
DELAWARE HOSPITAL
DISCHARGE SUMMARY
REPORT ♦ 2011

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DELAWARE HEALTH AND SOCIAL SERVICES

Division of Public Health

Acknowledgments

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EXECUTIVE SUMMARY

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 2011 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 data presented 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 Medical Center (which consists of Kent General Hospital and Milford Memorial Hospital), Beebe Medical Center, and Nanticoke Memorial Hospital¹.

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 2010 to 2011. Despite the drop in discharges, aggregate hospital charges continued their steady increase (see page 20).
- Women accounted for 57.8 percent of hospital discharges compared to 42.2 percent for men. In the 25 to 34 year age group, four out of every five discharges were women.
- Inpatient hospitalizations in 2011 generated total charges of \$2.79 billion; 47 percent of that total (\$1.31 billion) was billed to Medicare.
- In 2011, the average length of stay (ALOS) was 4.8 days and the mean charge for a hospitalization was \$25,359.
- 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 22.5 percent of hospitalizations was a clinic or physician's office.
- Non-residents accounted for 12.8 percent of all discharges from Delaware hospitals, most of whom came from Pennsylvania, Maryland, and New Jersey.

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

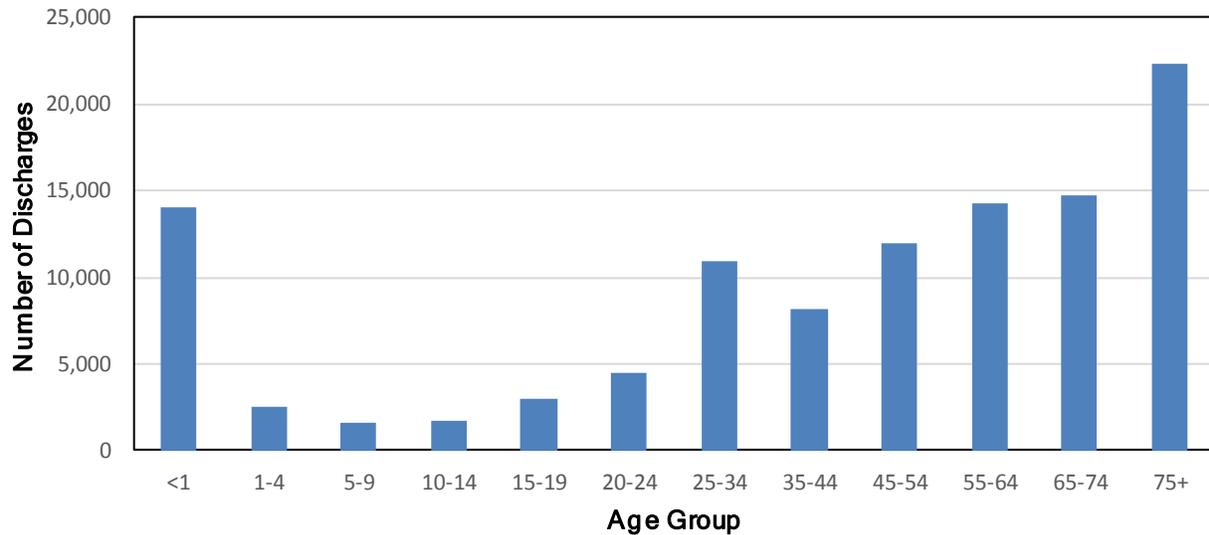
EXECUTIVE SUMMARY

- Hospital stays for previous C-sections represented 12.8 percent of pregnancy related discharges compared to 5.1 percent for normal deliveries.
- The average length of stay for premature and low birth weight babies was 25.6 days compared to 3.5 days for all deliveries.
- Over two-thirds of patients underwent a procedure while hospitalized; 24.7 percent had only one procedure, 17.9 had two procedures, and 26.9 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; 65.5 percent of uninsured patients and 75.6 percent of Medicare patients were admitted through the ED in 2011.
- Medicare and private insurers were the primary payers in 39.8 and 29.3 percent, respectively, of all hospital discharges in 2011. Medicaid was the primary payer in 23.4 percent of all hospital stays, and uninsured hospitalizations accounted for 5.0 percent of the total stays. The remaining 2.4 percent of hospitalizations were covered by other specified or unknown programs.

PATIENT CHARACTERISTICS

Patients under one year old accounted for 12.8 percent of all discharges in 2011; the majority of these discharges were infants hospitalized by virtue of being born in the hospital. Patients 65 and older were responsible for 33.7 percent of all discharges in 2011.

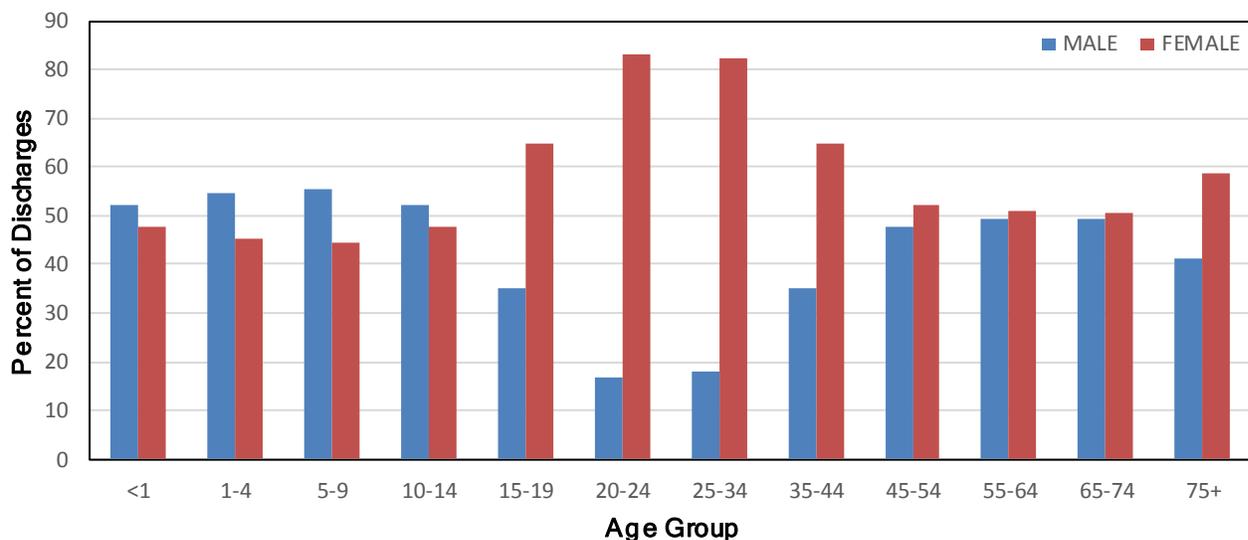
Figure 1. Hospital Discharges by Age Group, Delaware Hospitals, 2011.



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

Males made up the majority of discharges in the age groups under 15. 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 2011, 57.8 percent of total discharges were women.

Figure 2. Percentage of Discharges by Sex and Age Group, Delaware Hospitals, 2011.

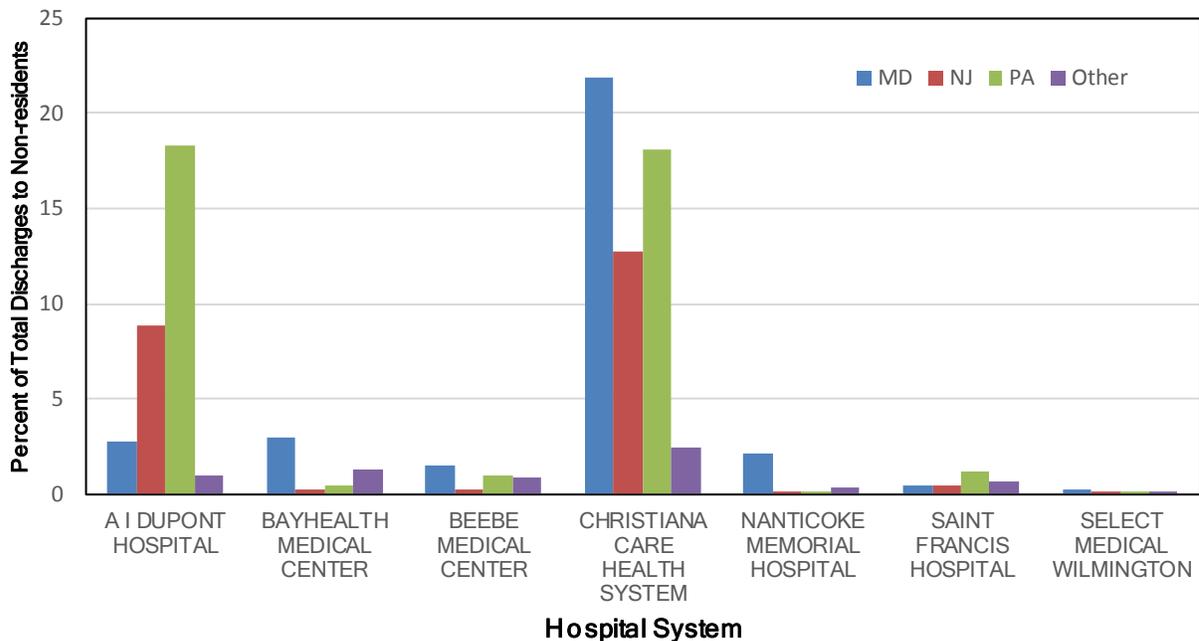


Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

PATIENT CHARACTERISTICS

Non-residents accounted for 12.8 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 (49.7 percent).

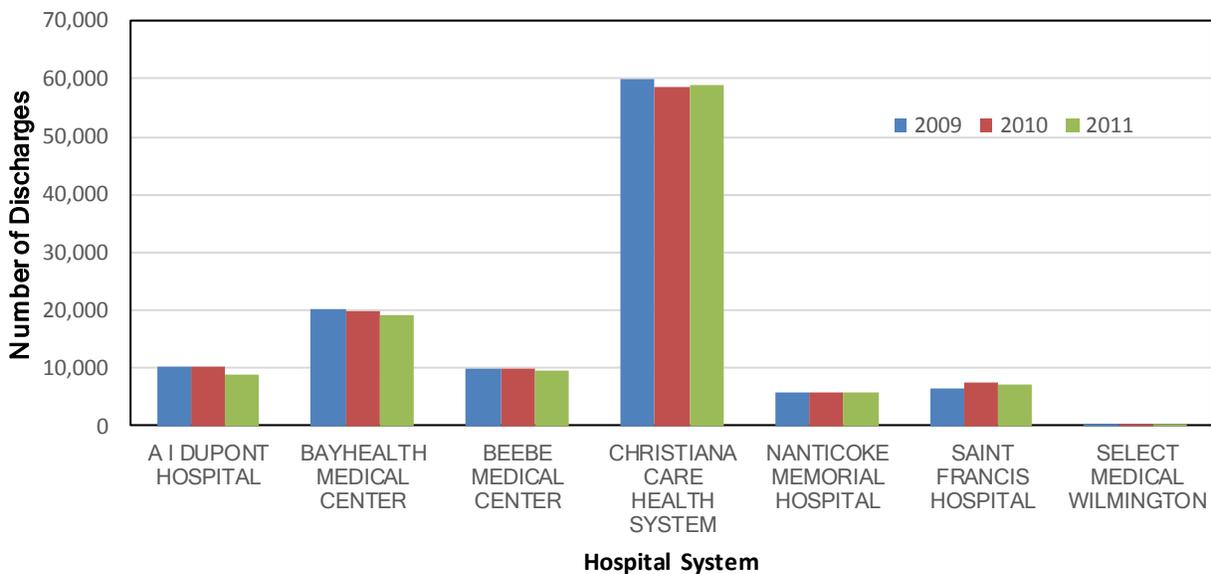
Figure 3. Percentage of Non-Resident Discharges by State, Delaware Hospitals, 2011



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

Hospital admissions declined slightly between 2009 and 2011. Total admissions fell 2.8 percent moving from 113,101 in 2009 to 109,965 in 2011. The two hospitals with the greatest percent change were A.I. duPont, which decreased 17.5 percent; and Select Medical, which increased 21.1 percent.

Figure 4. Number of Discharges by Hospital System, 2009-2011

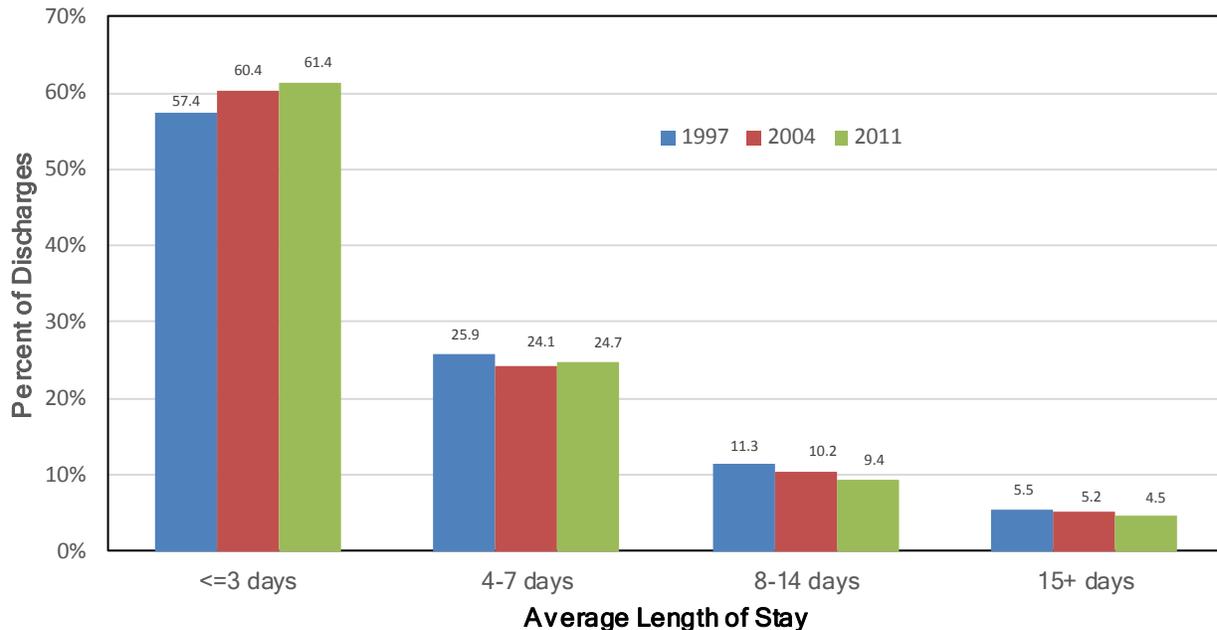


Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

PATIENT CHARACTERISTICS

Average length of stay (ALOS) dropped from 5.1 days in 1997 to 4.8 days in 2011. This decline was primarily due to an increase in the percentage of patients staying less than three days. In 2011 61.4 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 (17.9 percent).

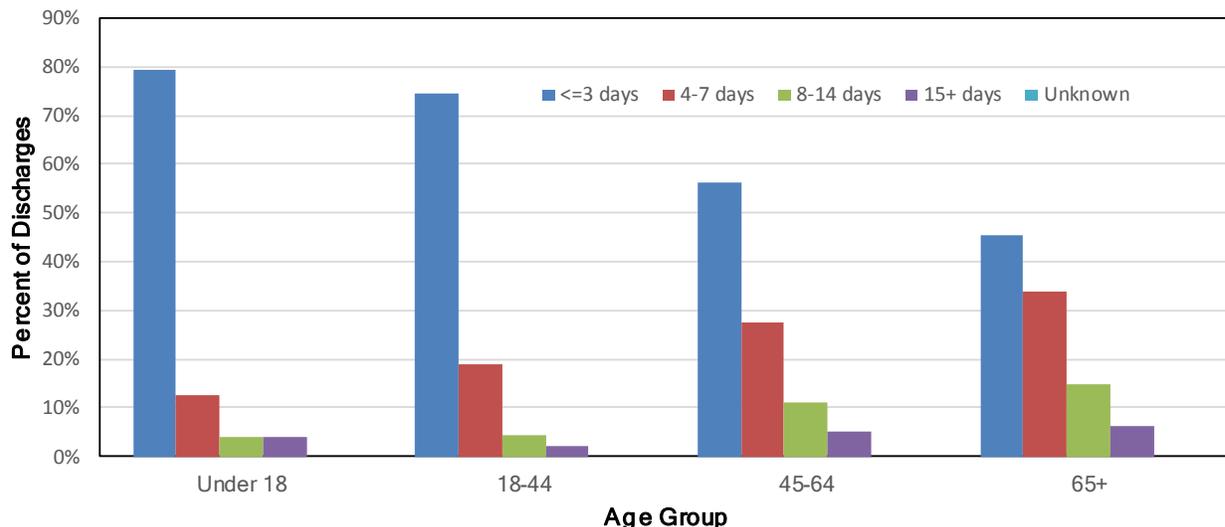
Figure 5. Percent of Hospital Discharges by Average Length of Stay Delaware, Selected Years 1997-2011



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

Length of stay varies with age of patient. Patients under the age of 18 have the shortest lengths of stay. In 2011, 79.3 percent of patients under 18 had hospital stays of three days or less, compared to 45.4 percent for patients 65 and over. Patients age 65 and over were more than three times as likely to have stays of 8 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, 2011



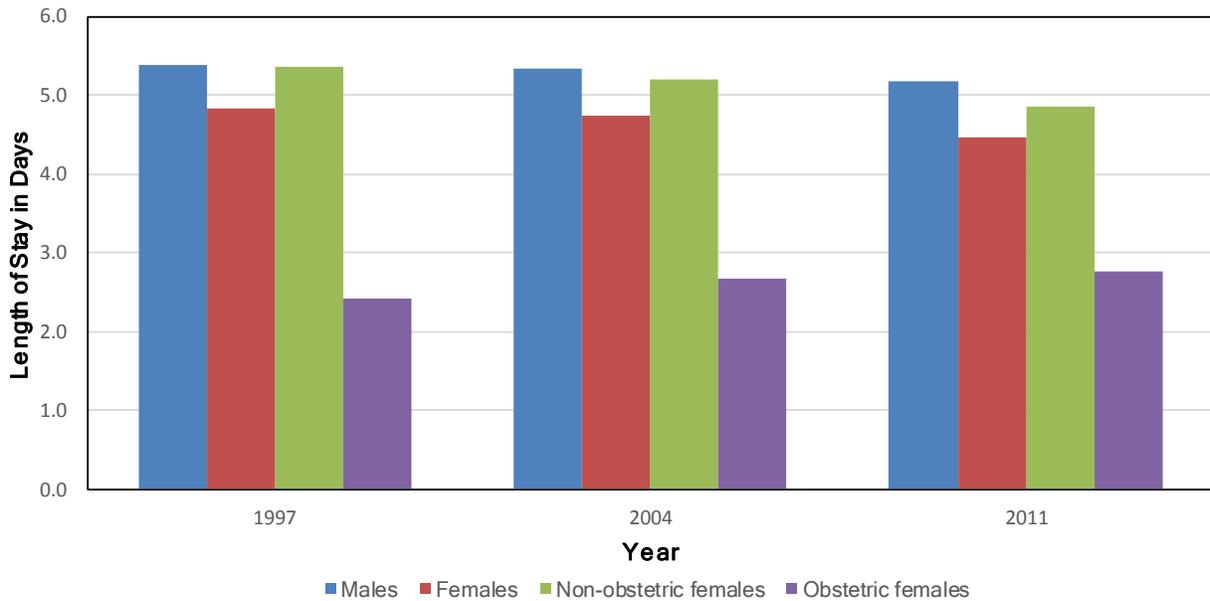
Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

PATIENT CHARACTERISTICS

Gender

Between 1997 and 2011, the average length of stay (ALOS) for male and female patients declined 3.9 and 7.4 percent respectively. When female obstetrical patients were excluded from the calculation of average length of stay, male and female patients had similar ALOS figures in all time periods. The only increase in average length of stay from 1997 to 2011 was seen in female obstetrical patients, whose length of stay increased 13.8 percent.

Figure 7. Mean Length of Stay by Patient Type, Delaware Hospitals Selected Years, 1997, 2004, 2011.



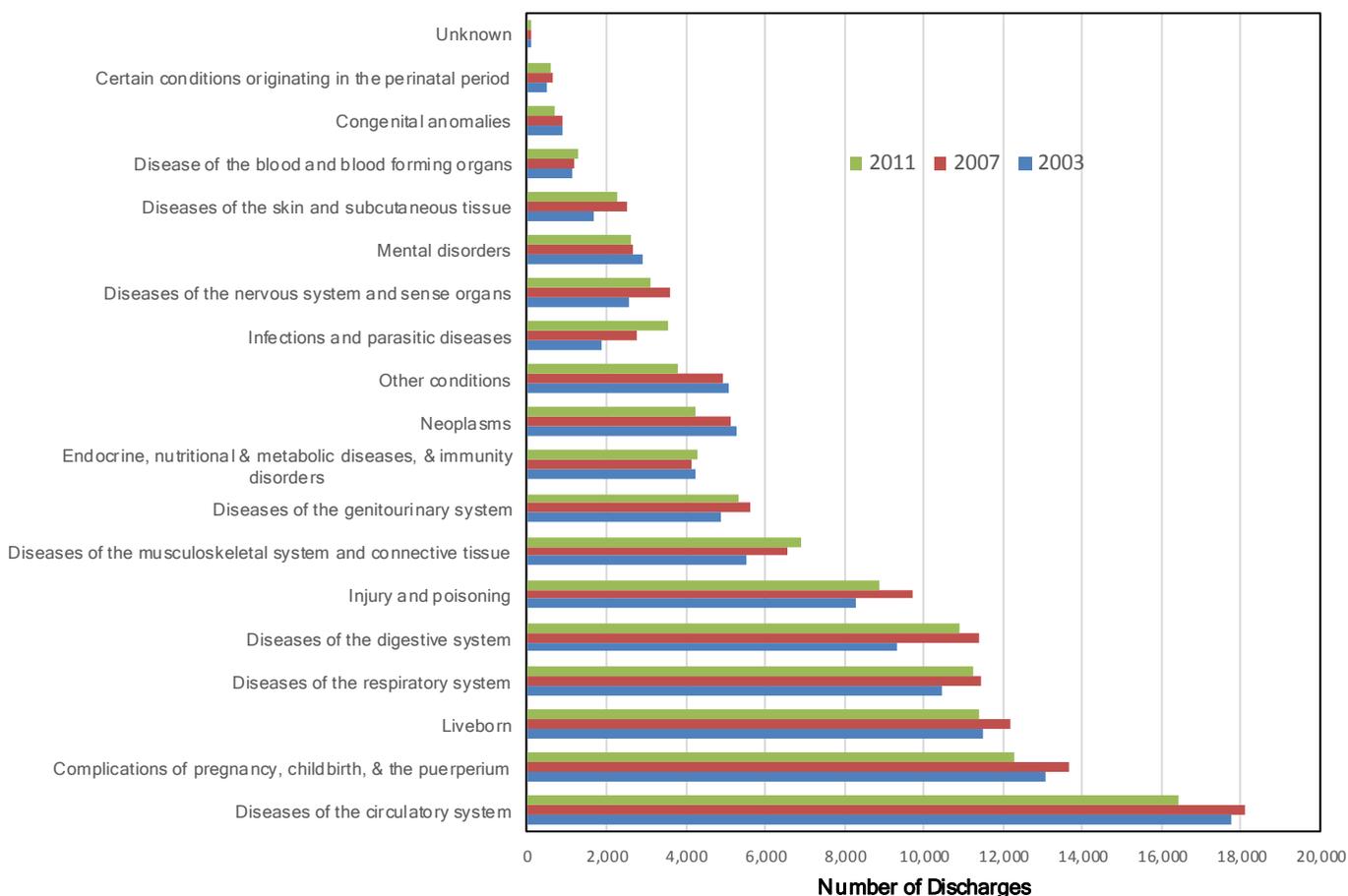
Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

WHY PATIENTS WERE HOSPITALIZED

Most frequent reasons for hospitalization by primary diagnosis and body system²:

Diseases of the circulatory system accounted for 14.9 percent of the total discharges in 2011 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 11.2 percent of the total discharges, and 10.2 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 36.4 percent of all hospitalizations.

Figure 8. Number of Discharges by Body System, Delaware Hospitals, Selected Years, 2003-2011



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

The largest percent increase (90.2 percent) in hospitalizations from 2003 to 2011 occurred in infections and parasitic diseases. Diseases of the skin and subcutaneous tissue also demonstrated a large percentage increase (33.7 percent) from 2003 to 2011. At 25.5 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 (25.7 percent).

² 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 primary diagnosis of "Pregnancy & childbirth". Both men and women experienced high numbers of discharges due to pneumonia, 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 2011

| CCS Principal Diagnosis | MALE | | | FEMALE | | |
|---|--------|------|------|--------|------|------|
| | # | % | Rank | # | % | Rank |
| <i>All diagnoses</i> | 46,388 | 100 | | 63,577 | 100 | |
| Pregnancy & childbirth | --- | --- | --- | 12,305 | 19.4 | 1 |
| Liveborn Infant | 5,791 | 12.5 | 1 | 5,597 | 8.8 | 2 |
| Pneumonia (except that caused by tuberculosis or STD) | 1,663 | 3.6 | 2 | 1,812 | 2.9 | 4 |
| Osteoarthritis | 1,218 | 2.6 | 5 | 1,923 | 3.0 | 3 |
| Congestive heart failure; nonhypertensive | 1,416 | 3.1 | 3 | 1,382 | 2.2 | 6 |
| Septicemia (except in labor) | 1,294 | 2.8 | 4 | 1,422 | 2.2 | 5 |
| Chronic obstructive pulmonary disease and bronchiectasis | 914 | 2.0 | 14 | 1,268 | 2.0 | 8 |
| Spondylosis; intervertebral disc disorders; other back problems | 937 | 2.0 | 12 | 1,048 | 1.6 | 9 |
| Skin and subcutaneous tissue infections | 1,071 | 2.3 | 7 | 897 | 1.4 | 12 |
| Cardiac dysrhythmias | 1,003 | 2.2 | 8 | 941 | 1.5 | 11 |
| Acute cerebrovascular disease | 924 | 2.0 | 13 | 990 | 1.6 | 10 |
| Diabetes mellitus with complications | 984 | 2.1 | 9 | 888 | 1.4 | 13 |
| Acute myocardial infarction | 1,159 | 2.5 | 6 | 706 | 1.1 | 21 |
| Complication of device; implant or graft | 948 | 2.0 | 11 | 876 | 1.4 | 14 |
| Urinary tract infections | 436 | 0.9 | 28 | 1,309 | 2.1 | 7 |

Source: Delaware 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) and skin and subcutaneous tissue infections 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, coronary atherosclerosis and other heart disease, and spondylosis; intervertebral disc disorders; other back problems comprised the top three diagnoses.
- For those over 65, congestive heart failure; nonhypertensive, osteoarthritis, and pneumonia (except that caused by tuberculosis or a sexually transmitted disease) 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.

