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All-Payer Ambulatory Surgery Center Discharges in New York State, 2013

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Introduction

An Ambulatory Surgery Center (ASC) is a health care facility that provides planned same-day surgical care, including diagnostic and preventative procedures, where patients are not expected to be admitted for a hospital stay^{1,2,3}. ASCs do not provide emergency care. This Statistical Brief contains a summary of ASC discharges in New York State (NYS) in 2013 from certified facilities both owned by or associated with a hospital, or operating as a free standing diagnostic and treatment center (D&TC). Included in this Statistical Brief is information about the type of ASC, patient demographics, regional information, primary payer information and common diagnoses and surgical procedures performed.

Methods

Ambulatory surgery discharges from all health care facilities certified under Article 28 of the New York State Public Health Law (NYSPHL) are reported to the Statewide Planning and Research Cooperative System (SPARCS) since 1983. Under Article 28, ambulatory surgery is defined as "surgical procedures which need to be performed for safety reasons in an operating room on anesthetized patients requiring a stay of less than 24 hours' duration. These procedures do not include those outpatient surgical procedures which can be performed safely in a private physician's office or an outpatient treatment room." (10 NYCRR Section 755.1)³. ASCs are subject to multiple regulations on a

Highlights

- The majority of ambulatory surgery discharges are from hospital-based centers.
- The majority of patient discharges are for patients between the ages of 45-79 years.
- A greater number of discharges are for females (57%) than males (43%).
- Most discharges occur in New York City or Long Island.
- Commercial insurance is the most frequently billed insurance type.
- The majority of stays in ASCs are between 2 and 9 hours in duration.
- For all age groups, the top 3 surgical procedures were Colonoscopy and biopsy; Upper gastrointestinal endoscopy, biopsy; and Lens and cataract procedures.
- For children ages 1-9 years, the top 3 procedures were Tonsillectomy and/or adenoidectomy; Myringotomy; and Upper gastrointestinal endoscopy, biopsy.
- For adults ages 45-64 years, the top 3 surgical procedures were Colonoscopy and biopsy, Upper gastrointestinal endoscopy, biopsy; and Lens and cataract procedures.

¹ <http://www.ascassociation.org/AdvancingSurgicalCare/whatisanasc>

² Wier, LM, Steiner, CA, and Owens, PL, Surgeries in Hospital-Owned Outpatient Facilities, 2012. HCUP Statistical Brief #188. 2015, Agency for Healthcare Research and Quality: Rockville, MD.

³ <http://public.leginfo.state.ny.us/lawsrch.cgi?NVLWO>:

state and federal level. Each ASC analyzed in this brief was classified into one of the three facility types: diagnostic and treatment center (D&TC), hospital-based, and hospital extension clinic. A D&TC is a free standing clinic, unaffiliated with a hospital. A hospital-based facility is an ASC located within or on the premises of a hospital, but has separate and independent financial and administrative status. A hospital extension ASC is similar to a hospital-based center, but is located outside of hospital premises.

ASC Type	Description
D& TC	Free standing, unaffiliated with a hospital
Hospital-Based	Located within or on the premises of a hospital
Hospital Extension	Located outside the premises of a hospital

Outpatient discharges analyzed in this Statistical Brief were reported to SPARCS for the service time period January 1, 2013 through December 31, 2013. Ambulatory surgery discharges were identified based on the reported revenue codes indicative of the ambulatory surgery services. (See Definitions.) Discharges from ASCs not meeting the ambulatory surgery definition were not included in this analysis.

Diagnosis Classification

To classify the primary ICD-9-CM⁴ diagnosis codes into disease categories, discharge record information was grouped using Healthcare Utilization Project (HCUP) Clinical Classifications Software (CCS). The diagnosis CCS categories can provide insight into the overall health status of a patient, or insight into the reason a patient was referred for ambulatory surgery. For more information on the CCS logic for ICD-9-CM diagnosis codes, please visit: <https://www.hcup-us.ahrq.gov/toolssoftware/ccs/ccs.jsp>.

Procedures Classification

This analysis is focused on the procedures performed during each ambulatory surgery discharge. However, as multiple procedures can be performed during an ambulatory surgery visit, if the same procedure was performed more than once during a visit (for example, myringotomy on right and left ears) the procedure was only counted only once for any analyses concerning procedures.

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 ambulatory surgery discharge 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 more strict 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.

⁴ <http://www.cdc.gov/nchs/icd/icd9cm.htm>

While all ambulatory surgery discharges were analyzed, only procedures that were classified as broad are presented in this Statistical Brief. To access the software or for more detailed information please see: <http://www.hcup-us.ahrq.gov/toolssoftware/surgflags/surgeryflags.jsp>.

Once the procedures meeting the broad definition of surgery were identified, they were grouped using HCUP CCS Software for procedures. The software classifies Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) procedure codes into one of 244 clinically meaningful categories. The procedure CCS categories are used in this analysis to provide insight into the types of procedures occurring in an ambulatory surgery setting in NYS. The procedure CCS categories can also be used to assess specific procedures and factors related to those procedures. For more detailed information on this software please visit: https://www.hcup-us.ahrq.gov/toolssoftware/ccs_svcsproc/ccssvcproc.jsp.

One CCS category could contain all three types of the procedures: narrow, broad and neither. Example of the CPT/HCPCS procedures composition of the CCS 76 “Colonoscopy and Biopsy” is presented below:

Procedure Type	CPT/ HCPC	CPT/HCPC Description	Number of Procedures	Percent of Procedures
Narrow	45505	Repair of rectum	184	0.0
Narrow	45500	Repair of rectum	12	0.0
Broad	45380	Colonoscopy and biopsy	186,842	36.6
Broad	45385	Lesion removal colonoscopy	93,695	18.4
Broad	45384	Lesion remove colonoscopy	16,241	3.2
Broad	45381	Colonoscopy sub-mucous injury	10,169	2.0
Broad	45383	Lesion removal colonoscopy	3,477	0.7
Broad	45382	Colonoscopy/control bleeding	1,310	0.3
Broad	45386	Colonoscopy dilate stricture	299	0.1
Broad	44389	Colonoscopy with biopsy	255	0.1
Broad	44394	Colonoscopy w/snare	118	0.0
Broad	45392	Colonoscopy w/endoscopic FNA	61	0.0
Broad	44392	Colonoscopy & polypectomy	39	0.0
Broad	45387	Colonoscopy w/stent	23	0.0
Broad	44393	Colonoscopy lesion removal	17	0.0
Broad	45355	Surgical colonoscopy	14	0.0
Broad	44391	Colonoscopy for bleeding	3	0.0
Broad	44397	Colonoscopy w/stent	1	0.0
Neither	45378	Diagnostic colonoscopy	146,546	28.7
Neither	G0121	Colon CA screen not high risk individual	29,380	5.8
Neither	G0105	Colorectal screen; high risk individual	20,381	4.0
Neither	44388	Colonoscopy	495	0.1
Neither	45391	Colonoscopy w/endoscopic ultrasound	356	0.1
Neither	C1749	Endoscope, retrograde image. colonosc. device	3	0.0
Total Procedures			509,921	100.0
Total Discharges			460,452	

Data Source

SPARCS is a comprehensive all-payer hospital discharge data reporting system established in 1979 as a result of a cooperation between the health care industry and NYS government. SPARCS currently collects patient-

level detail on demographics, diagnoses, treatments, services, and charges for every Article 28 (acute care) hospital discharge, emergency department visit, hospital based outpatient and ambulatory surgery visit in New York State. The unit of analysis is ambulatory surgery discharge record submitted to SPARCS and not a patient; therefore, one patient could be represented multiple times in the analysis if ambulatory surgery visits were reported during 2013.

Findings

Ambulatory Surgery Centers, Discharge and Procedure Characteristics

As shown in [Tables 1A](#) and in [Table 1B](#), in New York State, 339 ambulatory surgery centers reported discharges to SPARCS in 2013. Of these, 57.2% were hospital-based centers, 33.6% were D&TC and 9.1% were hospital extension clinics. A total of 2,167,974 unique ambulatory surgery discharges and 9,892,471 unique procedures were reported by all 339 facilities (an average of 4.6 procedures per discharge). The majority of ambulatory surgery discharges (66.1%) and total procedures (84.4%) were reported by hospital-based centers, D&TCs reported 27.7% of discharges and 9.0% of total procedures and hospital extension clinics reported the fewest number of discharges (6.2%) and total procedures (6.6%).

After total procedures were restricted to the broad surgery definition, the number of broad procedures reduced to 2,102,022, or 21.2% of total procedures. While the number of the procedures decreased dramatically, the distribution of the broad procedures performed at each ASC type shifted slightly (66.8%, 26.8% and 6.4%) as presented in [Table 1B](#). A similar finding was noted for the distribution of the discharges with broad procedures as related to the total discharges, remaining almost unchanged (66.3%, 27.7% and 6.1%) as shown in [Table 1A](#).

For the complete picture of the procedures and discharges in ASC please refer to [Appendix A](#) at the end of this brief. It has a comprehensive list of the CCS procedure categories and illustrates the distribution of the broad (analyzed in this report) and not broad (not analyzed) procedures in each CCS category that were performed in NYS ASC in 2013. It also shows ASC discharges associated with broad and not broad procedures for each CCS category.

[Table 2](#) presents the number and percent of total unique ambulatory surgery discharges by patient age group and ASC Type. Overall, the majority of patient discharges (66.5%) were between the ages of 45 and 79 years, and only about 5.5% were under the age of 18 years. The smallest proportion of patient discharges under 18 years was treated in D&TCs (1.8%), while hospital-based facilities and hospital extension clinics treated a comparable proportion of discharges in the under 18 years age group (7.0% and 8.1% respectively).

In 2013 across all facilities, there were 13.4% more ambulatory surgery discharges for females than for males (56.7% vs. 43.3%), as shown in [Table 3](#). This proportion was similar within each type of facility with the largest difference being observed for D&TCs (16.4%).

Thirty-seven percent of all ambulatory surgery discharges were in the New York City (NYC) Hospital Service Area (HSA), as shown in [Table 4A](#). The NYC HSA had the most discharges for all types of ASCs (D&TC 35.8%, hospital-based 38.0%, hospital extension 32.1%). Outside of NYC, the Long Island, Western New York (NY) and Northeastern NY HSAs had the most discharges overall (14.6%, 10.4% and 10.0% respectively). For hospital extension clinics, the majority of discharges outside of NYC were in the Finger Lakes (18.1%) and in Northeast NY (16.0%) HSAs. In contrast, the Long Island HSA had the next highest proportion of discharges for both D&TCs (16.6%) and for hospital extension clinics (14.4%). It should be noted that there were no Article 28 D&TCs reporting discharges to SPARCS in the NY-Penn HSA in 2013, explaining the zero discharges in [Table 4A](#). The majority of discharges in each HSA were from hospital-based facilities, as shown in [Figure 1](#). However, Central NY has the largest proportion of discharges from D&TC (37.9%) and Finger Lakes HSA has the largest percentage of discharges from hospital extension Clinics (13.5%) in the state.

Table 4B shows the distribution of ASC discharges by HSA as well as average number of discharges per facility. Across all ASCs, the average number of discharges was 6,395.2, which varied by region and by the type of facility. Out of 339 ASCs in NYS, 105 (31%) were in NYC HSA and 5 (1.5%) were in the NY-Penn HSA. ASCs in NY-Penn HSA had the highest average number of discharges per ASC (7,806.6) as compared to all regions, with most of their ASCs being hospital-based centers. After NYC, Mid-Hudson, Long Island and Central NY HSA had the highest and very similar number of ASCs (45, 43 and 42 respectively), but the average number of discharges was different across the regions. Long Island had the highest average number of discharges per ASC (7,367.3) with Central NY and Mid-Hudson HSA having almost half that number on the average (4,869.8 and 4,051.4 respectively).

