute Reaction to Stress (308)	46	22	64
Adjustment Reaction (309)	385	1,602	2,008
Personality Disorders (301 with no 30113)	8	5	22
Disturbance of Conduct, Not Elsewhere Specified (312)	202	367	301
Disturbance of Emotions, Specific to Childhood & Adolescence (313)	91	355	379
Hyperkinetic Syndrome of Childhood (314)	178	2,245	2,535
Neurotic Disorders (300)	121	728	1,345
Cyclothymic Disorders (30113)	0	0	6
Depressive Disorder, Not Elsewhere Specified (311)	5	63	543
Sexual Deviations and Disorders (302)	8	2	2
Physiological Malfunction Arising from Mental Factors (306)	4	6	15
Special Symptoms or Syndromes, Not Elsewhere Specified (307)	208	231	221
Specific Non-Psychotic Mental Disorders Due to Organic Brain Damage (310)	3	13	36
Psychotic Factors Associated with Diseases Specified Elsewhere (316)	0	3	2
Mental Disorders in Pregnancy, Antepartum and Postpartum (6484)	0	0	6
Drug Psychoses (292)	2	0	14
Drug Dependence/Nondependent Abuse (304,3052-3059)	5	1	111
Polyneuropathy Due to Drugs (3576)	0	0	0
Drug Dependence in Pregnancy, Antepartum and Postpartum (6483)	0	0	0
Suspected Damage to Fetus from Drugs (6555)	0	0	0
Noxious Influences Affecting Fetus via Placenta or Breast Milk (7607)	6	1	1
Drug Withdrawal Syndrome in Newborn (7795)	5	0	0
Poisoning by Adrenal Cortical Steroids (9620)	0	0	0
Poisoning by Opiates and Related Narcotics (9650)	0	0	0
Poisoning by Sedatives and Hypnotics (967)	0	0	1
Poisoning by Other Central Nervous System Depressants and Anesthetics (968)	0	0	0
Poisoning by Psychotropic Agents (969)	7	0	5
Poisoning by Central Nervous System Stimulants (970)	2	1	0
Poisoning by Dietetics (9770)	0	0	0
Tobacco Use Disorder (3051)	7	5	144
Alzheimer's Disease (3310, 290)	0	0	2
Mental Retardation or Developmental Delays (315, 317-319)	940	186	62
CPT Identified Patients	5	5	29
ICD-9 Procedure Code Identified Patients	13	16	19
Total Distinct MH Patients Identified by Revenue Codes	0	0	3
Total with MH Diagnosis	2,521	6,612	10,270
All Children	50,750	53,095	63,664
Percent with MH Diagnosis	5.0%	12.5%	16.1%

Source: NH Department of Insurance, analysis of NH Comprehensive Healthcare Information System Data

Table A - 4

MH Diagnoses in the Medicaid Enrolled Population in 2005 Age <= 18 Years by Age Group			
Diagnosis	< 6 years	6-12 years	13-18 years
Schizophrenic Disorders (295)	0	6	28
Major Depressive Disorder (2962, 2963)	2	97	543
Manic Disorders (2960, 2961)	4	129	179
Bipolar Affective Disorders (2964-2967)	16	198	324
Transient Organic Psychotic Conditions (293)	1	6	10
Other Organic Psychotic Conditions, Chronic (294)	3	18	12
Paranoid States or Delusional Disorders (297)	0	1	1
Other Non-Organic Psychoses (298)	7	20	34
Psychoses with Origin Specified to Childhood (299)	96	282	163
Acute Reaction to Stress (308)	5	25	21
Adjustment Reaction (309)	449	2,064	1,424
Personality Disorders (301 with no 30113)	2	5	10
Disturbance of Conduct, Not Elsewhere Specified (312)	214	464	283
Disturbance of Emotions, Specific to Childhood & Adolescence (313)	67	423	385
Hyperkinetic Syndrome of Childhood (314)	135	1,759	1,088
Neurotic Disorders (300)	34	295	484
Cyclothymic Disorders (30113)	0	0	1
Depressive Disorder, Not Elsewhere Specified (311)	1	63	297
Sexual Deviations and Disorders (302)	1	1	4
Physiological Malfunction Arising from Mental Factors (306)	2	2	2
Special Symptoms or Syndromes, Not Elsewhere Specified (307)	78	113	48
Specific Non-Psychotic Mental Disorders Due to Organic Brain Damage (310)	2	1	5
Mental Disorders in Pregnancy, Antepartum and Postpartum (6484)	0	0	7
Alcoholic psychoses (291)	1	0	6
Alcohol dependence/nondependent abuse (303,305)	0	0	39
Drug Psychoses (292)	4	1	1
Drug Dependence/Nondependent Abuse (304,3052-3059)	2	2	40
Chronic liver disease & cirrhosis with mention of alcohol (571.0-571.3)	1	0	0
Suspected Damage to Fetus from Drugs (6555)	0	0	1
Noxious Influences Affecting Fetus via Placenta or Breast Milk (7607)	11	2	2
Drug Withdrawal Syndrome in Newborn (7795)	23	0	0
Poisoning by Opiates and Related Narcotics (9650)	2	0	2
Poisoning by Psychotropic Agents (969)	7	1	0
Poisoning by Central Nervous System Stimulants (970)	1	0	0
Alzheimer's Disease (3310, 290)	0	0	1
Mental Retardation or Developmental Delays (315, 317-319)	1,168	319	251
Mental Health Service w/o Diagnosis Indicated	523	1,237	1,588
Total with MH Diagnosis	2,862	7,534	7,284
All Children	26,304	25,505	19,840
Percent with MH Diagnosis	11%	30%	37%

