DELAWARE HOSPITAL DISCHARGE SUMMARY REPORT • 2016

Issued June 2021



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 2016 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 Hospital.

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 increased slightly from 2015 to 2016 increasing from 110,784 in 2015 to 112,120 in 2016. Total aggregate charges increased by 8.4 percent between 2015 and 2016. (see page 20).
- Women accounted for 56.5 percent of all discharges compared to 43.5 percent for men. In the 25- to 34-year age group, four out of every five discharges were women.
- Inpatient hospitalizations in 2016 generated total charges of \$3.47 billion; 45.6 percent of that total (\$1.58 billion) was billed to Medicare.
- In 2016, the average length of stay (ALOS) was 5.0 days and the mean charge for a hospitalization was \$30,965.
- The most frequent reasons for hospitalization included septicemia (except in labor), osteoarthritis, pneumonia (except that caused by tuberculosis or std), congestive heart failure; nonhypertensive, and acute cerebrovascular disease.
- The point of origin for 24.9 percent of hospitalizations was a clinic or physician's office.
- Non-residents accounted for 12.5 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 10.9 percent of pregnancy related discharges compared to 4.5 percent for normal deliveries.
- The average length of stay for premature and low birth weight babies was 27.4 days compared to 4.1 days for all deliveries.
- Over two-thirds of patients underwent a procedure while hospitalized; 25.3 percent had only one procedure, 12.8 had two procedures, and 19.6 had three or more during their stay.
- Patients who were uninsured and those covered by Medicare were more likely to be classified as emergency/trauma at time of admission; 69.5 percent of uninsured patients and 63.7 percent of Medicare patients were classified as emergency/trauma at admission in 2016.
- Medicare and private insurers were the primary payers in 41.9 and 30.9 percent, respectively, of all hospital
 discharges in 2016. Medicaid was the primary payer in 23.1 percent of all hospital stays, and uninsured
 hospitalizations accounted for 1.6 percent of the total stays. The remaining 2.5 percent of hospitalizations were
 covered by other specified or unknown programs.

Patients under one year old accounted for 12.3 percent of all discharges in 2016; the majority of these discharges were infants hospitalized by virtue of being born in the hospital. Patients 65 and older were responsible for 37.0 percent of all discharges in 2016.

25,000 20,000 Number of Discharges 15,000 10,000 5,000 0 5-9 20-24 25-34 <1 1-4 10-14 15-19 35-44 45-54 55-64 65-74 75+ Age Group

Figure 1. Number of Hospital Discharges by Age Group, Delaware Hospitals, 2016

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

Males made up the majority of discharges in the age groups under 10. For nearly all age groups age15 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 2016, 56.5 percent of total discharges were women.

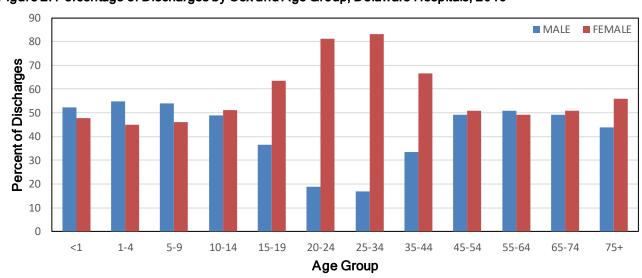


Figure 2. Percentage of Discharges by Sex and Age Group, Delaware Hospitals, 2016

Non-residents accounted for 12.5 percent of all discharges from Delaware hospitals, most of whom came from Pennsylvania, Maryland, and New Jersey. Close to half of the patients at A.I. duPont Hospital for Children were non-residents (43.8 percent).

Percent of Total Discharges to Non-residents ■ MD ■ NJ ■ PA ■ Other 20 15 10 5 0 A I DUPONT BEEBE **CHRISTIANA** SAINT **BAYHEALTH** NANTICOKE **SELECT** HOSPITAL **MEDICAL MEDICAL** CARE **MEMORIAL FRANCIS MEDICAL** CENTER **CENTER** HEALTH **HOSPITAL** HOSPITAL WILMINGTON SYSTEM **Hospital System**

Figure 3. Percentage of Non-Resident Discharges by State, Delaware Hospitals, 2016

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

Hospital admissions increased slightly between 2014 and 2016. Total admissions rose 0.7 percent moving from 111,341 in 2014 to 112,120 in 2016. The two hospitals with the greatest percent change were A.I. duPont Hospital for Children, which increased 10.7 percent; and Select Medical Wilmington, which increased 7.2 percent.

