

# Psychiatric Discharges in Community Hospitals With and Without Psychiatric Units: How Many and for Whom?

Tami L. Mark, Ph.D., M.B.A.  
Rita Vandivort-Warren, M.S.W.  
Pamela L. Owens, Ph.D.  
Jeffrey A. Buck, Ph.D.  
Katharine R. Levit, B.A.  
Rosanna M. Coffey, Ph.D.  
Carol Stocks, M.H.S.A., R.N.

**Objective:** This study sought to describe the extent to which community hospitals, in a sample of states, are caring for patients with psychiatric disorders in medical-surgical beds (scatter beds) and to compare the characteristics of patients treated in scatter beds with those of patients treated in psychiatric units in community hospitals. **Methods:** Information on hospital discharges in 12 states for patients with a principal psychiatric diagnosis was gathered from the Healthcare Cost and Utilization Project State Inpatient Databases. Discharges of patients who were treated in community hospital psychiatric units ( $N=370,984$ ) were compared with those of patients who were treated in scatter beds ( $N=26,969$ ). **Results:** Overall, only 6.8% of discharges were from scatter beds. The rate of total psychiatric discharges per 10,000 total state population ranged from a high of 62.3 in one study state to a low of 9.6 in another. The average rate of scatter bed discharges per 10,000 state population ranged from 1.6 to 5.8, whereas the average rate of psychiatric unit discharges ranged from 7.4 to 58.9. A comparison of discharges of patients treated in scatter beds with discharges of patients treated in psychiatric units indicated that patients in scatter beds were more likely to have somatic conditions and were half as likely to have an accompanying substance use disorder. Discharge codes indicated that almost 40% of patients from scatter beds had a diagnosis of schizophrenia, episodic mood disorder, or depression; about two-thirds were admitted from emergency rooms; and about one-fifth were transferred to another facility. **Conclusions:** More research is needed to determine the optimal supply of psychiatric unit beds across regions and whether and how scatter beds should be used to address the lack of psychiatric beds. (*Psychiatric Services* 61:562–568, 2010)

The New Freedom Commission on Mental Health stated that access to effective acute inpatient and other short-term 24-hour services is an essential component of a balanced system of mental health care, which is especially important for persons in crisis who need the safety and intensive treatment offered in these settings (1). Community hospitals are the primary source of inpatient psychiatric treatment in the United States, based on number of admissions (2,3). Community hospital inpatient psychiatric care can be provided in a distinct part of the hospital in psychiatric units that are organized and staffed specifically to treat psychiatric disorders, or it can be scattered throughout in general medical beds, sometimes known as “scatter beds.” Psychiatric care in scatter beds may occur even in hospitals with separate psychiatric units.

Current information is very limited on the extent to which scatter beds are used for patients with psychiatric disorders and if any characteristics of these patients are associated with the use of scatter beds. Studies that examine treatment in psychiatric units, compared with treatment in scatter beds, are often limited to a subset of discharges, such as Medicare patients, and most of these studies were done ten or more years ago. Several studies have found that patients treated in scatter beds have shorter lengths of

Dr. Mark, Ms. Levit, and Dr. Coffey are with the Healthcare and Science Division of Thomson Reuters, 4301 Connecticut Ave., N.W., Suite 330, Washington, D.C. 20008 (e-mail: tami.mark@thomsonreuters.com). Ms. Vandivort-Warren is with the Center for Substance Abuse Treatment and Dr. Buck is with the Center for Mental Health Services, both at the Substance Abuse and Mental Health Services Administration, Rockville, Maryland. Dr. Owens is a contractor in St. Louis, Missouri. Ms. Stocks is with the Agency for Healthcare Research and Quality, Rockville, Maryland.

stay than those treated in psychiatric units (4–7). Research also suggests that compared with patients treated in psychiatric units, patients with psychiatric disorders treated in scatter beds tend to be older and are more likely to be receiving Medicare, to present with somatic complaints, to have greater medical comorbidity, and to have a principal diagnosis other than schizophrenia, bipolar disorder, or major depressive disorder (4–8).

