

# Statistical Brief # 15

## Office of Quality and Patient Safety

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## New York State All Payer Inpatient Hospital Discharges and Emergency Room Visits for Adult Males Age 18 and Older, 2014

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### Introduction

In New York State (NYS) during 2014, males accounted for about 49 percent<sup>1</sup> of the state population and for about 51 percent<sup>2</sup> of all newborns. National Vital Statistic findings indicate that males have an overall lower life expectancy than women<sup>3</sup>. High-risk behaviors and low utilization of health services may contribute to the lower life expectancy in men.<sup>4</sup> The diseases and comorbid conditions of male patients treated in inpatient and emergency room (ER) settings are of great interest to health care providers and public health professionals. Identifying conditions that are common reasons for inpatient stays and ER visits among males can add to the knowledge about disease burden and, subsequently, target prevention, early detection and intervention programs that could improve men's health.

This Statistical Brief presents data from the Statewide Planning and Research Cooperative System (SPARCS) for inpatient hospital discharges and same day ("treat and release") ER visits among males during calendar year (CY) 2014. Presented in this Brief is information across age groups including common diagnoses, procedures and other characteristics of the inpatient stays and ER visits experienced by adult male patients in New York State.

### Data Source

SPARCS is an all payer hospital discharge data system established in 1979 through cooperation between the health care industry and government. SPARCS currently collects claim level detail on patient characteristics, diagnoses, treatments, services, and charges for every hospital discharge, ambulatory surgery visit, emergency room

### Highlights

- Overall, males have fewer inpatient stays and ER visits than females. The majority of male visits are for males over the age of 18 years. Adult males represented 82% of all male inpatient discharges and 75% of all male Emergency Room (ER) visits during 2014.
- In NYS, in 2014, the total estimated cost of adult male (age 18+) inpatient stays was \$16.28 billion.
- Medicaid was the leading primary payer in each setting for males between the ages of 18-65.
- For adult males, the proportion of self-pay visits is higher for ER than for inpatient discharges. For males, 18-50, self-pay is the third leading payment type for ER visits.
- Septicemia (5.4%), sprains, and strains (4.8%) were the most frequently reported primary diagnosis on inpatient discharges and ER visits, respectively. Alcohol related disorders (4.2%) and superficial injury/contusion (4.7%) were ranked second.
- Seven out of the ten most frequent inpatient APR-DRGs for males 18-50 were related to mental health and/or substance abuse disorders.
- Septicemia and disseminated Infection APR-DRG in the 75+ age group accounted for 42% of all adult male discharges and for 40% of all adult male costs associated with this APR-DRG for males aged 18 and older.
- 86% of adult male inpatient discharges had one or more comorbid conditions. Hypertension was by far the most frequently reported condition (54%).
- On inpatient discharges with comorbidities, diabetes was observed on 27%, and obesity was reported on every tenth discharge.
- Adverse effects of medical care, and falls were the most frequently reported injuries in inpatient and ER settings, respectively.

admission and outpatient visits from health care facilities certified under Article 28 (acute care) of the NYS Public Health Law.

**Methods**

Inpatient Discharges and Emergency Room Visits

SPARCS inpatient discharges and ER visits from January 1, 2014 through December 31, 2014 for males 18 years of age and older at the time of visit or discharge were analyzed. ER visits were identified from SPARCS outpatient discharge records with a revenue code (Uniform Bill: UB-04 format) indicating ER care:

<b>Revenue Code</b>	<b>Description</b>
0450	Emergency Room
0451	Emergency Medical Treatment and Labor Act (EMTALA) Emergency Medical Screening Services
0452	ER Beyond EMTALA Screening
0456	Urgent Care
0459	Other Emergency Room Care

Only 'treat and release' ER visits or visits that resulted in a transfer to a different health care facility are included in the ER findings. ER visits that resulted in an inpatient stay in the same facility are reported as part of that inpatient stay and not as a separate ER visit.

Estimated Costs

Estimated costs for inpatient stays are derived from data reported by facilities to the NYS Department of Health (DOH) on a SPARCS record and data from annual Institutional Cost Report (ICR) facility filing. For every service and item provided to the patient during inpatient stay or ER visit, a charge amount to the primary payer is reported to SPARCS by the hospital. Individual charges aggregated to a discharge level represent total charge for an inpatient event. All services as well as facility base charge and applicable taxes are included in the aggregation. More information on the reported charges in SPARCS is available in the SPARCS Submission Data Dictionary, available at:

[http://www.health.ny.gov/statistics/sparcs/sysdoc/elements\\_837/index.htm](http://www.health.ny.gov/statistics/sparcs/sysdoc/elements_837/index.htm)

The ICR is a standard report completed by NYS facilities to report income, expenses, assets, liabilities, and statistics to the NYS DOH. Under DOH regulations, (Part 86-1.2), Article 28 hospitals are required to electronically file financial and statistical data with DOH annually through a secure network. Facility-specific Ratio of Cost to Charges (RCCs) by revenue code are included in the ICRs. The most current RCCs available (2012) were used to estimate costs presented in this brief.

Estimations represent cost to the hospital to provide services and are not the same as amount paid for services by the payers. Estimated costs reflect the expenses incurred by the hospital for a particular discharge.

Statistical Analysis

Summary statistics (e.g., counts, mean, median, percent) and graphics were used to analyze and present findings. Rankings for high cost (where highest cost is ranked as 1) All Patient Refined Diagnostic Related Groups (APR-DRGs) were developed based on mean cost per discharge, as well as total costs. Ranking for most common APR-DRGs, comorbid conditions, diagnostic AHRQ Clinical Classifications Software (CCS)<sup>4</sup> categories and surgical procedures were developed based on frequency of discharges (greatest number of discharges is ranked as 1).

## Findings

Table 1 presents the distribution of SPARCS inpatient discharges and ER visits. In 2014, there were 2,367,294 inpatient discharges and 6,830,596 ER visits reported by NYS acute care facilities to SPARCS. Males represented 44% of all inpatient discharges and 45% of all ER visits. Eighty-two percent of male inpatient discharges and 75% of male ER visits were for male patients 18 years and older. Males in the 50 to 64 years age group accounted for 30% of all inpatient discharges for adult males, followed by the 75+ year's old group (23%). About 36% of all 'treat and release' ER visits by adult males were observed in the 30 to 49 age group. About a quarter of all adult male ER visits were observed for males aged 18 to 29. At the same time, males in this age group accounted for the smallest percentage of all adult male inpatient discharges (8%).

Figure 1 shows the distribution of adult male inpatient discharges and ER visits by age in years. Inpatient discharges increased between the ages of 18 to 24 and then held steady up to age of 41 when there was a significant increase noted for each year until age of 55. Percent of total adult male inpatient discharges by year was among the highest between ages 55 and 67 when each year accounted for about two percent of total inpatient discharges for adult males. Number of inpatient discharges spiked at age 67 and 71, and then decreased for the older ages. Distribution of the male 'treat and release' ER visits was somewhat bimodal. ER visits peaked at age 24, then decrease steadily until age 42, peaking again at around of age 52 before decreasing thereafter. Interestingly, the distribution of ER visits showed increase in the percentage of total ER visits by adult males at the same ages (67 and 71) as for inpatient discharges. Overall, inpatient discharges occurred more frequently in older males (50 years and over) while 'treat and release' ER visits occurred more frequently in younger males (between the ages of 18-50 years).

Table 2 shows the distribution of adult male inpatient discharges and ER visits by race/ethnicity and by age group. White, non-Hispanic adult males accounted for the highest proportion of all adult male inpatient discharges (56.9%) and all adult male ER visits (45.7%). The percentage of inpatient discharges and ER visits for white, non-Hispanic adult males increased with age (44.1% in the 18-29 age group to 71.9% in the 75+ age group in the inpatient setting; 40.5% in the 18-29 age group to 71.8% in the 75+ age group in the ER setting). Black, non-Hispanic adult males represented the second most frequent race/ethnicity group accounting for 17.9% of the inpatient discharges and 23.8% of the ER visits. In contrast to White non-Hispanic adult males, the proportion of inpatient discharges and ER visits for Black, non-Hispanic adult males decreased as age increased (24.2% in the 18-29 age group to 9.7% in the 75+ age group in the inpatient setting; 25.4% in the 18-29 age group to 10.2% in the 75+ age group in the ER setting). Hispanic adult males had trends similar to the Black, non-Hispanic adult males for both inpatient discharges and ER visits with corresponding percentage ranges of 15.6% to 7.0% and 18.9% to 8.6%. Inpatient discharges and ER visits for Asian and Native American adult males were distributed somewhat evenly across age groups and ranged from 2.5% to 3.1% for Asian and 0.1% to 0.3% for Native American adult males on inpatient discharges. Similar trends were shown for ER visits.

Figure 2a illustrates the distribution of the male inpatient discharges based on the time of admission by age group. All age groups had similar admission time trends. Hospital admissions peaked between 5 - 6 am and 2 - 5 pm. The 18-29 age group had the most admissions during late evening and into the early morning (9 pm - 4 am). Both the 50-64 and 65-74 age groups had the highest rate of admissions during the very early morning hours (5-7 am). The 75+ age group had the most admissions during the afternoon and early evening (12 pm - 8 pm).

Figure 2b shows admission time trends for ER visits. The highest percentage of ER visits were from about 9 am to 1 pm in all age groups with the exception of males in 18-29 age group. Males in the youngest age group had somewhat stable percentage (5%) of the ER visits between 10 am and 9 pm. ER visits were highest in the 75+ age group and lowest in the 18-29 age group from morning until early afternoon (8 am - 3 pm), but

lowest in the 75+ age group and highest in the 18-29 age group throughout the evening and into the early morning (6 pm - 4 am). The 18-29 age group did not show a decline in 'treat and release' ER visits as early in the day as seen in other age groups.

Figure 3 shows the distribution of male inpatient discharges and ER visits by primary payer for each age group. Medicare was overwhelmingly the most frequent payer for males 65 years old and over in each setting (more than 90% inpatient, more than 75% ER). Medicaid was the leading payer for males under the age of 65 in each setting (34%-55% inpatient, about 35% ER). Overall, as age increased, the percentage of inpatient discharges and ER visits paid by Medicare increased (6% in the 18-29 age group to 96% in the 75+ age group for inpatient discharges; 2.0% in the 18-29 age group to 90% in the 75+ age group for ER visits). The opposite was noted for Medicaid and commercial health insurance plans: as age increased, the percentage of inpatient discharges and ER visits with Medicaid or commercial health insurance plans as primary payer decreased (Medicaid: 55% in the 18-29 age group to 2% in the 75+ age group for inpatient discharges; 36% in the 18-29 age group to 2% in the 75+ age group for ER visits). Commercial health insurance plans were reported as a primary payer on 27% of discharges in the 18-29 age group, on 34% of discharges in the 50-64 age group, and on less than 2% in the 75+ age group for inpatient discharges. Very similar trends were noted for the ER visits: 27% in the 18-29 age group, 29% in the 50-64 age group, and about 4% of the ER visits in the 75+ age group had commercial insurance reported as a primary payer. The percentage of ER visits that were self-pay was considerably higher compared to self-pay inpatient discharges. Between ages of 18 and 49, self-pay was the third leading payment type for the ER visits (26% for 18-29 years old, 23% for 30-49 years old age group) after Medicaid and commercial insurance.

Table 3 shows the distribution of adult male inpatient discharges by admission source for each age group. Almost 70% of the all inpatient discharges by adult males originated in the ER, about 25% of all admissions were routine (non-health facility point of origin or transfer from a clinic), and about 6% were transfers from another hospital or facility. Admissions through the ER were highest in the 18-29 years old (73%) and 75+ years old (75%) groups. Routine admissions were highest in the 50-64 years old (28%) and 65-74 years old (28%) groups.

Table 4 presents the distribution of male inpatient discharges and ER visits by discharge status for each age group. The majority of inpatient discharges (60%) and ER visits (94%) were routine (discharged to home or self-care). In the inpatient setting, the percent of inpatient discharges that were routine decreased as age increased (81% in the 18-29 age group to 36% in the 75+ age group). However, as age increased, the percentage of inpatient discharges to skilled nursing facility (less than 1% in the 18-29 age group to 24% in the 75+ age group) or to a home health care (under 5% in the 18-29 age group to 24% in the 75+ age group) also increased. Males 49 years old and younger had the highest percentage of inpatient discharges where they left against medical advice (between 6.5% and 7.4%).

Similarly to inpatient trends, the percentage of 'treat and release' ER visits that were routine, decreased as age increased (96% in the 18-29 age group to 88% in the 75+ age group). As age increased, the percentage of ER visits discharged to a short term hospital (0.5% in the 18-29 age group to 2.8% in the 75+ age group) or to a skilled nursing facility (0% in the 18-29 age group to 3.4% in the 75+ age group) increased as well. Overall, 3% of inpatient discharges and 0.3% of ER visits resulted in an outcome of in-hospital death, with the age group 75 years and older having the highest percentage of the outcome (6.2% for inpatient; 1.3% for ER).

Table 5 presents the distribution of male inpatient discharges by APR-DRG type and corresponding length of stay (LOS) for each age group. Medical APR-DRGs accounted for 75% of inpatient discharges. In all age groups, no more than about 4% of inpatient discharges were the same day discharges. Across all ages, 1 to 4 days was the most frequent LOS for both medical (ranged from 54.7% in the 18-29 age group to 49.5% in the 75+ age group) and surgical (ranged from 64.3% in the 18-29 age group to 44.7% in the 75+ age group) inpatient discharges. The percent of inpatient discharges with LOS from 1 to 4 days decreased as age increased. Meanwhile, the percent of inpatient discharges with LOS from 5 to 9 days increased with age

(21.8% in the 18-29 age group; 31.5% in the 75+ age group for medical APR-DRGs; 18.3% in the 18-29 age group; 29.2% in the 75+ age group for surgical APR-DRGs). Proportion of the longer stays (10 or more days) for medical APR-DRGs was somewhat similar across the age groups, ranging from 15.7 to 19.5% with highest percentage being attributed to 18-29 age group. In contrast, the proportion of surgical discharges with LOS of 10 or more days increased with age and was the highest in 75+ age group (25.5% of all surgical discharges for 75+ years olds).

Table 6 shows ten most frequently reported primary diagnosis CCS categories for male inpatient discharges and ER visits. The top ten primary diagnosis CCS categories accounted for 32.3% of inpatient discharges and 38.5% of ER visits. For inpatient discharges Septicemia was the most frequently reported CCS category (5.4%) while Sprains and strains was the most frequent (4.8%) for ER visits. Alcohol-related disorders, Congestive heart failure, Schizophrenia and other psychotic disorders, and Mood disorders were the CCS categories each contributing three or more percent to the total inpatient primary diagnoses. Overall, 13.2% (about 41% of the top ten sum) of the inpatient primary diagnosis CCS groups in the top ten for adult males were for mental health and substance abuse disorders, while 16.4% (about 43% of the top ten sum) of the ER primary diagnosis CCS groups in the top ten were injury related.

