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DELAWARE HOSPITAL  
DISCHARGE SUMMARY  
REPORT ♦ 2013

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*DELAWARE HEALTH AND SOCIAL SERVICES*

Division of Public Health

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## **Acknowledgments**

This report was prepared by Don Berry and Ed Ratledge of the University of Delaware's Center for Applied Demography and Survey Research. In addition, Ed Ratledge created the hospital discharge research file and provided technical advice.

We gratefully acknowledge the Delaware Healthcare Association and Delaware's hospitals for providing the data that make this report possible.

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# TABLE OF CONTENTS

Executive Summary .....	1
Patient Characteristics.....	3
Why Patients Were Hospitalized .....	7
Why Patients Were Hospitalized - Injuries.....	9
Why Patients Were Hospitalized - Procedures.....	11
Hospitalizations of Delaware Residents .....	14
How Patients Were Admitted.....	18
Hospital Charges and Billing .....	20
How Patients Were Discharged.....	24
Hospital Specific Data .....	28
Appendix A .....	35
Appendix B .....	41
Appendix C .....	42
Appendix D .....	47
Appendix E .....	48
Appendix F .....	49
Appendix G.....	50
Appendix H.....	51
Hospital Location Maps.....	52
Technical Notes.....	62
References .....	66

### This report describes:

#### Patient Characteristics

- Most Frequent Reason for Hospitalizations
- Patient Admission Source

#### Hospital Charges and Billing Patterns

- Patient Discharge Status
- Patient Distribution

Data in this report will present 2013 Delaware hospital discharge data, as well as trend data for selected characteristics. Hospitalization or hospital discharge refers to any discharge from a non-federal, short-stay, acute-care hospital in Delaware. Hospitalizations are expressed as numbers of discharges, not as unduplicated patients; as a result, a single patient with multiple hospitalizations can be counted more than once. Delaware hospital discharge data are based on inpatient hospitalizations and do not include outpatient, clinic, or emergency room data. Unless otherwise specified, the presented data represent discharges from the following hospitals and systems: Alfred I. duPont Hospital for Children; St. Francis Hospital, Select Specialty Hospital - Wilmington (also referred to as Select Medical Wilmington in some graphs); Christiana Care Health System (which consists of Wilmington Hospital and Christiana Hospital Newark); Bayhealth (which consists of Kent General Hospital and Milford Memorial Hospital); Beebe Medical Center; and Nanticoke Memorial Hospital<sup>1</sup>.

More information about the creation of annual files, as well as definitions of terms used in this report, can be found in the Technical Notes.

### Key findings:

- The number of hospital discharges decreased slightly from 2012 to 2013. Total aggregate charges dropped for the first time in over 20 years in 2013. (See page 20.)
- Women accounted for 59.2 percent of all discharges compared to 40.8 percent for men. In the 25 to 34-year age group, four out of every five discharges were women.
- Inpatient hospitalizations in 2013 generated total charges of \$2.72 billion; 45.6 percent of that total (\$1.24 billion) was billed to Medicare.
- In 2013, the average length of stay (ALOS) was 4.8 days and the mean charge for a hospitalization was \$24,740.
- The most frequent reasons for hospitalization fell under the category of diseases of the circulatory system, and included congestive heart failure, coronary artery disease, and cardiac dysrhythmias (irregular heartbeat).
- The point of origin for 21.7 percent of hospitalizations was a clinic or physician's office.
- Non-residents accounted for 12.6 percent of all discharges from Delaware hospitals, most of whom came from Pennsylvania, Maryland, and New Jersey.

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<sup>1</sup>See the Hospital Profiles at the end of this report for details about each of Delaware's acute care hospitals.

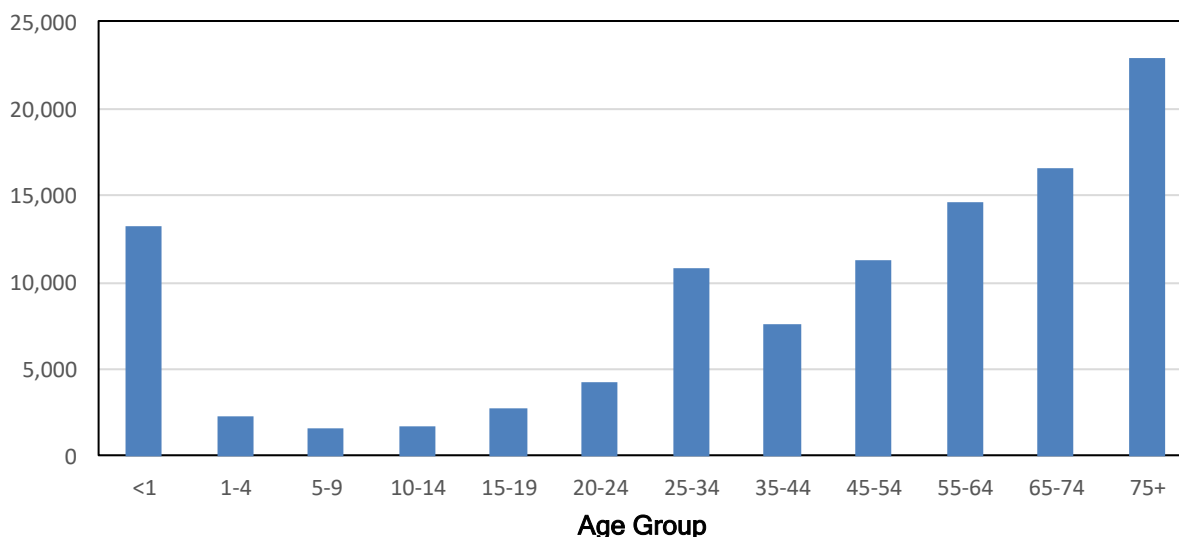
## EXECUTIVE SUMMARY

- Hospital stays for previous C-sections represented 11.9 percent of pregnancy-related discharges compared to 4.1 percent for vaginal deliveries.
- The average length of stay for premature and low birth weight babies was 38.0 days, compared to 3.8 days for all deliveries.
- Two-thirds of patients underwent a procedure while hospitalized; 23.6 percent had only one procedure, 17.7 had two procedures, and 27.0 had three or more during their stay.
- Patients who were uninsured and those covered by Medicare were more frequently admitted through the emergency department (ED) than any other route; 84.5 percent of uninsured patients and 70.8 percent of Medicare patients were admitted through the ED in 2013.
- Medicare and private insurers were the primary payers in 45.8 and 28.5 percent, respectively, of all hospital discharges in 2013. Medicaid was the primary payer in 19.7 percent of all hospital stays, and uninsured hospitalizations accounted for 3.5 percent of the total stays. The remaining 2.4 percent of hospitalizations were covered by other specified or unknown programs.

## PATIENT CHARACTERISTICS

Patients under 1 year old accounted for 12.1 percent of all discharges in 2013; the majority of these discharges were infants hospitalized by virtue of being born in the hospital. Patients 65 and older were responsible for 36.0 percent of all discharges in 2013.

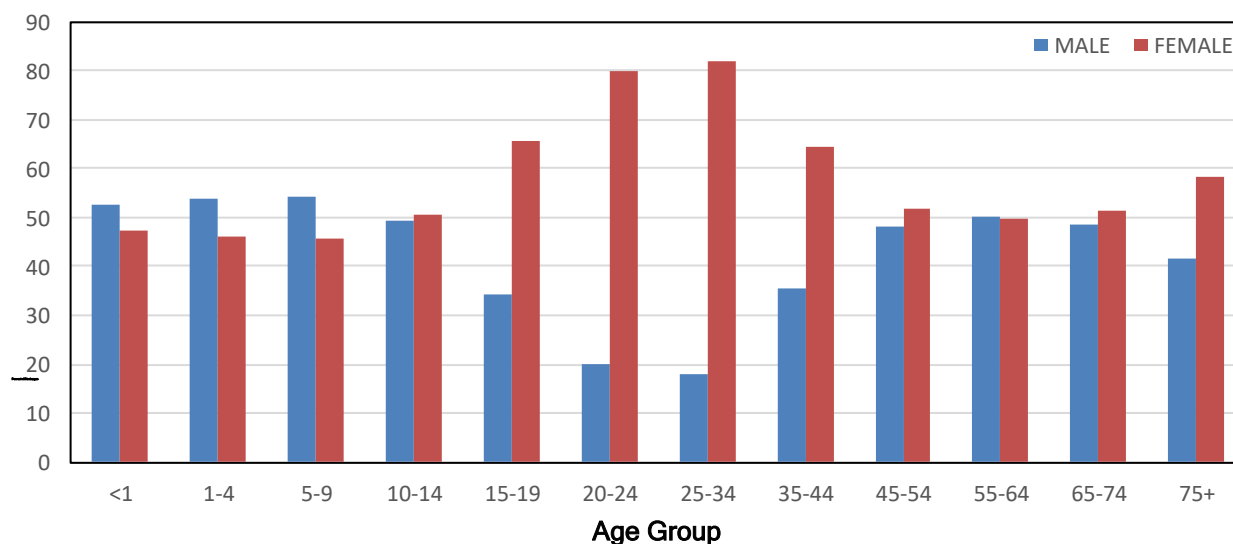
**Figure 1. Hospital Discharges by Age Group, Delaware Hospitals, Delaware, 2013.**



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Males made up the majority of discharges in the age groups under 10. For nearly all age groups age 15 and higher, females made up the majority of discharges, and in the 20 to 34 year age range, four out of every five discharges were women. In 2013, 57.3 percent of total discharges were women.

**Figure 2. Percentage of Discharges by Sex and Age Group, Delaware Hospitals, Delaware, 2013.**

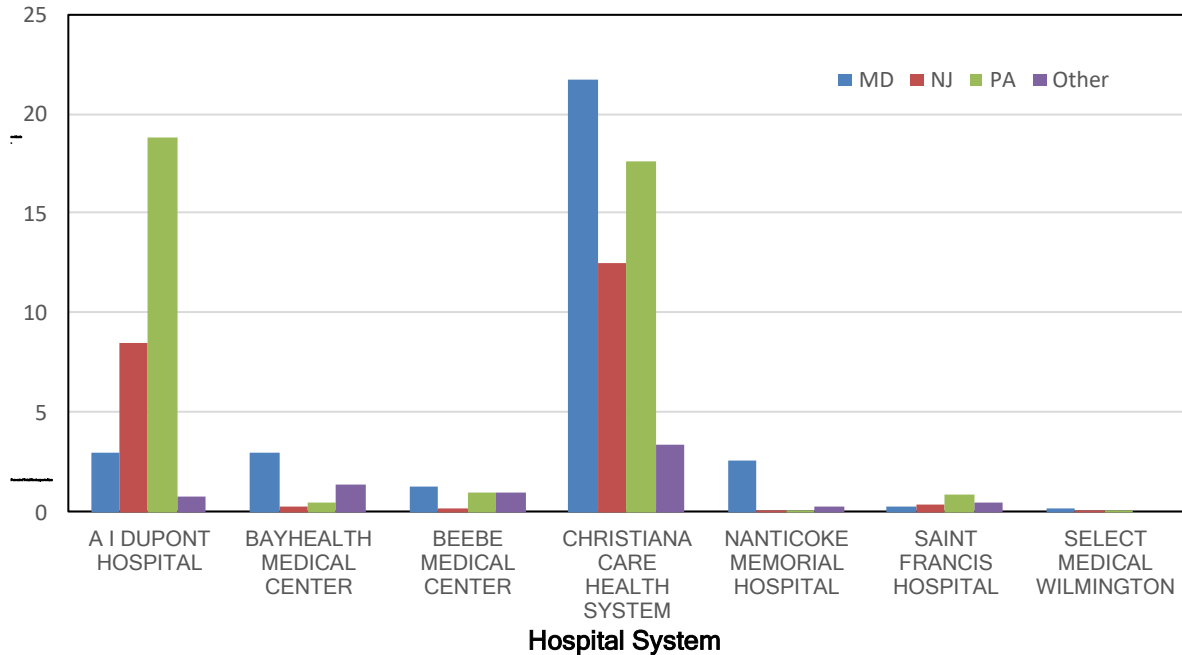


Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## PATIENT CHARACTERISTICS

Non-residents accounted for 12.6 percent of all discharges from Delaware hospitals, most of whom came from Pennsylvania, Maryland, and New Jersey. Nearly half of the patients at A.I. duPont Hospital for Children were non-residents (50.4 percent).

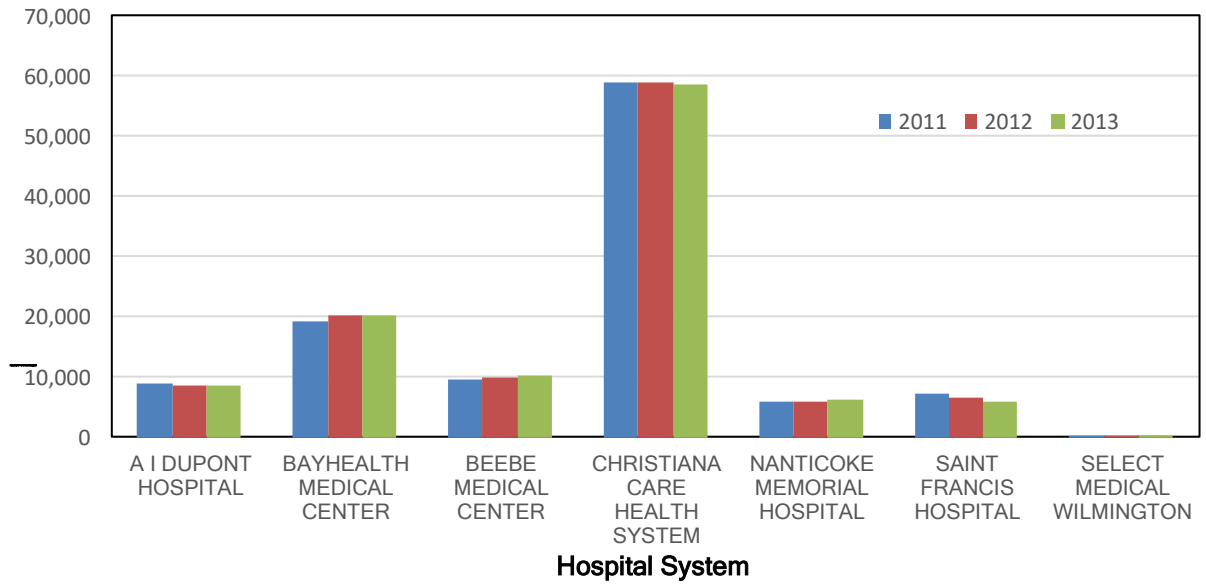
**Figure 3. Percentage of Non-Resident Discharges by State, Delaware Hospitals, Delaware, 2013**



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Hospital admissions declined slightly between 2011 and 2013. Total admissions fell 0.2 percent, moving from 109,965 in 2011 to 109,751 in 2013. The two hospitals with the greatest percent change were Select Medical Wilmington, which decreased 36.4 percent; and Saint Francis, which decreased 24.4 percent

**Figure 4. Number of Discharges by Hospital System, Delaware, 2011-2013**



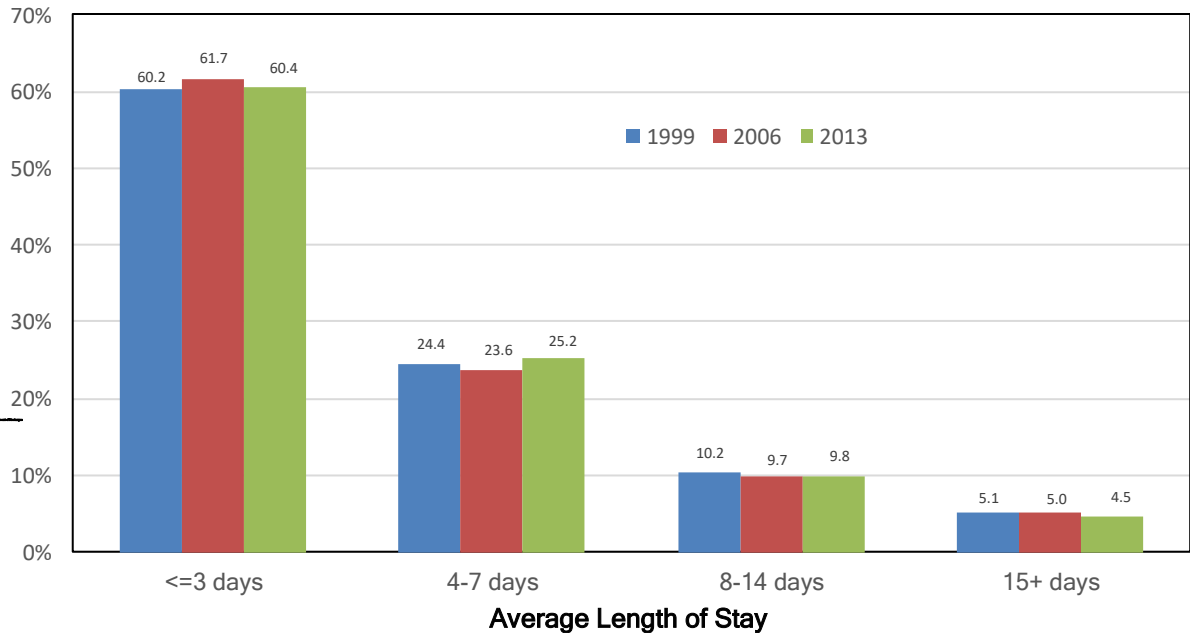
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center



## PATIENT CHARACTERISTICS

Average length of stay (ALOS) dropped slightly from 4.9 days in 1999 to 4.8 days in 2013. This decline was primarily due to an increase in the percentage of patients staying less than three days and a drop in the percentage of patients staying over eight days. In 2013, 60.4 percent of patients stayed three or fewer days in the hospital. The largest percentage decline in length of stay occurred for patients admitted for 15 or more days (10.4 percent).

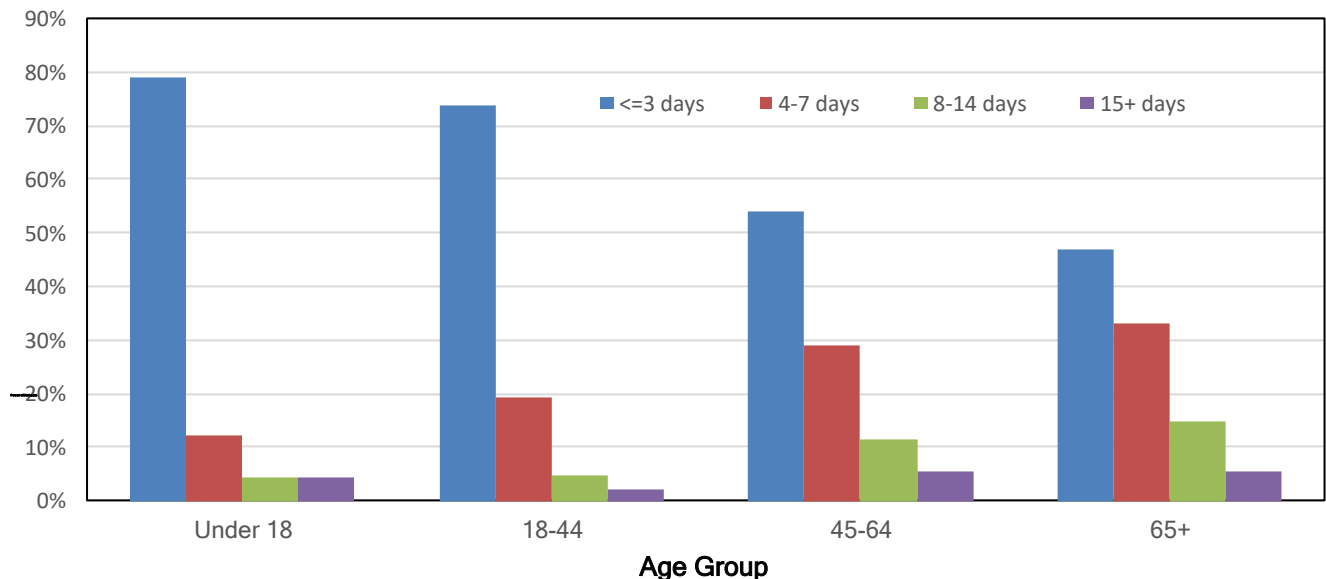
**Figure 5. Percent of Hospital Discharges by Average Length of Stay, Delaware, Selected Years 1999-2013**



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Length of stay varies with patient age. Patients under the age of 18 have the shortest lengths of stay. In 2013, 79.1 percent of patients under 18 had hospital stays of three days or less, compared to 46.7 percent for patients 65 and over. Patients age 65 and over were more than three times as likely to have stays of eight to 14 days when compared to patients under the age of 18.

**Figure 6. Percent of Hospital Discharges by Average Length of Stay and Age Group, Delaware Hospitals, 2013**



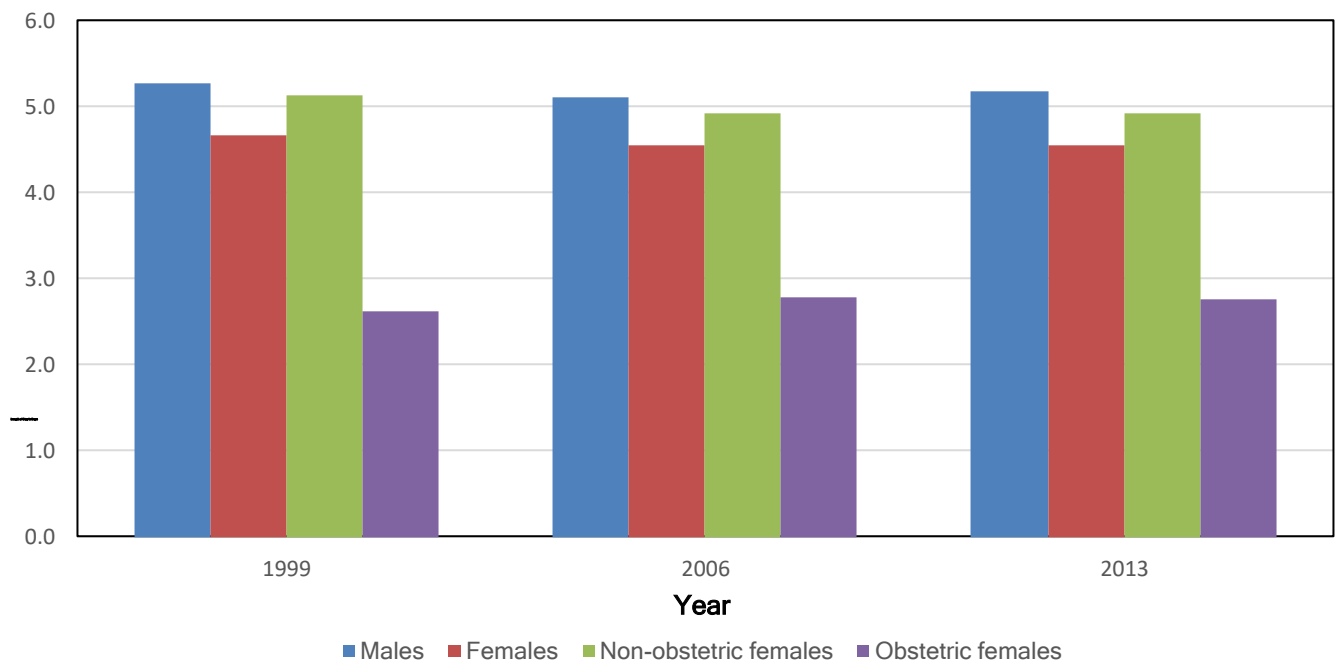
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## PATIENT CHARACTERISTICS

### Gender

Between 1999 and 2013, ALOS decreased 1.8 percent for male patients and 2.7 percent for female patients. When female obstetrical patients were excluded from the calculation of average length of stay, female patients had slightly lower ALOS figures compared to males in all time periods. The largest increase in average length of stay from 1999 to 2013 was seen in female obstetrical patients, whose length of stay increased 5.6 percent.

Figure 7. Mean Length of Stay by Patient Type, Delaware Hospitals, Selected Years, 1999, 2006, 2013.



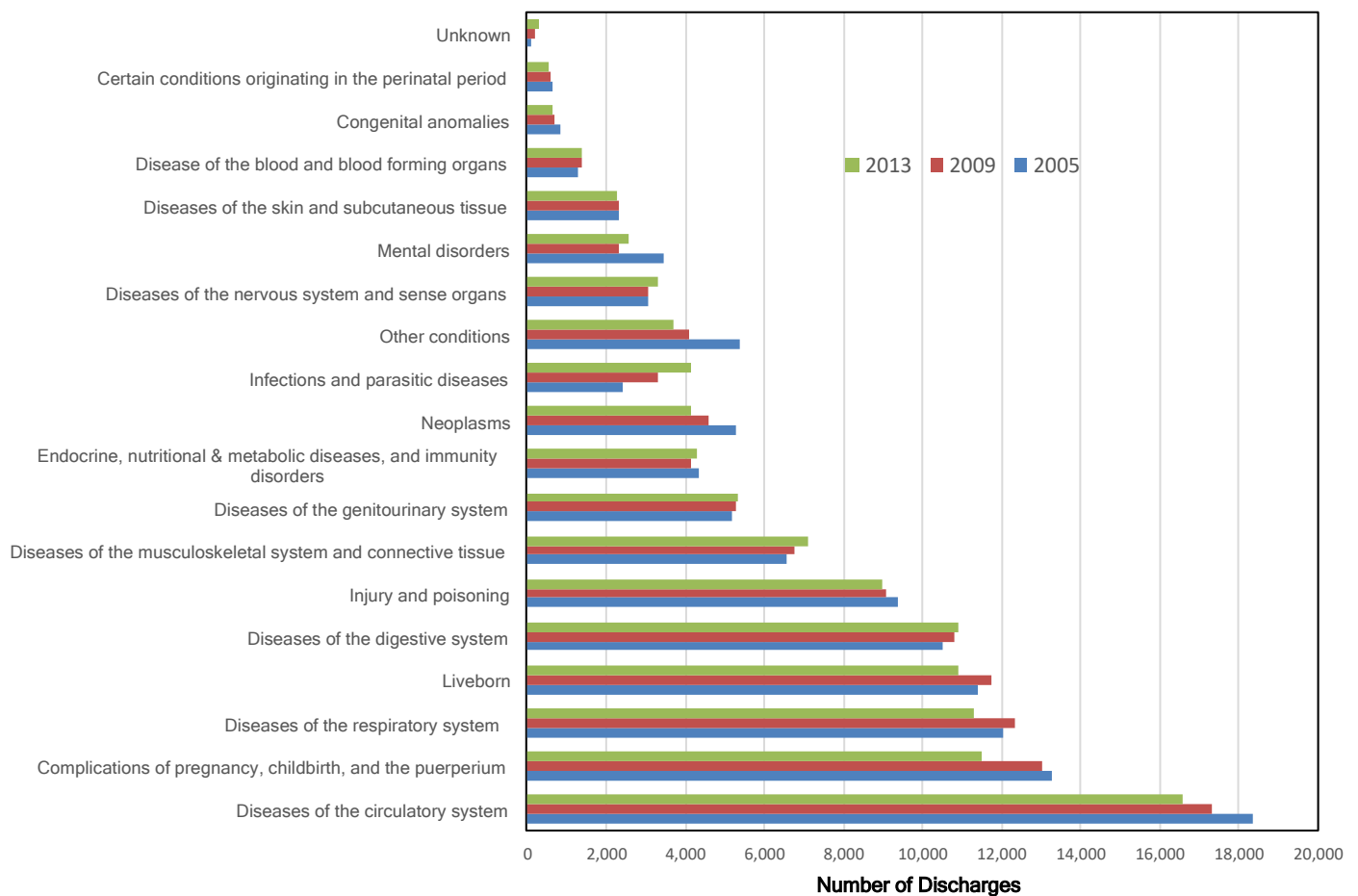
Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## WHY PATIENTS WERE HOSPITALIZED

### Most frequent reasons for hospitalization by primary diagnosis and body system<sup>2</sup>

Diseases of the circulatory system accounted for 15.1 percent of the total discharges in 2013 and represented the most common reasons for hospitalization. Some of the most common diagnoses in that category were congestive heart failure, coronary artery disease, irregular heartbeat, heart attack, and stroke. Pregnancy and childbirth comprised 10.5 percent of the total discharges, and 10.3 percent of all discharges were related to diseases of the respiratory system, which included pneumonia, chronic obstructive pulmonary disease, asthma, and respiratory failure. Together, these three categories accounted for 35.9 percent of all hospitalizations.