Limited research has focused on how treatments provided in scatter beds differ from those provided in psychiatric units. Mechanic and Davis (6) found that psychiatric patients in scatter beds were rarely attended by psychiatrists and that they had more CAT scans and electroencephalograms (EEGs) than patients in psychiatric unit beds. Olfson (8) found that patients in a psychiatric unit were more likely than psychiatric patients treated in scatter beds to receive antidepressants. Norquist and colleagues (9) concluded that the quality of care for the psychological aspects of depression treatment may be better in psychiatric units, whereas the quality of general medical care may be better in general medical beds.

In 2005 there were approximately 1,245 psychiatric units in the United States (author calculation based on Medicare Cost Reports). Approximately 25% to 30% of all community hospitals had distinct psychiatric units. In recent years, the number of psychiatric units has declined, from 1,458 in 1998 to 1,245 in 2005 (author calculation based on Medicare Cost Reports). The decline of psychiatric unit beds, in tandem with the decline in free-standing psychiatric hospital beds and a lack of outpatient alternatives, has resulted in a shortage of psychiatric beds, at least in some communities. A 2006 survey of state mental health agency directors revealed that 80% of the states reported shortages in psychiatric beds (10). The shortage was also documented in the 2004 New Freedom Commission Subcommittee on Acute Care (1). One potential consequence of the lack of psychiatric beds has been overcrowding and increased waiting time in community hospital emergency rooms, as reported by emergency room directors

(11,12). Another consequence, about which few data exist, may be lack of access to any hospital treatment. To what extent and how scatter beds are being used to fill the void in psychiatric bed availability is unclear. The question of how many of the approximately 1.8 million community hospital discharges with a principal psychiatric diagnosis are from scatter beds has not been examined since the 1980s.

The goal of this study was to describe the extent to which scatter beds are being used across a sample of states. The study also compared the characteristics of patients with psychiatric diagnoses who were discharged from community hospital psychiatric units with those who were discharged from scatter beds. The aim is to inform policy makers about how scatter beds are currently being used and to stimulate consideration of their appropriate role in acute, inpatient psychiatric care.

## Methods

The data were from the State Inpatient Databases (SID), part of the Healthcare Cost and Utilization Project (HCUP) sponsored by the Agency for Healthcare Research and Quality (AHRQ). The databases contain the universe of inpatient hospital discharge abstracts from participating states. SID data compose a core set of clinical and nonclinical information on all patients, regardless of payer, including persons covered by Medicare, Medicaid, and private insurance and those who are uninsured.

This project took advantage of the revenue codes found on the discharge abstracts from some of the participating SID states. Revenue codes were used to identify the type of room and board accommodations for each inpatient stay. Particular codes refer to charges for psychiatric unit room and board and thus can be used to identify patients who were treated in psychiatric units. Specifically, any patients who were discharged with the following revenue codes were identified as having been treated in a psychiatric unit: 0114, 0124, 0134, 0144, or 0154. The study focused on discharge records for patients who were given a principal psychiatric diagnosis (*ICD-9-CM* codes 295–302, 306–314).

Two additional sources of information on the hospital psychiatric units were used to verify the identification of units based on SID revenue codes. The first source was the American Hospital Association's (AHA's) Annual Survey of Hospitals, which includes questions regarding the presence of a psychiatric unit. The second source was Medicare Cost Reports, which also indicate whether the hospital has a psychiatric unit and thus should be paid under the separate Medicare payment system for psychiatric units (in effect during the period of this analysis). For the uncommon cases where these sources conflicted, the Internet was searched to determine whether the hospital listed a psychiatric unit as one of its services.

