

# Diagnoses and Health Care of Children in Foster Care and Covered by Medicaid

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# Introduction

Studies have found that children in foster care have a higher prevalence of psychiatric symptoms and health-risk behaviors compared to children and adolescents in the general population.<sup>1,2</sup> The purpose of this study is to examine (1) the prevalence of mental and physical illnesses and (2) the utilization of health care services among children in foster care (FC) who are covered by Medicaid. Disparities between the children in FC and children covered by Medicaid who are not in FC are also identified. In particular, we examine the following topics:

- The most common diagnoses among children who are within versus outside of FC
- The 10 most common comorbidities associated with each of the 10 most common categories of illnesses and selected behavioral health conditions (attention deficit disorder, conduct disorders, and disruptive behavior disorders; mood disorders; adjustment disorders; and anxiety disorders) among children in FC
- The use of all health and behavioral health care services among children within versus outside of FC

This information can give payers and providers of health care services greater direction as they seek to establish more comprehensive and effective approaches for addressing the needs of children in foster care.

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<sup>1</sup> Pilowsky, D.J. & Wu, L.T. (2006). Psychiatric symptoms and substance use disorders in a nationally representative sample of American adolescents involved with foster care. *Journal of Adolescent Health*, 38(4), 351–358.

<sup>2</sup> Leslie, L.K., James, S., Monn, A., Kauten, M., Zhang, J., & Aarons, G. (2010). Health-risk behaviors in young adolescents in the child welfare system. *Journal of Adolescent Health*, 47(1), 26–34.

# Methods

The Truven Health MarketScan® Multi-State Medicaid Database for 2010 was used to examine the prevalence of diagnoses and comorbidities and the use of health care services among children aged 0 to 17 years who were covered under Medicaid. The MarketScan Medicaid Database contains claims data from several geographically dispersed states and includes nearly seven million enrollees. The authors analyzed data from two groups of children: those in FC and those outside of FC. Children in FC were identified by having “foster care child” as the basis of eligibility for Medicaid in their enrollment data.

The diagnostic categories used in the analysis were the Clinical Classification Software (CCS) categories that were originally developed as a part of the Healthcare Cost and Utilization Project (HCUP) under the Agency for Healthcare Research and Quality (AHRQ). Diagnostic codes anywhere on the medical claim (i.e., not just the primary diagnosis) were used to classify individuals in these diagnostic categories. Some of these diagnostic categories pertained to administrative and preventative services provided to individuals. Only those categories that pertained to illnesses were used in examining comorbidities.

For this study, comorbidities were defined as any two diagnoses anywhere on an individual’s medical claims that happened within the same year. For example, otitis media was defined as a comorbidity with asthma if a child diagnosed with asthma had an ear infection at any time during the same year.

For all statistics on the utilization of mental health and substance abuse services, we required a primary diagnosis of a mental or substance use disorder. The number of outpatient visits was defined as the number of unique days in which an individual visited an outpatient setting. Inpatient stays were identified by admissions to an inpatient setting, which includes hospitals, residential treatment centers, and rehabilitative facilities.

Diagnoses, comorbidities, and use of services vary by age; therefore, results were stratified by three age groups: 0 to 5, 6 to 11, and 12 to 17 years.

These methods were limited to examining diagnoses and events where medical attention was given. The results may underestimate the prevalence of mental or substance use disorders as measured through means that can capture the health and behaviors of individuals outside of the medical system. For example, not all abuse of drugs may result in receiving medical care and therefore would not be captured in the claims database used for this analysis.

# Key Findings

## *Children aged 0 to 5 years*

- The most common diagnoses coded in the Medicaid claims in 2010 for children within and outside of FC were administrative and social admissions, upper respiratory infections and diseases, immunizations and screening for infectious disease, and otitis media and related conditions (Appendix A, Table 1a).
- When children in FC were compared to children outside of FC, those in FC had a much higher prevalence of developmental disorders (16.9 percent vs. 4.1 percent, respectively); disorders of the teeth and jaw (13.1 percent vs. 6.4 percent); attention deficit, conduct, and disruptive behavior disorders (8.7 percent vs. 1.4 percent); and adjustment disorders (7.6 percent vs. 0.5 percent) (Appendix A, Table 1a).
- The most common comorbidities seen in children in FC were respiratory infections, fevers, and ear infections (Appendix A, Table 2a).
- The 10 most common comorbidities were relatively similar among the 10 most common illnesses (Appendix A, Table 2a).
- The use of any medical services was almost the same between children in FC and those outside of FC (91.0 percent vs. 87.3 percent, respectively), although large differences were seen in mental health (MH) utilization (36.0 percent vs. 5.1 percent), particularly outpatient MH services (34.1 percent vs. 2.7 percent) (Appendix A, Table 3).
- Use of MH-related prescriptions is more common among children in FC than among those outside of FC (6.9 percent vs. 3.0 percent, respectively). This is particularly the case with antipsychotic medications (1.7 percent vs. 0.1 percent) and attention-deficit/hyperactivity disorder (ADHD) drugs (3.1 percent vs. 0.5 percent) (Appendix A, Table 3).
- Among children who had at least one outpatient visit, children in FC had twice as many visits as children who were not in FC (19 vs. 8, respectively) (Appendix A, Table 4).
- Among children who had at least one inpatient stay, the number of inpatient stays and the average length of stay were nearly the same for children within and outside of FC (Appendix A, Tables 5 and 6).

## *Children aged 6 to 11 years*

- Attention-deficit, conduct, and disruptive behavior disorders were some of the most common diagnoses in this age group, particularly among children in FC (33.5 percent of those in FC vs. 10.6 percent of those not in FC) (Appendix A, Table 1b).
- Other diagnoses that were more common in children in FC than in children outside of FC for this age group were blindness and vision defects (22.0 percent vs. 16.2 percent, respectively), adjustment disorders (15.5 percent vs. 2.5 percent), disorders of teeth and jaw (12.0 percent vs. 6.5 percent), anxiety disorders (10.0 percent vs. 2.0 percent), mood disorders (9.5 percent vs. 1.9 percent), and developmental disorders (9.1 percent vs. 4.9 percent) (Appendix A, Table 1b).