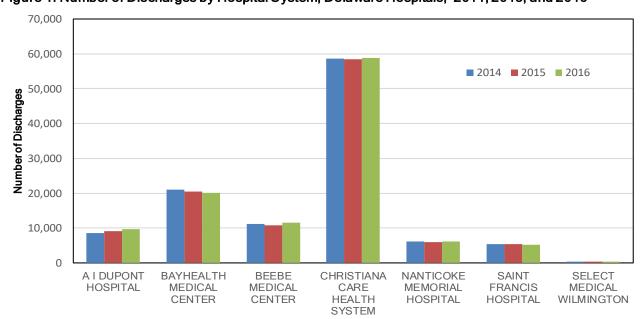


Figure 4. Number of Discharges by Hospital System, Delaware Hospitals, 2014, 2015, and 2016

Hospital System

Average length of stay (ALOS) remained stable at 5.0 days between 2002 and 2016. There was a 5.1 percent increase in patients staying four to seven days that was balanced by a 4.0 percent decrease in patients staying more than fifteen days and a 3.7 percent decrease for patients staying 8-14 days between 2002 and 2016. In 2016 60.0 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 (4.0 percent).

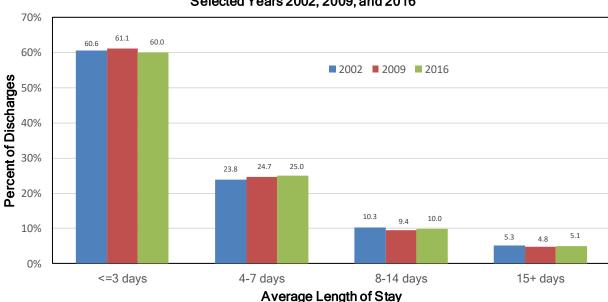


Figure 5. Percentage of Hospital Discharges by Average Length of Stay, Delaware, Selected Years 2002, 2009, and 2016

Source: Delaware Department of 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 2016, 78.8 percent of patients under 18 had hospital stays of three days or less, compared to 47.1 percent for patients 65 and over. Patients aged 65 and over were three and a half times as likely to have stays of 8 to 14 days when compared to patients under the age of 18.

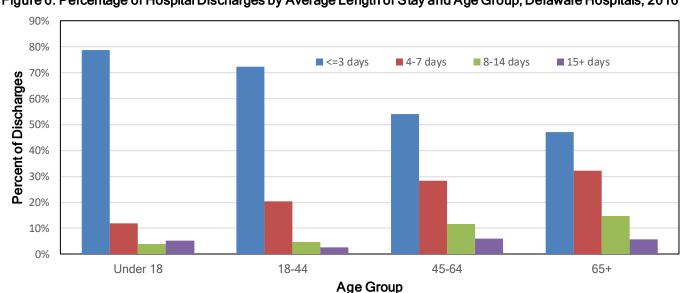


Figure 6. Percentage of Hospital Discharges by Average Length of Stay and Age Group, Delaware Hospitals, 2016

Gender

Between 2002 and 2016, the average length of stay (ALOS) increased 1.0 percent for male patients and decreased 1.8 percent for female patients. When female obstetrical patients were excluded from the calculation of average length of stay, female patients had slightly lower ALOS figures compared to males in all time periods. The largest increase in average length of stay from 2002 to 2016 was seen in female obstetrical patients, whose length of stay increased 3.2 percent.

5.00
5.00
4.00
1.00
2002
2009
Year

Males Females Non-obstetric females

Figure 7. Mean Length of Hospital Stay by Patient Type and Year, Delaware Hospitals, 2002, 2009, and 2016

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 2016 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. Diseases of the respiratory system accounted for 10.7 percent of the total discharges. Complications of pregnancy, childbirth, & the puerperium comprised 10.6 percent of discharges, while another 10.4 percent of discharges were related to certain conditions originating in the perinatal period, together these two diagnoses accounted for 21.0 percent of total discharges. The above four categories accounted for 46.5 percent of all hospitalizations.