Figure 8. Number of Discharges by Body System, Delaware Hospitals, Selected Years, 2005 -2013



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

The largest percent increase (71.6 percent) in hospitalizations from 2005 to 2013 occurred in infections and parasitic diseases. Diseases of the nervous system and sense organs also demonstrated a large percentage increase (8.3 percent) from 2005 to 2013. At 8.1 percent, the third largest increase in hospitalizations was due to diseases of the musculoskeletal system and connective tissue. Other conditions accounted for the largest decrease in hospitalizations (31.3 percent), followed by congenital anomalies (26.7 percent).

<sup>2</sup> See Appendix A for details about the primary diagnoses and body system classifications.

## WHY PATIENTS WERE HOSPITALIZED

### Most frequent reasons for hospitalization by gender (excluding liveborn infants)

Specific diagnoses varied by gender. Much of the variation was a result of the large number of women hospitalized due to pregnancy and delivery-related conditions; four out of the top 10 diagnoses for women were related to pregnancy and childbirth. In Table 1, all of these diagnoses were rolled into the principal diagnosis of “Pregnancy & childbirth.” Both men and women experienced high numbers of discharges due to pneumonia, septicemia, osteoarthritis, and congestive heart failure. Table 1 shows the most frequent diagnoses for both men and women, by number, percent, and rank of discharges by gender.

**Table 1. Most Frequent Diagnoses (CCS Defined) by Gender, Delaware Hospitals, 2013**

CCS Principal Diagnosis	MALE			FEMALE		
	#	%	Rank	#	%	Rank
<i>All diagnoses</i>	46,827	100		62,924	100	
Pregnancy and childbirth	---	---	---	11,511	18.3	1
Liveborn Infant	5,526	11.8	1	5,390	8.6	2
Septicemia (except in labor)	1,673	3.6	2	1,736	2.8	4
Pneumonia (except that caused by tuberculosis or STD)	1,623	3.5	3	1,673	2.7	5
Osteoarthritis	1,269	2.7	5	2,011	3.2	3
Congestive heart failure; nonhypertensive	1,577	3.4	4	1,384	2.2	6
Chronic obstructive pulmonary disease and bronchiectasis	931	2.0	12	1,252	2.0	8
Acute cerebrovascular disease	1,013	2.2	8	1,131	1.8	9
Skin and subcutaneous tissue infections	1,106	2.4	7	908	1.4	13
Spondylosis; intervertebral disc disorders; other back problems	1,004	2.1	9	969	1.5	10
Cardiac dysrhythmias	973	2.1	10	953	1.5	11
Complication of device; implant or graft	920	2.0	13	913	1.5	12
Acute myocardial infarction	1,136	2.4	6	671	1.1	21
Urinary tract infections	480	1.0	25	1,321	2.1	7
Diabetes mellitus with complications	941	2.0	11	852	1.4	16

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Note: Clinical Classifications Software (CCS) is diagnostic classification system developed by the Agency for Healthcare Research and Quality (AHRQ). See Appendix A for more information. Table ordered based upon most frequent total diagnoses.

### Most frequent reasons for hospitalization by age groups:

- Excluding liveborn infants, patients under 1 year were hospitalized most often for acute bronchitis, other perinatal conditions, and hemolytic jaundice and perinatal jaundice.
- For those ages 1-17, asthma, pneumonia (except that caused by tuberculosis or a sexually transmitted disease), epilepsy; and convulsions made up the top three diagnoses.
- For those ages 18-44, all of the top 10 diagnoses were associated with pregnancy and childbirth. If pregnancy and childbirth were excluded, skin and subcutaneous tissue infections, diabetes mellitus with complications, and mood disorders became the three most common reasons for hospitalization.
- For those ages 45-64, osteoarthritis, septicemia (except in labor); and spondylosis, intervertebral disc disorders, and other back problems comprised the top three diagnoses.
- For those over 65, congestive heart failure (non-hypertensive), septicemia (except in labor), and osteoarthritis were the top three diagnoses.

Though the most common reasons for hospitalization differed by age, pneumonia appeared in the 10 most frequent diagnoses for all five age groups.

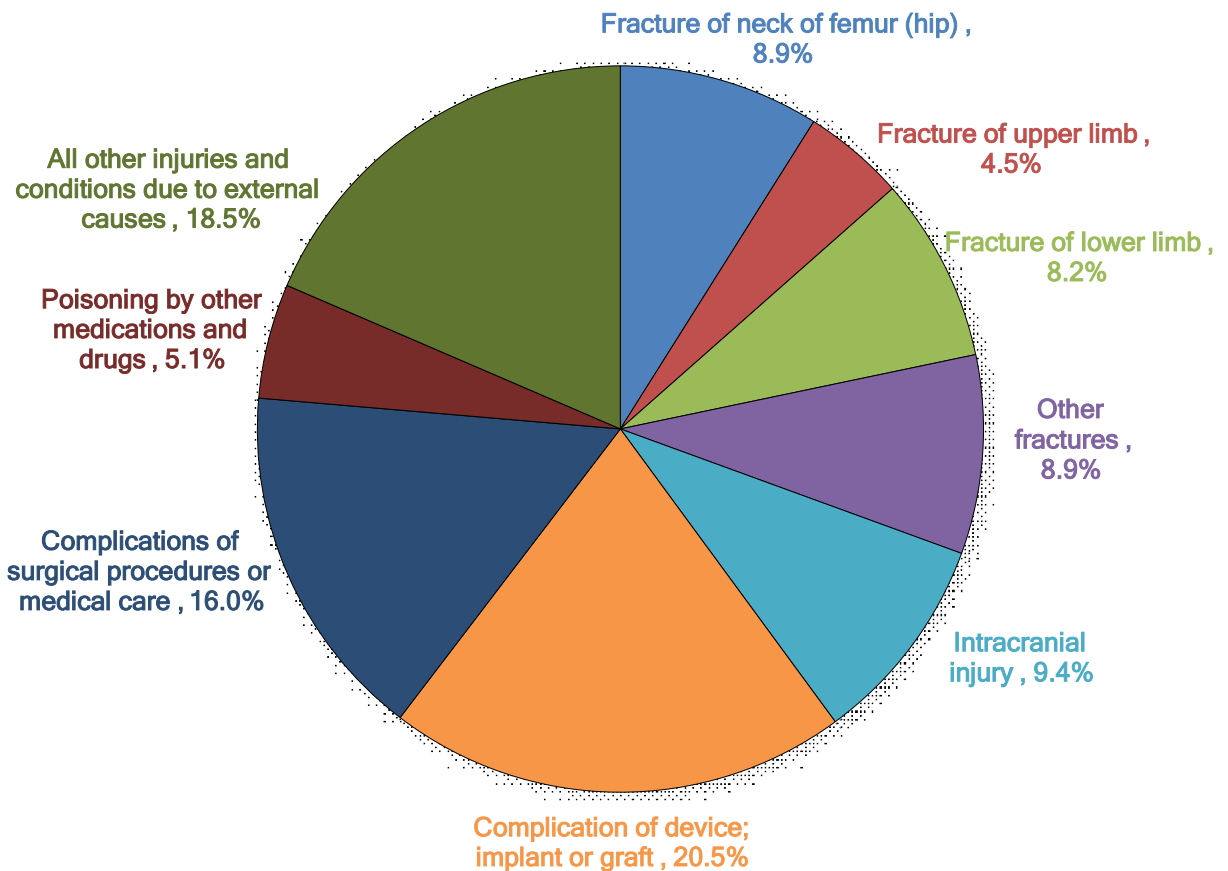
## WHY PATIENTS WERE HOSPITALIZED - INJURIES

### Injury hospitalizations

Injury hospitalizations accounted for 8.2 percent of the total number of discharges and \$277 million in aggregate charges in 2013. The majority of patients were admitted through the emergency department, and the average charge for an injury stay ranged from \$18,716 for poisoning by other medications and drugs to \$63,192 for spinal cord injuries, with an overall average charge of \$30,930 (see Appendix A).

The most common primary diagnosis for an injury hospitalization in 2013 was complication of device; implant; or graft, which accounted for 20.5 percent of injury hospitalizations. Complications of surgical procedures or medical care were responsible for another 16.0 percent of injury hospitalizations, followed by intracranial injury (9.4 percent), fracture of neck of femur (hip) (8.9 percent), and other fractures (8.9 percent).

FIGURE 9. Most Frequent Injury Diagnoses, Delaware Hospitals, Delaware, 2013



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center.

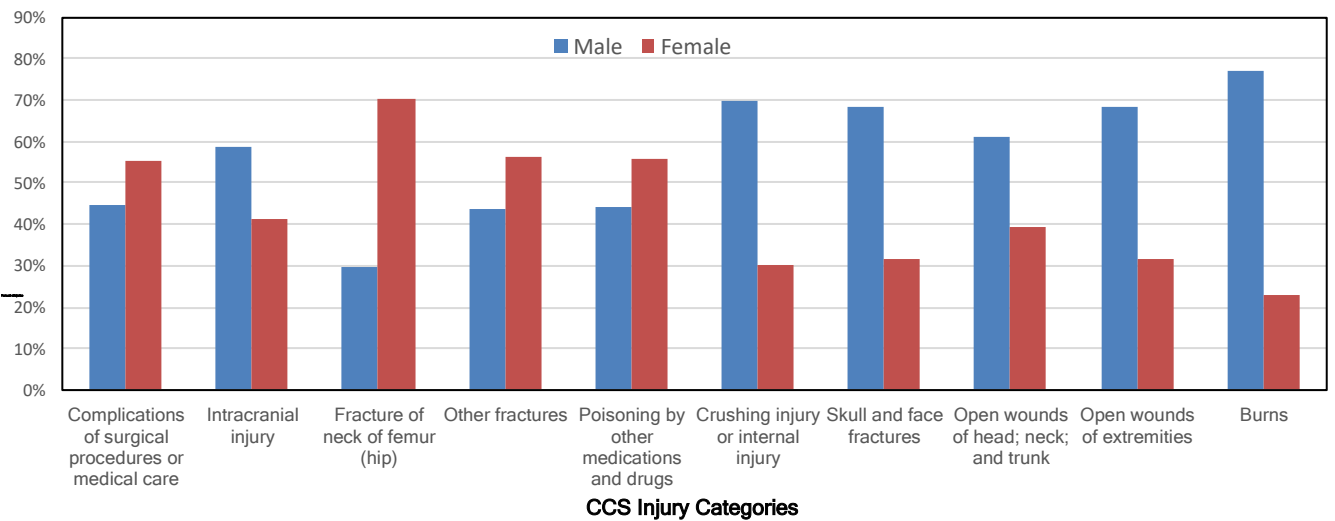
Falls were the most frequently specified external cause of injury (as defined by the Ecode listed on the discharge record). Falls accounted for 42.1 percent of hip fractures, 28.7 percent of upper limb fractures, 11.9 percent of intracranial injuries, and 9.7 percent of spinal cord injuries. Motor vehicle accidents were responsible for 4.7 percent of intracranial injuries and 1.6 percent of spinal cord injuries. Poisoning by psychotropic agents accounted for 2.5 percent of all injuries.

## WHY PATIENTS WERE HOSPITALIZED - INJURIES

### Gender

The number of injury hospitalizations was split almost equally between males and females, though the distribution varied by specific injury type. Women were more likely to be hospitalized for hip fractures and other unspecified fractures, poisoning by other medications and drugs, and complications of surgical procedures or medical care. Men were more likely to be hospitalized for crushing or internal injuries; open wounds of the head, neck, and trunk; skull and face fractures; open wounds of extremities; intracranial injuries; and burns.

Figure 10. Selected Primary Injury Diagnoses by Gender, Delaware Hospitals, Delaware, 2013



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center.

## WHY PATIENTS WERE HOSPITALIZED - PROCEDURES

### Most frequent reasons for hospitalization by procedure

In 2013, 68 percent of discharges had at least one associated procedure. Of the 74,998 hospital stays with an accompanying procedure, 34.6 percent had only a principal procedure performed; the remaining 65.4 percent had two or more procedures. Each discharge can have up to six procedures; this report examines the number of procedures, or the all-listed procedures.

The most common types of all-listed procedures were miscellaneous diagnostic and therapeutic, cardiovascular, obstetric, and musculoskeletal. Miscellaneous diagnostic and therapeutic procedures accounted for nearly half of the total procedures and included injections, vaccinations and prophylactic inoculations, CT scans, diagnostic ultrasounds, respiratory intubation and mechanical ventilation, and blood transfusions.

Overall, the most frequently performed all-listed procedures were other therapeutic procedures; respiratory intubation and mechanical ventilation; other procedures to assist delivery; and blood transfusion.

**Table 2. Most Frequent All-listed Inpatient Procedures, Delaware Hospitals, Delaware, 2013**

CCS Procedure	# of All -listed Procedures			% of Discharges with a Procedure
	MALE	FEMALE	Total	
Other therapeutic procedures	7,262	10,676	17,938	9.4
Respiratory intubation and mechanical ventilation	5,181	4,612	9,793	5.1
Other procedures to assist delivery	0	9,275	9,275	4.8
Blood transfusion	4,089	4,661	8,750	4.6
Diagnostic cardiac catheterization; coronary arteriography	5,095	3,290	8,385	4.4
Prophylactic vaccinations and inoculations	3,526	3,822	7,348	3.8
Other vascular catheterization; not heart	3,175	3,388	6,563	3.4
Fetal monitoring	0	5,751	5,751	3.0
Ophthalmologic and otologic diagnosis and treatment	2,824	2,719	5,543	2.9
Other OR procedures on vessels other than head and neck	3,099	2,280	5,379	2.8
Spinal fusion	2,367	2,534	4,901	2.6
Other diagnostic procedures (interview; evaluation; consultation)	2,254	2,399	4,653	2.4
Circumcision	4,454	49	4,503	2.4
Repair of current obstetric laceration	0	3,835	3,835	2.0
Upper gastrointestinal endoscopy; biopsy	1,605	1,882	3,487	1.8

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Notes: All-listed procedures refer to all procedures performed during a hospital stay; excludes other therapeutic procedures. Excludes 12 unknown genders.

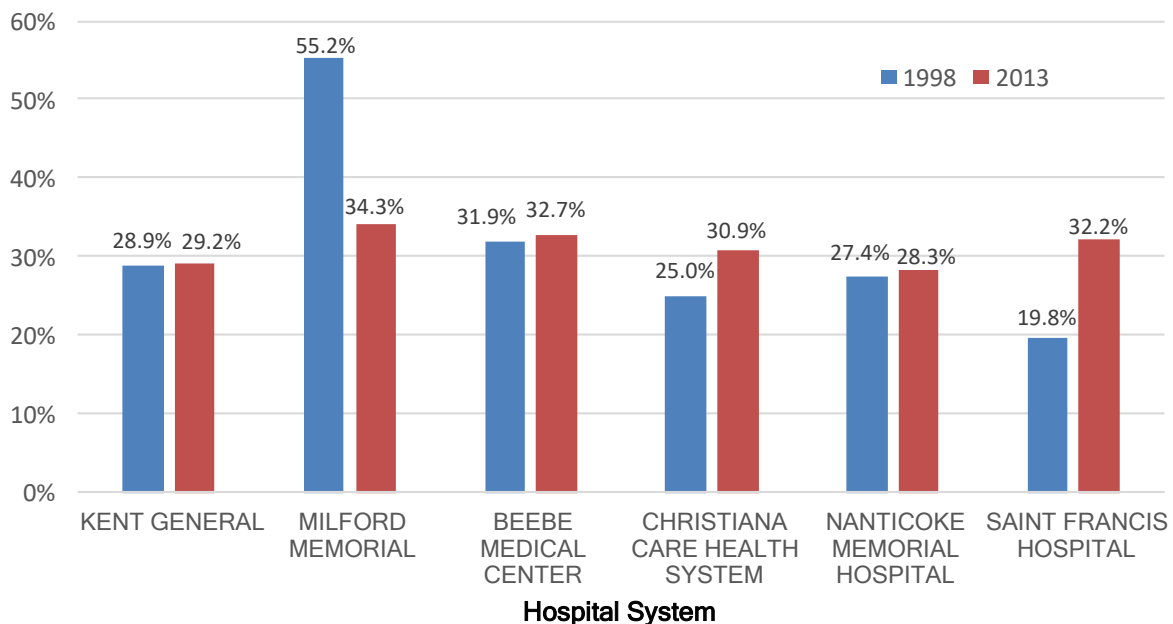
Males most frequently underwent other therapeutic procedures, respiratory intubation and mechanical ventilation; and diagnostic cardiac catheterization; coronary arteriography. Females most frequently underwent other therapeutic procedures, other procedures to assist delivery, and fetal monitoring. Four of the 10 most commonly performed procedures on females were related to pregnancy and childbirth.

<sup>3</sup> See the definition of Procedure Classes in the Definitions section of the Technical Notes.

## WHY PATIENTS WERE HOSPITALIZED - PROCEDURES

A major component of obstetrical procedures is related to cesarean delivery of newborn infants. Since 1998, annual cesarean delivery rates increased for every hospital in Delaware with the exception of Milford Memorial; by 2013, 30.7 percent of all births were delivered by cesarean. Saint Francis Hospital and Christiana Care Health System showed the greatest increases, rising 62.8 percent and 23.3 percent, respectively. In 2013, Milford Memorial and Beebe Medical Center had the highest rates, with 34.3 and 32.7 percent of all births delivered by cesarean. Nanticoke Memorial Hospital had the lowest percentage of births delivered by cesarean (28.3 percent).

**Figure 11. Annual Cesarean Delivery Rates by Hospital, Delaware Hospitals, Delaware, 1998 and 2013**



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

### Gender

In 2013, obstetrical procedures accounted for one in four all-listed procedures performed on females and included other procedures to assist delivery, fetal monitoring, cesarean sections, repair of current obstetrical laceration, and artificial rupture of membranes to assist delivery.

For males, other therapeutic procedures accounted for 8.8 percent of the total procedures, followed by respiratory intubation and mechanical ventilation (6.2 percent), and diagnostic cardiac catheterization; coronary arteriography (6.1 percent).

The following procedures were present in the 10 most commonly performed procedures for both males and females:

- diagnostic cardiac catheterization; coronary arteriography
- blood transfusion
- respiratory intubation and mechanical ventilation
- prophylactic vaccinations and inoculations
- other vascular catheterization (not heart)
- other therapeutic procedures.



## WHY PATIENTS WERE HOSPITALIZED - PROCEDURES

### Age

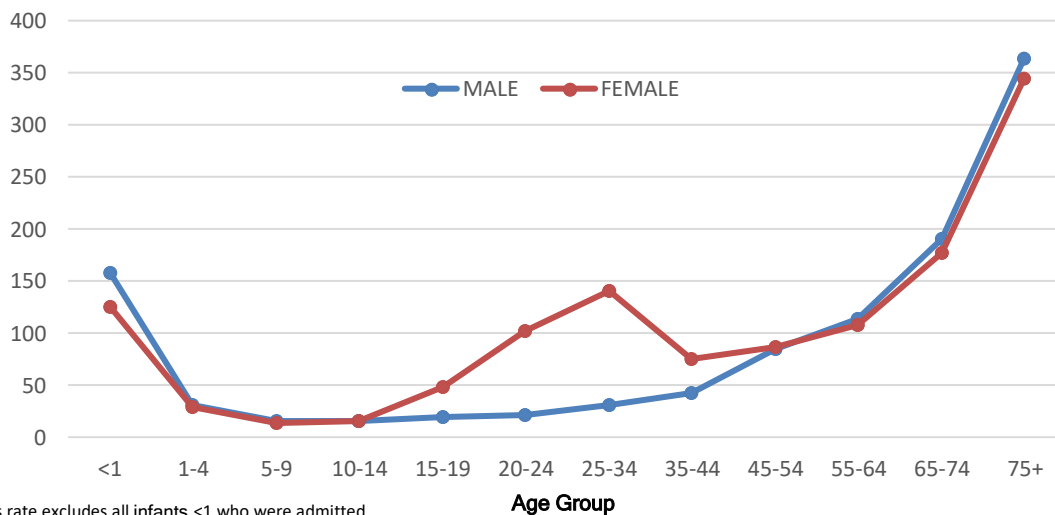
- For patients under 1 year, prophylactic vaccinations and inoculations, ophthalmologic and otologic diagnoses and treatment, and circumcisions were the most common procedures.
- For patients ages 1 to 17, other therapeutic procedures on muscles and tendons, other vascular catheterization (not heart), and blood transfusion were the most frequently performed procedures.
- Obstetric procedures, specifically other procedures to assist delivery, fetal monitoring, and other therapeutic procedures, were the most common procedures for those ages 18-44.
- Other therapeutic procedures, diagnostic cardiac catheterization; coronary arteriography, and respiratory intubation and mechanical ventilation were the most frequently performed procedures for those ages 45-64.
- The most commonly performed principal procedures on patients 65 and older were other therapeutic procedures, blood transfusion, and diagnostic cardiac catheterization; and coronary arteriography.

## HOSPITALIZATIONS OF DELAWARE RESIDENTS

Hospital stays for Delaware residents were based on inpatient discharges from Delaware hospitals only; as such, information about residents who went out of state for hospital care are not represented in the following statistics.

Discharge rates of Delaware residents under the age of 1 were higher than the rates of all other age groups except those 65 and older. Discharge rates decreased with each increase in age group between patients under 1 and those ages 10-14. The trend reversed at the 15-19 age group and other than a dip in the rates for females 35-44, rates rose steadily with each older age group. Male and female discharge rates were similar for age groups under 15 and over 44; females in 15-44 age groups had discharge rates 1.7 to 4.6 times that of males.

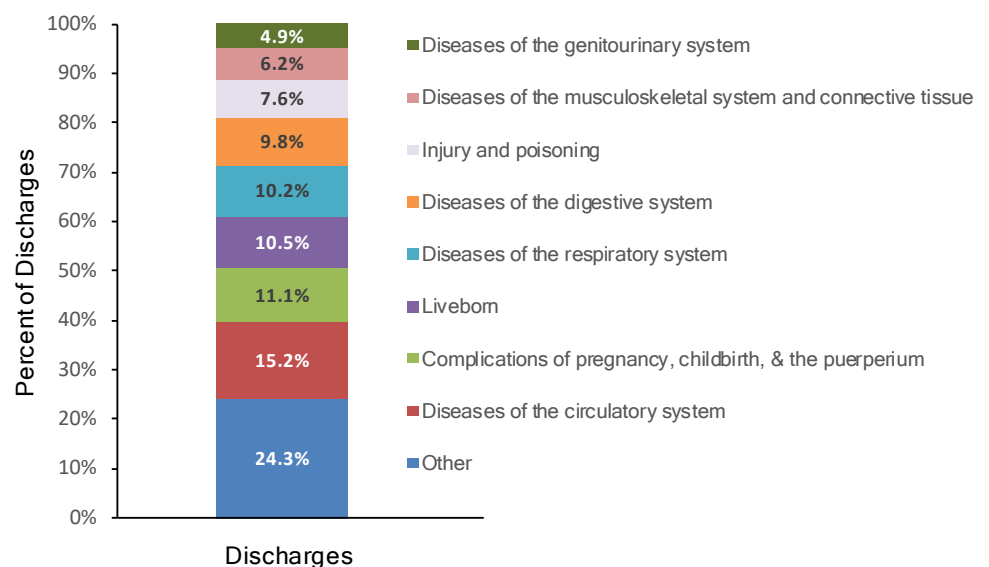
**Figure 12. Resident Discharge Rates\* by Sex and Age, Delaware Hospitals, Delaware, 2013**



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

**Figure 13. Percent of Resident Discharges by Body System Delaware Hospitals, 2013**

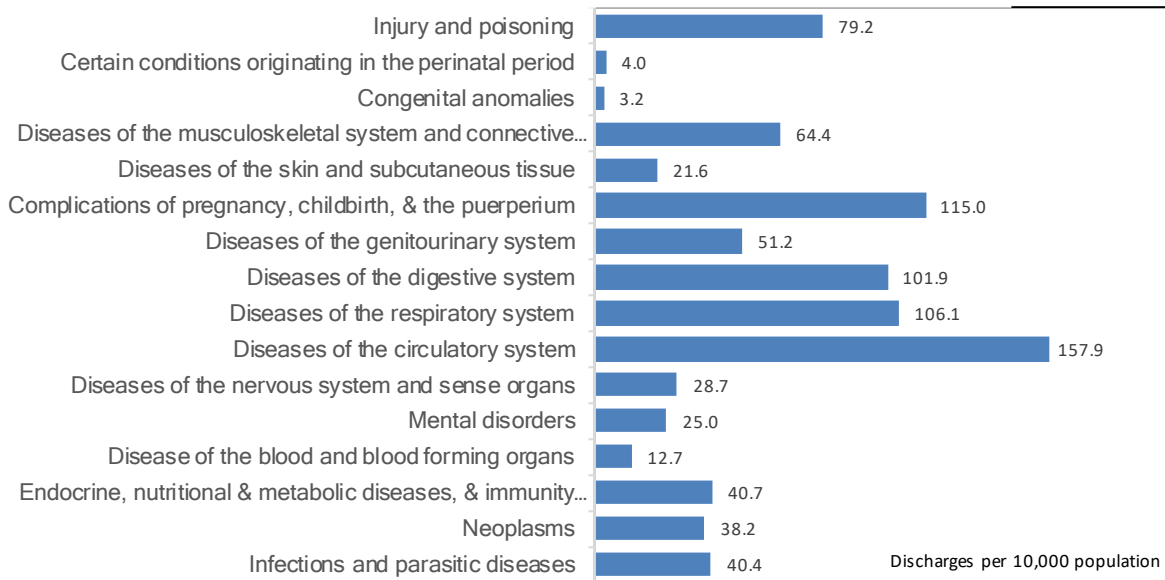
In 2013, Delawareans were discharged most frequently for diseases of the circulatory system, accounting for 15.2 percent of resident hospital stays. The most common diagnoses for diseases of the circulatory system included heart failure, coronary artery disease, and irregular heartbeat. Pregnancy and childbirth; and newborn infants were the second and third most common reasons for resident hospital stays, followed by diseases of the respiratory system, including pneumonia, COPD (chronic obstructive pulmonary disease), and asthma, then diseases of the digestive system, which included biliary tract disease, gastrointestinal hemorrhage, and intestinal obstruction.



