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Characteristics of Hospital Stays for Nonelderly Medicaid Super-Utilizers, 2012

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Introduction

With over 67 million beneficiaries, Medicaid has emerged as the largest health insurance program in the United States.¹ The Medicaid population includes infants, children, young mothers, homeless adults, individuals with disabilities, and individuals who are dually eligible for Medicare and Medicaid. The considerable diversity among patients covered by Medicaid in age, race/ethnicity, and type of health conditions poses great challenges for managing the use of health services by this population. Specifically, among patients with physical or behavioral chronic conditions, Medicaid patients have been shown to experience higher hospital readmission rates than privately insured patients,² suggesting that a relatively small group of patients may account for a disproportionately large share of utilization and costs. Understanding the characteristics and patterns of hospitalization for high-utilizing patients can help policymakers and clinicians develop interventions to address the special needs of these patients and reduce their risks for multiple hospitalizations.

This Healthcare Cost and Utilization Project (HCUP) Statistical Brief presents data on patient demographics and characteristics of hospital stays for Medicaid super-utilizers compared with stays for other Medicaid patients. For this report, *super-utilizers* are defined as patients who had four or more hospital admissions³ during 2012. The most common principal diagnoses for hospital stays are also identified for these super-utilizers.

Weighted national estimates are produced from 18 HCUP State Inpatient Databases (SID) that capture hospital discharge data from both fee-for-service and managed care Medicaid enrollees and allow for examination of readmissions because they include a valid encrypted patient identifier that allows for tracking across

¹ Centers for Medicare & Medicaid Services. Medicaid & CHIP: August 2014 Monthly Applications, Eligibility Determinations, and Enrollment Report.

<http://www.medicaid.gov/AffordableCareAct/Medicaid-Moving-Forward-2014/Downloads/August-2014-Enrollment-Report.pdf>. Accessed October 30, 2014

² Jiang HJ, Wier LM. *All-Cause Hospital Readmissions Among Non-Elderly Medicaid Patients, 2007*. HCUP Statistical Brief #89. April 2010. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb89.pdf>. Accessed August 20, 2014.

³ Four or more stays is above two standard deviations of the average number of stays for Medicaid patients aged 1 to 64 years.

Highlights

- In 2012, on average compared with other Medicaid patients, Medicaid super-utilizers had more hospital stays (5.9 vs. 1.3 stays), longer length of stay (6.1 vs. 4.5 days), and higher hospital costs per stay (\$11,766 vs. \$9,032).
- Medicaid super-utilizers accounted for 14 percent of Medicaid hospital stays and 18 percent of Medicaid hospital costs.
- Medicaid super-utilizers were more likely than other Medicaid patients to be male and to be aged 45–64 years.
- The 30-day all-cause readmission rate for super-utilizers was nearly six times higher than for other Medicaid patients (52.4 vs. 8.8 percent). Half of all 30-day readmissions for the Medicaid population were attributable to super-utilizers.
- *Mood disorders* and *schizophrenia and other psychotic disorders* were the two most common reasons for hospitalization among Medicaid super-utilizers. *Alcohol-related disorders* ranked number six.
- Other common conditions among super-utilizers included diabetes; cancer treatment; sickle cell anemia; septicemia; congestive heart failure; chronic obstructive pulmonary disease; and complications of devices, implants and grafts.

hospital stays. This analysis includes only patients aged 1 to 64 years covered by Medicaid who did not have Medicare listed as a payer. Differences greater than 20 percent between weighted estimates are noted in the text.

Findings

Patient demographics of Medicaid super-utilizers, 2012

Table 1 presents demographic characteristics of Medicaid super-utilizers compared with other Medicaid patients who were hospitalized in 2012.