Hospital-based ASCs represented the majority of all ASCs in NYS (194). They also had the highest average number of discharges overall and within most of the HSAs with the range of 4,827.1 for Mid-Hudson and 9,906.1 for NYC. The highest number of the discharges per facility for D&TCs was in Western NY (7,189.9), while the lowest average was in the Mid-Hudson HSA (3,163.8), not taking into account NY-Penn HSA which has no D&TC in the region. The average number of discharges for all D&TC was 5,268.4 and roughly one thousand discharges more than the average for hospital extension ASCs (4,354.2).

Table 5 demonstrates the distribution of ambulatory surgery discharges by type of facility based on primary payer. Across all payers, the majority of discharges were paid by Commercial insurance (43.5%), followed by Medicare (30.8%) and distantly Medicaid (14.5%). Slightly more than half of the discharges in hospital extension clinics (50.7%) had Commercial insurance as primary payer - the largest proportion across all facility types. Hospital-based centers had the largest proportion of discharges paid by Medicaid (17.9%) compared to D&TCs (7.1%) and hospital extension clinics (11.8%). The largest percentage of Self-Pay discharges were in hospital-based centers (2.9%), while only 1% of the discharges from hospital extension clinics were Self-Pay. D&TCs had the most discharges covered by the Other payer category which includes TRICARE (Champus), Department of Veteran Affairs, Indian Health Service and Workers Compensation. D&TCs reported 17.1% of discharges paid by an Other payer, compared with 5.4% in hospital-based facilities and 8.7% in hospital extensions.

Figure 2 illustrates the percent of ambulatory surgery discharges by ASC Type and Primary Payer during 2013. Discharges billed to Medicaid were predominantly treated in hospital-based facilities (81.3%). The same was true for Self-Pay discharges (81%). The percentage of discharges billed to Medicare and Commercial insurance treated in hospital-based facilities was similar (68.1% and 63.7% respectively). Greater than seven percent of discharges billed to Commercial insurance were treated in hospital extension clinics, which is 2.7 times more than Self-Paying discharges (2.6%). Interestingly, 54.5% of discharges with Other payer insurance (TRICARE [Champus], Department of Veteran Affairs, Indian Health Service and Workers Compensation) received care in D&TC. This proportion is considerably higher than the percentage of discharges billed to all other types of insurance treated in the D&TC.

The patient disposition or where patient was discharged after ambulatory surgery visit, was similar between the three facility types. The vast majority of patients (98.8%) were discharged as Routine (to home or self-care), as shown in Table 6. However, more patients were discharged to another type of facility when discharged from a D&TC (2.9%) as compared to other facility types (<1.0%). Figure 3 shows how patient discharge status varies by type of the facility. Interestingly, of all the patients that left against medical advice, 97.8% were in hospital-based centers. Out of 90 patients who died during their ambulatory surgery admission, 98.9% were in a hospital-based clinic. More than 90% of those who were discharged to Home Health Care, Intermediate Care or Skilled Nursing Facility received services in hospital-based settings. Patients discharged to Other type of facility (Federal Health Care Facility, Hospice, Designated Cancer Center or Children's Hospital, Court or Law Enforcement, Hospital-Based Medicare Approved Swing Bed, Inpatient Rehabilitation Facility, a Critical Access Hospital, or another type of healthcare institution) were mostly (83.0%) treated in D&TCs.

Ambulatory surgery visit length of stay (LOS) by facility type is shown on [Figure 4](#). With all types of ASC combined, the largest proportion of discharges (41.6%) lasted between two and four hours and only for 12.3% of the discharges for the LOS was one hour or less. The majority of patients in D&TC stayed less than or equal to four hours (92.2%), with 32.0% of patients were discharged within one hour of admission. For both types of ASCs associated with a hospital, the proportion of the longer LOS was higher than for D&TC. For both hospital-based centers and for hospital extension clinics only 4.2% of the discharges were 1 hour or less, though about 28% lasted for 10 or more hours. It should be noted that of the 2,167,974 total discharges, 3.8% did not have time reported correctly and were not used in the length of stay calculations.

Diagnostic Characteristics of the Ambulatory Surgery Discharges

The top twenty most common primary diagnoses, grouped into CCS categories, for patients seen in each type of ASC in 2013 are presented in [Table 7](#). The first ranked CCS primary diagnosis overall, in D&TC and in hospital extension clinics was Eye Disorders, while in hospital-based facilities the most common CCS primary diagnosis was Factors Influencing Healthcare. Factors Influencing Healthcare includes diagnoses codes relating to pre- and post-operative screening, as well as screening for family history related outcomes. Across all facility types there was a significant variation in primary diagnosis CCS ranking. For example, the fifth most common primary diagnosis CCS in D&TCs was Spondylosis; Intervertebral Disc Disorders; Other Back Problems, while in hospital extension clinics the fifth most common primary diagnosis CCS was Benign Neoplasms, and in hospital-based facilities it was Diseases of Female Genital Organs. Notably, the Abortion-Related Disorders CCS was ranked fourteenth in D&TCs, thirty-fourth in hospital-based facilities and eightieth in hospital extension clinics.

The 10 most common CCS primary diagnosis categories across all facility types accounted for 59% of all ambulatory surgery discharges. Discharges from D&TC showed the least variation in the primary diagnosis CCS with the top 20 accounting for 91.1% and top five accounting for 62.7% of all discharges ([Table 7](#)). Hospital-based facilities treated patients with the widest range of diagnoses: top twenty CCS accounted for 74.4% of all discharges from this type of ASCs. Hospital extension clinics proved interesting with regard to the conditions treated. Some of the diagnostic CCSs ranked high in the order of the most frequent, ranked much lower with the other two types of facilities. These conditions include Joint Disorders and Dislocations; Trauma-Related; Other Connective Tissue Disease; Other Nervous System Disorders; Respiratory Infections; Non-Traumatic Joint Disorders; Other Upper Respiratory Disease.

Procedural Characteristics of the Ambulatory Surgery

By Facility Type

As previously noted in the Methods section, the analysis of the procedures performed in the ASC was limited only to those procedures that met the broad definition of surgery. As shown in [Table 8](#), the most common procedure CCS categories in all ASCs in 2013 included Colonoscopy and Biopsy; Upper Gastrointestinal Endoscopy, Biopsy; Lens and Cataract Procedures; Other OR Therapeutic Procedures on Joints; Other Therapeutic Procedures on Muscles and Tendons. The top five CCS categories were the same across all facility types, though the order of the most common procedures, starting from second ranked, was different. Colonoscopy and Biopsy procedure CCS ranked first across all facility types and accounted for 14.9% of all procedures. More than one fifth (21.6%) of all procedures performed in D&TCs were Colonoscopy and Biopsy, while in the two other types of ASCs, the share of these procedures was about 12.5%. Similar to the findings noted for the diagnostic characteristics, D&TC had the least variation in the procedure CCS performed. This is evident from the fact that top twenty procedure CCSs accounted for 90.9% of all procedures performed in D&TC. Moreover, just top five procedure CCS in D&TC accounted for 70.6% of all procedures. Hospital extension clinics showed much greater variation in the procedure CCSs than for the diagnostic CCSs. Only 63.2% of all procedure CCSs were accounted for when looking at the top twenty performed. Overall 56.5% of all procedures performed in the ASC in NYS in 2013 are encompassed by the top 10 procedure CCS categories.

Procedure CCS ranking identified interesting results within facility types for 2013. In D&TCs more than a quarter (25.5%) of all procedures were grouped into three procedure CCSs that were ophthalmology related procedures: 1) Lens and Cataract Procedures (21.4%); 2) Other Therapeutic Procedures on Eyelids (2.5%), and 3) Conjunctiva, Cornea; and Glaucoma Procedures (1.6%). Among other higher ranked procedure CCSs in D&TC were: Upper Gastrointestinal Endoscopy, Biopsy (19.4%, ranked second); Other OR Therapeutic Procedures on Joints (4.4%, ranked fourth); Other Therapeutic Procedures on Muscles and Tendons (3.8%, ranked fifth); Excision of Semilunar Cartilage of Knee (2.9%, ranked sixth); and, Decompression Peripheral Nerve (1.9%, ranked eighth).

Ambulatory surgery procedures performed in hospital-based facilities were more invasive in nature. Procedures ranked sixth and lower involved the following: Excision of Skin Lesion (2.9%, ranked sixth); Other OR Therapeutic Procedures on Nose, Mouth and Pharynx (2.6%, ranked seventh). Procedures that grouped into the CCS Other Diagnostic Procedures, Female Organs (2.5%) and Other Excision of Cervix and Uterus (1.3%) were ranked eighth and eighteenth respectively, while were not even in the top twenty procedures in the two other ASC types. Ambulatory surgery procedures related to Lumpectomy, Quadrantectomy of Breast (1.9%) were ranked eleventh for the hospital-based surgery and ranked lower (less frequent) top twenties for other facilities. Twelfth ranked CCS Other OR Therapeutic Procedures on Skin and Breast was similar to rankings in other facilities that were thirteenth and tenth. Procedure CCSs for Inguinal and Femoral Hernia Repair and for Other Hernia Repair (ordered tenth and fifteenth respectively) were considerably higher in ranking in hospital-based facilities than in other ASC. In very similar style, Ureteral Catheterization and Transurethral Excision, Drainage, or Removal Urinary Obstruction Procedure CCSs ranked much higher (sixteenth and seventeenth) than the same procedure CCS in other facilities where the rank was doubled (less frequent) as compared to hospital-based ASCs. Cholecystectomy and Common Duct Exploration procedure CCS ranking (thirteenth) was three and more than five times higher than in hospital extension clinics (forty first) and in D&TC (seventy first). At the same time, two procedure CCSs common in other ASC, but not in the hospital-based facilities were: Glaucoma Procedures (ranked sixty fourth) and Arthroscopy (ranked forty sixth).

Ranking of the ambulatory surgery procedure CCS performed in hospital extension clinics also had a distinct pattern with eight out of twenty top ranked procedures being bone, joints or muscles and tendons related. Combined they accounted for 31.2% of all procedures performed in hospital extension clinics, for contrast, the same procedures added up to 16.3% in D&TC and to 14.6% in hospital-based facilities. Proportion of the top three of these procedures (Other OR Therapeutic Procedures on Joints; Other Therapeutic Procedures on Muscles and Tendons; Excision of Semilunar Cartilage of Knee) in hospital extension clinics was almost double of these procedures proportion in other ASC settings (7.6%, 7.1%, 5.4% vs 3.0%, 3.1%, 2.3% in hospital-based and 4.4%, 3.8% and 2.9% in D&TC, respectively).

By Age

Type of the ambulatory surgery procedures performed varied considerably by age as seen in [Table 9](#) and [Table 10](#). The most common procedure CCS differed with age of the patients. For children under age of one, the most common procedure CCS was Other OR Therapeutic Procedures on Male Genitals (24.2%); for children 1 to 9 years of age it was Tonsillectomy and/or Adenoidectomy (27.9%); for children aged 10 to 17 it was Upper Gastrointestinal Endoscopy, Biopsy (13.3%). [Table 9](#) depicts the dynamic of change for common procedure CCS rankings for children from birth to age 17. For example, Myringotomy was a top 10 procedure for those under 9 years old (ranked third and second), but does not occur in the 10 to 17 years old's top 10 category. A similar finding was noted for Other OR Therapeutic Procedures, Male Genitals; Circumcision; Inguinal and Femoral Hernia Repair; and Tympanoplasty – these procedures were no longer in the top ten list for older children (10-17 years olds). And vice versa, procedures such as Arthroscopy; Excision of Semilunar Cartilage of Knee; Other OR Therapeutic Procedures on Joints; Other OR Therapeutic Procedures on Bone; Colonoscopy and Biopsy become high on the top ten most common procedure list only for older children (10 to 17 years old), while being ranked below forty fifth place for younger patients.