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOSPITALIZATIONS OF DELAWARE RESIDENTS

**Figure 14. Hospitalization Rates by Body System\*, Delaware Residents, 2013**

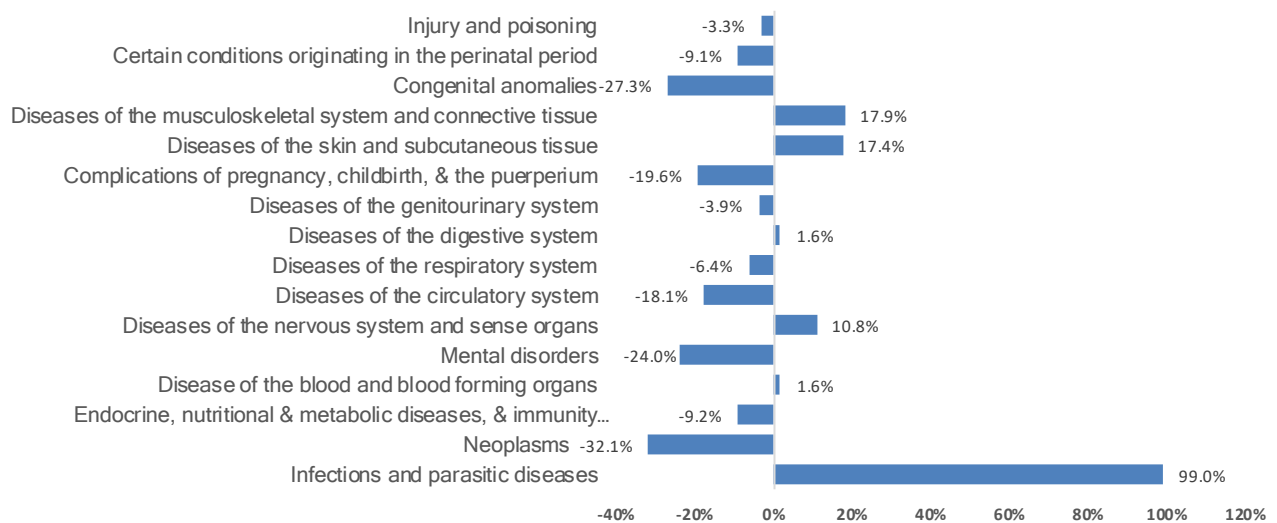


\* Excluding hospitalizations related to pregnancy and liveborn infants.

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center.

High hospital discharge rates in 2013 were not necessarily indicative of large rate increases over the previous 10 years. In some categories, like diseases of the circulatory system, high 2013 rates were maintained in spite of declines over the prior 10-year period. In others, such as diseases of the skin, and infectious and parasitic diseases, 2013 rates were comparatively low, though both had exhibited significant rate increases over the prior 10-year period.

**Figure 15. Percent Change in Hospitalization Rates by Body System\*, Delaware Residents, 2003 versus 2013**



\*Excluding hospitalizations related to pregnancy and liveborn infants

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOSPITALIZATIONS OF DELAWARE RESIDENTS

When the specific diagnoses that comprise each body system were examined, the following 25 principal diagnoses had the highest discharge rates of Delaware residents in 2013.

**Table 3. Top 25 CCS Diagnoses with the Highest Hospital Discharge Rates\* for Delaware Residents, Delaware, 2003, 2008, and 2013**

	<u>2003</u>		<u>2008</u>		<u>2013</u>		% Change from 2003 to 2013
	Number	Rate	Number	Rate	Number	Rate	
Septicemia (except in labor)	944	11.5	1,778	20.1	3,164	34.2	197.4%
Pneumonia (except that caused by tuberculosis or STD)	3,137	38.3	2,519	28.5	2,940	31.8	-17.0%
Osteoarthritis	1,650	20.2	2,539	28.7	2,877	31.1	54.0%
Congestive heart failure; nonhypertensive	2,864	35.0	2,326	26.3	2,745	29.7	-15.1%
Chronic obstructive pulmonary disease and bronchiectasis	1,581	19.3	1,759	19.9	2,069	22.4	16.1%
Acute cerebrovascular disease	1,440	17.6	1,571	17.8	1,885	20.4	15.9%
Skin and subcutaneous tissue infections	1,206	14.7	1,735	19.6	1,770	19.1	29.9%
Cardiac dysrhythmias	1,623	19.8	1,729	19.6	1,731	18.7	-5.6%
Spondylosis; intervertebral disc disorders; other back problems	1,524	18.6	1,343	15.2	1,665	18.0	-3.2%
Acute and unspecified renal failure	671	8.2	1,375	15.6	1,634	17.7	115.9%
Urinary tract infections	1,313	16.1	1,478	16.7	1,634	17.7	9.9%
Diabetes mellitus with complications	1,318	16.1	1,481	16.8	1,622	17.5	8.7%
Complication of device; implant or graft	1,310	16.0	1,446	16.4	1,546	16.7	4.4%
Acute myocardial infarction	1,823	22.3	1,533	17.3	1,444	15.6	-30.0%
Rehabilitation care; fitting of prostheses; and adjustment of device	2,233	27.3	1,728	19.6	1,441	15.6	-42.9%
Respiratory failure; insufficiency; arrest (adult)	911	11.1	1,831	20.7	1,248	13.5	21.6%
Complications of surgical procedures or medical care	1,157	14.1	1,105	12.5	1,227	13.3	-5.7%
Asthma	1,435	17.5	1,307	14.8	1,133	12.2	-30.3%
Coronary atherosclerosis and other heart disease	2,148	26.3	2,076	23.5	1,082	11.7	-55.5%
Biliary tract disease	980	12.0	1,201	13.6	1,069	11.6	-3.3%
Gastrointestinal hemorrhage	810	9.9	828	9.4	1,061	11.5	16.2%
Fluid and electrolyte disorders	1,496	18.3	1,154	13.1	942	10.2	-44.3%
Intestinal obstruction without hernia	778	9.5	869	9.8	937	10.1	6.3%
Diverticulosis and diverticulitis	803	9.8	832	9.4	901	9.7	-1.0%
Intestinal infection	428	5.2	591	6.7	901	9.7	86.5%

\*Hospitalization rate per 10,000, ranked by 2013 figures. Excluding pregnancy-related discharges and liveborn infants.

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Diseases of the circulatory system accounted for five of the 25 conditions with the highest hospitalization rates; these included:

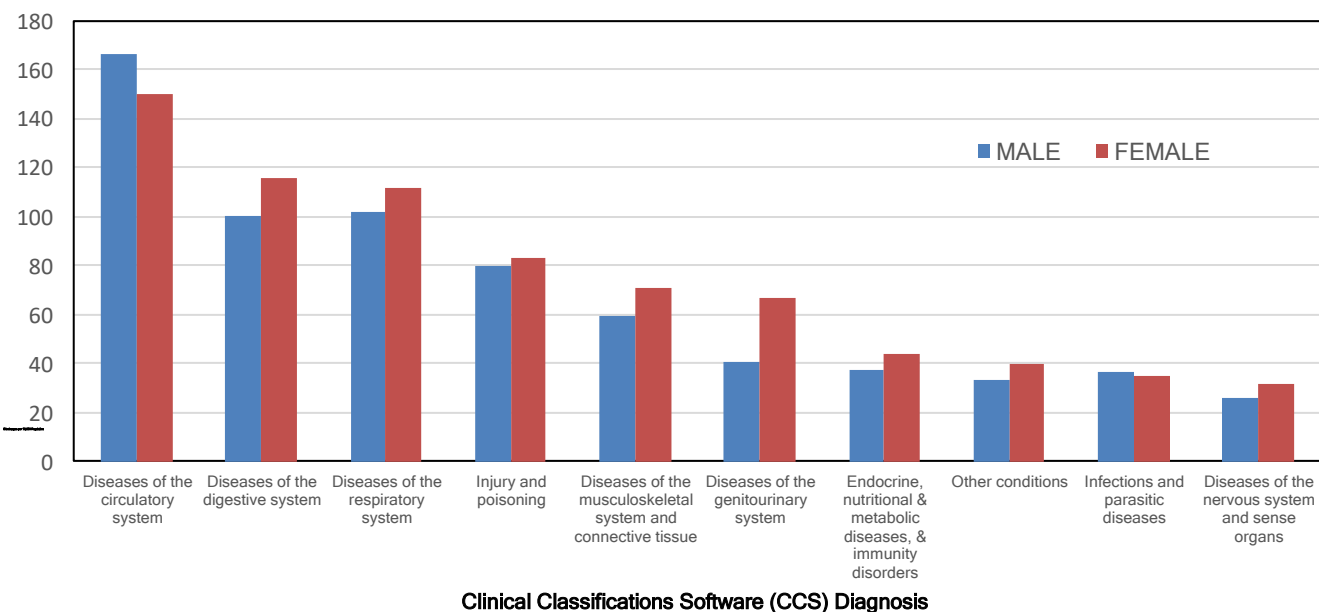
- congestive heart failure
- coronary atherosclerosis and other heart disease (coronary artery disease)
- cardiac dysrhythmias (irregular heartbeat)
- acute cerebrovascular disease (stroke)
- acute myocardial infarction (heart attack).

Four of the circulatory conditions listed above showed significant decreases in their rates since 2003: heart failure, coronary artery disease, irregular heartbeat, and heart attack.

Hospitalization rates for septicemia (except in labor), acute and unspecified renal failure, and intestinal infection demonstrated the greatest increases between 2003 and 2013.

## HOSPITALIZATIONS OF DELAWARE RESIDENTS

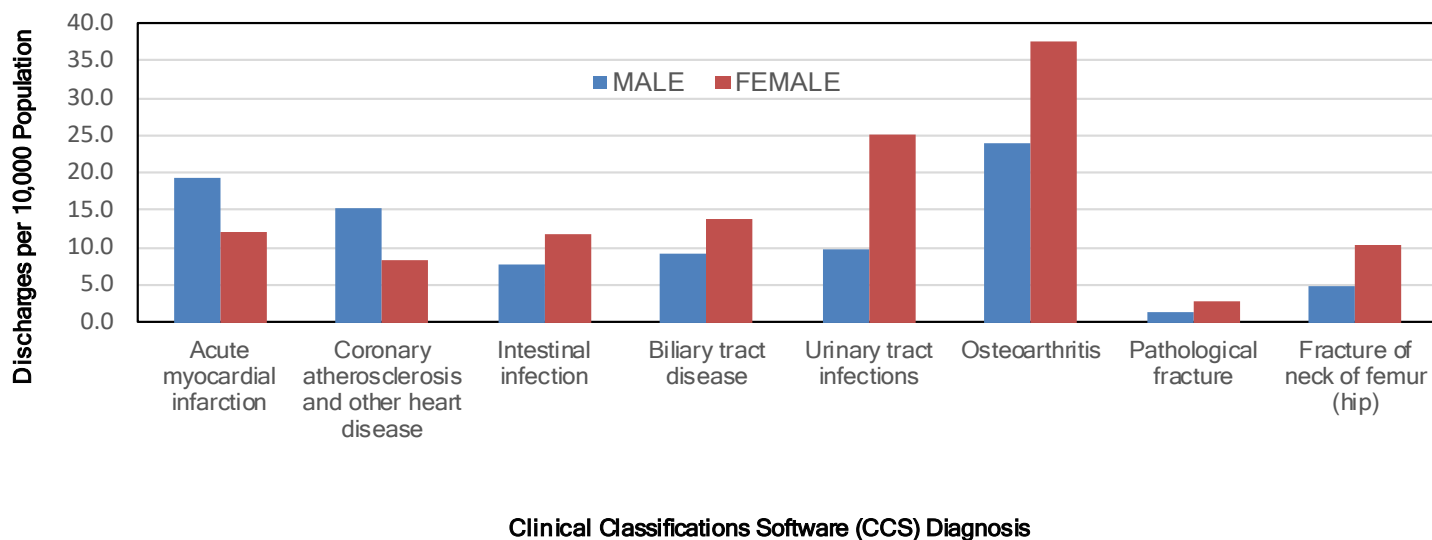
**Figure 16. Delaware Resident Discharge Rates by Body System and Gender, Delaware Hospitals, Delaware, 2013**



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Women's higher discharge rate for diseases of the digestive system was due in large part to their higher discharge rates of biliary tract disease and intestinal infection. Likewise, osteoarthritis and pathological fractures contributed to the female-to-male disparity in hospitalization rates for diseases of the musculoskeletal system. The largest difference between men and women occurred in the diseases of genitourinary system and was driven primarily by women's higher rate of stays for urinary tract infections. Males had higher discharge rates for heart attack and coronary artery disease, which resulted in their higher overall hospitalization rates for circulatory diseases.

**Figure 17. Delaware Hospitals Discharge Rates for Residents by Gender and Selected Primary Diagnoses, 2013**



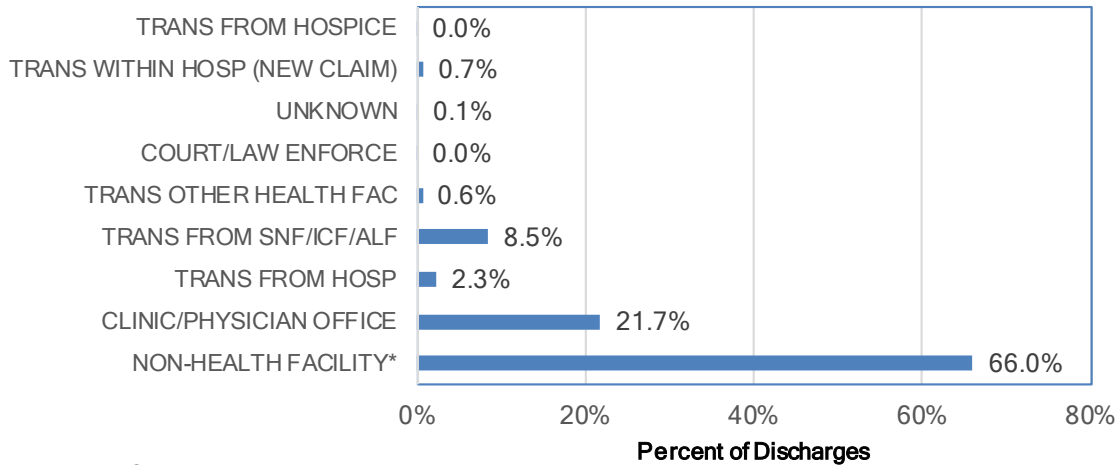
Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOW PATIENTS WERE ADMITTED

### Point of Origin

Non-health facilities and clinic/physician offices accounted for 87.7 percent of all hospital discharges in 2013. The majority of the remaining points of origin were transfers from nursing homes (skilled nursing facilities (SNF), intermediate care facilities (ICF), assisted living facilities (ALF)) 8.5 percent, and other hospitals, 2.3 percent.

**Figure 18. Point of Origin, Delaware Hospitals, 2013**

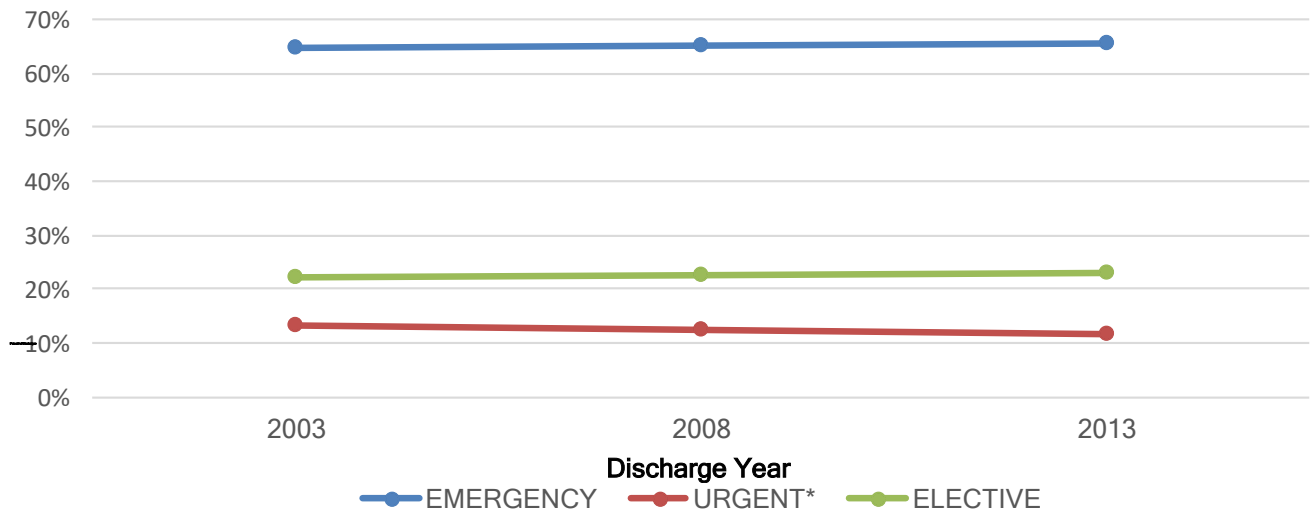


\* Non-Health Care Facility includes walk-ins, auto accidents, and ambulance runs

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Between 2003 and 2013, the majority of admissions continued to be classified as emergency in nature. In 2003, emergency admissions accounted for 64.6 percent of all admissions. By 2013, the proportion of emergency admissions had increased slightly to 65.7 percent, while urgent admissions fell from 13.2 percent to 11.5 percent between 2003 and 2013.

**Figure 19. Proportion of Hospital Discharges by Type of Admission, Delaware Hospitals, 2003-2013**



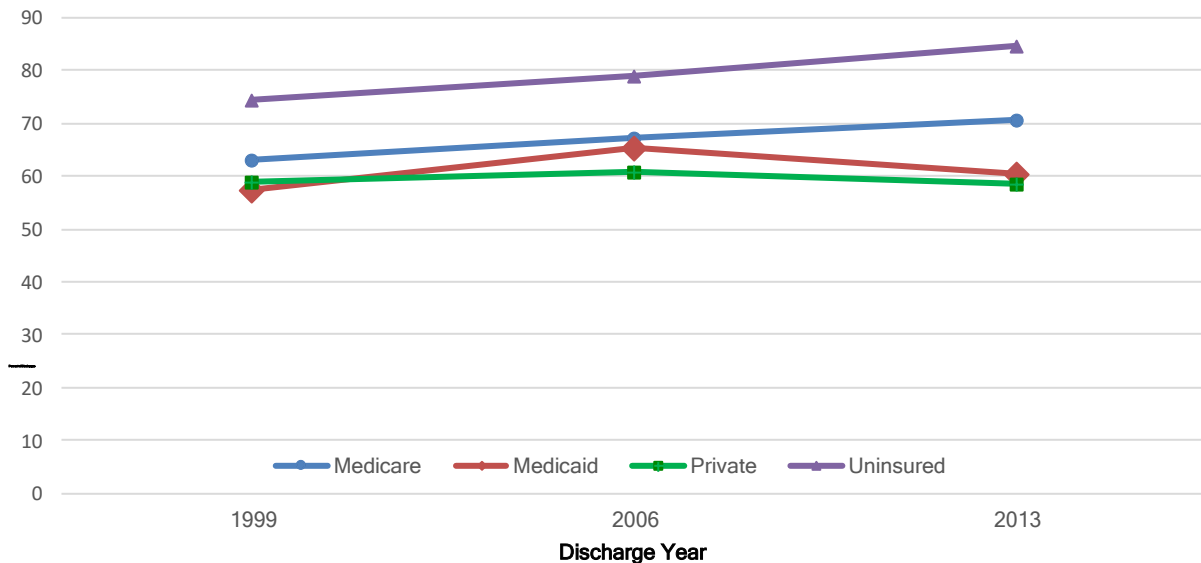
\* Urgent encompasses situations that require immediate attention due to a physical or mental disorder but are not life threatening

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOW PATIENTS WERE ADMITTED

Most primary payers experienced an increase in the percent of discharges coming from the ED, while uninsured patients had the largest proportion of their stays originating in the ED. In 2013, 84.5 percent of uninsured admissions, 70.8 percent of Medicare admissions, 58.5 percent of private admissions, and 60.5 percent of Medicaid admissions were admitted through the ED.

**Figure 20. Percent of each Payer's Discharges Originating in the ED, Delaware, 1999 - 2013**



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

The most common diagnoses of patients admitted through the ED were pneumonia, septicemia, and heart failure.

**Table 4. Most Common Diagnoses for Emergency Admissions**

Delaware Hospitals, 2013	Frequency	Percent *
Pneumonia (except that caused by tuberculosis or STD)	1,885	2.9
Septicemia (except in labor)	1,768	2.7
Congestive heart failure; nonhypertensive	1,469	2.3
Chronic obstructive pulmonary disease and bronchiectas	1,058	1.6
Skin and subcutaneous tissue infections	903	1.4
Cardiac dysrhythmias	896	1.4
Asthma	893	1.4
Acute myocardial infarction	855	1.3
Acute and unspecified renal failure	851	1.3
Respiratory failure; insufficiency; arrest (adult)	828	1.3
Acute cerebrovascular disease	823	1.3
Diabetes mellitus with complications	785	1.2
Urinary tract infections	784	1.2

\* Refers to the percent of discharges that originated in the ED.

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

- The biggest change in the most common diagnoses originating in the ED from 2012 to 2013 was acute cerebrovascular disease, dropping from fifth place to eleventh place.
- Three of the most common ED diagnoses were related to circulatory conditions: heart failure, stroke, and irregular heartbeat.

- Another four of the most common ED diagnoses were primarily due to infections: pneumonia, skin infections, septicemia, and urinary tract infections.



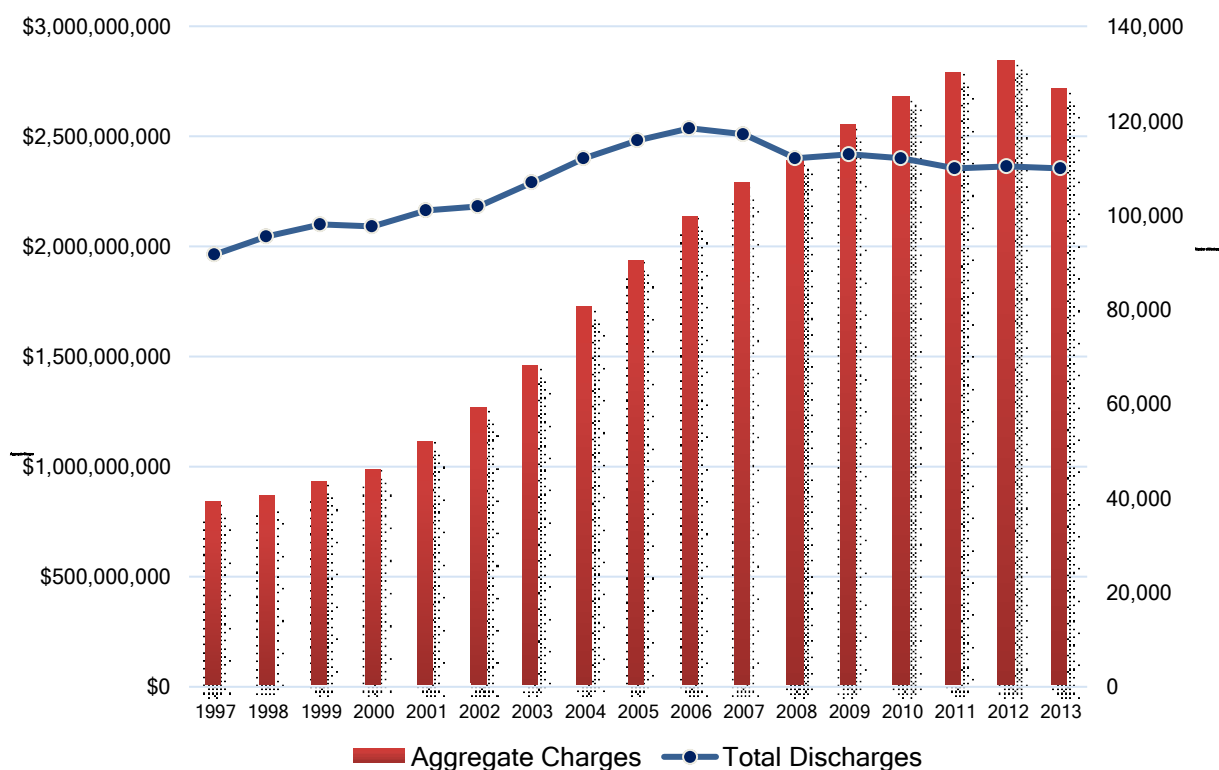
## HOSPITAL CHARGES AND BILLING

### Inpatient charges

The total charges for a hospitalization represent the total amount billed for that particular stay. In this report, hospital charges for care are reported, not the actual costs of providing the care or what the hospitals were reimbursed. These charges include accommodations, ancillary services (e.g. pharmacy, lab, radiology and anesthesia), and services of resident physicians.

In 2013, total aggregate charges for all hospitalizations in Delaware equaled \$2.72 billion, a 40.3 percent increase in aggregate charges from 2005. The number of discharges fell from 115,831 in 2005 to 109,751 in 2013, a 5.2 percent decrease. Total aggregate charges dropped for the first time in over 20 years in 2013.

