

EXHIBIT 5.6 Most Frequent Principal MHA Diagnoses by Age

Number of Discharges, Percent Distribution, and Growth of the Most Frequent Principal MHA Diagnoses for Inpatient Hospital Stays by Age, 1997 and 2008

AGE GROUP AND PRINCIPAL CCS DIAGNOSIS	NUMBER OF MHA DISCHARGES IN THOUSANDS		PERCENT OF AGE-SPECIFIC TOTAL MHA DISCHARGES		CUMULATIVE GROWTH
	1997	2008	1997	2008	1997-2008
All ages, total MHA discharges*	1,602	1,837‡			15%
1-17 years, total discharges	134	135‡	100.0%	100.0%	1
Mood disorders	64	83‡	48.0	61.3	29
Depression	54	38‡	40.3	28.3	-29
Bipolar disorders	10	45	7.7	33.0	333
Attention-deficit/conduct/disruptive behavior disorders	23	16‡	17.4	12.0	-30
Schizophrenia/other psychotic disorders	7	6‡	4.9	4.1	-14
Anxiety disorders	5	5‡	3.7	4.0	9
18-44 years, total discharges	927	920‡	100.0	100.0	-1
Mood disorders	335	415	36.1	45.1	24
Depression	236	212‡	25.5	23.1	-10
Bipolar disorders	98	202	10.6	22.0	106
Schizophrenia/other psychotic disorders	197	173‡	21.2	18.8	-12
Drug-related disorders	156	139‡	16.8	15.1	-11
Alcohol-related disorders	141	109	15.2	11.9	-22
45-64 years, total discharges	353	612	100.0	100.0	73
Mood disorders	136	251	38.7	41.1	84
Depression	93	145	26.3	23.7	56
Bipolar disorders	44	107	12.4	17.4	145
Schizophrenia/other psychotic disorders	84	136	23.9	22.3	62
Alcohol-related disorders	78	131	22.1	21.4	68
Drug-related disorders	30	65	8.5	10.7	117
65-84 years, total discharges	165	144	100.0	100.0	-13
Mood disorders	92	65	55.5	45.3	-28
Depression	72	44	43.8	30.6	-39
Bipolar disorders	19	21‡	11.7	14.7	10
Schizophrenia/other psychotic disorders	33	34‡	19.8	23.5	4
Alcohol-related disorders	18	18‡	11.0	12.3	-2
Drug-related disorders	8	16	4.9	11.1	96
85+ years, total discharges	23	22‡	100.0	100.0	-5
Mood disorders	14	9	59.8	41.6	-34
Depression	13	8	54.0	35.3	-38
Bipolar disorders	1	1‡	5.8	6.4	5
Schizophrenia/other psychotic disorders	5	6	20.2	28.1	33
Drug-related disorders	2	3	7.4	14.6	87
Anxiety disorders	1	1‡	4.0	4.8	14

* Includes a small number of discharges (2,500 or 0.1 percent) with missing age.

‡ 2008 discharges are not statistically different from 1997 discharges at p<0.05.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2008.