- Attention-deficit, conduct, and disruptive disorders were consistently the first or second most common comorbidities with the 10 most common illnesses among children in FC (Appendix A, Table 2b).
- Other common comorbidities included upper respiratory infections and disease, blindness and vision defects, and (in some cases) adjustment disorders (Appendix A, Table 2b).
- Children in FC more frequently had MH outpatient visits than those who were not in FC (48 percent vs. 13.7 percent, respectively) (Appendix A, Table 3).
- Children in FC compared to children not in FC used slightly more prescriptions overall (67.3 percent vs. 59.8 percent, respectively), and significantly more MH-related prescriptions (34.1 percent vs. 11.7 percent). In all, 29.3 percent of children in FC used an ADHD drug, 11.4 percent used an antipsychotic drug, and 7.6 percent used an antidepressant drug (Appendix A, Table 3).
- Among children who had at least one outpatient visit, children in FC had, on average, 15 more visits for any diagnosis, 13 more mental health-related visits, and two more visits related to substance use than children who were not in FC (Appendix A, Table 4).
- The average number of inpatient stays per year for children within and outside of FC was approximately the same (Appendix A, Table 5). However, children in FC spent, on average, 15 more days in an inpatient setting than children who were not in FC (Appendix A, Table 6).

### *Children aged 12 to 17 years*

- The most common diagnosis coded in the Medicaid claims in 2010 for adolescents in FC was attention-deficit, conduct, and disruptive behavior disorders (38.3 percent). By contrast, this diagnosis was found among only 10.9 percent adolescents outside of FC (Appendix A, Table 1c).
- Mood disorders (24.2 percent) were almost as common as other upper respiratory infections and diseases (25.7 percent) among adolescents in FC (Appendix A, Table 1c).
- Adjustment disorders and anxiety disorders were more common among adolescents in FC than among those outside of FC (14.7 percent vs. 3.0 percent for adjustment disorders; 13.6 percent vs. 3.5 percent for anxiety disorders, respectively) (Appendix A, Table 1c).
- The most common comorbidities for adolescents in FC were attention-deficit, conduct, and disruptive behavior disorders; other respiratory infections and diseases; and blindness and vision defects (Appendix A, Table 2c).
- Outpatient utilization of MH services was much more common among adolescents in FC than adolescents outside of FC (55.3 percent vs. 16.5 percent, respectively). Inpatient MH visits were also more common among children in FC (5.6 percent vs. 1.1 percent), as were inpatient visits in general (7.3 percent vs. 3.0 percent) (Appendix A, Table 3).
- Prescription drug use was more common among adolescents in FC (68.0 percent vs. 58.9 percent). A total of 40.4 percent of adolescents in FC used MH-related prescriptions: 27.6 percent used ADHD drugs, 18.7 percent used antidepressants, and 18.6 percent used antipsychotic drugs (Appendix A, Table 3).
- The Current Procedural Terminology (CPT<sup>®</sup>) codes for therapeutic foster care—a form of foster care that places children and adolescents with severe emotional and behavioral problems with foster parents who have received special training to care for such individuals—was seen in the

Medicaid claims of only 0.2 percent of the adolescents in FC in this sample (Appendix A, Table 3).

- Among adolescents who had one outpatient visit, children in FC had (on average) 21 more visits for any diagnosis and 18 more for mental health than children who were not in FC (Appendix A, Table 4).
- The average number of inpatient visits among children who had at least one visit was approximately the same for children within and outside of FC (Appendix A, Table 5).
- The average length of inpatient stay for any diagnosis was 31 days longer for children in FC than children outside of FC. For mental health stays, children in FC had an average length of stay that was 30 days longer than it was for children outside of FC; for substance abuse stays, it was 60 days longer (Appendix A, Table 6).

### *Trends across all ages*

- Mental and substance use diagnoses were more common among children in FC (49.4 percent mental disorder, 3.3 percent substance use disorder) than among children outside of FC (10.9 percent mental disorder, 0.6 percent substance use disorder) across all ages (Appendix A, Table 3).
- Disparities between children within and outside of FC, particularly among mental and substance use diagnoses and health care utilization, were largest in the oldest age group (Appendix A, Table 1a, Table 1b, Table 1c, Table 3).
- Adjustment disorders, mood disorders, anxiety disorders, and attention-deficit, conduct, and disruptive behavior disorders were commonly comorbid with each other across all ages (Appendix A, Table 2a, Table 2b, and Table 2c).
- Respiratory infections, ear infections, and blindness and vision defects were fairly common comorbidities across all age groups of children in FC (Appendix A, Table 2a, Table 2b, and Table 2c).
- Children in FC had many more outpatient visits per year than children outside of FC (Appendix A, Table 4).
- Children in FC had a much longer average length of inpatient stay than children outside of FC (Appendix A, Table 6).

# Appendix A: Tables



**Table 1. Most common diagnoses among children aged 0–17 years who were covered under Medicaid in 2010, stratified by foster care status**

Diagnostic Category (CCS) <sup>†</sup>	Foster Care		Non-Foster Care	
	%	Rank	%	Rank
Administrative/social admission diagnoses‡	43.4	1	41.9	1
Other upper respiratory infections and diseases	33.7	2	40.9	2
Immunizations and screening for infectious disease	30.8	3	32.4	3
Attention-deficit, conduct, and disruptive behavior disorders	30.2	4	6.8	16
Blindness and vision defects	20.6	5	11.7	6
Residual codes; unclassified	14.9	6	6.0	22
Mood disorders	14.2	7	2.3	43
Adjustment disorders	13.4	8	1.8	53
Otitis media and related conditions	12.7	9	17.2	4
Disorders of teeth and jaw	12.7	10	6.1	20
Anxiety disorders	10.1	11	1.8	52
Other injuries and conditions due to external causes	9.6	12	7.3	14
Developmental disorders	8.9	13	3.9	33
Medical examination/evaluation	8.9	14	6.0	23
Other lower respiratory disease	8.8	15	12.7	5
Other ear and sense organ disorders	8.8	16	9.0	10
Asthma	8.4	17	8.3	11
Allergic reactions	7.9	18	11.1	7
Other eye disorders	7.8	19	6.0	21
Other skin disorders	6.8	20	7.4	13
Viral infection	6.8	21	9.5	9
Superficial injury; contusion	6.6	22	6.7	17
Other aftercare	6.4	23	3.6	35
Other nutritional; endocrine; and metabolic disorders	6.1	24	6.3	19
Disorders usually diagnosed in infancy, childhood, or adolescence	5.9	25	1.2	62

<sup>†</sup> The categories used are based on the Clinical Classification Software (CCS) for the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) and were originally developed as a part of the Healthcare Cost and Utilization Project under the Agency for Healthcare Research and Quality.