**Figure 21. Number of Discharges and Total Aggregate Charges by Year, Delaware Hospitals, 1997- 2013**



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

The average charge for a hospital stay rose in 2013 to \$24,740, compared to \$16,714 in 2005. The median charge per stay was \$12,785 in 2013, compared to \$9,153 in 2005.

The diagnostic groups with the highest average charges per hospital stay were congenital anomalies, perinatal conditions, and infections and parasitic diseases, with average charges ranging from \$41,313 to \$164,789. These three diagnostic groups also had the longest average stays, ranging from 8.1 to 12.0 days.

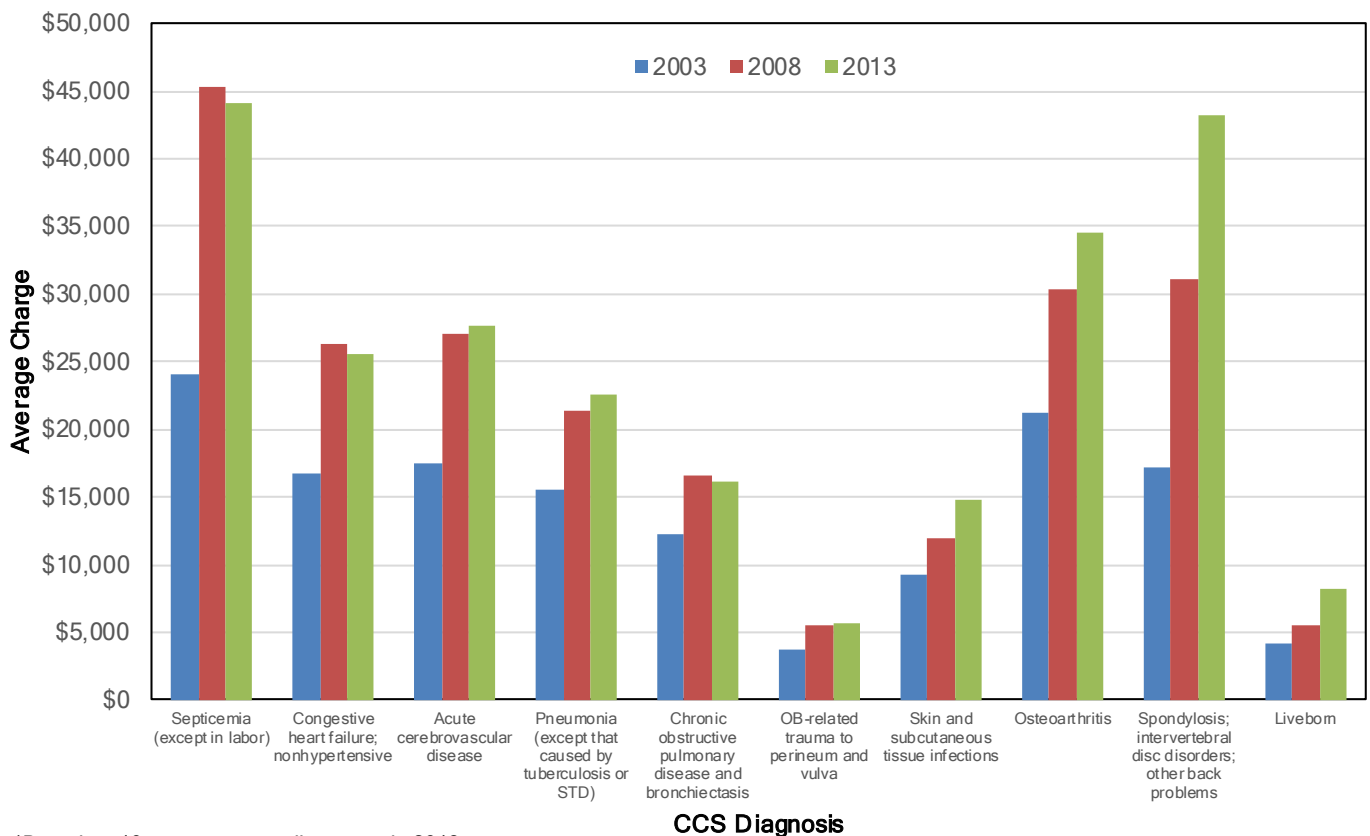
Looking at specific diagnoses within groups showed that the most expensive diagnoses were immunity disorders, cardiac and circulatory congenital anomalies, respiratory distress syndrome, and leukemias. However, the 10 most expensive diagnoses occurred relatively rarely and accounted for just 1.0 percent of all discharges in 2013. In comparison, the 10 diagnoses that occurred most frequently accounted for 31.2 percent of the total discharges in 2013. (See Appendix E for more information.)

## HOSPITAL CHARGES AND BILLING

From 2003 to 2013, the average charges rose for each of the 10 highest volume diagnoses. The highest volume diagnoses whose average charges increased the most were:

- spondylosis; intervertebral disc disorders; other back problems (152 percent)
- liveborn (98 percent)
- septicemia (except in labor) (84 percent).

**Figure 2. Average Hospital Charges for Highest\* Volume CCS Diagnoses, Delaware Hospitals, 2003-2013**



\*Based on 10 most common diagnoses in 2013.

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center.

Though the average charges of the high-volume diagnoses tended to increase over time, the proportion of total aggregate charges represented by them experienced very little growth.

- In 2003, the aggregate charges for 2013's highest volume diagnoses totaled \$317.7 million and accounted for 21.8 percent of the total aggregate charges for all diagnoses.
- By 2013, the aggregate charges for those same diagnoses had more than doubled to \$724.2 million, which accounted for 26.7 percent of the total aggregate charges.

In 2013, the 10 conditions with the highest total billed charges accounted for 33.3 percent of the total aggregate charges. Septicemia (except in labor) incurred the largest aggregate charges of any diagnosis, resulting in a total hospital bill of \$150.5 million. Although hospital stays for newborns had relatively low average charges, their high frequency resulted in liveborn infants having the third highest aggregate charges. (See Appendix E for more information.)

## HOSPITAL CHARGES AND BILLING

### Insurance status

The following payer sources are listed in this report:

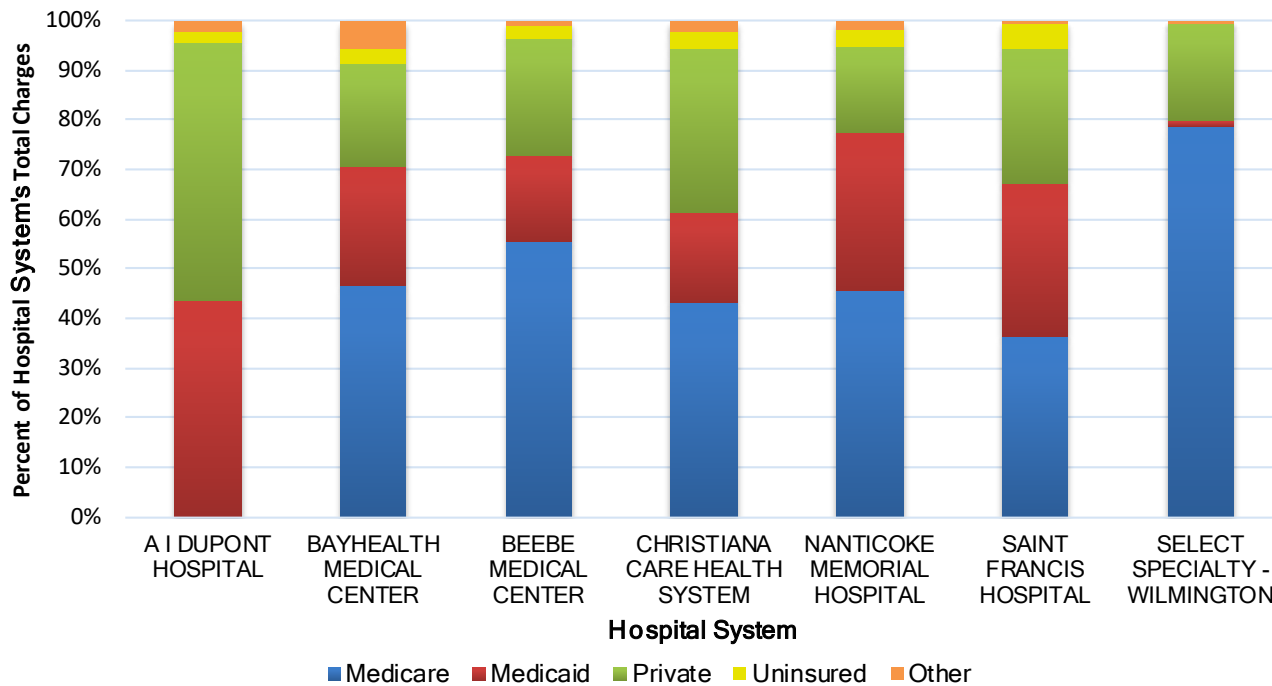
- Medicare
- Medicaid
- Private insurance carriers, such as:
  - Blue Cross Blue Shield
  - HMOs
  - Commercial insurance
- Uninsured
  - Patients who have no insurance and self-pay
- Other types of insurance, such as:
  - Workmer's compensation
  - Civilian Health and Medical Program of the Uniformed Services (CHAMPUS)
  - Other government sponsored programs

In 2013, 64.0 percent of hospitalizations were billed to Medicare (41.4 percent) and Medicaid (22.6 percent), 30.1 percent were billed to private insurance, and the remaining 5.9 percent was billed to other types of coverage (2.6 percent) or to the patient (3.3 percent uninsured).

Patients whose care was primarily billed to Medicare had both the highest average charges (\$27,249) and the greatest aggregate charges (\$1.2 billion).

In 2013, Select Specialty - Wilmington had the highest percent of charges billed to Medicare. A. I. duPont Hospital for Children had the highest percentage billed to both privately insured and Medicaid covered patients, and Saint Francis Hospital had the highest percent of charges with no coverage.

Figure 23. Distribution of Total Charges by Primary Payer Type and Hospital System Delaware, 2013



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOSPITAL CHARGES AND BILLING

### Medicare

From 1999 to 2013, the percent of hospital stays whose primary payer was Medicare increased from 36.2 to 41.4 percent. Over the same time period, the proportion of aggregate charges billed to Medicare remained stable at around 46 percent.

Four of the 10 most frequent diagnoses for Medicare patients were related to diseases of the circulatory system. The three most frequent diagnoses accounted for 14.9 percent of Medicare hospitalizations. The three most frequent diagnoses for Medicare patients in 2013 were<sup>7</sup>:

- septicemia (except in labor)
- congestive heart failure (nonhypertensive)
- pneumonia (except that caused by tuberculosis or STD).

### Medicaid

From 1999 to 2013, Medicaid-covered hospitalizations increased from 15.9 to 22.6 percent. Over the same time period, the proportion of aggregate charges billed to Medicaid rose from 13.4 to 21.9 percent.

Five of the 10 most frequent diagnoses for Medicaid patients were related to pregnancy and childbirth. The three most frequent diagnoses accounted for 27.9 percent of Medicaid stays. The three most frequent diagnoses for Medicaid patients in 2013 were<sup>7</sup>:

- liveborn infants
- OB-related trauma to perineum and vulva
- other complications of birth; puerperium affecting management of mother.

### Private Insurers

From 1999 to 2013, privately insured stays decreased from 40.8 to 30.1 percent. Over the same time period, the proportion of aggregate charges billed to private insurance decreased from 33.5 to 26.9 percent.

Four of the 10 most frequent diagnoses for patients whose primary payer was private insurance were related to pregnancy and childbirth. The most frequent diagnosis, liveborn infants, accounted for 15.0 percent of all stays covered by private insurers. The three most frequent diagnoses for privately insured patients in 2013 were<sup>7</sup>:

- liveborn infants
- OB-related trauma to perineum and vulva
- osteoarthritis.

### Uninsured

From 1999 to 2013, uninsured hospitalizations increased slightly from 3.2 to 3.3 percent. Over the same time period, the proportion of aggregate charges billed to uninsured patients increased from 2.5 to 2.9 percent. The three most frequent diagnoses accounted for 15.8 percent of uninsured stays.

The three most frequent diagnoses for uninsured patients in 2013 were<sup>7</sup>:

- liveborn
- mood disorders
- skin and subcutaneous tissue infections.

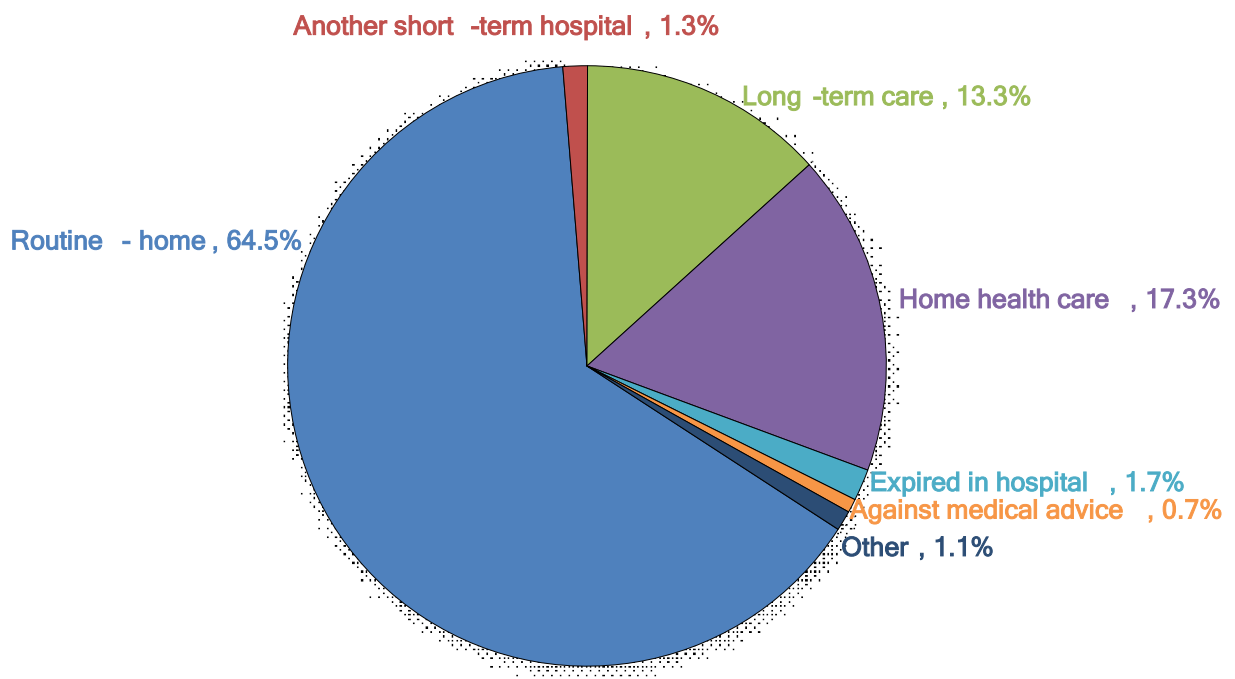
<sup>7</sup>

## HOW PATIENTS WERE DISCHARGED

### Patient Discharge Status

A patient's discharge status refers to how a person is discharged from the hospital and includes discharges to home, long-term care and other non-acute care facilities, other short-term hospitals, patients who left against medical advice, and patients who died while in the hospital. In 2013, the majority of patients (64.5 percent) were discharged to their homes, less than 2 percent of patients died in the hospital, and less than 1 percent left against medical advice.

Figure 24. Percent of Discharges by Discharge Status Delaware Hospitals, Delaware, 2013



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOW PATIENTS WERE DISCHARGED

### Expired Patients

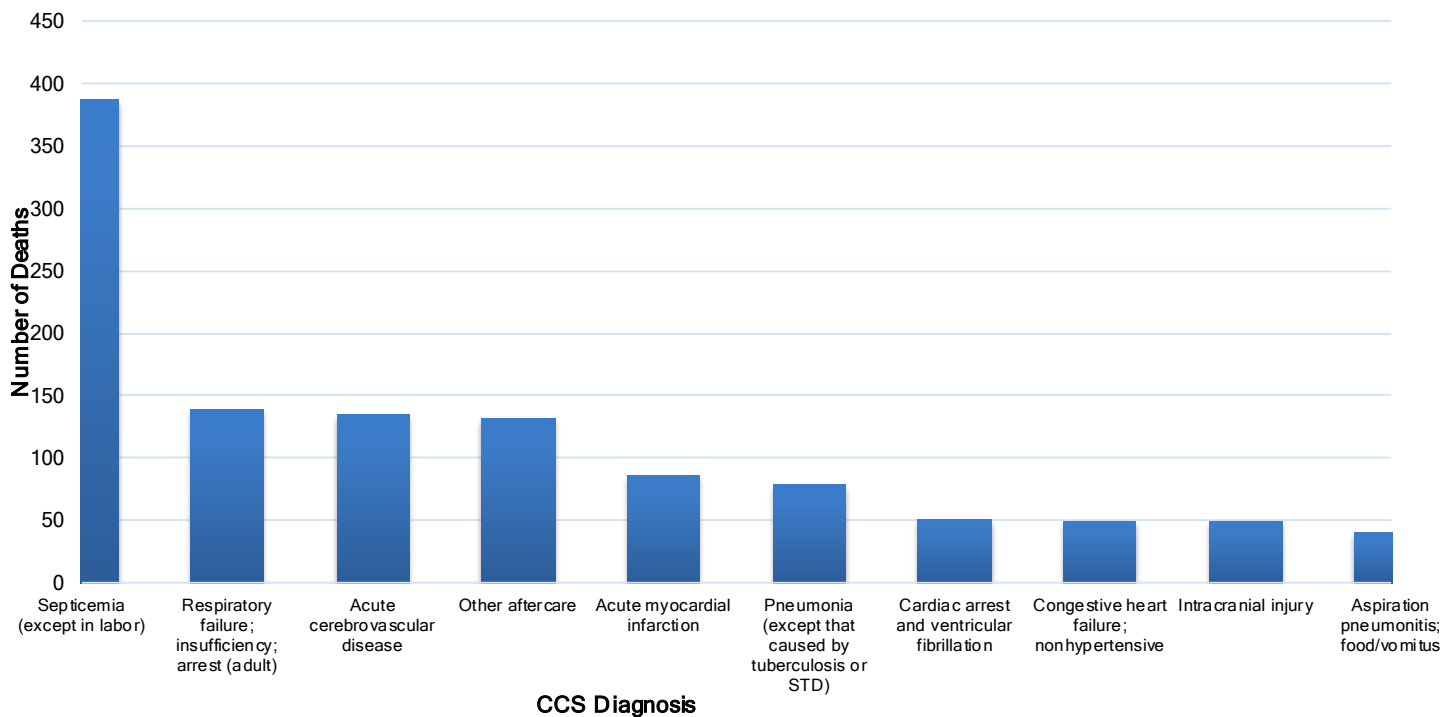
Patients who died during their hospital stay contributed to the “in-hospital mortality” figures. Data about in-hospital mortality are expressed as either numbers of deaths, or percentages of deaths. Both the frequencies and percentages are presented, as each statistic provides a different perspective for reviewing the data.

### Frequencies

Patients with the following diagnoses experienced the highest numbers of in-hospital mortality:

- septicemia (except in labor)
- respiratory failure; insufficiency; arrest (adult)
- acute cerebrovascular disease.

**Figure 25. Diagnoses with the Greatest Numbers of In-Hospital Deaths, Delaware Hospitals, 2013**



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

The most frequent causes of in-hospital mortality varied by age group. No diagnosis accounted for the largest number of deaths to those under one, while other injuries and conditions due to external causes caused the highest number of deaths to those ages 1 to 17. Septicemia (except in labor) was the most frequent cause of death for all other age groups.

Patients ages 65 and older accounted for 65.5 percent of all in-hospital mortality. For more information, see Appendices G and H.

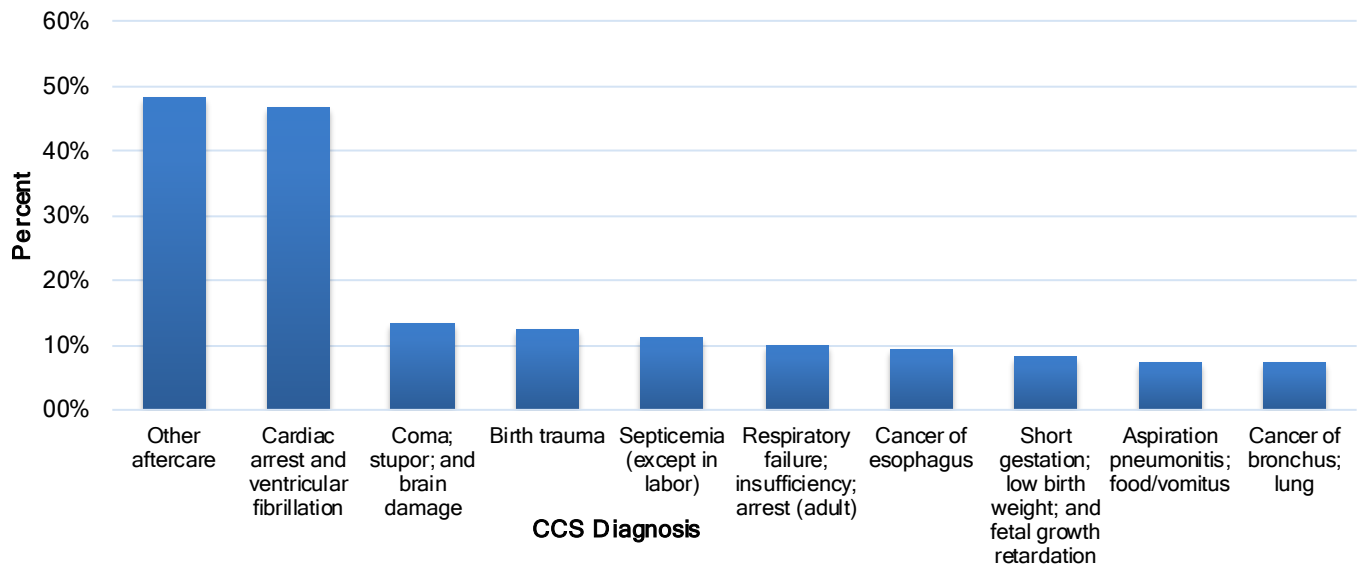
## HOW PATIENTS WERE DISCHARGED

### Percentages

Those diagnoses with the greatest percentages of in-hospital mortality were:

- other aftercare
- cardiac arrest and ventricular fibrillation
- coma; stupor; and brain damage
- birth trauma.

Figure 26. CCS Diagnoses with the Greatest Percent of In-Hospital Mortality, Delaware Hospitals, 2013



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

### Patients who left against medical advice

Less than 1 percent of patients left the hospital against medical advice. Males were twice as likely as females to leave the hospital against medical advice; uninsured patients were about 11 times as likely when compared to privately insured patients.

The three most frequent diagnoses of patients who left the hospital against medical advice were alcohol-related disorders, skin and subcutaneous tissue infections, and diabetes mellitus with complications.

- For women, chronic obstructive pulmonary disease and bronchiectasis, alcohol-related disorders, and skin and subcutaneous tissue infections made up the top three diagnoses.
- For men, alcohol-related disorders, diabetes mellitus with complications, and skin and subcutaneous tissue infections made up the top three diagnoses.

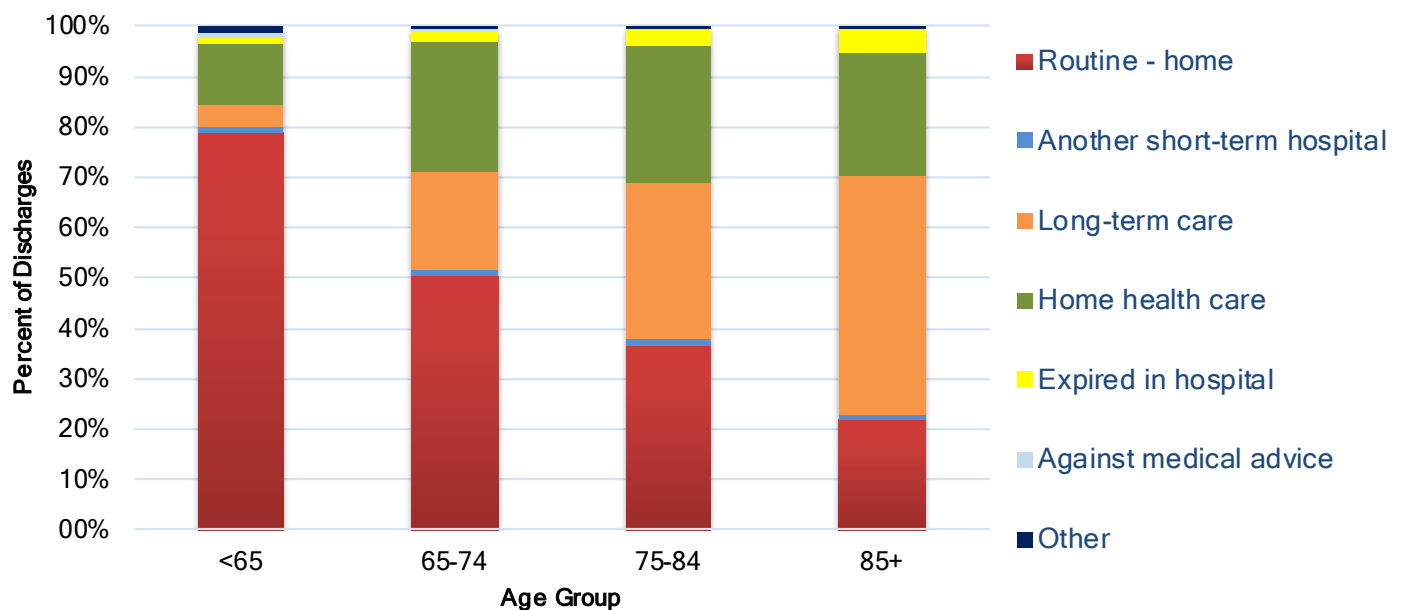


## HOW PATIENTS WERE DISCHARGED

### Patients transferred to another facility

The majority of patients discharged to another facility were transferred to a long-term care (LTC) facility. For those 65 and older, each 10-year increase in patient age saw at least a 10 percent increase in the likelihood of being transferred to LTC facilities. In 2013, around 4 percent of those under 65 were discharged to LTC facilities, compared to 19.1 percent of those ages 65-74, 30.9 percent of those ages 75-84, and 47.5 percent of those 85 and older.

Figure 27. Distribution of Discharge Status by Age Group Delaware Hospitals, 2013



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

In 2013, the most common diagnoses for patients discharged to LTC facilities were; septicemia (except in labor), acute cerebrovascular disease, and osteoarthritis.

