

STATISTICAL BRIEF #39

October 2007

Hospitalizations Related to Drug Abuse, 2005

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Introduction

Substance abuse places a considerable burden on individuals, their families, the health care system, and the economy. The cost of treatment for substance abuse and other related illnesses is substantial. In 2003, substance abuse treatment cost the United States an estimated \$21 billion, and 77 percent of this cost was paid by public programs.¹

In 2005, about 19.7 million Americans age 12 or older reported that they had abused drugs within the past month, and a large number reported abusing prescription medications.² Most prescription drug abuse involved legally prescribed pain relievers that are often opiate-based, such as oxycodone (OxyContin) and hydrocodone (Vicodin).³ Many people with a substance abuse disorder do not receive any treatment for their condition. However, when they do, treatment sometimes results from an emergency department (ED) visit during which patients are treated for intoxication and drug abuse and then released. Other ED visits lead to inpatient stays in which drug abuse is diagnosed as a primary or contributing condition. For both drug abuse-related ED visits and inpatient stays, community hospitals play an important role in treating substance abuse disorders.

This Statistical Brief presents data from the Healthcare Cost and Utilization Project (HCUP) on community hospital inpatient stays related to drug abuse in 2005. Statistics on specialty hospitals for drug abuse treatment and ED treat-and-release visits are not included in these data. Characteristics of drug abuse-related stays are compared with all hospitalizations. In addition, variations in drug abuse-related hospital stays by patient age and type of drug are examined. Differences in these stays by region and expected payer are also discussed. All differences between estimates noted in the text are statistically significant at the 0.05 level.

Findings

General characteristics of hospital stays for drug abuse

Table 1 describes the general characteristics of hospitalizations for drug abuse compared with all hospital stays in 2005. In 2005, drug abuse was noted in 1.3 million hospital stays (about 3.3 percent of all stays)

Highlights

- In 2005, drug abuse was noted in 1.3 million hospital stays in the U.S. (about 3.3 percent of all stays), totaling \$9.9 billion in hospital costs.
- Opioids and cocaine were the most frequently named drugs on discharge records for drug abuse hospitalizations.
- More than half of the stays for drug abuse began in the emergency department (ED).
- Patients hospitalized for drug abuse were six years younger than the typical hospital patient (41 versus 47 years).
- The elderly are not typically thought of as drug abusers, but the rate of hospitalization associated with drug abuse for those 65 and above was notable, with 263 discharges per 100,000 elderly population.
- The hospitalization rate for opioid abuse was highest in the Northeast, while the West experienced the highest rate of hospitalization for amphetamine abuse.

¹Mark T, Levit K, Coffey R, McKusick D, Harwood H, King E, et al. National Expenditures for Mental Health Services and Substance Abuse Treatment, 1993-2003, SAMHSA publication number SMA 07-4227, 2007.

²Substance Abuse and Mental Health Services Administration. Results from the 2005 National Survey on Drug Use and Health (NSDUH): National Findings. Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, 2006.

³Substance Abuse and Mental Health Services Administration. Drug Abuse Warning Network, 2005: National Estimates of Drug-Related Emergency Department Visits. February, 2007. <http://DAWNinfo.samhsa.gov/>

and totaled \$9.9 billion in hospital costs. These costs do not include spending related to treating patients for drug abuse in the ED. Patients admitted for drug abuse remained in the hospital, on average, more than a full day longer than the typical patient (5.9 versus 4.6 days). Nearly 60 percent of the stays for drug abuse originated in the ED, compared to 42.5 percent of all hospital stays. Drug abuse stays were six times more likely than typical stays to result in a discharge against medical advice (6.2 percent versus 0.9 percent).

Demographically, drug abuse stays were more common in males and younger patients. Whereas males accounted for less than half (41.3 percent) of all hospital stays, they accounted for the majority of stays that involved drug abuse (57.4 percent). Patients hospitalized for drug abuse were six years younger than the typical hospital patient (41 versus 47 years).

Hospital stays for drug abuse, by age

Hospitalizations for drug abuse by age group are shown in figure 1. The largest portion of drug abuse-related stays was for patients age 18-44 (57.5 percent), and those 45-64 years old were responsible for another 30.6 percent. Patients 65 years and above accounted for 7.4 percent of hospital stays in which drug abuse was mentioned. The rate of these hospitalizations among the elderly was notable at 263 discharges per 100,000 population. With a higher incidence of multiple health problems, approximately one-third of all medications in the United States are prescribed to persons 65 years and above.⁴ Proper treatment of many medical conditions requires the use of medications that can be misused or that may lead to dependency, which could increase the opportunity for drug abuse in this population.