Table A - 5

MH Diagnoses in the Privately Insured Population in 2005 Age <= 18 Years by Gender		
Diagnosis	Boys	Girls
Schizophrenic Disorders (295)	15	16
Major Depressive Disorder (2962, 2963)	621	999
Manic Disorders (2960, 2961)	12	19
Bipolar Affective Disorders (2964-2967)	150	76
Other and Unspecified Manic-Depressive Psychoses (2968)	114	99
Other and Unspecified Affective Psychoses (2969)	247	193
Transient Organic Psychotic Conditions (293)	34	29
Other Organic Psychotic Conditions, Chronic (294)	43	21
Paranoid States or Delusional Disorders (297)	2	1
Other Non-Organic Psychoses (298)	71	25
Psychoses with Origin Specified to Childhood (299)	538	94
Acute Reaction to Stress (308)	59	73
Adjustment Reaction (309)	1,884	2,111
Personality Disorders (301 with no 30113)	21	14
Disturbance of Conduct, Not Elsewhere Specified (312)	597	273
Disturbance of Emotions, Specific to Childhood & Adolescence (313)	515	310
Hyperkinetic Syndrome of Childhood (314)	3,672	1,286
Neurotic Disorders (300)	902	1,292
Cyclothymic Disorders (30113)	2	4
Depressive Disorder, Not Elsewhere Specified (311)	214	397
Sexual Deviations and Disorders (302)	9	3
Physiological Malfunction Arising from Mental Factors (306)	7	18
Special Symptoms or Syndromes, Not Elsewhere Specified (307)	325	335
Specific Non-Psychotic Mental Disorders Due to Organic Brain Damage (310)	31	21
Psychotic Factors Associated with Diseases Specified Elsewhere (316)	1	4
Mental Disorders in Pregnancy, Antepartum and Postpartum (6484)	0	6
Drug Psychoses (292)	6	10
Drug Dependence/Nondependent Abuse (304,3052-3059)	80	37
Polyneuropathy Due to Drugs (3576)	0	0
Drug Dependence in Pregnancy, Antepartum and Postpartum (6483)	0	0
Suspected Damage to Fetus from Drugs (6555)	0	0
Noxious Influences Affecting Fetus via Placenta or Breast Milk (7607)	6	2
Drug Withdrawal Syndrome in Newborn (7795)	4	1
Poisoning by Adrenal Cortical Steroids (9620)	0	0
Poisoning by Opiates and Related Narcotics (9650)	0	0
Poisoning by Sedatives and Hypnotics (967)	1	0
Poisoning by Other Central Nervous System Depressants and Anesthetics (968)	0	0
Poisoning by Psychotropic Agents (969)	6	6
Poisoning by Central Nervous System Stimulants (970)	3	0
Poisoning by Dietetics (9770)	0	0
Tobacco Use Disorder (3051)	64	92
Alzheimer's Disease (3310, 290)	1	1
Mental Retardation or Developmental Delays (315, 317-319)	799	389
CPT Identified Patients	24	15
ICD-9 Procedure Code Identified Patients	25	23
Total Distinct MH Patients Identified by Revenue Codes	2	1
Total with MH Diagnosis	11,107	8,296
All Children	85,749	81,760
Percent with MH Diagnosis	13.0%	10.1%

Source: NH Department of Insurance, analysis of NH Comprehensive Healthcare Information System Data