<sup>‡</sup> These include a variety of "V" codes such as: V20 - health supervision of infant or child; V60 - housing, household and economic circumstances; V61 - other family circumstances; V62 - other psychosocial circumstances; V63 - unavailability of other medical facilities for care; V65 - other persons seeking consultation; and V68 - encounters for administrative purposes.

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 1a. Most common diagnoses among children aged 0–5 years who were covered under Medicaid in 2010, stratified by foster care status**

Diagnostic Category (CCS)†	Foster Care		Non-Foster Care	
	%	Rank	%	Rank
Administrative/social admission diagnoses‡	63.9	1	60.7	1
Other upper respiratory infections and diseases	50.5	2	49.4	2
Immunizations and screening for infectious disease	47.6	3	47.7	3
Otitis media and related conditions	32.8	4	29.2	4
Residual codes; unclassified	18.7	5	6.8	22
Other lower respiratory disease	18.5	6	19.0	5
Developmental disorders	16.9	7	4.1	31
Fever of unknown origin	15.2	8	18.1	6
Other ear and sense organ disorders	14.2	9	11.6	10
Disorders of teeth and jaw	13.1	10	6.4	25
Allergic reactions	13.1	11	16.0	7
Other screening for suspected conditions (not mental disorders or infectious disease)	12.5	12	10.7	12
Asthma	11.9	13	8.4	16
Viral infection	11.6	14	13.5	9
Acute bronchitis	11.1	15	10.7	11
Other injuries and conditions due to external causes	10.5	16	6.6	23
Other nutritional; endocrine; and metabolic disorders	9.8	17	7.7	19
Other gastrointestinal disorders	9.4	18	10.4	13
Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitted disease)	8.9	19	9.4	14
Attention-deficit, conduct, and disruptive behavior disorders	8.7	20	1.4	58
Medical examination/evaluation	8.5	21	7.6	20
Other eye disorders	8.2	22	5.2	27
Blindness and vision defects	7.7	23	3.3	37
Adjustment disorders	7.6	24	0.5	92
Superficial injury; contusion	6.6	25	6.4	24

† The categories used are based on the Clinical Classification Software (CCS) for the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) and were originally developed as a part of the Healthcare Cost and Utilization Project under the Agency for Healthcare Research and Quality.

‡ These include a variety of "V" codes such as: V20 - health supervision of infant or child; V60 - housing, household and economic circumstances; V61 - other family circumstances; V62 - other psychosocial circumstances; V63 - unavailability of other medical facilities for care; V65 - other persons seeking consultation; and V68 - encounters for administrative purposes.

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 1b. Most common diagnoses among children aged 6–11 years who were covered under Medicaid in 2010, stratified by foster care status**

Diagnostic Category (CCS)†	Foster Care		Non-Foster Care	
	%	Rank	%	Rank
Administrative/social admission diagnoses‡	37.6	1	29.4	2
Attention-deficit, conduct, and disruptive behavior disorders	33.5	2	10.6	6
Other upper respiratory infections and diseases	33.2	3	38.3	1
Immunizations and screening for infectious disease	24.2	4	20.8	3
Blindness and vision defects	22.0	5	16.2	4
Adjustment disorders	15.5	6	2.5	38
Disorders of teeth and jaw	12.0	7	6.5	17
Residual codes; unclassified	10.6	8	4.5	25
Otitis media and related conditions	10.2	9	11.4	5
Anxiety disorders	10.0	10	2.0	39
Mood disorders	9.5	11	1.9	43
Developmental disorders	9.1	12	4.9	22
Other ear and sense organ disorders	8.6	13	8.5	10
Asthma	8.2	14	9.0	8
Other eye disorders	8.2	15	7.0	14
Other injuries and conditions due to external causes	8.0	16	6.9	16
Disorders usually diagnosed in infancy, childhood, or adolescence	7.6	17	1.9	41
Allergic reactions	7.4	18	8.5	9
Other lower respiratory disease	6.9	19	9.4	7
Viral infection	6.1	20	7.3	12
Genitourinary symptoms and ill-defined conditions	5.7	21	4.3	26
Other aftercare	5.3	22	2.9	32
Superficial injury; contusion	5.3	23	6.5	18
Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitted disease)	5.0	24	7.3	11
Other nutritional; endocrine; and metabolic disorders	5.0	25	5.0	20

† The categories used are based on the Clinical Classification Software (CCS) for the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) and were originally developed as a part of the Healthcare Cost and Utilization Project under the Agency for Healthcare Research and Quality.

‡ These include a variety of "V" codes such as: V20 - health supervision of infant or child; V60 - housing, household and economic circumstances; V61 - other family circumstances; V62 - other psychosocial circumstances; V63 - unavailability of other medical facilities for care; V65 - other persons seeking consultation; and V68 - encounters for administrative purposes.