Table 2 describes hospitalizations by specific types of drugs. Many times patients were hospitalized for abuse of multiple types of drugs—sometimes combining the abuse of illicit (i.e., illegal) drugs with prescription medications. Half of the drug abuse stays were related to illicit drugs such as cocaine, cannabis, or hallucinogens. Some stays were for the non-medical use of legally prescribed medications, such as antidepressants and barbiturates. In other stays, the principal reason for the hospitalization was for abuse of drugs from groups that included both illicit drugs and legally prescribed medications. These include diagnoses of opioid abuse (including illicit heroin and prescription opiate-based pain relievers), which accounted for 26.1 percent of drug abuse stays, and amphetamine abuse (including illicit methamphetamine as well as prescription stimulants such as Ritalin and weight-loss medications), accounting for 7.6 percent of drug abuse stays. The group labeled "other" includes diagnoses of drug-related mental disorders, cases of drug abuse or dependence in pregnancy or affecting newborns, and cases related to combined or unspecified drug abuse or dependence. Diagnoses in this category were present in 38.5 percent of stays.

Among 0-17 year old patients,⁵ the pattern of drug abuse hospitalizations was distinctly different from other age groups. Cannabis abuse was more likely to be the reason for a drug abuse admission among children younger than 18 than in any other age group. On the other hand, cocaine abuse was the most frequent reason for drug abuse hospitalizations for 18-44 year olds (38.5 percent) and for 45-64 year olds (38.0 percent), and was responsible for 4.3 percent of these drug abuse stays for patients 65 and above. For elderly patients, opioids were the most frequently named drugs cited for a drug abuse hospitalization (12.2 percent of elderly drug abuse stays). Most abused opioids are legal prescription medications. The vast majority of drug abuse hospitalizations for those 65 and above (83.2 percent) were for drug abuse classified as "other".

Hospital stays related to hallucinogen abuse were rare, representing only 0.5 percent of all drug abuse cases in each age group except the youngest patients. Among those younger than 18, almost 3 percent of drug abuse-related stays noted hallucinogen abuse.

Hospital stays for drug abuse, by region

When adjusted for the population of each region, hospitalizations related to abuse of any drug were most likely to occur in the Northeast, which had a rate of 596 stays per 100,000 (table 3 and figure 2). The Midwest, with 448 stays per 100,000, was closest to the national rate of 439 drug abuse stays per 100,000. The rates in the West (377 stays per 100,000) and the South (393 stays per 100,000) were lower than the national rate.

⁴National Institute on Drug Abuse Research Report. Prescription Drugs: Abuse and Addiction (2005). <http://www.nida.nih.gov/ResearchReports/Prescription/Prescription.html>

⁵For infants younger than one year, drug abuse hospitalizations were most likely related to maternal use.

Although the rate of hospitalization for specific types of abused drugs varied by region, among all named drugs, the rate of cocaine abuse hospitalization nationwide was highest, with 154 stays per 100,000. Hospital stays for cocaine abuse occurred at a rate that was higher in most regions than those for any other named drug. Nevertheless, the rate of hospitalizations for cocaine abuse varied fourfold across regions, from 243 stays per 100,000 in the Northeast to 80 stays per 100,000 in the West. The West was the only region where the rate of drug abuse-related hospital stays was highest for drugs other than cocaine—namely, amphetamines and opioids.⁶ Hospitalizations for amphetamine abuse can include abuse of methamphetamine.

Opioid abuse hospitalizations, at 115 stays per 100,000, were second nationwide to those for cocaine. This was followed closely by stays for cannabis abuse at 93 stays per 100,000. The Northeast led the Nation in hospitalizations for both opioid and cannabis abuse with 231 stays and 120 stays per 100,000, respectively. In contrast, amphetamine abuse diagnoses were most prevalent in the West with 92 stays per 100,000. There were only 6 stays per 100,000 for amphetamine abuse in the Northeast.