Table A - 6

MH Diagnoses in the Medicaid Enrolled Population in 2005 Age <= 18 Years by Gender		
Diagnosis	Boys	Girls
Schizophrenic Disorders (295)	19	15
Major Depressive Disorder (2962, 2963)	251	391
Manic Disorders (2960, 2961)	200	112
Bipolar Affective Disorders (2964-2967)	309	229
Transient Organic Psychotic Conditions (293)	13	4
Other Organic Psychotic Conditions, Chronic (294)	23	10
Paranoid States or Delusional Disorders (297)	1	1
Other Non-Organic Psychoses (298)	44	17
Psychoses with Origin Specified to Childhood (299)	432	109
Acute Reaction to Stress (308)	24	27
Adjustment Reaction (309)	1,893	2,044
Personality Disorders (301 with no 30113)	12	5
Disturbance of Conduct, Not Elsewhere Specified (312)	668	293
Disturbance of Emotions, Specific to Childhood & Adolescence (313)	535	340
Hyperkinetic Syndrome of Childhood (314)	2,228	754
Neurotic Disorders (300)	350	463
Cyclothymic Disorders (30113)	1	0
Depressive Disorder, Not Elsewhere Specified (311)	133	228
Sexual Deviations and Disorders (302)	3	3
Physiological Malfunction Arising from Mental Factors (306)	1	5
Special Symptoms or Syndromes, Not Elsewhere Specified (307)	125	114
Specific Non-Psychotic Mental Disorders Due to Organic Brain Damage (310)	5	3
Mental Disorders in Pregnancy, Antepartum and Postpartum (6484)	0	7
Alcoholic psychoses (291)	4	3
Alcohol dependence/nondependent abuse (303,305)	22	17
Drug Psychoses (292)	2	4
Drug Dependence/Nondependent Abuse (304,3052-3059)	30	14
Chronic liver disease & cirrhosis with mention of alcohol (571.0-571.3)	1	0
Suspected Damage to Fetus from Drugs (6555)	0	1
Noxious Influences Affecting Fetus via Placenta or Breast Milk (7607)	6	9
Drug Withdrawal Syndrome in Newborn (7795)	12	11
Poisoning by Opiates and Related Narcotics (9650)	1	3
Poisoning by Psychotropic Agents (969)	8	0
Poisoning by Central Nervous System Stimulants (970)	1	0
Alzheimer's Disease (3310, 290)	1	0
Mental Retardation or Developmental Delays (315, 317-319)	1,096	642
Mental Health Service w/o Diagnosis Indicated	1,973	1,375
Total with MH Diagnosis	10,427	7,253
All Children	36,980	34,668
Percent with MH Diagnosis	28%	21%

Table A - 7

MH Diagnoses in the Medicaid Enrolled Population in 2005 Age <= 18 Years by Race/Ethnicity												
Diagnosis	Black (non-Hispanic)		Native American		Asian/Pacific Islander		Hispanic		White (non-Hispanic)		Unknown	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
NON-MENTAL HEALTH CLAIMS	1,376		60		521		2842		47,371		1,799	
SCHIZOPHRENIC DISORDERS	1	0%	0	0%	0	0%	1	0%	32	0%	0	0%
MAJOR DEPRESSIVE DISORDERS	7	2%	1	7%	3	7%	11	2%	614	4%	6	2%
OTHER AFFECTIVE DISORDER	17	5%	0	0%	2	4%	13	2%	806	5%	12	4%
OTHER PSYCHOSES	12	3%	0	0%	4	9%	6	1%	624	4%	8	3%
STRESS AND ADJUSTMENT	64	18%	4	27%	9	20%	95	15%	3,775	23%	41	15%
PERSONALITY DISORDERS	0	0%	0	0%	0	0%	1	0%	14	0%	2	1%
CHILDHOOD DISORDERS	103	30%	3	20%	7	16%	144	23%	4,504	28%	57	21%
OTHER MOOD DISORDERS AND ANXIETY	11	3%	2	13%	2	4%	27	4%	1,118	7%	15	6%
OTHER MENTAL DISORDERS	6	2%	0	0%	0	0%	12	2%	241	1%	7	3%
ANY DRUG OR ALCOHOL	5	1%	0	0%	1	2%	6	1%	134	1%	3	1%
ALZHEIMERS	0	0%	0	0%	0	0%	0	0%	1	0%	0	0%
MENTAL RETARDATION	32	9%	3	20%	8	18%	54	9%	1,586	10%	55	20%
MENTAL HEALTH SERVICE W/O DIAGNOSIS INDICATED	88	25%	2	13%	9	20%	257	41%	2,927	18%	65	24%
TOTAL WITH EVIDENCE OF MENTAL ILLNESS	346		15		45		627		16,376		271	
ALL CHILDREN	1,722		75		566		3,469		63,747		2,070	
PERCENT WITH MH DIAGNOSIS	20.1%		20.0%		8.0%		18.1%		25.7%		13.1%	