- The three most common diagnoses for patients under 65 (excluding liveborn infants) were septicemia (except in labor), acute cerebrovascular disease, and osteoarthritis.
- For patients ages 65-74, septicemia (except in labor), osteoarthritis, and acute cerebrovascular disease were the three most common diagnoses.
- For patients ages 75-84, septicemia (except in labor), acute cerebrovascular disease, and fracture of neck of femur (hip) were the three most common diagnoses.
- For patients 85 and older, fracture of neck of femur (hip), septicemia (except in labor), and pneumonia (except that caused by tuberculosis or STD) were the three most common diagnoses.

## HOSPITAL SPECIFIC DATA

### A.I. duPont Hospital for Children

#### 2013 Discharge Distribution

Zip / State	Number	%
PA	2,611	30.5%
NJ	1,177	13.8%
MD	419	4.9%
19805	413	4.8%
19720	371	4.3%
19702	313	3.7%
19709	221	2.6%
19701	204	2.4%
19713	203	2.4%
19802	203	2.4%
19808	196	2.3%
19711	166	1.9%
19801	141	1.6%
19901	123	1.4%
19904	122	1.4%
19810	121	1.4%
19947	107	1.3%
19977	106	1.2%
Other State	106	1.2%
19803	96	1.1%
19804	95	1.1%
19809	89	1.0%
19703	85	1.0%
19973	77	0.9%
19963	67	0.8%
19956	59	0.7%
19966	50	0.6%
19707	49	0.6%
19734	46	0.5%
19938	40	0.5%
19952	35	0.4%
19960	34	0.4%
19934	33	0.4%
19953	27	0.3%
19943	26	0.3%
19806	24	0.3%
19933	24	0.3%
19962	24	0.3%
19971	24	0.3%
19968	22	0.3%
19958	20	0.2%
19807	19	0.2%
19946	17	0.2%
19941	16	0.2%
19970	16	0.2%
19706	15	0.2%
19950	15	0.2%
19939	13	0.2%
19945	13	0.2%
19940	12	0.1%
19975	12	0.1%
19708	11	0.1%
Undisclosed*	21	0.2%
<b>Total</b>	<b>8,549</b>	<b>100.0%</b>

\*Zip codes with less than 10 cases

#### Utilization Characteristics

	2011	2012	2013
<b>Aggregate charges</b>	\$415,836,086	\$453,606,539	\$471,255,479
<b>Average charges</b>	\$47,628	\$52,549	\$55,124
<b>Average charge per day</b>	\$8,250	\$9,047	\$9,660
<b>Number of Discharges</b>	8,731	8,632	8,549
<b>Total All-listed Procedures<sup>1</sup></b>	10,814	10,986	10,099
<i>Non-operating room procedures<sup>2</sup></i>	5,780	6,041	5,597
<i>Valid operating room procedures<sup>2</sup></i>	5,034	4,945	4,502
<b>Average Length of Stay</b>	5.5	5.5	5.3
<b>Primary Payer Distribution</b>			
<i>Medicare</i>	0.2%	0.3%	0.3%
<i>Medicaid</i>	43.0%	42.3%	43.3%
<i>Private Insurance</i>	54.9%	52.6%	52.1%
<i>Uninsured</i>	0.0%	2.7%	1.9%
<i>Other</i>	1.9%	2.1%	2.4%
<b>Point of Origin Distribution</b>			
<i>Home-Work-etc.</i>	50.5%	53.1%	55.2%
<i>Clinic/Physician Office</i>	32.2%	30.2%	26.0%
<i>Transfers-Health Facility</i>	15.9%	15.3%	18.3%
<i>Newborn</i>	0.0%	0.0%	0.0%
<i>Other/Unknown</i>	1.4%	1.3%	0.5%
<b>Discharge Status Distribution</b>			
<i>Routine - home</i>	90.2%	91.1%	92.9%
<i>Another short-term hospital</i>	0.7%	0.7%	0.5%
<i>Long-term care facility</i>	1.2%	1.3%	1.2%
<i>Home health care</i>	6.6%	5.4%	3.8%
<i>Expired in hospital</i>	0.5%	0.6%	0.5%
<i>Left against medical advice</i>	0.1%	0.2%	0.0%
<i>Other/Unknown</i>	0.7%	0.7%	0.9%
<b>Sex</b>			
<i>Male</i>	54.7%	52.5%	52.6%
<i>Female</i>	45.3%	47.5%	47.4%
<b>Age</b>			
<1	23.5%	21.2%	21.5%
1-4	25.5%	24.8%	24.7%
5-9	16.7%	17.6%	17.8%
10-14	18.3%	19.1%	19.3%
15-19	15.2%	16.5%	15.7%
20-24	0.8%	0.8%	1.0%
25-34	0.0%	0.0%	0.0%
35-44	0.0%	0.0%	0.0%
45-54	0.0%	0.0%	0.0%
55-64	0.0%	0.0%	0.0%
65-74	0.0%	0.0%	0.0%
75+	0.0%	0.0%	0.0%
<i>Unknown</i>	0.0%	0.0%	0.0%

#### Notes:

- Total all-listed procedures represents the total number of procedures performed; up to six procedures may be recorded per discharge, as a result the total number of all-listed procedures can exceed the total number of discharges.
- Procedures were classified using AHRQ's HCUP procedure class software. See AHRQ's website for more information: <http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp>
- Percentages may not sum to 100 due to rounding.

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOSPITAL SPECIFIC DATA

### BayHealth (includes both Milford Memorial and Kent General Hospitals)

#### 2013 Discharge Distribution

Zip / State	Number	%
19901	3,783	18.7%
19904	2,944	14.6%
19963	2,080	10.3%
19977	1,645	8.1%
19934	1,164	5.8%
19943	1,134	5.6%
19952	962	4.8%
19962	889	4.4%
19960	532	2.6%
19938	488	2.4%
19946	457	2.3%
19950	421	2.1%
MD	412	2.0%
19953	381	1.9%
19947	334	1.7%
19968	226	1.1%
19966	196	1.0%
Other State	195	1.0%
19941	188	0.9%
19734	179	0.9%
19933	161	0.8%
19954	156	0.8%
19958	136	0.7%
19709	135	0.7%
19964	129	0.6%
19973	129	0.6%
19979	77	0.4%
19936	66	0.3%
19971	63	0.3%
PA	62	0.3%
19956	59	0.3%
19903	49	0.2%
NJ	44	0.2%
19980	37	0.2%
19945	31	0.2%
19955	29	0.1%
19720	28	0.1%
19939	24	0.1%
19970	24	0.1%
19702	23	0.1%
19701	22	0.1%
19902	16	0.1%
19940	15	0.1%
19975	14	0.1%
19951	11	0.1%
Undisclosed*	83	0.4%

Total 20,233 100.0%

\*Zip codes with less than 10 cases

#### Utilization Characteristics

	2011	2012	2013
<b>Aggregate charges</b>	\$417,751,170	\$472,916,209	\$482,847,351
<b>Average charges</b>	\$21,642	\$23,414	\$23,864
<b>Average charge per day</b>	\$5,388	\$6,095	\$6,145
<b>Number of Discharges</b>	19,303	20,198	20,233
<b>Total All-listed Procedures<sup>1</sup></b>	18,246	19,934	20,010
<i>Non-operating room procedures<sup>2</sup></i>	12,104	13,017	13,364
<i>Valid operating room procedures<sup>2</sup></i>	6,142	6,917	6,646
<b>Average Length of Stay</b>	4.8	5.0	4.9
<b>Primary Payer Distribution</b>			
<i>Medicare</i>	43.4%	45.6%	46.4%
<i>Medicaid</i>	24.4%	24.3%	24.2%
<i>Private Insurance</i>	23.1%	21.3%	20.7%
<i>Uninsured</i>	3.4%	2.5%	3.2%
<i>Other</i>	5.8%	6.3%	5.5%
<b>Point of Origin Distribution</b>			
<i>Home-Work-etc.</i>	80.5%	82.2%	82.9%
<i>Clinic/Physician Office</i>	6.9%	5.7%	5.2%
<i>Transfers-Health Facility</i>	0.8%	0.9%	1.0%
<i>Newborn</i>	11.2%	11.1%	11.0%
<i>Other/Unknown</i>	.6%	.0%	.0%
<b>Discharge Status Distribution</b>			
<i>Routine - home</i>	68.3%	67.7%	65.1%
<i>Another short-term hospital</i>	2.7%	3.0%	3.0%
<i>Long-term care facility</i>	13.2%	13.7%	14.0%
<i>Home health care</i>	12.0%	11.5%	14.1%
<i>Expired in hospital</i>	1.9%	2.1%	2.0%
<i>Left against medical advice</i>	0.9%	1.2%	1.0%
<i>Other/Unknown</i>	1.0%	0.9%	0.8%
<b>Sex</b>			
<i>Male</i>	41.1%	42.0%	41.6%
<i>Female</i>	58.9%	58.0%	58.4%
<b>Age</b>			
<1	13.1%	12.2%	12.0%
1-4	1.1%	0.7%	0.6%
5-9	0.4%	0.4%	0.4%
10-14	0.4%	0.3%	0.2%
15-19	1.9%	1.7%	1.5%
20-24	5.1%	5.0%	5.1%
25-34	10.2%	9.7%	9.8%
35-44	6.4%	6.2%	6.5%
45-54	11.1%	11.6%	10.8%
55-64	13.0%	13.0%	13.5%
65-74	15.6%	16.7%	16.8%
75+	21.9%	22.5%	22.9%

#### Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to six procedures may be recorded per discharge, as a result the total number of all-listed procedures can exceed the total number of discharges.

2. Procedures were classified using AHRQ's HCUP procedure class software. See AHRQ's website for more information: <http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp>.

3. Percentages may not sum to 100 due to rounding.

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOSPITAL SPECIFIC DATA

### Beebe Medical Center

#### 2013 Discharge Distribution

Zip / State	Number	%
19966	2,311	22.7%
19958	1,996	19.6%
19971	911	9.0%
19947	896	8.8%
19968	700	6.9%
19970	419	4.1%
19945	396	3.9%
19939	339	3.3%
19963	204	2.0%
19975	194	1.9%
MD	180	1.8%
19973	179	1.8%
19930	136	1.3%
19951	134	1.3%
PA	132	1.3%
19960	119	1.2%
Other State	118	1.2%
19941	112	1.1%
19956	102	1.0%
19933	81	0.8%
19950	81	0.8%
19952	67	0.7%
19967	32	0.3%
19943	28	0.3%
19901	25	0.2%
19904	24	0.2%
NJ	23	0.2%
19940	22	0.2%
19944	17	0.2%
19969	17	0.2%
19946	16	0.2%
19977	12	0.1%
19808	11	0.1%
19954	11	0.1%
19720	10	0.1%
19934	10	0.1%
Undisclosed*	103	1.0%
<b>Total</b>	<b>10,168</b>	<b>100.0%</b>

\*Zip codes with less than 10 cases

#### Utilization Characteristics

	2011	2012	2013
<b>Aggregate charges</b>	\$300,087,820	\$324,736,166	\$343,490,741
<b>Average charges</b>	\$31,672	\$33,002	\$33,782
<b>Average charge per day</b>	\$9,165	\$9,724	\$9,948
<b>Number of Discharges</b>	9,475	9,840	10,168
<b>Total All-listed Procedures<sup>1</sup></b>	13,850	14,468	15,099
<i>Non-operating room procedures<sup>2</sup></i>	8,545	9,075	9,728
<i>Valid operating room procedures<sup>2</sup></i>	5,305	5,393	5,371
<b>Average Length of Stay</b>	4.0	3.9	3.9
<b>Primary Payer Distribution</b>			
<i>Medicare</i>	52.6%	52.0%	55.6%
<i>Medicaid</i>	18.1%	18.5%	17.2%
<i>Private Insurance</i>	25.5%	25.3%	23.6%
<i>Uninsured</i>	2.6%	2.8%	2.4%
<i>Other</i>	1.2%	1.4%	1.1%
<b>Point of Origin Distribution</b>			
<i>Home-Work-etc.</i>	30.9%	31.4%	28.9%
<i>Clinic/Physician Office</i>	60.7%	59.3%	62.8%
<i>Transfers-Health Facility</i>	0.1%	0.1%	0.0%
<i>Newborn</i>	8.4%	9.2%	8.3%
<i>Other/Unknown</i>	0.0%	0.0%	0.1%
<b>Discharge Status Distribution</b>			
<i>Routine - home</i>	58.9%	58.4%	57.5%
<i>Another short-term hospital</i>	1.4%	1.8%	1.8%
<i>Long-term care facility</i>	16.7%	17.2%	17.7%
<i>Home health care</i>	19.1%	19.1%	19.6%
<i>Expired in hospital</i>	2.3%	2.0%	1.9%
<i>Left against medical advice</i>	0.6%	0.6%	0.6%
<i>Other/Unknown</i>	1.0%	0.9%	1.0%
<b>Sex</b>			
<i>Male</i>	45.3%	44.8%	45.8%
<i>Female</i>	54.7%	55.2%	54.2%
<b>Age</b>			
<1	9.1%	9.5%	8.4%
1-4	0.2%	0.2%	0.1%
5-9	0.3%	0.1%	0.1%
10-14	0.1%	0.1%	0.1%
15-19	1.0%	1.1%	0.9%
20-24	3.4%	3.5%	2.7%
25-34	7.6%	7.3%	7.6%
35-44	5.6%	5.1%	4.6%
45-54	9.8%	9.6%	9.1%
55-64	15.0%	14.7%	14.4%
65-74	20.3%	20.3%	23.5%
75+	27.7%	28.5%	28.6%

#### Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to six procedures may be recorded per discharge, as a result the total number of all-listed procedures can exceed the total number of discharges.

2. Procedures were classified using AHRQ's HCUP procedure class software. See AHRQ's website for more information: <http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp>

3. Percentages may not sum to 100 due to rounding.

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOSPITAL SPECIFIC DATA

### Christiana Care Health System (includes both Wilmington and Christiana Hospitals)

#### 2013 Discharge Distribution

Zip / State	Number	%
19720	6,251	10.7%
19702	4,082	7.0%
19808	3,733	6.4%
19805	3,645	6.2%
19713	3,404	5.8%
19711	3,352	5.7%
19701	3,256	5.6%
MD	3,012	5.1%
19802	2,930	5.0%
19709	2,800	4.8%
PA	2,445	4.2%
19804	1,965	3.4%
19801	1,858	3.2%
19810	1,778	3.0%
NJ	1,737	3.0%
19803	1,708	2.9%
19707	1,150	2.0%
19809	1,095	1.9%
19703	1,061	1.8%
19806	974	1.7%
19734	813	1.4%
19977	766	1.3%
19807	567	1.0%
Other State	435	0.7%
19901	358	0.6%
19904	342	0.6%
19706	295	0.5%
19938	275	0.5%
19973	188	0.3%
19966	176	0.3%
19963	172	0.3%
19958	170	0.3%
19934	143	0.2%
19971	117	0.2%
19947	109	0.2%
19943	103	0.2%
19968	89	0.2%
19956	86	0.1%
19952	85	0.1%
19962	75	0.1%
19933	73	0.1%
19950	55	0.1%
19953	54	0.1%
19730	51	0.1%
19939	48	0.1%
19945	48	0.1%
19714	45	0.1%
19970	45	0.1%
19899	41	0.1%
19946	39	0.1%
19960	38	0.1%
19733	29	0.0%
19941	26	0.0%
19975	26	0.0%
19964	23	0.0%
19951	22	0.0%
19850	21	0.0%
19731	20	0.0%
19736	20	0.0%
19712	17	0.0%
19940	16	0.0%
19954	16	0.0%
19930	15	0.0%
19710	12	0.0%
19936	12	0.0%
19979	10	0.0%
Undisclosed*	90	0.2%

Total 58,512 100.0%

\*Zip codes with less than 10 cases

#### Utilization Characteristics

	2011	2012	2013
<b>Aggregate charges</b>	\$1,359,896,660	\$1,296,911,416	\$1,126,291,531
<b>Average charges</b>	\$23,066	\$22,067	\$19,249
<b>Average charge per day</b>	\$6,078	\$5,716	\$4,506
<b>Number of Discharges</b>	58,957	58,771	58,512
<b>Total All-listed Procedures<sup>1</sup></b>	129,667	125,901	127,752
<i>Non-operating room procedures<sup>2</sup></i>	99,491	95,950	96,643
<i>Valid operating room procedures<sup>2</sup></i>	30,176	29,951	31,109
<b>Average Length of Stay</b>	4.9	4.8	4.9
<b>Primary Payer Distribution</b>			
<i>Medicare</i>	42.3%	42.0%	43.2%
<i>Medicaid</i>	22.1%	16.1%	18.2%
<i>Private Insurance</i>	31.7%	22.0%	33.0%
<i>Uninsured</i>	2.3%	2.4%	3.5%
<i>Other</i>	1.6%	17.5%	2.1%
<b>Point of Origin Distribution</b>			
<i>Home-Work-etc.</i>	62.3%	62.3%	64.3%
<i>Clinic/Physician Office</i>	23.4%	23.4%	21.8%
<i>Transfers-Health Facility</i>	2.7%	3.3%	3.0%
<i>Newborn</i>	11.6%	11.0%	10.9%
<i>Other/Unknown</i>	.0%	.0%	.0%
<b>Discharge Status Distribution</b>			
<i>Routine - home</i>	63.9%	64.0%	62.3%
<i>Another short-term hospital</i>	1.7%	1.3%	0.5%
<i>Long-term care facility</i>	10.4%	10.9%	13.6%
<i>Home health care</i>	19.2%	19.5%	20.5%
<i>Expired in hospital</i>	3.4%	2.6%	1.5%
<i>Left against medical advice</i>	0.6%	0.7%	0.7%
<i>Other/Unknown</i>	0.8%	1.0%	1.1%
<b>Sex</b>			
<i>Male</i>	40.6%	40.9%	41.5%
<i>Female</i>	59.4%	59.1%	58.5%
<b>Age</b>			
<1	11.8%	11.2%	11.1%
1-4	0.1%	0.1%	0.1%
5-9	0.1%	0.1%	0.0%
10-14	0.1%	0.1%	0.1%
15-19	1.7%	1.5%	1.3%
20-24	4.2%	4.1%	4.0%
25-34	11.8%	11.8%	11.3%
35-44	9.0%	8.4%	8.3%
45-54	12.3%	12.8%	11.7%
55-64	14.4%	14.5%	14.8%
65-74	13.5%	14.2%	15.5%
75+	21.0%	21.1%	21.7%

#### Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to six procedures may be recorded per discharge, as a result the total number of all-listed procedures can exceed the total number of discharges.

2. Procedures were classified using AHRQ's HCUP procedure class software. See AHRQ's website for more information: <http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp>.

3. Percentages may not sum to 100 due to rounding.

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOSPITAL SPECIFIC DATA

### Nanticoke Memorial Hospital

#### 2013 Discharge Distribution

Zip / State	Number	%
19973	2,229	35.8%
19956	1,063	17.1%
19947	652	10.5%
19933	641	10.3%
MD	355	5.7%
19950	271	4.3%
19966	261	4.2%
19940	213	3.4%
19945	71	1.1%
19975	68	1.1%
19963	61	1.0%
19952	38	0.6%
Other State	37	0.6%
19939	35	0.6%
19960	30	0.5%
19904	24	0.4%
19968	22	0.4%
19941	20	0.3%
19901	16	0.3%
19943	16	0.3%
19971	16	0.3%
19958	12	0.2%
PA	11	0.2%
NJ	8	0.1%
Undisclosed*	62	1.0%
<b>Total</b>	<b>6,232</b>	<b>100.0%</b>

\*Zip codes with less than 10 cases

#### Utilization Characteristics

	2011	2012	2013
<b>Aggregate charges</b>	\$97,696,138	\$95,314,614	\$108,338,052
<b>Average charges</b>	\$16,469	\$15,833	\$17,384
<b>Average charge per day</b>	\$5,058	\$5,034	\$5,103
<b>Number of Discharges</b>	5,932	6,020	6,232
<b>Total All-listed Procedures<sup>1</sup></b>	11,649	11,498	11,958
<i>Non-operating room procedures<sup>2</sup></i>	9,937	9,818	10,259
<i>Valid operating room procedures<sup>2</sup></i>	1,712	1,680	1,699
<b>Average Length of Stay</b>	3.6	3.4	3.6
<b>Primary Payer Distribution</b>			
<i>Medicare</i>	42.7%	43.8%	45.6%
<i>Medicaid</i>	34.5%	34.4%	32.0%
<i>Private Insurance</i>	16.6%	16.7%	16.9%
<i>Uninsured</i>	2.5%	3.0%	3.5%
<i>Other</i>	3.6%	2.1%	1.9%
<b>Point of Origin Distribution</b>			
<i>Home-Work-etc.</i>	66.7%	63.7%	64.9%
<i>Clinic/Physician Office</i>	20.0%	23.3%	22.3%
<i>Transfers-Health Facility</i>	0.0%	0.0%	0.0%
<i>Newborn</i>	13.3%	13.0%	12.8%
<i>Other/Unknown</i>	0.0%	0.0%	0.0%
<b>Discharge Status Distribution</b>			
<i>Routine - home</i>	66.7%	67.6%	62.9%
<i>Another short-term hospital</i>	3.2%	3.3%	2.9%
<i>Long-term care facility</i>	14.5%	13.9%	16.6%
<i>Home health care</i>	12.6%	11.9%	13.2%
<i>Expired in hospital</i>	1.4%	1.2%	1.9%
<i>Left against medical advice</i>	0.7%	0.8%	0.9%
<i>Other/Unknown</i>	0.9%	1.3%	1.6%
<b>Sex</b>			
<i>Male</i>	40.7%	41.6%	39.5%
<i>Female</i>	59.3%	58.4%	60.5%
<b>Age</b>			
<1	15.2%	15.6%	14.8%
1-4	0.5%	0.7%	0.6%
5-9	0.4%	0.5%	0.4%
10-14	0.2%	0.2%	0.1%
15-19	2.1%	2.1%	2.0%
20-24	5.9%	5.4%	4.7%
25-34	9.4%	10.2%	10.5%
35-44	6.5%	6.3%	5.8%
45-54	9.3%	9.7%	8.8%
55-64	13.6%	13.1%	13.4%
65-74	13.8%	14.1%	15.1%
75+	23.1%	22.0%	23.8%

#### Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to six procedures may be recorded per discharge, as a result the total number of all-listed procedures can exceed the total number of discharges.

2. Procedures were classified using AHRQ's HCUP procedure class software. See AHRQ's website for more information: <http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp>.

3. Percentages may not sum to 100 due to rounding.

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center



## HOSPITAL SPECIFIC DATA

### St. Francis Hospital

#### 2013 Discharge Distribution

Zip / State	Number	%
19805	1,594	27.4%
19802	615	10.6%
19801	536	9.2%
19720	497	8.6%
19806	327	5.6%
19804	218	3.8%
19803	215	3.7%
19703	214	3.7%
19808	213	3.7%
19810	200	3.4%
19702	166	2.9%
19809	155	2.7%
PA	118	2.0%
19701	99	1.7%
19713	97	1.7%
19711	85	1.5%
19707	70	1.2%
Other State	62	1.1%
NJ	52	0.9%
19709	47	0.8%
MD	45	0.8%
19807	43	0.7%
19901	20	0.3%
19734	16	0.3%
19977	15	0.3%
19706	14	0.2%
19904	10	0.2%
Undisclosed*	64	1.1%
<b>Total</b>	<b>5,807</b>	<b>100.0%</b>

\*Zip codes with less than 10 cases

#### Utilization Characteristics

	2011	2012	2013
<b>Aggregate charges</b>	\$161,634,644	\$159,643,186	\$153,277,399
<b>Average charges</b>	\$22,368	\$23,974	\$26,395
<b>Average charge per day</b>	\$7,174	\$7,519	\$7,604
<b>Number of Discharges</b>	7,226	6,659	5,807
<b>Total All-listed Procedures<sup>1</sup></b>	7,275	6,996	6,063
<i>Non-operating room procedures<sup>2</sup></i>	4,789	4,724	4,021
<i>Valid operating room procedures<sup>2</sup></i>	2,486	2,272	2,042
<b>Average Length of Stay</b>	3.9	3.8	4.3
<b>Primary Payer Distribution</b>			
<i>Medicare</i>	37.2%	36.1%	36.2%
<i>Medicaid</i>	20.3%	28.5%	31.2%
<i>Private Insurance</i>	37.4%	29.2%	27.0%
<i>Uninsured</i>	3.1%	5.6%	4.9%
<i>Other</i>	1.9%	0.6%	0.7%
<b>Point of Origin Distribution</b>			
<i>Home-Work-etc.</i>	82.1%	81.2%	82.5%
<i>Clinic/Physician Office</i>	1.4%	1.5%	0.6%
<i>Transfers-Health Facility</i>	5.2%	4.9%	3.4%
<i>Newborn</i>	9.8%	9.8%	12.1%
<i>Other/Unknown</i>	1.4%	2.6%	1.4%
<b>Discharge Status Distribution</b>			
<i>Routine - home</i>	64.5%	62.9%	60.6%
<i>Another short-term hospital</i>	1.3%	1.5%	2.1%
<i>Long-term care facility</i>	12.1%	12.1%	12.6%
<i>Home health care</i>	13.8%	15.3%	17.3%
<i>Expired in hospital</i>	5.4%	5.2%	3.7%
<i>Left against medical advice</i>	1.7%	2.0%	1.8%
<i>Other/Unknown</i>	1.2%	1.1%	1.9%
<b>Sex</b>			
<i>Male</i>	38.8%	39.4%	39.2%
<i>Female</i>	61.2%	60.6%	60.8%
<b>Age</b>			
<1	10.0%	11.1%	12.3%
1-4	0.0%	0.0%	0.0%
5-9	0.0%	0.0%	0.0%
10-14	0.0%	0.0%	0.0%
15-19	1.5%	1.3%	1.6%
20-24	4.3%	4.1%	4.4%
25-34	10.8%	12.1%	12.7%
35-44	10.7%	9.7%	9.3%
45-54	14.4%	14.9%	13.8%
55-64	14.1%	13.7%	14.4%
65-74	11.9%	12.2%	12.5%
75+	22.3%	20.9%	19.0%

#### Notes:

- Total all-listed procedures represents the total number of procedures performed; up to six procedures may be recorded per discharge, as a result the total number of all-listed procedures can exceed the total number of discharges.
- Procedures were classified using AHRQ's HCUP procedure class software. See AHRQ's website for more information: <http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp>.
- Percentages may not sum to 100 due to rounding.
- St. Francis hospital does not operate a pediatric service. ER patients are admitted at Al Dupont.