Drug abuse hospitalizations, by expected payer

Government-sponsored insurance programs were billed for the largest portion, nearly 60 percent, of drug abuse-related hospital stays (figure 3). This is comparable with the government's share of all hospitalizations with one key difference. Medicaid (the public program for low-income individuals) bore the largest burden of drug abuse stays, while Medicare (the public payer for the elderly and disabled) was the predominant government payer for all hospital stays. This is consistent with the finding that drug abuse patients tend to be younger, and suggests that drug abuse can impede a person's ability to sustain health insurance.

While private insurance was the expected payer for more than a third of all hospital stays, it was billed for less than 20 percent of drug abuse stays. Another striking difference is the large portion of drug abuse stays that were uninsured—over three times the share for all hospital stays (17.2 versus 5.4 percent).

Data Source

The estimates in this Statistical Brief are based upon data from the HCUP 2005 Nationwide Inpatient Sample (NIS). Supplemental sources include data on regional population estimates from Table 8: Annual Estimates of the Population for the United States, Regions, and Divisions: April 1, 2000 to July 1, 2005 (NST-EST2005-08), Population Division, U.S. Census Bureau, Release date: December 22, 2005 (<http://www.census.gov/popest/states/tables/NST-EST2005-08.xls>) and National Population Estimates for the 2000s: Monthly Postcensal Resident Population, by single year of age, sex, race, and Hispanic origin. Population Division, U.S. Census Bureau (http://www.census.gov/popest/national/asrh/2005_nat_res.html).

Definitions

Types of hospitals included in HCUP

HCUP is based on data from community hospitals, defined as short-term, non-Federal, general and other hospitals, excluding hospital units of other institutions (e.g., prisons). HCUP data include OB-GYN, ENT, orthopedic, cancer, pediatric, public, and academic medical hospitals. They exclude long-term care, rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals, but these types of discharges are included if they are from community hospitals.

Unit of analysis

The unit of analysis is the hospital discharge (i.e., the hospital stay), not a person or patient. This means that a person who is admitted to the hospital multiple times in one year will be counted each time as a separate "discharge" from the hospital.

Region

Region is one of the four regions defined by the U.S. Census Bureau:

- Northeast: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania
- Midwest: Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas

⁶The cocaine hospitalization rate in the West was not statistically different from the hospitalization rate for cannabis.

- South: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas
- West: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, and Hawaii

Costs and charges

Total hospital charges were converted to costs using cost-to-charge ratios based on hospital accounting reports from the Centers for Medicare and Medicaid Services (CMS).⁷ Costs will tend to reflect the actual costs of production, while charges represent what the hospital billed for the case. For each hospital, a hospital-wide cost-to-charge ratio is used because detailed charges are not available across all HCUP States. Hospital charges reflect the amount the hospital charged for the entire hospital stay and does not include professional (physician) fees. For the purposes of this Statistical Brief, costs are reported to the nearest hundreds. For the purposes of this Statistical Brief, these ratios were estimated by multiplying the 2004 ratio for each hospital by 0.96, which represents the average annual change exhibited in the cost-to-charge ratios over the past few years.

Payer

Payer is the expected payer for the hospital stay. To make coding uniform across all HCUP data sources, Payer combines detailed categories into more general groups:

- Medicare includes fee-for-service and managed care Medicare patients.
- Medicaid includes fee-for-service and managed care Medicaid patients. Patients covered by the State Children's Health Insurance Program (SCHIP) may be included here. Because most state data do not identify SCHIP patients specifically, it is not possible to present this information separately.
- Private insurance includes Blue Cross, commercial carriers, and private HMOs and PPOs.
- Other includes Worker's Compensation, TRICARE/CHAMPUS, CHAMPVA, Title V, and other government and non-government programs.
- Uninsured includes an insurance status of "self-pay" and "no charge."

When more than one payer is listed for a hospital discharge, the first-listed payer is used.

Diagnoses, ICD-9-CM Codes

The principal diagnosis is that condition established after study to be chiefly responsible for the patient's admission to the hospital. Secondary diagnoses are concomitant conditions that coexist at the time of admission or that develop during the stay. All-listed diagnoses include the principal diagnosis plus these additional secondary conditions. All-listed diagnoses were used for this analysis.

ICD-9-CM is the International Classification of Diseases, Ninth Revision, Clinical Modification, which assigns numeric codes to diagnoses. There are about 12,000 ICD-9-CM diagnosis codes.