Table 1. Demographic characteristics of super-utilizers with Medicaid coverage who were hospitalized in 2012

| | Medicaid super-utilizers ^a | Other Medicaid patients | All Medicaid patients |
|--------------------------|---------------------------------------|-------------------------|-----------------------|
| Age, years, % | | | |
| 1–12 | 7.3 | 9.3 | 9.0 |
| 13–20 | 7.3 | 14.3 | 13.3 |
| 21–44 | 36.2 | 50.0 | 48.1 |
| 45–64 | 49.2 | 26.3 | 29.6 |
| Sex, % | | | |
| Female | 50.9 | 70.4 | 67.6 |
| Male | 49.1 | 29.6 | 32.4 |
| Race/ethnicity, % | | | |
| White, non-Hispanic | 48.2 | 47.8 | 47.9 |
| Black, non-Hispanic | 31.9 | 25.9 | 26.8 |
| Hispanic | 14.1 | 17.9 | 17.4 |
| Asian/Pacific Islander | 1.8 | 3.0 | 2.8 |
| Native American | 0.5 | 0.7 | 0.7 |
| Other | 3.5 | 4.6 | 4.4 |

^a Super-utilizers are patients with four or more hospital stays per year.

Source: Weighted national estimates from a readmissions analysis file derived from the Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), State Inpatient Databases (SID) from 18 States, 2012

- **Among hospitalized patients with Medicaid coverage in 2012, super-utilizers were more likely to be older than other Medicaid patients.**

Among Medicaid super-utilizers, those aged 45–64 years accounted for the largest proportion of hospital stays (49.2 percent). Among other Medicaid patients, the 21–44 year-old age group had the largest share of all hospital stays (50.0 percent). Patients younger than 21 years accounted for only 14.6 percent of hospital stays for super-utilizers but they accounted for 23.6 percent of hospital stays for other Medicaid patients.

- **Females constituted a smaller share of hospital stays by super-utilizers compared with the female share of hospital stays of other Medicaid patients.**

Hospital stays for Medicaid super-utilizers were evenly split between female and male patients (50.9 and 49.1 percent, respectively). In contrast, among other Medicaid patients the share of hospital stays for women was more than twice that for men (70.4 vs. 29.6 percent).

- **A higher proportion of Medicaid super-utilizers were Black and a lower proportion were Hispanic compared with other Medicaid patients.**

Non-Hispanic Whites constituted a similar proportion of hospital stays among Medicaid super-utilizers and other Medicaid patients (48.2 and 47.8 percent, respectively). Non-Hispanic Blacks accounted

for nearly one-third of hospital stays among super-utilizers (31.9 percent), which was higher than the share for Blacks among other Medicaid patients (25.9 percent). Hispanics had a smaller share of hospital stays among super-utilizers than among other Medicaid patients (14.1 vs. 17.9 percent).

Resource use and outcomes of hospital stays for Medicaid super-utilizers, 2012

Table 2 presents information on hospital stays, hospital costs, readmissions, and disposition for Medicaid super-utilizers.

Table 2. Resource use and outcomes of hospital stays for super-utilizers with Medicaid coverage, 2012

| | Medicaid super-utilizers ^a | Other Medicaid patients | All Medicaid patients | Share of super-utilizers among all Medicaid patients, % |
|--------------------------------------|---------------------------------------|-------------------------|-----------------------|---|
| Number of stays per year | | | | |
| Average per person | 5.9 | 1.3 | 1.4 | - |
| Total | 883,805 | 5,297,497 | 6,181,302 | 14 |
| Length of stay, days | | | | |
| Average per stay | 6.1 | 4.5 | 4.7 | - |
| Total | 5,365,164 | 23,933,266 | 29,298,429 | 18 |
| Hospital costs | | | | |
| Average per stay, \$ | 11,766 | 9,032 | 9,423 | - |
| Total, \$ billions | 10.4 | 47.6 | 58.0 | 18 |
| 30-day all-cause readmissions | | | | |
| Rate, % | 52.4 | 8.8 | 15.1 | - |
| Total | 424,930 | 424,693 | 849,622 | 50 |
| Disposition, % | | | | |
| Home | 74.4 | 87.9 | 86.0 | 12 |
| Home health care | 10.7 | 4.9 | 5.7 | 27 |
| Transfer to short-term hospital | 0.9 | 0.7 | 0.7 | 18 |
| Transfer to other type of facility | 8.3 | 3.8 | 4.4 | 27 |
| Against medical advice | 4.9 | 1.8 | 2.3 | 31 |
| Died in hospital | 0.8 | 0.9 | 0.8 | 14 |

^a Super-utilizers are patients with four or more hospital stays per year.

