

### Readmissions -- The U.S. Landscape

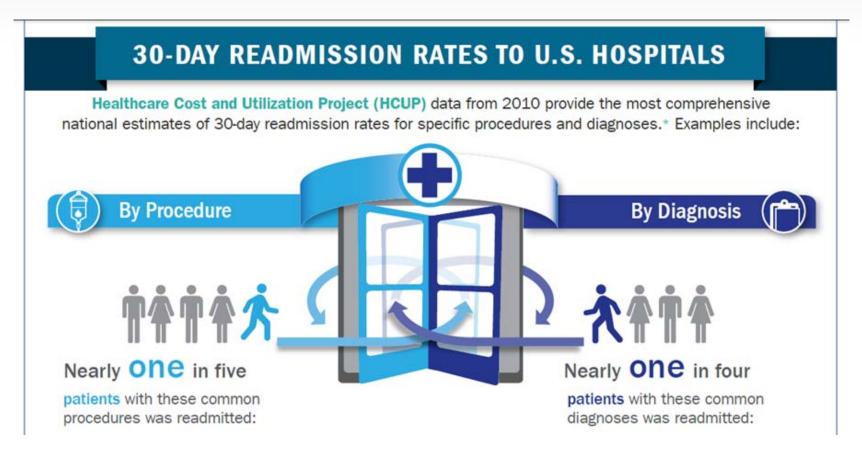
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Healthcare Cost and Utilization Project (HCUP)

December 5, 2013
The National Readmissions Summit



# Readmission: U.S. Landscape







# Readmission: U.S. Landscape



23% Amputation of lower extremity

19% Heart valve procedures

19% Debridement of a wound, infection, or burn

#### Nearly One in three

patients with these less frequent procedures was readmitted:

29% Kidney transplant

29% Ileostomy and other enterostomy



25% Congestive heart failure

22% Schizophrenia

22% Acute and unspecified renal failure

#### Nearly One in three

patients with these less frequent diagnoses was readmitted:

32% Sickle cell anemia

32% Gangrene



#### Readmission Rates by Payer



Medicaid and Medicare patients have a higher percentage of readmissions than other payers

Procedure: Amputation of lower extremity

■ Diagnosis: Congestive heart failure

| Medicare 26%          | 30% Medicaid          |
|-----------------------|-----------------------|
| Medicaid 22%          | 25% Medicare          |
| Privately Insured 17% | 20% Privately Insured |
| Uninsured 13%         | 17% Uninsured         |

\*Readmissions were for all causes and did not necessarily include the same procedure or diagnosis as the original admission (index stay).