For this analysis, drug abuse was defined using ICD-9-CM codes related to the non-medical use of drugs, excluding alcohol.

Records with the diagnosis codes, including external cause of injury codes (E codes) shown below, in any diagnosis or E code field, were identified as drug abuse hospitalizations for this analysis. The records were organized into named drug groups where possible. Several of these groups identify drugs that are illicit (illegal), such as cannabis, cocaine, and hallucinogens. Some groups identify legally prescribed drugs that are not used in accordance with medical directions, including antidepressants and barbiturates. Some groups, however, include both illicit drugs and legally prescribed drugs, including opioids (illicit heroin and prescription opiate-based pain relievers) and amphetamines (illicit methamphetamines as well as prescription stimulants such as Ritalin and weight-loss drugs). The group labeled "other" includes diagnoses of drug-related mental disorders, cases of drug abuse or dependence in pregnancy or affecting newborns, and cases related to combined or unspecified drug abuse or dependence. Because all diagnoses listed on the discharge record were used to identify drug abuse stays, each discharge may include more than one drug abuse diagnosis.

⁷Costs reported for 2005 are preliminary because hospital accounting reports for 2005 are not yet available. Estimates of cost-to-charge ratios for 2005 are prepared using the 2004 cost-to-charge ratios updated using the nationwide average change in the ratio above the last few years. HCUP Cost-to-Charge Ratio Files (CCR), Healthcare Cost and Utilization Project (HCUP), 2001–2004. U.S. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/db/state/costtocharge.jsp

- Amphetamines
 - 304.40-304.43, Amphetamine dependence
 - 305.7-305.73, Amphetamine abuse
- Antidepressants
 - 305.8-305.83, Antidepressant abuse
- Barbiturates
 - 304.1-304.13, Barbiturate dependence
 - 305.4-305.43, Barbiturate abuse
- Cannabis
 - 304.3-304.33, Cannabis dependence
 - 305.2-305.23, Cannabis abuse
- Cocaine
 - 304.2-304.23, Cocaine dependence
 - 305.6-305.63, Cocaine abuse
 - 760.75, Cocaine affecting fetus or newborn
- Hallucinogens
 - 304.5-304.53, Hallucinogen dependence
 - 305.3-305.33, Hallucinogen abuse
 - 760.73, Hallucinogens affecting fetus or newborn
 - E939.6, Adverse effects of hallucinogens
 - E854.1, Accidental poisoning by hallucinogens
- Opioids
 - 304.0-304.03, Opioid dependence
 - 304.7-304.73, Combinations of opioid type drug with any other dependence
 - 305.5-305.53, Opioid abuse
 - 965.00, Poisoning by opium
 - 965.01, Poisoning by heroin
 - E935.0, Adverse effects of heroin
 - E850.0, Accidental poisoning by heroin
- Other
 - 304.6-304.63, Other specified drug dependence
 - 304.8-304.83, Combinations of drug dependence excluding opioid type drug
 - 304.9-304.93, Unspecified drug dependence
 - 305.9-305.93, Other, mixed, or unspecified drug abuse
 - 648.3-648.34, Drug dependence complicating pregnancy, childbirth, or the puerperium
 - 655.5-655.53, Suspected damage to fetus from drugs
 - 760.72, Narcotics affecting fetus or newborn
 - 779.5, Drug withdrawal syndrome in newborn
 - 292.0, Drug withdrawal syndrome
 - 292.11-292.12, Drug-induced psychotic disorders
 - 292.2, Pathological drug intoxication
 - 292.81-292.89, Other specified drug-induced mental disorders
 - 292.9, Unspecified drug-induced mental disorder

About the NIS

The HCUP Nationwide Inpatient Sample (NIS) is a nationwide database of hospital inpatient stays. The NIS is nationally representative of all community hospitals (i.e., short-term, non-Federal, non-rehabilitation hospitals). The NIS is a sample of hospitals and includes all patients from each hospital, regardless of payer. It is drawn from a sampling frame that contains hospitals comprising 88 percent of all discharges in the United States. The vast size of the NIS allows the study of topics at both the national and regional levels for specific subgroups of patients. In addition, NIS data are standardized across years to facilitate ease of use.