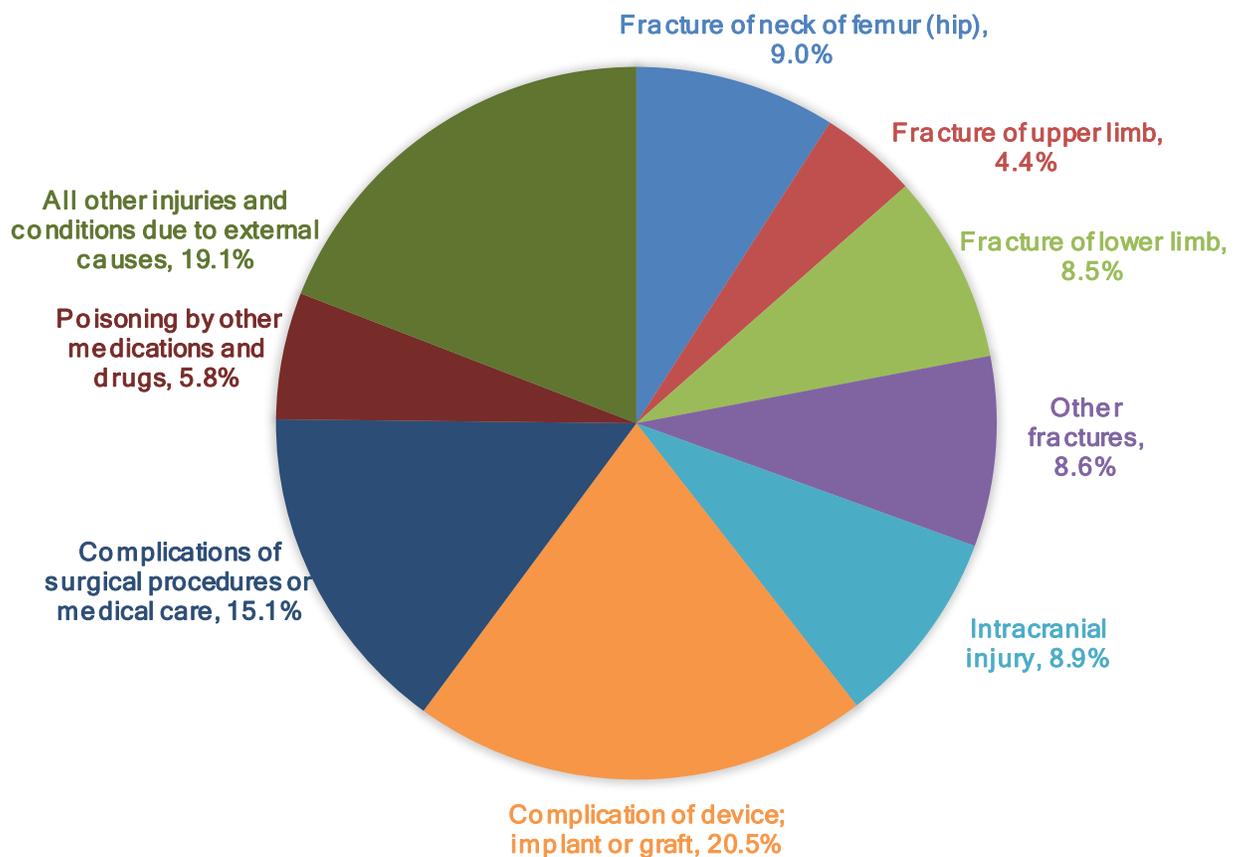
WHY PATIENTS WERE HOSPITALIZED - INJURIES

Injury hospitalizations:

Injury hospitalizations accounted for 8.1 percent of the total number of discharges and \$278 million in aggregate charges in 2011. The majority of patients were admitted through the emergency department, and the average charge for an injury stay ranged from \$18,842 for sprains and strains to \$75,399 for spinal cord injuries, with an overall average charge of \$31,222 (see Appendix A).

The most common primary diagnosis for an injury hospitalization in 2011 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 15.1 percent of injury hospitalizations, followed by fracture of neck of femur (hip) (9.0 percent), intracranial injury (8.9 percent), and other fractures (8.6 percent).

FIGURE 9. MOST FREQUENT INJURY DIAGNOSES, DELAWARE HOSPITALS, 2011



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

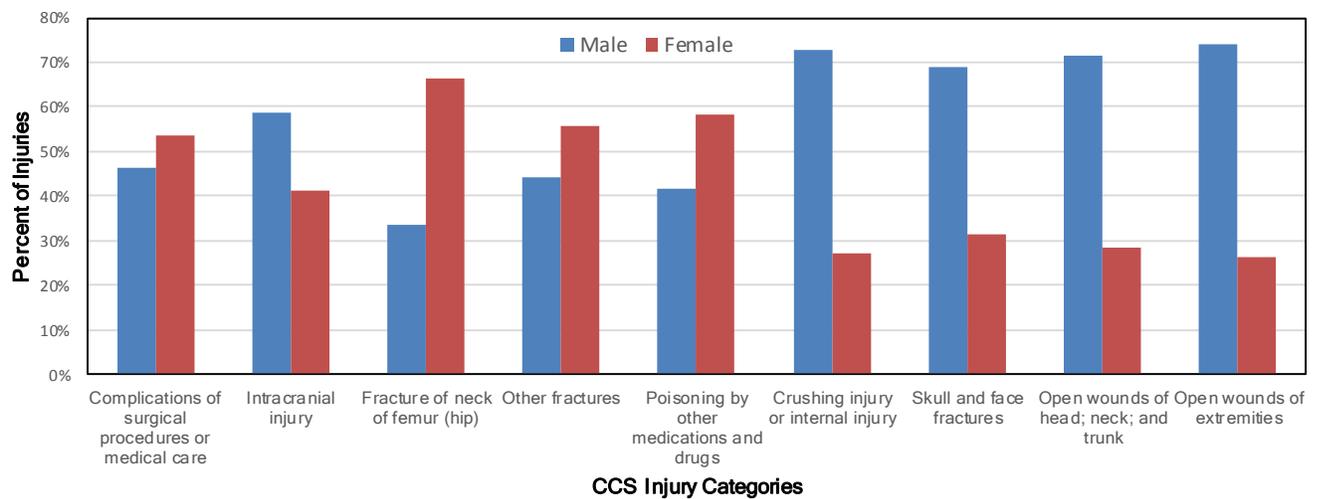
Falls were the most frequently specified external cause of injury (as defined by the Ecode listed on the discharge record). Falls accounted for 88.3 percent of hip fractures, 69.1 percent of upper limb fractures, 53.6 percent of intracranial injuries, and 52.9 percent of spinal cord injuries. Motor vehicle accidents were responsible for 28.3 percent of intracranial injuries and 20.0 percent of spinal cord injuries. Poisoning by psychotropic agents accounted for 3.0 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 have been 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 have been hospitalized for crushing or internal injuries, open wounds of head, neck, and trunk, skull and face fractures, open wounds of extremities, and intracranial injuries.

Figure 10. Selected Primary Injury Diagnoses by Gender, Delaware Hospitals, 2011



Source: Delaware 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 2011, 69 percent of discharges had at least one associated procedure. Of the 76,411 hospital stays with an accompanying procedure, 35.5 percent had only a principal procedure performed; the remaining 64.5 percent had two or more procedures. Each discharge can have up to six procedures; this report examines the total 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 procedures to assist delivery; respiratory intubation and mechanical ventilation, diagnostic cardiac catheterization; coronary arteriography, and blood transfusion.

Table 2. Most Frequent All-listed Inpatient Procedures, Delaware Hospitals 2011

| CCS Procedure | # of All -listed Procedures | | | % of Discharges with a Procedure |
|---|-----------------------------|--------|-------|----------------------------------|
| | MALE | FEMALE | Total | |
| Other procedures to assist delivery | 0 | 9,937 | 9,937 | 13.0 |
| Respiratory intubation and mechanical ventilation | 5,016 | 4,537 | 9,553 | 12.5 |
| Diagnostic cardiac catheterization; coronary arteriography | 5,795 | 3,690 | 9,485 | 12.4 |
| Blood transfusion | 4,219 | 4,640 | 8,859 | 11.6 |
| Prophylactic vaccinations and inoculations | 3,691 | 3,693 | 7,384 | 9.7 |
| Other vascular catheterization; not heart | 3,217 | 3,362 | 6,579 | 8.6 |
| Fetal monitoring | 0 | 6,135 | 6,135 | 8.0 |
| Ophthalmologic and otologic diagnosis and treatment | 3,007 | 2,912 | 5,919 | 7.7 |
| Other OR procedures on vessels other than head and neck | 3,246 | 2,136 | 5,382 | 7.0 |
| Circumcision | 4,640 | 0 | 4,640 | 6.1 |
| Spinal fusion | 2,054 | 2,302 | 4,356 | 5.7 |
| Other diagnostic procedures (interview; evaluation; consultation) | 2,117 | 2,134 | 4,251 | 5.6 |
| Repair of current obstetric laceration | 0 | 4,012 | 4,012 | 5.3 |
| Cesarean section | 0 | 3,691 | 3,691 | 4.8 |
| Upper gastrointestinal endoscopy; biopsy | 1,485 | 1,782 | 3,267 | 4.3 |

Source: Delaware 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 48 unknown genders.

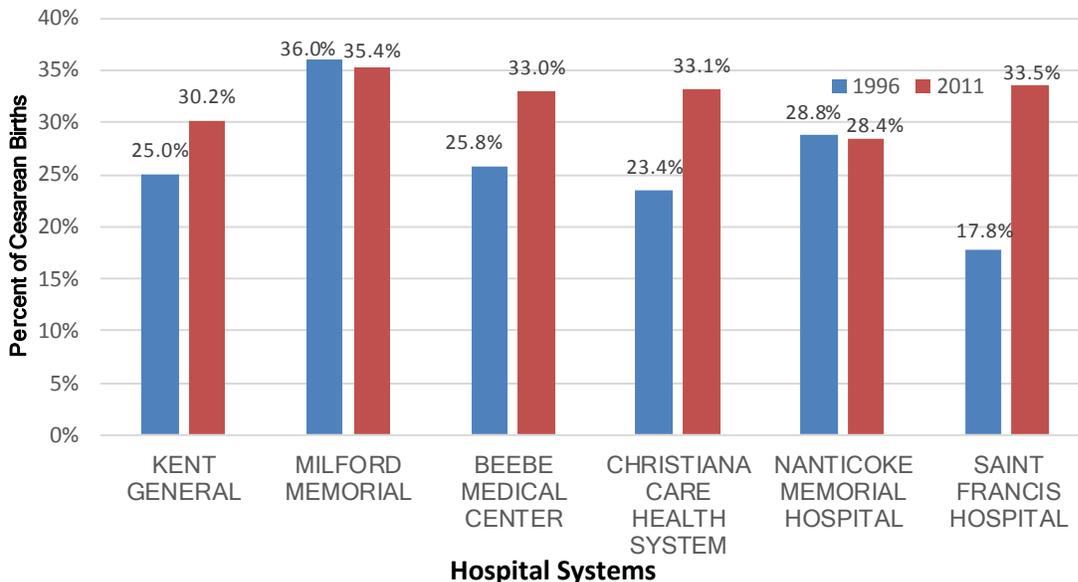
Males most frequently underwent diagnostic cardiac catheterization; coronary arteriography, respiratory intubation and mechanical ventilation; and circumcision. Females most frequently underwent other procedures to assist delivery, fetal monitoring, and blood transfusion. Four of the 10 most commonly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

³ 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 1996, annual cesarean delivery rates increased for every hospital in Delaware; by 2011, 32.4 percent of all births were delivered by cesarean. Saint Francis Hospital and Christiana Care Health System showed the greatest increases, rising 88.0 percent and 41.3 percent respectively. In 2011, Milford Memorial and Saint Francis Hospital had the highest rates, with 35.4 percent and 33.5 percent of all births being delivered by cesareans. Nanticoke Memorial Hospital had the lowest percentage of births delivered by cesarean (28.4 percent).

Figure 11. Annual Cesarean Delivery Rates by Hospital, Delaware Hospitals, 1996 and 2011



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

Gender

In 2011, 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.

For males, diagnostic cardiac catheterization; coronary arteriography accounted for 7.8 percent of the total procedures, followed by respiratory intubation and mechanical ventilation (6.7 percent), and circumcision (6.2 percent).

The following procedures were present in the ten 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.

WHY PATIENTS WERE HOSPITALIZED - PROCEDURES

Age

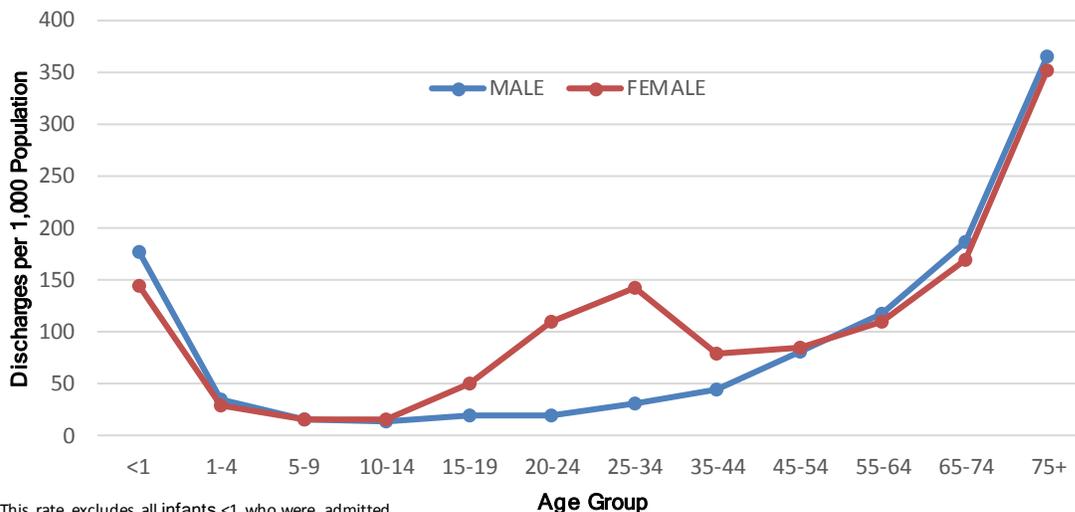
- For patients under 1 year, prophylactic vaccinations and inoculations, ophthalmologic and otologic diagnosis and treatment; and circumcision were the most common procedures.
- For patients ages 1 to 17, other therapeutic procedures on muscles and tendons, other or therapeutic procedures on bone, and 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, diagnostic cardiac catheterization; coronary arteriography, and blood transfusion.

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 slight dip in the rates for those 35-54, 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 1.8 to 5.6 times that of males.

Figure 12. Resident Discharge Rates* by Sex and Age, Delaware Hospitals, 2011

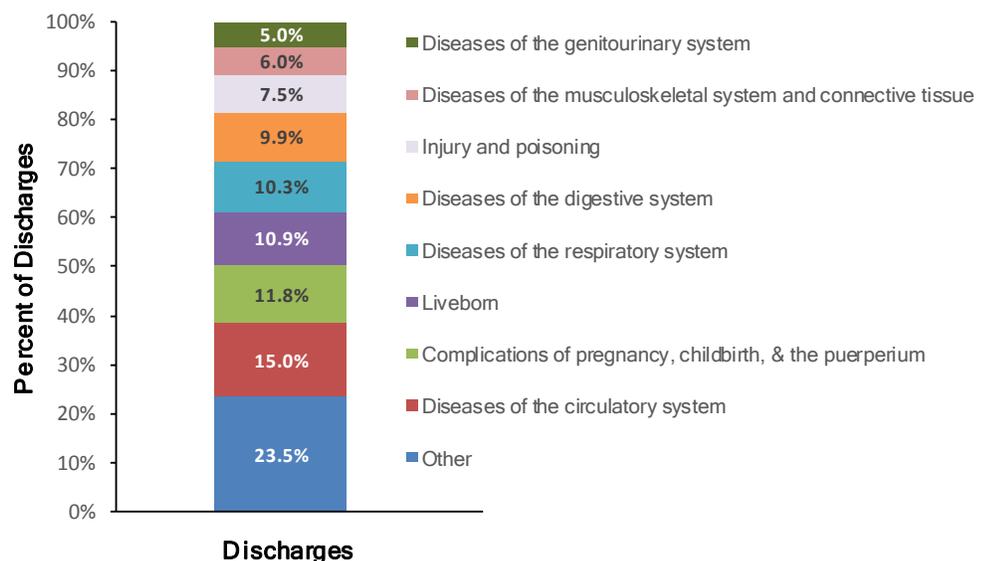


*This rate excludes all infants <1 who were admitted by virtue of being born in the hospital.

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

In 2011, Delawareans were discharged most frequently for diseases of the circulatory system, accounting for 15.0 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. These were followed by diseases of the respiratory system: pneumonia, COPD (chronic obstructive pulmonary disease), and asthma. The fifth most common diagnoses were diseases of the digestive system, including biliary tract disease, gastrointestinal hemorrhage, and intestinal obstruction.

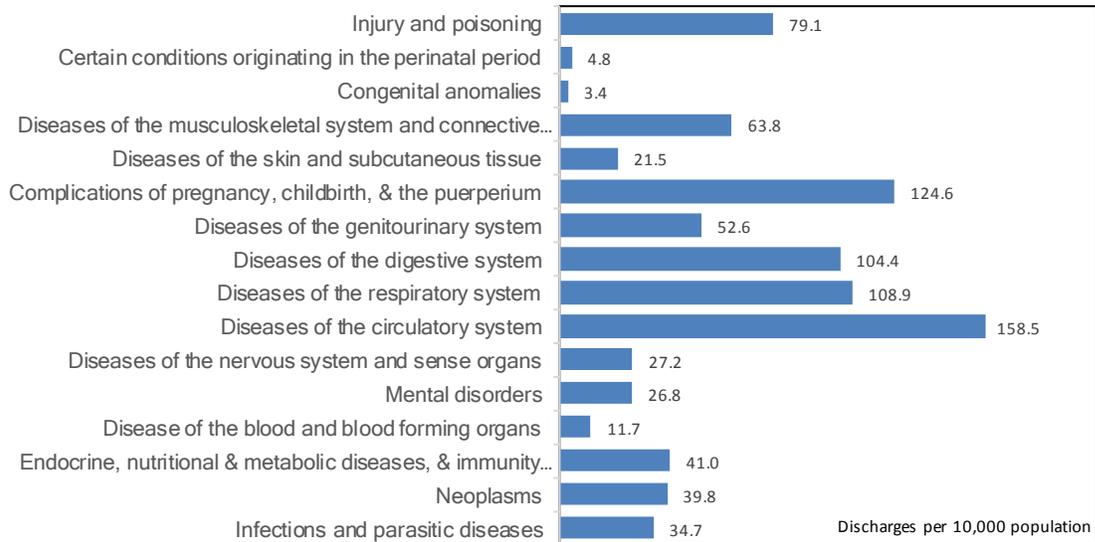
Figure 13. Percent of Resident Discharges by Body System Delaware Hospitals, 2011



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, 2011

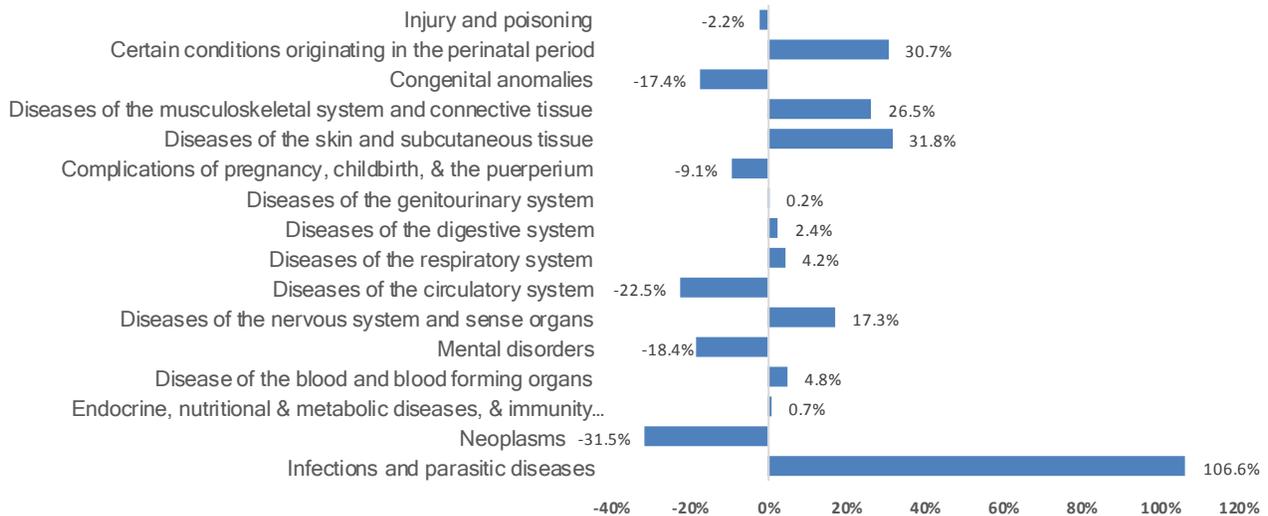


*Excluding hospitalizations related to pregnancy and liveborn infants.

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

High hospital discharge rates in 2011 were not necessarily indicative of large rate increases over the previous 10 years. In some categories, like diseases of the circulatory system, high 2011 rates were maintained in spite of declines over the prior ten-year period. In others, such as diseases of the skin, and infectious and parasitic diseases, 2011 rates were comparatively low, though both had exhibited significant rate increases over the prior ten-year period.

Figure 15. Percent Change in Hospitalization Rates by Body System* Delaware Residents, 2001 versus 2011



*Excluding hospitalizations related to pregnancy and liveborn infants.

Source: Delaware 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 2011.

Table 3. Top 25 CCS Diagnoses with the Highest Hospital Discharge Rates* for Delaware Residents

| | 2001 | | 2006 | | 2011 | | % Change from 2001 to 2011 |
|--|--------|------|--------|------|--------|------|----------------------------|
| | Number | Rate | Number | Rate | Number | Rate | |
| Pneumonia (except that caused by tuberculosis or STD) | 2,762 | 34.7 | 2,830 | 32.9 | 3,095 | 34.1 | -1.7% |
| Osteoarthritis | 1,389 | 17.5 | 2,289 | 26.6 | 2,770 | 30.5 | 74.3% |
| Congestive heart failure; nonhypertensive | 2,639 | 33.2 | 2,834 | 33.0 | 2,560 | 28.2 | -15.1% |
| Septicemia (except in labor) | 701 | 8.8 | 1,604 | 18.7 | 2,487 | 27.4 | 211.4% |
| Chronic obstructive pulmonary disease and bronchiectasis | 1,417 | 17.8 | 1,582 | 18.4 | 2,064 | 22.7 | 27.5% |
| Cardiac dysrhythmias | 1,717 | 21.6 | 1,769 | 20.6 | 1,719 | 18.9 | -12.5% |
| Skin and subcutaneous tissue infections | 1,024 | 12.9 | 1,780 | 20.7 | 1,714 | 18.9 | 46.5% |
| Spondylosis; intervertebral disc disorders; other back problems | 1,422 | 17.9 | 1,613 | 18.8 | 1,701 | 18.7 | 4.5% |
| Diabetes mellitus with complications | 1,177 | 14.8 | 1,412 | 16.4 | 1,696 | 18.7 | 26.4% |
| Acute cerebrovascular disease | 1,359 | 17.1 | 1,413 | 16.4 | 1,675 | 18.4 | 7.6% |
| Acute and unspecified renal failure | 402 | 5.1 | 1,190 | 13.8 | 1,586 | 17.5 | 243.1% |
| Urinary tract infections | 1,153 | 14.5 | 1,650 | 19.2 | 1,574 | 17.3 | 19.3% |
| Acute myocardial infarction | 1,959 | 24.6 | 1,515 | 17.6 | 1,527 | 16.8 | -31.7% |
| Complication of device; implant or graft | 1,131 | 14.2 | 1,448 | 16.9 | 1,460 | 16.1 | 13.4% |
| Rehabilitation care; fitting of prostheses; and adjustment of device | 2,110 | 26.5 | 1,747 | 20.3 | 1,435 | 15.8 | -40.4% |
| Coronary atherosclerosis and other heart disease | 2,201 | 27.7 | 2,348 | 27.3 | 1,233 | 13.6 | -50.9% |
| Respiratory failure; insufficiency; arrest (adult) | 664 | 8.3 | 1,394 | 16.2 | 1,203 | 13.3 | 60.2% |
| Biliary tract disease | 1,081 | 13.6 | 1,168 | 13.6 | 1,145 | 12.6 | -7.4% |
| Complications of surgical procedures or medical care | 1,040 | 13.1 | 1,255 | 14.6 | 1,128 | 12.4 | -5.3% |
| Asthma | 1,295 | 16.3 | 1,540 | 17.9 | 1,065 | 11.7 | -28.2% |
| Fluid and electrolyte disorders | 1,537 | 19.3 | 1,284 | 14.9 | 1,028 | 11.3 | -41.5% |
| Intestinal obstruction without hernia | 735 | 9.2 | 882 | 10.3 | 957 | 10.5 | 14.1% |
| Gastrointestinal hemorrhage | 910 | 11.4 | 853 | 9.9 | 957 | 10.5 | -7.9% |
| Mood disorders | 1,090 | 13.7 | 1,526 | 17.8 | 892 | 9.8 | -28.5% |
| Diverticulosis and diverticulitis | 804 | 10.1 | 870 | 10.1 | 844 | 9.3 | -7.9% |

*Hospitalization rate per 10,000, ranked by 2011 figures. Excluding pregnancy-related discharges and liveborn infants.

Source: Delaware 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:

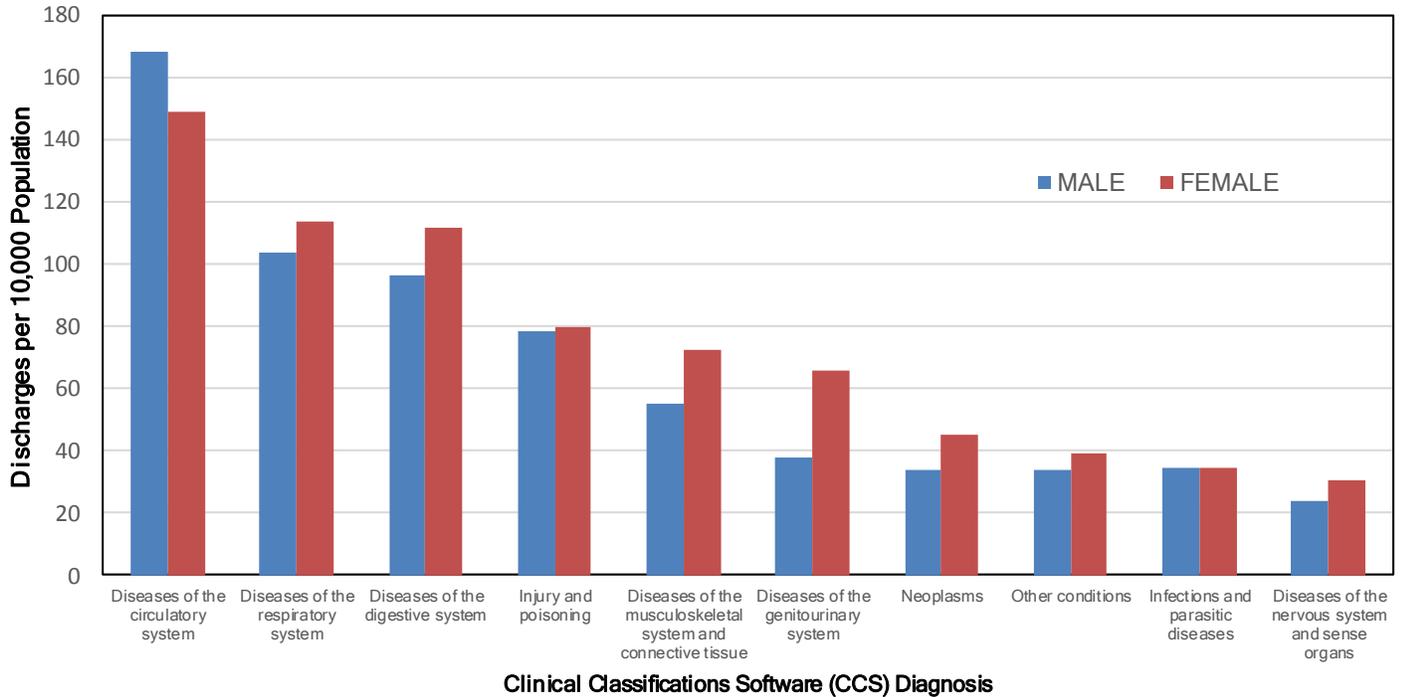
- congestive heart failure;
- coronary atherosclerosis and other heart disease (coronary artery disease);
- cardiac dysrhythmias (irregular heartbeat)
- acute cerebrovascular disease (stroke)
- acute myocardial infarction (heart attack).