Using 2003 data (13) we identified 12 states that had revenue codes of sufficient completeness to be useful for the study: Kentucky, Maine, Massachusetts, Nebraska, Nevada, New York, North Carolina, Pennsylvania, Tennessee, Texas, Washington, and West Virginia. Because HCUP partner agreements prohibit disclosure of specific state names when reporting some data elements, state-specific data were reported by assigned alphabetical letters for identification rather than state name. Estimates of the prevalence of psychiatric unit discharges, psychiatric units, and psychiatric unit beds per capita were created with population estimates from the U.S. Census. We examined records for patients with a principal psychiatric diagnosis and compared those who were treated in hospital psychiatric units and those who were treated outside of a psychiatric unit in a medical-surgical bed, which we refer to as scatter beds. The factors compared included age; gender; length of stay; specific principal *ICD-9-CM* psychiatric diagnoses (grouped by *ICD-9-CM* diagnosis groups); existence of any secondary psychiatric, substance use disorder, or nonpsychiatric or nonsubstance abuse *ICD-9-CM* diagnoses (grouped by the Clinical Classification Software [14]); expected primary source of payment; mean total charges; admission source; and discharge type. Chi square and t tests were used to compare differences between the characteristics of

discharges from psychiatric units and scatter beds. Because the study used deidentified administrative data that were compliant with the Health Insurance Portability and Accountability Act, institutional review board approval was not needed.

## Results

Thirty-nine percent ( $N=496$ ) of the 1,274 hospitals in the 12 states had a psychiatric unit (data not shown). Overall, of the 397,953 discharges in 2003 that were examined, 93.2% were from a psychiatric unit and 6.8% were from a scatter bed (Table 1). The percentage of scatter bed discharges was about equally divided be-

tween hospitals that had a psychiatric unit (3.6%) and those that did not (3.2%) (Table 1).

The rate of total community hospital psychiatric discharges per 10,000 total state population ranged from 9.6 to 62.3 (Figure 1). The average rate of scatter bed discharges was 2.8 per 10,000, with a minimum of 1.6 and a maximum of 5.8. The average rate of psychiatric unit discharges per 10,000 was 40.3, with the rate ranging from 7.4 to 58.9.

Table 1 describes the characteristics of discharges from psychiatric units, scatter beds in hospitals with psychiatric units, and scatter beds in hospitals without psychiatric units. Results

are presented for all states combined. All pairwise comparisons of each variable across the three settings were statistically significant at  $p<.001$ .

Females accounted for a higher percentage of scatter bed discharges than psychiatric unit discharges (61.0% versus 54.0%). Patients with the youngest mean age (39 years) were discharged from psychiatric units, followed by scatter beds in hospitals with psychiatric units (43 years) and scatter beds in hospitals without psychiatric units (51 years). Only 9.2% of the psychiatric unit discharges were for persons older than 65 years, compared with 20.5% for scatter beds in hospitals with psychi-

**Table 1**

Characteristics of community hospital discharges coded with a principal psychiatric diagnosis, by place of discharge