About HCUP

HCUP is a family of powerful health care databases, software tools, and products for advancing research. Sponsored by the Agency for Healthcare Research and Quality (AHRQ), HCUP includes the largest all-payer encounter-level collection of longitudinal health care data (inpatient, ambulatory surgery, and emergency department) in the United States, beginning in 1988. HCUP is a Federal-State-Industry Partnership that brings together the data collection efforts of many organizations—such as State data

organizations, hospital associations, private data organizations, and the Federal government—to create a national information resource.

For more information about HCUP, visit <http://www.hcup-us.ahrq.gov/>.

HCUP would not be possible without the contributions of the following data collection Partners from across the United States:

Arizona Department of Health Services
Arkansas Department of Health & Human Services
California Office of Statewide Health Planning & Development
Colorado Health & Hospital Association
Connecticut Integrated Health Information (Chime, Inc.)
Florida Agency for Health Care Administration
Georgia GHA: An Association of Hospitals & Health Systems
Hawaii Health Information Corporation
Illinois Health Care Cost Containment Council and Department of Public Health
Indiana Hospital & Health Association
Iowa Hospital Association
Kansas Hospital Association
Kentucky Cabinet for Health and Family Services
Maryland Health Services Cost Review Commission
Massachusetts Division of Health Care Finance and Policy
Michigan Health & Hospital Association
Minnesota Hospital Association
Missouri Hospital Industry Data Institute
Nebraska Hospital Association
Nevada Division of Health Care Financing and Policy, Department of Human Resources
New Hampshire Department of Health & Human Services
New Jersey Department of Health & Senior Services
New York State Department of Health
North Carolina Department of Health and Human Services
Ohio Hospital Association
Oklahoma Health Care Information Center for Health Statistics
Oregon Association of Hospitals and Health Systems
Rhode Island Department of Health
South Carolina State Budget & Control Board
South Dakota Association of Healthcare Organizations
Tennessee Hospital Association
Texas Department of State Health Services
Utah Department of Health
Vermont Association of Hospitals and Health Systems
Virginia Health Information
Washington State Department of Health
West Virginia Health Care Authority
Wisconsin Department of Health & Family Services

For additional HCUP statistics, visit HCUPnet, our interactive query system at www.hcup.ahrq.gov.

For More Information

For a detailed description of HCUP and more information on the design of the NIS and methods to calculate estimates, please refer to the following publications:

Steiner, C., Elixhauser, A., Schnaier, J. The Healthcare Cost and Utilization Project: An Overview. *Effective Clinical Practice* 5(3):143–51, 2002.

Design of the HCUP Nationwide Inpatient Sample, 2004. Online. August 8, 2006. U.S. Agency for Healthcare Research and Quality. http://www.hcup-us.ahrq.gov/db/nation/nis/reports/NIS_2004_Design_Report.pdf

Houchens, R., Elixhauser, A. *Final Report on Calculating Nationwide Inpatient Sample (NIS) Variances, 2001*. HCUP Methods Series Report #2003-2. Online. June 2005 (revised June 6, 2005). U.S. Agency for Healthcare Research and Quality. <http://www.hcup-us.ahrq.gov/reports/CalculatingNISVariances200106092005.pdf>

Suggested Citation

Kassed, C. A. (Thomson Healthcare), Levit, K. R. (Thomson Healthcare), and Hambrick, M. M. (AHRQ). *Hospitalizations Related to Drug Abuse, 2005*. HCUP Statistical Brief #39. October 2007. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.hcupus.ahrq.gov/reports/statbriefs/sb39.pdf>

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AHRQ welcomes questions and comments from readers of this publication who are interested in obtaining more information about access, cost, use, financing, and quality of health care in the United States. We also invite you to tell us how you are using this Statistical Brief and other HCUP data and tools, and to share suggestions on how HCUP products might be enhanced to further meet your needs. Please e-mail us at hcup@ahrq.gov or send a letter to the address below:

Irene Fraser, Ph.D., Director
Center for Delivery, Organization, and Markets
Agency for Healthcare Research and Quality
540 Gaither Road
Rockville, MD 20850

Table 1. Hospital stays for drug abuse* compared to hospital stays for all conditions, 2005

	Hospital stays for drug abuse	All hospital stays
<i>Stay characteristics</i>		
Number of discharges	1,300,900	39,163,800
Percent of all hospital stays	3.3%	100.0%
Average length of stay	5.9 days	4.6 days
<i>Admission source and discharge status</i>		
Percent admitted through the emergency department	58.8%	42.5%
Percent discharged against medical advice	6.2%	0.9%
<i>Costs</i>		
Aggregate costs	\$ 9.9 billion	\$ 310.9 billion
Average cost per stay	\$ 7,600	\$ 7,900
Average cost per day	\$ 1,300	\$ 1,700
<i>Patient characteristics</i>		
Mean age	41 years	47 years
Percent male	57.4%	41.3%

*Based on all-listed diagnoses.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2005.