Source: Weighted national estimates from a readmissions analysis file derived from the Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), State Inpatient Databases (SID) from 18 States, 2012

- **Compared with hospital stays of other Medicaid patients, hospital stays of Medicaid super-utilizers were more frequent, longer, more expensive, and more likely to result in readmission.**

Medicaid super-utilizers had an average of 5.9 hospital stays during the year—more than four times the average of 1.3 stays for other Medicaid patients. Super-utilizers also had a longer average length of stay (6.1 vs. 4.5 days) and incurred higher average hospital costs per stay (\$11,766 vs. \$9,032) than other Medicaid patients. The 30-day all-cause readmission rate for super-utilizers was nearly six times higher than for other Medicaid patients (52.4 vs. 8.8 percent).

- **The share of 30-day all-cause hospital readmissions among Medicaid super-utilizers was disproportionately high compared with their share of hospital stays and costs.**

Among hospitalizations covered by Medicaid, super-utilizers accounted for 14 percent of hospital stays, 18 percent of hospital days and costs, and 50 percent of 30-day all-cause readmissions.

- **Medicaid super-utilizers were more likely to require follow-up care after discharge and to leave the hospital against medical advice compared with other Medicaid patients.**

A majority of Medicaid super-utilizers were discharged home (74.4 percent). However, compared with other Medicaid patients, those in the super-utilizing group were more than twice as likely to require home health care (10.7 vs. 4.9 percent), be transferred to another type of health care facility (8.3 vs. 3.8 percent), or leave the hospital against medical advice (4.9 vs. 1.8 percent).

Common principal diagnoses for hospital stays among Medicaid super-utilizers, 2012

Table 3 lists the 10 most common principal diagnoses for hospital stays among Medicaid super-utilizers and their share of stays among all Medicaid patients in 2012.

Table 3. Top 10 principal diagnoses for super-utilizers with Medicaid coverage, 2012

| Rank | Principal diagnosis ^a | Number of hospital stays | | Share of super-utilizers among all Medicaid patients, % |
|------|--|---------------------------------------|-----------------------|---|
| | | Medicaid super-utilizers ^b | All Medicaid patients | |
| 1 | Mood disorders | 55,061 | 312,711 | 18 |
| 2 | Schizophrenia and other psychotic disorders | 47,831 | 170,190 | 28 |
| 3 | Diabetes mellitus with complications | 40,153 | 125,444 | 32 |
| 4 | Maintenance chemotherapy; radiotherapy | 37,181 | 50,119 | 74 |
| 5 | Sickle cell anemia | 33,880 | 59,517 | 57 |
| 6 | Alcohol-related disorders | 31,121 | 95,148 | 33 |
| 7 | Septicemia (except in labor) | 27,641 | 116,272 | 24 |
| 8 | Congestive heart failure; nonhypertensive | 26,963 | 73,932 | 36 |
| 9 | Chronic obstructive pulmonary disease and bronchiectasis | 25,476 | 78,714 | 32 |
| 10 | Complication of device; implant or graft | 25,159 | 79,173 | 32 |

^a Clinical Classifications Software (CCS) categories based on International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) diagnoses

^b Super-utilizers are patients with four or more hospital stays per year.

Source: Weighted national estimates from a readmissions analysis file derived from the Agency for Healthcare Research and Quality (AHRQ), Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project (HCUP), State Inpatient Databases (SID) from 18 States, 2012

- **Three of the top 10 diagnoses for hospital stays for Medicaid super-utilizers were mental and behavioral health conditions.**

Mood disorders, schizophrenia and other psychotic disorders, and alcohol-related disorders were the first, second, and sixth most common reasons for hospitalization, respectively, for Medicaid super-utilizers.

- **Several common chronic conditions were also among the top 10 diagnoses of hospital stays for Medicaid super-utilizers.**

Chronic conditions among the top 10 diagnoses for Medicaid super-utilizers included diabetes (ranked third), sickle cell anemia (ranked fifth), congestive heart failure (ranked eighth), and chronic obstructive pulmonary disease (ranked ninth). Cancer treatment (e.g., chemotherapy, radiotherapy) was the fourth most common reason for hospitalization among super-utilizing Medicaid patients. Among all Medicaid stays, super-utilizers accounted for 74 percent of stays for cancer treatment and 57 percent of stays for sickle cell anemia.