Variable <sup>a</sup>	Scatter bed		Hospital with psychiatric unit (14,130 discharges)		Hospital without psychiatric unit (12,839 discharges)		Psychiatric unit (370,984 discharges)	
	N	%	N	%	N	%	N	%
<b>Sex</b>								
Male	10,519	39.0	5,743	40.6	4,776	37.2	170,794	46.0
Female	16,449	61.0	8,386	59.3	8,063	62.8	200,180	54.0
<b>Age</b>								
Age (M $\pm$ SD)	47 $\pm$ 23		43 $\pm$ 23		51 $\pm$ 22		39 $\pm$ 17	
Age group								
0–17	3,755	13.9	2,878	20.4	877	6.8	38,579	10.4
18–34	4,807	17.8	2,515	17.8	2,292	17.9	110,521	29.8
35–44	4,409	16.3	2,303	16.3	2,106	16.4	90,461	24.4
45–54	4,220	15.6	2,119	15.0	2,101	16.4	67,389	18.2
55–64	2,986	11.1	1,418	10.0	1,568	12.2	29,972	8.1
$\geq$ 65	6,791	25.2	2,896	20.5	3,895	30.3	34,052	9.2
<b>Primary expected payer</b>								
Medicare	9,198	34.1	4,007	28.4	5,191	40.4	101,651	27.4
Medicaid	5,872	21.8	3,679	26.0	2,193	17.1	123,820	33.4
Private insurance	8,158	30.2	4,578	32.4	3,580	27.9	99,627	26.9
Uninsured	2,442	9.1	1,188	8.4	1,254	9.8	31,503	8.5
Other	1,227	4.5	637	4.5	590	4.6	12,774	3.4
Total charge (M $\pm$ SD \$)	9,790 $\pm$ 14,604		10,206 $\pm$ 16,364		9,330 $\pm$ 12,349		15,456 $\pm$ 26,507	
Length of stay (M $\pm$ SD days)	5 $\pm$ 12		6 $\pm$ 16		4 $\pm$ 5		10 $\pm$ 14	
<b>Admission source</b>								
Emergency department	17,254	64.0	8,505	60.2	8,749	68.1	200,768	54.1
Another hospital	933	3.5	602	4.3	331	2.6	23,998	6.5
Other health facility, including long-term care	386	1.4	189	1.3	197	1.5	12,072	3.3
Court or law enforcement	158	.1	109	.1	49	.4	6,856	1.8
Routine	7,881	29.2	4,389	31.1	3,492	27.2	124,829	33.6
<b>Discharge disposition</b>								
Routine	19,258	71.4	10,358	73.3	8,900	69.3	310,668	83.7
Short-term hospital	869	3.2	407	2.9	462	3.6	8,404	2.3
Other facility	5,187	19.2	2,536	17.9	2,651	20.6	37,455	10.1
Home health care	910	3.4	436	3.1	474	3.7	4,042	1.1
Against medical advice	568	2.1	313	2.2	255	2.0	8,663	2.3
Died	53	.2	25	.2	28	.2	322	.1

<sup>a</sup> All pairwise comparisons of each variable across the three settings were statistically significant at  $p<.001$ .

atric units and 30.3% for scatter beds in hospitals without psychiatric units.

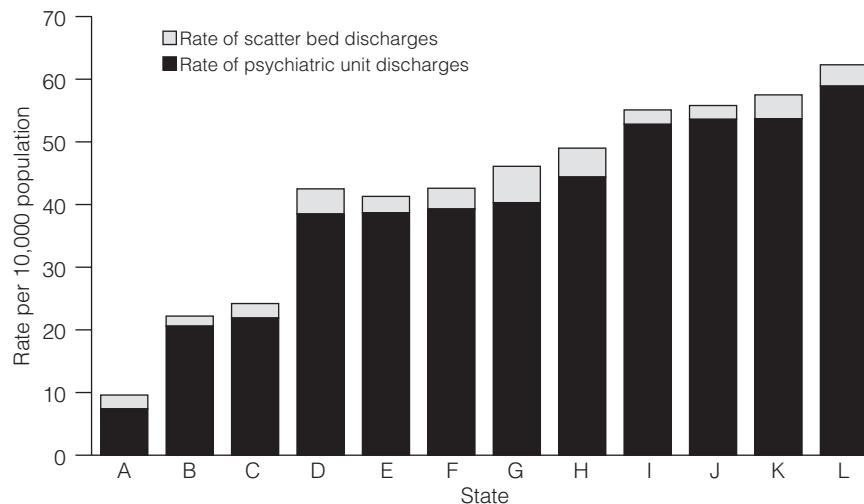
For all payers, at least 90% of discharges were from a psychiatric unit (data not shown in Tables). Consistent with the age findings, the percentage of discharges billed to Medicare was highest among scatter beds in hospitals without psychiatric units (40.4%) and lower for discharges from scatter beds in hospitals with psychiatric units (28.4%) and from psychiatric units (27.4%). Psychiatric units tended to have a higher percentage of Medicaid patients discharged than the other two settings (33.4% versus 26.0% in scatter beds in hospitals with a psychiatric unit and 17.1% in scatter beds in hospitals without a psychiatric unit). Uninsured status was most common in scatter beds in hospitals without psychiatric units (9.8%) and somewhat less common in psychiatric units (8.5%).