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 1c. Most common diagnoses among children aged 12–17 years who were covered under Medicaid in 2010, stratified by foster care status**

Diagnostic Category (CCS) <sup>†</sup>	Foster Care		Non-Foster Care	
	%	Rank	%	Rank
Attention-deficit, conduct, and disruptive behavior disorders	38.3	1	10.9	5
Administrative/social admission diagnoses‡	37.7	2	27.0	2
Immunizations and screening for infectious disease	27.6	3	22.4	3
Blindness and vision defects	26.0	4	19.5	4
Other upper respiratory infections and diseases	25.7	5	30.3	1
Mood disorders	24.2	6	6.2	20
Residual codes; unclassified	16.3	7	6.6	17
Adjustment disorders	14.7	8	3.0	40
Anxiety disorders	13.6	9	3.5	34
Disorders of teeth and jaw	13.1	10	5.3	24
Medical examination/evaluation	12.9	11	7.9	10
Other injuries and conditions due to external causes	10.3	12	9.0	7
Other skin disorders	9.3	13	9.4	6
Other aftercare	8.3	14	3.9	32
Other non-traumatic joint disorders	8.2	15	8.7	8
Superficial injury; contusion	7.6	16	7.3	12
Other eye disorders	7.3	17	6.1	21
Other connective tissue disease	7.3	18	7.6	11
Sprains and strains	6.9	19	7.1	13
Asthma	6.8	20	7.1	14
Abdominal pain	6.6	21	8.1	9
Substance-related disorders	6.3	22	1.3	62
Other ear and sense organ disorders	6.2	23	5.3	26
Allergic reactions	5.8	24	6.5	19
Other lower respiratory disease	5.5	25	6.6	18

<sup>†</sup> The categories used are based on the Clinical Classification Software (CCS) for the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) and were originally developed as a part of the Healthcare Cost and Utilization Project under the Agency for Healthcare Research and Quality.

<sup>‡</sup> These include a variety of "V" codes such as: V20 - health supervision of infant or child; V60 - housing, household and economic circumstances; V61 - other family circumstances; V62 - other psychosocial circumstances; V63 - unavailability of other medical facilities for care; V65 - other persons seeking consultation; and V68 - encounters for administrative purposes.

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2a. Comorbidities associated with the 10 most common primary diagnoses and four most common mental illness diagnoses given to children aged 0-5 years who were in foster care and covered by Medicaid**

**RANK=1, Other upper respiratory infections and diseases**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Otitis media and related conditions	1	51.4
Other lower respiratory disease	2	30.8
Fever of unknown origin	3	26.3
Developmental disorders	4	20.6
Other ear and sense organ disorders	5	20.2
Allergic reactions	6	19.5
Viral infection	7	18.8
Asthma	8	18.7
Acute bronchitis	9	18.6
Disorders of teeth and jaw	10	15.7
Attention-deficit, conduct, and disruptive behavior disorders	16	9.6
Adjustment disorders	21	8.6
Anxiety disorders	42	3.7
Mood disorders	63	1.6

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=2, Otitis media and related conditions**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	76.4
Other lower respiratory disease	2	31.9
Other ear and sense organ disorders	3	27.3
Fever of unknown origin	4	27.2
Developmental disorders	5	23.1
Allergic reactions	6	20.8
Asthma	7	20.6
Acute bronchitis	8	20.2
Viral infection	9	19.6
Disorders of teeth and jaw	10	15.5
Attention-deficit, conduct, and disruptive behavior disorders	21	8.4
Adjustment disorders	25	7.7
Anxiety disorders	47	3.2
Mood disorders	63	1.5

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2a (continued): Comorbidities associated with the 10 most common primary diagnoses and four most common mental illness diagnoses given to children aged 0-5 years who were in foster care and covered by Medicaid**

**RANK=3, Other lower respiratory disease**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	82.4
Otitis media and related conditions	2	56.5
Fever of unknown origin	3	37.0
Asthma	4	31.5
Acute bronchitis	5	29.3
Other ear and sense organ disorders	6	24.4
Developmental disorders	7	23.5
Allergic reactions	8	23.2
Viral infection	9	22.9
Other gastrointestinal disorders	10	20.0
Adjustment disorders	30	8.4
Attention-deficit, conduct, and disruptive behavior disorders	32	8.2
Anxiety disorders	52	3.4
Mood disorders	74	1.7

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=4, Developmental disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	62.1
Otitis media and related conditions	2	44.8
Other nutritional; endocrine; and metabolic disorders	3	29.0
Other ear and sense organ disorders	4	26.0
Other lower respiratory disease	5	25.8
Fever of unknown origin	6	20.7
Asthma	7	18.3
Other gastrointestinal disorders	8	18.1
Other nervous system disorders	9	18.0
Allergic reactions	10	16.8
Attention-deficit, conduct, and disruptive behavior disorders	12	15.0
Adjustment disorders	22	9.1
Anxiety disorders	37	5.8
Mood disorders	58	2.6

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2a (continued): Comorbidities associated with the 10 most common primary diagnoses and four most common mental illness diagnoses given to children aged 0-5 years who were in foster care and covered by Medicaid**

**RANK=5, Fever of unknown origin**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	83.1
Otitis media and related conditions	2	58.8
Other lower respiratory disease	3	45.2
Viral infection	4	30.5
Acute bronchitis	5	25.1
Allergic reactions	6	24.6
Other ear and sense organ disorders	7	24.1
Asthma	8	24.1
Developmental disorders	9	23.1
Other gastrointestinal disorders	10	20.1
Adjustment disorders	32	7.6
Attention-deficit, conduct, and disruptive behavior disorders	33	7.6
Anxiety disorders	49	3.4
Mood disorders	81	1.4

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=6, Other ear and sense organ disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	71.1
Otitis media and related conditions	2	63.0
Other lower respiratory disease	3	31.8
Developmental disorders	4	30.9
Fever of unknown origin	5	25.7
Other eye disorders	6	21.9
Asthma	7	20.3
Disorders of teeth and jaw	8	20.2
Allergic reactions	9	19.6
Other nutritional; endocrine; and metabolic disorders	10	18.0
Attention-deficit, conduct, and disruptive behavior disorders	17	12.5
Adjustment disorders	20	11.0
Anxiety disorders	42	3.7
Mood disorders	57	2.1

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2a (continued): Comorbidities associated with the 10 most common primary diagnoses and four most common mental illness diagnoses given to children aged 0-5 years who were in foster care and covered by Medicaid**

**RANK=7, Disorders of teeth and jaw**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	59.7
Otitis media and related conditions	2	38.8
Other ear and sense organ disorders	3	21.9
Other lower respiratory disease	4	20.5
Blindness and vision defects	5	16.6
Other injuries and conditions due to external causes	6	16.3
Other eye disorders	7	16.1
Fever of unknown origin	8	15.9
Adjustment disorders	9	15.0
Allergic reactions	10	14.3
Attention-deficit, conduct, and disruptive behavior disorders	12	13.6
Anxiety disorders	25	6.9
Mood disorders	49	2.0