# Healthcare Cost and Utilization Project (HCUP)









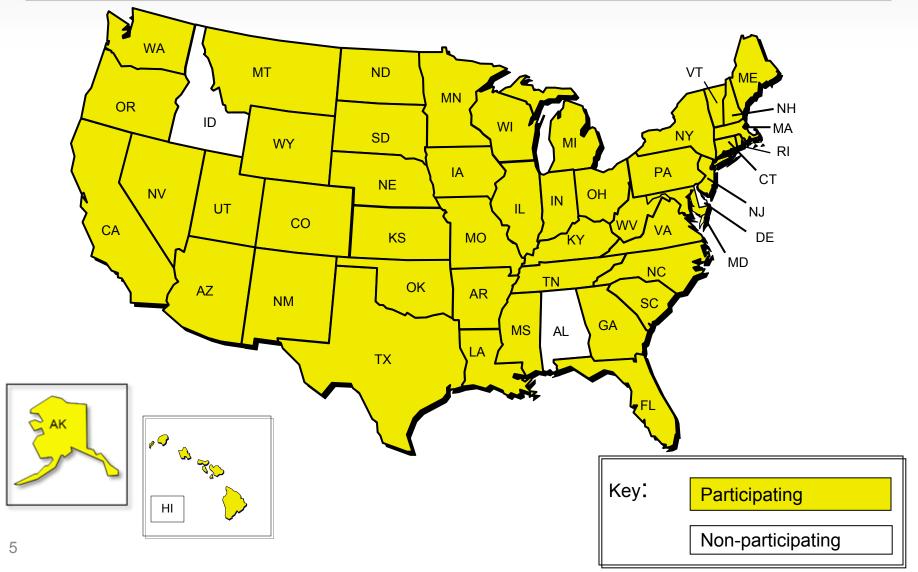






# HCUP Partners Providing 2011 Inpatient Data

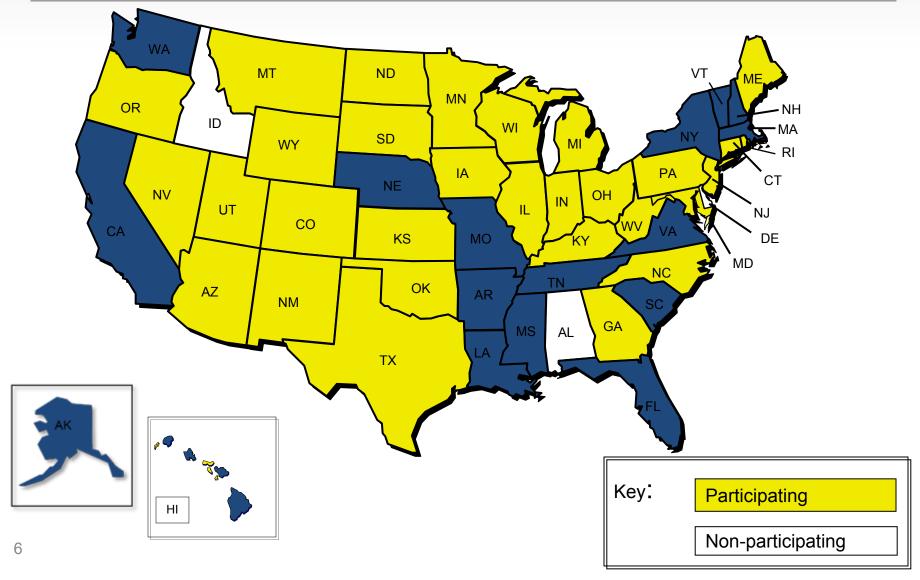






# **HCUP Partners: 2011**Patient Link Variables





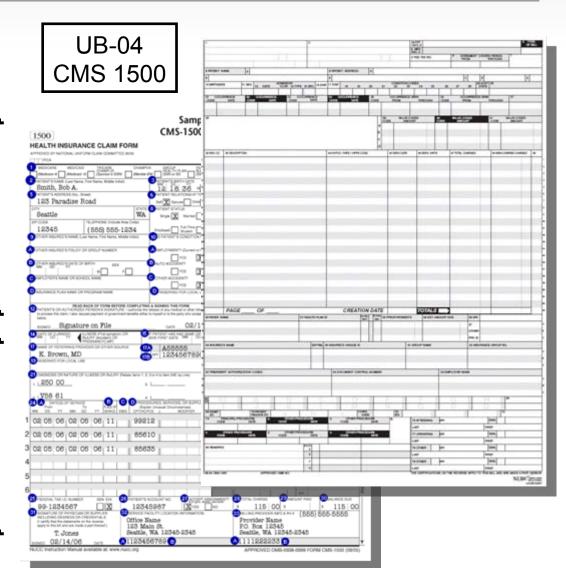


## The Foundation of HCUP Data is Hospital Billing Data





**Diagnoses Procedures Charges** 



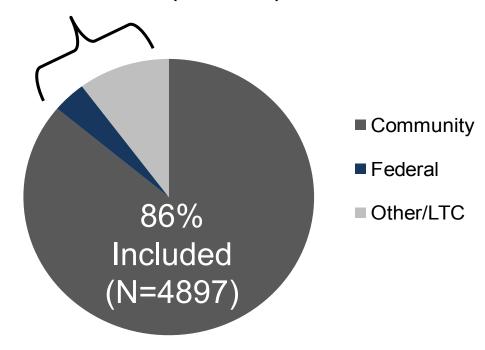


### **AHR** Where Do We Get HCUP Data?



HCUP-US data is mostly from community hospitals

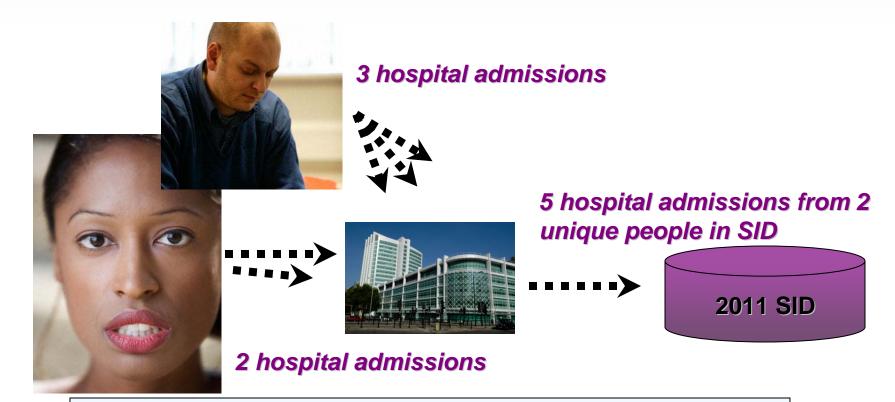
14% Excluded (N=793)





### A Look at Readmissions





Researchers can identify readmissions for patients overall or by conditions



# Characteristics of U.S. Community Hospitals



Table 1. Characteristics of U.S. community hospitals, 1997, 2010, and 2011

| Utilization, charges, and costs    | 1997   | 2010   | 2011   |
|------------------------------------|--------|--------|--------|
| Number of stays                    |        |        |        |
| Total stays in millions            | 34.7   | 39.0   | 38.6   |
| Stays per 10,000 population        | 1,272  | 1,261  | 1,239  |
| Total days of care in millions     | 168.1  | 181.7  | 177.6  |
| Mean length of stay, days          | 4.8    | 4.7    | 4.6    |
| Percentage of discharges in:       |        |        |        |
| Metropolitan hospitals             | 84     | 87     | 87     |
| Teaching hospitals                 | 47     | 48     | 48     |
| Charges and costs,* U.S. \$        |        |        |        |
| Mean charges per stay              | 15,100 | 33,800 | 35,400 |
| Mean costs per stay                | 6,800  | 10,300 | 10,000 |
| Total aggregate costs, in billions | 237.2  | 401.1  | 387.3  |