Four of the circulatory conditions listed above showed significant decreases in their rates since 2001: heart failure, coronary artery disease, irregular heartbeat, and heart attack.

Hospitalization rates for acute and unspecified renal failure, septicemia (except in labor), and osteoarthritis demonstrated the greatest increases between 2001 and 2011.

HOSPITALIZATIONS OF DELAWARE RESIDENTS

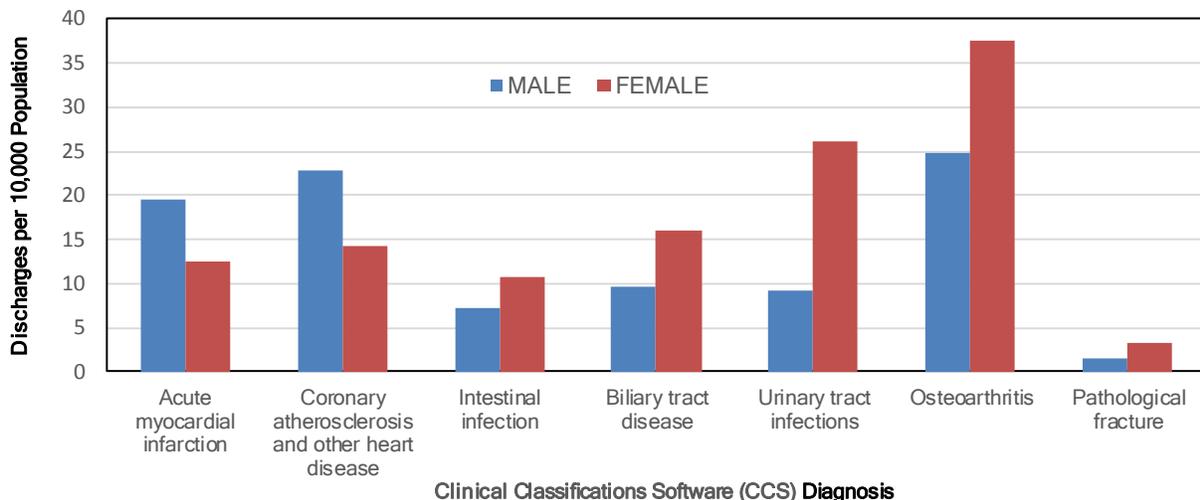
Figure 16. Delaware Resident Discharge Rates by Body System and Gender Delaware Hospitals, 2011



Source: Delaware 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, 2011



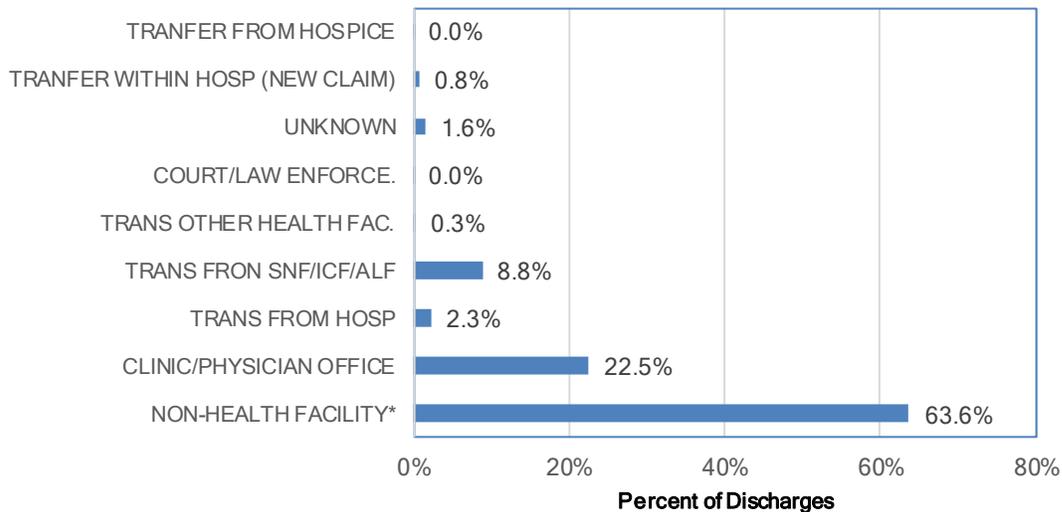
Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

HOW PATIENTS WERE ADMITTED

Point of Origin:

Non-health facilities and clinic/physician offices accounted for 86.1 percent of all hospital discharges in 2011. 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)) 8.8 percent, and other hospitals, 2.3 percent.

Figure 18. Point of Origin Delaware Hospitals, 2011

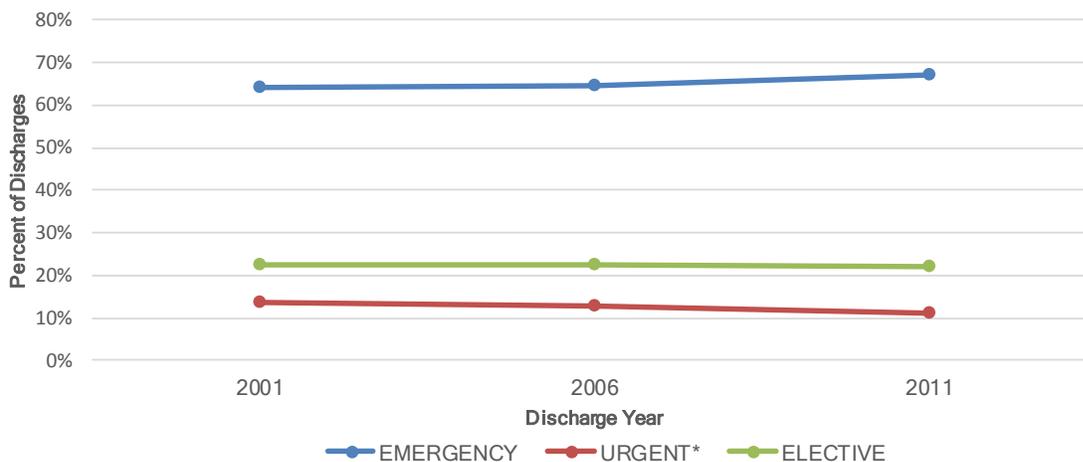


* Non-Health Care Facility includes walk-ins, auto accidents, and ambulance runs

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

Between 2001 and 2011, the majority of admissions continued to be classified as emergency in nature. In 2001, emergency admissions accounted for 64.0 percent of all admissions. By 2011, the proportion of emergency admissions had increased to 67.1 percent, while urgent admissions fell from 13.6 percent to 11.0 percent between 2001 and 2011.

Figure 19. Proportion of Hospital Discharges by Type of Admission Delaware Hospitals, 2001- 2011



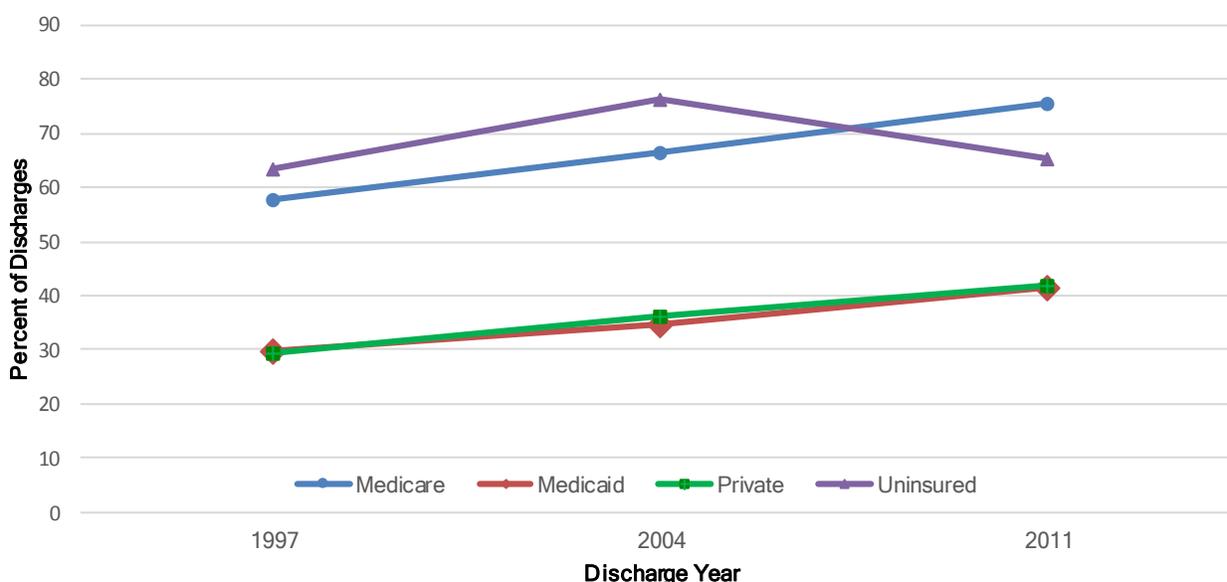
* Urgent encompasses situations that require immediate attention due to a physical or mental disorder but are not life threatening

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

HOW PATIENTS WERE ADMITTED

All primary payers experienced an increase in the percent of discharges coming from the ED, and uninsured patients dropped from the largest proportion of their stays originating in the ED to second place. In 2011, 65.5 percent of uninsured admissions, 75.6 percent of Medicare admissions, 41.8 percent of private admissions, and 41.6 percent of Medicaid admissions were admitted through the ED.

Figure 20. Percent of each Payer's Discharges Originating in the ED Delaware, 1997- 2011



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

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

Table 4. Most Common Diagnoses for ED Admissions

| Delaware Hospitals, 2011 | Frequency | Percent * |
|--|-----------|-----------|
| Pneumonia (except that caused by tuberculosis or STD) | 3,158 | 5.1 |
| Congestive heart failure; nonhypertensive | 2,562 | 4.1 |
| Septicemia (except in labor) | 2,530 | 4.1 |
| Chronic obstructive pulmonary disease and bronchiectas | 2,046 | 3.3 |
| Acute cerebrovascular disease | 1,823 | 2.9 |
| Cardiac dysrhythmias | 1,645 | 2.6 |
| Skin and subcutaneous tissue infections | 1,633 | 2.6 |
| Urinary tract infections | 1,629 | 2.6 |
| Acute myocardial infarction | 1,610 | 2.6 |
| Diabetes mellitus with complications | 1,558 | 2.5 |

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

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

- There was no change in the ten most common diagnoses originating in the ED from 2010 to 2011. The most notable difference was urinary tract infections; its rank changed from sixth to eighth place.
- Four of the 10 most common emergency department diagnoses were related to circulatory conditions: heart failure, stroke, heart attack, and irregular heartbeat.
- Another four of the most common emergency department diagnoses were primarily due to infections: pneumonia, skin infections, septicemia, and urinary tract infections.

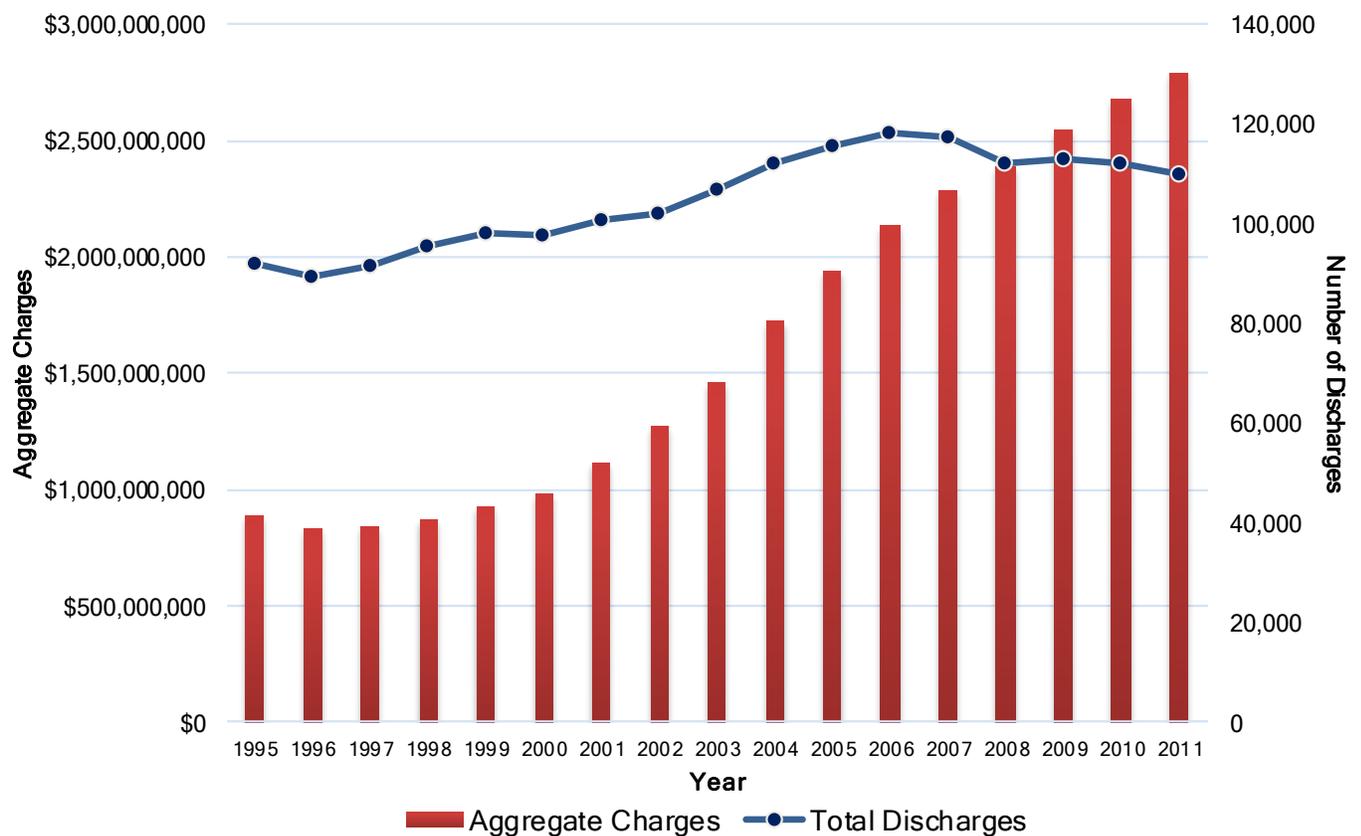
HOSPITAL CHARGES AND BILLING

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 2011, total aggregate charges for all hospitalizations in Delaware equaled \$2.79 billion, almost double the aggregate charges in 2003. The number of discharges rose from 107,037 in 2003 to 109,965 in 2011, a 2.7 percent increase.

Figure 21. Number of Discharges and Total Aggregate Charges by Year Delaware Hospitals, 1995- 2011



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

The average charge for a hospital stay rose from \$23,937 in 2010 to \$25,359 in 2011. The median charge per stay was \$14,195 in 2011, compared to \$13,542 in 2010.

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 \$40,475 to \$134,908. These three diagnostic groups also had the longest average stays, ranging from 7.9 to 11.7 days.

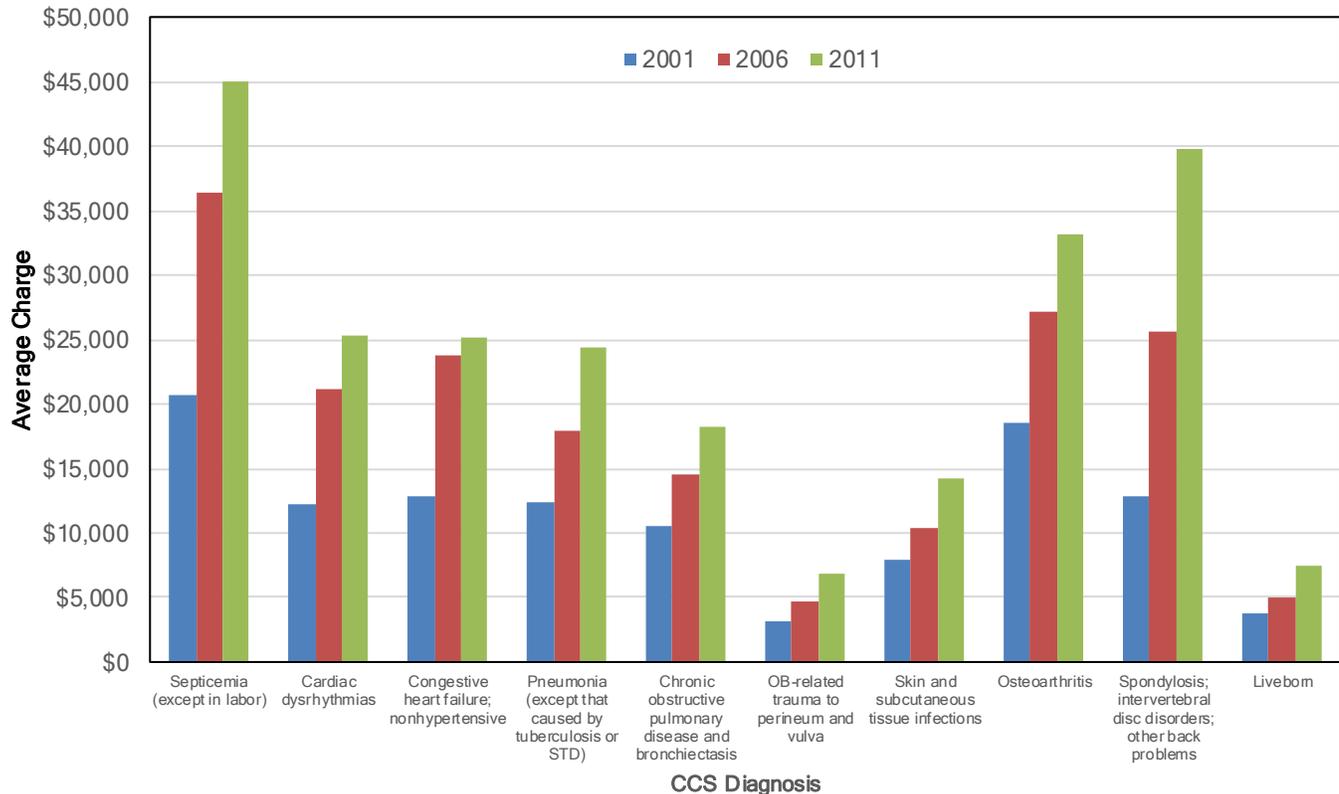
Looking at specific diagnoses within groups showed that the most expensive diagnoses were cardiac and circulatory congenital anomalies, leukemias, respiratory distress syndrome, and attention-deficit. However, the ten most expensive diagnoses occurred relatively rarely and accounted for just 1.4 percent of all discharges in 2011. In comparison, the 10 diagnoses that occurred most frequently accounted for 31.1 percent of the total discharges in 2011 (see Appendix E for more information).

HOSPITAL CHARGES AND BILLING

From 2001 to 2011, 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 (211 percent),
- septicemia (except in labor) (118 percent).
- OB-related trauma to perineum and vulva (114 percent).

Figure 22. Average Hospital Charges for Highest* Volume CCS Diagnoses Delaware Hospitals, 2001 -2011



*Based on 10 most common diagnoses in 2011.

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

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

- In 2001, the aggregate charges for 2011's highest volume diagnoses totaled \$233.3 million and accounted for 21.0 percent of the total aggregate charges for all diagnoses.
- By 2011, the aggregate charges for those same diagnoses had more than doubled to \$680.7 million, which accounted for 24.4 percent of the total aggregate charges.

In 2011, the 10 conditions with the highest total billed charges accounted for 31.5 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 \$122.5 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:

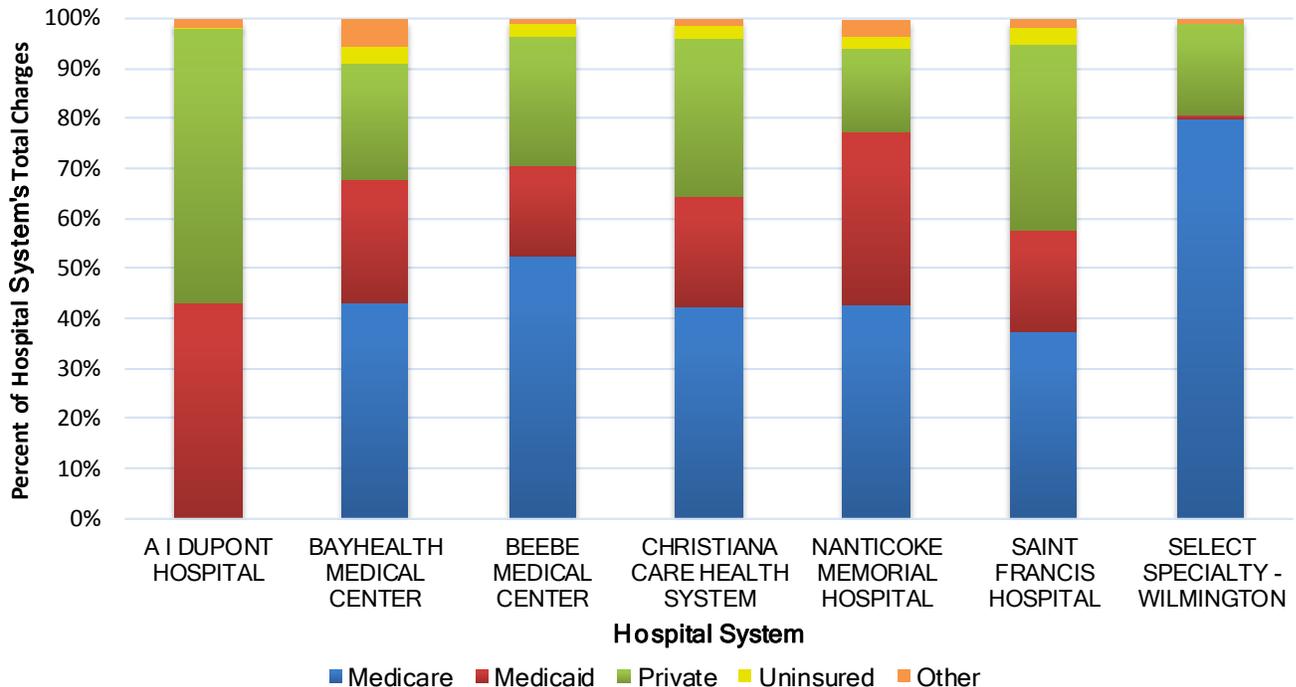
- Medicare
- Medicaid
- Private insurance carriers, such as:
 - Blue Cross Blue Shield
 - HMOs
 - Commercial insurance
- Uninsured
 - Patients who have no insurance and self-pay
- Other types of insurance, such as:
 - Workman's compensation
 - CHAMPUS (Civilian Health and Medical Program of the Uniformed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

In 2011, 64.2 percent of hospitalizations were billed to Medicare (39.8 percent) and Medicaid (24.3 percent), 31.0 percent were billed to private insurance, and the remaining 4.8 percent was billed to other types of coverage (2.4 percent) or to the patient (2.4 percent uninsured).

Patients whose care was primarily billed to Medicare had both the highest average charges and the greatest aggregate charges.

In 2011, 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 Bayhealth Medical Center had the highest percent of charges with no coverage.

Figure 23. Distribution of Total Charges by Primary Payer Type and Hospital System Delaware, 2011



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

HOSPITAL CHARGES AND BILLING

Medicare:

From 1997 to 2011, the percent of hospital stays whose primary payer was Medicare increased from 35.6 to 39.8 percent. Over the same time period, the proportion of aggregate charges billed to Medicare remained at 47 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 14.1 percent of Medicare hospitalizations. The three most frequent diagnoses for Medicare patients in 2011 were⁷:

- congestive heart failure; nonhypertensive
- pneumonia (except that caused by tuberculosis or a sexually transmitted disease)
- septicemia (except in labor).

Medicaid:

From 1997 to 2011, Medicaid covered hospitalizations increased from 12.5 percent to 24.3 percent. Over the same time period, the proportion of aggregate charges billed to Medicaid rose from 10.9 percent to 21.3 percent.

Five of the 10 most frequent diagnoses for Medicaid patients were related to pregnancy and childbirth. The three most frequent diagnoses accounted for 29.3 percent of Medicaid stays. The three most frequent diagnoses for Medicaid patients in 2011 were⁷:

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

Private Insurers:

From 1997 to 2011, privately insured stays decreased from 44.2 percent to 31.0 percent. Over the same time period, the proportion of aggregate charges billed to private insurance decreased from 35.8 percent to 27.5 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 2011 were⁷:

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

Uninsured:

From 1997 to 2011, uninsured hospitalizations decreased from 4.3 percent to 2.4 percent. Over the same time period, the proportion of aggregate charges billed to uninsured patients decreased from 3.4 percent to 2.0 percent.

The three most frequent diagnoses accounted for 13.8 percent of uninsured stays.