The top ten procedures make up nearly 80% of procedures for patients under the age of one (79.5%) and those aged 1 to 9 (80.3%), but for those aged 10 to 17 the top 10 procedures only add up to 58% of the procedures performed for this age group across all ASC settings. These findings suggest the increase in the variability of the procedures performed with age of patients. To illustrate this even further the top three procedures accounted for 56.8% of all procedures for children under age of one, 57.1% for those between age of 1 and 9, and 28.9% for those between age of 10 and 17. Only three procedure CCS across all pediatric age groups were consistently present in top ten most common procedures: Upper Gastrointestinal Endoscopy, Biopsy; Excision of Skin Lesion; and Other OR Therapeutic Procedures on Nose, Mouth and Pharynx.

Table 10 presents procedure CCS rankings for patients 18 years and older. The proportion of the top ten procedure CCS continued to decrease with age until the age of 45 years. For patients aged 45+ years this finding reversed and the top 10 procedure CCS categories for 45 to 64 years added up to 61.8%, for 65 to 79 years it added up to 67%, and for those aged 80 and above the proportion of the top 10 procedure CCS climbs to 69.2% of all procedures performed for the age group. Three procedure CCS were consistently ranked in top ten across all adult age groups: Colonoscopy and Biopsy; and Upper Gastrointestinal Endoscopy (both always in the top three most frequent); and Excision of Skin Lesion. Colonoscopy and Biopsy was the most common for those 45 to 79 years (20.2%). This finding supports the guidelines for colonoscopy screening that recommends regular colorectal screening for adults in this age groups⁵. Lens and Cataract Procedures were ranked forty fourth in 18 to 44 years age group, but were third (5.4%) in 45 to 64 years age group and jumped to be ranked first for all older patient's age groups with 22.3% (ranked first) of performed procedures in those 65-79, and then 30.9% (ranked first) of procedures performed on those age 80 years and older.

Interesting findings were noted for adults with the procedures related to bones, joints and muscle and tendons. Up to age 79 years these were always in top ten most frequent, ranked from third to tenth in all age groups. Starting from age 80+ years, Other Therapeutic Procedures on Muscles and Tendons; Other OR Therapeutic Procedures on Joints; Excision of Semilunar Cartilage of Knee procedures dropped (become less frequent) four to six times in their rankings. In addition to the top three procedure CCSs already mentioned above and common across the ages, procedures that were ranked in top ten only for older adults were Insertion, Revision, Replacement, Removal of Cardiac Pacemaker or Cardioverter/Defibrillator (ranked fourth); Skin Graft (ranked eighth); Glaucoma Procedures (ranked ninth); Endoscopic Retrograde Cannulation of Pancreas (ERCP) (ranked tenth).

By Gender

Table 11 presents the comparison of the most frequent procedures for males and females. Overall, the top 10 procedure CCS categories were similar with the exception of predominantly gender-specific procedures. For men and women, the four most common procedures performed in ASC were the same as the most common across all ages: 1) Upper Gastrointestinal Endoscopy and Biopsy; 2) Colonoscopy and Biopsy; 3) Lens and Cataracts; and, 4) Procedures on Muscles and Tendons. For female patients, Other Diagnostic Procedures on Female Organs was the fifth most common procedure CCS, while in males the fifth most common procedure CCS was Other Therapeutic Procedures on Muscles and Tendons. Women frequently had breast-related procedures (Other OR Therapeutic Procedures on Skin and Breast; Lumpectomy, Quadrantectomy of Breast), while men frequently had procedures for, Inguinal and Femoral Hernia Repair, Other OR Therapeutic Procedures, Male Genital; and Other OR Therapeutic Procedures on Nose, Mouth and Pharynx.

⁵ http://www.cdc.gov/cancer/colorectal/basic_info/screening/guidelines.htm#1

By Primary Payer

Figure 5 presents distribution of the most common procedures by primary payer. There was a noticeable difference in the top five procedure CCS categories for each type of payer. Across all payers, the two common procedure CCS categories were Colonoscopy and Biopsy and Upper Gastrointestinal Endoscopy and Biopsy. As mentioned previously, these two CCS categories were the two most common in ASCs statewide. Lens and Cataract Procedures accounted for 20.7% of all procedures performed for those insured by Medicare, while for Self-Pay, Medicaid, and Commercial payers the proportion for these type of procedures was around 5% of all procedures performed (range: 4.5% - 5.4%).

For those insured by Medicare, other common procedure CCS categories included Excision of Skin Lesions (2.1%) and Other Therapeutic Procedures on the Muscles and Tendons (2.5%). For those insured by Medicaid, 3.0% of procedures performed were for Excision of Skin Lesions, and 4.0% were for Tonsillectomy and/or Adenoidectomy. The last mentioned type of procedures were not in the top five for any other payer. This finding might be reflective of the age structure of the New York Medicaid program. The most common procedure CCS categories for those utilizing Commercial insurance included Other Therapeutic Procedures on Joints and Other OR Therapeutic Procedures on Muscles and Tendons, both accounting for 4.0% of all procedures reimbursed by Commercial payer.

The Other primary payer category had similar common procedure CCS categories to Commercial payers, besides the fifth most common procedures being Excision of Semilunar Cartilage of Knee. Category of Other payer also had the least amount of variation in procedures reimbursed, with about 58% of performed procedures being in the top five categories. Patients with Medicaid as primary insurance had the most variation in type of the procedures. Only 38% of performed procedures were represented by its top 5 CCS categories.

In the Self-Pay population, the number one procedure CCS was Other OR Therapeutic Procedures on the Skin and Breast, which would include procedures such as breast reduction or enlargement. Interestingly, this type of procedures were not seen in the top five procedures performed in any other type of primary payer, suggesting that insurers may not pay for these type of procedures. In the Self-Pay population, the fourth most common procedure CCS was Abortion (5.9%), which is also not found in the top five procedure categories for any other payer.

By Region

As evident from Table 12, ambulatory surgery procedures stratified by HSA Region did not show notable variation as was the case with other stratification parameters. When comparing New York's Rest-of-State (ROS) with New York City (NYC), the initial eight most common procedure CCS categories were the same in both regions, but have some variation in ranking. For example, the fourth most common procedure CCS in ROS was Other Therapeutic Procedures on Muscles and Tendons, while in NYC the fourth most common procedure was Other OR Therapeutic Procedures on Joints. The top five procedure CCS in both regions are the same as the top five procedure CCS for the state as a whole. However, there were four procedure CCS categories that were ranked in one region, but not in another. The ninth and tenth most common procedure categories in ROS were Decompression Peripheral Nerve and Tonsillectomy and/or Adenoidectomy, respectively. These were ranked twenty fourth and sixteens respectively in NYC. In NYC, the eighth and tenth most common type of procedures were Other OR Therapeutic Procedures on Skin and Breast and Other Diagnostic Procedures, Female Organs, respectively. In the ROS, they were ranked eleventh and twelves.

Conclusions

More than fifty percent of all Article 28 certified ambulatory surgery centers in NYS in 2013 were hospital-based facilities. Correspondingly, the majority of the ASC discharges (66.1%) were from hospital-based facilities. More than a third of all discharges were concentrated in NYC, while the next region with the most of discharges was Long Island (14.6%). About 62% of patients receiving care at the ASC were aged 45 to 64

years; females (56.7%) were represented more than males. Commercial insurance was the most common primary payer (43.5%) for the ambulatory surgery discharges with Medicare paying for about 30% of all discharges. Only 2.4% of the discharges were Self-Pay. More than 80% of those who Self-Paid for the ambulatory surgery services received treatment in hospital-based facilities. Discharge status almost uniformly (98.8%) was documented as routine with less than one percent of patients being discharged to another type of facility. Across all facilities, 68% of all events lasted between two and nine hours. The surgeries performed at the D&TC were on an average shorter than at the hospital-associated facilities. Almost third (32%) of the surgeries took one hour or less to complete. Hospital-based and hospital extension clinics both had about 28% of their discharges lasted 10 or more hours.

The most common procedures performed at the ASC substantially varied by age of the patient and by type of the facility. Hospital-based facilities performed more invasive procedures and had a wider range of conditions treated and types of the procedures done as compared to two other facility types. At the same time top five most frequent procedures performed across all facilities were the same, though with different ranking order. Procedure CCS Colonoscopy and Biopsy was consistently ranked as the most frequent type across all centers, but in the D&TC these procedures accounted for a higher proportion of all procedures performed (21.6%). Additionally, D&TC showed a pattern consistent with the specialization in eye-related conditions and disorders: more than a quarter (25.5%) of the procedures were ophthalmology-related. Almost a third (31.2%) of the ambulatory surgery procedures done at the hospital extension clinics involved bone, joints or muscles and tendons related issues. In other ASC settings, in D&TC and in hospital-based facilities this proportion was 16.3% and 14.6% respectively.

For younger patients, those under age of nine, the variation of the type of the surgical procedures performed was not very high. Only top ten procedure CCSs accounted for 77.8% of all procedures for those under age of one and for 80% for those between ages of one and nine. This trend began to decrease with increasing age up to the age of 45 when percentage started to increase again pointing to the decreasing variation in the top ten procedure CCS. Overall, the ranking of the procedures based on the frequency within age group clearly showed age-dependent trends.

Procedure related differences between males and females were minimal, besides predominantly gender-specific procedures being common for a given gender. There were also very little difference for procedures across regions. However, there was considerable variation for common procedures when looking at payer. The self-pay population showed the most difference from that of other payers, with two (Therapeutic Procedures on the Skin and Breast and Abortion) of the five most common procedures not among the top five for any other payer. Medicaid was also quite different compared with other payers with two procedure categories (Excision of Skin Lesions and Tonsillectomy and/or Adenoidectomy) were not in the top five for any other payer. Medicare, Commercial, and Other payers were similar when looking at common procedures, however Medicare paid for procedures related to lens and cataracts much more frequently than any other payer.

Tables and Figures

Table 1A. Number and Percent of Ambulatory Surgery Centers (ASC) Discharges, 2013

ASC Type	Number of ASCs Reporting		Total Discharges		Analyzed		Not Analyzed		
					Discharges with Broad Procedures		Discharges with Not Broad Procedures Only		Percent of Discharges with Not Broad Procedures of Total Discharges
	N	%	N	%	N	%	N	%	%
D&TC	114	33.6	600,597	27.7	456,532	27.7	144,065	27.7	23.99
Hospital-Based	194	57.2	1,432,396	66.1	1,092,029	66.3	340,367	65.5	23.76
Hospital Extension	31	9.1	134,981	6.2	99,654	6.1	35,327	6.8	26.17
Total	339	100.0	2,167,974	100.0	1,648,215	100.0	519,759	100.0	23.97

Note: "Broad" procedure refer to the broad definition of surgery. They include all invasive therapeutic surgical procedures that involve an incision, excision, manipulation, or suturing of tissue that penetrates or breaks the skin, and those diagnostic and less invasive procedures that are performed in surgical settings. "Not Broad" procedures are those classified and "Neither".