# **30-day Readmissions for Most Frequent Conditions**



Table 1. All-cause 30-day readmissions ranked by the *most frequently treated conditions*\* in U.S. hospitals, 2010

|      | Dringing diagnosis for                                   |                       | 30-day all-cause readmissions |                    |  |
|------|--|-----------------------|-------------------------------|--------------------|--|
| Rank | Principal diagnosis for index hospital stay **           | Number of index stays | Number of readmissions        | Percent readmitted |  |
| 1    | Pneumonia  | 924,160               | 144,894                       | 15.7               |  |
| 2    | Mood disorders   | 883,245               | 131,125                       | 14.8               |  |
| 3    | Osteoarthritis   | 872,661               | 42,241                        | 4.8                |  |
| 4    | Congestive heart failure, nonhypertensive                | 847,073               | 209,017                       | 24.7               |  |
| 5    | Cardiac dysrhythmias                                     | 705,616               | 104,607                       | 14.8               |  |
| 6    | Septicemia (except in labor)                             | 696,122               | 145,896                       | 21.0               |  |
| 7    | Coronary atherosclerosis                                 | 666,897               | 90,147                        | 13.5               |  |
| 8    | Trauma to perineum and vulva due to childbirth           | 610,073               | 5,046                         | 0.8                |  |
| 9    | Chronic obstructive pulmonary disease and bronchiectasis | 606,186               | 126,443                       | 20.9               |  |
| 10   | Nonspecific chest pain                                   | 601,899               | 61,465                        | 10.2               |  |
| 11   | Complication of device, implant or graft                 | 596,062               | 121,036                       | 20.3               |  |



## **30-day Readmissions for Conditions with Highest Readmission Rates**



Table 2. All-cause 30-day readmissions ranked by *conditions with the highest readmission rates*,\* U.S. hospitals, 2010

|        |  | •                     | 30-day all-cause readmissions |                    |  |
|--------|--|-----------------------|-------------------------------|--------------------|--|
| Rank   | Principal diagnosis for index hospital stay **               | Number of index stays | Number of readmissions        | Percent readmitted |  |
| 1      | Sickle cell anemia   | 87,326                | 27,837                        | 31.9               |  |
| 2<br>3 | Gangrene<br>Hepatitis  | 33,786<br>37,480      | 10,693<br>11,593              | 31.6<br>30.9       |  |
| 4      | Disease of white blood cells                                 | 54,861                | 16,771                        | 30.6               |  |
| 5      | Chronic renal failure  | 17,394                | 4,766                         | 27.4               |  |
| 6      | Systemic lupus erythematosus and connective tissue disorders | 18,850                | 5,123                         | 27.2               |  |
| 7      | Mycoses  | 23,026                | 6,222                         | 27.0               |  |
| 8      | HIV infection  | 34,958                | 9,230                         | 26.4               |  |
| 9      | Screening and history of mental health and substance abuse   | 60,417                | 15,695                        | 26.0               |  |
| 10     | Peritonitis and intestinal abscess                           | 25,219                | 6,315                         | 25.0               |  |







Figure 1. All-cause 30-day readmission rates for congestive heart failure by age and insurance status, U.S. hospitals, 2010

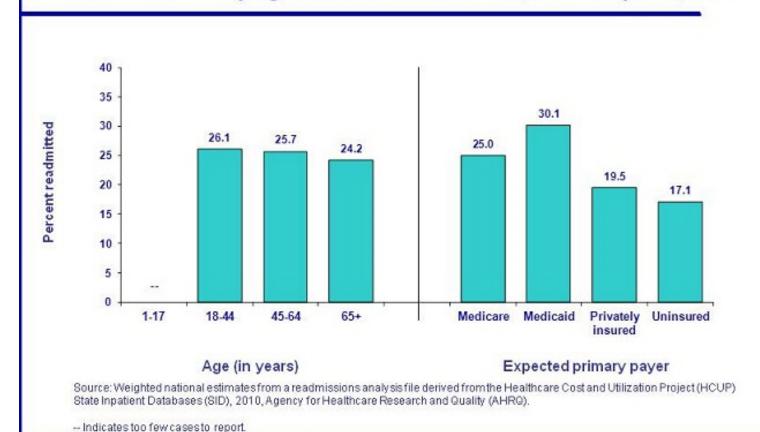
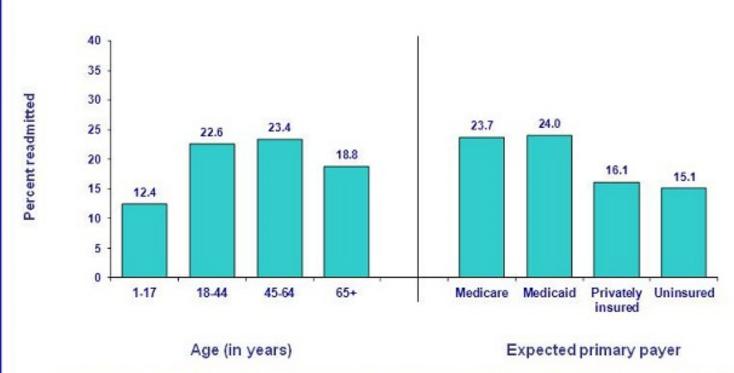








Figure 2. All-cause 30-day readmission rates for schizophrenia and other psychotic conditions by age and insurance status, U.S. hospitals, 2010



Source: Weighted national estimates from a readmissions analysis file derived from the Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases (SID), 2010, Agency for Healthcare Research and Quality (AHRQ).