The three most frequent diagnoses for uninsured patients in 2011 were⁷:

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

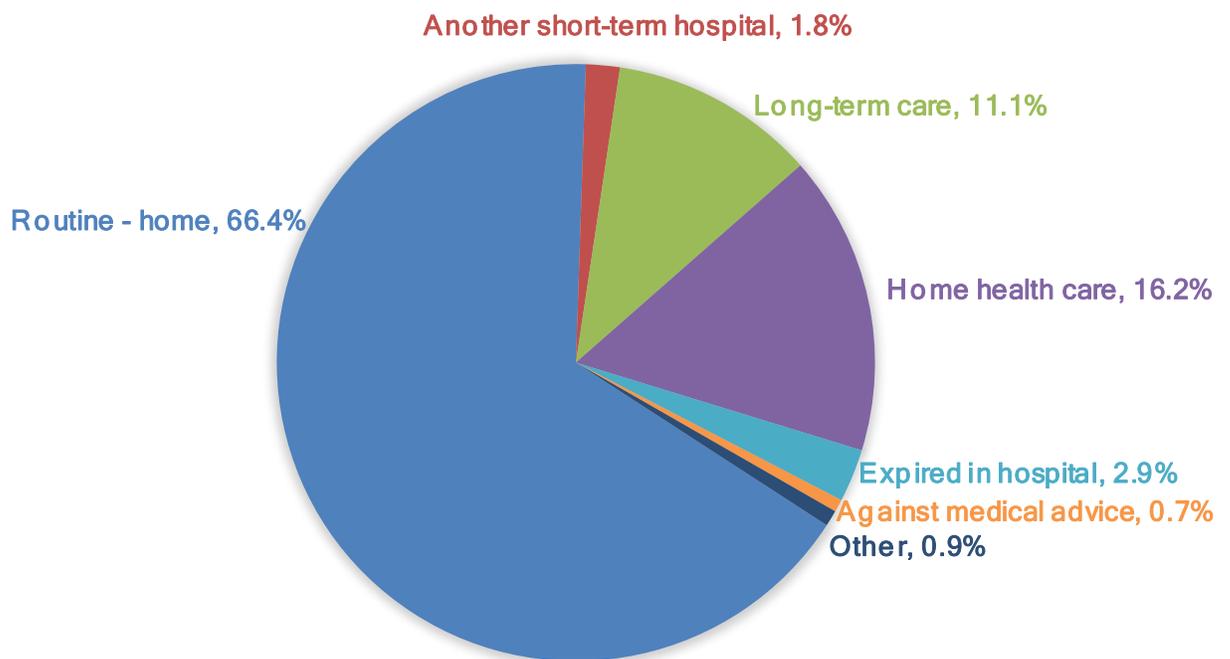
⁷ See Appendix F for the top 10 principal diagnoses by payer type.

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 2011 the majority of patients (66.4 percent) were discharged to their homes, less than three percent of patients died in the hospital, and less than one percent left against medical advice.

Figure 24. Percent of Discharges by Discharge Status Delaware Hospitals, 2011



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

HOW PATIENTS WERE DISCHARGED

Expired Patients:

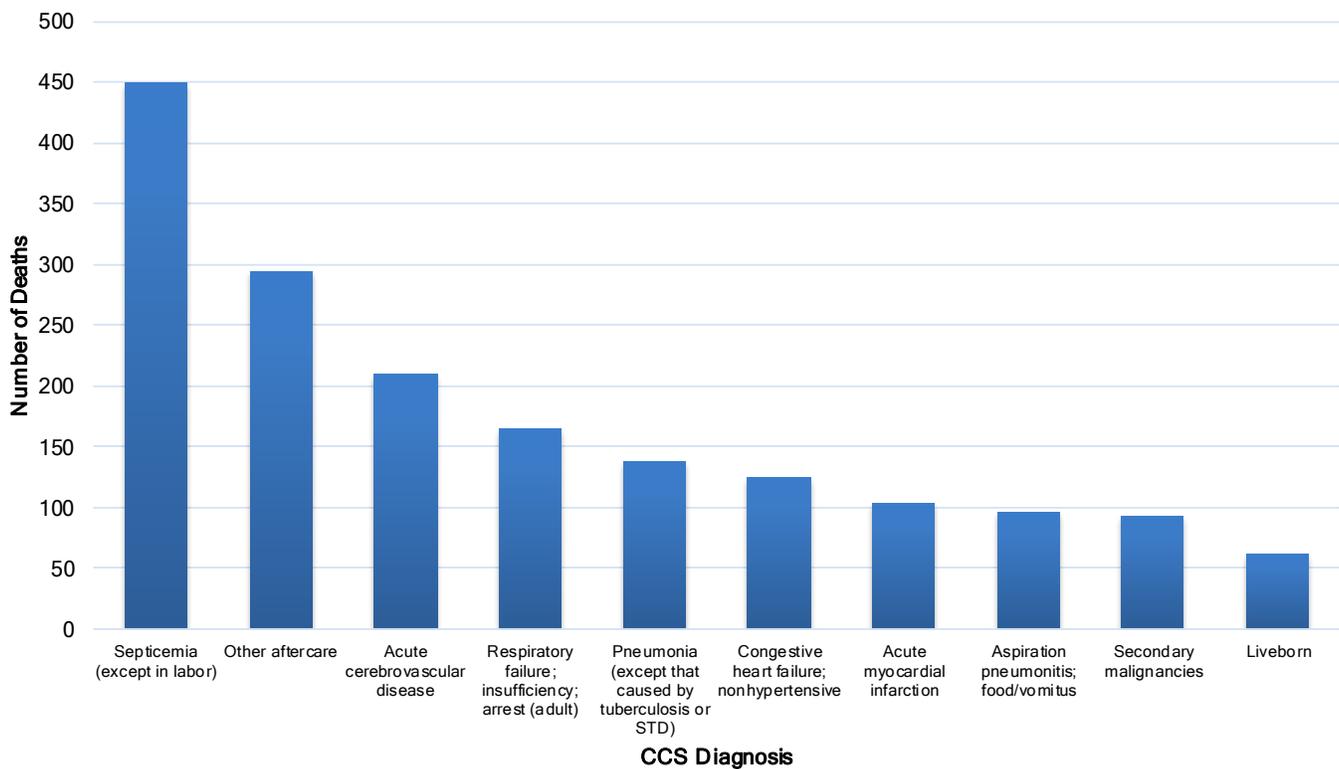
Patients who died during their hospital stay contributed to the “in-hospital mortality” figures. Data about in-hospital mortality are expressed as either numbers of deaths, or percentages of deaths. Both the frequencies and percentages are presented, as each statistic provides a different perspective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

Frequencies

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

- septicemia (except in labor)
- other aftercare
- acute cerebrovascular disease.

Figure 25. Diagnoses with the Greatest Numbers of In-Hospital Deaths Delaware Hospitals, 2011



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

The most frequent causes of in-hospital mortality varied by age group. Low birthweight and prematurity accounted for the largest number of deaths to those under one, while respiratory failure caused the highest number of deaths to those ages 1-17. For patients 18 and older, septicemia accounted for the greatest number of deaths.

Patients ages 65 and older accounted for 70.0 percent of all in-hospital mortality. For more information see Appendices G and H.

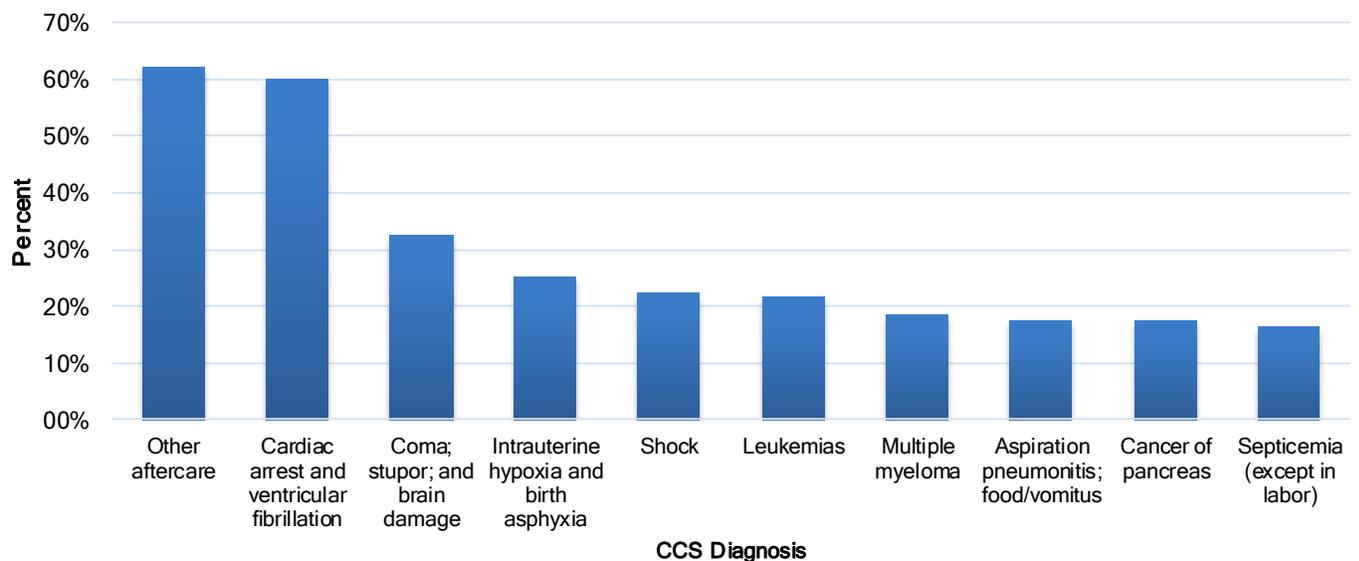
HOW PATIENTS WERE DISCHARGED

Percentages

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

- other aftercare
- cardiac arrest and ventricular fibrillation
- coma; stupor; and brain damage
- intrauterine hypoxia and birth asphyxia.

Figure 26. CCS Diagnoses with the Greatest Percent of In-Hospital Mortality Delaware Hospitals, 2011



Source: Delaware 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 nearly twice as likely as females to leave the hospital against medical advice; uninsured patients were about eight times as likely when compared to privately insured patients.

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

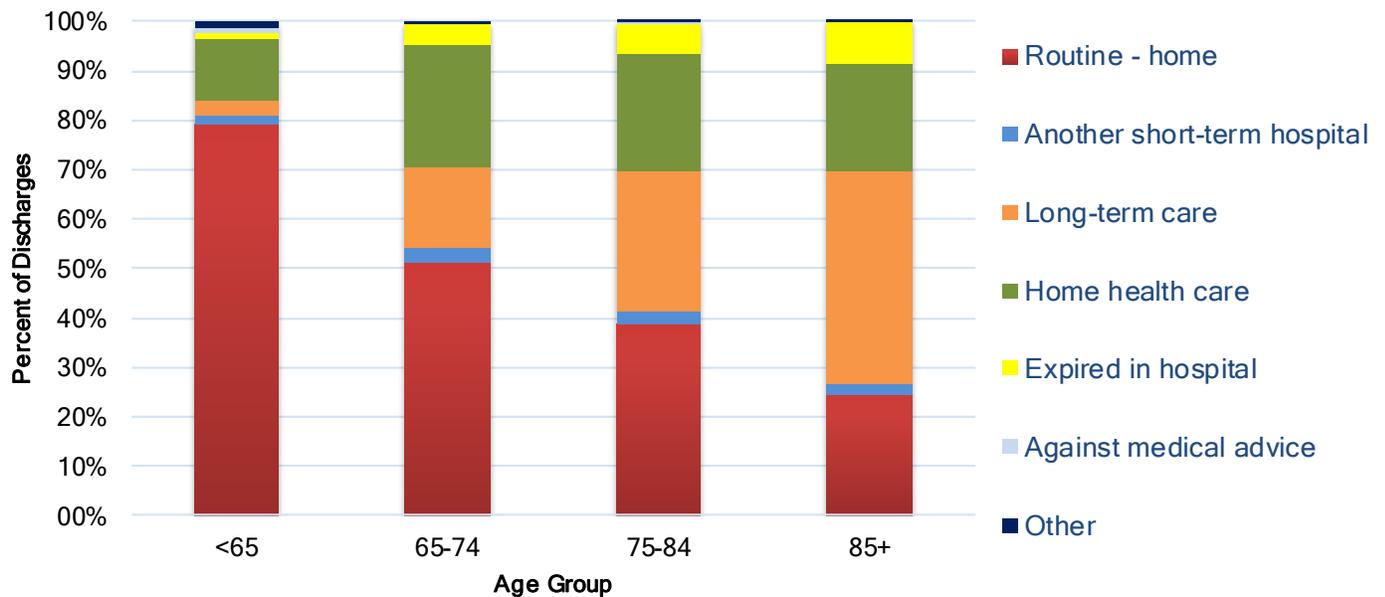
- For women, diabetes mellitus with complications, chronic obstructive pulmonary disease and bronchiectasis, and asthma made up the top three.
- For men, alcohol-related disorders, diabetes mellitus with complications, and skin and subcutaneous tissue infections made up the top three.

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 nearly doubled the percent of those transferred to LTC facilities. In 2011, around 3 percent of those under 65 were discharged to long-term care facilities, compared to 16.4 percent of those ages 65-74, 28.3 percent of those ages 75-84, and 43.3 percent of those 85 and older.

Figure 27. Distribution of Discharge Status by Age Group Delaware Hospitals, 2011



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

In 2011, the most common diagnoses for patients discharged to LTC facilities were septicemia (except in labor), pneumonia (except that caused by tuberculosis or a sexually transmitted disease), and osteoarthritis.

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

HOSPITAL SPECIFIC DATA

A.I. duPont Hospital for Children

2011 Discharge Distribution

| Zip / State | Number | % |
|--------------|--------------|---------------|
| PA | 2,570 | 29.4% |
| NJ | 1,242 | 14.2% |
| 19720 | 463 | 5.3% |
| 19805 | 459 | 5.3% |
| MD | 388 | 4.4% |
| 19702 | 307 | 3.5% |
| 19802 | 237 | 2.7% |
| 19701 | 230 | 2.6% |
| 19713 | 210 | 2.4% |
| 19711 | 188 | 2.2% |
| 19709 | 184 | 2.1% |
| 19808 | 178 | 2.0% |
| 19801 | 174 | 2.0% |
| Other State | 129 | 1.5% |
| 19810 | 123 | 1.4% |
| 19901 | 114 | 1.3% |
| 19803 | 103 | 1.2% |
| 19804 | 102 | 1.2% |
| 19977 | 99 | 1.1% |
| 19703 | 96 | 1.1% |
| 19809 | 85 | 1.0% |
| 19947 | 81 | 0.9% |
| 19973 | 72 | 0.8% |
| 19956 | 72 | 0.8% |
| 19707 | 71 | 0.8% |
| 19904 | 66 | 0.8% |
| 19734 | 62 | 0.7% |
| 19963 | 57 | 0.7% |
| 19966 | 54 | 0.6% |
| 19943 | 54 | 0.6% |
| Undisclosed* | 42 | 0.5% |
| 19938 | 41 | 0.5% |
| 19960 | 41 | 0.5% |
| 19962 | 39 | 0.4% |
| 19934 | 39 | 0.4% |
| 19968 | 28 | 0.3% |
| 19952 | 24 | 0.3% |
| 19806 | 22 | 0.3% |
| 19958 | 20 | 0.2% |
| 19950 | 19 | 0.2% |
| 19807 | 19 | 0.2% |
| 19933 | 17 | 0.2% |
| 19945 | 16 | 0.2% |
| 19971 | 15 | 0.2% |
| 19940 | 14 | 0.2% |
| 19975 | 12 | 0.1% |
| 19953 | 12 | 0.1% |
| 19939 | 11 | 0.1% |
| 19946 | 11 | 0.1% |
| 19706 | 10 | 0.1% |
| Unknown | 9 | 0.1% |
| Total | 8,731 | 100.0% |

*Zip codes with less than 10 cases

Utilization Characteristics

| | 2009 | 2010 | 2011 |
|--|---------------|---------------|---------------|
| Aggregate charges | \$372,061,971 | \$390,496,749 | \$415,836,086 |
| Average charges | \$36,277 | \$38,284 | \$47,628 |
| Average charge per day | \$7,811 | \$7,960 | \$8,250 |
| Number of Discharges | 10,256 | 10,200 | 8,731 |
| Total All-listed Procedures¹ | 10,423 | 10,352 | 10,814 |
| <i>Non-operating room procedures²</i> | 5,361 | 5,474 | 5,780 |
| <i>Valid operating room procedures²</i> | 5,062 | 4,878 | 5,034 |
| Average Length of Stay | 4.6 | 4.8 | 5.5 |
| Primary Payer Distribution | | | |
| <i>Medicare</i> | 0.2% | 0.1% | 0.2% |
| <i>Medicaid</i> | 41.1% | 43.4% | 43.0% |
| <i>Private Insurance</i> | 55.4% | 52.8% | 54.9% |
| <i>Uninsured</i> | 1.5% | 1.3% | 0.0% |
| <i>Other</i> | 1.9% | 2.4% | 1.9% |
| Admission Source Distribution | | | |
| <i>Routine</i> | 25.3% | 26.1% | 30.6% |
| <i>Other short-term hospital</i> | 10.1% | 10.0% | 9.9% |
| <i>Long-term care facility</i> | 0.7% | 0.5% | 0.8% |
| <i>ER</i> | 63.0% | 62.6% | 57.8% |
| <i>Other</i> | 0.9% | 0.8% | 0.8% |
| Discharge Status Distribution | | | |
| <i>Routine - home</i> | 93.0% | 92.1% | 90.2% |
| <i>Another short-term hospital</i> | 0.6% | 0.5% | 0.7% |
| <i>Long-term care facility</i> | 0.5% | 1.0% | 1.2% |
| <i>Home health care</i> | 4.6% | 4.8% | 6.6% |
| <i>Expired in hospital</i> | 0.4% | 0.5% | 0.5% |
| <i>Left against medical advice</i> | 0.1% | 0.1% | 0.1% |
| <i>Other/Unknown</i> | 0.7% | 1.0% | 0.7% |
| Sex | | | |
| <i>Male</i> | 55.5% | 53.9% | 54.7% |
| <i>Female</i> | 44.5% | 46.1% | 45.3% |
| Age | | | |
| <i><1</i> | 23.6% | 23.6% | 23.5% |
| <i>1-4</i> | 27.6% | 26.9% | 25.5% |
| <i>5-9</i> | 17.6% | 17.0% | 16.7% |
| <i>10-14</i> | 17.8% | 16.7% | 18.3% |
| <i>15-19</i> | 12.8% | 14.7% | 15.2% |
| <i>20-24</i> | 0.5% | 0.7% | 0.8% |
| <i>25-34</i> | 0.0% | 0.0% | 0.0% |
| <i>35-44</i> | 0.0% | 0.0% | 0.0% |
| <i>45-54</i> | 0.0% | 0.0% | 0.0% |
| <i>55-64</i> | 0.0% | 0.0% | 0.0% |
| <i>65-74</i> | 0.0% | 0.0% | 0.0% |
| <i>75+</i> | 0.0% | 0.0% | 0.0% |
| <i>Unknown</i> | 0.0% | 0.4% | 0.0% |

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/toolsoftware/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

BayHealth Medical Center (includes both Milford Memorial and Kent General Hospitals)

| 2011 Discharge Distribution | | | Utilization Characteristics | | | |
|-----------------------------|---------------|---------------|--|---------------|---------------|---------------|
| Zip / State | Number | % | 2009 | 2010 | 2011 | |
| 19901 | 3,508 | 18.2% | Aggregate charges | \$398,952,631 | \$413,935,557 | \$417,751,170 |
| 19904 | 2,761 | 14.3% | Average charges | \$19,785 | \$20,902 | \$21,642 |
| 19963 | 1,986 | 10.3% | Average charge per day | \$5,230 | \$5,362 | \$5,388 |
| 19977 | 1,497 | 7.8% | Number of Discharges | 20,164 | 19,804 | 19,303 |
| 19943 | 1,149 | 6.0% | Total All-listed Procedures¹ | 21,504 | 19,987 | 18,246 |
| 19934 | 1,047 | 5.4% | <i>Non-operating room procedures²</i> | 14,284 | 13,185 | 12,104 |
| 19952 | 1,013 | 5.2% | <i>Valid operating room procedures²</i> | 7,220 | 6,802 | 6,142 |
| 19962 | 828 | 4.3% | Average Length of Stay | 4.9 | 4.9 | 4.8 |
| 19960 | 515 | 2.7% | Primary Payer Distribution | | | |
| 19938 | 465 | 2.4% | <i>Medicare</i> | 42.4% | 43.4% | 43.4% |
| 19946 | 459 | 2.4% | <i>Medicaid</i> | 24.0% | 24.0% | 24.4% |
| MD | 410 | 2.1% | <i>Private Insurance</i> | 24.5% | 23.1% | 23.1% |
| 19950 | 383 | 2.0% | <i>Uninsured</i> | 3.1% | 3.2% | 3.4% |
| 19947 | 355 | 1.8% | <i>Other</i> | 6.0% | 6.3% | 5.8% |
| 19953 | 351 | 1.8% | Admission Source Distribution | | | |
| 19968 | 239 | 1.2% | <i>Routine</i> | 34.6% | 32.1% | 31.9% |
| 19966 | 195 | 1.0% | <i>Other short-term hospital</i> | 0.4% | 0.3% | 0.4% |
| Other State | 179 | 0.9% | <i>Long-term care facility</i> | 0.0% | 11.2% | 11.1% |
| 19941 | 167 | 0.9% | <i>ER</i> | 53.5% | 56.3% | 55.7% |
| 19954 | 160 | 0.8% | <i>Other</i> | 11.5% | .1% | .9% |
| 19933 | 159 | 0.8% | Discharge Status Distribution | | | |
| 19958 | 148 | 0.8% | <i>Routine - home</i> | 67.7% | 68.3% | 68.3% |
| 19973 | 144 | 0.7% | <i>Another short-term hospital</i> | 2.5% | 2.4% | 2.7% |
| 19734 | 138 | 0.7% | <i>Long-term care facility</i> | 9.5% | 12.2% | 13.2% |
| 19709 | 132 | 0.7% | <i>Home health care</i> | 13.4% | 13.1% | 12.0% |
| 19964 | 116 | 0.6% | <i>Expired in hospital</i> | 1.9% | 1.8% | 1.9% |
| 19956 | 80 | 0.4% | <i>Left against medical advice</i> | 1.0% | 1.2% | 0.9% |
| 19979 | 72 | 0.4% | <i>Other/Unknown</i> | 4.0% | 1.0% | 1.0% |
| PA | 71 | 0.4% | Sex | | | |
| Undisclosed* | 66 | 0.3% | <i>Male</i> | 40.5% | 41.0% | 41.1% |
| 19971 | 57 | 0.3% | <i>Female</i> | 59.5% | 59.0% | 58.9% |
| 19936 | 55 | 0.3% | Age | | | |
| 19903 | 52 | 0.3% | <i><1</i> | 13.3% | 12.8% | 13.1% |
| 19939 | 47 | 0.2% | <i>1-4</i> | 1.2% | 1.0% | 1.1% |
| NJ | 38 | 0.2% | <i>5-9</i> | 0.6% | 0.5% | 0.4% |
| 19955 | 36 | 0.2% | <i>10-14</i> | 0.4% | 0.4% | 0.4% |
| 19945 | 33 | 0.2% | <i>15-19</i> | 2.4% | 2.2% | 1.9% |
| 19701 | 30 | 0.2% | <i>20-24</i> | 5.6% | 5.1% | 5.1% |
| 19980 | 22 | 0.1% | <i>25-34</i> | 9.5% | 10.0% | 10.2% |
| 19970 | 20 | 0.1% | <i>35-44</i> | 6.7% | 7.6% | 6.4% |
| 19720 | 18 | 0.1% | <i>45-54</i> | 11.0% | 10.7% | 11.1% |
| 19975 | 17 | 0.1% | <i>55-64</i> | 12.4% | 13.2% | 13.0% |
| 19702 | 17 | 0.1% | <i>65-74</i> | 14.6% | 15.3% | 15.6% |
| 19951 | 16 | 0.1% | <i>75+</i> | 22.2% | 21.3% | 21.9% |
| 19930 | 13 | 0.1% | | | | |
| 19961 | 11 | 0.1% | | | | |
| 19940 | 10 | 0.1% | | | | |
| 19902 | 10 | 0.1% | | | | |
| Unknown | 8 | 0.0% | | | | |
| Total | 19,303 | 100.0% | | | | |

*Zip codes with less than 10 cases

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

2011 Discharge Distribution

| Zip / State | Number | % |
|--------------|--------------|---------------|
| 19966 | 2,061 | 21.8% |
| 19958 | 1,772 | 18.7% |
| 19971 | 917 | 9.7% |
| 19947 | 884 | 9.3% |
| 19968 | 663 | 7.0% |
| 19970 | 407 | 4.3% |
| 19939 | 326 | 3.4% |
| 19945 | 284 | 3.0% |
| MD | 205 | 2.2% |
| 19975 | 205 | 2.2% |
| 19963 | 187 | 2.0% |
| 19930 | 157 | 1.7% |
| 19951 | 145 | 1.5% |
| PA | 138 | 1.5% |
| 19956 | 126 | 1.3% |
| 19973 | 125 | 1.3% |
| Other State | 122 | 1.3% |
| 19960 | 121 | 1.3% |
| Undisclosed* | 109 | 1.2% |
| 19941 | 90 | 0.9% |
| 19933 | 69 | 0.7% |
| 19950 | 65 | 0.7% |
| 19952 | 55 | 0.6% |
| 19901 | 35 | 0.4% |
| 19967 | 34 | 0.4% |
| NJ | 29 | 0.3% |
| 19943 | 28 | 0.3% |
| 19904 | 22 | 0.2% |
| 19944 | 20 | 0.2% |
| 19940 | 20 | 0.2% |
| 19969 | 16 | 0.2% |
| 19977 | 14 | 0.1% |
| 19962 | 11 | 0.1% |
| 19720 | 10 | 0.1% |
| Unknown | 3 | 0.0% |
| Total | 9,475 | 100.0% |

*Zip codes with less than 10 cases

Utilization Characteristics

| | 2009 | 2010 | 2011 |
|--|---------------|---------------|---------------|
| Aggregate charges | \$269,338,839 | \$294,962,669 | \$300,087,820 |
| Average charges | \$27,031 | \$29,552 | \$31,672 |
| Average charge per day | \$8,466 | \$8,533 | \$9,165 |
| Number of Discharges | 9,964 | 9,981 | 9,475 |
| Total All-listed Procedures¹ | 15,457 | 14,120 | 13,850 |
| <i>Non-operating room procedures²</i> | 9,916 | 9,058 | 8,545 |
| <i>Valid operating room procedures²</i> | 5,541 | 5,062 | 5,305 |
| Average Length of Stay | 3.8 | 4.0 | 4.0 |
| Primary Payer Distribution | | | |
| <i>Medicare</i> | 51.4% | 52.2% | 52.6% |
| <i>Medicaid</i> | 18.4% | 17.5% | 18.1% |
| <i>Private Insurance</i> | 26.2% | 26.0% | 25.5% |
| <i>Uninsured</i> | 2.9% | 3.3% | 2.6% |
| <i>Other</i> | 1.1% | 1.0% | 1.2% |
| Admission Source Distribution | | | |
| <i>Routine</i> | 33.0% | 29.7% | 30.7% |
| <i>Other short-term hospital</i> | 0.0% | 0.1% | 0.0% |
| <i>Long-term care facility</i> | 9.5% | 8.8% | 8.4% |
| <i>ER</i> | 57.5% | 61.4% | 60.9% |
| <i>Other</i> | 0.0% | 0.0% | 0.0% |
| Discharge Status Distribution | | | |
| <i>Routine - home</i> | 61.3% | 60.6% | 58.9% |
| <i>Another short-term hospital</i> | 1.5% | 1.6% | 1.4% |
| <i>Long-term care facility</i> | 13.5% | 16.0% | 16.7% |
| <i>Home health care</i> | 18.5% | 18.2% | 19.1% |
| <i>Expired in hospital</i> | 1.9% | 2.0% | 2.3% |
| <i>Left against medical advice</i> | 0.6% | 0.6% | 0.6% |
| <i>Other/Unknown</i> | 2.7% | 1.0% | 1.0% |
| Sex | | | |
| <i>Male</i> | 44.1% | 43.4% | 45.3% |
| <i>Female</i> | 55.9% | 56.6% | 54.7% |
| Age | | | |
| <i><1</i> | 10.0% | 9.1% | 9.1% |
| <i>1-4</i> | 0.5% | 0.2% | 0.2% |
| <i>5-9</i> | 0.2% | 0.2% | 0.3% |
| <i>10-14</i> | 0.1% | 0.2% | 0.1% |
| <i>15-19</i> | 1.5% | 1.4% | 1.0% |
| <i>20-24</i> | 3.4% | 3.4% | 3.4% |
| <i>25-34</i> | 7.0% | 6.5% | 7.6% |
| <i>35-44</i> | 5.0% | 5.7% | 5.6% |
| <i>45-54</i> | 9.9% | 9.9% | 9.8% |
| <i>55-64</i> | 13.7% | 14.5% | 15.0% |
| <i>65-74</i> | 20.7% | 20.6% | 20.3% |
| <i>75+</i> | 28.0% | 28.2% | 27.7% |