Table 7 shows the top ten APR-DRGs based on utilization and highest estimated cost of male inpatient discharges for each age group. In 2014, the total estimated cost for all male inpatient discharges in NYS was about \$16.28 billion. Total costs were somewhat proportional to the number of total discharges in each age group. The age group cost was highest for the 50-64 years old at \$5.12 billion (31.4% of total cost, 30.2% of total discharges) and lowest for the 18-29 age group at \$1.09 billion (6.7% of total cost, 8.0% of total discharges). Overall, both mean (\$15,837 in the 18-29 age group to \$19,259 in the 75+ age group) and median (\$8,031 in the 18-29 age group to \$11,190 in the 75+ age group) costs per discharge increased as age increased, though the 65-74 age group had higher than the 75+ age group mean and median costs per inpatient discharge (\$21,479 for mean and \$12,325 for median cost per discharge in the 65-74 age group).

Top ten APR-DRGs, based on the number of male inpatient hospital discharges, for those aged 18-29 accounted for 41.0% of all age group discharges and 33.1% of age group costs. Six out of ten most frequently reported APR-DRGs in this age group were related to mental health and substance abuse disorders. The most frequent APR-DRG - Schizophrenia represented 8.7% of all discharges in this age group and 12.7% of costs (\$137.97 million), with two next most frequent APR-DRGs: Bipolar Disorders, and Major Depressive Disorders and Other /Unspecified Psychoses combined accounting for 11.5% of discharges and 9.1% of costs (\$98.34 million) in the 18-29 age group. Opioid Abuse and Dependence ranked number four (5.1%) of the most frequent APR-DRGs, but did not make top ten based on the total cost (1.6%) of discharges for 18-29 years old. The costliest APR-DRGs in this age group comprised only 0.7% of all discharges, while representing 7.5% (\$81.19 million) of the inpatient costs and included Heart and/or Lung Transplant, Kidney Transplant, Tracheostomy with Mechanical Ventilation 96+ Hours with/without Extensive Procedures (two APR-DRGs), and other organ transplants. Heart and/or Lung Transplant was the top costliest APR-DRG with a mean of \$405,236 and average LOS of 46 days – one of the longest LOS in this age group. The shortest LOS for the top ten APR-DRGs was for Appendectomy (two days median and one-day mean LOS) that was fifth most frequent condition (3%) and seventh (2%) in total age group cost (\$21.3 million) ranking.

Inpatient hospital discharges for males in the 30-49 age group accounted for 20.3% of all male discharges and for 17.4% of all male discharges costs in 2014. Top ten most common APR-DRGs in this age group represented 31.9% of discharges and 23.6% of the age group costs. Similar to 18-29 age group, seven out of ten most common APR-DRGs for male inpatient hospital discharges were mental health or substance abuse related. While Cellulitis and Other Bacterial Infections, Septicemia and Disseminated Infections, and Disorders of Pancreas Except Malignancy were other frequent conditions, only Septicemia and Disseminated Infections was in top ten based on total cost. It was ranked second (3.3%, \$96.15 million) in this age group. Analogous to the younger age group, the costliest APR-DRGs for those 30-49 years old were transplant related APR-DRGs. Top three ranked APR-DRGs were: Heart and/or Lung Transplant (\$505,051 mean, \$244,846 median), Extensive

3<sup>rd</sup> Degree Burns with Skin Graft (\$314,243 mean, \$191,825 median), and Tracheostomy with Mechanical Ventilation 96+ Hours with Extensive Procedures Or Extracorporeal Membrane Oxygenation (\$250,804 mean, \$186,351 median). The average LOS for the costliest APR-DRG increased compared to the similar APR-DRGs in 18-29 age group and ranged from 5 (Kidney Transplant) to 87 days (Heart and/or Lung Transplant).

The age group with the highest proportion of all age male inpatient hospital discharges was 50-64 years old. It accounted for almost one third (30.2%) of all male discharges and total costs (31.4%). Septicemia and Disseminated Infections become top ranked APR-DRG based on discharges volume (3.6%) and total cost (4.46%, \$228.46 million). Alcohol Abuse and Dependence APR-DRG was ranked second by volume (3.0%), but not in the top ten by total costs, while Schizophrenia was six by discharge volume (2.3%) and second based on total costs within this age group (2.6%, \$133.08 million). Three cardiovascular conditions related APR-DRGs ranked in the top ten most frequently reported for this age group: Heart Failure (2.5%) was ranked third, Percutaneous Cardiovascular procedures without AMI (2.1%) ranked ninth, and Cardiac Arrhythmia and Conduction Disorders (1.9%) ranked tenth. Hip Joint Replacement (2.3% of age group discharges) and Knee Joint Replacement (2.2% of age group discharges) APR-DRGs were ranked fifth and eight respectively by volume and third (2.6%, \$132.56) and fifth (2.4%, \$120.20) by total cost reported for males in the 50-64 age group. Again, transplant and tracheostomy related APR-DRGs were among the costliest, though they accounted only for 0.8% of all age group discharges, but for 7.3% of total costs and had the longest average LOS (up to 54 days for Heart and/or Lung Transplant) for the top ranked APR-DRGs.

Hospital inpatient discharges for the males aged 65-74 accounted for 18.3% of all male discharges and for 20.6% of total male discharges costs. There were no mental health and substance abuse related conditions in the top ten APR-DRGs based on volume and on the total costs for the inpatient hospital discharges for males in the 65-74 age group. Septicemia and Disseminated Infections was ranked as number one for volume (5.6%) and for total costs (6.1%, \$205.95 million). Similar to the 50-64 age group, three APR-DRGs reflecting cerebrovascular conditions: Heart Failure, Cardiac Arrhythmia and Conduction Disorders, and Percutaneous Cardiovascular Procedures without AMI were in the top ten most frequent conditions, accounting for 3.7%, 2.4% and 2.2% of age group discharges volume respectively. Together these three APR-DRGs totaled \$204.88 million or 6.1% of total costs in this age group. While Hip Joint Replacement was more often performed than Knee Joint Replacement in the younger 50-64 age group, the opposite was true for the 65-74 years old. Knee Joint Replacement was ranked fourth most frequent APR-DRG (2.8%) and second for the total costs (2.8%, \$93.53 million). The Hip Joint replacement APR-DRG was ranked ninth (2.2%) by volume and eighth by cost (2.4% of age group cost, \$79.68 million) in the 65-74 age group. Other Pneumonia APR-DRG was seventh most frequent (2.3%) reason for hospitalization of males in the 65-74 age group. Again, transplant related APR-DRGs were among the costliest for this age group and with the longest average LOS for the top ranked APR-DRGs. Overall, for males 65-74 years old, the top ten highest costing APR-DRGs accounted for 1.3% of all discharges and for 8.8% of all costs in the age group.

Hospital inpatient discharges for the 75+ age group accounted for almost a quarter of all male discharges (23.2%) and total male discharges costs (23.5%). Top ranked by volume APR-DRGs for the oldest age group were reflective of the conditions related to infectious and chronic diseases. Continuing the trend started from age 50, Septicemia and Disseminated Infections was ranked first in volume (8.4%) and in costs (9.6%, \$365.77 million). These are the highest proportions that Septicemia and Disseminated Infections APR-DRG had within any age group. Septicemia and Disseminated Infections APR-DRG in the 75+ age group accounted for 41.6% of all discharges and for 39.7% of all costs associated with this APR-DRG for adult males across all ages (statistic not presented, but derived from the Table 7). Other Pneumonia APR-DRG was ranked third in volume (3.8%) and sixth in the total costs (2.4%, \$91.56) among APR-DRGs for males 75 and older. Kidney and Urinary Tract Infections were ranked ninth (2.0%) in volume and not ranked in the top ten total costs. Ranked second in volume and total costs, Heart Failure accounted for 6.5% of the discharges and for 4.4% of the total costs in this age group. Other cerebrovascular conditions in the top ten by volume included Cardiac Arrhythmia and Conduction Disorders (2.6%), and CVA and Precerebral Occlusion with Infarction (2.2%),

which did not make the top ten APR-DRGs by total costs. In the oldest age group, only two in the top ten costliest APR-DRG were related to the transplant procedures: Kidney Transplant (\$209,314 mean) and Bone Marrow Transplant (\$86,926 mean). The APR-DRGs related to cardiovascular procedures were: Cardiac Defibrillator and Heart Assist Implant (\$70,215 mean), and Cardiac Valve Procedures with Cardiac Catheterization (\$81,845 mean). Surprisingly, four of the ten most expensive were burns and injury related APR-DRGs. Overall, for males 75 and older, the costliest APR-DRGs accounted for 1.3% of all discharges and for 7.1% of all costs in this age group.

[Table 8](#) and [Table 9](#) show the distribution of male inpatient discharges by comorbid (simultaneous presence of two or more chronic diseases or conditions in a patient) conditions. Since a patient can have multiple comorbid conditions reported on a discharge, that discharge can be represented more than once across all comorbid conditions. About eighty-six percent of all male inpatient discharges had at least one comorbidity. By far, Hypertension was the most frequently reported (53.9%) condition. Diabetes without Chronic Complications, combined with Diabetes with Chronic Complications were reported on 26.6% of all male discharges that had at least one comorbid condition. Chronic pulmonary Disease was reported on 17.6% of the discharges with comorbidities. Every tenth male inpatient hospital discharge with comorbidities had diagnosis of Obesity (10.1%). Of all inpatient discharges with a comorbidity, 77% had more than one reported; 53% had three comorbidities and 18% had at least five comorbidities reported on an inpatient discharge record. Number of comorbidities reported on one discharge dropped sharply after four.

[Table 10](#) presents the distribution of male inpatient discharges for the five most common comorbid conditions by the number of comorbid conditions per discharge. Hypertension (37.2%), Chronic Pulmonary Disease (10.2%) and Fluid and Electrolyte Disorders (10.1%), and Drug Abuse (8.1%) were the top four comorbid conditions when only one comorbidity was recorded on the discharge. Hypertension along with Diabetes w/o Chronic Complications (14.6%) was ranked first when there were two comorbid conditions reported. Top ranked combination of three comorbid conditions was: Hypertension, Diabetes w/o Chronic Complications and Obesity (3.8%). Diabetes with or without Complications was present on at least four out of five top ranked combinations of comorbid conditions when number was three, four or five comorbid conditions per discharge.

[Table 11](#) shows five most common comorbid conditions in each age group as reported on the inpatient discharge. As age increased, the percent of adult males not having a comorbid condition decreased (ranged from 40.9% in the 18-29 age group to 3.6% in the 75+ age group). In 18-29 age group Drug Abuse and Drug and Alcohol Abuse were reported on 8.7% and 3.0% of the discharges respectively. Drug Abuse was still ranked third (3.1%) in 30-49 age group, but was not reported in the top five for males 50 and older. Hypertension or Hypertension along with Diabetes w/o Chronic Complications were always in the top three most common comorbid conditions in all other age groups.

[Table 12a](#) and [Table 12b](#) show the percentage of male inpatient discharges and ER visits for the five most common injury CCS diagnosis categories for each age group. For the inpatient hospital discharges, there were two injury CCS categories that were ranked among the top five in all age groups: Adverse Effects of Medical Care (always ranked first), and Fall (almost always ranked second). Percentage of the reported injury codes that were Adverse Effects of Medical Care was smallest in 18-29 age group (17.3%) and highest in 65-74 age group (60.5%). Proportion of Falls increased with age: from 14.5% (30-49 years old) to 36% (75+ years old) of all discharges with injury codes. Other injury CCS categories usually included in the top five were: Motor Vehicle Traffic in all but the 65-75 age group and decreased as age increased; Unspecified injury type in all but the 18-29 age group; and Poisoning in the 30-49, 50-64, and 65-74 age groups.

In the ER setting ([Table 12b](#)) there were two injury CCS diagnosis categories that were ranked among the top five in all age groups: Fall (almost always ranked first and increased as age increased); and Unspecified injury type. Other injury CCS categories commonly in the top five included: Motor Vehicle Traffic in all but the 30-49

age group (usually ranked fifth and decreased as age increased); Struck by/Against in all but the 65-74 age group (decreased as age increased); and Cut/Pierce in all but the 75+ age group.

Table 13a and Table 13b present the percentage and ranking of procedures for the five most common CCS categories by surgical type, for each age group, in each setting. In the inpatient setting (Table 13a) there were two non-broad (see HCUP definition for neither or non-surgical procedure types) procedure CCS categories ranked among the top five for all age groups: Other Therapeutic Procedures (almost always ranked first and ranging from 15.2% to 17.4%); and Respiratory Intubation and Mechanical Ventilation (increased as age increased: from 4.3% in the 18-29 age group to 6.9% in the 75+ age group). Psychological Evaluation and Therapy Procedures was most frequent (20.6%) procedure group for the 18-29 age group and second most frequent for the 30-49 age group males. Another procedure group in the top five, but only for those under age of 50 was Alcohol and Drug Rehabilitation/Detoxification, accounting for 8.3% and 8.9% of male discharges in the 18-29 and 30-49 age groups respectively.

The top five most frequently reported broad (HCUP procedure definitions for narrow and broad or surgical procedure types) procedure CCS categories in the inpatient setting were: Spinal Fusion in all but the 75+ age group (ranging from 4.2% to 9.9% in age group); Appendectomy (3.1% for the 30-49 age group; 8.8% for the 18-29 age group) and Other Therapeutic Procedures on Muscles and Tendons (5.0% for the 18-29 age group; 3.5% for the 30-49 age group) for those 49 and younger. Cardiovascular conditions related procedures were among top five procedure groups for males aged 50 and older: Percutaneous Transluminal Coronary Angioplasty (PTCA) (ranging from 4.1% to 5.8%), Other Non-OR Therapeutic Cardiovascular Procedures (ranging from 4.1% to 5.4%), and Other OR Procedures on Vessels Other Than Head and Neck (from 4% to 6%). Hip Replacement procedures (3.8%) were in the top five only for the 50-64 age group. Coronary Artery Bypass Graft (CABG) procedures were reported in the top five for males aged 65 and older (4.6% for the 65-74 age group and 3.7% for the 75+ age group).

In the ER setting (Table 13b), there were four non-broad procedure CCS categories ranked among the top five for all age groups which included: Laboratory-Chemistry and Hematology (always first and increased as age increased: 25.3% in the 18-29 age group to 39.6% in the 75+ age group); Other Diagnostic Procedures: Interview, Evaluation, Consultation (always ranked second and decreased as age increased: 20.7% in the 18-29 age group to 11.1% in the 75+ age group); Other Therapeutic Procedures (always third and decreased as age increased: 12% in the 18-29 age group to 9% in the 75+ age group); Microscopic Examination (bacterial smear, culture, toxicology) was ranging from 5.6% to 8.1%; Medications (Injections, Infusions and Other Forms) was ranging from 5.7% to 7.9% and was also reported frequently in all but the 75+ age group. Electrocardiogram was ranked in top five CCS procedures only in the 75+ age group (4.8%).

The following three broad procedure CCS categories were ranked among the top five in all age groups that were performed during the 'treat and release' ER visit: Suture of Skin and Subcutaneous Tissue (always first and ranging from 68.4% to 82.2%); Incision and Drainage, Skin and Subcutaneous Tissue (always second and ranging from 5.4% to 17.7%); Other Non-OR Therapeutic Procedures on Skin and Breast (decreased as age increased: 3.2% in the 18-29 age group to 1.0% in the 75+ age group).

Other frequently reported broad procedure CCS groups included Debridement of Wound, Infection or Burn in all but 75+ age group (less than 5% in all age groups); and Non-Operative Removal of Foreign Bodies in the age groups representing males under 65 (less than 5% in all age groups).