### 30-day Readmissions for Most Frequent Procedures



Table 1. All-cause 30-day readmissions ranked by the most frequent procedures\* performed during the index stay, U.S. hospitals, 2010

| 30-day | all-cause | read | lmissions |
|--------|-----------|------|-----------|
|        |           |      |           |

| Rank | All-listed procedure for<br>index hospital stay** | Number of index stays | Number of readmissions | Percent readmitted |
|------|---|-----------------------|------------------------|--------------------|
| 1    | Cesarean section                                  | 1,209,422             | 24,281                 | 2.0                |
| 2    | Arthroplasty knee                                 | 651,965               | 32,764                 | 5.0                |
| 3    | Percutaneous coronary angioplasty (PTCA)          | 603,446               | 78,038                 | 12.9               |
| 4    | Laminectomy, excision intervertebral disc         | 456,664               | 30,383                 | 6.7                |
| 5    | Spinal fusion                                     | 431,577               | 29,326                 | 6.8                |
| 6    | Hip replacement, total and partial                | 424,408               | 34,265                 | 8.1                |
| 7    | Cholecystectomy and common duct                   | 419,433               | 39,774                 | 9.5                |
| 8    | Hysterectomy, abdominal and vaginal               | 409,674               | 19,446                 | 4.7                |
| 9    | Excision, lysis peritoneal adhesions              | 342,425               | 42,126                 | 12.3               |
| 10   | Appendectomy                                      | 315,034               | 18,835                 | 6.0                |
|      |   |                       |                        |                    |



## **30-day Readmissions for Procedures with Highest Readmission Rates**



Table 2. All-cause 30-day readmissions ranked by the *highest readmission rates for procedures\** performed during the index stay, U.S. hospitals, 2010

| All-listed procedure for |   |                       | 30-day all-cause readmissions |                    |  |
|--------------------------|---|-----------------------|-------------------------------|--------------------|--|
| Rank                     | index hospital stay**   | Number of index stays | Number of readmissions        | Percent readmitted |  |
| 1                        | Kidney transplant<br>lleostomy and other                                      | 16,761                | 4,882                         | 29.1               |  |
| 2                        | enterostomy (except colostomy)  | 23,392                | 6,811                         | 29.1               |  |
| 3                        | Procedures to create access for hemodialysis                                  | 49,982                | 13,682                        | 27.4               |  |
| 4                        | Nephrotomy and nephrostomy  | 43,773                | 10,508                        | 24.0               |  |
| 5                        | Tracheostomy,<br>temporary and<br>permanent                                   | 9,335                 | 2,234                         | 23.9               |  |
| 6                        | Amputation of lower extremity   | 124,880               | 28,488                        | 22.8               |  |
| 7                        | Bone marrow transplant  | 12,919                | 2,905                         | 22.5               |  |
| 8                        | Embolectomy and endarterectomy of lower limbs                                 | 44,584                | 9,387                         | 21.1               |  |
| 9                        | Peripheral vascular bypass  | 72,529                | 15,005                        | 20.7               |  |
| 10                       | Insertion, replacement,<br>or removal of<br>extracranial ventricular<br>shunt | 32,957                | 6,633                         | 20.1               |  |

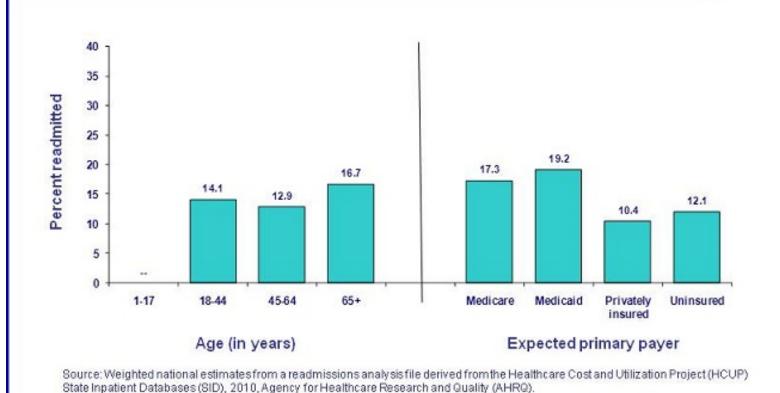






Indicates too few cases to report.

## Figure 6. All-cause 30-day readmission rates for coronary artery bypass graft by age and insurance status, U.S. hospitals, 2010





## **AHR** Readmissions to U.S. Hospitals



| Primary payer (ages covered)       | Number of<br>discharges<br>(in<br>thousands) | Percentage<br>of total U.S.<br>discharges | Number of readmissions | Percentage of<br>total U.S.<br>readmissions | Total cost of readmissions | Percentage of total cost of U.S. readmissions |
|------------------------------------|--|---|------------------------|---|----------------------------|---|
| Total U.S.                         | 38,600                                       | 100.0%                                    | 4,250,000              | 100.0                                       | 54,000,000,000             | 100.0   |
| Medicare (65+ years)               | 12,300                                       | 32.0%                                     | 1,835,000              | 43.2  | 24,000,000,000             | 44.5  |
| Medicaid (18 to 64 years)          | 5,400  | 14.1%                                     | 676,000                | 15.9  | 7,600,000,000              | 14.1  |
| Privately insured (18 to 64 years) | 9,100  | 23.7%                                     | 609,000                | 14.3  | 8,100,000,000              | 15.0  |
| Uninsured (18 to 64 years)         | 1,900  | 4.8%                                      | 160,000                | 3.8   | 1,500,000,000              | 2.8   |



# Medicare: Conditions that Contribute Most Readmissions



Table 2. Conditions with the most frequent all-cause, 30-day readmissions for Medicare patients

