



## **STATISTICAL BRIEF**

March 2010

### **Hospital Stays Related to Mental Health, 2008**

In 2008, there were about 543 thousand hospitalizations specifically for mental health (MH) conditions as either principal or secondary diagnoses, accounting for 18.6 percent of the 2.9 million total hospital stays in Texas. Mental health was listed as the main reason for hospitalization (i.e., the principal diagnosis) for 4.8 percent of all stays and as a secondary diagnosis for 15.5 percent of all stays.

## Characteristics of mental health related hospitalizations

Table 1 displays the characteristics of stays principally for MH conditions compared to overall hospital stays. The average length of stay for MH hospitalizations was significantly longer than for all stays (12.9 days versus 5.3 days). Hospital charges for MH hospitalizations were only about one-fifth as much as overall charges per day (\$1,061 per day for MH stays compared to \$5,702 per day for all stays). About 24 percent of stays with a principal diagnosis of MH conditions were admitted from the emergency department compared to nearly 40 percent of stays for all diagnoses.

**Table 1. Characteristics of hospital stays for mental health compared to all stays, 2008**

	<b>Mental health as principal diagnosis</b>	<b>All discharges</b>
Number of hospital stays	140,617	2,918,553
Mean length of stay (in days)	12.9	5.3
Mean charge per stay	\$13,642	\$30,496
Mean charge per day	\$1,061	\$5,702
Percent admitted from the emergency department	23.6%	39.7%

Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2008.

## Comparison of mental health hospitalization by age and gender

Table 2 shows that demographic characteristic of patients hospitalized principally for MH conditions varied from the characteristics of stays for all diagnoses. For all hospital stays, hospitalization rates increased with age. However, stays principally for MH conditions did not vary appreciably in the age groups (about 5 to 6 discharges per 1,000 population). Unlike principal MH diagnoses, stays with secondary MH diagnoses increased with age – there were 3.6 stays per 1,000 population for children and adolescents, gradually increasing to 91.4 stays per 1,000 population for those 65 years and older. As like all hospital stays, females were more likely than males to be hospitalized with a principal MH diagnosis. There were 57,593 discharges for females and 50,937 for males – a rate of 4.7 discharges for every 1,000 females and 4.2 discharges for every 1,000 males. Females were also more likely to have a secondary MH diagnosis, which occurred in 15.7 percent of all female stays, compared to males who had a secondary MH diagnosis in 12.8 percent of their stays.

**Table 2. Hospital stays with mental health conditions as principal or secondary diagnoses compared to all stays, by age group and gender, 2008**

	Mental health as principal diagnosis	Mental health as secondary diagnosis	All discharges
<i>Number of hospital stays</i>			
All discharges*	140,617	453,536	2,918,553
Percent of all stays	4.8%	15.5%	100.0%
<i>Age</i>			
1-17 years	29,715	21,860	174,114
18-44 years	62,044	86,208	816,847
45-64 years	35,233	125,593	644,003
65+ years	13,610	219,816	843,790
<i>Gender</i>			
Male	50,937	136,294	1,066,200
Female	57,593	265,107	1,690,093
<i>Rate of hospitalization per 1,000 population</i>			
All discharges*	5.8	18.6	120.0
<i>Age</i>			
1-17 years	4.9	3.6	28.6
18-44 years	6.4	8.8	83.7
45-64 years	6.2	22.2	113.7
65+ years	5.7	91.4	350.8
<i>Gender</i>			
Male	4.2	11.2	87.5
Female	4.7	21.8	139.3

\* Includes discharges for under 1 year olds and discharges with missing gender.