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

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

2011 Discharge Distribution

| Zip / State | Number | % |
|--------------|---------------|---------------|
| 19720 | 6,114 | 10.4% |
| 19702 | 4,224 | 7.2% |
| 19805 | 3,933 | 6.7% |
| 19808 | 3,827 | 6.5% |
| 19711 | 3,494 | 5.9% |
| 19713 | 3,277 | 5.6% |
| 19701 | 3,247 | 5.5% |
| MD | 3,071 | 5.2% |
| 19802 | 2,781 | 4.7% |
| PA | 2,560 | 4.3% |
| 19709 | 2,510 | 4.3% |
| 19804 | 1,943 | 3.3% |
| 19801 | 1,921 | 3.3% |
| NJ | 1,793 | 3.0% |
| 19803 | 1,752 | 3.0% |
| 19810 | 1,752 | 3.0% |
| 19707 | 1,233 | 2.1% |
| 19809 | 1,232 | 2.1% |
| 19703 | 1,143 | 1.9% |
| 19806 | 928 | 1.6% |
| 19734 | 780 | 1.3% |
| 19977 | 680 | 1.2% |
| 19807 | 591 | 1.0% |
| 19901 | 373 | 0.6% |
| 19904 | 348 | 0.6% |
| Other State | 332 | 0.6% |
| 19706 | 301 | 0.5% |
| 19938 | 269 | 0.5% |
| 19966 | 200 | 0.3% |
| 19973 | 172 | 0.3% |
| 19958 | 172 | 0.3% |
| 19963 | 162 | 0.3% |
| 19943 | 119 | 0.2% |
| 19947 | 116 | 0.2% |
| 19956 | 112 | 0.2% |
| 19934 | 109 | 0.2% |
| 19971 | 109 | 0.2% |
| 19962 | 102 | 0.2% |
| 19952 | 97 | 0.2% |
| 19950 | 81 | 0.1% |
| 19899 | 77 | 0.1% |
| 19968 | 72 | 0.1% |
| Undisclosed* | 70 | 0.1% |
| 19933 | 64 | 0.1% |
| 19953 | 57 | 0.1% |
| 19730 | 51 | 0.1% |
| 19733 | 48 | 0.1% |
| 19970 | 46 | 0.1% |
| 19945 | 42 | 0.1% |
| 19946 | 42 | 0.1% |
| Unknown | 42 | 0.1% |
| 19960 | 41 | 0.1% |
| 19939 | 36 | 0.1% |
| 19714 | 33 | 0.1% |
| 19941 | 31 | 0.1% |
| 19731 | 30 | 0.1% |
| 19975 | 27 | 0.0% |
| 19710 | 26 | 0.0% |
| 19736 | 22 | 0.0% |
| 19940 | 22 | 0.0% |
| 19850 | 17 | 0.0% |
| 19930 | 17 | 0.0% |
| 19708 | 17 | 0.0% |
| 19964 | 16 | 0.0% |
| 19954 | 15 | 0.0% |
| 19732 | 14 | 0.0% |
| 19936 | 12 | 0.0% |
| 19701 | 10 | 0.0% |
| Total | 58,957 | 100.0% |

*Zip codes with less than 10 cases

Utilization Characteristics

| | 2009 | 2010 | 2011 |
|--|-----------------|-----------------|-----------------|
| Aggregate charges | \$1,248,182,694 | \$1,283,388,855 | \$1,359,896,660 |
| Average charges | \$20,793 | \$21,926 | \$23,066 |
| Average charge per day | \$5,308 | \$5,642 | \$6,078 |
| Number of Discharges | 60,030 | 58,534 | 58,957 |
| Total All-listed Procedures¹ | 177,496 | 126,855 | 129,667 |
| <i>Non-operating room procedures²</i> | 147,365 | 96,097 | 99,491 |
| <i>Valid operating room procedures²</i> | 30,131 | 30,758 | 30,176 |
| Average Length of Stay | 5.0 | 4.9 | 4.9 |
| Primary Payer Distribution | | | |
| <i>Medicare</i> | 40.3% | 41.4% | 42.3% |
| <i>Medicaid</i> | 21.2% | 21.7% | 22.1% |
| <i>Private Insurance</i> | 34.8% | 33.1% | 31.7% |
| <i>Uninsured</i> | 2.4% | 2.3% | 2.3% |
| <i>Other</i> | 1.2% | 1.5% | 1.6% |
| Admission Source Distribution | | | |
| <i>Routine</i> | 43.8% | 39.2% | 31.2% |
| <i>Other short-term hospital</i> | 0.9% | 0.9% | 1.2% |
| <i>Long-term care facility</i> | 0.2% | 4.9% | 11.4% |
| <i>ER</i> | 53.3% | 53.9% | 54.9% |
| <i>Other</i> | 1.7% | 1.1% | 1.4% |
| Discharge Status Distribution | | | |
| <i>Routine - home</i> | 63.3% | 63.1% | 63.9% |
| <i>Another short-term hospital</i> | 2.3% | 2.0% | 1.7% |
| <i>Long-term care facility</i> | 10.4% | 10.2% | 10.4% |
| <i>Home health care</i> | 20.4% | 20.2% | 19.2% |
| <i>Expired in hospital</i> | 3.1% | 3.1% | 3.4% |
| <i>Left against medical advice</i> | 0.6% | 0.6% | 0.6% |
| <i>Other/Unknown</i> | 0.0% | 0.9% | 0.8% |
| Sex | | | |
| <i>Male</i> | 41.1% | 41.2% | 40.6% |
| <i>Female</i> | 58.9% | 58.8% | 59.4% |
| Age | | | |
| <i><1</i> | 11.9% | 11.8% | 11.8% |
| <i>1-4</i> | 0.2% | 0.1% | 0.1% |
| <i>5-9</i> | 0.1% | 0.1% | 0.1% |
| <i>10-14</i> | 0.2% | 0.1% | 0.1% |
| <i>15-19</i> | 2.1% | 1.9% | 1.7% |
| <i>20-24</i> | 4.4% | 4.5% | 4.2% |
| <i>25-34</i> | 12.0% | 11.9% | 11.8% |
| <i>35-44</i> | 9.8% | 9.2% | 9.0% |
| <i>45-54</i> | 12.7% | 12.5% | 12.3% |
| <i>55-64</i> | 13.5% | 13.7% | 14.4% |
| <i>65-74</i> | 12.8% | 13.0% | 13.5% |
| <i>75+</i> | 20.3% | 21.1% | 21.0% |

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

2011 Discharge Distribution

| Zip / State | Number | % |
|--------------|--------------|---------------|
| 19973 | 2,081 | 35.1% |
| 19956 | 1,118 | 18.8% |
| 19947 | 671 | 11.3% |
| 19933 | 627 | 10.6% |
| MD | 291 | 4.9% |
| 19966 | 269 | 4.5% |
| 19950 | 213 | 3.6% |
| 19940 | 201 | 3.4% |
| 19945 | 63 | 1.1% |
| Undisclosed* | 59 | 1.0% |
| 19975 | 57 | 1.0% |
| 19963 | 45 | 0.8% |
| Other State | 40 | 0.7% |
| 19968 | 29 | 0.5% |
| 19952 | 28 | 0.5% |
| 19939 | 26 | 0.4% |
| 19901 | 23 | 0.4% |
| 19960 | 22 | 0.4% |
| 19958 | 16 | 0.3% |
| 19941 | 12 | 0.2% |
| 19934 | 12 | 0.2% |
| 19931 | 12 | 0.2% |
| 19970 | 10 | 0.2% |
| NJ | 4 | 0.1% |
| PA | 3 | 0.1% |
| Total | 5,932 | 100.0% |

*Zip codes with less than 10 cases

Utilization Characteristics

| | 2009 | 2010 | 2011 |
|--|--------------|--------------|--------------|
| Aggregate charges | \$90,783,660 | \$96,915,476 | \$97,696,138 |
| Average charges | \$15,631 | \$16,988 | \$16,469 |
| Average charge per day | \$4,522 | \$5,033 | \$5,058 |
| Number of Discharges | 5,808 | 5,705 | 5,932 |
| Total All-listed Procedures¹ | 10,791 | 11,227 | 11,649 |
| <i>Non-operating room procedures²</i> | 9,049 | 9,404 | 9,937 |
| <i>Valid operating room procedures²</i> | 1,742 | 1,823 | 1,712 |
| Average Length of Stay | 3.7 | 3.8 | 3.6 |
| Primary Payer Distribution | | | |
| <i>Medicare</i> | 38.5% | 40.1% | 42.7% |
| <i>Medicaid</i> | 35.9% | 36.0% | 34.5% |
| <i>Private Insurance</i> | 18.2% | 16.5% | 16.6% |
| <i>Uninsured</i> | 3.7% | 2.9% | 2.5% |
| <i>Other</i> | 3.6% | 4.5% | 3.6% |
| Admission Source Distribution | | | |
| <i>Routine</i> | 40.7% | 40.5% | 36.6% |
| <i>Other short-term hospital</i> | 0.0% | 0.0% | 0.0% |
| <i>Long-term care facility</i> | 0.0% | 0.0% | 0.0% |
| <i>ER</i> | 59.2% | 59.5% | 63.3% |
| <i>Other</i> | 0.0% | 0.0% | 0.0% |
| Discharge Status Distribution | | | |
| <i>Routine - home</i> | 67.6% | 67.9% | 66.7% |
| <i>Another short-term hospital</i> | 4.1% | 3.1% | 3.2% |
| <i>Long-term care facility</i> | 12.7% | 13.2% | 14.5% |
| <i>Home health care</i> | 12.4% | 12.6% | 12.6% |
| <i>Expired in hospital</i> | 1.8% | 1.6% | 1.4% |
| <i>Left against medical advice</i> | 0.5% | 0.7% | 0.7% |
| <i>Other/Unknown</i> | 0.9% | 0.9% | 0.9% |
| Sex | | | |
| <i>Male</i> | 39.6% | 40.7% | 41.5% |
| <i>Female</i> | 60.4% | 59.3% | 58.5% |
| Age | | | |
| <1 | 15.7% | 16.3% | 15.2% |
| 1-4 | 0.5% | 0.6% | 0.5% |
| 5-9 | 0.2% | 0.2% | 0.4% |
| 10-14 | 0.4% | 0.1% | 0.2% |
| 15-19 | 2.6% | 2.6% | 2.1% |
| 20-24 | 7.2% | 6.3% | 5.9% |
| 25-34 | 10.4% | 10.3% | 9.4% |
| 35-44 | 6.9% | 6.4% | 6.5% |
| 45-54 | 10.1% | 9.9% | 9.3% |
| 55-64 | 13.0% | 12.2% | 13.6% |
| 65-74 | 13.0% | 12.7% | 13.8% |
| 75+ | 20.0% | 22.3% | 23.1% |

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/toolsoftware/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

2011 Discharge Distribution

| Zip / State | Number | % |
|--------------|--------------|---------------|
| 19805 | 1,876 | 26.0% |
| 19802 | 682 | 9.4% |
| 19801 | 593 | 8.2% |
| 19720 | 574 | 7.9% |
| 19806 | 377 | 5.2% |
| 19803 | 310 | 4.3% |
| 19808 | 304 | 4.2% |
| 19810 | 301 | 4.2% |
| 19703 | 295 | 4.1% |
| 19804 | 256 | 3.5% |
| 19809 | 247 | 3.4% |
| 19702 | 202 | 2.8% |
| PA | 167 | 2.3% |
| 19711 | 132 | 1.8% |
| 19701 | 127 | 1.8% |
| Undisclosed* | 117 | 1.6% |
| 19713 | 116 | 1.6% |
| 19707 | 94 | 1.3% |
| Other State | 91 | 1.3% |
| 19709 | 88 | 1.2% |
| 19807 | 76 | 1.1% |
| MD | 57 | 0.8% |
| NJ | 55 | 0.8% |
| 19977 | 29 | 0.4% |
| 19904 | 21 | 0.3% |
| 19901 | 17 | 0.2% |
| 19734 | 12 | 0.2% |
| 19706 | 10 | 0.1% |
| Total | 7,226 | 100.0% |

*Zip codes with less than 10 cases

Utilization Characteristics

| | 2009 | 2010 | 2011 |
|--|---------------|---------------|---------------|
| Aggregate charges | \$149,236,157 | \$174,216,422 | \$161,634,644 |
| Average charges | \$22,577 | \$22,905 | \$22,368 |
| Average charge per day | \$6,632 | \$7,217 | \$7,174 |
| Number of Discharges | 6,610 | 7,606 | 7,226 |
| Total All-listed Procedures¹ | 7,550 | 8,241 | 7,275 |
| <i>Non-operating room procedures²</i> | 4,880 | 5,397 | 4,789 |
| <i>Valid operating room procedures³</i> | 2,670 | 2,844 | 2,486 |
| Average Length of Stay | 4.3 | 4.2 | 3.9 |
| Primary Payer Distribution | | | |
| <i>Medicare</i> | 41.8% | 39.8% | 37.2% |
| <i>Medicaid</i> | 25.3% | 27.5% | 20.3% |
| <i>Private Insurance</i> | 28.2% | 27.6% | 37.4% |
| <i>Uninsured</i> | 3.2% | 2.7% | 3.1% |
| <i>Other</i> | 1.6% | 2.3% | 1.9% |
| Admission Source Distribution | | | |
| <i>Routine</i> | 39.2% | 38.2% | 34.2% |
| <i>Other short-term hospital</i> | 1.5% | 3.4% | 3.0% |
| <i>Long-term care facility</i> | 0.5% | 0.6% | 0.3% |
| <i>ER</i> | 58.7% | 57.1% | 61.8% |
| <i>Other</i> | .1% | .8% | .7% |
| Discharge Status Distribution | | | |
| <i>Routine - home</i> | 64.5% | 64.3% | 64.5% |
| <i>Another short-term hospital</i> | 1.6% | 1.7% | 1.3% |
| <i>Long-term care facility</i> | 10.8% | 12.0% | 12.1% |
| <i>Home health care</i> | 17.6% | 15.7% | 13.8% |
| <i>Expired in hospital</i> | 1.7% | 3.8% | 5.4% |
| <i>Left against medical advice</i> | 1.4% | 1.6% | 1.7% |
| <i>Other/Unknown</i> | 2.4% | 0.9% | 1.2% |
| Sex | | | |
| <i>Male</i> | 37.6% | 38.0% | 38.8% |
| <i>Female</i> | 62.4% | 62.0% | 61.2% |
| Age | | | |
| <1 | 12.0% | 11.2% | 10.0% |
| 1-4 | 0.0% | 0.0% | 0.0% |
| 5-9 | 0.0% | 0.0% | 0.0% |
| 10-14 | 0.0% | 0.1% | 0.0% |
| 15-19 | 1.9% | 1.6% | 1.5% |
| 20-24 | 4.1% | 4.2% | 4.3% |
| 25-34 | 10.7% | 10.4% | 10.8% |
| 35-44 | 9.4% | 9.4% | 10.7% |
| 45-54 | 13.0% | 13.2% | 14.4% |
| 55-64 | 13.2% | 14.0% | 14.1% |
| 65-74 | 13.4% | 13.0% | 11.9% |
| 75+ | 22.4% | 22.9% | 22.3% |

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.

4. 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

| 2011 Discharge Distribution | | | Utilization Characteristics | | | |
|------------------------------------|--------|--------|--|--------------|--------------|--------------|
| Zip / State | Number | % | 2009 | 2010 | 2011 | |
| Undisclosed* | 110 | 32.3% | Aggregate charges | \$24,264,848 | \$30,161,973 | \$35,663,288 |
| MD | 32 | 9.4% | Average charges | \$90,204 | \$100,540 | \$104,584 |
| 19805 | 22 | 6.5% | Average charge per day | \$3,402 | \$3,466 | \$3,746 |
| 19720 | 21 | 6.2% | Number of Discharges | 269 | 300 | 341 |
| 19802 | 20 | 5.9% | Total All-listed Procedures ¹ | 532 | 578 | 630 |
| NJ | 19 | 5.6% | Non-operating room procedures ² | 472 | 505 | 579 |
| 19709 | 16 | 4.7% | Valid operating room procedures ² | 60 | 73 | 51 |
| 19713 | 14 | 4.1% | Average Length of Stay | 26.3 | 29.4 | 28.0 |
| 19810 | 14 | 4.1% | Primary Payer Distribution | | | |
| 19702 | 13 | 3.8% | Medicare | 83.3% | 83.7% | 80.1% |
| 19808 | 13 | 3.8% | Medicaid | 0.7% | 1.0% | 0.6% |
| 19804 | 12 | 3.5% | Private Insurance | 14.9% | 13.7% | 18.5% |
| 19711 | 11 | 3.2% | Uninsured | 0.0% | 0.0% | 0.0% |
| 19803 | 11 | 3.2% | Other | 1.1% | 1.7% | 0.9% |
| PA | 10 | 2.9% | Admission Source Distribution | | | |
| Other State | 3 | 0.9% | Routine | 0.4% | 0.7% | 0.3% |
| Total | 341 | 100.0% | Other short-term hospital | 99.6% | 98.0% | 98.8% |
| *Zip codes with less than 10 cases | | | Long-term care facility | 0.0% | 1.3% | 0.9% |
| | | | ER | 0.0% | 0.0% | 0.0% |
| | | | Other | 0.0% | 0.0% | 0.0% |
| | | | Discharge Status Distribution | | | |
| | | | Routine - home | 7.1% | 5.3% | 5.6% |
| | | | Another short-term hospital | 10.8% | 11.3% | 11.7% |
| | | | Long-term care facility | 40.9% | 49.7% | 49.0% |
| | | | Home health care | 22.7% | 24.0% | 24.3% |
| | | | Expired in hospital | 8.9% | 9.0% | 8.8% |
| | | | Left against medical advice | 0.7% | 0.7% | 0.6% |
| | | | Other/Unknown | 8.9% | 0.0% | 0.0% |
| | | | Sex | | | |
| | | | Male | 47.2% | 44.7% | 47.5% |
| | | | Female | 52.4% | 55.3% | 52.5% |
| | | | Unknown | 0.4% | 0.0% | 0.0% |
| | | | Age | | | |
| | | | <1 | 0.0% | 0.0% | 0.0% |
| | | | 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 | 0.0% | 0.0% | 0.6% |
| | | | 20-24 | 0.7% | 0.7% | 0.3% |
| | | | 25-34 | 3.0% | 2.7% | 0.9% |
| | | | 35-44 | 4.1% | 5.7% | 3.5% |
| | | | 45-54 | 11.5% | 10.7% | 12.9% |
| | | | 55-64 | 14.5% | 19.7% | 18.8% |
| | | | 65-74 | 29.7% | 27.7% | 26.7% |
| | | | 75+ | 36.4% | 33.0% | 36.4% |

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/toolsoftware/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.

A1. Number and Percent of Discharges, Mean Length of Stay, Mean Charges, Percent Expired, and Percent Admitted from the ED by Principal Diagnosis, Delaware Hospitals, 2011

| Clinical Classifications Software Categories and Chapter Headings | | Number of Discharges | Percent of Discharges | Length of Stay | Mean Total Charges | Percent Expired | Percent Admitted from ED |
|---|--|----------------------|-----------------------|----------------|--------------------|-----------------|--------------------------|
| Infections and parasitic diseases | Tuberculosis | 9 | 0.3% | 28.2 | \$83,945 | 0.0% | 44.4% |
| | Septicemia (except in labor) | 2,716 | 76.8% | 8.6 | \$45,099 | 16.5% | 93.2% |
| | Bacterial infection; unspecified site | 25 | 0.7% | 6.3 | \$37,171 | 4.0% | 84.0% |
| | Mycoses | 90 | 2.5% | 8.9 | \$42,132 | 5.6% | 81.1% |
| | HIV infection | 161 | 4.6% | 7.9 | \$32,853 | 5.0% | 94.4% |
| | Hepatitis | 84 | 2.4% | 4.3 | \$21,125 | 3.6% | 88.1% |
| | Viral infection | 320 | 9.0% | 3.5 | \$16,050 | 0.0% | 80.6% |
| | Other infections; including parasitic | 111 | 3.1% | 4.9 | \$22,746 | 0.9% | 83.8% |
| | Sexually transmitted infections (not HIV or hepatitis) | 19 | 0.5% | 6.4 | \$23,746 | 10.5% | 47.4% |
| | Immunizations and screening for infectious disease | 3 | 0.1% | 4.3 | \$19,675 | 0.0% | 66.7% |
| | Total | 3,538 | 100.0% | 7.9 | \$40,475 | 13.3% | 90.9% |
| Neoplasms | Cancer of head and neck | 85 | 2.0% | 7.6 | \$37,588 | 10.6% | 34.1% |
| | Cancer of esophagus | 39 | 0.9% | 10.8 | \$56,596 | 12.8% | 64.1% |
| | Cancer of stomach | 63 | 1.5% | 8.9 | \$48,143 | 14.3% | 50.8% |
| | Cancer of colon | 253 | 6.0% | 8.6 | \$48,753 | 4.3% | 33.2% |
| | Cancer of rectum and anus | 120 | 2.8% | 8.1 | \$42,015 | 3.3% | 20.0% |
| | Cancer of liver and intrahepatic bile duct | 50 | 1.2% | 8.3 | \$48,291 | 14.0% | 68.0% |
| | Cancer of pancreas | 110 | 2.6% | 7.3 | \$36,897 | 17.3% | 68.2% |
| | Cancer of other GI organs; peritoneum | 73 | 1.7% | 8.2 | \$46,740 | 12.3% | 47.9% |
| | Cancer of bronchus; lung | 375 | 8.9% | 6.3 | \$36,526 | 13.3% | 51.5% |
| | Cancer; other respiratory and intrathoracic | 5 | 0.1% | 8.8 | \$31,225 | 0.0% | 40.0% |
| | Cancer of bone and connective tissue | 33 | 0.8% | 7.6 | \$52,108 | 0.0% | 27.3% |
| | Melanomas of skin | 14 | 0.3% | 1.1 | \$11,396 | 0.0% | 0.0% |
| | Other non-epithelial cancer of skin | 23 | 0.5% | 3.5 | \$19,591 | 0.0% | 8.7% |
| | Cancer of breast | 108 | 2.5% | 2.9 | \$23,153 | 7.4% | 15.7% |
| | Cancer of uterus | 140 | 3.3% | 3.6 | \$25,857 | 0.7% | 10.0% |
| | Cancer of cervix | 40 | 0.9% | 5.9 | \$27,948 | 5.0% | 30.0% |
| | Cancer of ovary | 68 | 1.6% | 8.6 | \$42,370 | 1.5% | 23.5% |
| | Cancer of other female genital organs | 18 | 0.4% | 3.5 | \$18,097 | 0.0% | 22.2% |
| | Cancer of prostate | 99 | 2.3% | 2.9 | \$26,233 | 4.0% | 13.1% |
| | Cancer of testis | 1 | 0.0% | 2.0 | \$17,928 | 0.0% | 0.0% |
| | Cancer of other male genital organs | 0 | 0.0% | N/A | N/A | N/A | N/A |
| | Cancer of bladder | 64 | 1.5% | 9.9 | \$51,095 | 6.3% | 40.6% |
| | Cancer of kidney and renal pelvis | 115 | 2.7% | 5.5 | \$33,849 | 3.5% | 13.9% |
| | Cancer of other urinary organs | 11 | 0.3% | 6.1 | \$28,903 | 9.1% | 27.3% |
| | Cancer of brain and nervous system | 100 | 2.4% | 7.9 | \$50,652 | 6.0% | 65.0% |
| | Cancer of thyroid | 33 | 0.8% | 1.3 | \$12,923 | 0.0% | 3.0% |
| | Hodgkin's disease | 14 | 0.3% | 8.4 | \$40,212 | 0.0% | 42.9% |