(aged 65 years and older), 2011

| Principal diagnosis for index hospital stay*                                   | Number of all-<br>cause, 30-day<br>readmissions | Readmissions<br>as a percentage<br>of total<br>Medicare<br>readmissions | Total cost of<br>all-cause,<br>30-day<br>readmissions, \$ | Percent<br>readmitted |
|--|---|---|---|-----------------------|
| Congestive heart failure; nonhypertensive                                      | 134,500   | 7.3   | 1,747,000,000   | 24.5                  |
| Septicemia (except in labor)   | 92,900  | 5.1   | 1,410,000,000   | 21.3                  |
| Pneumonia (except that caused by tuberculosis or sexually transmitted disease) | 88,800  | 4.8   | 1,148,000,000   | 17.9                  |
| Chronic obstructive pulmonary disease and bronchiectasis                       | 77,900  | 4.2   | 924,000,000   | 21.5                  |
| Cardiac dysrhythmias   | 69,400  | 3.8   | 835,000,000   | 16.2                  |
| Urinary tract infections   | 56,900  | 3.1   | 621,000,000   | 18.1                  |
| Acute and unspecified renal failure  | 53,500  | 2.9   | 683,000,000   | 21.8                  |
| Acute myocardial infarction  | 51,300  | 2.8   | 693,000,000   | 19.8                  |
| Complication of device; implant or graft                                       | 47,200  | 2.6   | 742,000,000   | 19.0                  |
| Acute cerebrovascular disease  | 45,800  | 2.5   | 568,000,000   | 14.5                  |
| Total for conditions with most frequent readmissions                           | 718,100   | 39.1  | 9,371,000,000   | 19.6                  |



# Medicaid: Conditions that Contribute Most Readmissions



Conditions with the most frequent all-cause, 30-day readmissions for Medicaid patients (aged 18–64 years), 2011

| Principal diagnosis for index hospital stay*             | Number of all-<br>cause, 30-day<br>readmissions | Readmissions<br>as a<br>percentage of<br>total Medicaid<br>readmissions | Total cost of all-cause, 30-day readmissions | Percent<br>readmitted |
|--|---|---|--|-----------------------|
| Mood disorders   | 41,600  | 6.2   | 286,000,000                                  | 19.8                  |
| Schizophrenia and other psychotic disorders              | 35,800  | 5.3   | 302,000,000                                  | 24.9                  |
| Diabetes mellitus with complications                     | 23,700  | 3.5   | 251,000,000                                  | 26.6                  |
| Other complications of pregnancy                         | 21,500  | 3.2   | 122,000,000                                  | 8.4                   |
| Alcohol-related disorders                                | 20,500  | 3.0   | 141,000,000                                  | 26.1                  |
| Early or threatened labor                                | 19,000  | 2.8   | 86,000,000                                   | 21.2                  |
| Congestive heart failure; nonhypertensive                | 18,800  | 2.8   | 273,000,000                                  | 30.4                  |
| Septicemia (except in labor)                             | 17,600  | 2.6   | 319,000,000                                  | 23.8                  |
| Chronic obstructive pulmonary disease and bronchiectasis | 16,400  | 2.4   | 178,000,000                                  | 25.2                  |
| Substance-related disorders                              | 15,200  | 2.2   | 103,000,000                                  | 18.5                  |
| Total for conditions with most frequent readmissions     | 230,200   | 34.1  | 2,061,000,000                                | 20.0                  |



# Private: Conditions that Contribute Most Readmissions



Conditions with the most frequent all-cause, 30-day readmissions for privately insured patients

(aged 18-64 years), 2011 Readmissions Number of all-Total cost of as a percentage Percent cause. all-cause, of total privately 30-day 30-day readmitted insured readmissions readmissions Principal diagnosis for index readmissions hospital stay\* 10.4 Mood disorders 19,600 3.2 135,000,000 Complications of surgical 14.2 18.000 3.0 procedures or medical care 250.000.000 Complication of device; implant or 15.2 16,900 2.8 graft 322,000,000 15.4 Septicemia (except in labor) 14,800 2.4 272,000,000 Diabetes mellitus with 14.9 12.700 2.1 complications 138,000,000 24.6 Secondary malignancies 12,000 2.0 176,000,000 18.7 11,300 1.9 Early or threatened labor 59,000,000 Pancreatic disorders (not 13.8 11.000 1.8 diabetes) 156,000,000 Coronary atherosclerosis and 8.7 10,800 1.8 other heart disease 154,000,000 **Total for conditions with most** 15.9 152,500 25.0 2,062,000,000 frequent readmissions



### **AHR** Readmissions and the ED



- 2008 and 2009 State Inpatient and State Emergency Department Data
  - ▶ 8 states: MO, NE, NH, NY, SC, TN, and UT
- Selected patients treated for asthma in 2008 in either ED or IP setting as principal diagnosis
- Index = first visit (ED or IP) for asthma in 2008
  - Remove died at index
  - Remove non-residents
  - Remove patients with missing demographics



### **AHR** Readmissions and the ED



- Followed 12 months
  - ▶ 30 day and 365 day readmissions
- Stratified hospital utilization data by several patient characteristics
  - Age groups,
  - Sex,
  - Insurance status



## **AHR** Results - Descriptive



|                        |              | Patients classifie                 | d by first trea               | atment for                       | asthma in                     |
|------------------------|--------------|------------------------------------|-------------------------------|----------------------------------|-------------------------------|
|                        | All Patients | Treated in the ED and not admitted | Admitted<br>through the<br>ED | Admitted, but not through the ED | Admitted for an IP stay (all) |
| Number of patients     | 222,641      | 176,672                            | 39,864                        | 6,105                            | 45,969                        |
| Number of patients (%) | 100.0        | 79.0                               | 18.0                          | 3.0                              | 21.0                          |



## **AHR** Results – All Patients



|                       |              | Patients classi                    | fied by first<br>in 200 |                                  | or asthma                              |
|-----------------------|--------------|------------------------------------|-------------------------|----------------------------------|--|
|                       | All Patients | Treated in the ED and not admitted | Admitted through the ED | Admitted, but not through the ED | Admitted<br>for an IP<br>stay<br>(all) |
| Type of insurance (%) |              |                                    |                         |                                  |  |
| Medicare, ages 65+    | 7.7          | 3.5                                | 23.7                    | 22.6                             | 23.5                                   |
| Medicaid              | 33.7         | 33.9                               | 33.9                    | 27.1                             | 33.0                                   |
| Private insurance     | 36.1         | 38.5                               | 25.2                    | 35.7                             | 26.6                                   |
| Uninsured             | 15.3         | 17.7                               | 6.7                     | 2.6                              | 6.2                                    |