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## HOSPITAL SPECIFIC DATA

### Select Specialty Hospital - Wilmington

#### 2013 Discharge Distribution

Zip / State	Number	%
19720	22	8.8%
MD	19	7.6%
19805	14	5.6%
19808	12	4.8%
19711	10	4.0%
19802	10	4.0%
PA	9	3.6%
NJ	8	3.2%
Undisclosed*	146	58.4%
<b>Total</b>	<b>250</b>	<b>100.0%</b>

\*Zip codes with less than 10 cases

#### Utilization Characteristics

	2011	2012	2013
<b>Aggregate charges</b>	\$35,663,288	\$39,836,974	\$29,736,447
<b>Average charges</b>	\$104,584	\$129,762	\$118,946
<b>Average charge per day</b>	\$3,746	\$3,910	\$4,225
<b>Number of Discharges</b>	341	307	250
<b>Total All-listed Procedures<sup>1</sup></b>	630	541	566
<i>Non-operating room procedures<sup>2</sup></i>	579	467	505
<i>Valid operating room procedures<sup>2</sup></i>	51	74	61
<b>Average Length of Stay</b>	28.0	32.1	28.5
<b>Primary Payer Distribution</b>			
<i>Medicare</i>	80.1%	76.5%	78.8%
<i>Medicaid</i>	0.6%	0.3%	1.2%
<i>Private Insurance</i>	18.5%	21.5%	19.6%
<i>Uninsured</i>	0.0%	0.0%	0.0%
<i>Other</i>	0.9%	1.6%	0.4%
<b>Point of Origin Distribution</b>			
<i>Home-Work-etc.</i>	0.0%	0.0%	0.0%
<i>Clinic/Physician Office</i>	0.3%	0.0%	0.0%
<i>Transfers-Health Facility</i>	99.7%	99.3%	100.0%
<i>Newborn</i>	0.0%	0.0%	0.0%
<i>Other/Unknown</i>	0.0%	0.7%	0.0%
<b>Discharge Status Distribution</b>			
<i>Routine - home</i>	5.6%	5.5%	6.4%
<i>Another short-term hospital</i>	11.7%	10.4%	10.4%
<i>Long-term care facility</i>	49.0%	50.8%	56.4%
<i>Home health care</i>	24.3%	24.8%	19.6%
<i>Expired in hospital</i>	8.8%	6.8%	6.0%
<i>Left against medical advice</i>	0.6%	1.3%	0.4%
<i>Other/Unknown</i>	0.0%	0.3%	0.8%
<b>Sex</b>			
<i>Male</i>	47.5%	49.8%	53.2%
<i>Female</i>	52.5%	50.2%	46.8%
<i>Unknown</i>	0.0%	0.0%	0.0%
<b>Age</b>			
<i>&lt;1</i>	0.0%	0.0%	0.0%
<i>1-4</i>	0.0%	0.0%	0.0%
<i>5-9</i>	0.0%	0.0%	0.0%
<i>10-14</i>	0.0%	0.0%	0.0%
<i>15-19</i>	0.6%	0.0%	0.0%
<i>20-24</i>	0.3%	0.3%	0.4%
<i>25-34</i>	0.9%	2.6%	4.0%
<i>35-44</i>	3.5%	4.2%	3.2%
<i>45-54</i>	12.9%	15.3%	12.4%
<i>55-64</i>	18.8%	24.4%	25.2%
<i>65-74</i>	26.7%	26.4%	28.4%
<i>75+</i>	36.4%	26.7%	26.4%

#### Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to six procedures may be recorded per discharge, as a result the total number of all-listed procedures can exceed the total number of discharges.

2. Procedures were classified using AHRQ's HCUP procedure class software. See AHRQ's website for more information: <http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp>.

3. Percentages may not sum to 100 due to rounding.

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center



## APPENDIX A

### Clinical classification system

Diagnoses and procedures were reported using the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM). These codes were then aggregated into broader diagnostic categories according to the Clinical Classification System (CCS) developed by the Agency of Healthcare Research and Quality (AHRQ). The CCS diagnoses are used to categorize clinically similar diagnoses for ease in presentation and interpretation of hospital discharge data. A complete listing of CCS diagnostic codes and selected corresponding measures are presented below.

### Number and Percent of Discharges, Mean Length of Stay, Mean Charges, Percent Expired, and Percent with an Emergency Priority at Admission by Principal Diagnosis Delaware Hospitals, 2013

Clinical Classifications Software Categories and Chapter Headings		Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergency Priority
<b>Infections and parasitic diseases</b>	Tuberculosis	12	0.3%	11.6	\$28,267	0.0%	91.7%
	Septicemia (except in labor)	3,409	82.6%	8.7	\$44,139	11.4%	83.0%
	Bacterial infection; unspecified site	29	0.7%	8.4	\$72,587	3.4%	72.4%
	Mycoses	76	1.8%	8.8	\$42,252	3.9%	85.5%
	HIV infection	130	3.1%	8.0	\$34,011	2.3%	86.9%
	Hepatitis	84	2.0%	6.3	\$35,554	2.4%	79.8%
	Viral infection	270	6.5%	3.4	\$16,576	0.4%	80.0%
	Other infections; including parasitic	97	2.3%	4.5	\$23,194	2.1%	83.5%
	Sexually transmitted infections (not HIV or hepatitis)	15	0.4%	3.9	\$14,382	0.0%	80.0%
	Immunizations and screening for infectious disease	7	0.2%	2.4	\$15,017	0.0%	100.0%
	<b>Total</b>	<b>4,129</b>	<b>100.0%</b>	<b>8.1</b>	<b>\$41,313</b>	<b>9.7%</b>	<b>82.9%</b>
<b>Neoplasms</b>	Cancer of head and neck	77	1.9%	7.5	\$30,812	1.3%	39.0%
	Cancer of esophagus	32	0.8%	9.2	\$47,259	9.4%	68.8%
	Cancer of stomach	70	1.7%	8.0	\$39,787	1.4%	62.9%
	Cancer of colon	262	6.3%	8.2	\$45,244	3.1%	34.0%
	Cancer of rectum and anus	100	2.4%	7.1	\$37,503	1.0%	24.0%
	Cancer of liver and intrahepatic bile duct	60	1.5%	6.4	\$34,748	3.3%	85.0%
	Cancer of pancreas	120	2.9%	7.6	\$35,253	5.8%	60.8%
	Cancer of other GI organs; peritoneum	64	1.5%	9.9	\$58,445	3.1%	56.3%
	Cancer of bronchus; lung	405	9.8%	6.6	\$38,134	7.2%	57.3%
	Cancer; other respiratory and intrathoracic	1	0.0%	2.0	\$11,768	0.0%	0.0%
	Cancer of bone and connective tissue	36	0.9%	5.8	\$30,147	2.8%	44.4%
	Melanomas of skin	13	0.3%	3.4	\$10,858	0.0%	53.8%
	Other non-epithelial cancer of skin	27	0.7%	2.0	\$9,699	0.0%	48.1%
	Cancer of breast	146	3.5%	3.2	\$21,844	2.1%	36.3%
	Cancer of uterus	117	2.8%	3.9	\$21,476	0.0%	23.1%
	Cancer of cervix	27	0.7%	4.7	\$16,642	3.7%	48.1%
	Cancer of ovary	70	1.7%	6.7	\$36,808	0.0%	37.1%
	Cancer of other female genital organs	29	0.7%	3.1	\$22,473	3.4%	17.2%
	Cancer of prostate	70	1.7%	5.7	\$38,526	0.0%	28.6%
	Cancer of testis	1	0.0%	16.0	\$88,592	0.0%	100.0%
	Cancer of other male genital organs	0	0.0%	N/A	N/A	N/A	N/A
	Cancer of bladder	64	1.5%	5.9	\$32,701	3.1%	50.0%
	Cancer of kidney and renal pelvis	102	2.5%	5.1	\$36,247	1.0%	15.7%
	Cancer of other urinary organs	8	0.2%	3.8	\$32,995	0.0%	12.5%
	Cancer of brain and nervous system	82	2.0%	7.2	\$50,391	1.2%	59.8%
	Cancer of thyroid	42	1.0%	1.4	\$7,872	0.0%	28.6%
	Hodgkin's disease	6	0.1%	12.8	\$78,080	0.0%	66.7%

APPENDIX A

Clinical Classifications Software Categories and Chapter Headings		Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergency Priority
	Non-Hodgkin's lymphoma	117	2.8%	9.2	\$53,239	1.7%	62.4%
	Leukemias	122	3.0%	16.2	\$143,480	5.7%	51.6%
	Multiple myeloma	52	1.3%	11.6	\$64,932	5.8%	69.2%
	Cancer, other and unspecified primary	17	0.4%	11.6	\$88,868	0.0%	35.3%
	Secondary malignancies	543	13.1%	6.2	\$28,995	3.9%	67.6%
	Malignant neoplasm without specification of site	20	0.5%	9.3	\$42,736	5.0%	65.0%
	Neoplasms of unspecified nature or uncertain behavior	141	3.4%	4.9	\$29,791	2.8%	51.1%
	Maintenance chemotherapy; radiotherapy	337	8.2%	4.7	\$29,514	0.0%	5.3%
	Benign neoplasm of uterus	328	7.9%	2.4	\$16,076	0.0%	9.8%
	Other and unspecified benign neoplasm	425	10.3%	4.4	\$27,851	0.5%	22.6%
	<b>Total</b>	<b>4,133</b>	<b>100.0%</b>	<b>6.1</b>	<b>\$36,027</b>	<b>2.5%</b>	<b>40.5%</b>
<b>Endocrine, nutritional &amp; metabolic diseases, &amp; immunity disorders</b>	Thyroid disorders	153	3.5%	2.5	\$10,306	1.3%	52.9%
	Diabetes mellitus without complication	87	2.0%	2.8	\$12,744	0.0%	86.2%
	Diabetes mellitus with complications	1,793	41.5%	5.2	\$21,389	0.3%	84.8%
	Other endocrine disorders	191	4.4%	4.6	\$18,663	0.5%	79.1%
	Nutritional deficiencies	35	0.8%	8.5	\$29,948	5.7%	77.1%
	Disorders of lipid metabolism	9	0.2%	4.0	\$11,587	0.0%	100.0%
	Gout and other crystal arthropathies	79	1.8%	4.5	\$17,386	1.3%	82.3%
	Fluid and electrolyte disorders	1,132	26.2%	3.7	\$15,436	1.5%	83.1%
	Cystic fibrosis	36	0.8%	7.7	\$61,488	0.0%	38.9%
	Immunity disorders	2	0.0%	51.0	\$379,916	0.0%	50.0%
	Other nutritional; endocrine; and metabolic disorders	802	18.6%	3.1	\$27,272	0.2%	18.1%
<b>Total</b>	<b>4,319</b>	<b>100.0%</b>	<b>4.3</b>	<b>\$20,710</b>	<b>0.7%</b>	<b>70.2%</b>	
<b>Disease of the blood and blood forming organs</b>	Deficiency and other anemia	578	42.4%	4.7	\$24,262	0.9%	76.3%
	Acute posthemorrhagic anemia	142	10.4%	4.1	\$19,431	2.1%	74.6%
	Sickle cell anemia	336	24.6%	4.7	\$22,273	0.0%	88.4%
	Coagulation and hemorrhagic disorders	126	9.2%	3.6	\$44,513	0.0%	62.7%
	Diseases of white blood cells	159	11.7%	5.7	\$32,942	2.5%	68.6%
	Other hematologic conditions	23	1.7%	5.9	\$28,680	0.0%	60.9%
	<b>Total</b>	<b>1,364</b>	<b>100.0%</b>	<b>4.7</b>	<b>\$26,226</b>	<b>0.9%</b>	<b>76.7%</b>
<b>Mental disorders</b>	Adjustment disorders	7	0.3%	4.9	\$21,020	0.0%	100.0%
	Anxiety disorders	48	1.9%	2.8	\$9,003	0.0%	91.7%
	Attention-deficit	0	0.0%	N/A	N/A	N/A	N/A
	Delirium	179	7.0%	9.1	\$18,807	0.6%	93.9%
	Developmental disorders	7	0.3%	2.7	\$11,526	0.0%	85.7%
	Disorders usually diagnosed in infancy	6	0.2%	3.2	\$11,149	0.0%	100.0%
	Impulse control disorders	1	0.0%	8.0	\$58,095	0.0%	0.0%
	Mood disorders	845	33.0%	6.6	\$10,683	0.1%	98.6%
	Personality disorders	4	0.2%	2.8	\$11,360	0.0%	75.0%
	Schizophrenia and other psychotic disorders	202	7.9%	8.4	\$14,944	0.0%	98.5%
	Alcohol-related disorders	580	22.7%	4.8	\$15,043	0.2%	90.2%
	Substance-related disorders	353	13.8%	5.1	\$19,320	1.7%	83.0%
	Screening and history of mental health and substance abuse codes	174	6.8%	5.8	\$23,260	3.4%	89.7%
	Miscellaneous disorders	154	6.0%	3.2	\$11,211	0.0%	70.1%
	<b>Total</b>	<b>2,560</b>	<b>100.0%</b>	<b>5.9</b>	<b>\$14,672</b>	<b>0.6%</b>	<b>91.6%</b>
<b>Diseases of the nervous system and sense organs</b>	Meningitis (except that caused by tuberculosis or STD)	140	4.2%	3.9	\$18,219	0.0%	85.0%
	Encephalitis (except that caused by tuberculosis or STD)	39	1.2%	7.5	\$32,454	0.0%	82.1%
	Other CNS infection and poliomyelitis	29	0.9%	11.1	\$49,547	0.0%	75.9%
	Parkinson's disease	20	0.6%	6.4	\$14,668	0.0%	100.0%
	Multiple sclerosis	86	2.6%	5.1	\$16,154	0.0%	84.9%
	Other hereditary and degenerative nervous system	158	4.8%	8.8	\$56,562	1.9%	58.9%
	Paralysis	58	1.8%	6.4	\$94,675	0.0%	13.8%
	Epilepsy; convulsions	1,020	30.9%	3.9	\$21,553	0.5%	80.4%
	Headache; including migraine	339	10.3%	2.5	\$10,446	0.0%	92.3%
	Coma; stupor; and brain damage	52	1.6%	6.6	\$25,020	13.5%	84.6%

APPENDIX A

Clinical Classifications Software Categories and Chapter Headings		Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergency Priority
	Cataract	0	0.0%	N/A	N/A	N/A	N/A
	Retinal detachments; defects; vascular occlusion; and retinopathy	9	0.3%	4.4	\$28,700	0.0%	77.8%
	Glaucoma	0	0.0%	N/A	N/A	N/A	N/A
	Blindness and vision defects	25	0.8%	2.2	\$11,515	0.0%	84.0%
	Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitted disease)	67	2.0%	3.2	\$14,155	0.0%	83.6%
	Other eye disorders	29	0.9%	2.3	\$13,016	0.0%	89.7%
	Otitis media and related conditions	49	1.5%	2.8	\$17,553	0.0%	61.2%
	Conditions associated with dizziness or vertigo	197	6.0%	2.2	\$7,631	0.0%	91.9%
	Other ear and sense organ disorders	49	1.5%	2.7	\$12,543	0.0%	83.7%
	Other nervous system disorders	939	28.4%	5.1	\$29,319	0.9%	71.0%
	<b>Total</b>	<b>3,305</b>	<b>100.0%</b>	<b>4.4</b>	<b>\$24,379</b>	<b>0.7%</b>	<b>77.9%</b>
<b>Diseases of the circulatory system</b>	Heart valve disorders	340	2.1%	8.4	\$115,115	2.9%	34.7%
	Peri-, endo-, and myocarditis; cardiomyopathy (except that caused by tuberculosis or STD)	253	1.5%	9.7	\$92,925	3.6%	68.4%
	Essential hypertension	138	0.8%	2.7	\$10,956	0.7%	96.4%
	Hypertension with complications and secondary	689	4.2%	4.9	\$26,559	0.7%	89.8%
	Acute myocardial infarction	1,807	10.9%	4.4	\$48,499	4.8%	78.3%
	Coronary atherosclerosis and other heart disease	1,286	7.8%	3.6	\$46,122	1.2%	53.7%
	Nonspecific chest pain	820	4.9%	2.0	\$11,442	0.1%	93.0%
	Pulmonary heart disease	661	4.0%	5.3	\$29,483	3.8%	81.2%
	Other and ill-defined heart disease	34	0.2%	4.3	\$28,791	0.0%	73.5%
	Conduction disorders	202	1.2%	4.0	\$49,589	4.0%	74.3%
	Cardiac dysrhythmias	1,926	11.6%	3.9	\$23,044	1.2%	80.6%
	Cardiac arrest and ventricular fibrillation	109	0.7%	6.1	\$55,446	46.8%	82.6%
	Congestive heart failure; nonhypertensive	2,961	17.9%	5.4	\$25,498	1.7%	82.3%
	Acute cerebrovascular disease	2,144	12.9%	6.2	\$27,626	6.3%	85.4%
	Occlusion or stenosis of precerebral arteries	399	2.4%	2.2	\$24,778	0.0%	19.8%
	Other and ill-defined cerebrovascular disease	122	0.7%	2.7	\$20,632	0.0%	49.2%
	Transient cerebral ischemia	635	3.8%	2.4	\$10,035	0.0%	93.4%
	Late effects of cerebrovascular disease	58	0.3%	7.8	\$20,066	0.0%	96.6%
	Peripheral and visceral atherosclerosis	529	3.2%	5.5	\$38,665	1.1%	50.9%
	Aortic; peripheral; and visceral artery aneurysms	248	1.5%	6.0	\$77,717	5.2%	39.9%
	Aortic and peripheral arterial embolism or thrombosis	91	0.5%	7.5	\$62,038	2.2%	69.2%
	Other circulatory disease	486	2.9%	4.1	\$17,940	1.2%	88.1%
	Phlebitis; thrombophlebitis and thromboembolism	475	2.9%	5.0	\$21,580	0.4%	82.7%
	Varicose veins of lower extremity	10	0.1%	6.2	\$17,580	0.0%	80.0%
	Hemorrhoids	76	0.5%	3.7	\$13,172	1.3%	93.4%
	Other diseases of veins and lymphatics	76	0.5%	6.2	\$25,405	1.3%	69.7%
		<b>Total</b>	<b>16,575</b>	<b>100.0%</b>	<b>4.8</b>	<b>\$32,689</b>	<b>2.7%</b>
<b>Diseases of the respiratory system</b>	Pneumonia (except that caused by tuberculosis or STD)	3,296	29.2%	5.4	\$22,553	2.4%	80.5%
	Influenza	330	2.9%	4.4	\$19,292	0.9%	86.7%
	Acute and chronic tonsillitis	132	1.2%	1.9	\$11,190	0.0%	59.1%
	Acute bronchitis	784	6.9%	3.4	\$18,332	0.0%	80.0%
	Other upper respiratory infections	316	2.8%	2.8	\$15,466	0.0%	79.1%
	Chronic obstructive pulmonary disease and bronchiectasis	2,183	19.3%	4.5	\$16,111	0.8%	87.3%
	Asthma	1,389	12.3%	2.8	\$14,577	0.3%	86.0%
	Aspiration pneumonia; food/ vomitus	555	4.9%	7.7	\$32,472	7.4%	76.9%
	Pleurisy; pneumothorax; pulmonary collapse	320	2.8%	6.2	\$26,160	2.2%	72.5%
	Respiratory failure; insufficiency; arrest (adult)	1,394	12.4%	9.2	\$54,167	10.0%	73.6%
	Lung disease due to external agents	13	0.1%	4.4	\$14,838	0.0%	100.0%
	Other lower respiratory disease	403	3.6%	4.6	\$21,588	3.5%	76.4%
	Other upper respiratory disease	169	1.5%	4.4	\$24,216	0.6%	74.6%
		<b>Total</b>	<b>11,284</b>	<b>100.0%</b>	<b>5.2</b>	<b>\$24,082</b>	<b>2.7%</b>

APPENDIX A

Clinical Classifications Software Categories and Chapter Headings		Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergency Priority
<b>Diseases of the digestive system</b>	Intestinal infection	1,092	10.0%	4.7	\$17,447	0.9%	84.1%
	Disorders of teeth and jaw	76	0.7%	2.9	\$20,423	0.0%	52.6%
	Diseases of mouth; excluding dental	78	0.7%	3.3	\$14,261	0.0%	76.9%
	Esophageal disorders	379	3.5%	4.5	\$22,458	1.1%	71.8%
	Gastroduodenal ulcer (except hemorrhage)	120	1.1%	5.1	\$23,979	1.7%	90.0%
	Gastritis and duodenitis	295	2.7%	4.2	\$16,836	0.7%	89.2%
	Other disorders of stomach and duodenum	312	2.9%	4.5	\$18,140	0.0%	80.4%
	Appendicitis and other appendiceal conditions	612	5.6%	3.1	\$21,735	0.0%	78.1%
	Abdominal hernia	669	6.1%	5.4	\$29,720	1.0%	38.0%
	Regional enteritis and ulcerative colitis	307	2.8%	5.8	\$27,185	0.3%	76.9%
	Intestinal obstruction without hernia	1,069	9.8%	6.0	\$26,974	1.5%	77.9%
	Diverticulosis and diverticulitis	1,003	9.2%	5.2	\$24,012	0.5%	66.6%
	Anal and rectal conditions	118	1.1%	4.4	\$19,899	0.8%	62.7%
	Peritonitis and intestinal abscess	83	0.8%	7.0	\$30,154	0.0%	80.7%
	Biliary tract disease	1,204	11.1%	3.8	\$21,802	0.2%	71.8%
	Other liver diseases	400	3.7%	6.3	\$32,803	2.3%	82.5%
	Pancreatic disorders (not diabetes)	929	8.5%	5.5	\$22,209	0.8%	83.7%
	Gastrointestinal hemorrhage	1,153	10.6%	4.4	\$20,472	1.5%	85.1%
	Noninfectious gastroenteritis	354	3.3%	4.0	\$14,822	0.3%	86.4%
	Other gastrointestinal disorders	629	5.8%	5.2	\$25,920	1.0%	60.6%
<b>Total</b>	<b>10,882</b>	<b>100.0%</b>	<b>4.8</b>	<b>\$22,807</b>	<b>0.8%</b>	<b>75.0%</b>	
<b>Diseases of the genitourinary system</b>	Nephritis; nephrosis; renal sclerosis	45	0.8%	4.8	\$22,592	0.0%	64.4%
	Acute and unspecified renal failure	1,778	33.4%	5.5	\$20,233	1.8%	84.8%
	Chronic renal failure	57	1.1%	5.5	\$69,990	1.8%	73.7%
	Urinary tract infections	1,801	33.8%	4.3	\$13,836	0.4%	87.2%
	Calculus of urinary tract	535	10.0%	2.3	\$14,103	0.2%	77.4%
	Other diseases of kidney and ureters	155	2.9%	4.1	\$28,019	0.0%	36.8%
	Other diseases of bladder and urethra	76	1.4%	7.2	\$52,377	1.3%	52.6%
	Genitourinary symptoms and ill-defined conditions	107	2.0%	3.8	\$14,156	0.0%	75.7%
	Hyperplasia of prostate	50	0.9%	4.2	\$21,143	0.0%	56.0%
	Inflammatory conditions of male genital organs	76	1.4%	3.6	\$13,428	0.0%	86.8%
	Other male genital disorders	32	0.6%	3.9	\$23,320	0.0%	59.4%
	Nonmalignant breast conditions	43	0.8%	4.0	\$14,206	0.0%	69.8%
	Inflammatory diseases of female pelvic organs	107	2.0%	3.3	\$14,364	0.0%	78.5%
	Endometriosis	52	1.0%	2.6	\$14,648	0.0%	9.6%
	Prolapse of female genital organs	102	1.9%	1.5	\$12,587	1.0%	13.7%
	Menstrual disorders	104	2.0%	2.0	\$15,261	0.0%	27.9%
	Ovarian cyst	107	2.0%	2.4	\$15,463	0.0%	42.1%
	Menopausal disorders	18	0.3%	4.5	\$16,127	0.0%	55.6%
	Female infertility	0	0.0%	N/A	N/A	N/A	N/A
	Other female genital disorders	81	1.5%	2.8	\$17,062	1.2%	25.9%
<b>Total</b>	<b>5,326</b>	<b>100.0%</b>	<b>4.3</b>	<b>\$17,877</b>	<b>0.8%</b>	<b>76.8%</b>	
<b>Complications of pregnancy, childbirth, &amp; the puerperium</b>	Contraceptive and procreative management	1	0.0%	1.0	\$7,863	0.0%	0.0%
	Spontaneous abortion	28	0.2%	1.3	\$5,361	0.0%	75.0%
	Induced abortion	14	0.1%	1.9	\$9,842	0.0%	78.6%
	Postabortion complications	2	0.0%	2.0	\$14,393	0.0%	100.0%
	Ectopic pregnancy	29	0.3%	1.6	\$12,338	0.0%	89.7%
	Other complications of pregnancy	1,378	12.0%	2.4	\$6,839	0.0%	52.8%
	Hemorrhage during pregnancy; abruptio placenta; placenta previa	136	1.2%	5.1	\$11,872	0.0%	52.9%
	Hypertension complicating pregnancy; childbirth and the puerperium	715	6.2%	3.6	\$9,736	0.0%	42.8%
	Early or threatened labor	596	5.2%	3.5	\$7,663	0.0%	69.3%
	Prolonged pregnancy	752	6.5%	2.7	\$6,343	0.0%	19.5%
	Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium	246	2.1%	2.8	\$6,964	0.0%	33.3%