Table 2. Hospital stays for drug abuse,* by age and drug type, 2005

	All ages	Age group			
		0-17	18-44	45-64	65 and above
<i>Hospital stays in thousands</i>					
Abuse of any drug	1,301	56	748	399	97
<i>Percent distribution among age groups</i>					
Abuse of any drug	100.0	4.3	57.5	30.6	7.4
<i>Percent distribution within age group</i>					
Abuse of any drug	100.0	100.0	100.0	100.0	100.0
Amphetamines	7.6	5.1	10.2	4.6	0.8
Antidepressants	0.2	0.2	0.2	0.2	0.1
Barbiturates	4.3	1.9	4.0	5.0	4.5
Cannabis	21.2	33.8	27.2	2.9	1.9
Cocaine	35.1	23.3	38.5	38.0	4.3
Hallucinogens	0.5	2.9	0.5	0.2	0.1
Opioids	26.1	6.6	26.8	30.8	12.2
Other	38.5	46.1	33.4	36.3	83.2

*Based on all-listed diagnoses.

Note: Each discharge may include more than one drug abuse diagnosis. Therefore, the total number of discharges may be less than the sum of the specific drug abuse categories. Discharges for all ages include a small number (less than 1,500 or 0.1 percent) with missing age.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2005.

Table 3. Hospital stays for drug abuse,* by region and drug type, 2005

	All regions	Region			
		Northeast	Midwest	South	West
<i>Hospital stays in thousands</i>					
Abuse of any drug	1,301	326	295	422	257
Amphetamines	99	3	14	19	62
Antidepressants	2	0	0	1	0
Barbiturates	56	15	9	21	11
Cannabis	275	66	74	85	50
Cocaine	457	133	109	160	55
Hallucinogens	6	2	1	2	2
Opioids	339	126	69	83	61
Other	501	114	118	69	99
<i>Hospital stays per 100,000 population</i>					
Abuse of any drug	439	596	448	393	377
Amphetamines	33	6	21	18	92
Antidepressants	1	1	1	1	0
Barbiturates	19	27	13	20	15
Cannabis	93	120	113	79	73
Cocaine	154	243	165	149	80
Hallucinogens	2	3	2	2	2
Opioids	115	231	105	78	89
Other	169	210	179	158	145

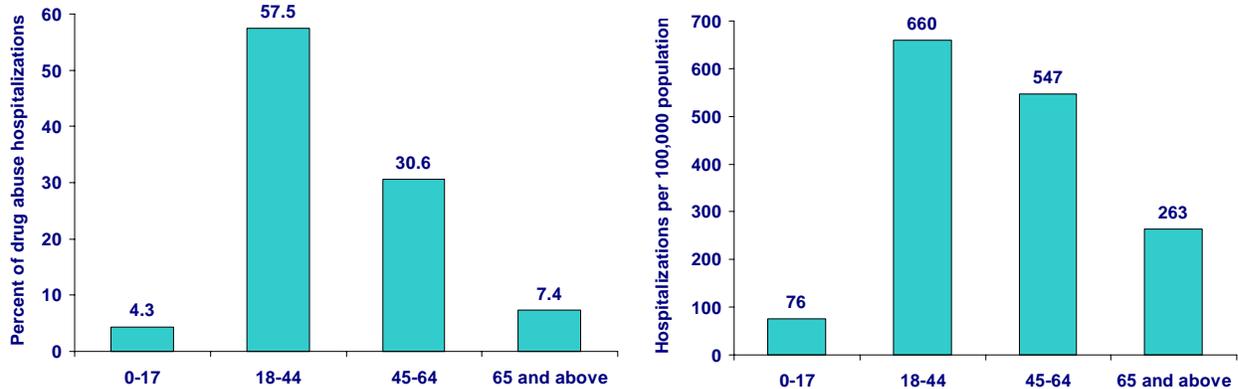
* Based on all-listed diagnoses.