Average total charges per discharge were highest in psychiatric units (\$15,456), followed by discharges from scatter beds in hospitals with psychiatric units (\$10,206) and those from scatter beds in hospitals without psychiatric units (\$9,330). Consistent with the findings for total charges, average length of stay was highest among the discharges from psychiatric units (ten days), followed by those from scatter beds in hospitals with psychiatric units (six days) and those from scatter beds in hospitals without psychiatric units (four days).

Emergency room admissions were most common among patients treated in scatter beds in hospitals without psychiatric units (68.1%), followed by patients treated in scatter beds in hospitals with psychiatric units (60.2%) and patients from psychiatric units (54.1%). As would be expected, discharges from psychiatric units were more likely to have patients admitted through a transfer from another hospital (6.5%), and scatter beds in hospitals without psychiatric units were the least likely to have patients admitted in such a manner (2.6%). Discharges from scatter beds in hospitals without psychiatric units were more likely result in a patient being transferred to another facility (20.6%), and discharges from hospitals with psychiatric units were least likely to result in transfer to another facility (10.1%).

**Figure 1**

Rate of psychiatric discharges per 10,000 state population from community hospital psychiatric units and nonspecialty units (scatter beds), by state



As shown in Table 2, schizophrenia disorders (*ICD-9-CM* code 295) were much more common in psychiatric units than in scatter beds (21.9% in psychiatric units versus 8.8% in scatter beds in hospitals with psychiatric units and 8.0% in scatter beds in hospitals without psychiatric units). Similarly, episodic mood disorders (*ICD-9-CM* code 296) were much more common in psychiatric units than in scatter beds. In fact, episodic mood disorders made up more than half of all psychiatric unit discharges (54.4% in psychiatric units versus 29.4% in scatter beds in hospitals with psychiatric units and 22.9% in scatter beds in hospitals without psychiatric units). In total, about 84% of psychiatric unit discharges were coded with a principal diagnosis of schizophrenia, episodic mood disorder, or depressive disorder (*ICD-9-CM* code 311), whereas less than half of scatter bed discharges were coded with these diagnoses (35.1% of scatter beds in hospitals without psychiatric units and 43.1% of scatter beds in hospitals with psychiatric units). The most common diagnosis in scatter beds was anxiety, dissociative, and somatoform disorders (*ICD-9-CM* code 300) (25.2%). Anxiety disorders made up only 2.2% of discharges from psychiatric units compared with 22.8% of discharges from scatter beds in hospitals with psychiatric

units and 27.7% of discharges from scatter beds in hospitals without psychiatric units. Discharges coded with a principal diagnosis of other nonorganic psychosis (*ICD-9-CM* code 298) were more common in scatter beds (11.2%) than in psychiatric units (4.8%).

Approximately one-third of psychiatric unit discharges were coded with a secondary substance use disorder diagnosis, whereas less than 20% of scatter bed discharges were coded with such a diagnosis (18.6% from scatter beds in hospitals with psychiatric units and 14.3% from scatter beds in hospitals without psychiatric units). A code for a secondary nonpsychiatric or substance abuse diagnosis was the most common in discharges from scatter beds in hospitals without psychiatric units (88.8%), followed by those from scatter beds in hospitals with psychiatric units (79.0%) and those from psychiatric units (70.2%).