For Medicaid super-utilizers, two acute conditions—septicemia and complications of device, implant or graft—were the seventh and 10th most common reasons for hospitalization, respectively.

Data Source

The estimates in this Statistical Brief are based upon data from the Healthcare Cost and Utilization Project (HCUP) 2012 State Inpatient Databases (SID). The statistics were drawn from a readmissions analysis file that was created from the SID.

For 2012, readmissions data are available from 18 States: Alaska, Arkansas, California, Florida, Georgia, Hawaii, Louisiana, Massachusetts, Missouri, Nebraska, New Mexico, New York, South Carolina, Tennessee, Utah, Virginia, Vermont, and Washington. These 18 States are geographically dispersed and account for 46 percent of the total U.S. resident population and 45 percent of total U.S. hospitalizations.

The study population in this readmissions analysis file included discharges from community hospitals with the exclusion of rehabilitation and long-term acute care hospitals. We developed weights for national estimates using post-stratification on hospital characteristics (census region, urban-rural location, teaching capabilities, bed size, and control/ownership) and patient age groups. Only patients aged 1 to 64 years were included in the analysis. Verified synthetic patient identifiers tend to be less reliable and complete for patients less than 1 year old, which makes it difficult to track multiple hospitalizations. Patients aged 65 years and older are more likely to be covered by Medicare than are patients 64 years or younger.

Definitions

Diagnoses, ICD-9-CM, and Clinical Classifications Software (CCS)

The *principal diagnosis* is that condition established after study to be chiefly responsible for the patient's admission to the hospital. For the index stay, the diagnoses examined in this Statistical Brief are based on the CCS category for the principal diagnosis.

ICD-9-CM is the International Classification of Diseases, Ninth Revision, Clinical Modification, which assigns numeric codes to diagnoses. There are approximately 14,000 ICD-9-CM diagnosis codes.

CCS categorizes ICD-9-CM diagnosis codes into clinically meaningful categories.⁴ This clinical grouper makes it easier to quickly understand patterns of diagnoses. CCS categories identified as Other typically are not reported; these categories include miscellaneous, otherwise unclassifiable diagnoses that may be difficult to interpret as a group.

Readmissions

The 30-day readmission rate is defined as the number of admissions for each condition for which there was at least one subsequent hospital admission within 30 days, divided by the total number of admissions from January through November 2012. That is, when patients are discharged from the hospital, they are followed for 30 days in the data. If any readmission to the same or to a different hospital occurs during this time period, the admission is counted as a readmission. No more than one readmission is counted within the 30-day period of each admission, because the outcome measure assessed is "percentage of admissions that are followed by a readmission." If a patient was transferred to a different hospital on the same day or was transferred within the same hospital, the two events were combined as a single stay and the second event was not counted as a readmission; that is, a transfer was not considered a readmission.

Types of hospitals included in the HCUP State Inpatient Databases

This analysis used State Inpatient Databases (SID) limited to data from community hospitals, which are defined as short-term, non-Federal, general, and other hospitals, excluding hospital units of other institutions (e.g., prisons). Community hospitals include obstetrics and gynecology, otolaryngology,

⁴ Agency for Healthcare Research and Quality. HCUP Clinical Classifications Software (CCS). Healthcare Cost and Utilization Project (HCUP). Rockville, MD: Agency for Healthcare Research and Quality. Updated July 2014. <http://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp>. Accessed September 11, 2014.

orthopedic, cancer, pediatric, public, and academic medical hospitals. Excluded for this analysis are long-term care facilities such as rehabilitation, psychiatric, and alcoholism and chemical dependency hospitals. However, if a patient received long-term care, rehabilitation, or treatment for psychiatric or chemical dependency conditions in a community hospital, the discharge record for that stay was included in the analysis.

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 1 year will be counted each time as a separate discharge from the hospital.