## Conclusions

In 2014, males represented 44% of all NYS inpatient discharges and 45% of all ER visits. Majority of male inpatient discharges and ER visits were for patients 18 years of age and older (82% inpatient, 75% ER). White, non-Hispanic males represented about 40% of all discharges and visits for males 18-29 years old. That



proportion steadily increased with age to about 70% for those aged 75 and older. Notable differences in payer, admission source, patient disposition, mortality rates, length of stay, APR-DRGs, presence of comorbidity conditions, surgical procedures, injury codes, were discovered when discharge characteristics and trends were examined by age group.

Inpatient discharges, which occurred more frequently for older males (50 years and over), increased through about age 67 and then decreased. 'Treat and release' ER visits, which occurred more frequently in younger males (less than 50 years old), peaked at age 24 and around age 52 and then steadily decreased thereafter.

All age groups showed similar time of day trends in inpatient discharges and ER visits. Most inpatient discharges occurred between 5 - 6am and 2 - 5pm while the highest percentage of ER visits were from 9am-1pm.

As age increased, the percentage of inpatient discharges and ER visits with Medicare as a primary payer increased while the percentage of inpatient discharges and ER visits paid for by Medicaid and commercial health insurance decreased. The proportion of ER visits that were self-pay was considerably higher when compared to inpatient discharges that were self-pay.

Almost 70% of the male inpatient discharges originated in ER. Patients were discharged home for the majority of inpatient discharges and ER visits (60% inpatient, 94% ER). In the inpatient setting, as age increased routine discharges home decreased while discharges home with health care or to a skilled nursing facility increased. In the ER setting, as age increased the discharges that were routine decreased while discharges to a short term hospital or to a skilled nursing facility increased. Three percent of inpatient discharges and 0.3% of ER visits resulted in an outcome of death and were most prominent in the 75+ age group (6.2% for inpatient; 1.3 for ER).

Overall, top ten primary diagnosis CCS groups accounted for about 32% of all male inpatient discharges and for about 38% of all male ER visits. Septicemia (5.4%) and Sprains and Strains (4.8%) were the most frequently reported primary diagnosis for inpatient discharges and ER visits, respectively. Alcohol-Related Disorders was second most frequent (4.2%) reason for the inpatient hospitalizations and Superficial Injury/Contusion for ER treat and release visits.

Medical APR-DRGs accounted for 75% of inpatient discharges. Inpatient admissions with the same day of discharge (2.9% for medical and 1.1% for surgical discharges) most probably were reflective of the patients being transferred to a different facility. For both types of APR-DRGs, the percent of inpatient discharges with LOS of 1 to 4 days (most frequent LOS for all age groups) decreased as age increased while the percent of inpatient discharges with LOS of 5 to 9 days increased for older ages. Inpatient discharges with LOS of 10 days or more, up to age of 50, had higher proportion of medical than surgical discharges. However, for those 50 and older, there were more surgical discharges than medical with LOS of 10 days or more.

In 2014, the total cost of inpatient hospital discharges in the NYS for males aged 18 and older was \$16.28 billion. Costs were proportional to the number of discharges in each age group. Overall cost was highest for the 50-64 age group at \$5.12 billion (31.4% of total cost) and lowest for the 18-29 age group at \$1.07 billion (6.7% of total cost). The top APR-DRGs, based on the number of male inpatient hospital discharges within an age group, ranged from 24% to 41% of the age group discharges and from 21% to 33% of the age group costs. Interestingly, there was very little variation in the most frequent APR-DRGs: Schizophrenia was the top reported APR-DRG in the 18-29 (8.7% for \$137.97 million) and 30-49 years old males (5.6% for \$218.51 million), whereas Septicemia and Disseminated Infections was the most frequently reported APR-DRG for males 50 and older (from 3.6% for \$228.46 million in 50-64 age group to 8.4% for \$365.74 million in 75+ age group). Mental health and substance abuse disorders were very common for adult males younger than 50 years old. Out of ten most frequent APR-DRGs, these conditions accounted for six APR-DRGs for those aged between 18 and 29 and for seven APR-DRGs for those aged 30-49. For adult males under age of 50, other commonly reported APR-DRGs included Sickle Cell Anemia Crisis, Cellulitis and Other Bacterial Skin Infections, and

Disorders of Pancreas except Malignancies. Males aged 50 and older were also hospitalized (top five APR-DRGs) for Alcohol Abuse and Dependence, Heart Failure, Chronic Obstructive Pulmonary Disease, Hip Joint Replacement, Knee Joint Replacement, Other Pneumonia, and Renal Failure.

For all age groups, the highest costing APR-DRGs, based on total cost of male inpatient hospital discharges within an age group, closely aligned with ranks based on the number of discharges. Septicemia and Disseminated Infections (almost always in top two), Tracheostomy W Mechanical Ventilation 96+ Hours W Extensive Procedure or Extracorporeal Membrane Oxygenation (almost always in the top four), and Rehabilitation ranked among the costliest APR-DRGs for all age groups. For all age groups, the highest costing APR-DRGs, based on mean cost of male inpatient hospital discharges within an age group, were of surgical type requiring long lengths of stay, and did not align with ranks based on number of discharges or total costs because of the small volume of the discharges. Surgical APR-DRGs such as transplants (heart and/or lung, liver and/or intestinal, kidney, bone marrow), tracheostomy with mechanical ventilation and extensive 3<sup>rd</sup> degree burns with skin graft ranked among the highest based on average cost per discharge for all age groups.

Eighty-six percent of all inpatient discharges had at least one comorbidity with hypertension being the most frequently reported. Seventy-seven percent of the discharges had more than one comorbidity reported; 18% had at least five comorbid conditions on a discharge. Diabetes with or without complications was reported as a comorbid condition on more than a quarter of inpatient hospital discharges for adult males who had any comorbidities; every tenth's male patient out of those who had comorbid conditions had diagnosis of obesity. Hypertension, Chronic Pulmonary Diseases, Fluid and Electrolyte Disorders, and Drug Abuse were the top four single comorbid conditions reported on a discharge. Hypertension was almost always one of the comorbid conditions when multiple comorbidities were reported. Next most frequent comorbidities were Diabetes with or without complications. Diabetes comorbidities were present on at least four out of five top ranked combinations of comorbid conditions when the number was three, four or five conditions per discharge. As age increased, the percent of discharges for adult males not having a comorbid condition decreased.

Two most frequent injuries reported on inpatient hospital discharges for adult males were Adverse Effects of Medical Care and Falls. Their proportion of age group discharges increased with age. Motor Vehicle Traffic injuries were second ranked cause of injuries for those 18-29 years old, while Falls were second ranked for all other age groups. Suicide and Intentional Self-Injury was ranked in the top five injuries only for males in 18-29 age group.

In the inpatient setting, Other Therapeutic Procedures, and Respiratory Intubation and Mechanical Ventilation were the non-broad (non-surgical) procedure CCS categories ranked among the top five for all age groups. The most frequently reported broad (surgical) procedure CCS categories among the age groups included Spinal Fusion; Percutaneous Transluminal Coronary Angioplasty (PTCA); Other Non-OR Therapeutic Cardiovascular Procedures; Appendectomy; and Other Therapeutic Procedures on Muscles and Tendons.

In the ER setting, the non-broad (non-surgical) procedure CCS categories: Laboratory-Chemistry and Hematology; Other Diagnostic Procedures (Interview, Evaluation, Consultation); Other Therapeutic Procedures; Microscopic Examination (Bacterial smear, Culture, Toxicology) and the broad procedure CCS categories: Suture of Skin and Subcutaneous Tissue; Incision and Drainage, Skin and Subcutaneous Tissue; and Other Non-OR Therapeutic Procedures on Skin and Breast ranked among the top 5 for all age groups.

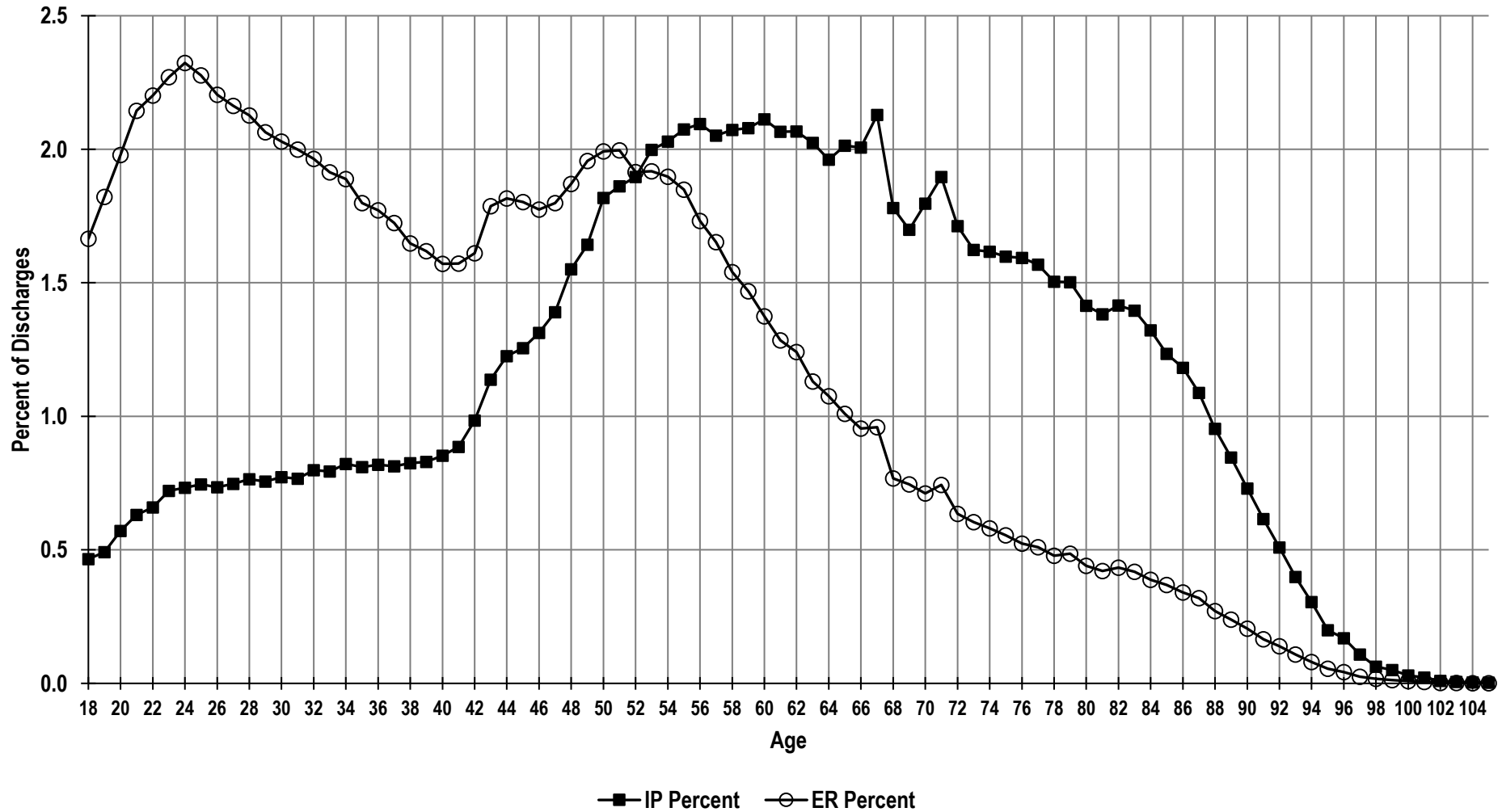
This statistical brief pointed to significant differences in the characteristics of the NYS hospital inpatient discharges and 'treat and release' ER visits by males aged 18 and older. These differences are evident through the wide range of the reasons for which adult males were seeking treatment; distribution of discharges, costs and outcome across age groups.

Tables and Figures

Table 1. New York State SPARCS Inpatient Discharges and ER Visits, 2014

	Inpatient Discharges		ER Visits	
	(N)	(%)	(N)	(%)
<b>All NYS</b>				
Males	1,041,959	44.01	3,103,672	45.44
Females	1,325,335	55.99	3,726,924	54.56
<b>Total</b>	<b>2,367,294</b>	<b>100.00</b>	<b>6,830,596</b>	<b>100.00</b>
<b>Males Only</b>				
< 18 years old	185,847	17.84	771,292	24.85
18 +	856,112	82.16	2,332,380	75.15
<b>Total</b>	<b>1,041,959</b>	<b>100.00</b>	<b>3,103,672</b>	<b>100.00</b>
<b>Males 18 + Years Old</b>				
18 to 29 years old	68,642	8.02	588,601	25.24
30 to 49	173,654	20.28	837,660	35.91
50 to 64	258,600	30.21	561,322	24.07
65 to 74	156,432	18.27	179,844	7.71
75 +	198,784	23.22	164,953	7.07
<b>Total</b>	<b>856,112</b>	<b>100.00</b>	<b>2,332,380</b>	<b>100.00</b>

Figure 1. Distribution of Adult Male Inpatient Discharges and ER Visits by Age, 2014



Note 1: There were 19 discharges in the inpatient setting and 213 visits in the ER setting where the age was 106 years and over. These discharges/visits have not been excluded from any analyses, but are not presented in this figure.

Note 2: In each setting, a point represents the percentage of the discharges (or visits) for all males that correspond to the particular age.