APPENDIX A

| Clinical Classifications Software Categories and Chapter Headings | Number of Discharges | Percent of Discharges | Length of Stay | Mean Total Charges | Percent Expired | Percent Admitted from ED | |
|--|--|-----------------------|----------------|--------------------|-----------------|--------------------------|--------------|
| Non-Hodgkin's lymphoma | 106 | 2.5% | 10.7 | \$62,565 | 6.6% | 56.6% | |
| Leukemias | 106 | 2.5% | 21.8 | \$225,979 | 21.7% | 46.2% | |
| Multiple myeloma | 59 | 1.4% | 11.0 | \$62,644 | 18.6% | 40.7% | |
| Cancer; other and unspecified primary | 16 | 0.4% | 6.7 | \$39,386 | 0.0% | 37.5% | |
| Secondary malignancies | 573 | 13.5% | 6.5 | \$31,707 | 16.2% | 62.7% | |
| Malignant neoplasm without specification of site | 13 | 0.3% | 7.3 | \$47,370 | 15.4% | 53.8% | |
| Neoplasms of unspecified nature or uncertain behavior | 110 | 2.6% | 4.9 | \$30,278 | 0.0% | 40.0% | |
| Maintenance chemotherapy; radiotherapy | 356 | 8.4% | 6.7 | \$42,641 | 1.7% | 0.8% | |
| Benign neoplasm of uterus | 413 | 9.7% | 2.1 | \$17,463 | 0.0% | 2.4% | |
| Other and unspecified benign neoplasm | 431 | 10.2% | 4.2 | \$28,542 | 0.7% | 21.3% | |
| Total | 4,237 | 100.0% | 6.4 | \$40,169 | 7.1% | 32.8% | |
| Endocrine, nutritional & metabolic diseases, & immunity disorders | Thyroid disorders | 103 | 2.4% | 3.2 | \$17,648 | 1.0% | 49.5% |
| | Diabetes mellitus without complication | 103 | 2.4% | 2.6 | \$11,050 | 0.0% | 89.3% |
| | Diabetes mellitus with complications | 1,872 | 43.7% | 5.1 | \$21,977 | 1.2% | 83.2% |
| | Other endocrine disorders | 120 | 2.8% | 4.8 | \$20,087 | 5.8% | 80.0% |
| | Nutritional deficiencies | 24 | 0.6% | 8.8 | \$28,042 | 8.3% | 50.0% |
| | Disorders of lipid metabolism | 1 | 0.0% | 8.0 | \$47,286 | 0.0% | 100.0% |
| | Gout and other crystal arthropathies | 86 | 2.0% | 4.3 | \$13,617 | 0.0% | 93.0% |
| | Fluid and electrolyte disorders | 1,148 | 26.8% | 3.6 | \$15,064 | 2.0% | 86.1% |
| | Cystic fibrosis | 46 | 1.1% | 11.2 | \$89,796 | 0.0% | 19.6% |
| | Immunity disorders | 4 | 0.1% | 13.5 | \$56,501 | 0.0% | 25.0% |
| | Other nutritional; endocrine; and metabolic disorders | 778 | 18.2% | 3.0 | \$24,977 | 1.0% | 18.5% |
| | Total | 4,285 | 100.0% | 4.3 | \$20,882 | 1.5% | 70.8% |
| Disease of the blood and blood forming organs | Deficiency and other anemia | 546 | 41.9% | 4.1 | \$22,064 | 2.6% | 80.2% |
| | Acute posthemorrhagic anemia | 96 | 7.4% | 3.7 | \$18,440 | 6.3% | 91.7% |
| | Sickle cell anemia | 334 | 25.6% | 4.6 | \$17,348 | 0.0% | 85.6% |
| | Coagulation and hemorrhagic disorders | 135 | 10.4% | 4.2 | \$40,427 | 2.2% | 48.9% |
| | Diseases of white blood cells | 179 | 13.7% | 6.4 | \$38,667 | 2.8% | 51.4% |
| | Other hematologic conditions | 14 | 1.1% | 5.9 | \$28,835 | 14.3% | 71.4% |
| Total | 1,304 | 100.0% | 4.6 | \$24,842 | 2.3% | 75.2% | |
| Mental disorders | Adjustment disorders | 7 | 0.3% | 3.1 | \$9,838 | 0.0% | 100.0% |
| | Anxiety disorders | 46 | 1.7% | 2.4 | \$12,882 | 0.0% | 91.3% |
| | Attention-deficit | 9 | 0.3% | 35.3 | \$163,794 | 0.0% | 77.8% |
| | Delirium | 189 | 7.2% | 8.5 | \$20,723 | 5.3% | 95.2% |
| | Developmental disorders | 6 | 0.2% | 2.5 | \$11,014 | 0.0% | 100.0% |
| | Disorders usually diagnosed in infancy | 2 | 0.1% | 2.0 | \$15,063 | 0.0% | 50.0% |
| | Impulse control disorders | 1 | 0.0% | 7.0 | \$8,788 | 0.0% | 100.0% |
| | Mood disorders | 942 | 35.7% | 6.1 | \$10,119 | 1.1% | 82.8% |
| | Personality disorders | 2 | 0.1% | 8.0 | \$29,417 | 0.0% | 100.0% |
| | Schizophrenia and other psychotic disorders | 207 | 7.8% | 7.4 | \$13,726 | 1.0% | 89.4% |
| | Alcohol-related disorders | 483 | 18.3% | 4.9 | \$18,404 | 1.9% | 95.2% |
| | Substance-related disorders | 365 | 13.8% | 4.6 | \$19,861 | 3.3% | 84.7% |
| | Screening and history of mental health and substance abuse codes | 211 | 8.0% | 6.4 | \$27,450 | 4.3% | 93.4% |
| | Miscellaneous disorders | 170 | 6.4% | 3.1 | \$11,788 | 0.6% | 52.9% |
| | Total | 2,640 | 100.0% | 5.8 | \$16,107 | 2.0% | 85.9% |
| Diseases of the nervous system and sense organs | Meningitis (except that caused by tuberculosis or STD) | 124 | 4.0% | 4.8 | \$24,652 | 0.8% | 90.3% |
| | Encephalitis (except that caused by tuberculosis or STD) | 29 | 0.9% | 11.4 | \$68,743 | 3.4% | 82.8% |
| | Other CNS infection and poliomyelitis | 47 | 1.5% | 13.9 | \$70,806 | 6.4% | 74.5% |
| | Parkinson's disease | 26 | 0.8% | 4.7 | \$14,982 | 3.8% | 96.2% |
| | Multiple sclerosis | 102 | 3.3% | 4.0 | \$18,350 | 1.0% | 74.5% |
| | Other hereditary and degenerative nervous system | 136 | 4.4% | 5.7 | \$35,312 | 2.2% | 55.9% |
| | Paralysis | 176 | 5.7% | 4.2 | \$45,462 | 0.6% | 10.2% |
| | Epilepsy; convulsions | 831 | 26.9% | 3.7 | \$18,566 | 1.4% | 85.4% |
| | Headache; including migraine | 281 | 9.1% | 2.6 | \$12,725 | 0.0% | 87.9% |
| | Coma; stupor; and brain damage | 46 | 1.5% | 5.8 | \$36,190 | 32.6% | 87.0% |

APPENDIX A

| Clinical Classifications Software Categories and Chapter Headings | | Number of Discharges | Percent of Discharges | Length of Stay | Mean Total Charges | Percent Expired | Percent Admitted from ED |
|---|---|----------------------|-----------------------|----------------|--------------------|-----------------|--------------------------|
| | Cataract | 0 | 0.0% | N/A | N/A | N/A | N/A |
| | Retinal detachments; defects; vascular occlusion; and retinopathy | 10 | 0.3% | 3.2 | \$17,361 | 0.0% | 100.0% |
| | Glaucoma | 3 | 0.1% | 5.3 | \$20,971 | 0.0% | 0.0% |
| | Blindness and vision defects | 18 | 0.6% | 2.7 | \$13,984 | 0.0% | 100.0% |
| | Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitted disease) | 59 | 1.9% | 2.6 | \$12,068 | 0.0% | 83.1% |
| | Other eye disorders | 21 | 0.7% | 5.9 | \$28,901 | 0.0% | 71.4% |
| | Otitis media and related conditions | 60 | 1.9% | 2.2 | \$13,395 | 0.0% | 51.7% |
| | Conditions associated with dizziness or vertigo | 192 | 6.2% | 2.5 | \$13,672 | 0.0% | 97.4% |
| | Other ear and sense organ disorders | 44 | 1.4% | 2.3 | \$13,462 | 0.0% | 52.3% |
| | Other nervous system disorders | 886 | 28.7% | 5.0 | \$26,404 | 2.7% | 79.1% |
| | Total | 3,091 | 100.0% | 4.3 | \$23,725 | 2.0% | 77.5% |
| Diseases of the circulatory system | Heart valve disorders | 324 | 2.0% | 7.2 | \$88,782 | 2.2% | 28.7% |
| | Peri-, endo-, and myocarditis; cardiomyopathy (except that caused by tuberculosis or STD) | 297 | 1.8% | 9.1 | \$75,320 | 4.4% | 72.7% |
| | Essential hypertension | 197 | 1.2% | 2.2 | \$12,638 | 0.5% | 93.4% |
| | Hypertension with complications and secondary hypertension | 631 | 3.8% | 5.1 | \$26,575 | 1.6% | 88.6% |
| | Acute myocardial infarction | 1,865 | 11.4% | 4.6 | \$53,862 | 5.6% | 86.3% |
| | Coronary atherosclerosis and other heart disease | 1,489 | 9.1% | 3.8 | \$52,828 | 0.6% | 52.7% |
| | Nonspecific chest pain | 847 | 5.2% | 2.0 | \$14,550 | 0.6% | 95.4% |
| | Pulmonary heart disease | 617 | 3.8% | 5.7 | \$29,796 | 5.3% | 89.3% |
| | Other and ill-defined heart disease | 20 | 0.1% | 3.7 | \$28,828 | 0.0% | 80.0% |
| | Conduction disorders | 179 | 1.1% | 3.6 | \$45,431 | 1.7% | 78.2% |
| | Cardiac dysrhythmias | 1,944 | 11.8% | 3.9 | \$25,310 | 1.7% | 84.6% |
| | Cardiac arrest and ventricular fibrillation | 78 | 0.5% | 5.6 | \$61,016 | 60.3% | 91.0% |
| | Congestive heart failure; nonhypertensive | 2,798 | 17.0% | 5.3 | \$25,243 | 4.5% | 91.6% |
| | Acute cerebrovascular disease | 1,914 | 11.7% | 6.6 | \$35,264 | 10.9% | 95.2% |
| | Occlusion or stenosis of precerebral arteries | 387 | 2.4% | 2.4 | \$27,316 | 0.0% | 18.1% |
| | Other and ill-defined cerebrovascular disease | 114 | 0.7% | 3.3 | \$55,053 | 1.8% | 40.4% |
| | Transient cerebral ischemia | 571 | 3.5% | 2.5 | \$14,772 | 0.0% | 97.4% |
| | Late effects of cerebrovascular disease | 65 | 0.4% | 5.4 | \$21,455 | 4.6% | 90.8% |
| | Peripheral and visceral atherosclerosis | 536 | 3.3% | 5.3 | \$40,291 | 3.9% | 41.2% |
| | Aortic; peripheral; and visceral artery aneurysms | 265 | 1.6% | 5.3 | \$84,651 | 7.5% | 34.7% |
| | Aortic and peripheral arterial embolism or thrombosis | 97 | 0.6% | 8.5 | \$61,430 | 6.2% | 52.6% |
| | Other circulatory disease | 479 | 2.9% | 4.1 | \$20,701 | 2.7% | 87.5% |
| | Phlebitis; thrombophlebitis and thromboembolism | 534 | 3.3% | 4.6 | \$23,878 | 1.5% | 75.8% |
| | Varicose veins of lower extremity | 9 | 0.1% | 5.1 | \$18,809 | 0.0% | 55.6% |
| | Hemorrhoids | 69 | 0.4% | 3.2 | \$15,052 | 1.4% | 82.6% |
| | Other diseases of veins and lymphatics | 93 | 0.6% | 7.0 | \$29,327 | 1.1% | 64.5% |
| | | Total | 16,419 | 100.0% | 4.7 | \$35,586 | 4.1% |
| Diseases of the respiratory system | Pneumonia (except that caused by tuberculosis or STD) | 3,475 | 30.9% | 5.3 | \$24,335 | 4.0% | 90.9% |
| | Influenza | 140 | 1.2% | 4.4 | \$21,127 | 2.1% | 85.0% |
| | Acute and chronic tonsillitis | 198 | 1.8% | 1.8 | \$12,213 | 0.5% | 33.8% |
| | Acute bronchitis | 956 | 8.5% | 3.6 | \$19,714 | 0.2% | 82.9% |
| | Other upper respiratory infections | 325 | 2.9% | 2.8 | \$15,656 | 0.6% | 80.6% |
| | Chronic obstructive pulmonary disease and bronchiectasis | 2,182 | 19.4% | 4.4 | \$18,286 | 2.6% | 93.8% |
| | Asthma | 1,244 | 11.1% | 3.0 | \$13,738 | 0.3% | 87.8% |
| | Aspiration pneumonitis; food/ vomitus | 548 | 4.9% | 8.4 | \$38,094 | 17.5% | 96.0% |
| | Pleurisy; pneumothorax; pulmonary collapse | 357 | 3.2% | 6.8 | \$31,038 | 3.9% | 76.5% |
| | Respiratory failure; insufficiency; arrest (adult) | 1,320 | 11.7% | 10.6 | \$58,257 | 12.4% | 80.5% |
| | Lung disease due to external agents | 26 | 0.2% | 6.1 | \$31,804 | 3.8% | 92.3% |
| | Other lower respiratory disease | 309 | 2.7% | 4.0 | \$22,911 | 4.2% | 76.4% |
| | Other upper respiratory disease | 171 | 1.5% | 5.0 | \$20,544 | 1.8% | 77.2% |
| | Total | 11,251 | 100.0% | 5.4 | \$25,877 | 4.4% | 87.0% |

APPENDIX A

| Clinical Classifications Software Categories and Chapter Headings | | Number of Discharges | Percent of Discharges | Length of Stay | Mean Total Charges | Percent Expired | Percent Admitted from ED |
|---|--|----------------------|-----------------------|-----------------|--------------------|-----------------|--------------------------|
| Diseases of the digestive system | Intestinal infection | 971 | 8.9% | 5.2 | \$20,093 | 3.2% | 91.6% |
| | Disorders of teeth and jaw | 76 | 0.7% | 2.7 | \$15,029 | 1.3% | 50.0% |
| | Diseases of mouth; excluding dental | 71 | 0.6% | 3.7 | \$16,331 | 1.4% | 73.2% |
| | Esophageal disorders | 407 | 3.7% | 4.0 | \$22,308 | 0.5% | 71.7% |
| | Gastroduodenal ulcer (except hemorrhage) | 114 | 1.0% | 5.5 | \$30,424 | 3.5% | 88.6% |
| | Gastritis and duodenitis | 284 | 2.6% | 4.2 | \$17,950 | 1.1% | 91.9% |
| | Other disorders of stomach and duodenum | 258 | 2.4% | 5.6 | \$23,985 | 1.9% | 82.9% |
| | Appendicitis and other appendiceal conditions | 854 | 7.8% | 3.1 | \$21,868 | 0.0% | 92.5% |
| | Abdominal hernia | 726 | 6.6% | 5.0 | \$33,095 | 1.1% | 35.4% |
| | Regional enteritis and ulcerative colitis | 300 | 2.7% | 5.2 | \$21,665 | 0.3% | 72.7% |
| | Intestinal obstruction without hernia | 1,086 | 9.9% | 6.4 | \$28,617 | 3.0% | 90.8% |
| | Diverticulosis and diverticulitis | 931 | 8.5% | 5.2 | \$24,198 | 0.5% | 74.2% |
| | Anal and rectal conditions | 124 | 1.1% | 5.0 | \$24,883 | 4.0% | 69.4% |
| | Peritonitis and intestinal abscess | 97 | 0.9% | 7.9 | \$40,406 | 4.1% | 73.2% |
| | Biliary tract disease | 1,274 | 11.7% | 3.7 | \$23,608 | 0.9% | 73.6% |
| | Other liver diseases | 384 | 3.5% | 5.6 | \$27,631 | 8.3% | 87.2% |
| | Pancreatic disorders (not diabetes) | 839 | 7.7% | 5.7 | \$25,797 | 1.4% | 91.8% |
| | Gastrointestinal hemorrhage | 1,028 | 9.4% | 4.8 | \$24,893 | 4.8% | 93.7% |
| | Noninfectious gastroenteritis | 337 | 3.1% | 3.6 | \$14,480 | 0.3% | 91.4% |
| | Other gastrointestinal disorders | 764 | 7.0% | 5.4 | \$25,322 | 2.1% | 60.2% |
| Total | 10,925 | 100.0% | 4.9 | \$24,495 | 2.1% | 79.8% | |
| Diseases of the genitourinary system | Nephritis; nephrosis; renal sclerosis | 54 | 1.0% | 3.7 | \$22,236 | 0.0% | 57.4% |
| | Acute and unspecified renal failure | 1,714 | 32.0% | 5.7 | \$22,884 | 3.4% | 90.8% |
| | Chronic renal failure | 44 | 0.8% | 5.7 | \$65,608 | 6.8% | 40.9% |
| | Urinary tract infections | 1,745 | 32.6% | 4.5 | \$15,380 | 2.4% | 93.4% |
| | Calculus of urinary tract | 445 | 8.3% | 2.5 | \$16,020 | 0.2% | 84.0% |
| | Other diseases of kidney and ureters | 159 | 3.0% | 3.2 | \$21,491 | 1.3% | 32.7% |
| | Other diseases of bladder and urethra | 66 | 1.2% | 6.3 | \$35,960 | 1.5% | 54.5% |
| | Genitourinary symptoms and ill-defined conditions | 95 | 1.8% | 5.4 | \$18,399 | 3.2% | 78.9% |
| | Hyperplasia of prostate | 70 | 1.3% | 3.1 | \$19,845 | 1.4% | 34.3% |
| | Inflammatory conditions of male genital organs | 83 | 1.6% | 4.5 | \$16,457 | 0.0% | 83.1% |
| | Other male genital disorders | 28 | 0.5% | 2.1 | \$18,351 | 0.0% | 75.0% |
| | Nonmalignant breast conditions | 96 | 1.8% | 1.9 | \$11,595 | 0.0% | 27.1% |
| | Inflammatory diseases of female pelvic organs | 108 | 2.0% | 2.9 | \$15,237 | 0.0% | 58.3% |
| | Endometriosis | 69 | 1.3% | 2.1 | \$18,386 | 0.0% | 11.6% |
| | Prolapse of female genital organs | 175 | 3.3% | 1.7 | \$19,070 | 0.0% | 0.0% |
| | Menstrual disorders | 132 | 2.5% | 2.1 | \$18,097 | 0.0% | 15.2% |
| | Ovarian cyst | 126 | 2.4% | 2.5 | \$15,750 | 0.0% | 36.5% |
| | Menopausal disorders | 24 | 0.4% | 2.8 | \$20,527 | 0.0% | 33.3% |
| | Female infertility | 1 | 0.0% | 10.0 | \$31,902 | 0.0% | 0.0% |
| | Other female genital disorders | 115 | 2.1% | 3.3 | \$19,633 | 0.9% | 27.8% |
| Total | 5,349 | 100.0% | 4.3 | \$19,182 | 2.1% | 76.4% | |
| Complications of pregnancy, childbirth, & the puerperium | Contraceptive and procreative management | 0 | 0.0% | N/A | N/A | N/A | N/A |
| | Spontaneous abortion | 21 | 0.2% | 5.6 | \$27,223 | 0.0% | 57.1% |
| | Induced abortion | 17 | 0.1% | 2.1 | \$7,183 | 0.0% | 35.3% |
| | Post abortion complications | 3 | 0.0% | 1.3 | \$4,431 | 0.0% | 100.0% |
| | Ectopic pregnancy | 24 | 0.2% | 1.4 | \$13,675 | 0.0% | 87.5% |
| | Other complications of pregnancy | 1,224 | 9.9% | 2.5 | \$8,359 | 0.1% | 30.7% |
| | Hemorrhage during pregnancy; abruptio placenta; placenta previa | 130 | 1.1% | 4.0 | \$13,035 | 0.0% | 24.6% |
| | Hypertension complicating pregnancy; childbirth and the puerperium | 675 | 5.5% | 3.4 | \$11,156 | 0.0% | 22.1% |
| | Early or threatened labor | 462 | 3.8% | 3.5 | \$8,606 | 0.0% | 27.7% |
| | Prolonged pregnancy | 564 | 4.6% | 2.6 | \$7,876 | 0.0% | 1.4% |
| | Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium | 223 | 1.8% | 3.1 | \$8,829 | 0.0% | 5.4% |

APPENDIX A

| Clinical Classifications Software Categories and Chapter Headings | | Number of Discharges | Percent of Discharges | Length of Stay | Mean Total Charges | Percent Expired | Percent Admitted from ED |
|--|---|----------------------|-----------------------|-----------------|--------------------|-----------------|--------------------------|
| | Malposition; malpresentation | 493 | 4.0% | 3.3 | \$11,992 | 0.0% | 3.7% |
| | Fetopelvic disproportion; obstruction | 105 | 0.9% | 2.6 | \$10,088 | 0.0% | 1.0% |
| | Previous C-section | 1,574 | 12.8% | 2.7 | \$11,471 | 0.0% | 2.1% |
| | Fetal distress and abnormal forces of labor | 606 | 4.9% | 3.2 | \$10,938 | 0.0% | 5.6% |
| | Polyhydramnios and other problems of amniotic cavity | 613 | 5.0% | 3.9 | \$10,288 | 0.0% | 12.1% |
| | Umbilical cord complication | 493 | 4.0% | 2.2 | \$6,836 | 0.0% | 5.7% |
| | OB-related trauma to perineum and vulva | 2,650 | 21.5% | 2.2 | \$6,786 | 0.0% | 4.0% |
| | Forceps delivery | 55 | 0.4% | 2.3 | \$7,755 | 0.0% | 0.0% |
| | Other complications of birth; puerperium affecting management of mother | 1,750 | 14.2% | 3.4 | \$11,486 | 0.1% | 11.7% |
| | Normal pregnancy and/ or delivery | 623 | 5.1% | 2.1 | \$7,289 | 0.0% | 5.0% |
| | Total | 12,305 | 100.0% | 2.8 | \$9,367 | 0.0% | 10.4% |
| Diseases of the skin and subcutaneous tissue | Skin and subcutaneous tissue infections | 1,968 | 87.4% | 3.9 | \$14,176 | 0.5% | 83.0% |
| | Other inflammatory condition of skin | 40 | 1.8% | 3.9 | \$15,592 | 0.0% | 90.0% |
| | Chronic ulcer of skin | 191 | 8.5% | 13.0 | \$40,618 | 2.6% | 42.9% |
| | Other skin disorders | 52 | 2.3% | 5.1 | \$21,353 | 0.0% | 44.2% |
| | Total | 2,251 | 100.0% | 4.7 | \$16,610 | 0.7% | 78.8% |
| Diseases of the musculo-skeletal system and connective tissue | Infective arthritis and osteomyelitis (except that caused by tuberculosis or STD) | 273 | 3.9% | 10.7 | \$46,021 | 0.7% | 57.9% |
| | Rheumatoid arthritis and related disease | 46 | 0.7% | 4.5 | \$24,791 | 0.0% | 65.2% |
| | Osteoarthritis | 3,141 | 45.4% | 2.9 | \$33,254 | 0.0% | 1.0% |
| | Other non-traumatic joint disorders | 136 | 2.0% | 3.3 | \$29,534 | 2.2% | 51.5% |
| | Spondylosis; intervertebral disc disorders; other back | 1,985 | 28.7% | 3.0 | \$39,815 | 0.2% | 23.1% |
| | Osteoporosis | 5 | 0.1% | 4.0 | \$23,625 | 0.0% | 20.0% |
| | Pathological fracture | 218 | 3.2% | 5.5 | \$29,905 | 3.7% | 70.6% |
| | Acquired foot deformities | 50 | 0.7% | 3.0 | \$31,321 | 0.0% | 6.0% |
| | Other acquired deformities | 271 | 3.9% | 5.3 | \$90,601 | 0.0% | 2.6% |
| | Systemic lupus erythematosus and connective tissue | 60 | 0.9% | 11.2 | \$45,219 | 1.7% | 70.0% |
| | Other connective tissue disease | 452 | 6.5% | 4.8 | \$21,884 | 1.5% | 75.7% |
| | Other bone disease and musculoskeletal deformities | 276 | 4.0% | 3.7 | \$62,984 | 0.4% | 15.2% |
| Total | 6,913 | 100.0% | 3.6 | \$38,182 | 0.4% | 19.4% | |
| Congenital anomalies | Cardiac and circulatory congenital anomalies | 217 | 32.0% | 16.5 | \$247,424 | 3.2% | 5.1% |
| | Digestive congenital anomalies | 99 | 14.6% | 8.7 | \$67,888 | 1.0% | 42.4% |
| | Genitourinary congenital anomalies | 67 | 9.9% | 5.2 | \$41,313 | 0.0% | 7.5% |
| | Nervous system congenital anomalies | 45 | 6.6% | 12.3 | \$116,592 | 0.0% | 4.4% |
| | Other congenital anomalies | 251 | 37.0% | 8.2 | \$92,336 | 0.8% | 5.6% |
| | Total | 679 | 100.0% | 10.9 | 134,908 | 1.5% | 10.9% |
| Certain conditions originating in the perinatal period | Short gestation; low birth weight; and fetal growth | 65 | 10.6% | 25.6 | \$84,563 | 4.6% | 0.0% |
| | Intrauterine hypoxia and birth asphyxia | 4 | 0.6% | 5.3 | \$33,288 | 25.0% | 25.0% |
| | Respiratory distress syndrome | 37 | 6.0% | 29.2 | \$169,733 | 2.7% | 2.7% |
| | Hemolytic jaundice and perinatal jaundice | 144 | 23.4% | 1.7 | \$5,193 | 0.0% | 36.1% |
| | Birth trauma | 5 | 0.8% | 5.6 | \$30,894 | 0.0% | 0.0% |
| | Other perinatal conditions | 361 | 58.6% | 11.6 | \$83,106 | 1.1% | 48.2% |
| | Total | 616 | 100.0% | 11.7 | \$69,502 | 1.5% | 37.0% |
| Injury and poisoning | Joint disorders and dislocations; trauma-related | 78 | 0.9% | 3.6 | \$30,217 | 1.3% | 42.3% |
| | Fracture of neck of femur (hip) | 802 | 9.0% | 5.8 | \$35,775 | 3.0% | 96.8% |
| | Spinal cord injury | 70 | 0.8% | 11.8 | \$75,399 | 11.4% | 95.7% |
| | Skull and face fractures | 199 | 2.2% | 3.4 | \$22,674 | 0.0% | 82.9% |
| | Fracture of upper limb | 391 | 4.4% | 3.4 | \$24,340 | 0.5% | 85.2% |
| | Fracture of lower limb | 760 | 8.5% | 4.6 | \$31,577 | 0.8% | 90.1% |
| | Other fractures | 767 | 8.6% | 5.1 | \$26,104 | 1.6% | 92.4% |
| | Sprains and strains | 82 | 0.9% | 3.8 | \$18,842 | 1.2% | 81.7% |
| | Intracranial injury | 795 | 8.9% | 6.1 | \$32,548 | 7.5% | 96.0% |