Costs and charges

Total hospital charges were converted to costs using HCUP Cost-to-Charge Ratios based on hospital accounting reports from the Centers for Medicare & Medicaid Services (CMS).⁵ *Costs* reflect the actual expenses incurred in the production of hospital services, such as wages, supplies, and utility costs; *charges* represent the amount a hospital billed for the case. For each hospital, a hospital-wide cost-to-charge ratio is used. Hospital charges reflect the amount the hospital billed for the entire hospital stay and do not include professional (physician) fees.

How HCUP estimates of costs differ from National Health Expenditure Accounts

There are a number of differences between the costs cited in this Statistical Brief and spending as measured in the National Health Expenditure Accounts (NHEA), which are produced annually by the Centers for Medicare & Medicaid Services (CMS).⁶ The largest source of difference comes from the HCUP coverage of inpatient treatment only in contrast to the NHEA inclusion of outpatient costs associated with emergency departments and other hospital-based outpatient clinics and departments as well. The outpatient portion of hospitals' activities has been growing steadily and may exceed half of all hospital revenue in recent years. On the basis of the American Hospital Association Annual Survey, 2012 outpatient gross revenues (or charges) were about 44 percent of total hospital gross revenues.⁷

Smaller sources of differences come from the inclusion in the NHEA of hospitals that are excluded from HCUP. These include Federal hospitals (Department of Defense, Veterans Administration, Indian Health Services, and Department of Justice [prison] hospitals) as well as psychiatric, substance abuse, and long-term care hospitals. A third source of difference lies in the HCUP reliance on billed charges from hospitals to payers, adjusted to provide estimates of costs using hospital-wide cost-to-charge ratios, in contrast to the NHEA measurement of spending or revenue. HCUP costs estimate the amount of money required to produce hospital services, including expenses for wages, salaries, and benefits paid to staff as well as utilities, maintenance, and other similar expenses required to run a hospital. NHEA spending or revenue measures the amount of income received by the hospital for treatment and other services provided, including payments by insurers, patients, or government programs. The difference between revenues and costs include profit for for-profit hospitals or surpluses for nonprofit hospitals.

Payer

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

- Medicare: includes patients covered by fee-for-service and managed care Medicare
- Medicaid: includes patients covered by fee-for-service and managed care Medicaid
- Private Insurance: includes Blue Cross, commercial carriers, and private health maintenance organizations (HMOs) and preferred provider organizations (PPOs)
- Uninsured: includes an insurance status of *self-pay* and *no charge*

⁵ Agency for Healthcare Research and Quality. HCUP Cost-to-Charge Ratio (CCR) Files. Healthcare Cost and Utilization Project (HCUP). 2001–2011. Rockville, MD: Agency for Healthcare Research and Quality. Updated August 2014. <http://www.hcup-us.ahrq.gov/db/state/costtocharge.jsp>. Accessed September 11, 2014.

⁶ For additional information about the NHEA, see Centers for Medicare & Medicaid Services (CMS). National Health Expenditure Data. CMS Web site May 2014. <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/index.html?redirect=/NationalHealthExpendData/>. Accessed October 9, 2014.

⁷ American Hospital Association. Trend Watch Chartbook, 2014. Table 4.2. Distribution of Inpatient vs. Outpatient Revenues, 1992–2012. <http://www.aha.org/research/reports/tw/chartbook/2014/table4-2.pdf>. Accessed October 9, 2014.

- Other: includes Worker's Compensation, TRICARE/CHAMPUS, CHAMPVA, Title V, and other government programs.

Hospital stays billed to the State Children's Health Insurance Program (SCHIP) may be classified as Medicaid, Private Insurance, or Other, depending on the structure of the State program. Because most State data do not identify patients in SCHIP specifically, it is not possible to present this information separately.

For the purpose of this analysis, Medicaid was identified based on a payer code of Medicaid as a primary, secondary, or tertiary payer regardless of whether the other payer, if any, was private, uninsured, or other. Individuals who were dually eligible for Medicare and Medicaid were not considered in this analysis because their hospital stays were covered by Medicare. For patients with multiple stays, if at least one stay was identified as Medicaid, the patient was counted as Medicaid and all the stays were included in the analysis.