Table 2. Distribution of Adult Male Inpatient Discharges and ER Visits by Race and by Age Group, 2014

Age Group	Inpatient (% Discharges)						ER (% Visits)					
	White Non-Hispanic	Black Non-Hispanic	Hispanic	Asian	Native American	Other	White Non-Hispanic	Black Non-Hispanic	Hispanic	Asian	Native American	Other
18-29	44.1	24.2	15.6	2.6	0.3	13.2	40.5	25.4	18.9	2.3	0.3	12.6
30-49	43.9	23.6	16.3	2.5	0.3	13.3	41.0	25.1	19.1	2.2	0.3	12.3
50-64	53.8	20.8	11.1	2.8	0.3	11.3	46.6	26.1	14.4	2.1	0.3	10.5
65-74	63.1	14.4	9.2	3.1	0.2	10.0	57.3	18.5	12.3	2.5	0.3	9.2
75 +	71.9	9.7	7.0	2.9	0.1	8.3	71.8	10.2	8.6	2.1	0.2	7.1
<b>All Ages</b>	<b>56.9</b>	<b>17.9</b>	<b>11.2</b>	<b>2.8</b>	<b>0.3</b>	<b>10.9</b>	<b>45.7</b>	<b>23.8</b>	<b>16.6</b>	<b>2.2</b>	<b>0.3</b>	<b>11.3</b>

Figure 2a. Distribution of Adult Male Inpatient Discharges by Time of Admission, by Age Group, 2014

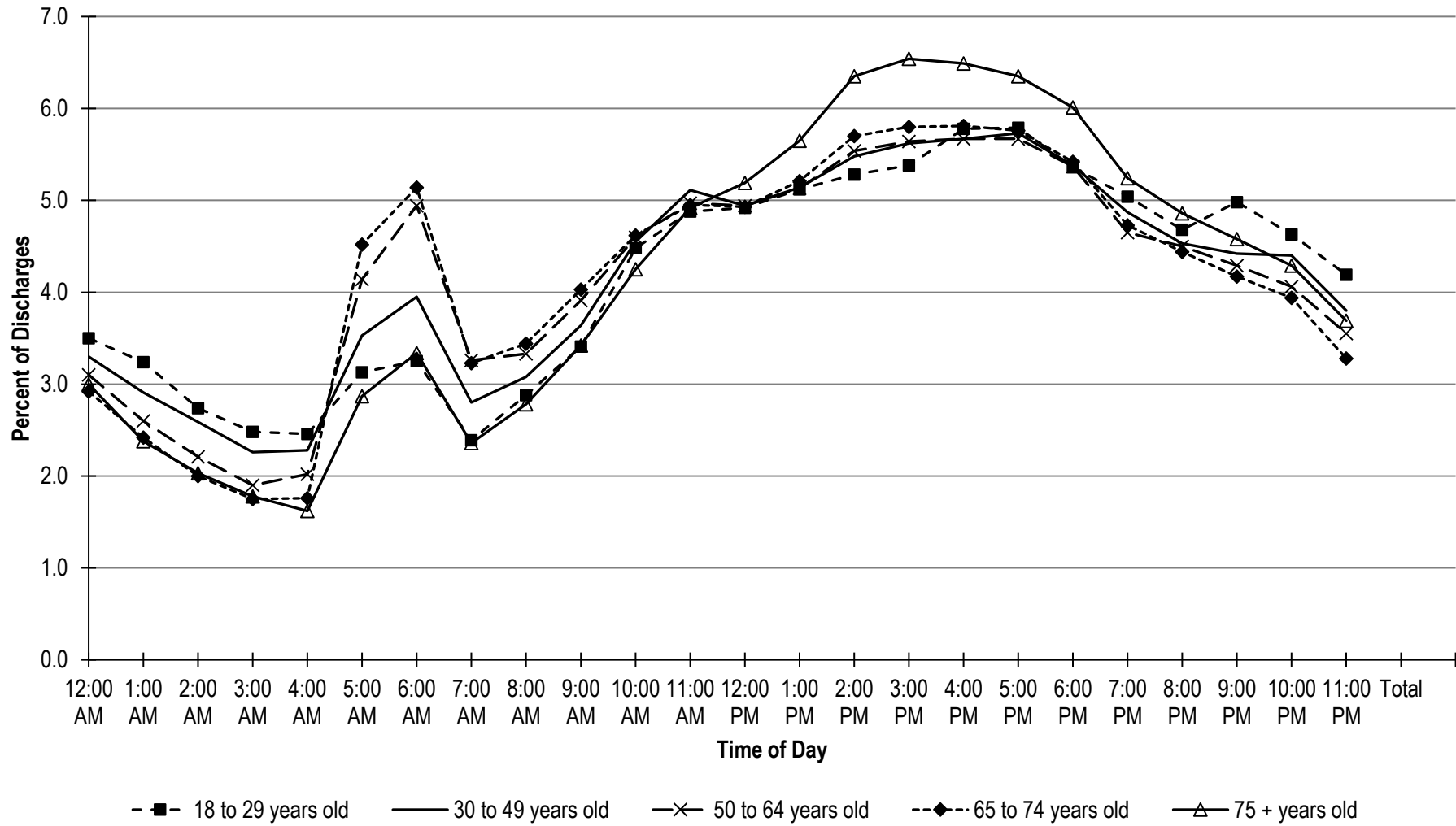


Figure 2b. Distribution of Adult Male ER Visits by Time of Admission, by Age Group, 2014

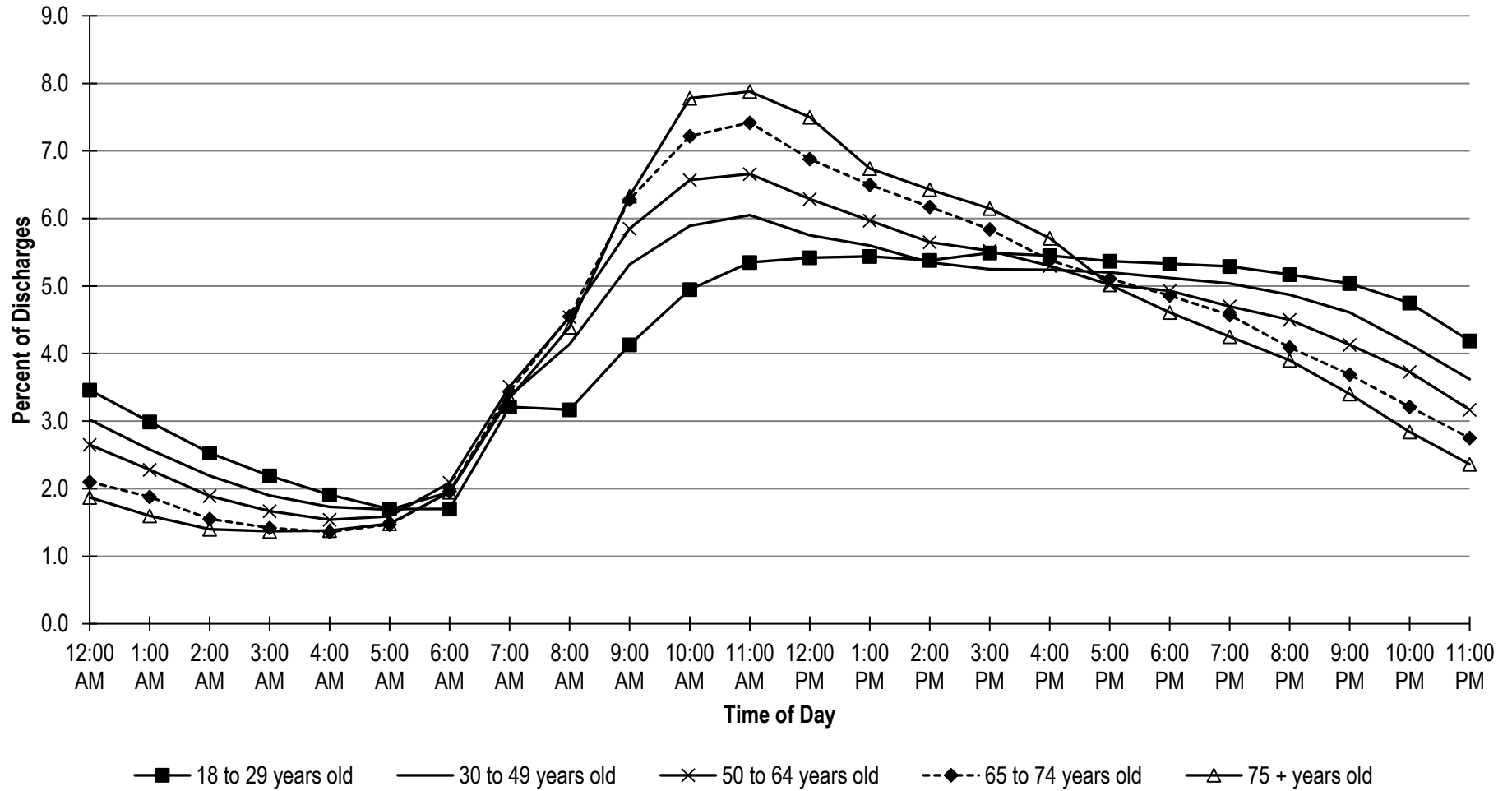
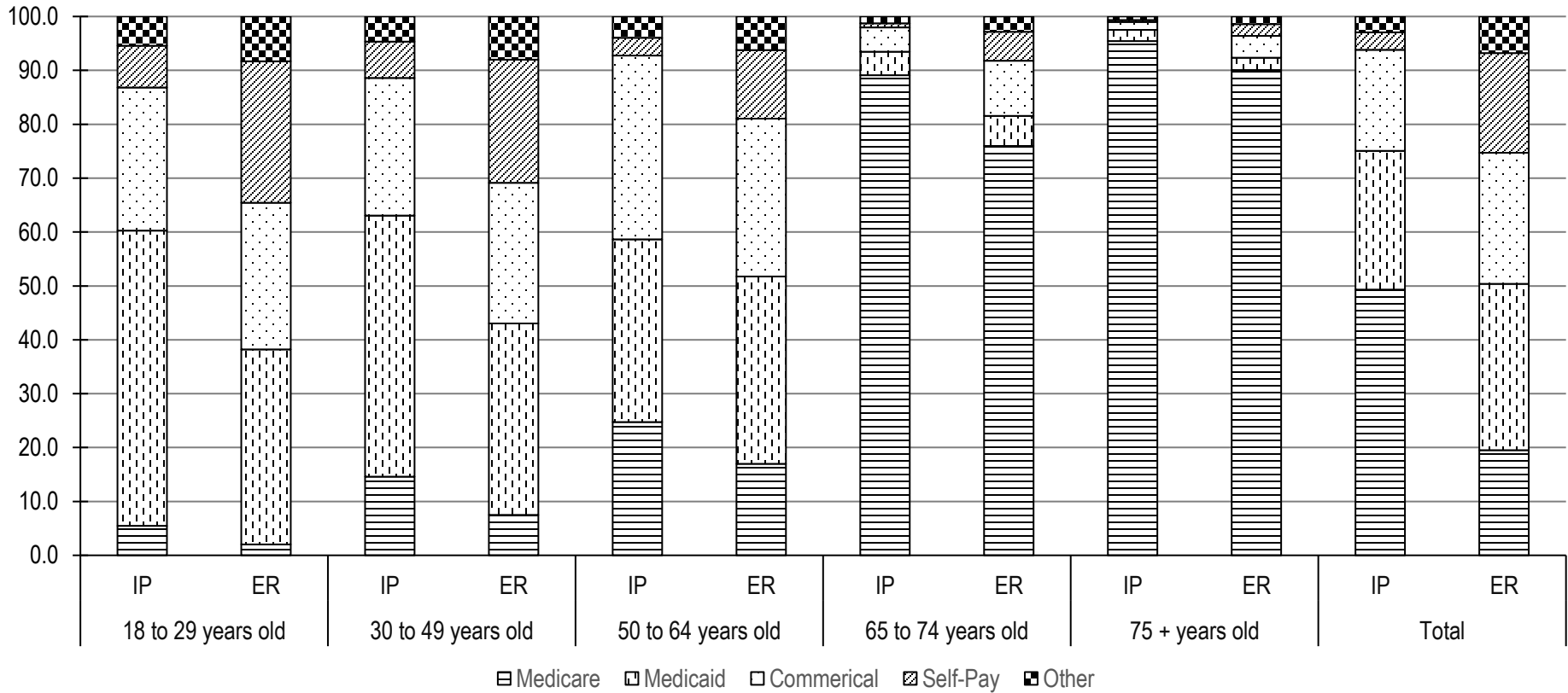


Figure 3. Distribution of Adult Male Inpatient Discharges and ER Visits by Payer by Age Group, 2014



Note: Commercial includes: Private health insurance; Blue Cross/Blue Shield Organization.

Other includes: Other government (Federal/State/Local-excluding Dept. of Corrections); Dept. of Corrections; Managed Care, unspecified; Miscellaneous/other



Table 3. Distribution of Adult Male Inpatient Discharges by Admission Source by Age Group, 2014

Admission Source [1]	18 to 29 years old		30 to 49 years old		50 to 64 years old		65 to 74 years old		75 + years old		Total	
	Discharges	Percent	Discharges	Percent	Discharges	Percent	Discharges	Percent	Discharges	Percent	Discharges	Percent
ER	50,041	72.9	120,859	69.6	169,918	65.7	101,548	64.9	149,846	75.4	592,212	69.2
Another Hospital	3,524	5.1	7,731	4.5	12,918	5.0	8,905	5.7	9,936	5.0	43,014	5.0
Another Facility	606	0.9	1,394	0.8	2,329	0.9	1,435	0.9	1,885	1.0	7,649	0.9
Routine	14,272	20.8	43,139	24.8	72,963	28.2	44,430	28.4	36,989	18.6	211,793	24.7
Missing	199	0.3	531	0.3	472	0.2	114	0.1	128	0.1	1,444	0.2
<b>Total</b>	<b>68,642</b>	<b>100.0</b>	<b>173,654</b>	<b>100.0</b>	<b>258,600</b>	<b>100.0</b>	<b>156,432</b>	<b>100.0</b>	<b>198,784</b>	<b>100.1</b>	<b>856,112</b>	<b>100.0</b>

[1]: Routine includes: non-health facility point of origin; transfer from a clinic; reserved for assignment by the NUBC.

Another facility includes: transfer from a skilled nursing facility or intermediate care facility; transfer from another health care facility; transfer from ambulatory surgery center; transfer from hospice and is under a hospice plan of care or enrolled in a hospice program.

Table 4. Distribution of Adult Male Inpatient Discharges and ER Visits by Patient Discharge Status by Age Group, 2014

Discharge Status [1]	Inpatient (% Discharges)						ER (% Visits)					
	18 to 29 years old	30 to 49 years old	50 to 64 years old	65 to 74 years old	75 + years old	All Ages	18 to 29 years old	30 to 49 years old	50 to 64 years old	65 to 74 years old	75 + years old	All Ages
Routine	80.7	75.1	65.5	53.8	36.0	59.7	95.9	94.9	93.5	91.7	88.4	94.1
Short Term Hospital	1.3	1.7	2.4	2.9	2.5	2.3	0.5	0.7	1.4	2.4	2.8	1.1
Skilled Nursing Facility	0.9	2.2	6.8	13.1	24.4	10.6	0.0	0.1	0.3	1.2	3.4	0.5
Intermediate Care	0.2	0.2	0.4	0.4	0.5	0.4	0.0	0.0	0.1	0.2	0.3	0.1
Another Type of Facility	5.5	5.1	4.7	4.9	5.8	5.2	1.4	1.4	1.2	1.1	1.2	1.3
Home Health Care	4.5	7.3	14.3	19.9	24.1	15.4	0.0	0.0	0.1	0.2	0.7	0.1
Left Against Medical Advice	6.5	7.4	3.9	1.5	0.6	3.6	2.0	2.6	3.0	2.4	1.8	2.5
Died	0.5	0.9	2.1	3.5	6.2	2.9	0.1	0.1	0.3	0.7	1.3	0.3
Missing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

[1]: Routine is discharged to home or self-care.

Intermediate Care is discharged/transferred to a facility that provides custodial or supportive care.

Home Health Care includes discharged/transferred to: home w/ health services; home-hospice.

Another Type of Facility includes discharged/transferred to: hospice-certified medical facility providing hospice level of care; designated cancer center or children’s hospital; court/law enforcement; federal health care facility; hospital-based Medicare approved swing bed; Medicare certified long term care hospital; nursing facility certified under Medicaid but not certified under Medicare; psychiatric hospital or psychiatric distinct part unit of a hospital; critical access hospital (CAH); inpatient rehabilitation facility including rehabilitation distinct part units of a hospital; another type of health care institution not defined elsewhere in the codes used.