## **AHR** Results – 30 Days



|                       |              | Patients classified by first treatment for asthma |                         |                                  |  |  |  |  |
|-----------------------|--------------|---|-------------------------|----------------------------------|--|--|--|--|
|                       |              | in 2008   |                         |                                  |  |  |  |  |
|                       | All Patients | Treated in the ED and not admitted                | Admitted through the ED | Admitted, but not through the ED | Admitted<br>for an IP<br>stay<br>(all) |  |  |  |
| 1                     | 1            | ı   | 1                       | 1 ,                              |  |  |  |  |
| All ages, all types   | 1            |   | 1                       | 1                                | <br>                                   |  |  |  |
| of insurance          |              |   |                         |                                  |  |  |  |  |
| No ED visit or IP     |              |   |                         |                                  |  |  |  |  |
| stay within 30 days   | 93.8         | 93.4  | 95.0                    | 96.6                             | 95.2                                   |  |  |  |
| Treated in the ED     |              |   |                         |                                  |  |  |  |  |
| and not admitted      | 4.5          | 5.2   | 2.2                     | 1.0                              | 2.0                                    |  |  |  |
| Admitted for an IP    |              |   |                         |                                  |  |  |  |  |
| stay                  | 1.9          | 1.6   | 3.0                     | 2.5                              | 3.0                                    |  |  |  |
| Either an ED visit or |              |   |                         |                                  | <u> </u>                               |  |  |  |
| IP stay               | 6.2          | 6.6   | 5.0                     | 3.4                              | 4.8                                    |  |  |  |





|                                       |              | Patients classified by first treatment for asthma in 2008 |                         |   |                               |  |  |
|---------------------------------------|--------------|---|-------------------------|---|-------------------------------|--|--|
|                                       | All Patients | Treated in the ED and not admitted                        | Admitted through the ED | Admitted,<br>but not<br>through the<br>ED | Admitted for an IP stay (all) |  |  |
| All ages, all types of insurance      |              |   |                         |   |                               |  |  |
| No ED visit or IP stay within 30 days | 73.5         | 73.8  | 71.4                    | 77.8                                      | 72.3                          |  |  |
| Treated in the ED and not admitted    | 21.7         | 23.4  | 16.2                    | 8.9                                       | 15.2                          |  |  |
| Admitted for an IP stay               | 8.4          | 6.0   | 18.0                    | 16.1                                      | 17.7                          |  |  |
| Either an ED visit or IP stay         | 26.5         | 26.2  | 28.6                    | 22.2                                      | 27.7                          |  |  |









#### Welcome to H·CUPnet

HCUPnet is a free, on-line query system based on data from the Healthcare Cost and Utilization Project (HCUP). It provides access to health statistics and information on hospital inpatient and emergency department utilization.

Begin your query here -

#### Statistics on Hospital Stays

#### (National Statistics on All Stays

Create your own statistics for national and regional estimates on hospital use for all patients from the HCUP Nationwide Inpatient Sample (NIS). Overview of the Nationwide Inpatient Sample (NIS)

#### National Statistics on Mental Health Hospitalizations

Interested in acute care hospital stays for mental health and substance abuse? Create your own national statistics from the NIS.

#### (State Statistics on All Stays)

Create your own statistics on stays in hospitals for participating States from the HCUP State Inpatient Databases (SID). Overview of the State Inpatient Databases (SID)

#### (National Statistics on Children

Create your own statistics for national estimates on use of hospitals by children (age 0-17 years) from the HCUP Kids' Inpatient Database (KID). Overview of the Kids' Inpatient Database (KID)

### National and State Statistics on Hospital Stays by Payer - Medicare, Medicaid, Private, Uninsured

Interested in hospital stays billed to a specific payer? Create your own statistics for a payer, alone or compared to other payers from the NIS, KID, and SID.

#### (Quick National or State Statistics

Ready-to-use tables on commonly requested information from the HCUP Nationwide Inpatient Sample (NIS), the HCUP Kids' Inpatient Database (KID), or the HCUP State Inpatient Databases (SID).

#### First Time Visitor?

HCUPnet overview
How does HCUPnet work?
HCUPnet methodology?
HCUPnet definitions?

#### What's New?

- Cost information Just Added! for participating states in 2011. (06/05/2013)
- Population-based Just Added! rates and queries restricted to non-neonatal and non-maternal discharges. (06/03/2013)
- 2011 nationwide Just Added! hospital data now available. (05/31/2013)
- 2011 data for participating States. (11/14/2012)
- 2010 readmission data added. (10/15/12)
- 2010 nationwide ED data -new database just released. (10/05/2012)
- 2010 nationwide data on AHRQ Quality Indicators. (10/05 /2012)

Projected estimates on specific conditions are periodically available here.