APPENDIX A

Clinical Classifications Software Categories and Chapter Headings		Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergency Priority
	Malposition; malpresentation	370	3.2%	3.0	\$8,982	0.0%	30.3%
	Fetopelvic disproportion; obstruction	98	0.9%	2.6	\$8,964	0.0%	28.6%
	Previous C-section	1,366	11.9%	2.8	\$8,643	0.0%	14.9%
	Fetal distress and abnormal forces of labor	466	4.0%	2.9	\$8,127	0.0%	43.8%
	Polyhydramnios and other problems of amniotic cavity	619	5.4%	3.7	\$8,039	0.0%	67.5%
	Umbilical cord complication	489	4.2%	2.4	\$5,846	0.0%	44.2%
	OB-related trauma to perineum and vulva	2,073	18.0%	2.2	\$5,607	0.0%	44.3%
	Forceps delivery	29	0.3%	2.4	\$7,223	0.0%	37.9%
	Other complications of birth; puerperium affecting management of mother	1,635	14.2%	3.0	\$8,658	0.0%	36.9%
	Normal pregnancy and/ or delivery	469	4.1%	2.3	\$7,222	0.0%	30.3%
	<b>Total</b>	<b>11,511</b>	<b>100.0%</b>	<b>2.8</b>	<b>\$7,535</b>	<b>0.0%</b>	<b>40.5%</b>
<b>Diseases of the skin and subcutaneous tissue</b>	Skin and subcutaneous tissue infections	2,014	88.7%	4.3	\$14,806	0.5%	81.5%
	Other inflammatory condition of skin	36	1.6%	4.8	\$25,337	0.0%	80.6%
	Chronic ulcer of skin	192	8.5%	10.3	\$37,651	1.0%	58.9%
	Other skin disorders	28	1.2%	3.3	\$13,022	0.0%	64.3%
	<b>Total</b>	<b>2,270</b>	<b>100.0%</b>	<b>4.8</b>	<b>\$16,883</b>	<b>0.5%</b>	<b>79.3%</b>
<b>Diseases of the musculo-skeletal system and connective tissue</b>	Infective arthritis and osteomyelitis (except that caused by tuberculosis or STD)	303	4.3%	9.0	\$38,305	0.3%	63.7%
	Rheumatoid arthritis and related disease	40	0.6%	5.1	\$24,241	0.0%	80.0%
	Osteoarthritis	3,280	46.2%	2.7	\$34,504	0.1%	1.2%
	Other non-traumatic joint disorders	148	2.1%	4.0	\$34,237	0.0%	54.1%
	Spondylosis; intervertebral disc disorders; other back	1,973	27.8%	2.9	\$43,139	0.2%	24.7%
	Osteoporosis	3	0.0%	5.3	\$25,605	0.0%	66.7%
	Pathological fracture	227	3.2%	6.0	\$31,540	3.1%	79.3%
	Acquired foot deformities	43	0.6%	3.1	\$36,339	0.0%	4.7%
	Other acquired deformities	242	3.4%	4.1	\$72,970	0.0%	1.7%
	Systemic lupus erythematosus and connective tissue	38	0.5%	6.0	\$23,476	0.0%	86.8%
	Other connective tissue disease	493	6.9%	5.0	\$24,176	1.2%	73.0%
	Other bone disease and musculoskeletal deformities	304	4.3%	3.7	\$73,914	0.0%	15.1%
	<b>Total</b>	<b>7,094</b>	<b>100.0%</b>	<b>3.5</b>	<b>\$39,141</b>	<b>0.3%</b>	<b>20.6%</b>
<b>Congenital anomalies</b>	Cardiac and circulatory congenital anomalies	192	30.9%	20.9	\$370,634	5.7%	7.8%
	Digestive congenital anomalies	107	17.2%	10.2	\$84,883	0.0%	41.1%
	Genitourinary congenital anomalies	65	10.5%	3.5	\$42,906	0.0%	13.8%
	Nervous system congenital anomalies	36	5.8%	8.4	\$78,916	0.0%	11.1%
	Other congenital anomalies	222	35.7%	6.1	\$74,885	0.5%	7.2%
	<b>Total</b>	<b>622</b>	<b>100.0%</b>	<b>11.2</b>	<b>\$164,789</b>	<b>1.9%</b>	<b>14.1%</b>
<b>Certain conditions originating in the perinatal period</b>	Short gestation; low birth weight; and fetal growth	37	6.9%	38.0	\$134,252	8.1%	8.1%
	Intrauterine hypoxia and birth asphyxia	19	3.5%	18.8	\$120,999	5.3%	15.8%
	Respiratory distress syndrome	41	7.6%	35.8	\$247,618	4.9%	22.0%
	Hemolytic jaundice and perinatal jaundice	117	21.7%	2.1	\$6,709	0.0%	53.0%
	Birth trauma	8	1.5%	4.6	\$50,347	12.5%	0.0%
	Other perinatal conditions	317	58.8%	9.4	\$71,366	1.6%	44.5%
	<b>Total</b>	<b>539</b>	<b>100.0%</b>	<b>12.0</b>	<b>\$76,492</b>	<b>2.2%</b>	<b>40.4%</b>
<b>Injury and poisoning</b>	Joint disorders and dislocations; trauma-related	85	0.9%	3.4	\$27,895	0.0%	52.9%
	Fracture of neck of femur (hip)	801	8.9%	5.6	\$35,428	2.0%	79.8%
	Spinal cord injury	62	0.7%	11.9	\$63,192	4.8%	95.2%
	Skull and face fractures	158	1.8%	3.9	\$21,836	0.0%	91.8%
	Fracture of upper limb	407	4.5%	3.9	\$25,947	1.0%	75.4%
	Fracture of lower limb	737	8.2%	5.3	\$32,186	0.3%	77.7%
	Other fractures	793	8.9%	5.1	\$24,998	1.1%	84.0%
	Sprains and strains	85	0.9%	3.4	\$15,089	0.0%	76.5%
	Intracranial injury	838	9.4%	6.4	\$28,598	5.8%	95.5%

APPENDIX A

Clinical Classifications Software Categories and Chapter Headings		Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergency Priority
	Crushing injury or internal injury	348	3.9%	7.1	\$36,301	2.9%	91.7%
	Open wounds of head; neck; and trunk	110	1.2%	3.9	\$19,023	1.8%	97.3%
	Open wounds of extremities	108	1.2%	4.8	\$23,961	0.0%	86.1%
	Complication of device; implant or graft	1,833	20.5%	6.1	\$44,823	1.1%	53.0%
	Complications of surgical procedures or medical care	1,431	16.0%	5.9	\$26,219	1.3%	69.5%
	Superficial injury; contusion	143	1.6%	3.9	\$16,172	0.7%	85.3%
	Burns	13	0.1%	3.8	\$11,159	0.0%	84.6%
	Poisoning by psychotropic agents	228	2.5%	3.9	\$15,628	2.2%	85.5%
	Poisoning by other medications and drugs	458	5.1%	3.7	\$18,716	2.2%	81.7%
	Poisoning by nonmedicinal substances	45	0.5%	6.3	\$32,987	0.0%	73.3%
	Other injuries and conditions due to external causes	275	3.1%	4.4	\$23,753	2.2%	86.9%
	<b>Total</b>	<b>8,958</b>	<b>100.0%</b>	<b>5.5</b>	<b>\$30,930</b>	<b>1.7%</b>	<b>75.4%</b>
<b>Liveborn</b>	Liveborn	10,916	100.0%	3.8	\$8,224	0.3%	1.2%
	<b>Total</b>	<b>10,916</b>	<b>100.0%</b>	<b>3.8</b>	<b>\$8,224</b>	<b>0.3%</b>	<b>1.2%</b>
<b>Other conditions</b>	Syncope	515	14.0%	2.6	\$10,474	0.2%	93.0%
	Fever of unknown origin	150	4.1%	3.1	\$11,514	0.0%	83.3%
	Lymphadenitis	81	2.2%	3.0	\$16,041	0.0%	70.4%
	Gangrene	107	2.9%	9.8	\$56,215	3.7%	58.9%
	Shock	4	0.1%	9.3	\$50,329	0.0%	100.0%
	Nausea and vomiting	71	1.9%	4.5	\$15,319	1.4%	94.4%
	Abdominal pain	376	10.2%	3.6	\$13,021	0.3%	89.1%
	Malaise and fatigue	41	1.1%	4.2	\$12,957	2.4%	100.0%
	Allergic reactions	97	2.6%	2.4	\$10,085	1.0%	80.4%
	Rehabilitation care; fitting of prostheses; and adjustment of devices	1,570	42.6%	12.1	\$30,362	0.1%	2.4%
	Administrative/ social admission	4	0.1%	5.5	\$18,370	0.0%	100.0%
	Medical examination/ evaluation	81	2.2%	4.0	\$37,850	1.2%	25.9%
	Other aftercare	274	7.4%	12.4	\$10,507	48.2%	9.1%
	Other screening for suspected conditions (not mental disorders or infectious disease)	12	0.3%	3.8	\$18,588	0.0%	41.7%
	Residual codes; unclassified	303	8.2%	3.5	\$14,757	1.0%	71.0%
	<b>Total</b>	<b>3,686</b>	<b>100.0%</b>	<b>7.9</b>	<b>\$21,842</b>	<b>4.0%</b>	<b>42.2%</b>
<b>Total All CCS Diagnostic Codes</b>		<b>109,473</b>	<b>100.0%</b>	<b>4.8</b>	<b>\$24,788</b>	<b>1.7%</b>	<b>59.2%</b>



## APPENDIX B

### Clinical classification system for Ecodes

Ecodes are supplementary classifications of external causes of injury and poisoning. They provide additional information regarding the nature of the condition, or to allow more detailed analysis of the external cause of the diagnosis. Ecodes were coded according to the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM). These codes were then aggregated into broader diagnostic categories using the Clinical Classification System (CCS) developed by the Agency of Healthcare Research and Quality (AHRQ). The CCS classification system for Ecodes is used to categorize clinically similar diagnoses for ease in presentation and interpretation of hospital discharge data. A complete listing of CCS Ecodes and selected corresponding measures are presented below.

#### B1. Number and Percent of Discharges, Mean Length of Stay, Mean Charges, Percent Expired, and Percent with an Emergency Priority at Admission by Ecode Delaware Hospitals, 2013

Clinical Classifications Software Categories for Ecodes	Number of Discharges	Percent of Discharges	Mean LOS	Mean Total Charges	Percent Expired	Percent Emergency Admission
E Codes: Cut/pierce	48	0.8%	3.5	\$24,923	0.0	62.5
E Codes: Drowning/submersion	7	0.1%	5.9	\$93,707	28.6	100.0
E Codes: Fall	1,528	24.8%	4.6	\$30,289	2.1	63.4
E Codes: Fire/burn	10	0.2%	3.3	\$28,241	0.0	60.0
E Codes: Firearms	21	0.3%	4.6	\$46,990	19.0	85.7
E Codes: Machinery	7	0.1%	3.7	\$38,825	0.0	57.1
E Codes: Motor vehicle traffic (MVT)	245	4.0%	4.5	\$39,964	1.6	68.2
E Codes: Pedal cyclist; not MVT	28	0.5%	3.6	\$31,572	0.0	60.7
E Codes: Pedestrian; not MVT	0	0.0%	N/A	N/A	N/A	N/A
E Codes: Transport; not MVT	51	0.8%	5.5	\$55,334	0.0	76.5
E Codes: Natural/environment	126	2.0%	3.2	\$17,796	0.8	76.2
E Codes: Overexertion	50	0.8%	2.8	\$22,240	0.0	46.0
E Codes: Poisoning	443	7.2%	3.4	\$24,033	1.8	63.4
E Codes: Struck by; against	87	1.4%	4.2	\$33,731	0.0	64.4
E Codes: Suffocation	43	0.7%	7.4	\$78,699	14.0	51.2
E Codes: Adverse effects of medical care	1,293	21.0%	14.0	\$123,946	2.2	31.9
E Codes: Adverse effects of medical drugs	1,720	27.9%	6.6	\$50,964	2.1	52.9
E Codes: Other specified and classifiable	88	1.4%	6.4	\$53,136	0.0	63.6
E Codes: Other specified; NEC	91	1.5%	5.3	\$40,033	2.2	60.4
E Codes: Unspecified	230	3.7%	5.3	\$47,795	3.0	73.9
E Codes: Place of occurrence	40	0.6%	6.5	\$56,140	2.5	75.0
<b>Total</b>	<b>6,156</b>	<b>100.0%</b>	<b>7.1</b>	<b>\$57,337</b>	<b>2.1</b>	<b>54.7</b>

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

APPENDIX C

C1. Number of All-listed Procedures Performed during the Inpatient Stayby Procedure and Sex of Patient, Delaware Hospitals, Delaware, 2013

Single level CCS Procedure Categories and Chapter Headings		Male	Female	Total
<b>Operations on the nervous system</b>	Incision and excision of CNS	192	180	372
	Insertion; replacement; or removal of extracranial ventricular shunt	61	67	128
	Laminectomy; excision intervertebral disc	974	922	1,896
	Diagnostic spinal tap	611	489	1,100
	Insertion of catheter or spinal stimulator and injection into spinal canal	94	85	179
	Decompression peripheral nerve	22	18	40
	Other diagnostic nervous system procedures	22	20	42
	Other non-OR or closed therapeutic nervous system procedures	43	68	111
	Other OR therapeutic nervous system procedures	327	316	643
<b>Total</b>	<b>2,346</b>	<b>2,165</b>	<b>4,511</b>	
<b>Operations on the endocrine system</b>	Thyroidectomy; partial or complete	28	118	146
	Diagnostic endocrine procedures	5	11	16
	Other therapeutic endocrine procedures	86	95	181
<b>Total</b>	<b>119</b>	<b>224</b>	<b>343</b>	
<b>Operations on the eye</b>	Corneal transplant	1	0	1
	Lens and cataract procedures	0	2	2
	Repair of retinal tear; detachment	0	0	0
	Destruction of lesion of retina and choroid	4	2	6
	Diagnostic procedures on eye	0	0	0
	Other therapeutic procedures on eyelids; conjunctiva; cornea	64	32	96
	Other intraocular therapeutic procedures	4	4	8
	Other extraocular muscle and orbit therapeutic procedures	12	9	21
<b>Total</b>	<b>85</b>	<b>49</b>	<b>134</b>	
<b>Operations on the ear</b>	Tympanoplasty	0	0	0
	Myringotomy	61	45	106
	Mastoidectomy	2	0	2
	Diagnostic procedures on ear	6	1	7
	Other therapeutic ear procedures	46	32	78
<b>Total</b>	<b>115</b>	<b>78</b>	<b>193</b>	
<b>Operations on the nose, mouth, and pharynx</b>	Control of epistaxis	68	50	118
	Plastic procedures on nose	23	32	55
	Dental procedures	113	85	198
	Tonsillectomy and/or adenoidectomy	62	31	93
	Diagnostic procedures on nose; mouth and pharynx	32	28	60
	Other non-OR therapeutic procedures on nose; mouth and pharynx	131	87	218
	Other OR therapeutic procedures on nose; mouth and pharynx	174	117	291
<b>Total</b>	<b>603</b>	<b>430</b>	<b>1,033</b>	
<b>Operations on the respiratory system</b>	Tracheostomy; temporary and permanent	182	139	321
	Tracheoscopy and laryngoscopy with biopsy	127	93	220
	Lobectomy or pneumonectomy	119	116	235
	Diagnostic bronchoscopy and biopsy of bronchus	439	389	828
	Other diagnostic procedures on lung and bronchus	18	11	29
	Incision of pleura; thoracentesis; chest drainage	758	692	1,450
	Other diagnostic procedures of respiratory tract and mediastinum	67	39	106
	Other non-OR therapeutic procedures on respiratory system	167	136	303
	Other OR Rx procedures on respiratory system and mediastinum	166	110	276
<b>Total</b>	<b>2,043</b>	<b>1,725</b>	<b>3,768</b>	
<b>Operations on the cardiovascular system</b>	Heart valve procedures	263	183	446
	Coronary artery bypass graft (CABG)	874	297	1,171
	Percutaneous transluminal coronary angioplasty (PTCA)	1,166	620	1,786
	Coronary thrombolysis	0	0	0
	Diagnostic cardiac catheterization; coronary arteriography	5,095	3,290	8,385
	Insertion; revision; replacement; removal of cardiac pacemaker or	747	674	1,421
	Other OR heart procedures	401	246	647
Extracorporeal circulation auxiliary to open heart procedures	610	310	920	



APPENDIX C

Single level CCS Procedure Categories and Chapter Headings		Male	Female	Total
	Endarterectomy; vessel of head and neck	198	133	331
	Aortic resection; replacement or anastomosis	132	56	188
	Varicose vein stripping; lower limb	0	0	0
	Other vascular catheterization; not heart	3,175	3,388	6,563
	Peripheral vascular bypass	163	85	248
	Other vascular bypass and shunt; not heart	21	16	37
	Creation; revision and removal of arteriovenous fistula or vessel-to-vessel cannula for dialysis	63	47	110
	Hemodialysis	1,404	1,030	2,434
	Other OR procedures on vessels of head and neck	163	140	303
	Embolectomy and endarterectomy of lower limbs	105	72	177
	Other OR procedures on vessels other than head and neck	3,099	2,280	5,379
	Other diagnostic cardiovascular procedures	163	123	286
	Other non-OR therapeutic cardiovascular procedures	1,360	822	2,182
	<b>Total</b>	<b>19,202</b>	<b>13,812</b>	<b>33,014</b>
<b>Operations on the hemic and lymphatic system</b>	Bone marrow transplant	37	15	52
	Bone marrow biopsy	154	124	278
	Procedures on spleen	52	53	105
	Other therapeutic procedures; hemic and lymphatic system	377	511	888
	<b>Total</b>	<b>620</b>	<b>703</b>	<b>1,323</b>
<b>Operations on the digestive system</b>	Injection or ligation of esophageal varices	0	2	2
	Esophageal dilatation	27	38	65
	Upper gastrointestinal endoscopy; biopsy	1,605	1,882	3,487
	Gastrostomy; temporary and permanent	258	237	495
	Colostomy; temporary and permanent	81	95	176
	Ileostomy and other enterostomy	84	62	146
	Gastrectomy; partial and total	99	335	434
	Small bowel resection	151	178	329
	Colonoscopy and biopsy	651	752	1,403
	Proctoscopy and anorectal biopsy	107	113	220
	Colorectal resection	534	590	1,124
	Local excision of large intestine lesion (not endoscopic)	2	10	12
	Appendectomy	359	383	742
	Hemorrhoid procedures	5	4	9
	Endoscopic retrograde cannulation of pancreas (ERCP)	36	45	81
	Biopsy of liver	98	91	189
	Cholecystectomy and common duct exploration	426	691	1,117
	Inguinal and femoral hernia repair	87	32	119
	Other hernia repair	307	633	940
	Laparoscopy (GI only)	44	57	101
	Abdominal paracentesis	502	421	923
	Exploratory laparotomy	25	34	59
	Excision; lysis peritoneal adhesions	332	727	1,059
	Peritoneal dialysis	47	67	114
	Other bowel diagnostic procedures	27	26	53
	Other non-OR upper GI therapeutic procedures	370	307	677
	Other OR upper GI therapeutic procedures	214	437	651
	Other non-OR lower GI therapeutic procedures	358	312	670
	Other OR lower GI therapeutic procedures	443	435	878
	Other gastrointestinal diagnostic procedures	91	137	228
	Other non-OR gastrointestinal therapeutic procedures	436	555	991
	Other OR gastrointestinal therapeutic procedures	333	463	796
	<b>Total</b>	<b>8,139</b>	<b>10,151</b>	<b>18,290</b>
<b>Operations on the urinary system</b>	Endoscopy and endoscopic biopsy of the urinary tract	218	294	512
	Transurethral excision; drainage; or removal urinary obstruction	232	139	371
	Ureteral catheterization	398	558	956
	Nephrotomy and nephrostomy	71	87	158

APPENDIX C

Single level CCS Procedure Categories and Chapter Headings		Male	Female	Total
	Nephrectomy; partial or complete	102	63	165
	Kidney transplant	31	19	50
	Genitourinary incontinence procedures	1	53	54
	Extracorporeal lithotripsy; urinary	8	15	23
	Indwelling catheter	160	105	265
	Procedures on the urethra	60	10	70
	Other diagnostic procedures of urinary tract	51	28	79
	Other non-OR therapeutic procedures of urinary tract	161	205	366
	Other OR therapeutic procedures of urinary tract	169	194	363
	<b>Total</b>	<b>1,662</b>	<b>1,770</b>	<b>3,432</b>
<b>Operations on the male genital organs</b>	Transurethral resection of prostate (TURP)	47	0	47
	Open prostatectomy	57	0	57
	Circumcision	4,454	49	4,503
	Diagnostic procedures; male genital	20	0	20
	Other non-OR therapeutic procedures; male genital	56	0	56
	Other OR therapeutic procedures; male genital	102	0	102
	<b>Total</b>	<b>4,736</b>	<b>49</b>	<b>4,785</b>
<b>Operations on the female genital organs</b>	Oophorectomy; unilateral and bilateral	0	621	621
	Other operations on ovary	0	115	115
	Ligation or occlusion of fallopian tubes	0	725	725
	Other operations on fallopian tubes	0	128	128
	Hysterectomy; abdominal and vaginal	0	729	729
	Other excision of cervix and uterus	0	93	93
	Abortion (termination of pregnancy)	0	7	7
	Dilatation and curettage (D&C); aspiration after delivery or abortion	0	61	61
	Diagnostic dilatation and curettage (D&C)	0	26	26
	Repair of cystocele and rectocele; obliteration of vaginal vault	0	72	72
	Other diagnostic procedures; female organs	0	68	68
	Other non-OR therapeutic procedures; female organs	0	46	46
	Other OR therapeutic procedures; female organs	0	227	227
	<b>Total</b>	<b>0</b>	<b>2,918</b>	<b>2,918</b>
<b>Obstetrical procedures</b>	Removal of ectopic pregnancy	0	21	21
	Episiotomy	0	265	265
	Cesarean section	0	3,353	3,353
	Forceps; vacuum; and breech delivery	0	678	678
	Artificial rupture of membranes to assist delivery	1	3,058	3,059
	Other procedures to assist delivery	2	9,273	9,275
	Diagnostic amniocentesis	0	4	4
	Fetal monitoring	0	5,751	5,751
	Repair of current obstetric laceration	0	3,835	3,835
	Other therapeutic obstetrical procedures	0	260	260
	<b>Total</b>	<b>3</b>	<b>26,498</b>	<b>26,501</b>
<b>Operations on the musculoskeletal system</b>	Partial excision bone	671	653	1,324
	Bunionectomy or repair of toe deformities	14	17	31
	Treatment; facial fracture or dislocation	79	22	101
	Treatment; fracture or dislocation of radius and ulna	112	144	256
	Treatment; fracture or dislocation of hip and femur	381	658	1,039
	Treatment; fracture or dislocation of lower extremity (other than hip or femur)	481	427	908
	Other fracture and dislocation procedure	342	336	678
	Arthroscopy	19	10	29
	Division of joint capsule; ligament or cartilage	15	12	27
	Excision of semilunar cartilage of knee	7	6	13
	Arthroplasty knee	966	1,566	2,532
Hip replacement; total and partial	940	1,262	2,202	

APPENDIX C

Single level CCS Procedure Categories and Chapter Headings		Male	Female	Total
	Arthroplasty other than hip or knee	68	112	180
	Arthrocentesis	148	113	261
	Injections and aspirations of muscles; tendons; bursa; joints and soft tissue	20	30	50
	Amputation of lower extremity	341	156	497
	Spinal fusion	2,367	2,534	4,901
	Other diagnostic procedures on musculoskeletal system	150	166	316
	Other therapeutic procedures on muscles and tendons	907	668	1,575
	Other OR therapeutic procedures on bone	399	369	768
	Other OR therapeutic procedures on joints	262	181	443
	Other non-OR therapeutic procedures on musculoskeletal system	681	1,041	1,722
	Other OR therapeutic procedures on musculoskeletal system	50	37	87
	<b>Total</b>	<b>9,420</b>	<b>10,520</b>	<b>19,940</b>
<b>Operations on the integumentary system</b>	Breast biopsy and other diagnostic procedures on breast	0	23	23
	Lumpectomy; quadrantectomy of breast	3	16	19
	Mastectomy	1	118	119
	Incision and drainage; skin and subcutaneous tissue	518	396	914
	Debridement of wound; infection or burn	472	372	844
	Excision of skin lesion	53	85	138
	Suture of skin and subcutaneous tissue	317	214	531
	Skin graft	159	137	296
	Other diagnostic procedures on skin and subcutaneous tissue	31	38	69
	Other non-OR therapeutic procedures on skin and breast	342	397	739
	Other OR therapeutic procedures on skin and breast	118	243	361
	<b>Total</b>	<b>2,014</b>	<b>2,039</b>	<b>4,053</b>
<b>Miscellaneous diagnostic and therapeutic procedures</b>	Other organ transplantation	5	4	9
	Computerized axial tomography (CT) scan head	3	3	6
	CT scan chest	19	17	36
	CT scan abdomen	11	18	29
	Other CT scan	18	14	32
	Myelogram	3	4	7
	Mammography	0	5	5
	Intraoperative cholangiogram	26	43	69
	Upper gastrointestinal X-ray	3	0	3
	Intravenous pyelogram	5	6	11
	Cerebral arteriogram	123	133	256
	Contrast aortogram	274	207	481
	Contrast arteriogram of femoral and lower extremity arteries	695	496	1,191
	Arterio- or venogram (not heart and head)	777	563	1,340
	Diagnostic ultrasound of head and neck	14	19	33
	Diagnostic ultrasound of heart (echocardiogram)	946	810	1,756
	Diagnostic ultrasound of gastrointestinal tract	19	31	50
	Diagnostic ultrasound of urinary tract	10	5	15
	Diagnostic ultrasound of abdomen or retroperitoneum	4	10	14
	Other diagnostic ultrasound	67	484	551
	Magnetic resonance imaging	114	103	217
	Electroencephalogram (EEG)	112	87	199
	Nonoperative urinary system measurements	2	1	3
	Cardiac stress tests	15	13	28
	Electrocardiogram	0	1	1
Electrographic cardiac monitoring	0	2	2	
Swan-Ganz catheterization for monitoring	43	23	66	

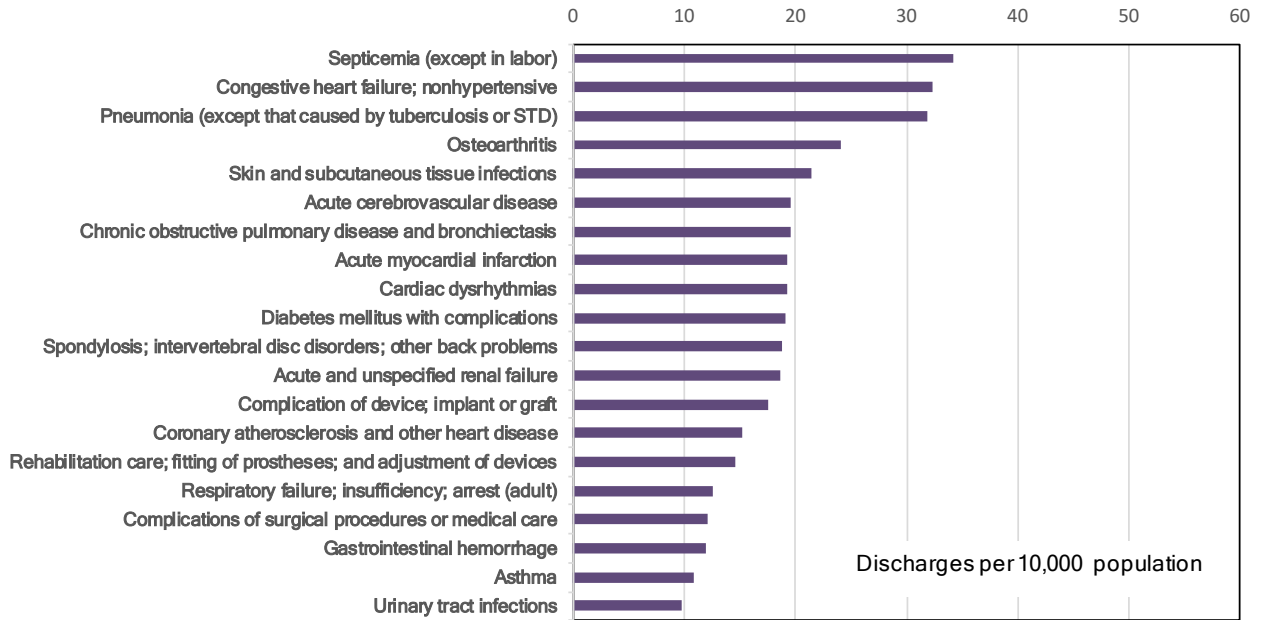
## APPENDIX C

Single level CCS Procedure Categories and Chapter Headings	Male	Female	Total
Arterial blood gases	2	0	2
Microscopic examination (bacterial smear; culture; toxicology)	1	15	16
Radioisotope bone scan	1	4	5
Radioisotope pulmonary scan	4	6	10
Radioisotope scan and function studies	6	14	20
Other radioisotope scan	1	11	12
Therapeutic radiology for cancer treatment	56	71	127
Diagnostic physical therapy	4	4	8
Physical therapy exercises; manipulation; and other procedures	294	365	659
Traction; splints; and other wound care	206	209	415
Other physical therapy and rehabilitation	417	463	880
Respiratory intubation and mechanical ventilation	5,181	4,612	9,793
Other respiratory therapy	241	270	511
Psychological and psychiatric evaluation and therapy	22	42	64
Alcohol and drug rehabilitation/detoxification	101	41	142
Ophthalmologic and otologic diagnosis and treatment	2,824	2,719	5,543
Nasogastric tube	158	149	307
Blood transfusion	4,089	4,661	8,750
Enteral and parenteral nutrition	519	504	1,023
Cancer chemotherapy	364	310	674
Conversion of cardiac rhythm	554	388	942
Other diagnostic radiology and related techniques	426	536	962
Other diagnostic procedures (interview; evaluation; consultation)	2,254	2,399	4,653
Prophylactic vaccinations and inoculations	3,526	3,822	7,348
Nonoperative removal of foreign body	47	45	92
Other therapeutic procedures	7,262	10,676	17,938
<b>Total</b>	<b>31,868</b>	<b>35,438</b>	<b>67,306</b>

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center.