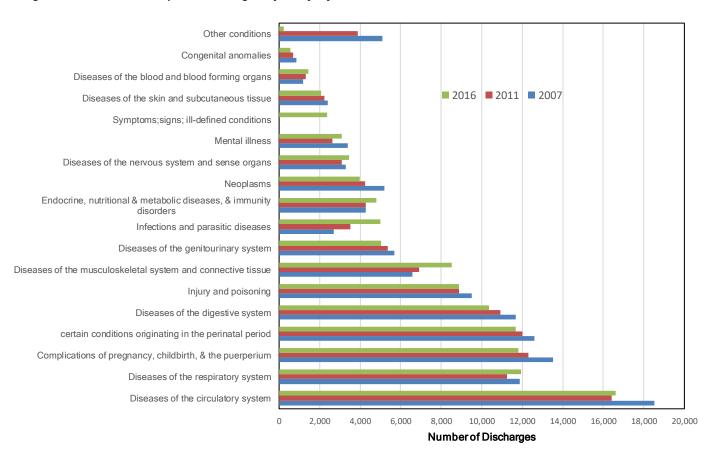


Figure 8. Number of Hospital Discharges by Body System, Delaware, 2016, 2011, and 2007

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

The largest percent increase (84.9 percent) in hospitalizations from 2007 to 2016 occurred in infections and parasitic diseases. Diseases of the musculoskeletal system and connective tissue also demonstrated a large percentage increase (29.1 percent) from 2007 to 2016. At 22.9 percent, the third largest increase in hospitalizations was due to diseases of the blood and blood forming organs. Other conditions accounted for the largest decrease in hospitalizations (95.4 percent), followed by congenital anomalies (35.3 percent).

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; seven out of the top 10 diagnoses for women were related to pregnancy and childbirth. In Table 1, all of these diagnoses were rolled into the principal diagnosis of "Pregnancy & childbirth". Both men and women experienced high numbers of discharges due to pneumonia, septicemia, osteoarthritis, and congestive heart failure. Table 1 shows the most frequent diagnoses for both men and women, by number, percent, and rank of discharges by gender.

Table 1. Number, Rank, and Percentage of the most Frequent Diagnoses (CCS Defined) by Gender, Delaware Hospitals, 201

CCS Principal Diagnosis		MALE			FEMALE		
CCS Principal Diagnosis	#	%	Rank	#	%	Rank	
All diagnoses	48,601	100		63,228	100		
Pregnancy & childbirth				11,806	18.7	1	
Liveborn Infant	5,745	11.8	1	5,407	8.6	2	
Osteoarthritis	1,792	3.7	3	2,634	4.2	3	
Septicemia (except in labor)	2,138	4.4	2	2,249	3.6	4	
Pneumonia (except that caused by tuberculosis or STD)	1,499	3.1	5	1,653	2.6	5	
Congestive heart failure; nonhypertensive	1,540	3.2	4	1,425	2.3	6	
Acute cerebrovascular disease	1,382	2.8	6	1,384	2.2	7	
Spondylosis; intervertebral disc disorders; other back problems	1,039	2.1	10	1,120	1.8	10	
Chronic obstructive pulmonary disease and bronchiectasis	863	1.8	14	1,242	2.0	8	
Acute and unspecified renal failure	1,083	2.2	8	909	1.4	13	
Respiratory failure; insufficiency; arrest (adult)	852	1.8	15	1,024	1.6	12	
Diabetes mellitus with complications	1,064	2.2	9	796	1.3	18	
Skin and subcutaneous tissue infections	980	2.0	11	828	1.3	16	
Cardiac dysrhythmias	916	1.9	12	880	1.4	15	
Acute myocardial infarction	1,091	2.2	7	705	1.1	20	

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

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

Most frequent reasons for hospitalization by age groups:

- Excluding liveborn infants, patients under 1 year were hospitalized most often for acute bronchitis, other perinatal conditions, and hemolytic jaundice and perinatal jaundice.
- For those ages 1-17, asthma, pneumonia (except that caused by tuberculosis or sexually transmitted disease), and acute bronchitis 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, diabetes mellitus with complications, septicemia (except in labor), and mood disorders became the three most common reasons for hospitalization.
- For those ages 45-64, osteoarthritis, septicemia (except in labor), and Spondylosis; intervertebral disc disorders; other back problems comprised the top three diagnoses.
- For those over 65, Osteoarthritis, Septicemia (except in labor), and Congestive heart failure; nonhypertensive 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. Osteoarthritis was the single most frequent reason for hospitalization followed by septicemia (except in labor).