We also examined the most frequent secondary diagnoses across the three settings using AHRQ's Clinical Classifications Software (not shown in tables). Across the three settings, seven codes were common to the top ten most frequent codes (substance-related mental disorders, alcohol-related mental disorders, essential hypertension, diabetes, esophageal disorders, thyroid disorders, and hyperlipidemia). In psychiatric units, asthma and other nutritional, endocrine, and

**Table 2**

Clinical characteristics of community hospital discharges coded with a principal psychiatric diagnosis, by place of discharge

Characteristic	Scatter bed							
			Hospital with psychiatric unit (14,130 discharges)		Hospital without psychiatric unit (12,839 discharges)		Psychiatric unit (370,984 discharges)	
	Total (26,969 discharges)	N	%	N	%	N	%	N
<b>Principal diagnosis<sup>a</sup></b>								
Schizophrenic disorder	2,272	8.4	1,249	8.8	1,023	8.0	81,184	21.9
Episodic mood disorder	7,097	26.3	4,153	29.4	2,944	22.9	201,867	54.4
Delusional disorder	246	.9	99	.7	147	1.1	1,561	.4
Other nonorganic psychoses	3,018	11.2	1,401	9.9	1,617	12.6	17,974	4.8
Pervasive developmental disorder	123	.5	90	.6	33	.3	645	.2
Anxiety, dissociative and somatoform	6,789	25.2	3,227	22.8	3,562	27.7	8,093	2.2
Personality disorders	227	.8	140	1.0	87	.7	1,370	.4
Sexual and gender identity disorders	55	.2	36	.3	19	.1	36	.0
Physiological malfunction arising from mental factors	783	2.9	351	2.5	432	3.4	107	.0
Special symptoms or syndromes not elsewhere classified	1,842	6.8	870	6.2	972	7.6	1,361	.4
Acute reaction to stress	429	1.6	171	1.2	258	2.0	415	.1
Adjustment reaction	1,047	3.9	661	4.7	386	3.0	17,376	4.7
Specific nonpsychotic mental disorder due to brain damage	1,266	4.7	584	4.1	682	5.3	340	.1
Depressive disorders not elsewhere classified	1,230	4.6	692	4.9	538	4.2	27,748	7.5
Disturbance of conduct not elsewhere classified	293	1.1	197	1.4	96	.7	5,929	1.6
Disturbance of emotions specific to childhood and adolescents	156	.6	135	1.0	21	.2	2,251	.6
Hyperkinetic syndrome of childhood	96	.4	74	.5	22	.2	2,727	.7
<b>Secondary diagnoses</b>								
Psychiatric diagnosis	11,147	41.3	6,036	42.7	5,111	39.8	155,734	42.0
Substance abuse diagnosis	4,476	16.6	2,635	18.6	1,841	14.3	120,488	32.5
Nonpsychiatric or nonsubstance abuse diagnosis	22,565	83.7	11,169	79.0	11,396	88.8	260,380	70.2
No procedures indicated	21,479	79.6	10,939	77.4	10,540	82.0	296,627	80.0

<sup>a</sup> All pairwise comparisons of each variable across the three settings were statistically significant at p<.01.

metabolic disorders were among the top nine. Coronary atherosclerosis and other heart disease as well as senility and organic mental disorder were among the ten most frequent diagnoses coded in discharges from scatter beds in hospitals without psychiatric units. Among those from scatter beds in hospitals with psychiatric units, coronary atherosclerosis and other heart disease and other nutritional, endocrine, and metabolic disorders were among the top nine. Secondary nonpsychiatric diagnoses were slightly more common in scatter beds.

Across all settings, approximately 80% of psychiatric discharges had no procedure code indicated. The percentage with no procedure code was relatively similar across settings (82.0% from scatter beds in hospitals without psychiatric units, 77.4% from

scatter beds in hospitals with psychiatric units, and 80.0% in psychiatric units). Across all types of health conditions treated in hospitals, only about 36% of discharges have no procedure code (not shown in tables).