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=8, Allergic reactions**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	74.9
Otitis media and related conditions	2	52.3
Other lower respiratory disease	3	33.0
Fever of unknown origin	4	28.6
Acute bronchitis	5	21.7
Developmental disorders	6	21.7
Other ear and sense organ disorders	7	21.3
Viral infection	8	20.9
Asthma	9	20.2
Other gastrointestinal disorders	10	19.2
Attention-deficit, conduct, and disruptive behavior disorders	24	8.5
Adjustment disorders	28	7.6
Anxiety disorders	46	3.7
Mood disorders	62	2.0

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010



**Table 2a (continued): Comorbidities associated with the 10 most common primary diagnoses and four most common mental illness diagnoses given to children aged 0-5 years who were in foster care and covered by Medicaid**

**RANK=9, Asthma**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	80.5
Otitis media and related conditions	2	57.0
Other lower respiratory disease	3	49.3
Fever of unknown origin	4	30.7
Acute bronchitis	5	29.2
Developmental disorders	6	26.1
Other ear and sense organ disorders	7	24.4
Allergic reactions	8	22.2
Viral infection	9	20.2
Other nutritional; endocrine; and metabolic disorders	10	18.3
Attention-deficit, conduct, and disruptive behavior disorders	17	12.2
Adjustment disorders	30	8.0
Anxiety disorders	45	3.9
Mood disorders	62	2.2

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=10, Viral infection**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	77.9
Otitis media and related conditions	2	55.5
Fever of unknown origin	3	39.9
Other lower respiratory disease	4	36.7
Allergic reactions	5	23.6
Acute bronchitis	6	23.2
Other ear and sense organ disorders	7	21.8
Asthma	8	20.7
Developmental disorders	9	20.3
Other gastrointestinal disorders	10	17.4
Attention-deficit, conduct, and disruptive behavior disorders	27	8.4
Adjustment disorders	30	7.4
Anxiety disorders	45	3.7
Mood disorders	75	1.4

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2a (continued): Comorbidities associated with the 10 most common primary diagnoses and four most common mental illness diagnoses given to children aged 0-5 years who were in foster care and covered by Medicaid**

**RANK=16, Attention-deficit, conduct, and disruptive behavior disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	56.9
Otitis media and related conditions	2	31.7
Developmental disorders	3	29.2
Adjustment disorders	4	22.4
Other ear and sense organ disorders	5	20.5
Disorders of teeth and jaw	6	20.4
Other lower respiratory disease	7	17.5
Disorders usually diagnosed in infancy, childhood, or adolescence	8	16.8
Asthma	9	16.6
Blindness and vision defects	10	16.4
Anxiety disorders	16	12.0
Mood disorders	23	9.0

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=19, Adjustment disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	58.6
Otitis media and related conditions	2	33.3
Disorders of teeth and jaw	3	25.7
Attention-deficit, conduct, and disruptive behavior disorders	4	25.6
Other ear and sense organ disorders	5	20.6
Other lower respiratory disease	6	20.5
Developmental disorders	7	20.1
Other injuries and conditions due to external causes	8	15.9
Fever of unknown origin	9	15.2
Blindness and vision defects	10	15.0
Anxiety disorders	16	10.2
Mood disorders	34	4.4

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2a (continued): Comorbidities associated with the 10 most common primary diagnoses and four most common mental illness diagnoses given to children aged 0-5 years who were in foster care and covered by Medicaid**

**RANK=38, Anxiety disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	55.6
Otitis media and related conditions	2	30.6
Attention-deficit, conduct, and disruptive behavior disorders	3	30.6
Developmental disorders	4	28.8
Disorders of teeth and jaw	5	26.4
Adjustment disorders	6	22.8
Other lower respiratory disease	7	18.5
Disorders usually diagnosed in infancy, childhood, or adolescence	8	17.1
Other injuries and conditions due to external causes	9	16.7
Other ear and sense organ disorders	10	15.5
Mood disorders	29	6.2

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=59, Mood disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	56.2
Attention-deficit, conduct, and disruptive behavior disorders	2	55.2
Otitis media and related conditions	3	34.8
Developmental disorders	4	30.5
Adjustment disorders	5	23.3
Other lower respiratory disease	6	22.4
Other ear and sense organ disorders	7	21.4
Disorders usually diagnosed in infancy, childhood, or adolescence	8	21.0
Other injuries and conditions due to external causes	9	19.5
Disorders of teeth and jaw	10	18.6
Anxiety disorders	17	14.8

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2b. Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 6-11 years who were in foster care and covered by Medicaid**

**RANK=1, Attention-deficit, conduct, and disruptive behavior disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	40.0
Blindness and vision defects	2	27.8
Adjustment disorders	3	21.8
Mood disorders	4	21.3
Anxiety disorders	5	18.2
Disorders usually diagnosed in infancy, childhood, or adolescence	6	15.0
Developmental disorders	7	13.9
Disorders of teeth and jaw	8	13.6
Otitis media and related conditions	9	11.3
Other injuries and conditions due to external causes	10	11.0

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=2, Other upper respiratory infections and diseases**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	39.2
Blindness and vision defects	2	27.1
Otitis media and related conditions	3	21.0
Adjustment disorders	4	18.3
Other lower respiratory disease	5	15.9
Asthma	6	15.2
Other ear and sense organ disorders	7	14.6
Disorders of teeth and jaw	8	14.3
Fever of unknown origin	9	12.7
Viral infection	10	12.2
Anxiety disorders	12	11.8
Mood disorders	15	11.1

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2b (continued): Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 6-11 years who were in foster care and covered by Medicaid**

**RANK=3, Blindness and vision defects**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	42.4
Other upper respiratory infections and diseases	2	41.4
Adjustment disorders	3	21.2
Disorders of teeth and jaw	4	20.3
Other eye disorders	5	14.6
Anxiety disorders	6	14.4
Mood disorders	7	14.2
Otitis media and related conditions	8	12.9
Other ear and sense organ disorders	9	11.4
Developmental disorders	10	11.2