Table 5. Distribution of Adult Male Inpatient Discharges by APR-DRG Type and Length of Stay by Age Group, 2014

Age Group	APR-DRG Type	Same Day (% Discharges)[1]	1 to 4 days (% Discharges)	5 to 9 days (% Discharges)	10 or more days (% Discharges)
18 to 29 years old	Medical	4.1	54.7	21.8	19.5
	Surgical	3.5	64.3	18.3	13.9
30 to 49 years old	Medical	3.8	58.2	22.1	15.8
	Surgical	1.9	63.1	19.7	15.2
50 to 64 years old	Medical	3.0	56.8	24.5	15.7
	Surgical	0.9	60.7	21.7	16.8
65 to 74 years old	Medical	2.4	53.8	27.3	16.5
	Surgical	0.7	56.8	23.4	19.1
75 + years old	Medical	1.7	49.5	31.5	17.3
	Surgical	0.5	44.7	29.2	25.5
<b>All Ages</b>	<b>Medical</b>	<b>2.9</b>	<b>54.6</b>	<b>25.9</b>	<b>16.6</b>
	<b>Surgical</b>	<b>1.1</b>	<b>57.2</b>	<b>23.0</b>	<b>18.6</b>

[1] - Percent of discharges adds up to 100 within APR-DRG type and age group strata.

Table 6. Ten Most Frequent AHRQ Clinical Classification System (CCS) Categories for Primary Diagnoses for Adult Male Inpatient Discharges and ER Visits, 2014

Rank	Inpatient Discharges			ER Visits		
	CCS Diagnosis Category	(N)	(%)	CCS Diagnosis Category	(N)	(%)
1	Septicemia	46,624	5.4	Sprains and strains	112,650	4.8
2	Alcohol-related disorders	36,222	4.2	Superficial injury; contusion	110,455	4.7
3	Congestive heart failure; non-hypertensive	29,069	3.4	Nonspecific chest pain	104,961	4.5
4	Schizophrenia and other psychotic disorders	26,729	3.1	Alcohol-related disorders	101,989	4.4
5	Mood disorders	25,581	3.0	Spondylosis; intervertebral disc disorders; other back problems	99,581	4.3
6	Substance-related disorders	25,228	2.9	Abdominal pain	86,730	3.7
7	Osteoarthritis	23,931	2.8	Open wounds of extremities	86,424	3.7
8	Cardiac dysrhythmias	21,872	2.6	Other injuries and conditions due to external causes	75,026	3.2
9	Coronary atherosclerosis and other heart disease	21,204	2.5	Skin and subcutaneous tissue infections	60,201	2.6
10	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	20,006	2.3	Other connective tissue disease	60,062	2.6
<b>Top 10 Sum</b>		<b>276,466</b>	<b>32.3</b>		<b>898,079</b>	<b>38.5</b>
<b>All Other</b>		<b>579,646</b>	<b>67.7</b>		<b>1,434,301</b>	<b>61.5</b>

Table 7. Top 10 APR-DRGs Based on Utilization and Highest Costs, Adult Male Inpatient Discharges by Age Group, 2014

Rank Based on:			APR-DRG		Dis-Charges (N) [1]	% Age Group [1]	Total Cost [1]	% Age Group [1]	Cost/Discharge		Length of Stay (D)	
Dis-charges	Total Cost	Cost/Dischg	Code	Description					Mean	Median	Mean	Median
<b>18 to 29 years old</b>												
<b>Total for Age Group (% All Age Groups)</b>					<b>68,642</b>	<b>8.02</b>	<b>\$1,087,052,301</b>	<b>6.68</b>	<b>\$15,837</b>	<b>\$8,031</b>	<b>7</b>	<b>3</b>
1	1		750	Schizophrenia	5,951	8.67	\$137,965,844	12.69	\$23,184	\$14,516	19	12
2	2		753	Bipolar Disorders	4,251	6.19	\$55,432,687	5.10	\$13,040	\$8,447	11	7
3	3		751	Major Depressive Disorders & Other/Unspecified Psychoses	3,640	5.30	\$42,904,979	3.95	\$11,787	\$8,283	9	7
4			773	Opioid Abuse & Dependence	3,486	5.08	\$17,083,880	1.57	\$4,901	\$3,925	4	4
5	7		225	Appendectomy	2,052	2.99	\$21,280,596	1.96	\$10,371	\$8,128	2	1
6			770	Drug & Alcohol Abuse Or Dependence, Left Against Medical Advice	1,935	2.82	\$6,805,322	0.63	\$3,517	\$2,671	3	2
7	5		662	Sickle Cell Anemia Crisis	1,807	2.63	\$27,744,955	2.55	\$15,354	\$9,468	5	4
8			383	Cellulitis & Other Bacterial Skin Infections	1,801	2.62	\$13,767,017	1.27	\$7,644	\$5,232	3	2
9			053	Seizure	1,736	2.53	\$16,981,465	1.56	\$9,782	\$6,124	3	2
10	9		772	Alcohol & Drug Dependence W Rehab Or Rehab/Detox Therapy	1,480	2.16	\$19,814,203	1.82	\$13,388	\$11,206	20	21
	4	2	004	Tracheostomy W Mv 96+ Hours W Extensive Procedure Or Extracorporeal Membrane Oxygenation	121	0.18	\$29,455,460	2.71	\$243,434	\$172,624	44	34
	6		720	Septicemia & Disseminated Infections	1,309	1.91	\$25,229,752	2.32	\$19,274	\$10,187	7	5
	8		313	Knee & Lower Leg Procedures Except Foot	838	1.22	\$20,327,520	1.87	\$24,257	\$15,470	5	3
	10		860	Rehabilitation	585	0.85	\$18,613,427	1.71	\$31,818	\$18,489	19	13
	1		002	Heart &/Or Lung Transplant	##	##	##	##	\$405,236	\$337,643	46	42
	3		440	Kidney Transplant	43	0.06	\$9,367,047	0.86	\$217,838	\$60,451	6	4
	4		005	Tracheostomy W Mv 96+ Hours W/O Extensive Procedure	60	0.09	\$11,683,896	1.07	\$194,732	\$139,578	47	37
	5		003	Bone Marrow Transplant	75	0.11	\$14,026,635	1.29	\$187,022	\$134,883	37	27
	6		001	Liver Transplant &/Or Intestinal Transplant	##	##	##	##	\$160,616	\$124,744	24	15.5
	7		161	Cardiac Defibrillator & Heart Assist Implant	37	0.05	\$3,811,005	0.35	\$103,000	\$59,577	11	5
	8		166	Coronary Bypass W/O Cardiac Cath Or Percutaneous Cardiac Procedure	##	##	##	##	\$96,585	\$96,585	17	17
	9		680	Major O.R. Procedures For Lymphatic/Hematopoietic/Other Neoplasms	46	0.07	\$4,375,471	0.40	\$95,119	\$41,672	15	8
	10		303	Dorsal & Lumbar Fusion Proc For Curvature Of Back	58	0.08	\$4,656,639	0.43	\$80,287	\$68,674	6	5
<b>Total for Ranks based on Discharges [2]</b>					<b>28,139</b>	<b>40.99</b>	<b>\$359,780,949</b>	<b>33.10</b>				
<b>Total for Ranks based on Total Costs [3]</b>					<b>22,034</b>	<b>32.10</b>	<b>\$398,769,425</b>	<b>36.68</b>				
<b>Total for Ranks based on Mean Cost/Discharge [4]</b>					<b>455</b>	<b>0.66</b>	<b>\$81,189,082</b>	<b>7.47</b>				

[1] ## - Number of discharges < 10.

[2] Calculated only for APR-DRGs ranked 1-10 based on number of discharges.

[3] Calculated only for APR-DRGs ranked 1-10 based on total cost.

[4] Calculated only for APR-DRGs ranked 1-10 based on mean cost per discharge.

**New York State Department of Health – Office of Quality and Patient Safety**

Rank Based on:			APR-DRG		Dis-Charges (N) [1]	% Age Group [1]	Total Cost [1]	% Age Group [1]	Cost/Discharge		Length of Stay (D)	
Dis-charges	Total Cost	Cost/ Dischg	Code	Description					Mean	Median	Mean	Median
<b>30 to 49 years old</b>												
<b>Total for Age Group (% of All Age Groups)</b>					<b>173,654</b>	<b>20.28</b>	<b>\$2,889,101,320</b>	<b>17.74</b>	<b>\$16,637</b>	<b>\$8,596</b>	<b>6</b>	<b>3</b>
1	1		750	Schizophrenia	9,732	5.60	\$218,505,791	7.56	\$22,452	\$13,660	19	12
2	5		775	Alcohol Abuse & Dependence	7,943	4.57	\$66,846,504	2.31	\$8,416	\$5,152	4	4
3			773	Opioid Abuse & Dependence	6,848	3.94	\$39,875,208	1.38	\$5,823	\$4,795	4	4
4			770	Drug & Alcohol Abuse Or Dependence, Left Against Medical Advice	5,842	3.36	\$23,242,012	0.80	\$3,978	\$2,764	3	2
5	6		753	Bipolar Disorders	5,314	3.06	\$64,829,240	2.24	\$12,200	\$8,236	10	7
6			383	Cellulitis & Other Bacterial Skin Infections	4,821	2.78	\$42,146,862	1.46	\$8,742	\$6,018	4	3
7	7		751	Major Depressive Disorders & Other/Unspecified Psychoses	4,535	2.61	\$55,780,338	1.93	\$12,300	\$7,901	10	7
8	2		720	Septicemia & Disseminated Infections	4,173	2.40	\$96,145,013	3.33	\$23,040	\$11,861	8	5
9	9		772	Alcohol & Drug Dependence W Rehab Or Rehab/Detox Therapy	3,196	1.84	\$44,576,610	1.54	\$13,948	\$12,297	19	20
10			282	Disorders Of Pancreas Except Malignancy	2,941	1.69	\$30,226,563	1.05	\$10,278	\$6,273	4	3
	3		304	Dorsal & Lumbar Fusion Proc Except For Curvature Of Back	1,870	1.08	\$79,484,409	2.75	\$42,505	\$31,508	4	3
	4	3	004	Tracheostomy W Mv 96+ Hours W Extensive Procedure Or Extracorporeal Membrane Oxygenation	298	0.17	\$74,739,490	2.59	\$250,804	\$186,351	52	37
	8		221	Major Small & Large Bowel Procedures	1,714	0.99	\$49,870,407	1.73	\$29,096	\$20,203	9	6
	10		860	Rehabilitation	1,479	0.85	\$42,576,567	1.47	\$28,787	\$19,294	17	13
	1		002	Heart &/Or Lung Transplant	29	0.02	\$14,646,468	0.51	\$505,051	\$244,846	87	20
	2		841	Extensive 3rd Degree Burns W Skin Graft	##	##	##	##	\$314,243	\$191,825	41	32
	4		001	Liver Transplant &/Or Intestinal Transplant	29	0.02	\$5,646,209	0.20	\$194,697	\$124,390	29	18
	5		005	Tracheostomy W Mv 96+ Hours W/O Extensive Procedure	218	0.13	\$41,579,491	1.44	\$190,732	\$135,026	53	37
	6		440	Kidney Transplant	199	0.11	\$32,597,445	1.13	\$163,806	\$61,472	5	5
	7		170	Permanent Cardiac Pacemaker Implant W Ami, Heart Failure Or Shock	##	##	##	##	\$139,669	\$45,507	15	6
	8		003	Bone Marrow Transplant	186	0.11	\$23,196,007	0.80	\$124,710	\$100,319	26	21
	9		006	Pancreas Transplant	##	##	##	##	\$115,641	\$120,393	11	11
	10		690	Acute Leukemia	127	0.07	\$11,606,845	0.40	\$91,392	\$68,749	23	21
<b>Total for Ranks based on Discharges [2]</b>					<b>55,345</b>	<b>31.87</b>	<b>\$682,174,141</b>	<b>23.61</b>				
<b>Total for Ranks based on Total Costs [3]</b>					<b>40,254</b>	<b>23.18</b>	<b>\$793,354,368</b>	<b>27.46</b>				
<b>Total for Ranks based on Mean Cost/Discharge [4]</b>					<b>1,103</b>	<b>0.64</b>	<b>\$207,464,181</b>	<b>7.18</b>				

[1] ## - Number of discharges < 10.

[2] Calculated only for APR-DRGs ranked 1-10 based on number of discharges.

[3] Calculated only for APR-DRGs ranked 1-10 based on total cost.

[4] Calculated only for APR-DRGs ranked 1-10 based on mean cost per discharge.

**New York State Department of Health – Office of Quality and Patient Safety**

Rank Based on:			APR-DRG		Dis-Charges (N) [1]	% Age Group [1]	Total Cost [1]	% Age Group [1]	Cost/Discharge		Length of Stay (D)	
Dis-charges	Total Cost	Cost/ Dischg	Code	Description					Mean	Median	Mean	Median
<b>50 to 64 years old</b>												
<b>Total for Age Group (% of All Age Groups)</b>					<b>258,600</b>	<b>30.21</b>	<b>\$5,117,800,869</b>	<b>31.43</b>	<b>\$19,790</b>	<b>\$11,091</b>	<b>6</b>	<b>4</b>
1	1		720	Septicemia & Disseminated Infections	9,332	3.61	\$228,457,060	4.46	\$24,481	\$13,794	9	6
2			775	Alcohol Abuse & Dependence	7,824	3.03	\$74,975,770	1.46	\$9,583	\$5,619	5	4
3	8		194	Heart Failure	6,352	2.46	\$98,629,917	1.93	\$15,527	\$9,650	6	4
4			140	Chronic Obstructive Pulmonary Disease	5,891	2.28	\$62,311,790	1.22	\$10,577	\$7,187	4	3
5	3		301	Hip Joint Replacement	5,872	2.27	\$132,550,877	2.59	\$22,573	\$18,715	3	3
6	2		750	Schizophrenia	5,806	2.25	\$133,079,569	2.60	\$22,921	\$14,387	20	13
7			383	Cellulitis & Other Bacterial Skin Infections	5,595	2.16	\$58,788,260	1.15	\$10,507	\$6,842	5	4
8	5		302	Knee Joint Replacement	5,566	2.15	\$120,199,511	2.35	\$21,595	\$16,957	3	3
9	6		175	Percutaneous Cardiovascular Procedures W/O Ami	5,327	2.06	\$117,541,512	2.30	\$22,065	\$18,111	2	1
10			201	Cardiac Arrhythmia & Conduction Disorders	4,830	1.87	\$42,740,542	0.84	\$8,849	\$5,546	3	2
	4	3	004	Tracheostomy W Mv 96+ Hours W Extensive Procedure Or Extracorporeal Membrane Oxygenation	547	0.21	\$122,846,558	2.40	\$224,582	\$173,952	46	37
	7		304	Dorsal & Lumbar Fusion Proc Except For Curvature Of Back	2,586	1.00	\$111,256,759	2.17	\$43,023	\$33,490	4	3
	9		860	Rehabilitation	3,804	1.47	\$97,853,110	1.91	\$25,724	\$19,712	15	12
	10		221	Major Small & Large Bowel Procedures	3,282	1.27	\$95,272,329	1.86	\$29,029	\$20,045	8	6
		1	002	Heart &/Or Lung Transplant	60	0.02	\$22,648,311	0.44	\$377,472	\$210,114	54	22
		2	006	Pancreas Transplant	##	##	##	##	\$252,434	\$150,096	15	14.5
		4	440	Kidney Transplant	285	0.11	\$55,312,476	1.08	\$194,079	\$74,482	6	5
		5	911	Extensive Abdominal/Thoracic Procedures For Mult Significant Trauma	51	0.02	\$9,389,801	0.18	\$184,114	\$40,053	17	11
		6	001	Liver Transplant &/Or Intestinal Transplant	135	0.05	\$22,311,759	0.44	\$165,272	\$119,879	22	13
		7	005	Tracheostomy W Mv 96+ Hours W/O Extensive Procedure	526	0.20	\$85,487,417	1.67	\$162,524	\$120,490	45	35
		8	003	Bone Marrow Transplant	352	0.14	\$40,010,312	0.78	\$113,666	\$89,614	24	21
		9	841	Extensive 3rd Degree Burns W Skin Graft	##	##	##	##	\$112,750	\$100,109	28	20.5
		10	690	Acute Leukemia	185	0.07	\$15,188,579	0.30	\$82,100	\$62,482	22	20
<b>Total for Ranks based on Discharges [2]</b>					<b>62,395</b>	<b>24.13</b>	<b>\$1,069,274,808</b>	<b>20.89</b>				
<b>Total for Ranks based on Total Costs [3]</b>					<b>48,474</b>	<b>18.74</b>	<b>\$1,257,687,201</b>	<b>24.57</b>				
<b>Total for Ranks based on Mean Cost/Discharge [4]</b>					<b>2,155</b>	<b>0.83</b>	<b>\$375,891,192</b>	<b>7.34</b>				

[1] ## - Number of discharges < 10.