Injury hospitalizations:

Injury hospitalizations accounted for 7.9 percent of the total number of discharges and \$363 million in aggregate charges in 2016. The majority of patients were admitted through the emergency department, and the average charge for an injury stay ranged from \$17,028 for superficial injury; contusion to \$62,589 for joint disorders and dislocations; trauma-related, with an overall average charge of \$40,973 (see Appendix A).

The most common primary diagnosis for an injury hospitalization in 2016 was complication of device; implant or graft, which accounted for 19.5 percent of injury hospitalizations. Complications of surgical procedures or medical care were responsible for another 18.4 percent of injury hospitalizations, followed by fracture of neck of femur (hip) (10.6 percent), other fractures (10.3 percent), and intracranial injury (8.7 percent).

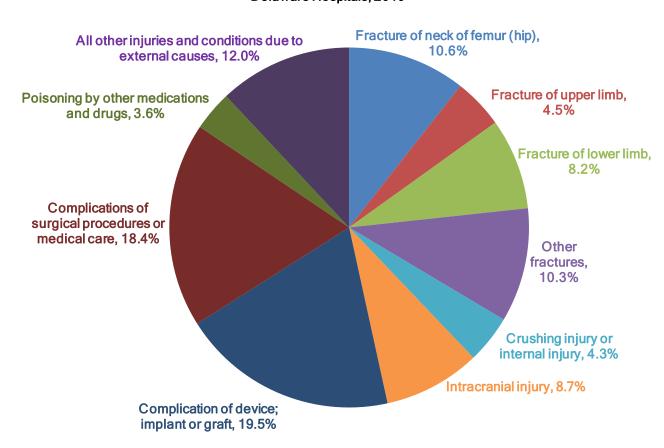


Figure 9. Percentage of the Most Frequent Accident Related Injury Diagnoses, Delaware Hospitals, 2016

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

Falls were the most frequently specified external cause of injury (as defined by the Ecode listed on the discharge record). The most frequently occurring injury resulting from a fall was a hip fracture (22.4 percent), followed by fracture of lower limb (17.9 percent), and intracranial injury (14.5 percent). Motor vehicle accidents were the second most frequently specified external cause of injury. The most frequently occurring injury resulting from a motor vehicle accident was other fractures (31.9 percent), followed by intracranial injury (15.4 percent) and crushing injury or internal injury (15.4 percent). Firearms accounted for 3.0 percent of all accident related 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, intracranial injuries, and burns.

90% ■ Male ■ Female 80% 70% Percent of Injuries 60% 50% 40% 30% 20% 10% Fracture of Other fractures Poisoning by Crushing injury Skull and face Open wounds Open wounds Complications Intracranial Burns of surgical neck of femur other of head; neck; of extremities injury or internal fractures procedures or (hip) medications and trunk injury medical care and drugs **CCS Injury Categories**

Figure 10. Percentage of Selected Primary Injury Diagnoses by Gender, Delaware Hospitals, 2016

WHY PATIENTS WERE HOSPITALIZED - PROCEDURES

Most frequent reasons for hospitalization by procedure:

In 2016, 57.7 percent of discharges had at least one associated procedure. Of the 64,638 hospital stays with an accompanying procedure, 43.9 percent had only a principal procedure performed; the remaining 56.1 percent had two or more procedures. Each discharge can have up to six procedures; this report examines the number of procedures, or the all-listed procedures.

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

Overall, the most frequently performed all-listed procedures were respiratory intubation and mechanical ventilation; other procedures to assist delivery, diagnostic cardiac catheterization; coronary arteriography, and other vascular catheterization; not heart.

Table 2. Number of Most Frequent All-listed Inpatient Procedures, Delaware Hospitals, 2016

	# of All	-listed Prod	cedures	% of Discharges
CCS Procedure	MALE	FEMALE	Total	with a Procedure
Respiratory intubation and mechanical ventilation	5,195	4,912	10,107	6.8
Other procedures to assist delivery	0	7,132	7,132	4.8
Diagnostic cardiac catheterization; coronary arteriography	4,309	2,748	7,057	4.7
Other vascular catheterization; not heart	3,477	3,332	6,809	4.6
Other therapeutic procedures	1,060	3,642	4,702	3.2
Circumcision	4,425	0	4,425	3.0
Upper gastrointestinal endoscopy; biopsy	1,780	1,933	3,713	2.5
Spinal fusion	1,722	1,949	3,671	2.5
Cesarean section	0	3,500	3,500	2.3
Other therapeutic procedures on muscles and tendons	799	2,498	3,297	2.2
Other non-OR therapeutic procedures; female organs	0	3,223	3,223	2.2
Arthroplasty knee	1,218	1,925	3,143	2.1
Other OR procedures on vessels other than head and neck	1,919	1,159	3,078	2.1
Artificial rupture of membranes to assist delivery	0	2,878	2,878	1.9
Blood transfusion	1,243	1,200	2,443	1.6

Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center Notes: All-listed procedures refer to all procedures performed during a hospital stay. Table ordered based upon total procedures.

Males most frequently underwent respiratory intubation and mechanical ventilation, circumcision; and diagnostic cardiac catheterization; coronary arteriography. Females most frequently underwent other procedures to assist delivery, respiratory intubation and mechanical ventilation, and other therapeutic procedures. 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.

A major component of obstetrical procedures is related to cesarean delivery of newborn infants. Cesarean deliveries can vary significantly by hospital. In 2016 cesarean deliveries accounted for 31.4 percent of all births. Christiana Care Health System and Beebe Medical Center showed the greatest increases between 2001 and 2016, rising 27.8 percent and 18.0 percent respectively. In 2016, Beebe Medical Center and Saint Francis Hospital had the highest rates, with 36.2 and 32.1 percent of all births being delivered by cesareans. Kent General had the lowest percentage of births delivered by cesarean (28.8 percent).

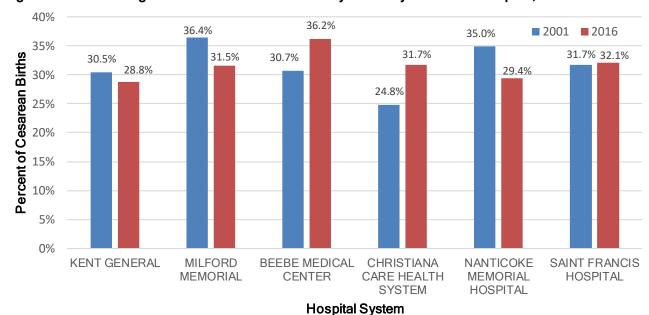


Figure 11. Percentage of Annual Cesarean Delivery Rates by Delaware Hospital, 2001 and 2016

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

Gender

In 2016, obstetrical procedures accounted for one in four all-listed procedures performed on females and included other procedures to assist delivery, cesarean sections, fetal monitoring, repair of current obstetrical laceration, and artificial rupture of membranes to assist delivery.

For males, respiratory intubation and mechanical ventilation accounted for 8.0% percent of the total procedures, followed by circumcision (6.8% percent), and diagnostic cardiac catheterization; coronary arteriography (6.6% percent).

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

- respiratory intubation and mechanical ventilation
- diagnostic cardiac catheterization: coronary arteriography
- other vascular catheterization; not heart
- spinal fusion.

WHY PATIENTS WERE HOSPITALIZED - PROCEDURES

Age

- For patients under 1 year, circumcision, respiratory intubation and mechanical ventilation, and other therapeutic procedures were the most common procedures.
- For patients ages 1 to 17, respiratory intubation and mechanical ventilation, blood transfusion, and other therapeutic procedures on muscles and tendons were the most frequently performed procedures.
- Obstetric procedures, specifically other procedures to assist delivery, cesarean section, and other non-or therapeutic procedures; female organs, were the most common procedures for those ages 18-44.
- Respiratory intubation and mechanical ventilation, diagnostic cardiac catheterization; coronary arteriography, and other vascular catheterization; not heart were the most frequently performed procedures for those 45-64.
- The most commonly performed principal procedures on patients 65 and older were respiratory intubation and mechanical ventilation, diagnostic cardiac catheterization; coronary arteriography, and other vascular catheterization; not heart.

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

Discharge rates of Delaware residents under the age of 1 were higher than the rates of all other age groups except those 65 and older. Discharge rates decreased with each increase in age group between patients under 1 and those ages 10-14. The trend reversed at the 15-19 age group and other than a dip in the rates for females 35-44, rates rose steadily with each older age group. Male and female discharge rates were similar for age groups under 15 and over 44; females in 15-44 age groups had discharge rates 1.9 to 5.1 times that of males.