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=4, Adjustment disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	47.2
Other upper respiratory infections and diseases	2	40.1
Blindness and vision defects	3	30.1
Disorders of teeth and jaw	4	24.9
Anxiety disorders	5	18.8
Mood disorders	6	18.1
Other injuries and conditions due to external causes	7	14.3
Otitis media and related conditions	8	11.2
Other ear and sense organ disorders	9	11.1
Other eye disorders	10	10.5

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2b (continued): Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 6-11 years who were in foster care and covered by Medicaid**

**RANK=5, Disorders of teeth and jaw**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	38.8
Attention-deficit, conduct, and disruptive behavior disorders	2	37.9
Blindness and vision defects	3	37.1
Adjustment disorders	4	32.2
Other eye disorders	5	13.2
Otitis media and related conditions	6	12.8
Mood disorders	7	12.6
Anxiety disorders	8	12.3
Other ear and sense organ disorders	9	11.9
Rehabilitation care; fitting of prostheses; and adjustment of devices	10	11.5

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=6, Otitis media and related conditions**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	64.9
Attention-deficit, conduct, and disruptive behavior disorders	2	37.0
Other ear and sense organ disorders	3	32.1
Blindness and vision defects	4	27.8
Adjustment disorders	5	17.1
Other lower respiratory disease	6	15.6
Disorders of teeth and jaw	7	15.1
Asthma	8	15.0
Developmental disorders	9	15.0
Other eye disorders	10	12.8
Anxiety disorders	11	12.6
Mood disorders	17	10.1

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2b (continued): Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 6-11 years who were in foster care and covered by Medicaid**

**RANK=7, Anxiety disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	60.9
Other upper respiratory infections and diseases	2	40.5
Blindness and vision defects	3	31.6
Mood disorders	4	30.4
Adjustment disorders	5	29.2
Disorders usually diagnosed in infancy, childhood, or adolescence	6	20.2
Disorders of teeth and jaw	7	14.8
Other injuries and conditions due to external causes	8	14.8
Developmental disorders	9	13.8
Otitis media and related conditions	10	12.9

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=8, Mood disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	75.0
Other upper respiratory infections and diseases	2	40.0
Blindness and vision defects	3	32.8
Anxiety disorders	4	31.8
Adjustment disorders	5	29.4
Disorders usually diagnosed in infancy, childhood, or adolescence	6	22.4
Other aftercare	7	16.2
Disorders of teeth and jaw	8	15.8
Developmental disorders	9	15.2
Other injuries and conditions due to external causes	10	13.3

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2b (continued): Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 6-11 years who were in foster care and covered by Medicaid**

**RANK=9, Developmental disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	51.0
Other upper respiratory infections and diseases	2	42.6
Blindness and vision defects	3	27.1
Disorders usually diagnosed in infancy, childhood, or adolescence	4	22.7
Other nutritional; endocrine; and metabolic disorders	5	16.8
Otitis media and related conditions	6	16.8
Mood disorders	7	15.9
Anxiety disorders	8	15.1
Adjustment disorders	9	14.4
Other eye disorders	10	13.7

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=10, Other ear and sense organ disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	55.1
Attention-deficit, conduct, and disruptive behavior disorders	2	42.4
Otitis media and related conditions	3	38.2
Blindness and vision defects	4	29.2
Other eye disorders	5	20.0
Adjustment disorders	6	20.0
Disorders of teeth and jaw	7	16.6
Developmental disorders	8	14.4
Asthma	9	14.0
Other injuries and conditions due to external causes	10	13.7
Anxiety disorders	11	13.4
Mood disorders	13	11.8

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010



**Table 2c. Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 12-17 years who were in foster care and covered by Medicaid**

**RANK=1, Attention-deficit, conduct, and disruptive behavior disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	40.0
Blindness and vision defects	2	27.8
Adjustment disorders	3	21.8
Mood disorders	4	21.3
Anxiety disorders	5	18.2
Disorders usually diagnosed in infancy, childhood, or adolescence	6	15.0
Developmental disorders	7	13.9
Disorders of teeth and jaw	8	13.6
Otitis media and related conditions	9	11.3
Other injuries and conditions due to external causes	10	11.0

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=2, Other upper respiratory infections and diseases**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	39.2
Blindness and vision defects	2	27.1
Otitis media and related conditions	3	21.0
Adjustment disorders	4	18.3
Other lower respiratory disease	5	15.9
Asthma	6	15.2
Other ear and sense organ disorders	7	14.6
Disorders of teeth and jaw	8	14.3
Fever of unknown origin	9	12.7
Viral infection	10	12.2
Anxiety disorders	12	11.8
Mood disorders	15	11.1

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2c (continued): Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 12-17 years who were in foster care and covered by Medicaid**

**RANK=3, Blindness and vision defects**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	42.4
Other upper respiratory infections and diseases	2	41.4
Adjustment disorders	3	21.2
Disorders of teeth and jaw	4	20.3
Other eye disorders	5	14.6
Anxiety disorders	6	14.4
Mood disorders	7	14.2
Otitis media and related conditions	8	12.9
Other ear and sense organ disorders	9	11.4
Developmental disorders	10	11.2

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=4, Adjustment disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	47.2
Other upper respiratory infections and diseases	2	40.1
Blindness and vision defects	3	30.1
Disorders of teeth and jaw	4	24.9
Anxiety disorders	5	18.8
Mood disorders	6	18.1
Other injuries and conditions due to external causes	7	14.3
Otitis media and related conditions	8	11.2
Other ear and sense organ disorders	9	11.1
Other eye disorders	10	10.5

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2c (continued): Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 12-17 years who were in foster care and covered by Medicaid**

**RANK=5, Disorders of teeth and jaw**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	38.8
Attention-deficit, conduct, and disruptive behavior disorders	2	37.9
Blindness and vision defects	3	37.1
Adjustment disorders	4	32.2
Other eye disorders	5	13.2
Otitis media and related conditions	6	12.8
Mood disorders	7	12.6
Anxiety disorders	8	12.3
Other ear and sense organ disorders	9	11.9
Rehabilitation care; fitting of prostheses; and adjustment of devices	10	11.5