Table 1B. Number and Percent of Ambulatory Surgery Centers (ASC) Procedures, 2013

ASC Type	Number of ASCs Reporting		Total Procedures		Analyzed		Not Analyzed		
					Broad Procedures		Not Broad Procedures		Percent of Not Broad Procedures of Total Procedures
	N	%	N	%	N	%	N	%	%
D&TC	114	33.6	891,449	9.0	564,304	26.8	327,145	4.2	36.7
Hospital-Based	194	57.2	8,349,168	84.4	1,403,475	66.8	6,945,693	89.2	83.2
Hospital Extension	31	9.1	651,854	6.6	134,243	6.4	517,611	6.6	79.4
Total	339	100.0	9,892,471	100.0	2,102,022	100.0	7,790,449	100.0	78.8

Note: "Broad" procedure refer to the broad definition of surgery. They include all invasive therapeutic surgical procedures that involve an incision, excision, manipulation, or suturing of tissue that penetrates or breaks the skin, and those diagnostic and less invasive procedures that are performed in surgical settings. "Not Broad" procedures are those classified and "Neither".

Table 2. Number and Percent of Total Unique Discharges by Patient Age Group and ASC Type, 2013

Age Category	ASC Type						Total	
	D&TC		Hospital-Based		Hospital Extension			
	N	%	N	%	N	%	N	%
< 1 year	231	<1.0	5,775	<1.0	621	<1.0	6,627	<1.0
1-9 years	5,174	<1.0	59,430	4.1	6,641	4.9	71,245	3.3
10-17 years	5,334	<1.0	35,477	2.5	3,752	2.8	44,563	2.1
18-44 years	108,587	18.1	317,453	22.2	29,418	21.8	455,458	21.0
45-64 years	261,720	43.6	581,188	40.6	55,387	41.0	898,295	41.4
65-79 years	175,117	29.2	338,475	23.6	30,900	22.9	544,492	25.1
80 years and over	44,434	7.4	94,598	6.6	8,262	6.1	147,294	6.8
Total	600,597	100.0	1,432,396	100.0	134,981	100.0	2,167,974	100.0

Table 3. Number and Percent of Ambulatory Surgery Discharges by Gender and ASC Type, 2013

Gender	ASC Type						Total	
	D&TC		Hospital-Based		Hospital Extension			
	N	%	N	%	N	%	N	%
Female	349,397	58.2	806,625	56.3	74,121	54.9	1,230,143	56.7
Male	251,069	41.8	625,749	43.7	60,856	45.1	937,674	43.3
Unknown	131	<1.0	22	<1.0	4	<1.0	157	<1.0
Total	600,597	100.0	1,432,396	100.0	134,981	100.0	2,167,974	100.0

Table 4A. Number and Percent of Ambulatory Surgery Discharges by HSA Region and ASC Type, 2013

Health Service Area (HSA)	ASC Type						Total	
	D&TC		Hospital-Based		Hospital Extension			
	N	%	N	%	N	%	N	%
Western NY	64,709	10.8	153,003	10.7	8,387	6.2	226,099	10.4
Finger Lakes	33,063	5.5	123,105	8.6	24,389	18.1	180,557	8.3
Central NY	77,547	12.9	108,320	7.6	18,666	13.81	204,533	9.4
NY-Penn	0	0.0	36,871	2.6	2,162	1.6	39,033	1.8
Northeast NY	54,093	9.0	139,951	9.8	21,615	16.0	215,659	10.0
Mid-Hudson	56,948	9.5	120,677	8.4	4,690	3.5	182,315	8.4
New York City	214,846	35.8	544,833	38.0	43,305	32.1	802,984	37.0
Long Island	99,391	16.6	205,636	14.4	11,767	8.7	316,794	14.6
Total	600,597	100.0	1,432,396	100.0	134,981	100.0	2,167,974	100.0

Figure 1. Percent of Ambulatory Surgery Discharges by ASC Type, by HSA Region, 2013

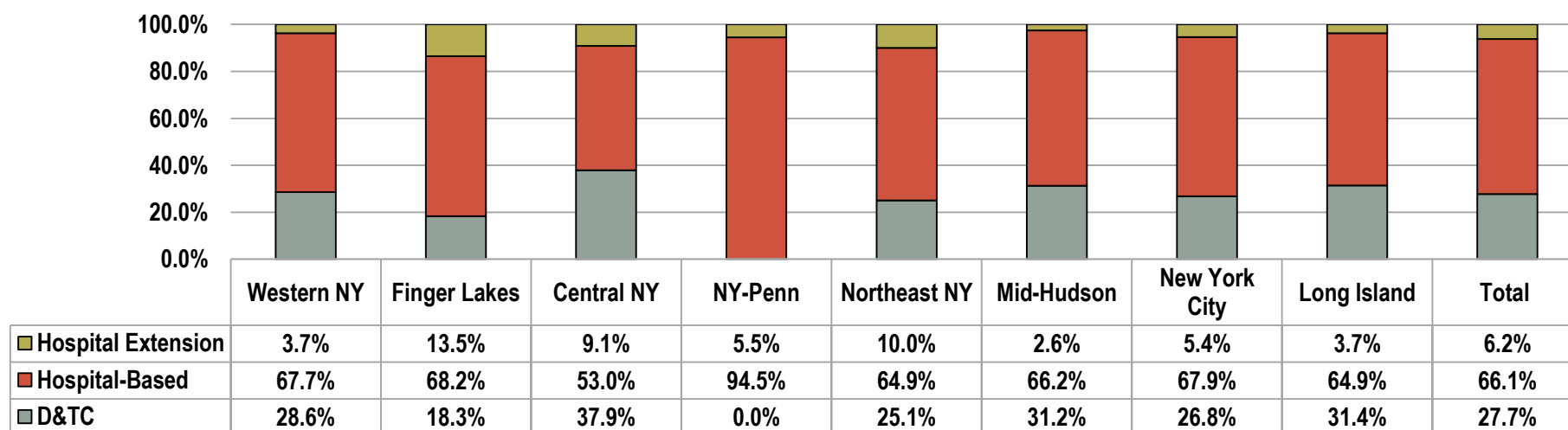


Table 4B. Number of Ambulatory Surgery Discharges, ACS Facilities and Discharges per ASC by HSA Region, 2013

HSA Region	ASC Type									Total		
	D&TC			Hospital-Based			Hospital Extension					
	Discharges	# of ASCs	Discharges per ASC	Discharges	# of ASCs	Discharges per ASC	Discharges	# of ASCs	Discharges per ASC	Discharges	# of ASCs	Discharges per ASC
Western NY	64,709	9	7,189.9	153,003	24	6,375.1	8,387	3	2,795.7	226,099	36	6,280.5
Finger Lakes	33,063	6	5,510.5	123,105	17	7,241.5	24,389	3	8,129.7	180,557	26	6,944.5
Central NY	77,547	14	5,539.1	108,320	22	4,923.6	18,666	6	3,111.0	204,533	42	4,869.8
NY-Penn	0	0	0.0	36,871	4	9,217.8	2,162	1	2,162.0	39,033	5	7,806.6
Northeast NY	54,093	8	6,761.6	139,951	25	5,598.0	21,615	4	5,403.8	215,659	37	5,828.6
Mid-Hudson	56,948	18	3,163.8	120,677	25	4,827.1	4,690	2	2,345.0	182,315	45	4,051.4
New York City	214,846	41	5,240.1	544,833	55	9,906.1	43,305	9	4,811.7	802,984	105	7,647.5
Long Island	99,391	18	5,521.7	205,636	22	9,347.1	11,767	3	3,922.3	316,794	43	7,367.3
Total	600,597	114	5,268.4	1,432,396	194	7,383.5	134,981	31	4,354.2	2,167,974	339	6,395.2

Table 5. Number and Percent of Ambulatory Surgery Discharges by Primary Payer and ACS Type, 2013

Primary Payer	ASC Type						Total	
	D&TC		Hospital-Based		Hospital Extension			
	N	%	N	%	N	%	N	%
Medicare	172,534	28.7	455,194	31.8	40,988	30.4	668,716	30.8
Medicaid	43,248	7.2	258,405	18.0	16,113	11.9	317,766	14.7
Commercial	275,270	45.8	606,669	42.4	69,071	51.2	951,010	43.9
Self-Pay	8,554	1.4	42,193	2.9	1,333	1.0	52,080	2.4
Other	100,991	16.8	69,935	4.9	7,476	5.5	178,402	8.2
Total	600,597	100.0	1,432,396	100.0	134,981	100.0	2,167,974	100.0

Notes: Other: TRICARE (Champus), Department of Veteran Affairs, Indian Health Service and Workers Compensation

Figure 2. Percent of Ambulatory Surgery Discharges by ASC Type and Primary Payer, 2013

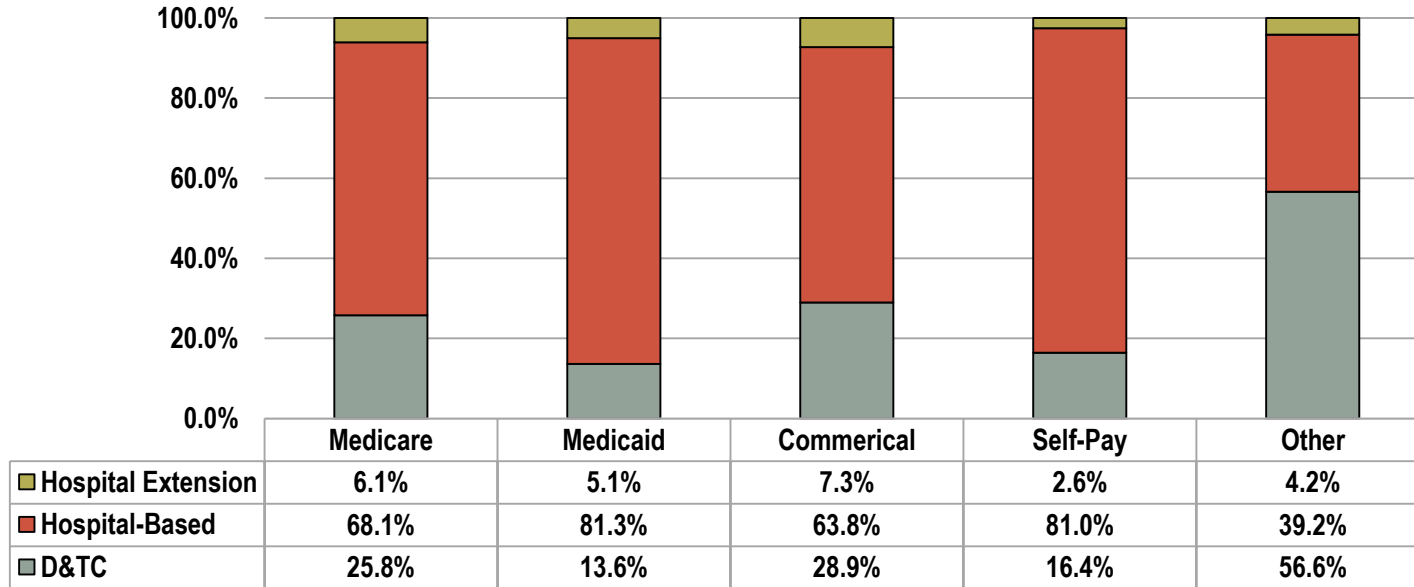


Table 6. Number and Percent of Ambulatory Surgery Discharges by Patients Discharge Status by ASC Type, 2013

Patient Discharge Status	ASC Type						Total	
	D&TC		Hospital-Based		Hospital Extension			
	N	%	N	%	N	%	N	%
Routine	583,051	97.08	1,423,992	99.41	134,868	99.92	2,141,911	98.8
Another type of Facility	17,185	2.86	3,482	<1.0	32	<1.0	20,699	1.0
Skilled Nursing	72	<1.0	2,545	<1.0	43	<1.0	2,660	<1.0
Home Health Care	11	<1.0	1,164	<1.0	17	<1.0	1,192	<1.0
Short Term Hospital	217	<1.0	564	<1.0	12	<1.0	793	<1.0
Intermediate Care	21	<1.0	265	<1.0	5	<1.0	291	<1.0
Against Medical Advice	3	<1.0	264	<1.0	3	<1.0	270	<1.0
Died	1	<1.0	89	<1.0	0	0.00	90	<1.0
Unknown	36	<1.0	31	<1.0	1	<1.0	68	<1.0
Total	600,597	100.0	1,432,396	100.0	134,981	100.0	2,167,974	100.0

Notes:

Routine: discharged to home or self-care.