APPENDIX A

| Clinical Classifications Software Categories and Chapter Headings | | Number of Discharges | Percent of Discharges | Length of Stay | Mean Total Charges | Percent Expired | Percent Admitted from ED |
|---|---|----------------------|-----------------------|----------------|--------------------|-----------------|--------------------------|
| | Crushing injury or internal injury | 329 | 3.7% | 6.4 | \$43,437 | 4.0% | 94.8% |
| | Open wounds of head; neck; and trunk | 74 | 0.8% | 4.9 | \$32,584 | 4.1% | 95.9% |
| | Open wounds of extremities | 96 | 1.1% | 3.5 | \$23,104 | 0.0% | 87.5% |
| | Complication of device; implant or graft | 1,824 | 20.5% | 5.9 | \$41,521 | 2.6% | 48.2% |
| | Complications of surgical procedures or medical care | 1,344 | 15.1% | 5.9 | \$27,566 | 1.5% | 62.3% |
| | Superficial injury; contusion | 152 | 1.7% | 3.9 | \$15,180 | 0.0% | 94.1% |
| | Burns | 18 | 0.2% | 3.4 | \$14,530 | 5.6% | 83.3% |
| | Poisoning by psychotropic agents | 271 | 3.0% | 4.3 | \$20,688 | 1.1% | 92.3% |
| | Poisoning by other medications and drugs | 512 | 5.8% | 3.5 | \$17,698 | 1.8% | 90.6% |
| | Poisoning by nonmedicinal substances | 36 | 0.4% | 3.1 | \$14,792 | 0.0% | 94.4% |
| | Other injuries and conditions due to external causes | 290 | 3.3% | 3.7 | \$21,713 | 4.1% | 90.3% |
| | Total | 8,890 | 100.0% | 5.2 | \$31,222 | 2.5% | 78.2% |
| Liveborn | Liveborn | 11,388 | 100.0% | 3.5 | \$7,428 | 0.5% | 0.0% |
| | Total | 11,388 | 100.0% | 3.5 | \$7,428 | 0.5% | 0.0% |
| Other conditions | Syncope | 538 | 14.2% | 2.6 | \$15,119 | 0.7% | 95.9% |
| | Fever of unknown origin | 157 | 4.1% | 3.0 | \$13,764 | 0.0% | 82.2% |
| | Lymphadenitis | 81 | 2.1% | 2.8 | \$14,797 | 0.0% | 76.5% |
| | Gangrene | 95 | 2.5% | 11.3 | \$58,243 | 3.2% | 44.2% |
| | Shock | 9 | 0.2% | 4.7 | \$30,653 | 22.2% | 88.9% |
| | Nausea and vomiting | 65 | 1.7% | 3.0 | \$11,458 | 1.5% | 75.4% |
| | Abdominal pain | 329 | 8.7% | 3.2 | \$13,130 | 0.3% | 88.8% |
| | Malaise and fatigue | 40 | 1.1% | 3.1 | \$15,898 | 0.0% | 92.5% |
| | Allergic reactions | 87 | 2.3% | 3.1 | \$12,947 | 0.0% | 92.0% |
| | Rehabilitation care; fitting of prostheses; and adjustment of devices | 1,575 | 41.5% | 12.6 | \$28,817 | 0.4% | 1.1% |
| | Administrative/ social admission | 4 | 0.1% | 10.5 | \$17,562 | 0.0% | 75.0% |
| | Medical examination/ evaluation | 7 | 0.2% | 3.3 | \$9,771 | 0.0% | 28.6% |
| | Other aftercare | 473 | 12.5% | 6.1 | \$3,399 | 62.4% | 3.0% |
| | Other screening for suspected conditions (not mental disorders or infectious disease) | 16 | 0.4% | 1.9 | \$8,967 | 0.0% | 68.8% |
| | Residual codes; unclassified | 317 | 8.4% | 3.7 | \$19,422 | 2.5% | 70.3% |
| | Total | 3,793 | 100.0% | 7.6 | \$20,449 | 8.4% | 39.2% |
| Total All CCS Diagnostic Codes | | 109,874 | 100.0% | 4.8 | \$25,370 | 2.9% | 56.5% |

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

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 Admitted from the ED by Ecode, Delaware Hospitals, 2011

| Clinical Classifications Software Categories for Ecodes | Number of Discharges | Percent of Discharges | Mean LOS | Mean Total Charges | Percent Expired | Percent Admitted from ED |
|---|----------------------|-----------------------|------------|--------------------|-----------------|--------------------------|
| E Codes: Cut/pierce | 159 | 1.5% | 4.1 | \$20,074 | 0.6 | 91.8 |
| E Codes: Drowning/submersion | 16 | 0.1% | 6.9 | \$49,975 | 25.0 | 93.8 |
| E Codes: Fall | 3,929 | 36.7% | 5.5 | \$27,917 | 3.3 | 93.6 |
| E Codes: Fire/burn | 39 | 0.4% | 4.7 | \$19,880 | 5.1 | 82.1 |
| E Codes: Firearms | 101 | 0.9% | 9.8 | \$60,563 | 7.9 | 92.1 |
| E Codes: Machinery | 36 | 0.3% | 4.4 | \$33,539 | 0.0 | 91.7 |
| E Codes: Motor vehicle traffic (MVT) | 945 | 8.8% | 6.2 | \$42,151 | 3.2 | 95.6 |
| E Codes: Pedal cyclist; not MVT | 64 | 0.6% | 3.3 | \$20,559 | 0.0 | 87.5 |
| E Codes: Pedestrian; not MVT | 8 | 0.1% | 10.3 | \$69,968 | 0.0 | 87.5 |
| E Codes: Transport; not MVT | 135 | 1.3% | 3.9 | \$25,930 | 0.7 | 91.1 |
| E Codes: Natural/environment | 212 | 2.0% | 4.1 | \$20,308 | 0.9 | 90.6 |
| E Codes: Overexertion | 113 | 1.1% | 4.0 | \$23,218 | 0.9 | 90.3 |
| E Codes: Poisoning | 757 | 7.1% | 3.6 | \$18,829 | 1.5 | 90.0 |
| E Codes: Struck by; against | 295 | 2.8% | 3.8 | \$22,157 | 2.0 | 85.1 |
| E Codes: Suffocation | 78 | 0.7% | 9.3 | \$55,668 | 16.7 | 83.3 |
| E Codes: Adverse effects of medical care | 1,464 | 13.7% | 13.1 | \$103,914 | 2.8 | 38.7 |
| E Codes: Adverse effects of medical drugs | 1,330 | 12.4% | 7.3 | \$45,142 | 1.9 | 75.7 |
| E Codes: Other specified and classifiable | 387 | 3.6% | 9.1 | \$39,789 | 3.1 | 51.9 |
| E Codes: Other specified; NEC | 183 | 1.7% | 9.3 | \$40,696 | 1.6 | 63.9 |
| E Codes: Unspecified | 441 | 4.1% | 6.3 | \$36,170 | 4.3 | 76.6 |
| E Codes: Place of occurrence | 22 | 0.2% | 4.4 | \$40,027 | 0.0 | 81.8 |
| Total | 10,714 | 100.0% | 6.9 | \$42,084 | 2.9 | 80.5 |

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

APPENDIX C

C1. Number of All-listed Procedures Performed during the Inpatient Stay, by Procedure and Sex of Patient, Delaware Hospitals, 2011

| Single level CCS Procedure Categories and Chapter Headings | | Male | Female | Total |
|---|--|--------------|--------------|-------|
| Operations on the nervous system | Incision and excision of CNS | 213 | 165 | 378 |
| | Insertion; replacement; or removal of extracranial ventricular shunt | 75 | 80 | 155 |
| | Laminectomy; excision intervertebral disc | 812 | 822 | 1,634 |
| | Diagnostic spinal tap | 535 | 520 | 1,055 |
| | Insertion of catheter or spinal stimulator and injection into spinal canal | 110 | 88 | 198 |
| | Decompression peripheral nerve | 21 | 27 | 48 |
| | Other diagnostic nervous system procedures | 20 | 31 | 51 |
| | Other non-OR or closed therapeutic nervous system procedures | 49 | 77 | 126 |
| | Other OR therapeutic nervous system procedures | 307 | 253 | 560 |
| Total | 2,142 | 2,063 | 4,205 | |
| Operations on the endocrine system | Thyroidectomy; partial or complete | 22 | 74 | 96 |
| | Diagnostic endocrine procedures | 12 | 20 | 32 |
| | Other therapeutic endocrine procedures | 46 | 58 | 104 |
| Total | 80 | 152 | 232 | |
| Operations on the eye | Glaucoma procedures | 2 | 1 | 3 |
| | Lens and cataract procedures | 1 | 2 | 3 |
| | Repair of retinal tear; detachment | 4 | 1 | 5 |
| | Destruction of lesion of retina and choroid | 2 | 1 | 3 |
| | Diagnostic procedures on eye | 2 | 1 | 3 |
| | Other therapeutic procedures on eyelids; conjunctiva; cornea | 58 | 42 | 100 |
| | Other intraocular therapeutic procedures | 10 | 7 | 17 |
| | Other extraocular muscle and orbit therapeutic procedures | 7 | 4 | 11 |
| Total | 86 | 59 | 145 | |
| Operations on the ear | Tympanoplasty | 3 | 0 | 3 |
| | Myringotomy | 106 | 71 | 177 |
| | Mastoidectomy | 0 | 2 | 2 |
| | Diagnostic procedures on ear | 34 | 20 | 54 |
| | Other therapeutic ear procedures | 41 | 22 | 63 |
| Total | 184 | 115 | 299 | |
| Operations on the nose, mouth, and pharynx | Control of epistaxis | 63 | 41 | 104 |
| | Plastic procedures on nose | 29 | 18 | 47 |
| | Dental procedures | 125 | 124 | 249 |
| | Tonsillectomy and/or adenoidectomy | 108 | 64 | 172 |
| | Diagnostic procedures on nose; mouth and pharynx | 50 | 20 | 70 |
| | Other non-OR therapeutic procedures on nose; mouth and pharynx | 87 | 68 | 155 |
| | Other OR therapeutic procedures on nose; mouth and pharynx | 190 | 113 | 303 |
| Total | 652 | 448 | 1,100 | |
| Operations on the respiratory system | Tracheostomy; temporary and permanent | 169 | 132 | 301 |
| | Tracheoscopy and laryngoscopy with biopsy | 139 | 113 | 252 |
| | Lobectomy or pneumonectomy | 109 | 115 | 224 |
| | Diagnostic bronchoscopy and biopsy of bronchus | 500 | 387 | 887 |
| | Other diagnostic procedures on lung and bronchus | 17 | 22 | 39 |
| | Incision of pleura; thoracentesis; chest drainage | 754 | 515 | 1,269 |
| | Other diagnostic procedures of respiratory tract and mediastinum | 72 | 53 | 125 |
| | Other non-OR therapeutic procedures on respiratory system | 149 | 104 | 253 |
| | Other OR Rx procedures on respiratory system and mediastinum | 155 | 95 | 250 |
| Total | 2,064 | 1,536 | 3,600 | |
| Operations on the cardiovascular system | Heart valve procedures | 219 | 150 | 369 |
| | Coronary artery bypass graft (CABG) | 896 | 319 | 1,215 |
| | Percutaneous transluminal coronary angioplasty (PTCA) | 1,230 | 636 | 1,866 |
| | Coronary thrombolysis | 1 | 0 | 1 |
| | Diagnostic cardiac catheterization; coronary arteriography | 5,795 | 3,690 | 9,485 |
| | Insertion; revision; replacement; removal of cardiac pacemaker or | 703 | 548 | 1,251 |
| | Other OR heart procedures | 392 | 298 | 690 |
| Extracorporeal circulation auxiliary to open heart procedures | 626 | 334 | 960 | |

APPENDIX C

| Single level CCS Procedure Categories and Chapter Headings | | Male | Female | Total |
|--|--|---------------|---------------|---------------|
| | Endarterectomy; vessel of head and neck | 192 | 119 | 311 |
| | Aortic resection; replacement or anastomosis | 119 | 63 | 182 |
| | Varicose vein stripping; lower limb | 0 | 1 | 1 |
| | Other vascular catheterization; not heart | 3,217 | 3,362 | 6,579 |
| | Peripheral vascular bypass | 148 | 98 | 246 |
| | Other vascular bypass and shunt; not heart | 31 | 17 | 48 |
| | Creation; revision and removal of arteriovenous fistula or vessel-to-vessel cannula for dialysis | 52 | 53 | 105 |
| | Hemodialysis | 1,238 | 1,087 | 2,325 |
| | Other OR procedures on vessels of head and neck | 146 | 139 | 285 |
| | Embolectomy and endarterectomy of lower limbs | 72 | 75 | 147 |
| | Other OR procedures on vessels other than head and neck | 3,246 | 2,136 | 5,382 |
| | Other diagnostic cardiovascular procedures | 157 | 113 | 270 |
| | Other non-OR therapeutic cardiovascular procedures | 957 | 606 | 1,563 |
| | Total | 19,437 | 13,844 | 33,281 |
| Operations on the hemic and lymphatic system | Bone marrow transplant | 28 | 19 | 47 |
| | Bone marrow biopsy | 122 | 97 | 219 |
| | Procedures on spleen | 30 | 41 | 71 |
| | Other therapeutic procedures; hemic and lymphatic system | 300 | 478 | 778 |
| | Total | 480 | 635 | 1,115 |
| Operations on the digestive system | Injection or ligation of esophageal varices | 2 | 0 | 2 |
| | Esophageal dilatation | 33 | 27 | 60 |
| | Upper gastrointestinal endoscopy; biopsy | 1,485 | 1,782 | 3,267 |
| | Gastrostomy; temporary and permanent | 280 | 186 | 466 |
| | Colostomy; temporary and permanent | 80 | 75 | 155 |
| | Ileostomy and other enterostomy | 63 | 53 | 116 |
| | Gastrectomy; partial and total | 86 | 171 | 257 |
| | Small bowel resection | 153 | 180 | 333 |
| | Colonoscopy and biopsy | 559 | 711 | 1,270 |
| | Proctoscopy and anorectal biopsy | 94 | 101 | 195 |
| | Colorectal resection | 508 | 544 | 1,052 |
| | Local excision of large intestine lesion (not endoscopic) | 2 | 6 | 8 |
| | Appendectomy | 527 | 471 | 998 |
| | Hemorrhoid procedures | 14 | 15 | 29 |
| | Endoscopic retrograde cannulation of pancreas (ERCP) | 32 | 29 | 61 |
| | Biopsy of liver | 99 | 111 | 210 |
| | Cholecystectomy and common duct exploration | 436 | 756 | 1,192 |
| | Inguinal and femoral hernia repair | 104 | 27 | 131 |
| | Other hernia repair | 347 | 656 | 1,003 |
| | Laparoscopy (GI only) | 45 | 61 | 106 |
| | Abdominal paracentesis | 532 | 395 | 927 |
| | Exploratory laparotomy | 34 | 24 | 58 |
| | Excision; lysis peritoneal adhesions | 278 | 711 | 989 |
| | Peritoneal dialysis | 54 | 68 | 122 |
| | Other bowel diagnostic procedures | 18 | 35 | 53 |
| | Other non-OR upper GI therapeutic procedures | 343 | 270 | 613 |
| | Other OR upper GI therapeutic procedures | 244 | 475 | 719 |
| | Other non-OR lower GI therapeutic procedures | 305 | 261 | 566 |
| | Other OR lower GI therapeutic procedures | 500 | 474 | 974 |
| | Other gastrointestinal diagnostic procedures | 110 | 118 | 228 |
| | Other non-OR gastrointestinal therapeutic procedures | 317 | 473 | 790 |
| | Other OR gastrointestinal therapeutic procedures | 335 | 443 | 778 |
| | Total | 8,019 | 9,709 | 17,728 |
| Operations on the urinary system | Endoscopy and endoscopic biopsy of the urinary tract | 175 | 375 | 550 |
| | Transurethral excision; drainage; or removal urinary obstruction | 241 | 164 | 405 |
| | Ureteral catheterization | 315 | 462 | 777 |
| | Nephrotomy and nephrostomy | 58 | 75 | 133 |

APPENDIX C

| Single level CCS Procedure Categories and Chapter Headings | | Male | Female | Total |
|--|---|--------------|---------------|---------------|
| | Nephrectomy; partial or complete | 104 | 87 | 191 |
| | Kidney transplant | 23 | 13 | 36 |
| | Genitourinary incontinence procedures | 1 | 86 | 87 |
| | Extracorporeal lithotripsy; urinary | 11 | 4 | 15 |
| | Indwelling catheter | 114 | 60 | 174 |
| | Procedures on the urethra | 40 | 9 | 49 |
| | Other diagnostic procedures of urinary tract | 34 | 32 | 66 |
| | Other non-OR therapeutic procedures of urinary tract | 89 | 179 | 268 |
| | Other OR therapeutic procedures of urinary tract | 155 | 218 | 373 |
| | Total | 1,360 | 1,764 | 3,124 |
| Operations on the male genital organs | Transurethral resection of prostate (TURP) | 67 | 0 | 67 |
| | Open prostatectomy | 86 | 0 | 86 |
| | Circumcision | 4,640 | 0 | 4,640 |
| | Diagnostic procedures; male genital | 13 | 0 | 13 |
| | Other non-OR therapeutic procedures; male genital | 54 | 0 | 54 |
| | Other OR therapeutic procedures; male genital | 84 | 0 | 84 |
| | Total | 4,944 | 0 | 4,944 |
| Operations on the female genital organs | Oophorectomy; unilateral and bilateral | 0 | 739 | 739 |
| | Other operations on ovary | 0 | 159 | 159 |
| | Ligation or occlusion of fallopian tubes | 0 | 797 | 797 |
| | Other operations on fallopian tubes | 0 | 73 | 73 |
| | Hysterectomy; abdominal and vaginal | 0 | 921 | 921 |
| | Other excision of cervix and uterus | 0 | 104 | 104 |
| | Abortion (termination of pregnancy) | 0 | 6 | 6 |
| | Dilatation and curettage (D&C); aspiration after delivery or abortion | 0 | 60 | 60 |
| | Diagnostic dilatation and curettage (D&C) | 0 | 25 | 25 |
| | Repair of cystocele and rectocele; obliteration of vaginal vault | 0 | 139 | 139 |
| | Other diagnostic procedures; female organs | 0 | 67 | 67 |
| | Other non-OR therapeutic procedures; female organs | 0 | 35 | 35 |
| | Other OR therapeutic procedures; female organs | 0 | 331 | 331 |
| Total | 0 | 3,456 | 3,456 | |
| Obstetrical procedures | Removal of ectopic pregnancy | 0 | 17 | 17 |
| | Episiotomy | 0 | 315 | 315 |
| | Cesarean section | 0 | 3,691 | 3,691 |
| | Forceps; vacuum; and breech delivery | 0 | 679 | 679 |
| | Artificial rupture of membranes to assist delivery | 0 | 2,945 | 2,945 |
| | Other procedures to assist delivery | 0 | 9,937 | 9,937 |
| | Diagnostic amniocentesis | 0 | 8 | 8 |
| | Fetal monitoring | 0 | 6,135 | 6,135 |
| | Repair of current obstetric laceration | 0 | 4,012 | 4,012 |
| | Other therapeutic obstetrical procedures | 0 | 232 | 232 |
| | Total | 0 | 27,971 | 27,971 |
| Operations on the musculoskeletal system | Partial excision bone | 501 | 420 | 921 |
| | Bunionectomy or repair of toe deformities | 16 | 14 | 30 |
| | Treatment; facial fracture or dislocation | 77 | 33 | 110 |
| | Treatment; fracture or dislocation of radius and ulna | 128 | 122 | 250 |
| | Treatment; fracture or dislocation of hip and femur | 412 | 616 | 1,028 |
| | Treatment; fracture or dislocation of lower extremity (other than hip or femur) | 414 | 439 | 853 |
| | Other fracture and dislocation procedure | 275 | 252 | 527 |
| | Arthroscopy | 10 | 13 | 23 |
| | Division of joint capsule; ligament or cartilage | 14 | 30 | 44 |
| | Excision of semilunar cartilage of knee | 7 | 5 | 12 |
| | Arthroplasty knee | 895 | 1,519 | 2,414 |
| Hip replacement; total and partial | 908 | 1,116 | 2,024 | |

APPENDIX C

| Single level CCS Procedure Categories and Chapter Headings | | Male | Female | Total |
|--|---|--------------|--------------|---------------|
| | Arthroplasty other than hip or knee | 56 | 90 | 146 |
| | Arthrocentesis | 148 | 99 | 247 |
| | Injections and aspirations of muscles; tendons; bursa; joints and soft tissue | 28 | 30 | 58 |
| | Amputation of lower extremity | 310 | 163 | 473 |
| | Spinal fusion | 2,054 | 2,302 | 4,356 |
| | Other diagnostic procedures on musculoskeletal system | 131 | 150 | 281 |
| | Other therapeutic procedures on muscles and tendons | 978 | 697 | 1,675 |
| | Other OR therapeutic procedures on bone | 448 | 434 | 882 |
| | Other OR therapeutic procedures on joints | 253 | 199 | 452 |
| | Other non-OR therapeutic procedures on musculoskeletal system | 560 | 759 | 1,319 |
| | Other OR therapeutic procedures on musculoskeletal system | 68 | 30 | 98 |
| | Total | 8,691 | 9,532 | 18,223 |
| Operations on the integumentary system | Breast biopsy and other diagnostic procedures on breast | 0 | 20 | 20 |
| | Lumpectomy; quadrantectomy of breast | 1 | 25 | 26 |
| | Mastectomy | 2 | 92 | 94 |
| | Incision and drainage; skin and subcutaneous tissue | 467 | 352 | 819 |
| | Debridement of wound; infection or burn | 407 | 322 | 729 |
| | Excision of skin lesion | 74 | 101 | 175 |
| | Suture of skin and subcutaneous tissue | 310 | 223 | 533 |
| | Skin graft | 181 | 127 | 308 |
| | Other diagnostic procedures on skin and subcutaneous tissue | 34 | 26 | 60 |
| | Other non-OR therapeutic procedures on skin and breast | 366 | 436 | 802 |
| | Other OR therapeutic procedures on skin and breast | 108 | 453 | 561 |
| | Total | 1,950 | 2,177 | 4,127 |
| Miscellaneous diagnostic and therapeutic procedures | Other organ transplantation | 3 | 9 | 12 |
| | Computerized axial tomography (CT) scan head | 2 | 3 | 5 |
| | CT scan chest | 9 | 9 | 18 |
| | CT scan abdomen | 16 | 14 | 30 |
| | Other CT scan | 10 | 11 | 21 |
| | Myelogram | 8 | 5 | 13 |
| | Mammography | 0 | 2 | 2 |
| | Intraoperative cholangiogram | 27 | 48 | 75 |
| | Upper gastrointestinal X-ray | 3 | 1 | 4 |
| | Intravenous pyelogram | 5 | 5 | 10 |
| | Cerebral arteriogram | 114 | 149 | 263 |
| | Contrast aortogram | 262 | 232 | 494 |
| | Contrast arteriogram of femoral and lower extremity arteries | 954 | 691 | 1,645 |
| | Arterio- or venogram (not heart and head) | 689 | 536 | 1,225 |
| | Diagnostic ultrasound of head and neck | 5 | 3 | 8 |
| | Diagnostic ultrasound of heart (echocardiogram) | 939 | 725 | 1,664 |
| | Diagnostic ultrasound of gastrointestinal tract | 15 | 14 | 29 |
| | Diagnostic ultrasound of urinary tract | 4 | 3 | 7 |
| | Diagnostic ultrasound of abdomen or retroperitoneum | 27 | 20 | 47 |
| | Other diagnostic ultrasound | 57 | 590 | 647 |
| | Magnetic resonance imaging | 51 | 65 | 116 |
| | Electroencephalogram (EEG) | 25 | 32 | 57 |
| | Nonoperative urinary system measurements | 1 | 1 | 2 |
| | Cardiac stress tests | 3 | 5 | 8 |
| | Swan-Ganz catheterization for monitoring | 31 | 29 | 60 |
| | Arterial blood gases | 1 | 0 | 1 |
| | Microscopic examination (bacterial smear; culture; toxicology) | 0 | 18 | 18 |

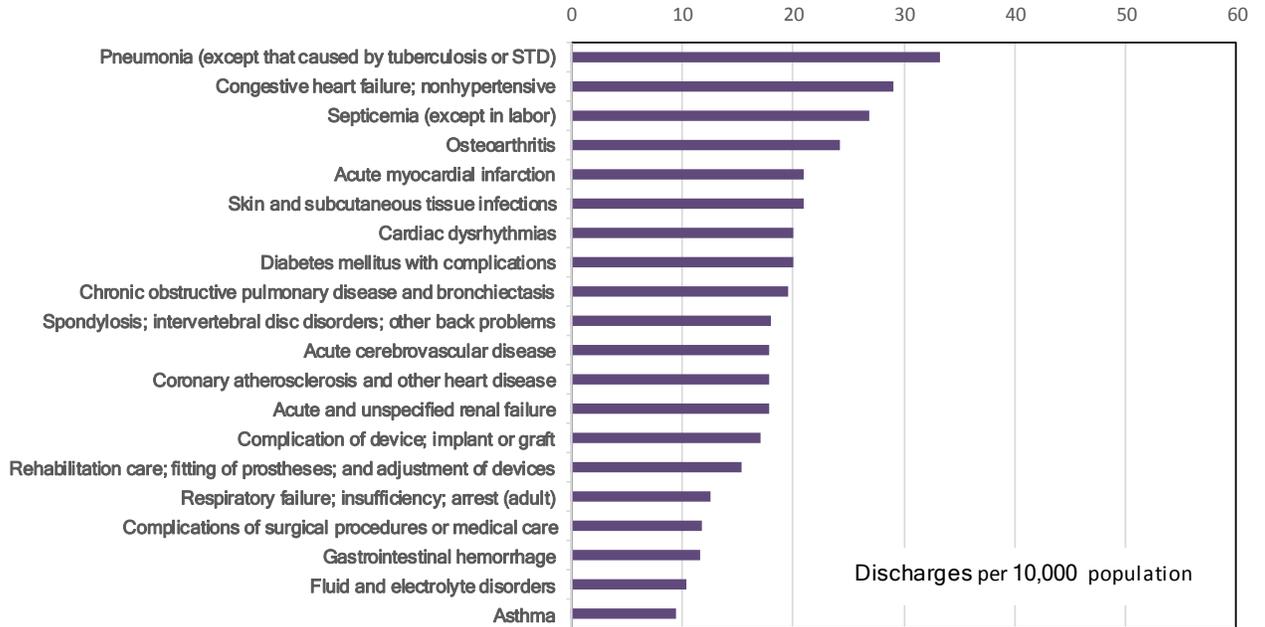
APPENDIX C

| Single level CCS Procedure Categories and Chapter Headings | Male | Female | Total |
|---|---------------|---------------|---------------|
| Radioisotope bone scan | 3 | 1 | 4 |
| Radioisotope pulmonary scan | 3 | 3 | 6 |
| Radioisotope scan and function studies | 6 | 6 | 12 |
| Other radioisotope scan | 2 | 4 | 6 |
| Therapeutic radiology for cancer treatment | 69 | 52 | 121 |
| Diagnostic physical therapy | 6 | 9 | 15 |
| Physical therapy exercises; manipulation; and other procedures | 339 | 350 | 689 |
| Traction; splints; and other wound care | 210 | 208 | 418 |
| Other physical therapy and rehabilitation | 454 | 455 | 909 |
| Respiratory intubation and mechanical ventilation | 5,016 | 4,537 | 9,553 |
| Other respiratory therapy | 13 | 8 | 21 |
| Psychological and psychiatric evaluation and therapy | 12 | 29 | 41 |
| Alcohol and drug rehabilitation/detoxification | 35 | 13 | 48 |
| Ophthalmologic and otologic diagnosis and treatment | 3,007 | 2,912 | 5,919 |
| Nasogastric tube | 91 | 101 | 192 |
| Blood transfusion | 4,219 | 4,640 | 8,859 |
| Enteral and parenteral nutrition | 450 | 421 | 871 |
| Cancer chemotherapy | 413 | 264 | 677 |
| Conversion of cardiac rhythm | 571 | 379 | 950 |
| Other diagnostic radiology and related techniques | 302 | 379 | 681 |
| Other diagnostic procedures (interview; evaluation; consultation) | 2,117 | 2,134 | 4,251 |
| Prophylactic vaccinations and inoculations | 3,691 | 3,693 | 7,384 |
| Nonoperative removal of foreign body | 46 | 46 | 92 |
| Other therapeutic procedures | 8,413 | 11,960 | 20,373 |
| Total | 32,749 | 35,824 | 68,573 |

Source: Delaware 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, 2011

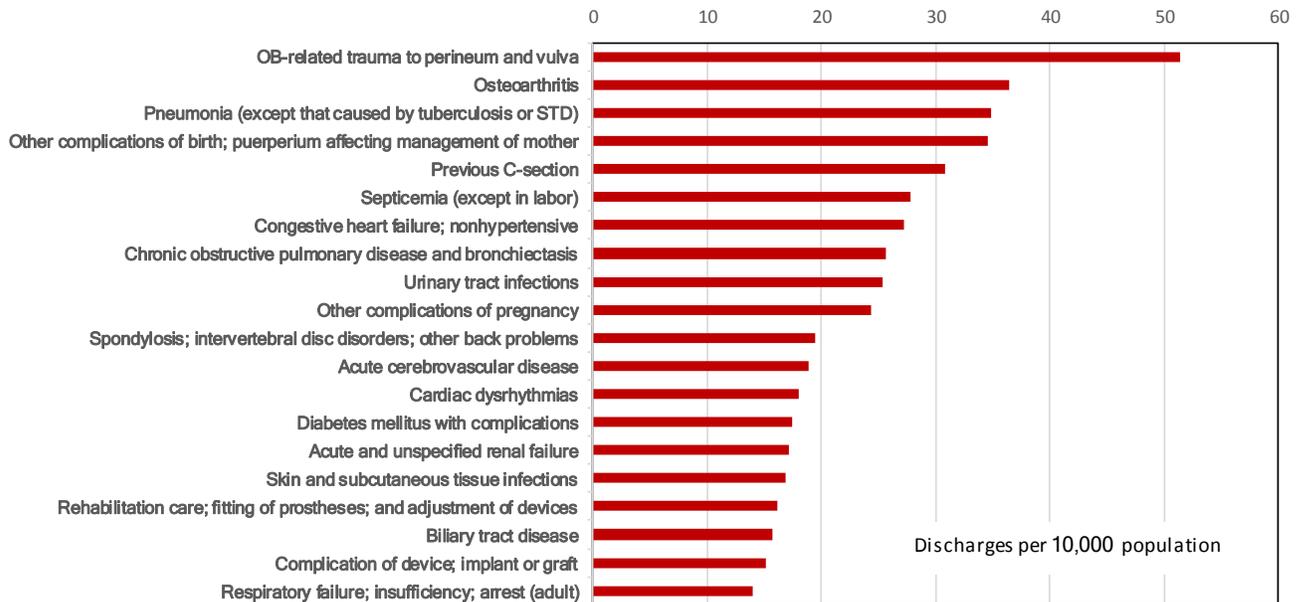


Note: Calculations based on total population.