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=6, Otitis media and related conditions**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	64.9
Attention-deficit, conduct, and disruptive behavior disorders	2	37.0
Other ear and sense organ disorders	3	32.1
Blindness and vision defects	4	27.8
Adjustment disorders	5	17.1
Other lower respiratory disease	6	15.6
Disorders of teeth and jaw	7	15.1
Asthma	8	15.0
Developmental disorders	9	15.0
Other eye disorders	10	12.8
Anxiety disorders	11	12.6
Mood disorders	17	10.1

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2c (continued): Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 12-17 years who were in foster care and covered by Medicaid**

**RANK=7, Anxiety disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	60.9
Other upper respiratory infections and diseases	2	40.5
Blindness and vision defects	3	31.6
Mood disorders	4	30.4
Adjustment disorders	5	29.2
Disorders usually diagnosed in infancy, childhood, or adolescence	6	20.2
Disorders of teeth and jaw	7	14.8
Other injuries and conditions due to external causes	8	14.8
Developmental disorders	9	13.8
Otitis media and related conditions	10	12.9

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=8, Mood disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	75.0
Other upper respiratory infections and diseases	2	40.0
Blindness and vision defects	3	32.8
Anxiety disorders	4	31.8
Adjustment disorders	5	29.4
Disorders usually diagnosed in infancy, childhood, or adolescence	6	22.4
Other aftercare	7	16.2
Disorders of teeth and jaw	8	15.8
Developmental disorders	9	15.2
Other injuries and conditions due to external causes	10	13.3

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 2c (continued): Comorbidities associated with the 10 most common primary diagnoses (including the four most common mental illness diagnoses) given to children aged 12-17 years who were in foster care and covered by Medicaid**

**RANK=9, Developmental disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Attention-deficit, conduct, and disruptive behavior disorders	1	51.0
Other upper respiratory infections and diseases	2	42.6
Blindness and vision defects	3	27.1
Disorders usually diagnosed in infancy, childhood, or adolescence	4	22.7
Other nutritional; endocrine; and metabolic disorders	5	16.8
Otitis media and related conditions	6	16.8
Mood disorders	7	15.9
Anxiety disorders	8	15.1
Adjustment disorders	9	14.4
Other eye disorders	10	13.7

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**RANK=10, Other ear and sense organ disorders**

Comorbidities	Comorbidity Rank	Comorbidity Percent
Other upper respiratory infections and diseases	1	55.1
Attention-deficit, conduct, and disruptive behavior disorders	2	42.4
Otitis media and related conditions	3	38.2
Blindness and vision defects	4	29.2
Other eye disorders	5	20.0
Adjustment disorders	6	20.0
Disorders of teeth and jaw	7	16.6
Developmental disorders	8	14.4
Asthma	9	14.0
Other injuries and conditions due to external causes	10	13.7
Anxiety disorders	11	13.4
Mood disorders	13	11.8

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 3. Use of health care services among children aged 0–17 years who were within and outside of foster care and under Medicaid**

Services	Aged 0–17		Aged 0–5		Aged 6–11		Aged 12–17	
	FC	Non-FC	FC	Non-FC	FC	Non-FC	FC	Non-FC
Total enrollees (N)	67,839	3,819,523	14,777	1,594,624	23,403	1,238,812	29,659	986,087
Any M/SUD diagnosis, %								
Any mental diagnosis	49.4	10.9	35.1	3.5	49.1	14.8	56.8	17.9
Any SUD diagnosis	3.3	0.6	0.2	0.1	0.2	0.1	7.4	2.0
Utilization by type of care, %								
All services								
Any utilization (all health diagnoses)	89.3	85.0	91.0	87.3	88.9	83.9	88.6	82.9
MH utilization	52.2	12.8	36.0	5.1	52.2	16.8	60.3	20.3
SA utilization	2.6	0.3	0.1	0.0	0.2	0.0	5.7	1.1
Outpatient services								
Any outpatient service (all health diagnoses)	88.1	84.1	90.3	86.6	87.7	82.9	87.4	81.6
Primary MH outpatient service	48.2	9.8	34.1	2.7	48.0	13.7	55.3	16.5
Primary SA outpatient service	2.4	0.3	0.1	0.0	0.1	0.0	5.4	1.1
Inpatient care								
Any inpatient care use (all diagnoses except for labor and delivery codes)	4.9	2.3	3.5	2.7	2.6	1.3	7.3	3.0
Primary MH inpatient care	3.0	0.4	0.1	0.0	1.7	0.3	5.6	1.1
Primary SA inpatient care	0.1	0.0	N/A	0.0	N/A	0.0	0.3	0.0
Long-term care								
Any long-term care	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1
Primary MH long-term care	0.0	0.0	N/A	0.0	0.0	0.0	0.0	0.0
Primary SA long-term care	N/A	0.0	N/A	N/A	N/A	N/A	N/A	0.0
Prescription drugs								
Any prescription drugs	68.3	61.9	70.5	65.3	67.3	59.8	68.0	58.9
MH related prescriptions	30.9	8.7	6.9	3.0	34.1	11.7	40.4	14.2
Any antidepressant	10.9	2.0	0.6	0.1	7.6	1.7	18.7	5.4
Any anti-anxiety drugs	3.9	2.5	3.0	2.5	3.2	2.4	4.9	2.8
Any antipsychotic	12.4	1.5	1.7	0.1	11.4	1.8	18.6	3.4
Any ADHD drug	22.9	5.3	3.1	0.5	29.3	8.9	27.6	8.6
Any antimanic drugs	0.8	0.1	0.0	0.0	0.4	0.1	1.5	0.2
SA-related prescriptions	0.1	0.0	N/A	0.0	0.1	0.0	0.2	0.0
Other categories, %								
Therapeutic foster care services†	0.1	0.0	0.0	0.0	0.2	0.0	0.2	0.1

†This includes the CPT codes of S5145-child therapeutic foster care per diem and S5146-child therapeutic foster care per month.