http://hcupnet.ahrq.gov



### **AHR** HCUPnet: Readmissions



All patient readmissions within 30 days National statistics, 2011

### Index stay - 2 Septicemia (except in labor) Index stay defined by the principal diagnosis, using Clinical Classification Software (CCS)

|                                 |                                 |                    |                                | Readmitted within 30 days                                  |                       |                                |  |                       |                                |                            |                       |                                |
|---------------------------------|---------------------------------|--------------------|--------------------------------|--|-----------------------|--------------------------------|--|-----------------------|--------------------------------|----------------------------|-----------------------|--------------------------------|
|                                 |                                 | Index Stays        |                                | Readmissions with the same<br>CCS as a principal diagnosis |                       |                                | Readmissions with the same<br>CCS in any diagnosis |                       |                                | Readmissions for any cause |                       |                                |
|                                 |                                 | Number<br>of stays | Mean<br>cost \$<br>per<br>stay | Number<br>of stays   | Percent<br>readmitted | Mean<br>cost \$<br>per<br>stay | Number<br>of stays                                 | Percent<br>readmitted | Mean<br>cost \$<br>per<br>stay | Number<br>of stays         | Percent<br>readmitted | Mean<br>cost \$<br>per<br>stay |
| Overall                         |                                 | 794,760            | 20,544                         | 38,016   | 4.8                   | 21,830                         | 54,066   | 6.8                   | 24,040                         | 164,379                    | 20.7                  | 16,386                         |
| Age group                       | 1-17                            | 8,516              | 29,816                         |  |                       |                                |  |                       |                                | 1,434                      | 16.8                  | 20,184                         |
|                                 | 18-44                           | 86,534             | 21,050                         | 2,585  | 3.0                   | 23,401                         | 4,341  | 5.0                   | 26,363                         | 14,272                     | 16.5                  | 17,029                         |
|                                 | 45-64                           | 229,943            | 24,309                         | 10,671   | 4.6                   | 25,653                         | 16,194   | 7.0                   | 27,370                         | 49,337                     | 21.5                  | 18,237                         |
|                                 | 65+                             | 469,768            | 18,438                         | 24,640   | 5.2                   | 19,990                         | 33,289   | 7.1                   | 21,959                         | 99,336                     | 21.1                  | 15,319                         |
| Sex                             | Male                            | 381,464            | 21,794                         | 19,456   | 5.1                   | 21,837                         | 28,031   | 7.3                   | 24,106                         | 81,555                     | 21.4                  | 16,806                         |
|                                 | Female                          | 413,296            | 19,392                         | 18,559   | 4.5                   | 21,823                         | 26,036   | 6.3                   | 23,969                         | 82,824                     | 20.0                  | 15,974                         |
| Payer                           | Medicare                        | 541,234            | 19,286                         | 28,904   | 5.3                   | 20,704                         | 40,064   | 7.4                   | 22,739                         | 118,957                    | 22.0                  | 15,837                         |
|                                 | Medicaid                        | 87,734             | 27,239                         | 4,711  | 5.4                   | 26,976                         | 6,875  | 7.8                   | 28,100                         | 20,801                     | 23.7                  | 18,251                         |
|                                 | Private<br>insurance            | 117,066            | 21,600                         | 3,285  | 2.8                   | 24,232                         | 5,367  | 4.6                   | 28,537                         | 18,405                     | 15.7                  | 18,336                         |
|                                 | Uninsured                       | 28,569             | 18,230                         | 551  | 1.9                   | 21,102                         | 874  | 3.1                   | 24,305                         | 3,151                      | 11.0                  | 14,311                         |
| Median<br>income for<br>zipcode | First quartile<br>(lowest)      | 246,310            | 19,572                         | 12,160   | 4.9                   | 20,072                         | 17,372   | 7.1                   | 22,384                         | 52,740                     | 21.4                  | 15,077                         |
|                                 | Second<br>quartile              | 183,878            | 20,377                         | 8,247  | 4.5                   | 21,289                         | 12,020   | 6.5                   | 24,010                         | 37,578                     | 20.4                  | 16,159                         |
|                                 | Third quartile                  | 194,600            | 20,882                         | 9,630  | 4.9                   | 23,744                         | 13,467   | 6.9                   | 24,773                         | 39,765                     | 20.4                  | 17,225                         |
|                                 | Fourth<br>quartile<br>(highest) | 157,344            | 22,008                         | 7,459  | 4.7                   | 23,191                         | 10,436   | 6.6                   | 26,333                         | 31,890                     | 20.3                  | 18,041                         |
| Patient<br>residence            | Metropolitan                    | 640,679            | 21,076                         | 32,028   | 5.0                   | 22,933                         | 45,266   | 7.1                   | 24,875                         | 135,098                    | 21.1                  | 16,924                         |
|                                 | Non-<br>Metropolitan            | 154,081            | 18,429                         | 5,988  | 3.9                   | 16,216                         | 8,800  | 5.7                   | 19,944                         | 29,281                     | 19.0                  | 14,005                         |



### **AHRO HCUP-US: Statistical Briefs**





HEALTHCARE COST AND UTILIZATION PROJECT

#### STATISTICAL BRI

March 2013

#### Infectious Enteritis and Foodborne Illness in the United States, 2010

Jennifer Lucado, M.F.H., Shamis Mohamoud, M.A., Lan Zhao, Ph.D., and Anne Elixhauser, Ph.D.

#### Introduction

Footborne linesses are a common cause of morbidly and sometimes death in the United States, affecting 1 in 6 Americans and causing approximately 128,000 hospitalizations and 3,000 deaths each year. The Centers for Disease Centrol and Prevention (COQ) categoriess foodborne linesses into two groups: 1) linesses caused by one of the 31 currently known major pathogens, i.e., becteria, viruses, parasites, and chemicals, and 2) episodes of acute gestiventerials caused by unknown agents or substances with unproven ability to cause linesses.