[2] Calculated only for APR-DRGs ranked 1-10 based on number of discharges.

[3] Calculated only for APR-DRGs ranked 1-10 based on total cost.

[4] Calculated only for APR-DRGs ranked 1-10 based on mean cost per discharge.

**New York State Department of Health – Office of Quality and Patient Safety**

Rank Based on:			APR-DRG		Dis-Charges (N) [1]	% Age Group [1]	Total Cost [1]	% Age Group [1]	Cost/Discharge		Length of Stay (D)	
Dis-charges	Total Cost	Cost/ Dischg	Code	Description					Mean	Median	Mean	Median
<b>65 to 74 years old</b>												
<b>Total for Age Group (% All Age Groups)</b>					<b>156,432</b>	<b>18.27</b>	<b>\$3,360,038,706</b>	<b>20.64</b>	<b>\$21,479</b>	<b>\$12,325</b>	<b>6</b>	<b>4</b>
1	1		720	Septicemia & Disseminated Infections	8,687	5.55	\$205,949,307	6.13	\$23,708	\$13,944	9	6
2	7		194	Heart Failure	5,782	3.70	\$84,839,897	2.52	\$14,673	\$8,962	6	4
3			140	Chronic Obstructive Pulmonary Disease	4,790	3.06	\$52,792,241	1.57	\$11,021	\$7,741	5	4
4	2		302	Knee Joint Replacement	4,431	2.83	\$93,539,946	2.78	\$21,110	\$16,886	3	3
5			201	Cardiac Arrhythmia & Conduction Disorders	3,703	2.37	\$34,706,122	1.03	\$9,372	\$5,947	4	3
6	6		860	Rehabilitation	3,623	2.32	\$85,120,947	2.53	\$23,495	\$18,946	14	12
7			139	Other Pneumonia	3,546	2.27	\$43,411,673	1.29	\$12,242	\$8,064	5	4
8	5		175	Percutaneous Cardiovascular Procedures W/O Ami	3,498	2.24	\$85,331,675	2.54	\$24,394	\$19,148	3	2
9	8		301	Hip Joint Replacement	3,450	2.21	\$79,684,771	2.37	\$23,097	\$18,853	4	3
10			460	Renal Failure	3,134	2.00	\$48,768,927	1.45	\$15,561	\$9,371	6	4
	3	3	004	Tracheostomy W Mv 96+ Hours W Extensive Procedure Or Extracorporeal Membrane Oxygenation	356	0.23	\$85,523,681	2.55	\$240,235	\$179,152	48	42
	4		173	Other Vascular Procedures	2,599	1.66	\$85,344,705	2.54	\$32,838	\$24,975	7	3
	9	9	161	Cardiac Defibrillator & Heart Assist Implant	922	0.59	\$71,649,403	2.13	\$77,711	\$55,189	8	5
	10		221	Major Small & Large Bowel Procedures	1,985	1.27	\$63,701,063	1.90	\$32,091	\$21,466	10	6
	1		002	Heart &/Or Lung Transplant	33	0.02	\$14,360,903	0.43	\$435,179	\$300,690	76	40
	2		440	Kidney Transplant	115	0.07	\$29,438,801	0.88	\$255,990	\$67,333	7	5
	4		001	Liver Transplant &/Or Intestinal Transplant	53	0.03	\$9,174,091	0.27	\$173,096	\$107,344	25	11
	5		005	Tracheostomy W Mv 96+ Hours W/O Extensive Procedure	371	0.24	\$56,621,715	1.69	\$152,619	\$112,246	42	34
	6		003	Bone Marrow Transplant	192	0.12	\$23,588,624	0.70	\$122,857	\$101,450	26	23
	7		160	Major Cardiothoracic Repair Of Heart Anomaly	##	##	##	##	\$111,357	\$111,732	15	12
	8		841	Extensive 3rd Degree Burns W Skin Graft	##	##	##	##	\$106,526	\$106,526	20	20
	10		303	Dorsal & Lumbar Fusion Proc For Curvature Of Back	53	0.03	\$4,052,580	0.12	\$76,464	\$70,828	6	6
<b>Total for Ranks based on Discharges [2]</b>					<b>44,644</b>	<b>28.54</b>	<b>\$814,145,507</b>	<b>24.23</b>				
<b>Total for Ranks based on Total Costs [3]</b>					<b>35,333</b>	<b>22.59</b>	<b>\$940,685,396</b>	<b>28.00</b>				
<b>Total for Ranks based on Mean Cost/Discharge [4]</b>					<b>2,101</b>	<b>1.34</b>	<b>\$295,068,275</b>	<b>8.78</b>				

[1] ## - Number of discharges < 10.

[2] Calculated only for APR-DRGs ranked 1-10 based on number of discharges.

[3] Calculated only for APR-DRGs ranked 1-10 based on total cost.

[4] Calculated only for APR-DRGs ranked 1-10 based on mean cost per discharge.

**New York State Department of Health – Office of Quality and Patient Safety**

Rank Based on:			APR-DRG		Dis-Charges (N) [1]	% Age Group [1]	Total Cost [1]	% Age Group [1]	Cost/Discharge		Length of Stay (D)	
Dis-charges	Total Cost	Cost/ Dischg	Code	Description					Mean	Median	Mean	Median
<b>75 + years old</b>												
<b>Total for Age Group</b>					<b>198,784</b>	<b>23.22</b>	<b>\$3,828,349,577</b>	<b>23.51</b>	<b>\$19,259</b>	<b>\$11,190</b>	<b>7</b>	<b>5</b>
1	1		720	Septicemia & Disseminated Infections	16,736	8.42	\$365,774,018	9.55	\$21,856	\$13,486	9	6
2	2		194	Heart Failure	12,910	6.49	\$169,182,936	4.42	\$13,105	\$8,582	6	4
3	6		139	Other Pneumonia	7,618	3.83	\$91,564,156	2.39	\$12,019	\$8,089	6	4
4			140	Chronic Obstructive Pulmonary Disease	5,618	2.83	\$64,644,287	1.69	\$11,507	\$7,924	5	4
5	7		460	Renal Failure	5,507	2.77	\$81,821,983	2.14	\$14,858	\$9,334	7	5
6			201	Cardiac Arrhythmia & Conduction Disorders	5,108	2.57	\$50,916,087	1.33	\$9,968	\$6,732	4	3
7	4		860	Rehabilitation	4,642	2.34	\$107,326,997	2.80	\$23,121	\$20,070	14	13
8			045	Cva & Precerebral Occlusion W Infarct	4,437	2.23	\$71,898,321	1.88	\$16,204	\$10,533	6	4
9			463	Kidney & Urinary Tract Infections	4,013	2.02	\$44,991,173	1.18	\$11,211	\$7,620	6	4
10			204	Syncope & Collapse	3,628	1.83	\$32,345,474	0.84	\$8,916	\$6,201	4	3
	3		175	Percutaneous Cardiovascular Procedures W/O Ami	3,363	1.69	\$132,741,382	3.47	\$39,471	\$24,246	5	3
	5		173	Other Vascular Procedures	2,688	1.35	\$95,116,418	2.48	\$35,386	\$28,227	7	4
	8		301	Hip Joint Replacement	2,995	1.51	\$77,590,423	2.03	\$25,907	\$20,196	5	4
	9	1	004	Tracheostomy W Mech Vent 96+ Hours W Extensive Procedure Or Extracorporeal Membrane Oxygenation	333	0.17	\$74,239,744	1.94	\$222,942	\$175,937	50	42
	10	9	161	Cardiac Defibrillator & Heart Assist Implant	1,024	0.52	\$71,899,650	1.88	\$70,215	\$55,130	8	5
		2	440	Kidney Transplant	23	0.01	\$4,814,213	0.13	\$209,314	\$56,432	8	5
		3	841	Extensive 3rd Degree Burns W Skin Graft	##	##	##	##	\$165,296	\$165,296	23	23
		4	005	Tracheostomy W Mechanical Vent 96+ Hours W/O Extensive Procedure	522	0.26	\$70,538,990	1.84	\$135,132	\$107,354	39	33.5
		5	003	Bone Marrow Transplant	##	##	##	##	\$86,926	\$82,145	23	22
		6	162	Cardiac Valve Procedures W Cardiac Catheterization	546	0.27	\$44,687,414	1.17	\$81,845	\$65,702	14	12
		7	911	Extensive Abdominal/Thoracic Procedures For Mult Significant Trauma	16	0.01	\$1,145,205	0.03	\$71,575	\$69,562	17	15
		8	842	Full Thickness Burns W Skin Graft	19	0.01	\$1,342,819	0.04	\$70,675	\$57,491	19	21
		10	910	Craniotomy For Multiple Significant Trauma	11	0.01	\$749,449	0.02	\$68,132	\$50,657	14	10
<b>Total for Ranks based on Discharges [2]</b>					<b>70,217</b>	<b>35.32</b>	<b>\$1,080,465,431</b>	<b>28.22</b>				
<b>Total for Ranks based on Total Costs [3]</b>					<b>57,816</b>	<b>29.08</b>	<b>\$1,267,257,707</b>	<b>33.10</b>				
<b>Total for Ranks based on Mean Cost/Discharge [4]</b>					<b>2,502</b>	<b>1.26</b>	<b>\$270,191,260</b>	<b>7.06</b>				

[1] ## - Number of discharges < 10.

[2] Calculated only for APR-DRGs ranked 1-10 based on number of discharges.

[3] Calculated only for APR-DRGs ranked 1-10 based on total cost.

[4] Calculated only for APR-DRGs ranked 1-10 based on mean cost per discharge.

**New York State Department of Health – Office of Quality and Patient Safety**

Rank Based on:			APR-DRG		Dis-Charges (N) [1]	% Age Group [1]	Total Cost [1]	% Age Group [1]	Cost/Discharge		Length of Stay (D)	
Dis-charges	Total Cost	Cost/ Dischg	Code	Description					Mean	Median	Mean	Median
<b>All Age Groups</b>												
<b>Total for All Age Groups</b>					<b>856,112</b>	<b>100.00</b>	<b>\$16,282,342,774</b>	<b>100.00</b>	<b>\$19,019</b>	<b>\$10,521</b>	<b>6</b>	<b>4</b>
1	1		720	Septicemia & Disseminated Infections	40,237	4.70	\$921,555,150	5.66	\$22,903	\$13,381	9	6
2	4		194	Heart Failure	26,995	3.15	\$382,270,870	2.35	\$14,161	\$8,956	6	4
3	2		750	Schizophrenia	22,369	2.61	\$512,889,406	3.15	\$22,929	\$14,182	19	12
4			775	Alcohol Abuse & Dependence	18,381	2.15	\$171,280,447	1.05	\$9,318	\$5,473	5	4
5			139	Other Pneumonia	18,003	2.10	\$215,694,337	1.32	\$11,981	\$7,924	5	4
6			383	Cellulitis & Other Bacterial Skin Infections	17,642	2.06	\$172,682,761	1.06	\$9,788	\$6,587	4	3
7			140	Chronic Obstructive Pulmonary Disease	17,337	2.03	\$189,214,915	1.16	\$10,914	\$7,510	5	4
8			201	Cardiac Arrhythmia & Conduction Disorders	15,775	1.84	\$144,594,317	0.89	\$9,166	\$5,955	3	2
9			460	Renal Failure	14,242	1.66	\$214,976,156	1.32	\$15,095	\$9,078	6	4
10	6		860	Rehabilitation	14,133	1.65	\$351,491,048	2.16	\$24,870	\$19,565	15	13
	3	2	004	Tracheostomy W Mech Vent 96+ Hours W Extensive Procedure Or Extracorporeal Membrane Oxygenation	1,655	0.19	\$386,804,932	2.38	\$233,719	\$176,722	48	39
	5		175	Percutaneous Cardiovascular Procedures W/O Ami	13,495	1.58	\$365,120,502	2.24	\$27,056	\$19,449	3	2
	7		301	Hip Joint Replacement	13,849	1.62	\$328,159,600	2.02	\$23,696	\$19,184	4	3
	8		304	Dorsal & Lumbar Fusion Proc Except For Curvature Of Back	6,702	0.78	\$290,789,200	1.79	\$43,388	\$32,551	4	3
	9		221	Major Small & Large Bowel Procedures	9,307	1.09	\$290,240,894	1.78	\$31,185	\$21,381	9	6
	10		302	Knee Joint Replacement	13,192	1.54	\$286,144,100	1.76	\$21,691	\$17,041	3	3
	1		002	Heart &/Or Lung Transplant	128	0.01	\$54,087,099	0.33	\$422,555	\$238,984	67	26
	3		841	Extensive 3rd Degree Burns W Skin Graft	16	0.00	\$3,254,550	0.02	\$203,409	\$131,755	33	22
	4		440	Kidney Transplant	665	0.08	\$131,529,983	0.81	\$197,789	\$66,583	6	5
	5		006	Pancreas Transplant	14	0.00	\$2,713,324	0.02	\$193,809	\$134,707	13	12
	6		001	Liver Transplant &/Or Intestinal Transplant	225	0.03	\$38,416,985	0.24	\$170,742	\$117,306	23	13
	7		005	Tracheostomy W Mechanical Vent 96+ Hours W/O Extensive Procedure	1,697	0.20	\$265,911,509	1.63	\$156,695	\$117,044	44	35
	8		003	Bone Marrow Transplant	812	0.09	\$101,430,057	0.62	\$124,914	\$95,044	26	22
	9		911	Extensive Abdominal/Thoracic Procedures For Mult Significant Trauma	364	0.04	\$30,265,181	0.19	\$83,146	\$43,591	15	10
	10		161	Cardiac Defibrillator & Heart Assist Implant	3,492	0.41	\$266,896,224	1.64	\$76,431	\$53,957	8	5
<b>Total for Ranks based on Discharges [2]</b>					<b>205,114</b>	<b>23.96</b>	<b>\$3,276,649,407</b>	<b>20.12</b>				
<b>Total for Ranks based on Total Costs [3]</b>					<b>161,934</b>	<b>18.92</b>	<b>\$4,115,465,703</b>	<b>25.28</b>				
<b>Total for Ranks based on Mean Cost/Discharge [4]</b>					<b>9,068</b>	<b>1.06</b>	<b>\$1,281,309,844</b>	<b>7.87</b>				

[1] ## = Number of discharges < 10.