APPENDIX D

D1. Annual Hospitalization Rates for 20 Most Frequent Diagnoses\* of Males, All Delaware Residents, 2013

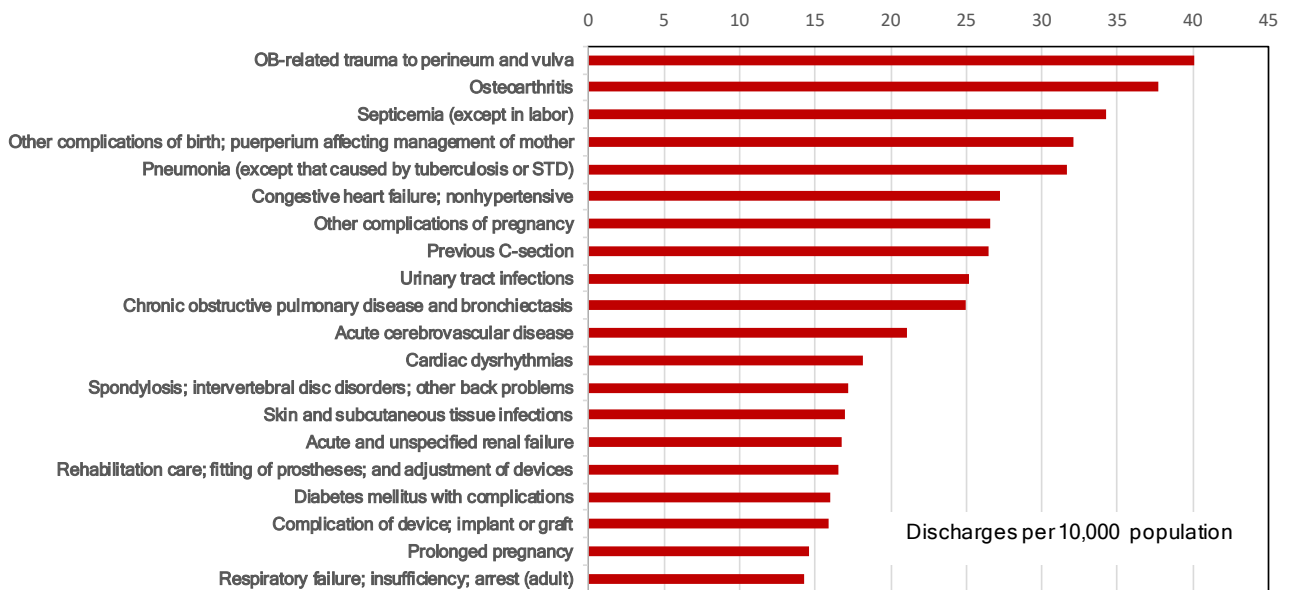


Note: Calculations based on total population.

\*Excluding liveborn infants.

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

D2. Annual Hospitalization Rates for 20 Most Frequent Diagnoses\* of Females, All Delaware Residents, 2013



Note: Calculations based on total population.

\*Excluding liveborn infants.

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

APPENDIX E

**E1. Conditions with the 10 Highest Total Charges, Delaware Hospitals, 2013**

Rank	CCS Principal Diagnoses	Total Billed Charges	% of Total Charges	Number of Discharges
1	Septicemia (except in labor)	\$150,470,716	5.5%	3,409
2	Osteoarthritis	\$113,172,742	4.2%	3,280
3	Liveborn	\$89,775,581	3.3%	10,916
4	Acute myocardial infarction	\$87,638,322	3.2%	1,807
5	Spondylosis; intervertebral disc disorders; other back problems	\$85,113,885	3.1%	1,973
6	Complication of device; implant or graft	\$82,160,857	3.0%	1,833
7	Respiratory failure; insufficiency; arrest (adult)	\$75,508,494	2.8%	1,394
8	Congestive heart failure; nonhypertensive	\$75,499,438	2.8%	2,961
9	Pneumonia (except that caused by tuberculosis or STD)	\$74,335,060	2.7%	3,296
10	Cardiac and circulatory congenital anomalies	\$71,161,744	2.6%	192
Total for 10 most expensive conditions		\$904,836,840	33.3%	31,061
Total aggregate charges for all discharges		\$2,715,236,999	100.0%	109,751

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

**E2. Discharges with Highest Mean Charges, Delaware Hospitals, 2013**

CCS Principal Diagnoses	Number Discharges			% of Total Discharges			Mean Charges		
	2003	2008	2013	2003	2008	2013	2003	2008	2013
Total All Discharges	107,037	112,107	109,751	100.0%	100.0%	100.0%	\$13,637	\$21,289	\$24,740
Immunity disorders	2	1	2	0.0%	0.0%	0.0%	\$93,026	\$6,817	\$379,916
Cardiac and circulatory congenital	385	235	192	0.4%	0.2%	0.2%	\$76,105	\$159,516	\$370,634
Respiratory distress syndrome	40	37	41	0.0%	0.0%	0.0%	\$44,858	\$46,753	\$247,618
Leukemias	105	132	122	0.1%	0.1%	0.1%	\$81,313	\$124,844	\$143,480
Short gestation; low birth weight; and fetal	96	87	37	0.1%	0.1%	0.0%	\$38,996	\$74,688	\$134,252
Intrauterine hypoxia and birth asphyxia	3	4	19	0.0%	0.0%	0.0%	\$39,066	\$14,640	\$120,999
Heart valve disorders	232	374	340	0.2%	0.3%	0.3%	\$59,952	\$81,878	\$115,115
Paralysis	14	73	58	0.0%	0.1%	0.1%	\$23,335	\$34,897	\$94,675
Peri-, endo-, and myocarditis;	249	334	253	0.2%	0.3%	0.2%	\$27,035	\$48,281	\$92,925
Cancer; other and unspecified primary	18	24	17	0.0%	0.0%	0.0%	\$23,369	\$45,099	\$88,868

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

**E3. Number, Percent, and Mean Charges for the Highest Volume Discharges, Delaware Hospitals, 2013**

CCS Principal Diagnoses	Number Discharges			% of Total Discharges			Mean Charges		
	2003	2008	2013	2003	2008	2013	2003	2008	2013
Total All Discharges	107,037	112,107	109,751	100.0%	100.0%	100.0%	\$13,637	\$21,289	\$24,740
Liveborn	11,490	12,218	10,916	10.7%	10.9%	9.9%	\$4,159	\$5,574	\$8,224
Septicemia (except in labor)	1,011	1,910	3,409	0.9%	1.7%	3.1%	\$24,014	\$45,309	\$44,139
Pneumonia (except that caused by tuberculosis or STD)	3,453	2,854	3,296	3.2%	2.5%	3.0%	\$15,589	\$21,408	\$22,553
Osteoarthritis	1,875	2,857	3,280	1.8%	2.5%	3.0%	\$21,299	\$30,369	\$34,504
Congestive heart failure; nonhypertensive	3,041	2,535	2,961	2.8%	2.3%	2.7%	\$16,796	\$26,252	\$25,498
Chronic obstructive pulmonary disease and	1,655	1,879	2,183	1.5%	1.7%	2.0%	\$12,250	\$16,574	\$16,111
Acute cerebrovascular disease	1,618	1,756	2,144	1.5%	1.6%	2.0%	\$17,493	\$27,029	\$27,626
OB-related trauma to perineum and vulva	2,455	2,703	2,073	2.3%	2.4%	1.9%	\$3,727	\$5,508	\$5,607
Skin and subcutaneous tissue infections	1,355	2,011	2,014	1.3%	1.8%	1.8%	\$9,302	\$11,899	\$14,806
Spondylosis; intervertebral disc disorders; other back	1,776	1,581	1,973	1.7%	1.4%	1.8%	\$17,151	\$31,103	\$43,139

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

APPENDIX F

2013 Delaware Hospitalizations

**F1. Top 10 Most Frequent Diagnoses for Medicare, Delaware Hospitals, 2013**

<i>CCS Diagnosis</i>	<i>Number of Discharges</i>	<i>Percent of hospitalizations for this condition billed to Medicare</i>
Septicemia (except in labor)	2,354	5.2%
Congestive heart failure; nonhypertensive	2,347	5.2%
Pneumonia (except that caused by tuberculosis or STD)	2,076	4.6%
Osteoarthritis	1,952	4.3%
Chronic obstructive pulmonary disease and bronchiectasis	1,608	3.5%
Acute cerebrovascular disease	1,439	3.2%
Cardiac dysrhythmias	1,424	3.1%
Acute and unspecified renal failure	1,317	2.9%
Urinary tract infections	1,235	2.7%
Rehabilitation care; fitting of prostheses; and adjustment of devices	1,164	2.6%

**F2. Top 10 Most Frequent Diagnoses for Medicaid, Delaware Hospitals, 2013**

<i>CCS Diagnosis</i>	<i>Number of Discharges</i>	<i>Percent of hospitalizations for this condition billed to Medicaid</i>
Liveborn	5,354	21.6%
OB-related trauma to perineum and vulva	779	3.1%
Other complications of birth; puerperium affecting management of mother	775	3.1%
Other complications of pregnancy	731	2.9%
Previous C-section	654	2.6%
Asthma	520	2.1%
Pneumonia (except that caused by tuberculosis or STD)	506	2.0%
Diabetes mellitus with complications	478	1.9%
Skin and subcutaneous tissue infections	458	1.8%
Septicemia (except in labor)	375	1.5%

**F3. Top 10 Most Frequent Diagnoses for Privately Insured, Delaware Hospitals, 2013**

<i>CCS Diagnosis</i>	<i>Number of Discharges</i>	<i>Percent of hospitalizations for this condition billed to Private Insurers</i>
Liveborn	4,964	15.0%
OB-related trauma to perineum and vulva	1,177	3.6%
Osteoarthritis	1,069	3.2%
Other complications of birth; puerperium affecting management of mother	790	2.4%
Previous C-section	640	1.9%
Spondylosis; intervertebral disc disorders; other back problems	627	1.9%
Other complications of pregnancy	584	1.8%
Skin and subcutaneous tissue infections	564	1.7%
Pneumonia (except that caused by tuberculosis or STD)	554	1.7%
Acute myocardial infarction	509	1.5%

**F4. Top 10 Most Frequent Diagnoses for Uninsured, Delaware Hospitals, 2013**

<i>CCS Diagnosis</i>	<i>Number of Discharges</i>	<i>Percent of hospitalizations for this condition billed to Uninsured Patients</i>
Liveborn	262	7.2%
Mood disorders	169	4.7%
Skin and subcutaneous tissue infections	141	3.9%
Alcohol-related disorders	127	3.5%
Diabetes mellitus with complications	123	3.4%
Acute cerebrovascular disease	110	3.0%
Acute myocardial infarction	106	2.9%
Septicemia (except in labor)	96	2.7%
Pneumonia (except that caused by tuberculosis or STD)	93	2.6%
Pancreatic disorders (not diabetes)	81	2.2%

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center.



APPENDIX G

**G1. Conditions with the Highest Number of In-Hospital Deaths by Age Group<sup>1</sup>  
Delaware Hospitals, 2013**

Diagnosis	Age Group in Years					TOTAL
	Under 1	0-17	18-44	45-64	65+	
Septicemia (except in labor)	1	1	18	96	271	387
Respiratory failure; insufficiency; arrest (adult)	1	2	7	38	91	139
Acute cerebrovascular disease	0	0	5	45	85	135
Other aftercare	0	0	3	42	87	132
Acute myocardial infarction	0	0	3	22	61	86
Pneumonia (except that caused by tuberculosis or STD)	0	1	0	6	71	78
Cardiac arrest and ventricular fibrillation	2	2	4	10	33	51
Congestive heart failure; nonhypertensive	0	0	0	8	42	50
Intracranial injury	0	3	13	12	21	49
Aspiration pneumonitis; food/vomitus	0	0	4	2	35	41
Acute and unspecified renal failure	0	0	1	3	28	32
Liveborn	30	0	0	0	0	30
Cancer of bronchus; lung	0	0	0	14	15	29
Pulmonary heart disease	0	1	4	6	14	25
Secondary malignancies	0	1	1	8	11	21
Complication of device; implant or graft	0	0	4	4	12	20
Complications of surgical procedures or medical care	0	0	0	13	5	18
Intestinal obstruction without hernia	0	1	0	2	13	16
No diagnosis	12	0	0	0	1	13
Cardiac and circulatory congenital anomalies	8	1	0	1	1	11
Crushing injury or internal injury	0	0	4	1	5	10
Poisoning by other medications and drugs	0	0	5	5	0	10
Leukemias	0	1	0	2	4	7
Other injuries and conditions due to external causes	1	4	0	0	1	6
Peripheral and visceral atherosclerosis	2	0	1	0	3	6
Epilepsy; convulsions	0	2	0	0	3	5
Other perinatal conditions	5	0	0	0	0	5
Short gestation; low birth weight; and fetal growth	3	0	0	0	0	3
Respiratory distress syndrome	2	0	0	0	0	2
All Discharges to Death	72	24	103	448	1,228	1,875

**Notes:**

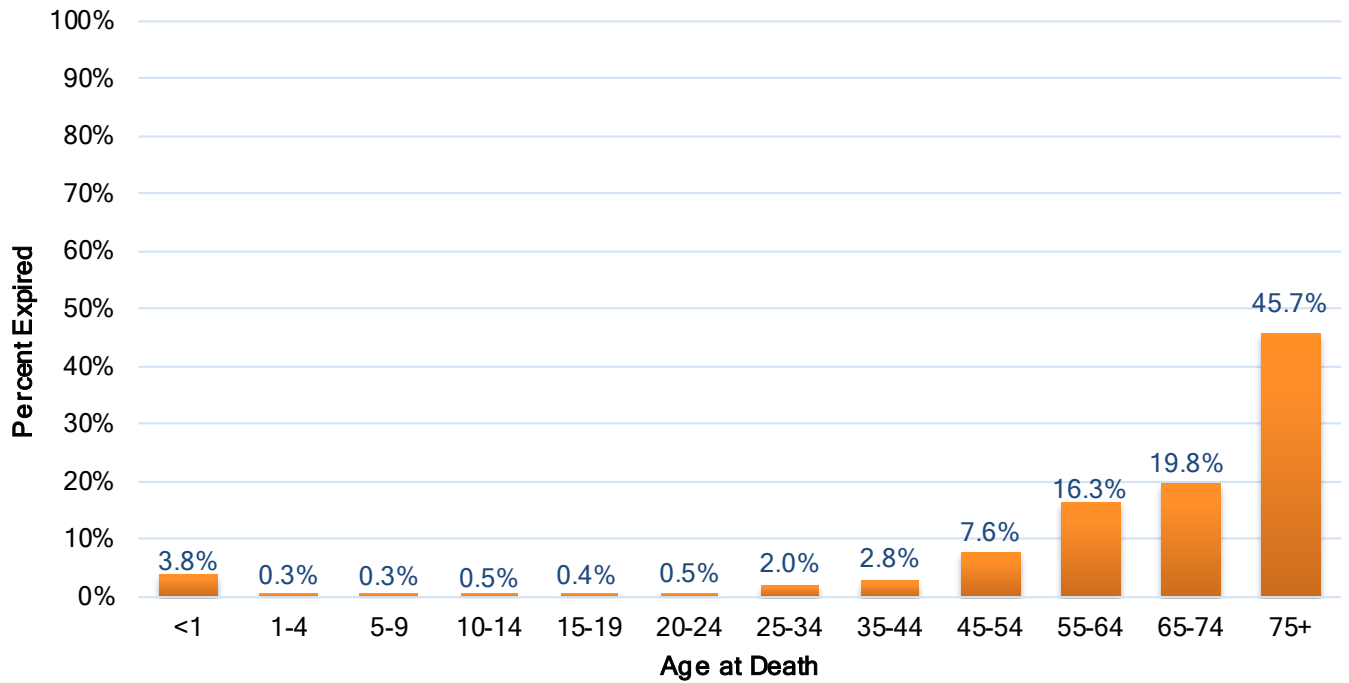
1. Diagnoses selected by taking the top ten diagnoses for each age group.

Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center



APPENDIX H

H 1. Percent of Patients who Died while Hospitalized by Age Group, Delaware Hospitals, 2013



Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

**Methods**

Hospital discharge data is recorded in the state’s uniform claims and billing database, which is maintained under contract by the University of Delaware. Pursuant to the Uniform Health Data Act (16 Del Code, C.20), Delaware hospitals must submit uniform claims and billing data each quarter. These quarterly submissions are checked for data quality and completeness, and collated into an annual file by the University of Delaware. Each annual data file is stored at the Delaware Health Statistics Center, which is responsible for all data analysis, reports, and fulfilling of data requests.

**Rate calculations and significance testing**

Hospital Discharge Rates were calculated using the Delaware Population Consortium’s (DPC) October 2014 population projections, and were presented as the number of discharges per 10,000 population. Significance testing for the difference between rates was performed using the following formula:

Rates - When the absolute value of the following statistic is greater than 1.96, then the difference between two rates ( $R_1 - R_2$ ) is considered statistically significant at the 95 percent confidence level.

$$z = \frac{R_1 - R_2}{\sqrt{\left(\frac{R_1^2}{N_1} + \frac{R_2^2}{N_2}\right)}}$$

where

- R<sub>1</sub> = first rate
- R<sub>2</sub> = second rate
- N<sub>1</sub> = first number of discharges
- N<sub>2</sub> = second number of discharges

Percents - When the absolute difference between two proportions is greater than the statistic in the formula below, the difference is considered statistically significant at the 95 percent confidence level.

$$1.96 \times \sqrt{p(1-p) \left(\frac{1}{N_1} + \frac{1}{N_2}\right)}$$

where

- N<sub>1</sub> = first denominator
- N<sub>2</sub> = second denominator

$$p = \frac{N_1 * p_1 + N_2 * p_2}{N_1 + N_2}$$

- p<sub>1</sub>=the first percent
- p<sub>2</sub>=the second percent

### Definitions

**Admission source** - The source of the patient's admission, e.g., emergency, another hospital, or long term care facility, which describes how the patient was admitted.

**Aggregate charges** - The sum of all charges for all hospital stays.

**Body System** - In this report, it represents the more generalized grouping of CCS categories that correspond with ICD-9 CM chapter headings.

**Clinical Classification System (CCS)** - This refers to the classification system developed at the Agency for Healthcare Research and Quality (AHRQ) used to aggregate ICD-9-CM codes into broader, homogeneous groups. In this report, the 2013 version of the single-level diagnosis classification scheme is used for both diagnoses and procedures. Because CCS codes are based on ICD-9-CM diagnoses, they can be mapped to ICD-9-CM chapter headings. Data in this report are presented by both CCS diagnoses and by ICD-9-CM chapters. For more information, see <https://www.ahrq.gov/research/data/hcup/index.html>.

**Discharge** - A completed inpatient hospitalization. A hospitalization may be completed by death or by releasing the patient to his or her home, a long-term care facility, another hospital, or if the patient leaves against medical advice.

**Discharge Status** - The disposition of a patient at discharge from the hospital into one of the following categories:

- Home or routine discharge - patient returned to previous place of residence after discharge from the hospital.
- Long-term care facility - patient entered a nursing home including skilled nursing facilities, extended care facilities, custodial care facilities, or other long-term care placement upon discharge from the hospital.
- Another short-term hospital - patient transferred to another short-term hospital at discharge, including short-term maternity hospitals.
- Against medical advice (AMA) - patient left the hospital against medical advice.
- Expired - patient who died during the inpatient stay.
- Home health care - patient discharge to home where care is provided by a home health care agency for the purpose of promoting, maintaining, or restoring health, or for minimizing the effects of disability and illness, including terminal illness.
- Unknown - patient whose status was not entered.

**Ecodes** - Indicate the external causes of injuries and poisonings as well as the adverse effects of drugs and substances. They are intended to provide data for injury research and evaluation of injury prevention strategies. These codes capture how the injury or health condition happened (cause), the intent (unintentional or accidental; or intentional, such as suicide or assault), the place where the event occurred, the activity of the patient at the time of the event, and the person's status (e.g. civilian, military).

**Expected source of payment** - The principal expected source of payment for the hospitalization.

- Medicare - The health insurance program for the aged and disabled administered by the Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration).
- Medicaid - A jointly funded Federal-State health insurance program providing medical care to those unable to afford it.
- Worker's compensation - A State or municipal disability insurance or industrial accident insurance.
- Private health insurance- Includes HMO/PPO, Blue Cross/Blue Shield, and other private insurance.

- HMO/PPO - Any health maintenance organization (HMO) or preferred provider organization (PPO) sponsored by consumers, communities, physicians, or hospitals.
- Blue Cross/Blue Shield and other private - A private insurance plan not specified as an HMO/PPO. This includes Blue Cross/Blue Shield plans, medical coverage provided by life insurance companies, casualty insurance companies, health insurance companies, and independent plans such as employer/union-sponsored plans and/or self-funded plans (partial or total).
- Self-pay - The majority of the costs for the hospitalization were expected to be paid by the patient, spouse, family, or next-of-kin.

## TECHNICAL NOTES

- Other government - Other Federal, State, or local government other than worker's compensation, Medicare, and Medicaid not listed separately, including casualty insurance paid by the State, Federal or State medical research grant.
- No charge - Patients admitted with the understanding that payment would not be expected because the medical services are free, e.g., charity patients or research or teaching patients.
- Other and not stated.

**Hospital charges** - The amount the hospital charged for the entire hospital stay.

**International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)** - The official system of assigning codes to diagnoses and procedures associated with hospital stays in the United States. The ICD-9-CM is based on and is compatible with the World Health Organization's International Classification of Diseases, Ninth Revision. ICD-9-CM is divided into 17 chapters and two supplemental classifications. Diagnoses are grouped under chapters arranged primarily by body system. In addition, there are chapters for infectious and parasitic diseases; neoplasms; endocrine, metabolic, and nutritional diseases; mental disorders; complications of pregnancy, childbirth and puerperium; certain conditions originating in the perinatal period; congenital anomalies; and symptoms, signs, and ill-defined conditions. The two supplemental classifications are for factors influencing health status and contact with health services and classification of external causes of injury and poisoning. More information can be found online at: <https://www.cdc.gov/nchs/icd/icd9cm.htm>.

**Length of stay** - The number of nights the patient remained in the hospital for this stay.

**Liveborn** - The term for the hospitalization that results from an infant being born in the hospital, also referred to as newborn. They are identified by a specific range of ICD-9 CM codes on the discharge record. Records of infants born in the hospital are separate and distinct from the mothers' discharge records, so excluding liveborn infants does not remove the mother's discharge data from the analysis.

**Long-term care facility** - A facility that provides a specific level of personal or medical care or supervision to residents. Types of long-term care facilities include licensed nursing homes, skilled nursing facilities (SNF), intermediate care facilities (ICF), hospice medical facilities, and other health care institutions, such as institutions for those with intellectual disabilities.

**Mean length of stay** - Average length of stay for discharges. It is calculated by dividing the total number of days of care by the number of discharges.

**Obstetric (OB)** - The branch of care that deals with the management of pregnancy, labor, and the puerperium.

**Primary diagnosis** - The diagnosis chiefly responsible for the admission of the patient to the hospital; it is the first-listed diagnosis specified on the discharge summary of the medical record.

**Procedures** - Up to six procedures, the principal and five additional, may be recorded on a single hospital stay.

- Principal procedure - refers to the first-listed procedure, which is the procedure performed as a specific treatment for the hospitalization, or the one most closely related to the principal diagnosis.
- All-listed procedures - refers to the principal plus any secondary procedures appearing on a single discharge record/performed during a hospital stay. Because patients often receive more than one procedure, the number

of all-listed procedures usually exceeds the number of discharge with procedures.

**Procedure classes** - Refers to AHRQ's HCUP classification system for procedures, which are categorized into four general categories: minor diagnostic, minor therapeutic, major diagnostic, and major therapeutic. The two minor categories are considered non-operating procedures and the two major categories are considered valid operating procedures. This report uses the 2013 version of the classification system. More information can be found at: <http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp>.

**Puerperium** - The period or state of confinement after labor and giving birth.

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## TECHNICAL NOTES

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**Rate** - A rate is a measure of an event, disease, or condition in relation to a unit of population for a specified time. For example, the five-year average discharge rate per 10,000 population is calculated as follows:

$$(\text{Five-year total number of discharges} / \text{Five-year total population}) * 10,000$$

**Short-stay Hospitals** - A short-stay hospital is one where the average length of stay is less than 30 days.

**Uninsured patients** - A term for those patients whose primary payer is listed as self-pay.

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