- Mood disorders was the most frequent principal MHA diagnosis across all age groups in 1997 and 2008.
 - Mood disorders accounted for the majority (61 percent) of all MHA hospitalizations among children 1-17 years in 2008 and about four in ten MHA discharges in other age groups.
 - The number of stays with a principal diagnosis of mood disorders increased among 18-44 year olds (24 percent) and 45-64 year olds (84 percent) from 1997 to 2008.
 - The number of hospitalizations specifically for depression changed little for children 1-17 and adults 18-44, rose for adults 45-64 (by 56 percent), and decreased for older adults (by -39 percent for 65-84 year olds and -38 percent for those 85 years and older).
 - In contrast, stays for bipolar disorders more than doubled over the same period for patient age groups of 64 years and younger. Growth in stays was especially high for children 1-17 years (increasing by 333 percent between 1997 and 2008). While the cause of this increase is unclear and should be interpreted cautiously, it may reflect an increased recognition of bipolar disorder, especially in children—a group that has been historically under-diagnosed.^{3,4} It may also reflect the difficulty of assigning a diagnosis for a condition, especially in children, that may share presenting symptoms with schizophrenia/other psychotic disorders and attention deficit/conduct/disruptive behavior disorders.
- Schizophrenia/other psychotic disorders was the second most frequent MHA condition for all adult age groups (18 years and older), and it was the third most frequent MHA condition for children 1-17 years in 2008.
 - While the number of stays for schizophrenia for most age groups changed little from 1997 to 2008, it increased 62 percent for 45-64 year olds and 33 percent for patients 85 years and older.
- Alcohol-related disorders accounted for 12 percent of MHA hospital stays among 18-44 year olds, 21 percent of MHA stays among 45-64 year olds, and 12 percent of MHA stays for 65-84 year olds.
- Drug-related disorders appeared prominently among the top four principal MHA conditions for all age groups except children (1-17 years):
 - The number of hospital stays for drug-related conditions rose rapidly among 45-64 year olds (117 percent), 65-84 year olds (96 percent), and adults 85 and older (87 percent) while remaining relatively stable (11-percent decline) among adults 18-44.

Number, Growth, and Percent Contribution to Growth of Drug-related Discharges for Selected Age Groups, 1997-2008

PRINCIPAL ICD-9-CM DIAGNOSIS	NUMBER OF DRUG-RELATED DISCHARGES IN 2008			CUMULATIVE GROWTH IN DRUG-RELATED DISCHARGES 1997-2008			PERCENT CONTRIBUTION TO GROWTH IN DRUG-RELATED DISCHARGES 1997-2008		
	45-64 YEARS	65-84 YEARS	85+ YEARS	45-64 YEARS	65-84 YEARS	85+ YEARS	45-64 YEARS	65-84 YEARS	85+ YEARS
All drug-related discharges	65,400	16,000	3,200	117%	96%	87%	100.0%	100.0%	100.0%
Drug withdrawal (ICD-9-CM 292.0)	20,300	2,000	100	270	107	71	41.9	13.5	3.9
Drug-induced delirium (ICD-9-CM 292.81)	4,200	6,400	2,100	143	56	98	7.0	29.0	69.8
Poisonings by codeine [methylmorphine], meperidine [pethidine], morphine (ICD-9-CM 965.09)	8,300	3,300	400	693	381	245	20.6	32.9	19.1
All other drug-related conditions*	32,600	4,300	600	49	80	24	21.5	14.0	0.4

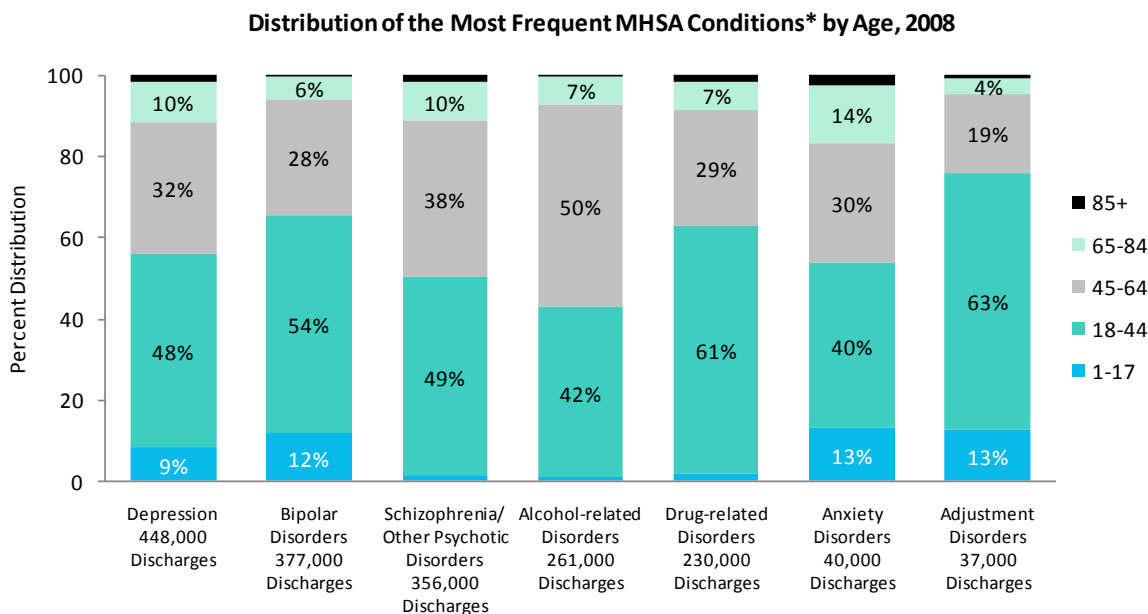
* ICD-9-CM codes 292.1, 292.2, 292.82-292.89, 292.9, 304, 305.2-305.9, 648.3, 655.5, 760.72, 760.73, 760.75, 779.5, 965.00-965.02, and V65.42.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997 and 2008.