Another facility: federal health care facility, hospice, designated cancer center or children's hospital, court or law enforcement, hospital-based Medicare approved swing bed, inpatient rehabilitation facility, a critical access hospital, or another type of healthcare institution.

Skilled nursing facility: that a patient is discharged/transferred to a Medicare certified nursing facility.

Home Health Care: discharged/transferred to home with a written plan of care (tailored to the patient's medical needs) for home care services.

Short-term general hospital: admitted or transferred for inpatient care.

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

Figure 3. Ambulatory Surgery Discharges by ASC Type and Patient Discharge Status, 2013

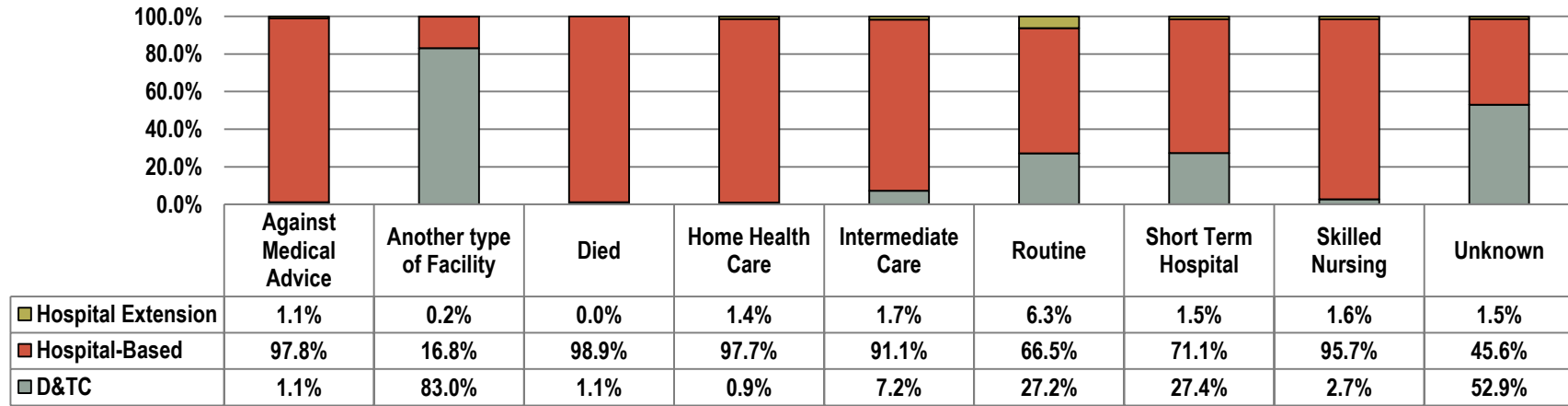
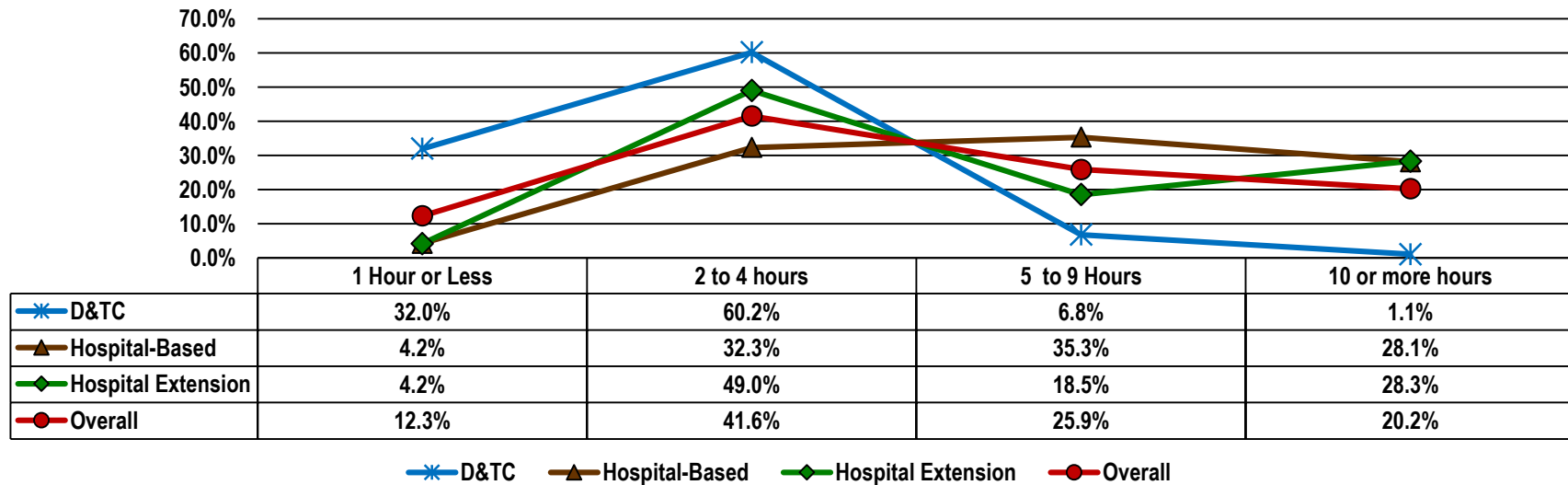


Figure 4. Ambulatory Surgery Length of Stay by ASC Type, 2013



*Figure 4 is missing 3.8% of discharges due to invalid admission and/or discharge hour information.

Table 7. Top 20 CCS Diagnosis Categories for All Ambulatory Surgery Discharges, Percent of Total and Rank, by ASC Type, 2013

CCS Diagnosis Category (Primary Diagnosis)	Percent of Total				Rank			
	D&TC	Hospital-Based	Hospital Extension	Total	D&TC	Hospital-Based	Hospital Extension	Total
Eye disorders	22.7	6.8	12.2	11.5	1	3	1	1
Factors influencing health care	12.4	10.1	9.2	10.7	2	1	3	2
Benign neoplasms	9.8	7.1	6.3	7.8	3	2	5	3
Upper gastrointestinal disorders	9.0	6.7	4.8	7.2	4	4	7	4
Spondylosis; intervertebral disc disorders; other back problems	8.8	4.1	10.7	5.8	5	7	2	5
Diseases of female genital organs	0.9	6.0	2.2	4.3	18	5	13	6
Diseases of the heart	0.0	4.7	0.1	3.1	49	6	47	7
Other connective tissue disease	3.1	2.5	5.8	2.9	7	10	6	8
Joint disorders and dislocations; trauma-related	2.9	2.5	6.5	2.8	8	11	4	9
Diseases of the urinary system	0.7	3.8	1.2	2.8	22	8	22	10
Abdominal hernia	0.9	3.4	2.0	2.7	17	9	15	11
Other gastrointestinal disorders	4.1	2.0	1.9	2.6	6	15	17	12
Lower gastrointestinal disorders	2.7	2.3	2.3	2.4	9	12	12	13
Other nervous system disorders	1.9	1.5	4.6	1.8	12	17	8	14
Symptoms; signs; and ill-defined conditions	2.6	1.5	1.1	1.8	10	18	24	15
Respiratory infections	0.8	1.9	2.9	1.7	21	16	9	16
Complications	0.3	2.1	1.4	1.5	32	14	19	17
Biliary tract disease	0.0	2.1	0.4	1.4	53	13	33	18
Non-traumatic joint disorders	1.2	1.4	2.4	1.4	16	20	11	19
Gastrointestinal hemorrhage	2.0	1.0	0.7	1.2	11	27	28	20
Acquired deformities	1.2	1.2	2.2	1.2	15	25	14	21
Fractures	0.7	1.3	1.9	1.2	23	22	16	22
Ear conditions	0.4	1.2	1.7	1.0	29	24	18	24
Cancer of breast	0.1	1.4	0.6	1.0	38	19	29	25
Sprains and strains	0.8	0.9	2.5	1.0	20	29	10	26
Residual	1.9	0.5	1.1	0.9	13	40	25	28
Abortion-related disorders	1.4	0.7	0.0	0.9	14	34	80	30
Other upper respiratory disease	0.4	0.9	1.3	0.8	28	28	20	31
Bacterial infection	0.8	0.0	0.0	0.2	19	84	98	54
Sum Top 20, Percent	91.1	73.4	84.9	77.5				

Note: Bolded numbers are those within top 20 CCS category for that facility type.

Table 8. Top 20 CCS Procedure Categories for all Broad Procedures, Percent of Total and Rank, by ASC Type, 2013

CCS Procedure Category	Percent of Total				Rank			
	D&TC	Hospital- Based	Hospital Extension	Total	D&TC	Hospital- Based	Hospital Extension	Total
Colonoscopy and biopsy	21.6	12.4	12.5	14.9	1	1	1	1
Upper gastrointestinal endoscopy, biopsy	19.4	11.9	8.2	13.7	3	2	3	2
Lens and cataract procedures	21.4	5.0	9.7	9.7	2	3	2	3
Other OR therapeutic procedures on joints	4.4	3.0	7.6	3.7	4	5	4	4
Other therapeutic procedures on muscles and tendons	3.8	3.1	7.1	3.6	5	4	5	5
Excision of semilunar cartilage of knee	2.9	2.3	5.4	2.6	6	9	6	6
Excision of skin lesion	1.2	2.9	2.6	2.4	15	6	9	7
Other OR therapeutic proc. on nose, mouth and pharynx	1.4	2.6	4.5	2.4	10	7	7	8
Other diagnostic procedures, female organs	0.3	2.5	0.8	1.8	27	8	26	9
Other OR therapeutic procedures on skin and breast	1.3	1.8	2.4	1.7	13	12	10	10
Inguinal and femoral hernia repair	0.3	2.1	1.3	1.6	33	10	18	11
Decompression peripheral nerve	1.9	1.2	3.2	1.5	8	19	8	12
Tonsillectomy and/or adenoidectomy	0.7	1.8	2.0	1.5	17	14	13	13
Lumpectomy, quadrantectomy of breast	0.3	1.9	0.9	1.4	31	11	23	14
Other therapeutic proc. on eyelids, conjunctiva, cornea	2.5	0.9	1.4	1.4	7	31	17	15
Bunionectomy or repair of toe deformities	1.3	1.2	2.1	1.3	12	21	11	16
Cholecystectomy and common duct exploration	0.0	1.8	0.4	1.2	73	13	41	17
Other hernia repair	0.2	1.5	0.6	1.1	41	15	27	18
Ureteral catheterization	0.3	1.5	0.3	1.1	32	16	46	19
Partial excision bone	1.3	0.9	1.8	1.1	14	30	14	20
Myringotomy	0.5	1.1	1.5	1.0	24	22	15	21
Transurethral excision, drainage, or removal urinary obstr.	0.2	1.3	0.4	1.0	36	17	37	22
Other excision of cervix and uterus	0.2	1.3	0.3	0.9	40	18	50	23
Other OR therapeutic procedures on bone	0.7	1.0	1.3	0.9	18	27	19	24
Skin graft	0.6	1.1	1.1	0.9	20	25	21	25
Other OR therapeutic procedures, male genital	0.1	1.2	1.2	0.9	44	20	20	26
Plastic procedures on nose	0.6	0.9	2.0	0.9	19	33	12	27
Esophageal dilatation	0.7	0.8	1.0	0.8	16	35	22	28
Abortion (termination of pregnancy)	1.4	0.6	0.0	0.8	11	41	117	30
Glaucoma procedures	1.6	0.3	0.3	0.7	9	64	47	35
Arthroscopy	0.5	0.5	1.4	0.5	23	46	16	40
Sum Top 20	90.9	63.2	79.2	69.7				

Note: Bolded numbers are those within top 20 CCS category for that facility type.