Note: Each discharge may include more than one drug abuse diagnosis. Therefore, the total number of discharges will be less than the sum of the specific drug abuse categories.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2005.



Figure 1. Distribution and rate of hospitalizations for drug abuse,* by age, 2005

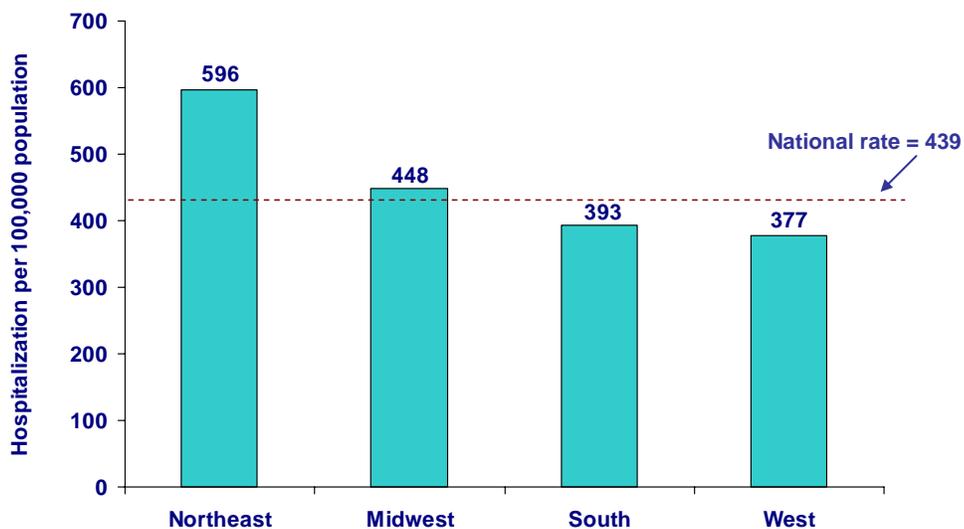


*Based on all-listed diagnoses.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2005; National Population Estimates for the 2000s: Monthly Postcensal Resident Population, by single year of age, sex, race, and Hispanic origin. Population Division, U.S. Census Bureau. http://www.census.gov/popest/national/asrh/2005_nat_res.html



Figure 2. Rate of hospitalization for drug abuse,* by region, 2005

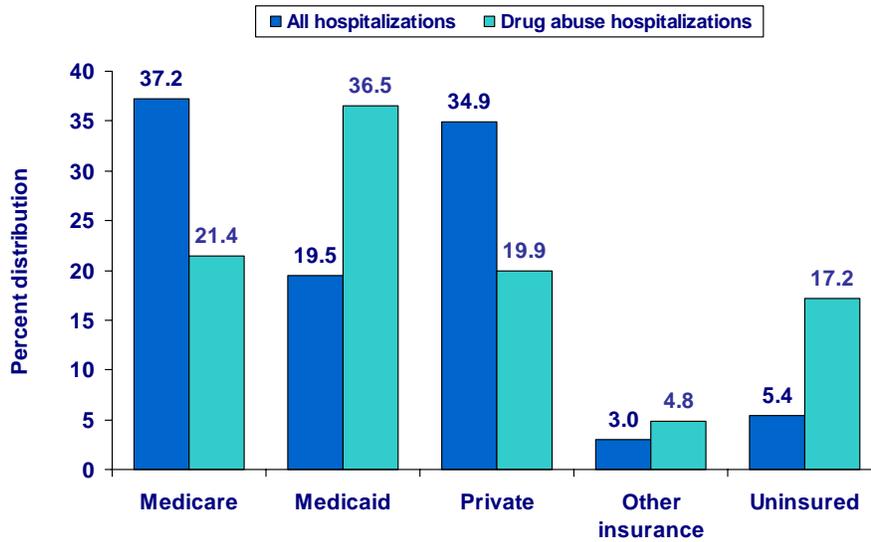


*Based on all-listed diagnoses using regional population as the denominator.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2005; National Population Estimates for the 2000s: Monthly Postcensal Resident Population, by single year of age, sex, race, and Hispanic origin. Population Division, U.S. Census Bureau. http://www.census.gov/popest/national/asrh/2005_nat_res.html



Figure 3. Percent distribution of all hospitalizations and drug abuse hospitalizations,* by payer, 2005



*Based on all-listed diagnoses.

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 2005.