While the known pathogens cause an estimated 3.4 million foodborne liness episodes each year," it is estimated that the majority of cases—38.4 million—are caused by the unspecified agents. The too pathogens include Norovirus, Samonella, Clostrialum perfiningens, Campylobacter, and Staphylocucus aureus. Many episodes of foodborne liness are marked by acute gastroenteritis; however, not all cases of acute gastroenteritis are caused by organisms found in food, so gastrointestinal symptoms do not necessarily mean a person has a foodborne liness.

Common symptoms of acute gestroenterits are distribed and vaniting, in addition, more serious complications such as colitis, bloodstream infection, meninglis, joint infection, kidney failure, and other problems can develop. In the United States, some groups of the population are at a higher risk for developing

\*Centers for Disasse Control and Prevention. April 11, 2011 CDC Epinipase of Foodborne Illness in the United States. CDC 2011 Epinipase: Findings. Available at http://www.odc.gov/foodborneburden/2011-foodborneagiftpase, http://libcostate/Fabruary 8, 2013).

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HEALTHCARE COST AND

#### STATISTICAL BRIE

March 2018

#### Trends in Potentially Preventable Hospital Admissions among Adults and Children, 2005–2010

Celeste M. Torlo, Ph.D., M.F.H., Anne Elixhauser, Ph.D., and Roxanne M. Andrews, Ph.D.

#### Introduction

improving the quality of health care while simultaneously containing costs continues to be a major priority for the nation, particularly for policymakers and public and private payers. One area where higher quality and lower costs coincide is potentially preventable hospital admissions—impatient stays that could be prevented with high-quality primary and preventive care. High rates of these potentially preventable hospital admissions identify areas where possible improvements in the health care delivery system could be made to enhance patient outcomes and decrease costs. Positive changes in these rates over time may signal an improvement in the quality of ambuilatory care, in access to timely and effective treatment of certain conditions for specific populations, or in patients' adoption of healthy behaviors.

This Statistical Brief presents data from the Healthcare Cost and Utilization Project (HOUP) on changes in the rates of potentially preventiable hospital admissions and their associated total hospital costs. It updates statistics previously reported for the 1997 through 2004 time period. "Admission rates for selected chronic and acute conditions in adults and children for 2005 through 2010 were developed using the Agency for Healthcare Research and Quality (AHRQ) Prevention Quality indicators (Polis). The conditions examined for adults aged 18 years and older were related to diabetes, circulatory diseases, chronic respiratory diseases, and select acute conditions (bacterial pneumonia, dehydration, and unitary tract infection). The conditions examined for children younger than 18 years were diabetes, existing, gastroenteritis, and unitary tract infection. All differences between estimates noted in the text are significant at the O.05 level or better.

#### Findings

For the conditions examined here, the number of potentially preventable decreased 6.2 percent from 4.1 million stays in 2005 to 3.5 million stay related to these potentially preventable admissions for adults decrease in 2005 to 831.9 billion in 2010.

<sup>4</sup> Russo CA, Jisno HJ, Barrett M, Trends in Potentially Preventable Hospitalizations am





#### STATISTICAL BRIEF #152

March 2013

#### Characteristics of Homeless and Non-Homeless Individuals Using Inpatient and Emergency Department Services, 2008

Zeynai Karaca, Fh.D., Herbert S. Wong, Ph.D., and Ryan L. Mutter, Ph.D.

#### Introductio

Addressing the multidimensional health problems of homeless people is a challenge for public policymakers and health care providers. According to the National Costition for the Homeless, approximately 3.5 million individuals in the United States are likely to experience homelessness in a given year. Based on the 2003 2. Homeless Annual Assessment Report to Congress, doubt 1.58 million people used an emergency shefter or a transitional housing program between October 1, 2008, and September 20, 2008.

Prior studies have shown that homeless people have pooler health status, lighter rates of physical liness, and substance abuse; and earlier mortality when compared to the general public. At The prevalence of these health problems among homeless people varies across age cohorts (i.e., infectious disease, substance use, and mental liness are observed more frequently among younger homeless people.) The fact that

15;128(5):625-5.

#### Highlighte

- Among homeless patients seen in emergency departments (EDS) and hospitals, mental disorders accounted for 22.4 percent of inpatient hospital stays and 49.0 percent of treat-and-release (TAR) ED visits.
- Among homeless patients diagnosed with mental disorders:
  - Schizophrenia and other psychotic disorders accounted for 33.8 percent of inpatient hospital stays.
  - Alcohol-related disorders accounted for 52.8 percent of T&R. ED visits.
- Nearly one in three hospitalized homeless patients (28.1 percent) and more than two in five homeless patients visiting EDs (42.8 percent) were uninsured.
- Medicald was the expected payer for nearly half of homeless patients in the hospital (48.2 percent) and more than one-third of homeless patients in the ED (34.7 percent).
- Nearly three out of four inpetient hospital stays by homeless individuals (73.7 percent) becan in the ED.
- Females accounted for a third of inpatient hospital visits and a quarter of ED visits among homeless individuals.
- Among homeless patients admitted to the hospital, 16.1 percent were younger than 15 years old.
- Among homeless patients admitted to the hospital, 19.5 percent were White, 33.2 percent were Black, and 15.1 percent were Hispanic, Homelessness was noted in 2.8 percent of all inpatient stays for Black patients, compared to only 0.3 percent of White and 1.2 percent of Hispanic patients.
- Among homeless patients seen in the ED, 60.2 percent were White, 22.5 percent were Black, and 10.6 percent were Hispanic.

How many people experience homelessness? NCH Fact Sheet No. 2. National Coalition for the Homeless Web site. February 2013, Available at http://www.nationshomeless.org/lectahee/a/Hom\_Many.pdf.

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## **AHR** Questions/Comments?