Table 9. Top 10 CCS Procedure Categories for all Broad Procedures, Percent of Total and Rank, Children Age 0 to 17 Years, 2013

CCS Procedure Category	Percent of Total			Rank		
	< 1 Years	1-9 Years	10-17 Years	< 1 Years	1-9 Years	10-17 Years
Tonsillectomy and/or adenoidectomy	1.0	27.9	9.5	15	1	2
Myringotomy	15.6	23.3	2.0	3	2	14
Upper gastrointestinal endoscopy, biopsy	1.8	5.9	13.3	8	3	1
Other OR therapeutic procedures, male genital	24.2	5.1	2.5	1	4	11
Circumcision	17.0	4.5	1.8	2	5	15
Other extraocular muscle and orbit therapeutic procedures	1.5	4.0	1.5	12	6	21
Inguinal and femoral hernia repair	7.7	3.0	1.2	4	7	24
Excision of skin lesion	2.9	2.5	3.7	7	8	8
Tympanoplasty	0.0	2.2	1.3	NA	9	22
Other OR therapeutic procedures on nose, mouth and pharynx	3.2	1.9	4.2	6	10	7
Other therapeutic procedures on muscles and tendons	1.7	1.4	3.7	9	12	10
Skin graft	3.7	1.3	1.2	5	13	23
Colonoscopy and biopsy	0.3	1.2	5.0	31	14	4
Other OR therapeutic procedures on bone	0.8	0.8	4.4	19	19	5
Other non-OR therapeutic proc. on nose, mouth and pharynx	1.7	0.8	0.1	10	20	72
Other OR therapeutic procedures on joints	0.1	0.1	6.1	45	51	3
Excision of semilunar cartilage of knee	0.0	0.0	4.4	60	64	6
Arthroscopy	0.0	0.0	3.7	60	79	9
Sum Top 10	79.5	80.3	58.0			

Table 10. Top 10 CCS Procedure Categories for all Broad Procedures, Percent of Total and Rank, Adults Age 18+ Years, 2013

CCS Procedure Category	Percent of Total				Rank			
	18-44 Years	45-64 Years	65-79 Years	80 Years and Over	18-44 Years	45-64 Years	65-79 Years	80 Years and Over
Colonoscopy and biopsy	6.9	20.2	18.4	9.3	2	1	2	3
Upper gastrointestinal endoscopy, biopsy	13.6	14.9	13.6	11.6	1	2	3	2
Lens and cataract procedures	0.5	5.4	22.3	30.9	44	3	1	1
Other therapeutic procedures on muscles and tendons	3.5	4.6	2.8	1.3	5	4	4	17
Other OR therapeutic procedures on joints	5.7	4.4	1.7	0.4	3	5	7	29
Excision of semilunar cartilage of knee	3.3	3.5	1.4	0.4	6	6	10	36
Excision of skin lesion	2.9	2.4	1.8	2.9	10	7	6	6
Other OR therapeutic procedures on nose, mouth and pharynx	4.6	2.2	1.0	0.5	4	8	19	25
Other diagnostic procedures, female organs	3.0	2.2	0.9	0.4	9	9	24	37
Other OR therapeutic procedures on skin and breast	3.0	2.0	0.7	0.1	8	10	28	67
Inguinal and femoral hernia repair	1.3	1.6	1.5	1.5	21	14	8	14
Other therapeutic procedures on eyelids, conjunctiva, cornea	0.6	1.2	2.0	2.9	37	17	5	5
Transurethral excision, drainage, or removal urinary obstruction	0.5	0.8	1.5	2.4	42	25	9	7
Skin graft	0.7	0.8	1.0	2.1	30	26	21	8
Endoscopic retrograde cannulation of pancreas (ERCP)	0.4	0.6	0.8	1.8	50	31	25	10
Glaucoma procedures	0.1	0.5	1.2	2.1	89	38	13	9
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator	0.1	0.3	0.9	3.2	93	53	23	4
Abortion (termination of pregnancy)	3.2	0.0	0.0	0.0	7	121	NA	NA
Sum Top 10	49.7	61.8	67.0	69.2				

Table 11. Top 10 CCS Procedure Categories for all Broad Procedures, Percent of Total and Rank, By Gender, 2013

CCS Procedure Category	Percent of Total		Rank	
	Female	Male	Female	Male
Upper gastrointestinal endoscopy, biopsy	14.3	12.9	1	2
Colonoscopy and biopsy	13.2	17.1	2	1
Lens and cataract procedures	10.3	8.9	3	3
Other therapeutic procedures on muscles and tendons	3.2	4.1	4	5
Other diagnostic procedures, female organs	3.1	0.0	5	NA
Other OR therapeutic procedures on joints	3.0	4.6	6	4
Other OR therapeutic procedures on skin and breast	2.7	0.4	7	39
Lumpectomy, quadrantectomy of breast	2.5	0.1	8	95
Excision of skin lesion	2.3	2.7	9	9
Excision of semilunar cartilage of knee	2.1	3.4	10	6
Other OR therapeutic procedures on nose, mouth and pharynx	2.0	2.9	11	8
Inguinal and femoral hernia repair	0.3	3.3	61	7
Other OR therapeutic procedures, male genital	0.0	2.1	NA	10
Sum Top 10	56.7	62.0		

Figure 5. Top 5 CCS Procedure Categories for all Broad Ambulatory Surgery Defined Procedures and Percent of Total, by Primary Payer, 2013

Rank	Primary Payer				
	Self-Pay	Medicare	Medicaid	Commercial	Other
1	Other OR therapeutic procedures on skin and breast (13.9)	Lens and cataract procedures (20.7)	Upper gastrointestinal endoscopy, biopsy (14.8)	Colonoscopy and biopsy (15.0)	Colonoscopy and biopsy (17.9)
2	Colonoscopy and biopsy (10.3)	Colonoscopy and biopsy (16.0)	Colonoscopy and biopsy (11.7)	Upper gastrointestinal endoscopy, biopsy (13.2)	Upper gastrointestinal endoscopy, biopsy (15.2)
3	Upper gastrointestinal endoscopy, biopsy (9.7)	Upper gastrointestinal endoscopy, biopsy (13.9)	Lens and cataract procedures (4.5)	Lens and cataract procedures (5.4)	Other OR therapeutic procedures on joints (12.2)
4	Abortion (5.9)	Other therapeutic procedures on muscles and tendons (2.5)	Tonsillectomy and/or adenoidectomy (4.0)	Other OR therapeutic procedures on joints (4.1)	Other therapeutic procedures on muscles and tendons (6.5)
5	Lens and cataract procedures (4.6)	Excision of skin lesion (2.1)	Excision of skin lesion (3.0)	Other therapeutic procedures on muscles and tendons (4.1)	Excision of semilunar cartilage of knee (6.2)

Table 12. Top 10 CCS Procedure Categories for all Broad Ambulatory Surgery Defined Procedures, by Region, 2013

CCS Procedure Category	Percent of Total		Rank	
	Rest-of-State	New York City	Rest-of-State	New York City
Colonoscopy and biopsy	14.9	14.8	1	2
Upper gastrointestinal endoscopy, biopsy	13.0	14.9	2	1
Lens and cataract procedures	10.2	8.9	3	3
Other therapeutic procedures on muscles and tendons	3.9	3.0	4	5
Other OR therapeutic procedures on joints	3.6	3.7	5	4
Excision of semilunar cartilage of knee	2.8	2.4	6	7
Excision of skin lesion	2.7	2.0	7	9
Other OR therapeutic procedures on nose, mouth and pharynx	2.1	2.9	8	6
Decompression peripheral nerve	1.9	0.9	9	24
Tonsillectomy and/or adenoidectomy	1.7	1.1	10	16
Other diagnostic procedures, female organs	1.7	2.0	11	8
Other OR therapeutic procedures on skin and breast	1.6	1.9	12	10
Sum Top 10	56.8	56.5	NA	NA

Definitions

- SPARCS:** The Statewide Planning and Research Cooperative System (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 New York State. More information on SPARCS may be found at the following direct link: <http://www.health.ny.gov/statistics/sparcs/>
- HSA Region:** The health service area (HSA) is a geographical subdivision of NYS based on the county in which the hospital is located (please see table below). There are 8 regions: Western NY, Finger Lakes, Central NY, NY-Penn, Northeast NY, Mid-Hudson, New York City (NYC), and Long Island.

Western NY	Finger Lakes	Central NY	NY-Penn	Northeast NY	Mid-Hudson	New York City	Long Island
Allegany	Chemung	Cayuga	Broome	Albany	Dutchess	Bronx	Nassau
Cattaraugus	Livingston	Cortland	Chenango	Clinton	Orange	Kings	Suffolk
Chautauqua	Monroe	Herkimer	Tioga	Columbia	Putnam	New York	
Erie	Ontario	Jefferson		Delaware	Rockland	Queens	
Genesee	Schuyler	Lewis		Essex	Sullivan	Richmond	
Niagara	Seneca	Madison		Franklin	Ulster		
Orleans	Steuben	Oneida		Fulton	Westchester		
Wyoming	Wayne	Onondaga		Greene			
	Yates	Oswego		Hamilton			
		St Lawrence		Montgomery			
		Tompkins		Otsego			
				Rensselaer			
				Saratoga			
				Schenectady			
				Schoharie			
				Warren			
				Washington			

- HCUP:** The Healthcare Cost and Utilization Project (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/>
- Ambulatory Surgery Revenue Codes:** Revenue codes that are indicative of the ambulatory surgery services performed at the ASC:

Revenue Code	Description
0360	Operating Room Services
0362	Operating Room Services
0369	Operating Room Services
0481	Cardiology
0490	Ambulatory Surgery
0499	Ambulatory Surgery
0750	Gastro-Intestinal Services
0790	Lithotripsy

Revenue center codes specify a specific accommodation, ancillary service, or billing calculation. Revenue center codes are consistent with the National Uniform Billing Committee (NUBC) UB-04 codes and UB-92 codes. In April 1993, a national ad hoc task force released a new Universal Data Set (UDS) Specification that included reporting codes for use with the Uniform Bill (UB-92) paper form and a new electronic format. SPARCS adopted these national formats for billing and claims processing to simplify data reporting. For detailed reporting requirements please refer to:

<http://www.health.ny.gov/statistics/sparcs/sysdoc/outpatientoutputdd.pdf>

- AHRQ:** The Agency for Healthcare Research and Quality's (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. For more information follow direct link: http://www.qualityindicators.ahrq.gov/modules/psi_resources.aspx
- 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>
- 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_svcproc/ccssvcproc.jsp#info
- 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.