## Discussion

Data revealed that across the 12 states, only 6.8% of discharges with a principal psychiatric diagnosis code were for patients treated in scatter beds and the other 93.2 % were for patients treated in psychiatric units. The percentage of scatter bed discharges with a code for a principal psychiatric diagnosis was about equally divided between hospitals that had a psychiatric unit and those that did not. The number of psychiatric community hospital discharges per capita varied widely across the 12 states examined, overall and by

setting. The rate of total community hospital psychiatric discharges per 10,000 individuals in the state ranged from 9.6 to 62.3. The average rate of scatter bed discharges was 2.8 per 10,000, with a minimum of 1.6 to a maximum of 5.8. The average rate of psychiatric unit discharges was 40.3, with a range of 7.4 to 58.9.

Compared with patients in a psychiatric unit, patients treated in scatter beds were more likely to be older and on Medicare. They were more likely to be admitted from the emergency room, have shorter lengths of stay, and be transferred to another facility. They were less likely to have schizophrenia, episodic mood disorders, or depressive disorders, although 35%–43% of patients treated in scatter beds in hospitals without units had these principal diagnoses.

The most common diagnosis in scatter beds, making up about one-fourth of all discharges, was anxiety, dissociative, and somatoform disorders. Other nonorganic psychoses were also more common among discharges from scatter beds in hospitals without psychiatric units, compared with psychiatric units.

This study is subject to certain limitations. The data came from 12 states and are not nationally representative; in particular, the states vary in the number of available psychiatric unit beds. Second, the data were obtained from administrative records, which did not contain details about the types of providers treating patients within hospitals (such as the extent to which patients were treated by consulting psychiatrists or psychiatric nurses), about the particulars of the clinical services offered (such as what types of psychoactive medications patients were provided), or about the details of the reasons for the admissions (such as whether the patient was at risk of harming him- or herself or others). Third, chart review was not conducted to validate the diagnoses contained in the billing records, and it is possible that psychiatric diagnoses were under-coded in scatter beds. Fourth, by pooling data across states, we have presented data on the distribution of patient characteristics on average across the 12 states rather than within each state. Finally, the study focused on community hospitals, and an important extension is to marry the HCUP SID data with information on psychiatric hospital beds, as well as with information on the availability of outpatient services. Despite these caveats, the study is one of the few to provide a sense of the availability and use of hospital psychiatric units and scatter beds and the types of patients being served in different settings within community hospitals.

The estimate from this analysis that only 6.8% of mental health care discharges were from scatter beds in 2003 is much lower than prior estimates. In particular, Kiesler and Simpkins (7) estimated that in 1980, 33% of psychiatric community hospital discharges were from scatter beds. Their estimates were based on a study that linked 1980 data on psychiatric units from the National Institute of

Mental Health (NIMH) and the AHA with information on psychiatric discharges from the National Hospital Discharge Survey. In a recent analysis that linked Medicare Cost Reports data on psychiatric unit status to HCUP SID data from all states, we estimated that between 6% and 20% of discharges were from scatter beds, with the best estimate being 6% (15). The high estimate of 20% assumed that the Medicare Cost Reports captured all psychiatric units. However, additional analysis based on hospital psychiatric discharge volume, hospital Web sites, and the AHA data indicated that the Medicare Cost Reports miss some hospitals and the best estimate is probably that 6% of discharges are from scatter beds. Thus, if we assume that the NIMH and AHA surveys used in Kiesler and Simpkins' study captured psychiatric units as well as the Medicare Cost Reports and that the other methodological differences are not great, it appears that the percentage of discharges from scatter beds has declined since the 1980s. This decline in scatter bed utilization may be due to the significant expansion in number of psychiatric units and beds that occurred after the implementation of Medicare PPS (prospective payment system) in 1983 (16).