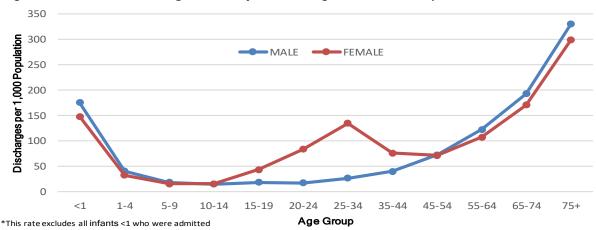
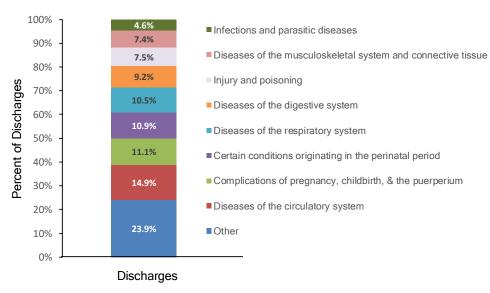


Figure 12. Resident Discharge Rates* by Sex and Age, Delaware Hospitals, 2016

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

In 2016, Delawareans were discharged most frequently for diseases of the circulatory system, accounting for 14.9 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 certain conditions originating in the perinatal period were the second and third most common reasons for resident hospital stays, followed by diseases of the respiratory system, including pneumonia, COPD (chronic obstructive pulmonary disease), and asthma, then diseases of the digestive system, which

Figure 13. Percentage of Resident Hospital Discharges by Body System, Delaware, 2016

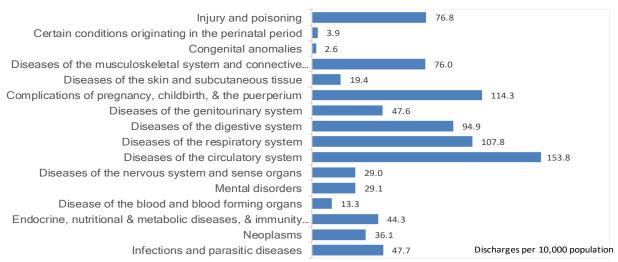


Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

included biliary tract disease, gastrointestinal hemorrhage, and intestinal obstruction.

HOSPITALIZATIONS OF DELAWARE RESIDENTS

Figure 14. Resident Hospitalization Rates by Body System, Delaware, 2016

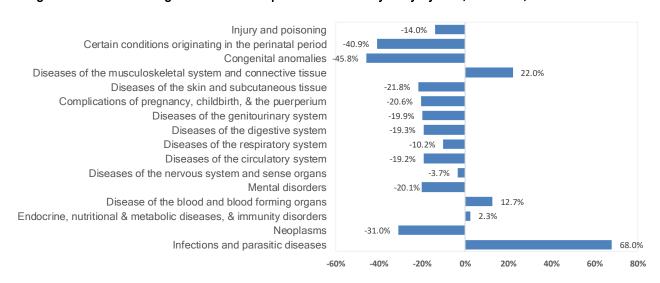


* Excluding hospitalizations related to pregnancy and liveborn infants.

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

High hospital discharge rates in 2016 were not necessarily indicative of large rate increases over the previous 10 years. In some categories, like diseases of the circulatory system, high 2016 rates were maintained in spite of declines over the prior 10-year period. In others, such as infectious and parasitic diseases, 2016 rates were comparatively low, despite significant rate increases over the prior 10-year period.

Figure 15. Percent Change in Resident Hospitalization Rates by Body System, Delaware, 2006 versus 2016



*Excluding hospitalizations related to pregnancy and liveborn infants.

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 2016.

Table 3. Top 25 CCS Diagnoses with the Highest Hospital Discharge Rates* for Residents, Delaware, 2006, 2011, and 2016