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APPENDIX A. Distribution of Broad and Not Broad (Neither) Procedures and Corresponding Discharges by CCS Procedure Category.

Note: Table is sorted in descending order by the total number of unique discharges.

CCS Category	Discharges				Procedures		
	Total Unique Discharges, N	With Not Broad Procs Only, N	With Broad Proc Only, N	With Both Broad and Not Broad Proc, N	Total, N	Broad, N	Not Broad, N
Grand Total	2,167,974	519,759	486,788	1,161,427	9,892,471	2,102,022	7,790,449
Medications (Injections, infusions and other forms)	978,279	978,279	0	0	3,278,236	0	3,278,236
Pathology	686,722	686,722	0	0	994,695	0	994,695
Colonoscopy and biopsy	460,452	196,714	263,393	345	509,921	312,760	197,161
DME and supplies	342,468	342,468	0	0	652,434	0	652,434
Laboratory - Chemistry and Hematology	298,822	298,822	0	0	721,065	0	721,065
Upper gastrointestinal endoscopy, biopsy	283,212	4,824	274,945	3,443	296,049	287,779	8,270
Lens and cataract procedures	204,128	6	204,122	0	204,406	204,400	6
Other diagnostic radiology and related techniques	173,024	168,412	2,282	2,330	220,463	4,612	215,851
Other therapeutic procedures	110,229	109,376	839	14	134,582	853	133,729
Insertion of catheter or spinal stimulator and injection into spinal canal	89,709	85,524	3,850	335	108,837	5,142	103,695
Other Laboratory	88,328	88,328	0	0	242,015	0	242,015
Microscopic examination (bacterial smear, culture, toxicology)	81,661	81,661	0	0	200,330	0	200,330
Non-operative urinary system measurements	70,424	70,346	74	4	72,454	78	72,376
Other OR therapeutic procedures on joints	69,049	1,479	67,141	429	78,911	76,834	2,077
Other therapeutic procedures on muscles and tendons	67,333	16	66,668	649	75,583	74,918	665
Electrocardiogram	59,817	59,817	0	0	62,053	0	62,053
Diagnostic cardiac catheterization, coronary arteriography	59,058	59,058	0	0	69,162	0	69,162
Excision of semilunar cartilage of knee	54,821	0	54,821	0	55,380	55,380	0
Non CCS	49,860	49,860	0	0	105,800	0	105,800
Excision of skin lesion	48,546	3,124	44,767	655	55,283	51,283	4,000
Visual aids and other optical supplies	40,368	40,368	0	0	41,750	0	41,750
Other diagnostic procedures, female organs	39,141	2,067	36,683	391	40,035	37,532	2,503
Other diagnostic ultrasound	37,575	37,575	0	0	41,556	0	41,556
Inguinal and femoral hernia repair	32,380	0	32,380	0	32,856	32,856	0
Other non-OR or closed therapeutic nervous system procedures	32,144	32,124	18	2	56,389	20	56,369
Tonsillectomy and/or adenoidectomy	31,049	0	31,049	0	31,195	31,195	0
Decompression peripheral nerve	30,714	14	29,951	749	33,330	32,567	763
Arthroplasty other than hip or knee	29,804	25,780	3,978	46	29,868	4,042	25,826
Lumpectomy, quadrantectomy of breast	29,596	5	28,810	781	30,867	30,078	789
Routine chest X-ray	29,187	29,187	0	0	31,130	0	31,130

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CCS Category	Discharges				Procedures		
	Total Unique Discharges, N	With Not Broad Procs Only, N	With Broad Proc Only, N	With Both Broad and Not Broad Proc, N	Total, N	Broad, N	Not Broad, N
Anesthesia	29,106	29,106	0	0	35,772	0	35,772
Other vascular catheterization, not heart	28,065	12,444	15,480	141	32,108	15,687	16,421
Other OR therapeutic procedures on skin and breast	26,859	912	24,001	1,946	39,271	36,405	2,866
Other OR therapeutic procedures on nose, mouth and pharynx	26,276	2,333	22,454	1,489	54,651	50,768	3,883
Cholecystectomy and common duct exploration	25,768	0	25,767	1	25,774	25,773	1
Other therapeutic procedures on eyelids, conjunctiva, cornea	24,492	1,862	21,384	1,246	31,822	28,553	3,269
Other hernia repair	22,778	19	18,534	4,225	27,659	23,415	4,244
Ureteral catheterization	22,264	0	22,264	0	22,630	22,630	0
Breast biopsy and other diagnostic procedures on breast	22,214	21,133	758	323	31,591	1,086	30,505
Bunionectomy or repair of toe deformities	21,657	0	21,657	0	26,723	26,723	0
Partial excision bone	21,432	0	21,414	18	22,425	22,407	18
Diagnostic physical therapy	21,053	21,053	0	0	22,406	0	22,406
Myringotomy	20,615	0	20,615	0	20,714	20,714	0
Other OR therapeutic procedures on bone	20,440	1,804	18,579	57	21,846	19,690	2,156
Other OR therapeutic nervous system procedures	20,168	13,487	6,429	252	27,452	7,489	19,963
Transurethral excision, drainage, or removal urinary obstruction	20,043	72	19,925	46	20,640	20,522	118
Extracorporeal lithotripsy, urinary	19,858	10,198	9,622	38	19,896	9,660	10,236
Other excision of cervix and uterus	19,519	187	19,326	6	20,065	19,872	193
Other OR therapeutic procedures, male genital	17,562	411	17,086	65	19,427	18,951	476
Esophageal dilatation	17,169	0	17,169	0	17,208	17,208	0
Endoscopy and endoscopic biopsy of the urinary tract	17,121	12,598	4,462	61	17,270	4,609	12,661
Other diagnostic procedures (interview, evaluation, consultation)	17,079	17,079	0	0	17,193	0	17,193
Skin graft	17,037	2	16,126	909	20,693	19,685	1,008
Other therapeutic procedures, hemic and lymphatic system	16,861	369	15,007	1,485	18,507	16,649	1,858
Abortion (termination of pregnancy)	16,683	0	16,683	0	16,686	16,686	0
Plastic procedures on nose	16,609	0	16,609	0	18,130	18,130	0
Physical therapy exercises, manipulation, and other procedures	16,451	16,451	0	0	20,502	0	20,502
Suture of skin and subcutaneous tissue	16,010	7	15,235	768	17,722	16,944	778
Other OR therapeutic procedures, female organs	15,106	1,318	13,635	153	15,562	14,076	1,486
Other OR procedures on vessels other than head and neck	14,617	1,979	11,819	819	17,825	14,990	2,835
Glaucoma procedures	14,444	780	13,624	40	14,656	13,836	820
Other CT scan	14,180	14,180	0	0	15,062	0	15,062

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CCS Category	Discharges				Procedures		
	Total Unique Discharges, N	With Not Broad Procs Only, N	With Broad Proc Only, N	With Both Broad and Not Broad Proc, N	Total, N	Broad, N	Not Broad, N
Arthroscopy	13,646	2,408	11,115	123	13,813	11,278	2,535
Other intraocular therapeutic procedures	13,470	1,498	11,838	134	14,754	13,118	1,636
Ancillary Services	13,359	13,359	0	0	13,892	0	13,892
Arthrocentesis	13,204	13,204	0	0	13,349	0	13,349
Proctoscopy and anorectal biopsy	12,754	5,815	6,686	253	13,446	7,358	6,088
Other non-OR therapeutic cardiovascular procedures	11,644	2,373	8,967	304	11,997	9,312	2,685
Dilatation and curettage (D&C), aspiration after delivery or abortion	11,452	0	11,452	0	11,453	11,453	0
Percutaneous transluminal coronary angioplasty (PTCA)	11,100	11,100	0	0	13,214	0	13,214
Arterio- or venogram (not heart and head)	10,879	10,879	0	0	15,737	0	15,737
Creation, revision and removal of arteriovenous fistula or vessel-to-vessel cannula for dialysis	10,874	4,561	6,228	85	11,732	6,343	5,389
Insertion, revision, replacement, removal of cardiac pacemaker or cardioverter/defibrillator	10,687	10	9,869	808	12,763	11,944	819
Other diagnostic cardiovascular procedures	10,122	8,888	1,062	172	12,695	1,242	11,453
Diagnostic bronchoscopy and biopsy of bronchus	9,943	4,729	2,174	3,040	15,432	6,212	9,220
Other fracture and dislocation procedure	9,805	470	9,035	300	10,451	9,675	776
Hysterectomy, abdominal and vaginal	9,729	1	9,728	0	9,743	9,742	1
Laminectomy, excision intervertebral disc	9,488	104	7,819	1,565	11,194	9,520	1,674
Other respiratory therapy	8,704	8,704	0	0	8,795	0	8,795
Circumcision	8,185	0	8,185	0	8,187	8,187	0
Mammography	8,168	8,168	0	0	8,273	0	8,273
Hemorrhoid procedures	8,148	2,387	5,585	176	8,428	5,835	2,593
Oral and Dental Services	8,021	7,371	365	285	8,329	673	7,656
Other OR lower GI therapeutic procedures	7,990	2,261	5,547	182	8,884	6,320	2,564
Repair of retinal tear, detachment	7,893	0	7,892	1	7,997	7,996	1
Diagnostic ultrasound of heart (echocardiogram)	7,790	7,790	0	0	12,214	0	12,214
Arterial blood gases	7,614	7,614	0	0	8,222	0	8,222
Endoscopic retrograde cannulation of pancreas (ERCP)	7,396	265	2,556	4,575	18,624	13,442	5,182
Other diagnostic procedures on skin and subcutaneous tissue	6,850	863	5,986	1	6,978	5,990	988
Division of joint capsule, ligament or cartilage	6,809	0	6,809	0	7,001	7,001	0
Treatment, fracture or dislocation of lower extremity (other than hip or femur)	6,583	179	6,341	63	7,216	6,963	253
Treatment, fracture or dislocation of radius and ulna	6,548	575	5,924	49	6,837	6,207	630
Injections and aspirations of muscles, tendons, bursa, joints and soft tissue	6,532	6,532	0	0	6,730	0	6,730