The relatively low use of scatter beds across the states has several implications. First, if scatter beds are not being used often for psychiatric treatment, the importance of psychiatric units may be magnified. This may be particularly true given the decline in public and private psychiatric free-standing hospital beds. In some regions of the country, the low supply of psychiatric beds appears to be limiting access to care and resulting in more patients staying longer in emergency rooms (1,10–12,17–19). However, it is important to note that determining the appropriate supply of psychiatric beds is a complex problem and dependent, in part, on a community's outpatient infrastructure and the extent to which an individual's financial resources allow him or her to access alternative services.

The trend in declining psychiatric unit beds may be further exacerbated if the new PPS for psychiatric care in

community hospitals places additional financial pressure on community hospitals (20). In 2005 Medicare began paying for inpatient psychiatric services on a prospective basis, ending a PPS exemption for psychiatric facilities that began in 1983. The PPS methodology sets a prospective per diem base payment rate with payments for each case adjusted by patient characteristics (for example, age, principal diagnosis, selected comorbidities, length of stay, and emergency room usage) and facility characteristics (for example, rural location, teaching status, geographic wage index, and geographic cost of living). Outlier payments were also established. The impact of PPS on community hospital psychiatric unit bed supply is uncertain and may depend on unmeasured patient mix, such as the extent to which a hospital admits patients who require one-on-one observation because of their risk of harming themselves, the cost structure of the hospital, and the generosity of Medicare payment relative to that of other insurers (21).

These data suggest that when scatter beds are being used, they may often be employed as a short-term substitute for specialty psychiatric beds. Placing psychiatric patients in general medical-surgical beds may be an appropriate response to a lack of psychiatric beds for patients who are medically stable and need psychiatric treatment, particularly in rural areas. However, at this point little is known about the nature and quality of psychiatric care being provided in scatter beds. In evaluating the appropriate supply of psychiatric unit beds and the role of scatter beds, particularly in regions where psychiatric units are sparse, a number of issues must be addressed. These include the availability and training of staff to assess patient needs, the ability of staff to closely monitor patients who may be dangerous to themselves or others, the availability of consulting psychiatrists and other psychiatric specialists, the adequacy of reimbursement for psychiatric treatment, and the ability of hospitals to coordinate care with other behavioral health providers in the community.

In addition to identifying the im-

portant role that psychiatric units play in short-term inpatient treatment, this study highlights the wide variation in the supply of psychiatric beds across the states. This finding demonstrates the need to examine more closely the adequacy of mental health services across the continuum of service needs within particular communities. Localities with hospital alternatives, such as crisis residential programs, may require fewer hospital beds. Similarly, communities with a strong outpatient mental health system may be able to discharge patients sooner. Planning for an adequate supply of acute care psychiatric beds is hindered by the lack of clear guidelines for what level of acute care is appropriate for mental health consumers in crisis and a lack of consensus on standards for assessing the number of beds needed in a community and the ideal mix of services in a community-based system of care (1). The planning process must also focus on how hospitals without psychiatric units should treat patients with psychiatric illness. As the AHA Task Force on Behavioral Health recently noted, "Every hospital treats patients with behavioral health disorders, even when an acute care, community hospital has no organized behavioral health services or psychiatric clinical specialists," and all hospitals should give more attention to planning for the needs of patients with principal or secondary psychiatric disorders (22). Because community hospitals are now a major component of psychiatric care, it is important to have more deliberate policies and treatment strategies regarding psychiatric treatment in community hospitals.

## Conclusions

The study illustrates that scatter beds are used in a limited way to supplement psychiatric units. The variation in psychiatric hospitalization across communities highlights the need for research to understand the appropriate supply of psychiatric unit beds and the appropriate way to deliver psychiatric care in regions of the country with limited access to psychiatric units. Additional research and policy making are particularly urgent because of recent changes in how psychiatric units are reimbursed.

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