About HCUP

The Healthcare Cost and Utilization Project (HCUP, pronounced "H-Cup") is a family of health care databases and related software tools and products developed through a Federal-State-Industry partnership and sponsored by the Agency for Healthcare Research and Quality (AHRQ). HCUP databases bring together the data collection efforts of State data organizations, hospital associations, private data organizations (HCUP Partners) and the Federal government to create a national information resource of encounter-level health care data. HCUP includes the largest collection of longitudinal hospital care data in the United States, with all-payer, encounter-level information beginning in 1988. These databases enable research on a broad range of health policy issues, including cost and quality of health services, medical practice patterns, access to health care programs, and outcomes of treatments at the national, State, and local market levels.

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

Alaska State Hospital and Nursing Home Association
Arizona Department of Health Services
Arkansas Department of Health
California Office of Statewide Health Planning and Development
Colorado Hospital Association
Connecticut Hospital Association
Florida Agency for Health Care Administration
Georgia Hospital Association
Hawaii Health Information Corporation
Illinois Department of Public Health
Indiana Hospital Association
Iowa Hospital Association
Kansas Hospital Association
Kentucky Cabinet for Health and Family Services
Louisiana Department of Health and Hospitals
Maine Health Data Organization
Maryland Health Services Cost Review Commission
Massachusetts Center for Health Information and Analysis
Michigan Health & Hospital Association
Minnesota Hospital Association
Mississippi Department of Health
Missouri Hospital Industry Data Institute
Montana MHA - An Association of Montana Health Care Providers
Nebraska Hospital Association
Nevada Department of Health and Human Services
New Hampshire Department of Health & Human Services

New Jersey Department of Health
New Mexico Department of Health
New York State Department of Health
North Carolina Department of Health and Human Services
North Dakota (data provided by the Minnesota Hospital Association)
Ohio Hospital Association
Oklahoma State Department of Health
Oregon Association of Hospitals and Health Systems
Oregon Health Policy and Research
Pennsylvania Health Care Cost Containment Council
Rhode Island Department of Health
South Carolina Revenue and Fiscal Affairs Office
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 Services
Wyoming Hospital Association

About Statistical Briefs

HCUP Statistical Briefs are descriptive summary reports presenting statistics on hospital inpatient and emergency department use and costs, quality of care, access to care, medical conditions, procedures, patient populations, and other topics. The reports use HCUP administrative health care data.

About the SID

The HCUP State Inpatient Databases (SID) are hospital inpatient databases from data organizations participating in HCUP. The SID contain the universe of the inpatient discharge abstracts in the participating HCUP States, translated into a uniform format to facilitate multistate comparisons and analyses. Together, the SID encompass more than 95 percent of all U.S. community hospital discharges. The SID can be used to investigate questions unique to one State, to compare data from two or more States, to conduct market-area variation analyses, and to identify State-specific trends in inpatient care utilization, access, charges, and outcomes.

For More Information

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

For additional HCUP statistics, visit HCUPnet, our interactive query system, at <http://hcupnet.ahrq.gov/>. HCUPnet provides ready-to-use tables on readmission rates by condition and procedure (using Clinical Classification Software categories), diagnosis-related groups (DRGs), and major diagnostic categories (MDCs).

For information on readmissions-related topics, refer to the following HCUP Statistical Briefs located at <http://www.hcup-us.ahrq.gov/reports/statbriefs/statbriefs.jsp>:

- Statistical Brief #172, Conditions With the Largest Number of Adult Hospital Readmissions by Payer, 2011
- Statistical Brief #127, 30-Day Readmissions following Hospitalizations for Chronic vs. Acute Conditions, 2008
- Statistical Brief #115, All-Cause Readmissions by Payer and Age, 2008
- Statistical Brief #89, All-Cause Hospital Readmissions among Non-Elderly Medicaid Patients, 2007

For a detailed description of HCUP and more information on the design of the State Inpatient Databases (SID), please refer to the following database documentation:

Agency for Healthcare Research and Quality. Overview of the State Inpatient Databases (SID). Healthcare Cost and Utilization Project (HCUP). Rockville, MD: Agency for Healthcare Research and Quality. Updated September 2014. <http://www.hcup-us.ahrq.gov/sidoverview.jsp>. Accessed September 11, 2014.

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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:

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