*Excluding liveborn infants.

Source: Delaware 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, 2011



Note: Calculations based on total population.

*Excluding liveborn infants.

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

APPENDIX E

E1. Conditions with the 10 Highest Total Charges, Delaware Hospitals, 2011

| Rank | CCS Principal Diagnoses | Total Billed Charges | % of Total Charges | Number of Discharges |
|--|---|----------------------|--------------------|----------------------|
| 1 | Septicemia (except in labor) | \$122,489,785 | 4.4% | 2,716 |
| 2 | Osteoarthritis | \$104,452,358 | 3.7% | 3,141 |
| 3 | Acute myocardial infarction | \$100,453,015 | 3.6% | 1,865 |
| 4 | Liveborn | \$84,588,755 | 3.0% | 11,388 |
| 5 | Pneumonia (except that caused by tuberculosis or STD) | \$84,563,393 | 3.0% | 3,475 |
| 6 | Spondylosis; intervertebral disc disorders; other back problems | \$79,032,702 | 2.8% | 1,985 |
| 7 | Coronary atherosclerosis and other heart disease | \$78,661,356 | 2.8% | 1,489 |
| 8 | Respiratory failure; insufficiency, arrest (adult) | \$76,898,746 | 2.8% | 1,320 |
| 9 | Complication of device; implant or graft | \$75,733,991 | 2.7% | 1,824 |
| 10 | Congestive heart failure; nonhypertensive | \$70,631,085 | 2.5% | 2,798 |
| Total for 10 most expensive conditions | | \$877,505,186 | 31.5% | 32,001 |
| Total aggregate charges for all discharges | | \$2,788,565,806 | 100.0% | 109,965 |

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

E2. Discharges with Highest Mean Charges, Delaware Hospitals, 2011

| CCS Principal Diagnoses | Number Discharges | | | Percent of Total Discharge | | | Mean Charges | | |
|---|-------------------|---------|---------|----------------------------|--------|--------|--------------|-----------|-----------|
| | 2001 | 2006 | 2011 | 2001 | 2006 | 2011 | 2001 | 2006 | 2011 |
| Total All Discharges | 100,855 | 118,388 | 109,965 | 100.0% | 100.0% | 100.0% | \$11,000 | \$18,020 | \$25,359 |
| Cardiac and circulatory congenital | 318 | 312 | 217 | 0.3% | 0.3% | 0.2% | \$72,172 | \$101,848 | \$247,424 |
| Leukemias | 102 | 107 | 106 | 0.1% | 0.1% | 0.1% | \$54,460 | \$88,154 | \$225,979 |
| Respiratory distress syndrome | 39 | 52 | 37 | 0.0% | 0.0% | 0.0% | \$36,311 | \$69,124 | \$169,733 |
| Attention-deficit | 17 | 8 | 9 | 0.0% | 0.0% | 0.0% | \$6,427 | \$9,778 | \$163,794 |
| Nervous system congenital anomalies | 32 | 44 | 45 | 0.0% | 0.0% | 0.0% | \$44,588 | \$48,176 | \$116,592 |
| Other congenital anomalies | 295 | 295 | 251 | 0.3% | 0.2% | 0.2% | \$23,884 | \$41,175 | \$92,336 |
| Other acquired deformities | 236 | 289 | 271 | 0.2% | 0.2% | 0.2% | \$32,962 | \$69,273 | \$90,601 |
| Cystic fibrosis | 22 | 38 | 46 | 0.0% | 0.0% | 0.0% | \$41,221 | \$58,257 | \$89,796 |
| Heart valve disorders | 231 | 326 | 324 | 0.2% | 0.3% | 0.3% | \$44,343 | \$82,900 | \$88,782 |
| Aortic; peripheral; and visceral artery | 229 | 270 | 265 | 0.2% | 0.2% | 0.2% | \$31,744 | \$56,859 | \$84,651 |

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, 2011

| CCS Principal Diagnoses | Number Discharges | | | Percent of Total Discharge | | | Mean Charges | | |
|--|-------------------|---------|---------|----------------------------|--------|--------|--------------|----------|----------|
| | 2001 | 2006 | 2011 | 2001 | 2006 | 2011 | 2001 | 2006 | 2011 |
| Total All Discharges | 100,855 | 118,388 | 109,965 | 100.0% | 100.0% | 100.0% | \$11,000 | \$18,020 | \$25,359 |
| Liveborn | 10,406 | 11,861 | 11,388 | 10.3% | 10.0% | 10.4% | \$3,774 | \$5,021 | \$7,428 |
| Pneumonia (except that caused by tuberculosis or | 3,001 | 3,142 | 3,475 | 3.0% | 2.7% | 3.2% | \$12,317 | \$17,947 | \$24,335 |
| Osteoarthritis | 1,535 | 2,573 | 3,141 | 1.5% | 2.2% | 2.9% | \$18,548 | \$27,141 | \$33,254 |
| Congestive heart failure; nonhypertensive | 2,825 | 3,009 | 2,798 | 2.8% | 2.5% | 2.5% | \$12,840 | \$23,841 | \$25,243 |
| Septicemia (except in labor) | 775 | 1,723 | 2,716 | 0.8% | 1.5% | 2.5% | \$20,724 | \$36,346 | \$45,099 |
| OB-related trauma to perineum and vulva | 2,192 | 2,413 | 2,650 | 2.2% | 2.0% | 2.4% | \$3,172 | \$4,753 | \$6,786 |
| Chronic obstructive pulmonary disease and | 1,484 | 1,693 | 2,182 | 1.5% | 1.4% | 2.0% | \$10,609 | \$14,572 | \$18,286 |
| Spondylosis; intervertebral disc disorders; other back | 1,667 | 1,892 | 1,985 | 1.7% | 1.6% | 1.8% | \$12,796 | \$25,615 | \$39,815 |
| Skin and subcutaneous tissue infections | 1,146 | 2,025 | 1,968 | 1.1% | 1.7% | 1.8% | \$7,855 | \$10,455 | \$14,176 |
| Cardiac dysrhythmias | 1,902 | 2,028 | 1,944 | 1.9% | 1.7% | 1.8% | \$12,193 | \$21,213 | \$25,310 |

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

APPENDIX F

2011 Delaware Hospitalizations

F1. Top 10 Most Frequent Diagnoses for Medicare, Delaware Hospitals, 2011

| <i>CCS Diagnosis</i> | <i>Number of Discharges</i> | <i>Percent of hospitalizations for this condition billed to Medicare</i> |
|---|-----------------------------|--|
| Congestive heart failure; nonhypertensive | 2,245 | 5.1% |
| Pneumonia (except that caused by tuberculosis or STD) | 1,998 | 4.6% |
| Septicemia (except in labor) | 1,950 | 4.5% |
| Osteoarthritis | 1,791 | 4.1% |
| Chronic obstructive pulmonary disease and bronchiectasis | 1,590 | 3.6% |
| Cardiac dysrhythmias | 1,368 | 3.1% |
| Acute cerebrovascular disease | 1,317 | 3.0% |
| Acute and unspecified renal failure | 1,196 | 2.7% |
| Urinary tract infections | 1,173 | 2.7% |
| Rehabilitation care; fitting of prostheses; and adjustment of devices | 1,165 | 2.7% |

F2. Top 10 Most Frequent Diagnoses for Medicaid, Delaware Hospitals, 2011

| <i>CCS Diagnosis</i> | <i>Number of Discharges</i> | <i>Percent of hospitalizations for this condition billed to Medicaid</i> |
|---|-----------------------------|--|
| Liveborn | 5,831 | 21.8% |
| OB-related trauma to perineum and vulva | 1,100 | 4.1% |
| Other complications of birth; puerperium affecting management of mother | 898 | 3.4% |
| Previous C-section | 772 | 2.9% |
| Other complications of pregnancy | 733 | 2.7% |
| Pneumonia (except that caused by tuberculosis or STD) | 623 | 2.3% |
| Diabetes mellitus with complications | 547 | 2.0% |
| Skin and subcutaneous tissue infections | 465 | 1.7% |
| Acute bronchitis | 454 | 1.7% |
| Asthma | 435 | 1.6% |

F3. Top 10 Most Frequent Diagnoses for Privately Insured, Delaware Hospitals, 2011

| <i>CCS Diagnosis</i> | <i>Number of Discharges</i> | <i>Percent of hospitalizations for this condition billed to Private Insurers</i> |
|---|-----------------------------|--|
| Liveborn | 5,115 | 15.0% |
| OB-related trauma to perineum and vulva | 1,405 | 4.1% |
| Osteoarthritis | 1,106 | 3.2% |
| Other complications of birth; puerperium affecting management of mother | 787 | 2.3% |
| Previous C-section | 743 | 2.2% |
| Pneumonia (except that caused by tuberculosis or STD) | 716 | 2.1% |
| Spondylosis; intervertebral disc disorders; other back problems | 705 | 2.1% |
| Skin and subcutaneous tissue infections | 577 | 1.7% |
| Appendicitis and other appendiceal conditions | 504 | 1.5% |
| Diabetes mellitus with complications | 493 | 1.4% |

F4. Top 10 Most Frequent Diagnoses for Uninsured, Delaware Hospitals, 2011

| <i>CCS Diagnosis</i> | <i>Number of Discharges</i> | <i>Percent of hospitalizations for this condition billed to Uninsured Patients</i> |
|---|-----------------------------|--|
| Mood disorders | 132 | 5.1% |
| Liveborn | 121 | 4.6% |
| Skin and subcutaneous tissue infections | 106 | 4.1% |
| Acute myocardial infarction | 95 | 3.6% |
| Diabetes mellitus with complications | 83 | 3.2% |
| Pneumonia (except that caused by tuberculosis or STD) | 71 | 2.7% |
| Acute cerebrovascular disease | 67 | 2.6% |
| Pancreatic disorders (not diabetes) | 65 | 2.5% |
| Alcohol-related disorders | 61 | 2.3% |
| Biliary tract disease | 57 | 2.2% |

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

**G1. Conditions with the Highest Number of In-Hospital Deaths by Age Group¹
Delaware Hospitals, 2011**

| Diagnosis | Age Group in Years | | | | | TOTAL |
|---|--------------------|-----------|------------|------------|--------------|--------------|
| | Under 1 | 0-17 | 18-44 | 45-64 | 65+ | |
| Septicemia (except in labor) | 1 | 0 | 13 | 102 | 333 | 449 |
| Other aftercare | 0 | 0 | 5 | 69 | 221 | 295 |
| Acute cerebrovascular disease | 0 | 0 | 12 | 45 | 152 | 209 |
| Respiratory failure; insufficiency; arrest (adult) | 0 | 1 | 5 | 29 | 129 | 164 |
| Pneumonia (except that caused by tuberculosis or STD) | 1 | 3 | 5 | 22 | 107 | 138 |
| Congestive heart failure; nonhypertensive | 0 | 0 | 0 | 10 | 115 | 125 |
| Acute myocardial infarction | 0 | 0 | 0 | 25 | 79 | 104 |
| Acute myocardial infarction | 0 | 0 | 0 | 25 | 79 | 104 |
| Aspiration pneumonitis; food/vomitus | 1 | 0 | 4 | 12 | 79 | 96 |
| Secondary malignancies | 0 | 0 | 2 | 37 | 54 | 93 |
| Intracranial injury | 0 | 2 | 12 | 14 | 32 | 60 |
| Acute and unspecified renal failure | 0 | 0 | 0 | 9 | 50 | 59 |
| Cardiac arrest and ventricular fibrillation | 2 | 1 | 3 | 17 | 24 | 47 |
| Other liver diseases | 0 | 0 | 3 | 19 | 10 | 32 |
| Leukemias | 0 | 2 | 0 | 8 | 13 | 23 |
| Peripheral and visceral atherosclerosis | 1 | 0 | 1 | 3 | 16 | 21 |
| Aortic; peripheral; and visceral artery aneurysms | 0 | 1 | 1 | 2 | 16 | 20 |
| Coma; stupor; and brain damage | 0 | 1 | 4 | 3 | 7 | 15 |
| Pleurisy; pneumothorax; pulmonary collapse | 0 | 1 | 0 | 1 | 12 | 14 |
| Crushing injury or internal injury | 0 | 0 | 6 | 3 | 4 | 13 |
| Epilepsy; convulsions | 0 | 1 | 2 | 1 | 8 | 12 |
| Substance-related disorders | 0 | 0 | 10 | 2 | 0 | 12 |
| Mood disorders | 0 | 0 | 10 | 0 | 0 | 10 |
| Poisoning by other medications and drugs | 0 | 0 | 6 | 3 | 0 | 9 |
| Cardiac and circulatory congenital anomalies | 7 | 0 | 0 | 0 | 0 | 7 |
| Other perinatal conditions | 4 | 0 | 0 | 0 | 0 | 4 |
| Short gestation; low birth weight; and fetal growth | 3 | 0 | 0 | 0 | 0 | 3 |
| Acute bronchitis | 0 | 1 | 0 | 0 | 1 | 2 |
| Other congenital anomalies | 2 | 0 | 0 | 0 | 0 | 2 |
| Bacterial infection; unspecified site | 0 | 1 | 0 | 0 | 0 | 1 |
| Digestive congenital anomalies | 1 | 0 | 0 | 0 | 0 | 1 |
| Intrauterine hypoxia and birth asphyxia | 1 | 0 | 0 | 0 | 0 | 1 |
| All Discharges to Death | 91 | 19 | 156 | 682 | 2,210 | 3,158 |

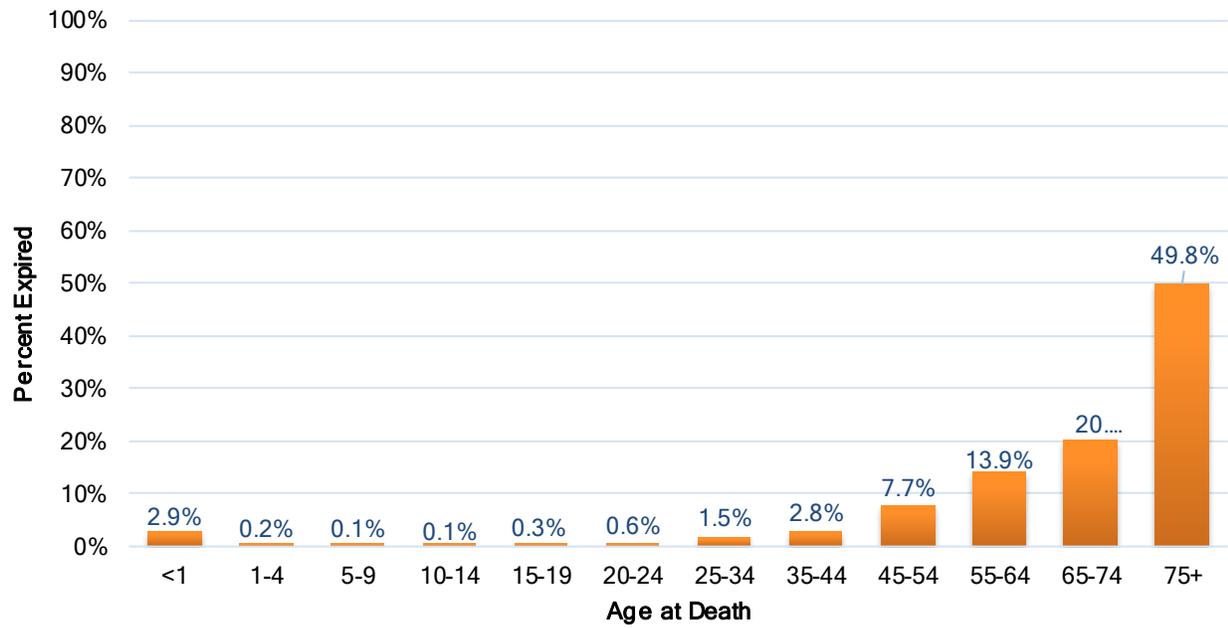
Notes:

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

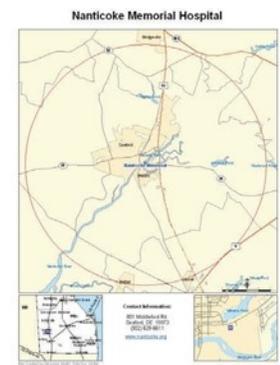
APPENDIX H

H 1. Percent of Patients who Died while Hospitalized by Age Group, Delaware Hospitals, 2011

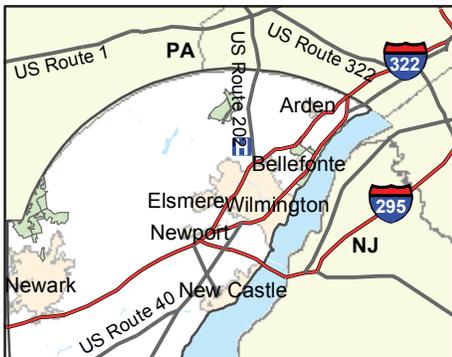


Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

HOSPITAL LOCATION MAPS



Alfred I. duPont Hospital for Children

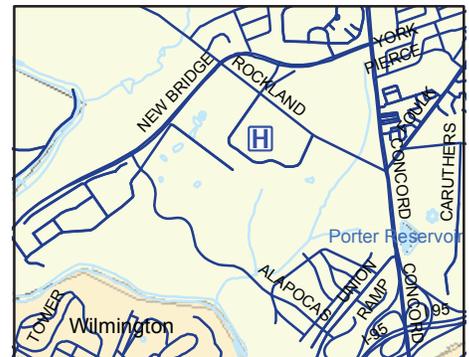


Map Created by Delaware Health Statistics Center

Contact Information:

1600 Rockland Rd
 Wilmington, DE 19899
 (302) 651-4000

www.nemours.org



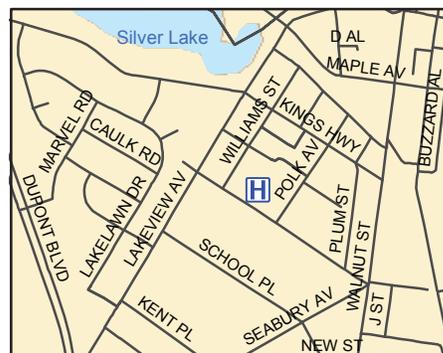
Milford Memorial Hospital BayHealth Medical Center



Contact Information:

21 West Clarke Avenue
Milford, DE 19963
(302) 422-3311

<http://www.bayhealth.org/milford-memorial-hospital>



Map Created by Delaware Health Statistics Center
BG 4.27.06

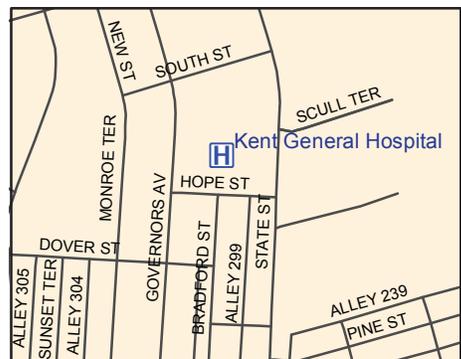
Kent General Hospital Bayhealth Medical Center



Contact Information:

640 South State St.
Dover, DE 19901
(302) 674-4700

<http://www.bayhealth.org/kent-general-hospital/kent-home>



Map Created by Delaware Health Statistics Center
BG 4.27.06

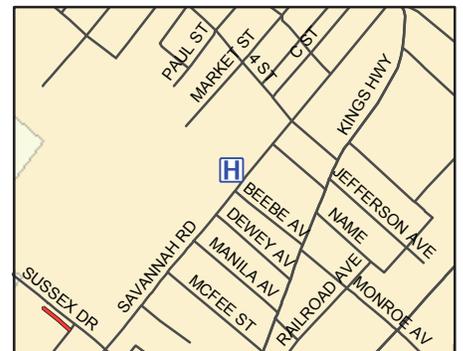
Beebe Medical Center



Contact Information:

424 Savannah Rd.
Lewes, DE 19958
(302) 645-3300

www.beebemed.org



Map Created by Delaware Health Statistics Center
BG 4.27.06

St. Francis Hospital

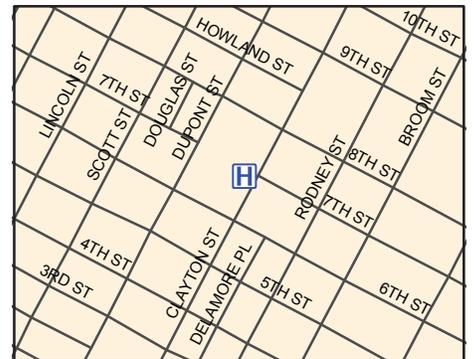


Map Created by Delaware Health Statistics Center
BG 4.27.06

Contact Information:

7th and Clayton Streets
Wilmington, DE 19805
(302) 421-4100

www.stfrancishealthcare.org/

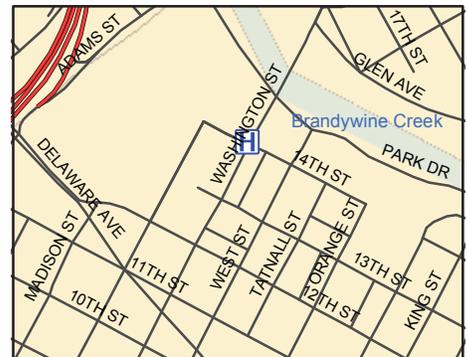


Wilmington Hospital Christiana Care Health System



Contact Information:

501 W. 14th St.
Wilmington, DE 19801
(302) 733-1000



Map Created by Delaware Health Statistics Center
BG 4.27.06

<http://www.christianacare.org/wilmingtonhospital>

Christiana Hospital Christiana Care Health System

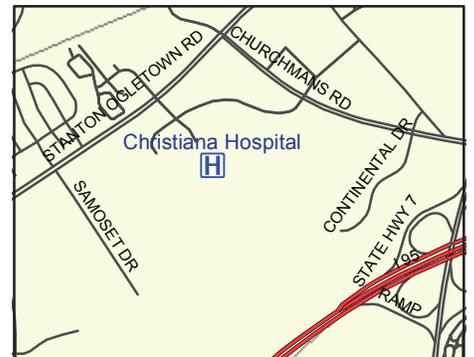


Map Created by Delaware Health Statistics Center

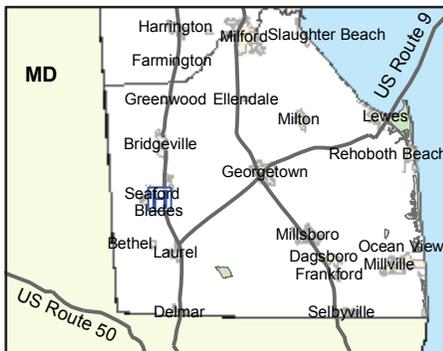
Contact Information:

4755 Ogletown-Stanton Rd
Newark, DE 19718
(302) 733-1000

www.christianacare.org



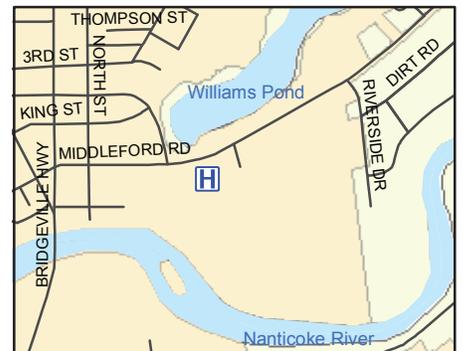
Nanticoke Memorial Hospital



Contact Information:

801 Middleford Rd.
Seaford, DE 19973
(302) 629-6611

www.nanticoke.org



Map Created by Delaware Health Statistics Center
BG 4.27.06

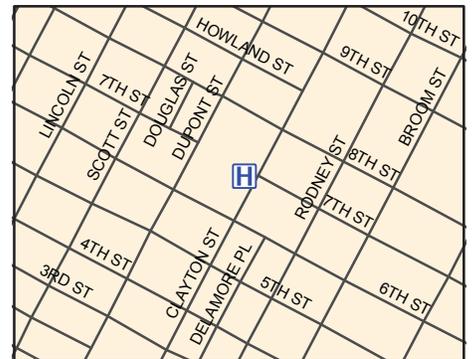
Select Specialty Hospital



Map Created by Delaware Health Statistics Center
BG 4.27.06

Contact Information:

701 North Clayton Street, 5th Floor
Wilmington, DE 19805
(302) 421-4545



<http://wilmington.selectspecialtyhospitals.com/>

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

- R₁ = first rate
- R₂ = second rate
- N₁ = first number of discharges
- N₂ = 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

- N₁ = first denominator
- N₂ = second denominator

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

- p₁=the first percent
- p₂=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 2011 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.

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- 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 2011 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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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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