³ Rates of Bipolar Diagnosis in Youth Rapidly Climbing, Treatment Patterns Similar to Adults. National Institutes for Mental Health, Press Release. September 3, 2007. Available at <http://www.nimh.nih.gov/science-news/2007/rates-of-bipolar-diagnosis-in-youth-rapidly-climbing-treatment-patterns-similar-to-adults.shtml>.

⁴ Moreno C, Laje G, Blanco C, Jiang H, Schmidt AB, Olfson M. National trends in the outpatient diagnosis and treatment of bipolar disorder in youth. *Arch Gen Psychiatry*. 2007 Sep;64(9): 1032-1039.

- Rapid growth in drug-induced delirium and in poisonings by opiate-based pain medications was primarily responsible for the increase in drug-related hospitalizations for patients 85 years and older. Together in 2008, these conditions accounted for 78 percent of the drug-related stays and 89 percent of the increase in drug-related stays for these oldest patients. Drug-induced delirium can result from side-effects of medications and occurs often in elderly hospitalized patients.^{5,6,7}
- Drug-induced delirium and poisonings by opiate-based pain medications were also responsible for a large number of drug-related discharges in 45-64 year olds (19 percent) and 65-84 year olds (60 percent).



* Based on principal CCS diagnosis.

Note: Excludes a small number of MHSA discharges (2,500 or 0.1 percent) and of all discharges (50,000 or 0.1 percent) with missing age.

Note: Bar segments representing 3 percent or less have not been labeled.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2008.

- Adults 18-44 years accounted for the majority of stays for bipolar disorders, drug-related disorders, and adjustment disorders.
- For alcohol-related disorders, 18-44 year olds accounted for 42 percent of stays and 45-64 year olds accounted for 50 percent of stays.
- For schizophrenia/other psychotic disorders, 18-44 year olds accounted for 49 percent of stays and 45-64 year olds accounted for 38 percent of stays.
- Children 1-17 years accounted for a substantial proportion (9 to 13 percent) of stays for depression, bipolar disorders, anxiety disorders, and adjustment disorders.
- Patients 65 and older accounted for 17 percent of anxiety disorders and 12 percent of both depression and schizophrenia/other psychotic disorders.

⁵ Alagiakrishnan K, Wiens C. An approach to drug induced delirium in the elderly. Postgrad Med J. 2004 July; 80(945): 388-393.

⁶ Alagiakrishnan K. Delirium. Available at <http://emedicine.medscape.com/article/288890-overview>, updated Apr 2, 2010.

⁷ Fong TG, Tulebaev SR, and Inouye SK. Delirium in elderly adults: diagnosis, prevention and treatment. Nat Rev Neurol. 2009 Apr; 5: 210-220.