	2006	- -	2011		2016		% Change from
	Number	Rate	Number	Rate	Number	Rate	2006 to 2016
Septicemia (except in labor)	1,604	18.7	2,487	27.3	4,037	42.5	127.3%
Osteoarthritis	2,289	26.6	2,770	30.5	3,893	41.0	54.1%
Pneumonia (except that caused by tuberculosis or STD)	2,830	32.9	3,095	34.0	2,803	29.5	-10.3%
Congestive heart failure; nonhypertensive	2,834	33.0	2,560	28.1	2,698	28.4	-13.9%
Acute cerebrovascular disease	1,413	16.4	1,675	18.4	2,416	25.4	54.9%
Chronic obstructive pulmonary disease and bronchiectasis	1,582	18.4	2,064	22.7	1,972	20.7	12.5%
Spondylosis; intervertebral disc disorders; other back problems	1,613	18.8	1,701	18.7	1,884	19.8	5.3%
Acute and unspecified renal failure	1,190	13.8	1,586	17.4	1,846	19.4	40.6%
Diabetes mellitus with complications	1,412	16.4	1,696	18.6	1,681	17.7	7.9%
Skin and subcutaneous tissue infections	1,780	20.7	1,714	18.8	1,613	17.0	-17.9%
Respiratory failure; insufficiency; arrest (adult)	1,394	16.2	1,203	13.2	1,603	16.9	4.3%
Cardiac dysrhythmias	1,769	20.6	1,719	18.9	1,584	16.7	-18.9%
Acute myocardial infarction	1,515	17.6	1,527	16.8	1,488	15.7	-10.8%
Urinary tract infections	1,650	19.2	1,574	17.3	1,478	15.6	-18.8%
Complication of device; implant or graft	1,448	16.9	1,460	16.1	1,477	15.5	-8.3%
Complications of surgical procedures or medical care	1,255	14.6	1,128	12.4	1,366	14.4	-1.4%
Other nutritional; endocrine; and metabolic disorders	675	7.9	629	6.9	1,174	12.4	57.0%
Gastrointestinal hemorrhage	853	9.9	957	10.5	1,160	12.2	23.2%
Other aftercare	36	0.4	452	5.0	1,085	11.4	2750.0%
Other nervous system disorders	700	8.1	771	8.5	1,073	11.3	39.5%
Hypertension complicating pregnancy; childbirth and the puerperium	710	8.3	628	6.9	996	10.5	26.5%
Asthma	1,540	17.9	1,065	11.7	995	10.5	-41.3%
Polyhydramnios and other problems of amniotic cavity	550	6.4	559	6.1	973	10.2	59.4%
Alcohol-related disorders	242	2.8	452	5.0	967	10.2	264.3%
Hypertension with complications and secondary hypertension	539	6.3	592	6.5	966	10.2	61.9%

^{*}Hospitalization rate per 10,000, ranked by 2016 figures. Excluding pregnancy-related discharges and liveborn infants.

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

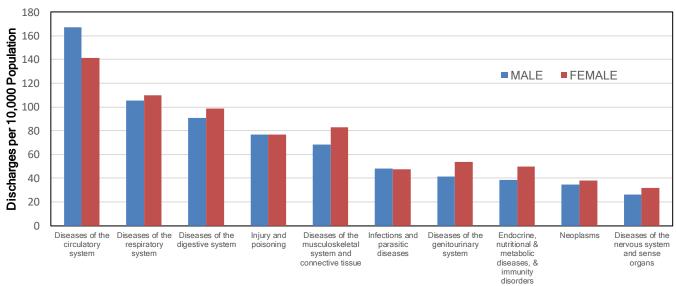
Diseases of the circulatory system accounted for four of the 25 conditions with the highest hospitalization rates; these included:

- congestive heart failure;
- cardiac dysrhythmias (irregular heartbeat);
- acute cerebrovascular disease (stroke);
- acute myocardial infarction (heart attack).

Three of the circulatory conditions listed above showed decreases in their rates since 2006: heart failure, irregular heartbeat, and heart attack.

Hospitalization rates for other aftercare, alcohol-related disorders, and septicemia (except in labor) demonstrated the greatest increases between 2006 and 2016.

Figure 16. Hospital Discharge Rates for Residents by Body System and Gender, Delaware, 2016

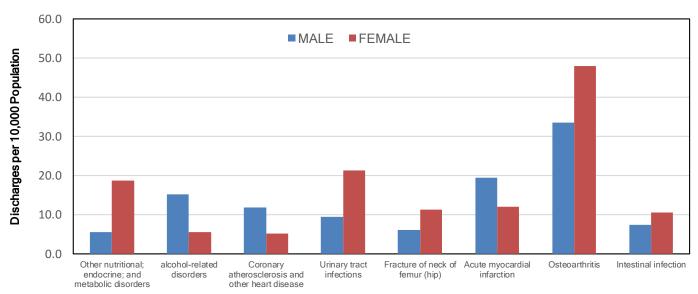


Clinical Classifications Software (CCS) Diagnosis

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

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

Figure 17. Hospital Discharge Rates for Residents by Gender and Selected Primary Diagnoses, Delaware, 2016



Clinical Classifications Software (CCS) Diagnosis

Point of Origin:

Non-health facilities and clinic/physician offices accounted for 95.3 percent of all hospital discharges in 2016. 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)) 0.1 percent, and other hospitals, 2.9 percent.