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CCS Category	Discharges				Procedures		
	Total Unique Discharges, N	With Not Broad Procs Only, N	With Broad Proc Only, N	With Both Broad and Not Broad Proc, N	Total, N	Broad, N	Not Broad, N
Laparoscopy	6,476	1	6,458	17	6,668	6,650	18
Other gastrointestinal diagnostic procedures	6,442	6,429	13	0	7,690	13	7,677
Oophorectomy, unilateral and bilateral	6,254	0	6,254	0	6,254	6,254	0
Treatment, facial fracture or dislocation	6,207	1,779	4,341	87	6,572	4,631	1,941
Thyroidectomy, partial or complete	6,207	0	6,207	0	6,221	6,221	0
Genitourinary incontinence procedures	6,138	0	6,138	0	6,163	6,163	0
Abdominal paracentesis	6,082	119	5,962	1	6,091	5,971	120
Ligation of fallopian tubes	6,043	1	6,042	0	6,060	6,059	1
Other extraocular muscle and orbit therapeutic procedures	5,811	83	4,462	1,266	8,074	6,614	1,460
Blood transfusion	5,100	5,100	0	0	6,682	0	6,682
Other OR therapeutic procedures of urinary tract	4,961	1,326	3,609	26	5,060	3,706	1,354
Other diagnostic procedures on lung and bronchus	4,957	4,911	43	3	5,201	46	5,155
Biopsy of liver	4,840	4,823	17	0	4,844	17	4,827
Radioisotope scan and function studies	4,794	4,794	0	0	4,854	0	4,854
Destruction of lesion of retina and choroid	4,788	2,333	2,440	15	4,813	2,465	2,348
Other OR therapeutic procedures on respiratory system	4,782	348	4,302	132	5,374	4,887	487
Other therapeutic ear procedures	4,763	1,720	2,991	52	4,921	3,114	1,807
Other non-OR therapeutic procedures on skin and breast	4,345	797	3,444	104	4,545	3,561	984
Tracheoscopy and laryngoscopy with biopsy	4,323	1,990	2,329	4	4,353	2,334	2,019
Other OR therapeutic procedures on musculoskeletal system	4,028	1,880	2,146	2	4,053	2,154	1,899
Debridement of wound, infection or burn	3,921	33	3,652	236	4,198	3,927	271
Other diagnostic procedures on musculoskeletal system	3,822	1,056	2,753	13	3,864	2,786	1,078
Other operations on fallopian tubes	3,754	0	3,754	0	3,906	3,906	0
Prophylactic vaccinations and inoculations	3,730	3,730	0	0	5,797	0	5,797
Diagnostic dilatation and curettage (D&C)	3,702	0	3,702	0	3,702	3,702	0
Tympanoplasty	3,527	0	3,527	0	3,556	3,556	0
Other non-OR therapeutic procedures, female organs	3,515	3,512	3	0	3,661	3	3,658
Other non-OR therapeutic procedures of urinary tract	3,494	2,613	851	30	3,573	890	2,683
Other operations on ovary	3,451	0	3,451	0	3,453	3,453	0
Conversion of cardiac rhythm	3,370	3,370	0	0	4,247	0	4,247
Diagnostic procedures, male genital	3,364	158	3,158	48	3,467	3,211	256
Other diagnostic nervous system procedures	3,293	3,143	150	0	5,690	150	5,540
Repair of cystocele and rectocele, obliteration of vaginal vault	3,277	3	2,684	590	3,987	3,394	593

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CCS Category	Discharges				Procedures		
	Total Unique Discharges, N	With Not Broad Procs Only, N	With Broad Proc Only, N	With Both Broad and Not Broad Proc, N	Total, N	Broad, N	Not Broad, N
Procedures on the urethra	3,263	28	3,235	0	3,349	3,321	28
Traction, splints, and other wound care	3,111	2,495	615	1	3,829	616	3,213
Other therapeutic endocrine procedures	3,057	388	2,618	51	3,167	2,723	444
Other non-OR therapeutic procedures, male genital	3,046	284	2,752	10	3,108	2,814	294
Gastrostomy, temporary and permanent	3,018	1,133	1,879	6	3,036	1,891	1,145
Other OR gastrointestinal therapeutic procedures	3,014	703	2,300	11	3,076	2,358	718
Other non-OR therapeutic procedures on respiratory system	2,938	2,788	144	6	2,945	150	2,795
Varicose vein stripping, lower limb	2,861	0	2,861	0	3,332	3,332	0
Other non-OR lower GI therapeutic procedures	2,847	666	2,079	102	2,986	2,216	770
Mastectomy	2,794	0	2,794	0	2,948	2,948	0
Transurethral resection of prostate (TURP)	2,760	0	2,760	0	2,760	2,760	0
CT scan abdomen	2,683	2,683	0	0	2,842	0	2,842
Diagnostic procedures on nose, mouth and pharynx	2,622	1,640	973	9	2,685	982	1,703
Gastric bypass and volume reduction	2,611	1	2,610	0	2,661	2,660	1
Contrast aortogram	2,608	2,608	0	0	2,635	0	2,635
Corneal transplant	2,530	2	1,905	623	3,153	2,528	625
Intraoperative cholangiogram	2,523	2,523	0	0	2,537	0	2,537
Spinal fusion	2,474	35	329	2,110	6,581	2,502	4,079
Other therapeutic obstetrical procedures	2,456	1,301	1,150	5	2,461	1,155	1,306
Myelogram	2,316	2,316	0	0	4,175	0	4,175
Diagnostic ultrasound of abdomen or retroperitoneum	2,176	2,176	0	0	2,232	0	2,232
Appendectomy	2,174	17	2,155	2	2,178	2,159	19
Cancer chemotherapy	2,102	2,102	0	0	2,944	0	2,944
Therapeutic radiology	2,090	2,066	18	6	7,548	24	7,524
Diagnostic spinal tap	2,025	2,025	0	0	2,038	0	2,038
Incision and drainage, skin and subcutaneous tissue	1,965	0	1,965	0	1,970	1,970	0
Hip replacement, total and partial	1,934	0	1,934	0	2,704	2,704	0
Incision of pleura, thoracentesis, chest drainage	1,929	3	1,924	2	1,950	1,945	5
Other diagnostic procedures of urinary tract	1,886	1,884	2	0	1,886	2	1,884
Magnetic resonance imaging	1,881	1,881	0	0	2,119	0	2,119
Bone marrow biopsy	1,784	1,784	0	0	2,021	0	2,021
Injection or ligation of esophageal varices	1,643	0	1,643	0	1,645	1,645	0
Arthroplasty knee	1,525	0	1,525	0	1,556	1,556	0

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CCS Category	Discharges				Procedures		
	Total Unique Discharges, N	With Not Broad Procs Only, N	With Broad Proc Only, N	With Both Broad and Not Broad Proc, N	Total, N	Broad, N	Not Broad, N
Other non-OR therapeutic procedures on nose, mouth and pharynx	1,505	707	755	43	1,557	798	759
Ophthalmologic and otologic diagnosis and treatment	1,462	1,462	0	0	1,626	0	1,626
Upper gastrointestinal X-ray	1,410	1,410	0	0	1,419	0	1,419
Other non-OR gastrointestinal therapeutic procedures	1,324	1,261	63	0	1,328	63	1,265
Mastoidectomy	1,292	0	1,292	0	1,294	1,294	0
Electrographic cardiac monitoring	1,270	1,270	0	0	1,294	0	1,294
Other diagnostic procedures of respiratory tract and mediastinum	1,169	58	1,111	0	1,169	1,111	58
Non-operative removal of foreign body	1,164	24	1,140	0	1,166	1,142	24
Amputation of lower extremity	1,155	0	1,155	0	1,168	1,168	0
Respiratory intubation and mechanical ventilation	1,101	1,101	0	0	1,101	0	1,101
Other non-OR upper GI therapeutic procedures	1,058	25	1,033	0	1,058	1,033	25
Other OR procedures on vessels of head and neck	1,049	3	1,046	0	1,052	1,049	3
Other physical therapy and rehabilitation	1,024	1,024	0	0	1,033	0	1,033
Contrast arteriogram of femoral and lower extremity arteries	989	989	0	0	991	0	991
Diagnostic ultrasound of head and neck	976	976	0	0	979	0	979
CT scan chest	886	886	0	0	886	0	886
Open prostatectomy	880	0	880	0	880	880	0
Diagnostic procedures on eye	822	2	820	0	859	857	2
Nephrotomy and nephrostomy	814	0	814	0	930	930	0
Other OR upper GI therapeutic procedures	704	344	358	2	707	361	346
Colorectal resection	674	0	672	2	676	674	2
Other radioisotope scan	664	664	0	0	716	0	716
Control of epistaxis	664	305	354	5	681	363	318
Indwelling catheter	654	654	0	0	663	0	663
Computerized axial tomography (CT) scan head	560	560	0	0	583	0	583
Lower gastrointestinal X-ray	532	532	0	0	535	0	535
Hemodialysis	523	523	0	0	528	0	528
Intravenous pyelogram	503	503	0	0	503	0	503
Removal of ectopic pregnancy	460	0	460	0	461	461	0
Diagnostic endocrine procedures	428	428	0	0	428	0	428
Other OR heart procedures	382	371	10	1	384	11	373
Incision and excision of CNS	371	5	366	0	376	371	5
Other non-OR therapeutic procedures on musculoskeletal system	346	286	60	0	346	60	286

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	Total Unique Discharges, N	With Not Broad Procs Only, N	With Broad Proc Only, N	With Both Broad and Not Broad Proc, N	Total, N	Broad, N	Not Broad, N
Treatment, fracture or dislocation of hip and femur	308	75	233	0	310	235	75
Psychological and psychiatric evaluation and therapy	302	302	0	0	306	0	306
Other organ transplantation	247	0	247	0	247	247	0
Ileostomy and other enterostomy	241	151	90	0	242	91	151
Hearing devices and audiology supplies	217	217	0	0	217	0	217
Bone marrow transplant	201	189	10	2	323	12	311
Fetal monitoring	167	167	0	0	177	0	177
Other procedures to assist delivery	167	39	128	0	167	128	39
Cardiac stress tests	139	139	0	0	140	0	140
Radioisotope pulmonary scan	123	123	0	0	123	0	123
Swan-Ganz catheterization for monitoring	107	107	0	0	107	0	107
Diagnostic amniocentesis	93	93	0	0	93	0	93
Nephrectomy, partial or complete	87	1	86	0	87	86	1
Electroencephalogram (EEG)	84	84	0	0	86	0	86
Heart valve procedures	74	74	0	0	74	0	74
Diagnostic procedures on ear	70	70	0	0	70	0	70
Peritoneal dialysis	66	66	0	0	66	0	66
Embolectomy and endarterectomy of lower limbs	65	0	65	0	69	69	0
Tracheostomy, temporary and permanent	64	0	64	0	64	64	0
Cerebral arteriogram	62	62	0	0	86	0	86
Exploratory laparotomy	49	0	49	0	49	49	0
Insertion, replacement, or removal of extracranial ventricular shunt	48	2	43	3	51	46	5
Radioisotope bone scan	41	41	0	0	47	0	47
Endarterectomy, vessel of head and neck	40	0	40	0	40	40	0
Other vascular bypass and shunt, not heart	35	0	35	0	35	35	0
Cesarean section	33	0	33	0	33	33	0
Excision, lysis peritoneal adhesions	27	0	27	0	27	27	0
Colostomy, temporary and permanent	25	0	25	0	25	25	0
Procedures on spleen	21	3	18	0	22	19	3
Small bowel resection	20	0	20	0	20	20	0
Diagnostic ultrasound of urinary tract	17	17	0	0	17	0	17
Nasogastric tube	16	14	2	0	16	2	14
Repair of current obstetric laceration	16	0	16	0	16	16	0
Transportation - patient, provider, equipment	12	12	0	0	13	0	13

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	Total Unique Discharges, N	With Not Broad Procs Only, N	With Broad Proc Only, N	With Both Broad and Not Broad Proc, N	Total, N	Broad, N	Not Broad, N
Diagnostic ultrasound of gastrointestinal tract	12	12	0	0	12	0	12
Lobectomy or pneumonectomy	11	0	6	5	16	11	5
Forceps, vacuum, and breech delivery	11	0	11	0	11	11	0
Peripheral vascular bypass	8	0	8	0	8	8	0
Local excision of large intestine lesion (not endoscopic)	7	0	7	0	7	7	0
Other bowel diagnostic procedures	7	0	7	0	7	7	0
Extracorporeal circulation auxiliary to open heart procedures	5	0	5	0	5	5	0
Aortic resection, replacement or anastomosis	4	0	4	0	4	4	0
Coronary thrombolysis	2	2	0	0	2	0	2
Gastrectomy, partial and total	2	0	2	0	2	2	0
Infertility Services	1	1	0	0	1	0	1