Abbreviations: ADHD, attention deficit hyperactivity disorder; FC, foster care; M/SUD mental or substance use disorder; MH, mental health; N/A, not applicable because there were no cases; SA, substance abuse

Note: For the statistics of *any M/SUD diagnosis* we looked at any diagnostic position on the medical claim. For the other statistics on the utilization of mental health or substance abuse services, only the primary diagnosis was examined. The MH/SA

utilization statistics are slightly higher than the M/SUD diagnosis statistics because the utilization also includes all of those who filled a prescription for an MH/SA drug, even if an M/SUD diagnosis was not present in 2010.  
Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 4. Average number of outpatient visits per year among children aged 0–17 years who were within and outside of foster care, had at least one outpatient visit, and were covered under Medicaid**

Outpatient visits	Aged 0–17		Aged 0–5		Aged 6–11		Aged 12–17	
	FC	Non-FC	FC	Non-FC	FC	Non-FC	FC	Non-FC
Outpatient visits (all diagnoses except for those related to labor and delivery)	27	9	19	8	25	10	32	11
Primary mental health outpatient visits	27	14	13	9	26	13	33	15
Primary substance abuse outpatient visits	12	16	3	2	4	2	13	16

Abbreviation: FC, foster care.

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 5. Average number of inpatient stays per year among children aged 0–17 years who were within and outside of foster care, had at least one inpatient visit, and were covered under Medicaid**

Inpatient stays	Aged 0–17		Aged 0–5		Aged 6–11		Aged 12–17	
	FC	Non-FC	FC	Non-FC	FC	Non-FC	FC	Non-FC
Inpatient stays (all diagnoses except for those related to labor and delivery)	1.4	1.3	1.4	1.2	1.5	1.3	1.5	1.3
Primary mental health inpatient services	1.5	1.4	1.0	1.2	1.5	1.4	1.5	1.4
Primary substance abuse inpatient services	1.0	1.0	N/A	1.0	N/A	1.0	1.0	1.0

Abbreviations: FC, foster care; N/A, not applicable because there were no cases

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

**Table 6. Average length of inpatient stays (in days) among children aged 0–17 years who were within and outside of foster care, had at least one inpatient stay, and were covered under Medicaid**

Inpatient stays	Aged 0–17		Aged 0–5		Aged 6–11		Aged 12–17	
	FC	Non-FC	FC	Non-FC	FC	Non-FC	FC	Non-FC
Inpatient stays (all diagnoses except for those related to labor and delivery)	31	6	5	4	22	7	40	9
Primary mental health inpatient stays	44	17	10	7	31	16	47	17
Primary substance abuse inpatient stays	90	29	N/A	7	N/A	8	90	30

Abbreviations: FC, foster care; N/A, not applicable because there were no cases

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010



**Supplemental Table A. The prevalence of mental and substance use disorders ICD-9 diagnoses among children aged 0–17 years who were within and outside of foster care and covered under Medicaid**

Mental or Substance Use Disorder ICD-9 Code	Aged 0–17		Aged 0–5		Aged 6–11		Aged 12–17	
	FC	Non-FC	FC	Non-FC	FC	Non-FC	FC	Non-FC
Total enrollees (N)	67,839	3,819,523	14,777	1,594,624	23,403	1,238,812	29,659	986,087
Diagnosis (%)								
291: Alcohol-induced mental disorders	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
292: Drug induced mental disorders	0.1	0.0	0.1	0.0	0.0	0.0	0.3	0.1
293: Transient mental disorders due to conditions classified elsewhere	0.5	0.1	0.1	0.0	0.5	0.1	0.8	0.2
294: Persistent mental disorders due to conditions classified elsewhere	0.2	0.0	0.0	0.0	0.2	0.0	0.2	0.1
295: Schizophrenic disorders	0.4	0.1	0.0	0.0	0.1	0.0	0.7	0.2
296: Episodic mood disorders	10.8	1.5	1.0	0.1	7.3	1.3	18.4	4.2
298: Other nonorganic psychoses	1.0	0.1	0.0	0.0	0.7	0.1	1.8	0.4
299: Pervasive developmental disorders	2.1	0.7	1.2	0.4	2.7	1.1	2.0	0.9
300: Anxiety, dissociative and somatoform disorders	6.4	1.4	2.1	0.3	5.4	1.5	9.4	3.2
301: Personality disorders	0.5	0.1	0.1	0.0	0.3	0.1	1.0	0.2
302: Sexual and gender identity disorders	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0
303: Alcohol dependence syndrome	0.2	0.0	0.0	0.0	N/A	0.0	0.5	0.1
304: Drug dependence	1.5	0.1	0.1	0.0	0.1	0.0	3.3	0.4
305: Nondependent abuse of drugs	2.3	0.5	0.1	0.0	0.1	0.0	5.1	1.7
306: Physiological malfunction arising from mental factors	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
307: Special symptoms or syndromes, not elsewhere classified	1.7	0.8	1.3	0.6	2.1	1.1	1.6	0.8
308: Acute reaction to stress	0.4	0.2	0.3	0.2	0.4	0.2	0.4	0.2
309: Adjustment reaction	17.6	2.2	8.7	0.6	19.6	2.9	20.4	3.8
310: Specific nonpsychotic mental disorders due to brain damage	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1
311: Depressive disorder, not elsewhere classified	4.9	0.9	0.3	0.0	2.5	0.5	9.1	2.7
312: Disturbance of conduct, not elsewhere classified	8.6	1.4	4.0	0.7	7.0	1.8	12.3	2.2
313: Disturbance of emotions specific to childhood and adolescence	12.3	1.4	4.2	0.3	10.8	1.8	17.5	2.9
314: Hyperkinetic syndrome of childhood	22.8	5.6	5.2	0.8	29.0	9.4	26.8	8.6

Abbreviations: FC, foster care; N/A, not applicable because there were no cases

Source: Truven Health MarketScan Multi-State Medicaid Database, 2010

Center for Mental Health Services and Center for Substance Abuse Treatment. Diagnoses and Health Care Utilization of Children Who Are in Foster Care and Covered by Medicaid. HHS Publication No. (SMA) 13-4804. Rockville, MD: Center for Mental Health Services and Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration. (2013, November).

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