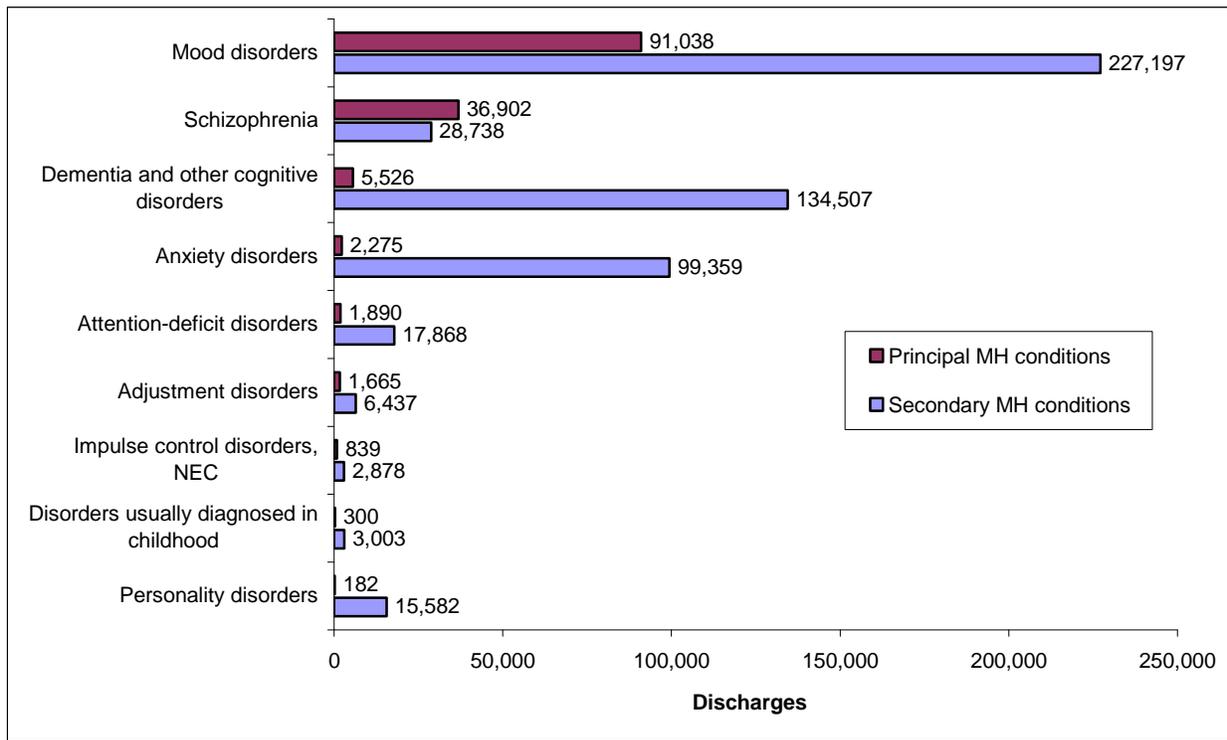
Therefore, discharges by age or by gender will not sum to this total.

Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2008.

## Number of mental health condition related hospitalizations

Figure 1 depicts hospital stays with specific MH conditions as principal or secondary diagnoses. The two leading causes of MH hospitalizations were mood disorders (91,038 discharges) and schizophrenia (36,902 discharges). Together, these two conditions were responsible for 91 percent of all stays for which MH was the principal diagnosis. While mood disorders were also the most common condition for secondary MH diagnoses (227,197 discharges or half of stays with MH listed as a secondary condition), schizophrenia was listed less frequently as a secondary condition (28,738 discharges or 6.3 percent of stays with MH as a secondary condition). Common secondary MH conditions included dementia and other cognitive disorders, with 134,507 stays, or 29.7 percent of all stays with MH as a secondary condition. Additionally, anxiety disorders were noted in 99,359 stays, or 21.9 percent of stays with MH as a secondary condition.

**Figure 1. Hospital stays with specific MH conditions as principal or secondary diagnoses, 2008**



Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2008.

## Top 9 mental health conditions related to hospital stays

Table 3 shows that hospital stays principally for particular MH conditions tended to cluster by age of the patient. Mood disorders were the most frequent condition for MH hospitalizations in each age group, and the younger the patients, the higher the hospitalization rates. Schizophrenia and other psychotic disorders were the second common condition for adult ages 18-64 years, accounted for about 34 percent of all MH discharges in this age group. For individuals 65 years and older, dementia and associated cognitive disorders were the second common condition for MH hospitalizations (36.3 percent).

**Table 3. Mental health conditions that resulted in hospitalization, by age group, 2008**

Rank	Principal Diagnosis	Age Groups				
		Total*	1-17	18-44	45-64	65+
<i>Number of discharges by age group</i>						
	Mental health conditions	140,617	29,715	62,044	35,233	13,610
1	Mood disorders	91,038	25,255	39,197	20,915	5,664
2	Schizophrenia and other psychotic disorders	36,902	1,185	20,151	13,008	2,556
3	Delirium, dementia, and amnesic and other cognitive disorders	5,526	39	112	437	4,938
4	Anxiety disorders	2,275	428	1,004	542	299
5	Attention-deficit, conduct, and disruptive behavior disorders	1,890	1,781	52	19	36
6	Adjustment disorders	1,665	282	1,094	235	54
7	Impulse control disorders, NEC	839	487	262	51	39
8	Disorders usually diagnosed in infancy, childhood, or adolescence	300	218	74	3	3
9	Personality disorders	182	40	98	23	21
<i>Distribution of discharges within age group</i>						
	Mental health conditions	100.0%	100.0%	100.0%	100.0%	100.0%
1	Mood disorders	64.7%	85.0%	63.2%	59.4%	41.6%
2	Schizophrenia and other psychotic disorders	26.2%	4.0%	32.5%	36.9%	18.8%
3	Delirium, dementia, and amnesic and other cognitive disorders	3.9%	0.1%	0.2%	1.2%	36.3%
4	Anxiety disorders	1.6%	1.4%	1.6%	1.5%	2.2%
5	Attention-deficit, conduct, and disruptive behavior disorders	1.3%	6.0%	0.1%	0.1%	0.3%
6	Adjustment disorders	1.2%	0.9%	1.8%	0.7%	0.4%
7	Impulse control disorders, NEC	0.6%	1.6%	0.4%	0.1%	0.3%
8	Disorders usually diagnosed in infancy, childhood, or adolescence	0.2%	0.7%	0.1%	0.0%	0.0%
9	Personality disorders	0.1%	0.1%	0.2%	0.1%	0.2%

\* Includes discharges for under 1 year olds. Therefore, discharges by age will not sum to this total.

Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2008.

## Top 9 mental health conditions related to hospitalizations, by gender

Table 4 shows that discharges principally for particular MH diagnoses tended to cluster by gender. Males were more likely to be hospitalized for disorders usually diagnosed in childhood, attention-deficit and related disorders, and impulse control disorders. Hospitalization rates for adjustment disorders did not vary appreciably by gender – its male to female ratio (0.85) was close to that for all MH conditions (0.88).

**Table 4. Mental health conditions that resulted in hospitalization, by gender, 2008**

Rank	Principal Diagnosis	Number of Discharges			Distribution of Discharges by Gender		
		Total*	Male	Female	Total*	Male	Female
	Mental health conditions	140,617	50,937	57,593	100.0%	36.2%	41.0%
1	Mood disorders	91,038	28,341	39,323	100.0%	31.1%	43.2%
2	Schizophrenia and other psychotic disorders	36,902	16,941	12,626	100.0%	45.9%	34.2%
3	Delirium, dementia, and amnestic and other cognitive disorders	5,526	2,304	3,011	100.0%	41.7%	54.5%
4	Anxiety disorders	2,275	688	1,204	100.0%	30.2%	52.9%
5	Attention-deficit, conduct, and disruptive behavior disorders	1,890	1,284	422	100.0%	67.9%	22.3%
6	Adjustment disorders	1,665	570	672	100.0%	34.2%	40.4%
7	Impulse control disorders, NEC	839	505	225	100.0%	60.2%	26.8%
8	Disorders usually diagnosed in infancy, childhood, or adolescence	300	240	56	100.0%	80.0%	18.7%
9	Personality disorders	182	64	54	100.0%	35.2%	29.7%

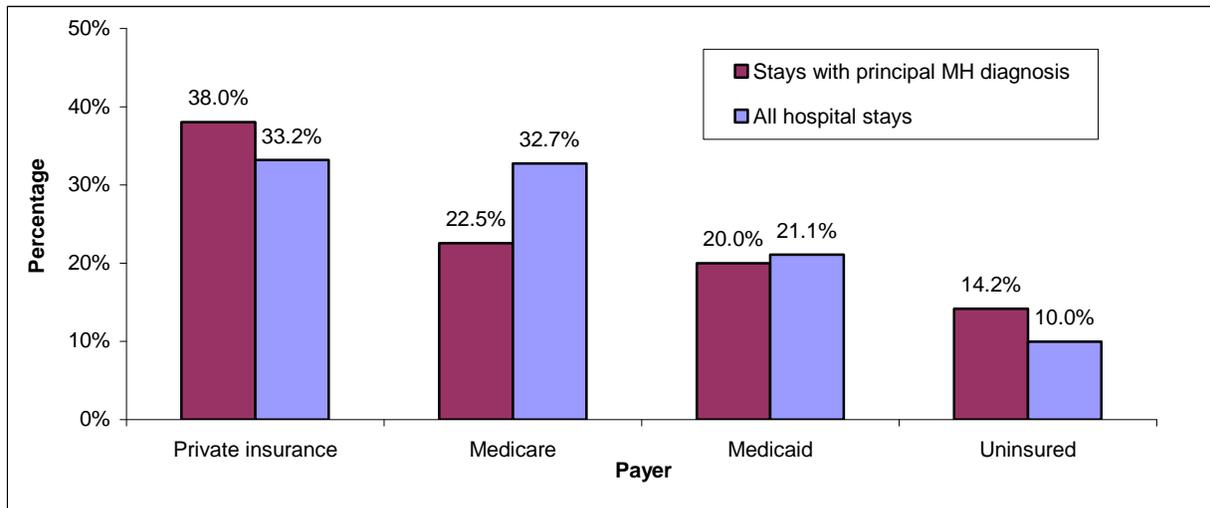
\* Includes discharges with missing gender. Therefore, discharges by gender will not sum to this total.

Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2008.

## Comparison of payer types across mental health related hospitalizations

Figure 2 shows the percent distribution of hospital stays with principal MH diagnosis by primary expected payer compared to all stays. Private insurance covered 38 percent of stays for MH conditions compared to one-third of all stays. Medicare was billed for a disproportionately smaller share of all MH discharges compared to all discharges (22.5 percent versus 32.7 percent). Similar to its share of all hospital stays, Medicaid was billed for just one-fifth of MH stays. Finally, a large percent of MH stays were uninsured compared to uninsured stays for all discharges (14.2 percent versus 10.0 percent).

**Figure 2. Percent distribution of hospital stays with principal MH diagnosis by payers compared to all stays, 2008**



Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2008.