[2] Calculated only for APR-DRGs ranked 1-10 based on number of discharges.

[3] Calculated only for APR-DRGs ranked 1-10 based on total cost.

[4] Calculated only for APR-DRGs ranked 1-10 based on mean cost per discharge.



Table 8. Distribution of Adult Male Inpatient Discharges by Comorbid Conditions, 2014

Condition	Discharges, (N)	Discharges, (%)
Hypertension	461,750	53.9
Fluid and Electrolyte Disorders	194,260	22.7
Diabetes w/o Chronic Complications	183,502	21.4
Chronic pulmonary disease	150,897	17.6
Deficiency Anemias	123,889	14.5
Renal Failure	123,439	14.4
Obesity	86,478	10.1
Congestive Heart Failure	76,648	9.0
Depression	75,998	8.9
Alcohol Abuse	72,328	8.4
Other Neurological Disorders	68,540	8.0
Drug Abuse	68,025	7.9
Hypothyroidism	55,457	6.5
Peripheral Vascular Disease	55,060	6.4
Coagulopathy	49,766	5.8
Psychoses	46,238	5.4
Diabetes w/ Chronic Complications	44,297	5.2
Liver Disease	38,407	4.5
Weight Loss	35,430	4.1
Valvular Disease	32,722	3.8
Paralysis	27,980	3.3
Metastatic Cancer	24,146	2.8
Solid Tumor w/out Metastasis	22,571	2.6
Pulmonary Circulation Disease	16,879	2.0
Rheumatoid Arthritis/Collagen Vas	10,608	1.2
Lymphoma	9,666	1.1
AIDS	6,363	0.7
Chronic Blood Loss Anemia	5,222	0.6
Peptic Ulcer Disease and Bleeding	418	0.0
<b>Total Discharges with One or More Comorbid Conditions</b>	<b>735,388</b>	<b>85.9</b>
<b>Total Discharges without a Comorbid Condition</b>	<b>120,724</b>	<b>14.1</b>

Note: A discharge can have multiple comorbid conditions

Table 9. Distribution of Adult Male Inpatient Discharges by Number of Comorbid Conditions per Discharge, 2014

Number of Comorbid Conditions	Discharges, (N)	Discharges, (%) [1]	Percent of Discharges with a Comorbidity [2]
No Comorbid Conditions	120,724	14.1	0
1	169,412	19.8	23.0
2	178,431	20.8	24.3
3	148,132	17.3	20.1
4	106,898	12.5	14.5
5	67,651	7.9	9.2
6	37,485	4.4	5.1
7	17,423	2.0	2.4
8	6,948	0.8	0.9
9	2,244	0.3	0.3
10	612	0.1	0.1
11	128	0.0	0.0
12	24	0.0	0.0
<b>Total Discharges [1]</b>	<b>856,112</b>	<b>100.0</b>	
<b>Total Discharges with 1 or More Comorbid Conditions [2]</b>	<b>735,388</b>	<b>85.9</b>	<b>100.0</b>

Note: A discharge can have multiple comorbid conditions

[1] Percent is based on total number of discharges (856,112).

[2] Percent is based on total number of discharges with 1 or more comorbid conditions (735,588).

Table 10. Five Most Common Comorbid Conditions, Adult Male Inpatient Discharges, by Number of Comorbid Conditions per Discharge, 2014

RANK	Number of Comorbid Conditions per Discharge (%)				
	1	2	3	4	5
1	Hypertension (37.2)	Hypertension, Diabetes w/o chronic complications (14.6)	Hypertension, Diabetes w/o chronic complications, Obesity (3.8)	Hypertension, Renal Failure, Diabetes w/o chronic complications, Deficiency Anemias (1.4)	Hypertension, Renal Failure, Diabetes w/o chronic complications, Fluid and electrolyte disorders, Deficiency Anemias (1.2)
2	Chronic pulmonary disease (10.2)	Hypertension, Fluid and electrolyte disorders (5.6)	Hypertension, Diabetes w/o chronic complications, Fluid and electrolyte disorders (2.9)	Hypertension, Renal Failure, Diabetes w/o chronic complications, Fluid and electrolyte disorders (1.3)	Hypertension, Diabetes w/ chronic complications, Renal Failure, Fluid and electrolyte disorders, Deficiency Anemias (0.9)
3	Fluid and electrolyte disorders (10.1)	Hypertension, Chronic pulmonary disease (5.6)	Hypertension, Diabetes w/o chronic complications, Renal Failure (2.9)	Hypertension, Diabetes w/o chronic complications, Chronic pulmonary disease, Obesity (1.2)	Hypertension, Diabetes w/ chronic complications, Renal Failure, Deficiency Anemias, Peripheral vascular disease (0.6)
4	Drug abuse (8.1)	Hypertension, Obesity (4.8)	Hypertension, Diabetes w/o chronic complications, Chronic pulmonary disease (2.8)	Hypertension, Renal Failure, Fluid and electrolyte disorders, Deficiency Anemias (1.1)	Hypertension, Diabetes w/o chronic complications, Renal Failure, CHF, Deficiency Anemias (0.5)
5	Diabetes w/o chronic complications (5.0)	Alcohol and Drug Abuse (3.5)	Hypertension, Renal Failure, Deficiency Anemias (1.5)	Hypertension, Renal Failure, Diabetes w/ chronic complications, Deficiency Anemias (0.9)	Hypertension, Diabetes w/o chronic complications, Renal Failure, Chronic pulmonary disease, Fluid and electrolyte disorders (0.5)

Note: A discharge can have multiple comorbid conditions

Table 11. Five Most Common Comorbid Conditions, Adult Male Inpatient Discharges by Age Group, Percent of Discharges, 2014

RANK	18 to 29 years old	30 to 49	50 to 64	65 to 74	75 +
1	None (40.9)	None (25.9)	None (11.8)	Hypertension (9.3)	Hypertension (7.6)
2	Drug Abuse (8.7)	Hypertension (5.3)	Hypertension (8.8)	None (6.3)	None (3.6)
3	Chronic pulmonary disease (4.0)	Drug Abuse (3.1)	Hypertension, Diabetes w/o chronic complications (3.8)	Hypertension, Diabetes w/o chronic complications (4.6)	Hypertension, Diabetes w/o chronic complications (3.1)
4	Fluid and electrolyte disorders (3.3)	Chronic pulmonary disease (2.1)	Hypertension, Obesity (1.5)	Hypertension, Chronic pulmonary disease (1.6)	Hypertension, Fluid and electrolyte disorders (1.7)
5	Drug and Alcohol Abuse (3.0)	Fluid and electrolyte disorders (2.0)	Chronic pulmonary disease (1.3)	Hypertension, Fluid and electrolyte disorders (1.4)	Hypertension, Chronic pulmonary disease (1.5)

Note: A discharge can have multiple comorbid conditions

Table 12a. Five Most Common Causes of Injury by CCS, Adult Male Inpatient Discharges by Age Group, 2014

Age Group		Rank				
		1	2	3	4	5
18 to 29	CCS Category	Adverse effects of medical care	Motor vehicle traffic (MVT)	Fall	Suicide and intentional self-inflicted injury	Struck by; against
	Discharges, (%)	3.54	2.63	2.13	1.95	1.69
	Discharges with Ecode, (%)	17.28	12.84	10.41	9.54	8.23
30 to 49	CCS Category	Adverse effects of medical care	Fall	Poisoning	Motor vehicle traffic (MVT)	Unspecified
	Discharges, (%)	5.39	2.4	1.34	1.23	1.09
	Discharges with Ecode, (%)	32.36	14.45	8.06	7.38	6.52
50 to 64	CCS Category	Adverse effects of medical care	Fall	Unspecified	Poisoning	Motor vehicle traffic (MVT)
	Discharges, (%)	8.29	2.78	0.95	0.93	0.66
	Discharges with Ecode, (%)	51.17	17.19	5.86	5.75	4.06
65 to 74	CCS Category	Adverse effects of medical care	Fall	Unspecified	Other specified and classifiable	Poisoning
	Discharges, (%)	10.36	3.54	0.93	0.41	0.4
	Discharges with Ecode, (%)	60.53	20.68	5.41	2.42	2.32
75 +	CCS Category	Adverse effects of medical care	Fall	Unspecified	Other specified and classifiable	Motor vehicle traffic (MVT)
	Discharges, (%)	8.75	6.66	1.25	0.36	0.33
	Discharges with Ecode, (%)	47.31	35.99	6.74	1.96	1.79
All Ages	CCS Category	<b>Adverse effects of medical care</b>	<b>Fall</b>	<b>Unspecified</b>	<b>Poisoning</b>	<b>Motor vehicle traffic (MVT)</b>
	Discharges, (%)	<b>7.81</b>	<b>3.69</b>	<b>1.06</b>	<b>0.81</b>	<b>0.81</b>
	Discharges with Ecode, (%)	<b>45.03</b>	<b>21.3</b>	<b>6.13</b>	<b>4.69</b>	<b>4.65</b>

Note:

ECode - supplemental diagnosis ICD-9 codes that capture the external cause of injury or poisoning. Ecodes are intended to provide data for injury research and prevention strategies. Ecodes are never to be used as a primary diagnosis code.

Table 12b. Five Most Common Causes of Injury by CCS, Adult Male ER Visits by Age Group, 2014

Age Group		Rank				
		1	2	3	4	5
18 to 29	CCS Category	Struck by; against	Fall	Unspecified	Cut/pierce	Motor vehicle traffic (MVT)
	Discharges, (%)	6.4	4.7	4.0	3.9	3.6
	Discharges with Ecode, (%)	19.3	14.2	12.1	11.8	11.0
30 to 49	CCS Category	Fall	Struck by; against	Unspecified	Cut/pierce	Overexertion
	Discharges, (%)	4.9	4.1	3.4	3.0	2.8
	Discharges with Ecode, (%)	18.1	15.1	12.5	11.0	10.2
50 to 64	CCS Category	Fall	Unspecified	Struck by; against	Cut/pierce	Motor vehicle traffic (MVT)
	Discharges, (%)	6.2	2.7	2.5	2.1	2.1
	Discharges with Ecode, (%)	27.4	12.1	11.1	9.3	9.2
65 to 74	CCS Category	Fall	Unspecified	Adverse effects of medical care	Motor vehicle traffic (MVT)	Cut/pierce
	Discharges, (%)	8.34	2.35	1.73	1.65	1.62
	Discharges with Ecode, (%)	38.3	10.8	7.9	7.6	7.5
75 +	CCS Category	Fall	Adverse effects of medical care	Unspecified	Struck by; against	Motor vehicle traffic (MVT)
	Discharges, (%)	14.4	2.6	2.5	1.2	1.1
	Discharges with Ecode, (%)	56.0	10.0	9.8	4.6	4.2
All Ages	CCS Category	Fall	Struck by; against	Unspecified	Cut/pierce	Motor vehicle traffic (MVT)
	Discharges, (%)	6.1	3.9	3.3	2.8	2.6
	Discharges with Ecode, (%)	22.6	14.4	12.0	10.2	9.6

Note:

ECode - supplemental diagnosis ICD-9 codes that capture the external cause of injury or poisoning. Ecodes are intended to provide data for injury research and prevention strategies. Ecodes are never to be used as a primary diagnosis code.

Table 13a. Five Most Common CCS Procedure Categories, Adult Male Inpatient Discharges by Surgical Type by Age Group, 2014

Age Group	Surgical Type		Rank				
			1	2	3	4	5
18 to 29 years old	Non-Broad	CCS Description	Psychological and psychiatric evaluation and therapy	Other therapeutic procedures	Alcohol and drug rehabilitation/detoxification	Respiratory intubation and mechanical ventilation	Blood transfusion
		Procedures, (%)	20.6	17.4	8.3	4.3	3.7
	Broad	CCS Description	Appendectomy	Other therapeutic procedures on muscles and tendons	Treatment, fracture or dislocation of lower extremity (other than hip or femur)	Spinal fusion	Incision of pleura, thoracentesis, chest drainage
		Procedures, (%)	8.8	5.0	4.7	4.2	3.9
30 to 49 years old	Non-Broad	CCS Description	Other therapeutic procedures	Psychological and psychiatric evaluation and therapy	Alcohol and drug rehabilitation/detoxification	Diagnostic cardiac catheterization, coronary arteriography	Respiratory intubation and mechanical ventilation
		Procedures, (%)	17.2	11.0	8.9	5.2	4.4
	Broad	CCS Description	Spinal fusion	Laminectomy, excision intervertebral disc	Partial excision bone	Other therapeutic procedures on muscles and tendons	Appendectomy
		Procedures, (%)	9.9	5.2	3.6	3.5	3.1
50 to 64 years old	Non-Broad	CCS Description	Other therapeutic procedures	Diagnostic cardiac catheterization, coronary arteriography	Respiratory intubation and mechanical ventilation	Blood transfusion	Other OR procedures on vessels other than head and neck
		Procedures, (%)	16.1	9.3	5.5	5.3	4.5
	Broad	CCS Description	Spinal fusion	Percutaneous transluminal coronary angioplasty (PTCA)	Other non-OR therapeutic cardiovascular procedures	Other OR procedures on vessels other than head and neck	Hip replacement, total and partial
		Procedures, (%)	7.1	5.8	5.4	4.0	3.8

Notes:

[1] If the same procedure was performed more than once during a visit, the procedure was only counted once for that visit.

[2] Non-broad - HCUP surgical procedure definition for 'neither'.

Broad - HCUP surgical procedure definition for 'narrow' or 'broad' types of procedures.

Age Group	Surgical Type		Rank				
			1	2	3	4	5
65 to 74 years old	Non-Broad	CCS Description	Other therapeutic procedures	Diagnostic cardiac catheterization, coronary arteriography	Blood transfusion	Respiratory intubation and mechanical ventilation	Other OR procedures on vessels other than head and neck
		Procedures, (%)	15.15	9.06	7.13	6.34	4.62
	Broad	CCS Description	Percutaneous transluminal coronary angioplasty (PTCA)	Spinal fusion	Other OR procedures on vessels other than head and neck	Other non-OR therapeutic cardiovascular procedures	Coronary artery bypass graft (CABG)
		Procedures, (%)	5.1	5.1	5.0	4.7	4.6
75 + years old	Non-Broad	CCS Description	Other therapeutic procedures	Blood transfusion	Respiratory intubation and mechanical ventilation	Diagnostic cardiac catheterization, coronary arteriography	Diagnostic ultrasound of heart (echocardiogram)
		Procedures, (%)	16.2	8.5	6.9	6.2	5.0
	Broad	CCS Description	Other OR procedures on vessels other than head and neck	Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator	Percutaneous transluminal coronary angioplasty (PTCA)	Other non-OR therapeutic cardiovascular procedures	Coronary artery bypass graft (CABG)
		Procedures, (%)	6.0	5.9	4.5	4.1	3.7
All Ages	Non-Broad	CCS Description	Other therapeutic procedures	Diagnostic cardiac catheterization, coronary arteriography	Blood transfusion	Respiratory intubation and mechanical ventilation	Psychological and psychiatric evaluation and therapy
		Procedures, (%)	16.2	7.3	6.1	5.7	4.6
	Broad	CCS Description	Spinal fusion	Percutaneous transluminal coronary angioplasty (PTCA)	Other OR procedures on vessels other than head and neck	Other non-OR therapeutic cardiovascular procedures	Laminectomy, excision intervertebral disc
		Procedures, (%)	6.0	4.6	4.3	4.3	3.2

Notes:

[1] If the same procedure was performed more than once during a visit, the procedure was only counted once for that visit.