Table A - 8

MH Diagnoses in the Medicaid Enrolled Population in 2005 Age <= 18 Years by NH County											
Diagnosis	BELKNAP	CARROLL	CHESHIRE	COOS	GRAFTON	HILLSBOROUGH	MERRIMACK	ROCKINGHAM	STRAFFORD	SULLIVAN	OUT OF STATE
NON-MENTAL HEALTH CLAIMS	3,188	2,667	3,106	2,432	3,819	16,299	5,867	7,594	5,680	2,374	943
SCHIZOPHRENIC DISORDERS	2	2	0	1	2	10	5	3	8	0	1
MAJOR DEPRESSIVE DISORDERS	31	32	65	9	49	159	92	111	48	37	9
OTHER AFFECTIVE DISORDER	41	49	22	24	29	325	108	128	80	22	21
OTHER PSYCHOSES	25	34	52	23	42	211	76	118	45	19	9
STRESS AND ADJUSTMENT	318	200	329	241	336	893	485	548	338	241	60
PERSONALITY DISORDERS	1	1	1	0	1	4	1	5	2	0	1
CHILDHOOD DISORDERS	261	230	259	202	320	1,494	481	767	507	215	82
OTHER MOOD DISORDERS AND ANXIETY	53	76	74	61	73	348	123	189	96	62	20
OTHER MENTAL DISORDERS	7	19	13	5	13	88	30	42	32	15	2
ANY DRUG OR ALCOHOL	10	9	6	11	8	55	15	14	16	2	3
ALZHEIMERS	0	0	0	0	0	0	0	0	0	1	0
MENTAL RETARDATION	107	100	166	52	109	450	249	286	162	31	26
MENTAL HEALTH SERVICE W/O DIAGNOSIS INDICATED	129	68	137	155	231	1,262	332	436	344	188	65
TOTAL WITH EVIDENCE OF MENTAL ILLNESS	985	820	1,124	784	1,213	5,299	1,997	2,647	1,678	833	299
ALL CHILDREN	4,173	3,487	4,230	3,216	5,032	21,598	7,864	10,241	7,358	3,207	1,242
PERCENT WITH MH DIAGNOSIS	23.6%	23.5%	26.6%	24.4%	24.1%	24.5%	25.4%	25.8%	22.8%	26.0%	24.1%
PERCENT OF MEDICAID MH POP AS A SHARE OF TOTAL COUNTY POPULATION	1.6%	1.7%	1.5%	2.3%	1.4%	1.3%	1.4%	0.9%	1.4%	1.9%	N/A

Table A - 9

MH Diagnoses in the Medicaid Enrolled Population in 2005 Age <= 18 Years by Eligibility Category						
Diagnosis	ADULT MENTALLY DISABLED	ADULT PHYSICALLY DISABLED	CHILD DISABLED	FOSTER CARE	TANF RELATED	MISSING
NON-MENTAL HEALTH CLAIMS	5	35	163	521	53,084	161
SCHIZOPHRENIC DISORDERS	3	0	8	4	19	0
MAJOR DEPRESSIVE DISORDERS	3	2	20	62	555	0
OTHER AFFECTIVE DISORDER	2	1	89	96	661	1
OTHER PSYCHOSES	7	6	204	50	387	0
STRESS AND ADJUSTMENT	3	4	20	301	3,659	1
PERSONALITY DISORDERS	0	0	0	1	16	0
CHILDHOOD DISORDERS	1	3	112	329	4,371	2
OTHER MOOD DISORDERS AND ANXIETY	2	2	23	60	1,088	0
OTHER MENTAL DISORDERS	0	0	5	6	255	0
ANY DRUG OR ALCOHOL	0	0	1	26	122	0
ALZHEIMERS	0	0	0	0	1	0
MENTAL RETARDATION	4	76	327	55	1,276	0
MENTAL HEALTH SERVICE W/O DIAGNOSIS INDICATED	0	40	221	461	2,625	1
TOTAL WITH EVIDENCE OF MENTAL ILLNESS	25	134	1,030	1,451	15,035	5
ALL CHILDREN	30	169	1,193	1,972	68,119	166
PERCENT WITH MH DIAGNOSIS	83%	79%	86%	74%	22%	3%