

# STATISTICAL BRIEF

April 2012

## **Hospital Stays among Patients with Diabetes, 2010**

In 2010, about 596,200 hospital stays occurred among patients with diabetes (i.e., diabetes was the principal reason for hospitalization or was a coexisting condition), accounting for 20 percent of the 2.94 million total hospital stays in Texas. Patients with diabetes as a principal diagnosis accounted for 44,496 discharges, or 1.5 percent of all hospital stays. The total charges for hospital stays with any mention of diabetes as either a principal or coexisting condition were \$29.05 billion, over 27 percent of aggregate charges for overall stays (\$105 billion).

## **Comparison of diabetes and non-diabetes related hospital stays, 2010**

Table 1 shows that, on average, patients hospitalized with diabetes were 23.6 years older than patients without diabetes (62.8 years versus 39.2 years). While the share of all discharges for principal diagnosis of diabetes was slightly higher for males than females (51 and 48 percent, respectively), males were about 10 percent less than females among patients with diabetes, and were about 20 percent less among individuals with no mention of diabetes. The mean length of stay for hospitalizations among patients with diabetes as a principal diagnosis was 6.0 days, which was slightly shorter than stays with diabetes (6.3 days), but one day longer than non-diabetes stays (5.0). Compared with non-diabetes stays, hospitalizations for diabetes were, on average, about \$16,300 more expensive (\$48,719 per stay versus \$32,419 per stay). Moreover, hospital admissions relating to diabetes were more likely to originate in the emergency department (66.3 percent for diabetes as a principal diagnosis and 56.5 percent as any diagnosis) than all non-diabetes admissions (36.4 percent). The percentage of stays covered by Medicare was lower when diabetes was the principal reason for admission (40.0 percent), as compared with all diabetes stays (58.1 percent).

It is also worth noting that the percentage of uninsured hospitalizations was over two times higher for hospital stays principally for treating diabetes than for all stays among patients with diabetes (19.1 percent versus 8.7 percent).

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**Table 1. Hospital stays of patients with diabetes compared to all non-diabetes hospital stays, 2010**

	Principal diagnosis of diabetes	All-listed diagnoses of diabetes*	All non-diabetes hospital stays
<b>Total Number of Discharges</b>	<b>44,496</b>	<b>596,199</b>	<b>2,348,179</b>
<b>Mean age</b>	<b>51.0</b>	<b>62.8</b>	<b>39.2</b>
<b>Ratio of male to female</b>	<b>1.06</b>	<b>0.83</b>	<b>0.59</b>
<b>Mean length of stay (in days)</b>	<b>6.0</b>	<b>6.3</b>	<b>5.0</b>
<b>Mean charge per stay</b>	<b>\$38,583</b>	<b>\$48,720</b>	<b>\$32,420</b>
<b>Aggregate charges (in millions)</b>	<b>\$1,716</b>	<b>\$29,046</b>	<b>\$76,127</b>
<b>Percentage admitted through the emergency department</b>	<b>66.3%</b>	<b>56.5%</b>	<b>36.4%</b>
<b>Percentage by payer:</b>			
<b>Medicare</b>	<b>40.0%</b>	<b>58.1%</b>	<b>26.7%</b>
<b>Medicaid</b>	<b>13.7%</b>	<b>8.3%</b>	<b>25.5%</b>
<b>Private Insurance</b>	<b>23.3%</b>	<b>22.0%</b>	<b>34.5%</b>
<b>Uninsured</b>	<b>19.1%</b>	<b>8.7%</b>	<b>10.0%</b>

\* All-listed diabetes includes hospital stays with diabetes listed as the principal diagnosis or as a secondary diagnosis.  
Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2010.

### **Top 10 reasons for diabetic related hospital stays**

Table 2 illustrates that diabetes was the most common principal reason for hospital admission among the top 10 diagnoses for patients with diabetes (19.3 percent). However, more than 1 in every 3 hospital stays for patients with diabetes in these top diagnoses was principally for the treatment of four circulatory disorders: congestive heart failure, coronary atherosclerosis, acute myocardial infarction (heart attack), and acute cerebrovascular disease (stroke). These four circulatory disorders accounted for 15.6 percent, 9.7 percent, 8.3 percent, and 7.6 percent of hospital stays with diabetes as a coexisting condition, respectively. Other common reasons for hospitalization among patients with diabetes included septicemia, rehabilitation care, pneumonia, skin and subcutaneous tissue infections, and complication of device. Among these top ten hospital stays – their rates varied from 8.2 percent to 12.4 percent of hospital stays with diabetes as a coexisting condition.

**Table 2. Top 10 most common principal reasons for hospitalization among patients with diabetes, 2010\***

Rank	Principle diagnosis	Number of hospital stays among patients with diabetes (percentage of all diabetes stays)*	Percentage of hospital stays with diabetes as a coexisting condition**
1	Diabetes mellitus with complications	43,138	N/A
2	Congestive heart failure, nonhypertensive	30,096	47.3%
3	Septicemia	23,542	35.8%
4	Rehabilitation care, fitting of prostheses, and adjustment of devices	23,303	34.3%
5	Pneumonia	21,156	27.1%
6	Coronary Atherosclerosis and other heart disease	18,743	44.1%
7	Skin and subcutaneous tissue infections	16,358	32.3%
8	Complication of device, implant or graft	16,298	33.3%
9	Acute myocardial infarction (heart attack)	15,988	40.6%
10	Acute cerebrovascular disease (stroke)	14,734	37.9%

\*based on all-listed diagnoses.

\*\* Based on records with diabetes as a secondary diagnosis.

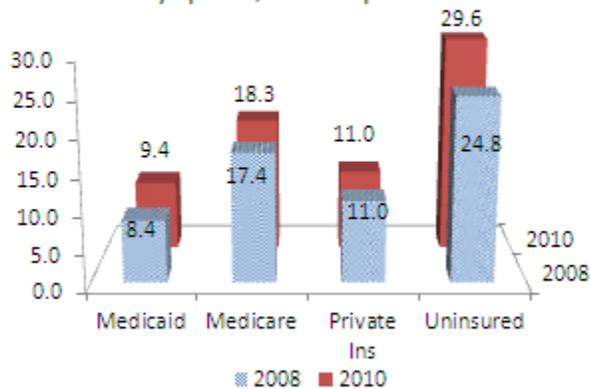
Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2010.

### Percentage of diabetic related hospitalization by payer type

Figure 1 shows the number of hospitalizations principally for diabetes per 1,000 stays for each payer. Hospital stays principally for treating diabetes were much more likely to be uninsured. In 2010, there were 29.6 diabetes stays per 1,000 uninsured hospitalizations. This trend has also been increasing over time, and was 24.8 diabetic stays per 1,000 hospitalizations in 2008. On the other hand, diabetes was the principal reason for admission for 18.3 stays per 1,000 Medicare stays, 11.0 stays per 1,000 privately insured hospitalizations, and 9.4 stays per 1,000 Medicaid stays.

**Figure 1. Hospitalizations principally for diabetes by payer, 2010, 2008\***

Rate of stays per 1,000 hospitalizations for each



\* Based on principal diagnosis, Stays per 1,000 hospitalizations for each.  
Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2010 and 2008.