[2] Non-broad-HCUP surgical procedure definition for 'neither'.

Broad-HCUP surgical procedure definition for 'narrow' or 'broad' types of procedures.

Table 13b. Five Most Common CCS Procedure Categories of ER Discharges by Surgical Type for Each Adult Male Age Group, 2014

Age Group	Surgical Type	CCS Description	Rank				
			1	2	3	4	5
18 to 29 years old	Non-Broad	Laboratory - Chemistry and Hematology	25.3	Other diagnostic procedures (interview, evaluation, consultation) 20.7	Other therapeutic procedures 11.7	Microscopic examination (bacterial smear, culture, toxicology) 8.1	Medications (Injections, infusions and other forms) 7.8
		Procedures, (%)					
	Broad	Suture of skin and subcutaneous tissue	73.9	Incision and drainage, skin and subcutaneous tissue 14.3	Other non-OR therapeutic procedures on skin and breast 3.2	Debridement of wound, infection or burn 1.8	Non-operative removal of foreign body 1.5
		Procedures, (%)					
30 to 49 years old	Non-Broad	Laboratory - Chemistry and Hematology	31.0	Other diagnostic procedures (interview, evaluation, consultation) 17.3	Other therapeutic procedures 12.0	Medications (Injections, infusions and other forms) 7.9	Microscopic examination (bacterial smear, culture, toxicology) 6.5
		Procedures, (%)					
	Broad	Suture of skin and subcutaneous tissue	68.4	Incision and drainage, skin and subcutaneous tissue 17.7	Non-operative removal of foreign body 2.8	Other non-OR therapeutic procedures on skin and breast 2.4	Debridement of wound, infection or burn 1.8
		Procedures, (%)					
50 to 64 years old	Non-Broad	Laboratory - Chemistry and Hematology	35.8	Other diagnostic procedures (interview, evaluation, consultation) 14.7	Other therapeutic procedures 11.2	Medications (Injections, infusions and other forms) 6.9	Microscopic examination (bacterial smear, culture, toxicology) 5.7
		Procedures, (%)					
	Broad	Suture of skin and subcutaneous tissue	69.5	Incision and drainage, skin and subcutaneous tissue 15.4	Other non-OR therapeutic procedures on skin and breast 2.2	Non-operative removal of foreign body 2.1	Debridement of wound, infection or burn 1.9
		Procedures, (%)					
65 to 74 years old	Non-Broad	Laboratory - Chemistry and Hematology	38.8	Other diagnostic procedures (interview, evaluation, consultation) 12.5	Other therapeutic procedures 10.2	Medications (Injections, infusions and other forms) 5.7	Microscopic examination (bacterial smear, culture, toxicology) 5.6
		Procedures, (%)					
	Broad	Suture of skin and subcutaneous tissue	72.8	Incision and drainage, skin and subcutaneous tissue 11.3	Other non-OR therapeutic procedures on skin and breast 1.9	Debridement of wound, infection or burn 1.7	Abdominal paracentesis 1.2
		Procedures, (%)					



Age Group	Surgical Type		Rank				
			1	2	3	4	5
75 + years old	Non-Broad	CCS Description	Laboratory - Chemistry and Hematology	Other diagnostic procedures (interview, evaluation, consultation)	Other therapeutic procedures	Microscopic examination (bacterial smear, culture, toxicology)	Electrocardiogram
		Procedures, (%)	39.6	11.1	9.0	6.0	4.8
	Broad	CCS Description	Suture of skin and subcutaneous tissue	Incision and drainage, skin and subcutaneous tissue	Other diagnostic radiology and related techniques	Other vascular catheterization, not heart	Other non-OR therapeutic procedures on skin and breast
		Procedures, (%)	82.2	5.4	1.3	1.1	1.0
All Ages	Non-Broad	CCS Description	Laboratory - Chemistry and Hematology	Other diagnostic procedures (interview, evaluation, consultation)	Other therapeutic procedures	Medications (Injections, infusions and other forms)	Microscopic examination (bacterial smear, culture, toxicology)
		Procedures, (%)	32.8	16.1	11.2	7.0	6.4
	Broad	CCS Description	Suture of skin and subcutaneous tissue	Incision and drainage, skin and subcutaneous tissue	Other non-OR therapeutic procedures on skin and breast	Non-operative removal of foreign body	Debridement of wound, infection or burn
		Procedures, (%)	71.6	15.0	2.5	2.0	1.8

Notes:

[1] If the same procedure was performed more than once during a visit, the procedure was only counted once for that visit.

[2] Non-broad=HCUP surgical procedure definition for neither.

Broad=HCUP surgical procedure definition for narrow or broad.

## Definitions

**The Statewide Planning and Research Cooperative System (SPARCS):** SPARCS is a comprehensive data reporting system established in 1979 as a result of cooperation between the health care industry and government. Initially created to collect information on discharges from hospitals, SPARCS currently collects patient level detail on patient characteristics, diagnoses and treatments, services, and charges for every Article 28 (acute care) hospital discharge, ambulatory surgery, emergency room visits, and visits to hospital-based outpatient clinics in NYS. More information on SPARCS may be found at the following direct link: <http://www.health.ny.gov/statistics/sparcs/>

**The Emergency Medical Treatment and Labor Act (EMTALA):** EMTALA is a federal law that requires anyone coming to an emergency department to be stabilized and treated, regardless of their insurance status or ability to pay, but since its enactment in 1986 has remained an unfunded mandate. For more information please follow the link: <https://www.acep.org/news-media-top-banner/emtala/>

**Agency for Healthcare Research and Quality (AHRQ):** AHRQ was originally created as the Agency for Health Care Policy and Research (AHCPR) on December 19, 1989, under the Omnibus Budget Reconciliation Act of 1989, as a Public Health Service Agency in the U.S. Department of Health and Human Services (HHS). The Agency was reauthorized with a name change as the Agency for Healthcare Research and Quality on December 6, 1999, under the Healthcare Research and Quality Act of 1999. The AHRQ mission is to produce evidence to make health care safer, higher quality, more accessible, equitable, and affordable, and to work within the U.S. Department of Health and Human Services and with other partners to make sure that the evidence is understood and used.

**All Patient Refined Diagnostic Related Groups (APR-DRGs):** APR-DRGs were assigned to SPARCS data using grouping software created and distributed by 3MTM Corporation (3MTM Health Information Systems). A total of 314 base APR-DRGs constitute a hospital inpatient services classification system that groups patients according to diagnosis, type of treatment (procedures), and other relevant criteria (ex., age, sex, discharge status). It represents the patient's condition at the time of discharge and includes the impact of conditions that developed during the hospital stay; diagnoses and procedures are eliminated from consideration in the APR-DRG assignment.

**Healthcare Cost and Utilization Project (HCUP):** HCUP includes the largest collection of longitudinal hospital care data in the United States. Sponsored by AHRQ, HCUP includes largest all payer encounter level health care data (inpatient, emergency department and ambulatory surgery records) in the U.S., beginning in 1988. HCUP is a Federal-State-Industry partnership that brings together data collection efforts of many organizations to create a national health care information resource. For more information follow direct link: <http://www.hcup-us.ahrq.gov/>

**Comorbid Conditions:** The Comorbidity Software, used to define comorbidities in this statistical brief, is a software tool developed as part of HCUP sponsored by the Agency for Healthcare Research and Quality (AHRQ). The comorbidity software assigns variables that identify patient comorbidities in hospital administrative discharge records using distinct ICD-9-CM codes such that no two comorbidities are defined using the same codes. This software is available for free and can be download from: <http://www.hcup-us.ahrq.gov/toolssoftware/comorbidity/comorbidity.jsp>

**Clinical Classifications Software (CCS) for Diagnoses:** The Clinical Classifications Software (CCS) for ICD-9-CM is a diagnosis and procedures categorization scheme that is based on the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM), a uniform and standardized coding system. CCS was formerly known as the Clinical Classifications for Health Policy Research (CCHPR). The ICD-9-CM codes (over

14,000 diagnosis codes and 3,900 procedure codes) are collapsed into a smaller number of clinically meaningful categories that are sometimes more useful for presenting descriptive statistics than are individual ICD-9-CM codes. The Software is available at: <https://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp>

**Clinical Classifications Software (CCS) for Procedures:** The Clinical Classifications Software for Services and Procedures (CCS-Services and Procedures) is one in a group of databases and software tools developed as part of the Healthcare Cost and Utilization Project (HCUP), a Federal-State-Industry partnership sponsored by the Agency for Healthcare Research and Quality (AHRQ). CCS-Services and Procedures provides a method for classifying Current Procedural Terminology (CPT) codes and Healthcare Common Procedure Coding System (HCPCS) codes into procedure categories. The CCS-Services and Procedures is available at: [https://www.hcup-us.ahrq.gov/toolssoftware/ccs\\_svcsproc/ccssvcproc.jsp](https://www.hcup-us.ahrq.gov/toolssoftware/ccs_svcsproc/ccssvcproc.jsp)

**HCPCS:** The HCPCS is a standardized coding system for procedures and services provided in a healthcare setting. The codes are used for claims processing by health insurance programs. The HCPCS is divided into two systems, referred to as level I and level II of the HCPCS. Level I of the HCPCS is comprised of CPT (Current Procedural Terminology), a numeric coding system maintained by the American Medical Association (AMA). Level II of the HCPCS is a standardized coding system that is used primarily to identify products, supplies, and services not included in the CPT codes.

**CPT:** The CPT is a uniform coding system consisting of descriptive terms and identifying codes that are used primarily to identify medical services and procedures provided by health care professionals. These health care professionals use the CPT to identify services and procedures for which they bill to health insurance programs. CPT is also referred to as HCPCS Level I.

**Surgery Type:** The HCUP Surgery Flag Software classifies surgical procedures using three definitions: narrow, broad, or neither. The HCUP Surgery Flag Software was used to classify each procedure reported on the inpatient discharge or ER visit record according to these definitions.

Narrow: Procedures classified as surgery using the narrow definition are invasive therapeutic surgical procedures that involve an incision, excision, manipulation, or suturing of tissue that penetrates or breaks the skin. Typically, these procedures require use of an operating room; and also require regional anesthesia, general anesthesia, or sedation to control pain. Procedures in the narrow category are extensive in nature and include, but are not limited to, pacemaker surgery, robotic-assisted procedures, laparoscopy, layer closure, complex repair or tissue transfer.

Broad: Procedures classified as surgery using the broad definition include all narrow procedures and those diagnostic and less invasive procedures that are performed in surgical settings, though they do not meet the stricter narrow surgery definition. These include percutaneous procedures, endoscopic procedures, and all "open" surgical procedures, regardless of therapeutic or diagnostic purpose.

Neither: Procedures not matching the narrow or broad surgery definitions are classified as neither. These procedures include, radiosurgery, shaving, lithotripsy and use of endoscopes for diagnostic purposes only and for which nothing is removed.

For more detailed information, please visit:

<https://www.hcup-us.ahrq.gov/toolssoftware/surgflags/surgeryflags.jsp>

Surgery type combined the HCUP definitions as follows: 'Narrow' and 'Broad' identified procedures were grouped into the surgery type category of 'Broad' and 'Neither' identified procedures into the surgery type category 'Non-broad'.

**Discharge Status:** Is based upon NYS Patient Status/Disposition indicated on the SPARCS discharge record.

Discharge status combined NYS Patient Status/Disposition as follows:

- Routine - home or self-care (routine discharge); home or self-care with a planned acute care hospital inpatient readmission
- Short-term Hospital - discharged/transferred to a short-term general hospital for inpatient care; discharged/transferred to a short-term general hospital for inpatient care with a planned acute care hospital inpatient readmission
- Skilled Nursing Facility - discharged/transferred to skilled nursing facility with Medicare certification in anticipation of skilled care; discharged/transferred to skilled nursing facility with Medicare certification with a planned acute care hospital inpatient readmission
- Intermediate Care - discharged/transferred to a facility that provides custodial or supportive care; discharged/transferred to a facility that provides custodial or supportive care with a planned acute care hospital inpatient readmission
- Another Facility includes discharged/transferred to: (a) hospice-certified medical facility providing hospice level of care; (b) designated cancer center or children's hospital; (c) critical access hospital (CAH); (d) court/law enforcement; (e) federal health care facility; (f) hospital-based Medicare approved swing bed; (g) Medicare certified long term care hospital; (h) nursing facility certified under Medicaid but not certified under Medicare; (i) psychiatric hospital or psychiatric distinct part unit of a hospital; (j) another type of health care institution not defined elsewhere in the codes used; (k) inpatient rehabilitation facility including rehabilitation distinct part units of a hospital; (b)-(k) with a planned acute care hospital inpatient readmission
- Home Health Care - discharged/transferred to home under care of organized home health service organization in anticipation of covered skilled care; home hospice; discharged/transferred to home under care of organized home health service organization with a planned acute care hospital inpatient readmission
- Left Against Medical Advice
- Died -to include expired; expired at home; expired in a medical facility (e.g. hospital, SNF, ICF, or free standing hospice); expired-place unknown.

**Admission Source:** Is based upon point of origin indicated on the SPARCS discharge record. Admission source combined point of origin codes as follows:

- Routine – non-health facility point of origin; clinic; reserved for assignment by the NUBC
- Another hospital – transfer from a hospital (different facility)
- Another facility – transfer from a skilled nursing facility or intermediate care facility; transfer from another health care facility; transfer from ambulatory surgery center; transfer from hospice and is under a hospice plan of care or enrolled in a hospice program
- Emergency room

**Payer:** A composite was derived from three Source of Payment Typology data elements reported on a SPARCS discharge record. Source of Payment Typology is a hierarchical code list based on the Public Health Data Standards Consortium Source of Payment Typology Version 3.0, Code that provides a range of codes from broad categories to related sub-categories that are more specific. It is used to identify the payer expected to pay the MAJOR portion of the patient's bill. Broad categories (and related sub-categories) were combined into payer categories as follows:

- Self -Pay – No payment from an organization/agency/program/private payer listed
- Medicaid – Medicaid
- Medicare – Medicare
- Commercial – Private health insurance; Blue Cross/Blue Shield Organization

-Other – Other government (Federal/State/Local-excluding Dept. of Corrections); Dept. of Corrections; Managed care, unspecified; Miscellaneous/other

**Unit of analysis:** For all analyses except those involving surgical procedures, the unit of analysis is either the inpatient hospital discharge or the ER visit, not a person or patient. This means that if a person is discharged from the hospital or visits ER multiple times in a year, each incident will be counted as a separate event. Therefore, a person can have more than one event in the data sets.

Analyses involving surgical procedures focus on the procedures performed for each discharge as the unit of analysis. Multiple procedures can be performed during a visit. However, if the same procedure was performed more than once during a visit (for example, myringotomy on right and left ears) that procedure was counted only once.

## References

1. [https://www.health.ny.gov/statistics/vital\\_statistics/2014/table01.htm](https://www.health.ny.gov/statistics/vital_statistics/2014/table01.htm)
2. [https://www.health.ny.gov/statistics/vital\\_statistics/2014/table05.htm](https://www.health.ny.gov/statistics/vital_statistics/2014/table05.htm)
3. [http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_03.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_03.pdf)
4. <https://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp>

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