TRANS FROM HOSPICE 0.0% TRANS SURGERY CENTER 0.0% TRANS WITHIN HOSP (NEW CLAIM) 1.2% NO INFORMATION 0.2% COURT/LAW ENFORCE 0.0% TRANS OTHER HEALTH FAC 0.3% TRANS FROM SNF/ICF/ALF 0.1% TRANS FROM HOSP 2.9%

Figure 18. Point of Origin, Delaware Hospitals, 2016

CLINIC/PHYSICIAN OFFICE

NON-HEALTH FACILITY*

70.4%

80%

60%

24.9%

20%

0%

Between 2006 and 2016, the majority of admissions continued to be classified as emergency in nature. In 2006, emergency admissions accounted for 64.6 percent of all admissions. By 2016, the proportion of emergency admissions had decreased to 59.5 percent, while urgent admissions increased from 12.8 percent to 17.9 percent between 2006 and 2016.

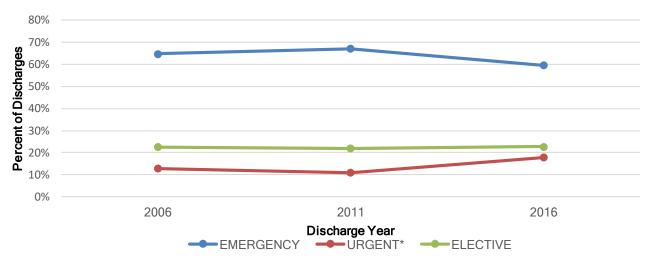


Figure 19. Percentage of Hospital Discharges by Type of Admission,

^{40%} Percent of Discharges

^{*} Non-Health Care Facility includes walk-ins, auto accidents, and ambulance runs Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

^{*} Urgent encompasses situations that require immediate attention due to a physical or mental disorder but are not life threatening Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Most primary payers experienced a decrease in the percent of discharges classified as emergency/trauma at admission, uninsured patients had the largest proportion of their discharges classified as emergency/trauma. In 2016, 69.5 percent of uninsured admissions, 63.7 percent of Medicare admissions, 43.3 percent of private admissions, and 48.7 percent of Medicaid admissions were classified as emergency/trauma.

90
80
70
70
40
20
10
Medicare Medicaid Private Uninsured
0
2002
2009
2016
Discharge Year

Figure 20. Percentage of Hospitals Discharges classified as Emergency/Trauma at Admission by Payer, Delaware, 2002, 2009, and 2016

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

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

Number and Percentage of Most Common Diagnoses for Emergency Admissions,

Delaware Hospitals, 2016	Frequency	Percent *
Septicemia (except in labor)	3,376	5.6
Pneumonia (except that caused by tuberculosis or STD)	2,549	4.3
Congestive heart failure; nonhypertensive	2,316	3.9
Acute cerebrovascular disease	2,242	3.8
Chronic obstructive pulmonary disease and bronchiectasis	1,782	3.0
Acute and unspecified renal failure	1,545	2.6
Diabetes mellitus with complications	1,449	2.4
Urinary tract infections	1,425	2.4
Skin and subcutaneous tissue infections	1,323	2.2
Acute myocardial infarction	1,307	2.2
Cardiac dysrhythmias	1,284	2.1
Respiratory failure; insufficiency; arrest (adult)	1,198	2.0
Asthma	1,054	1.8

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

- The biggest changes in the most common diagnoses originating in the ED from 2015 to 2016 was urinary tract infections moving up four places and cardiac dysrhythmias dropping four places.
- Three of the most common ED diagnoses were related to circulatory conditions: heart failure, stroke, and irregular heartbeat.
- Another four of the most common ED diagnoses were primarily due to infections: pneumonia, skin infections, septicemia, and urinary tract infections.

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 anesthesiology), and services of resident physicians.

In 2016, total aggregate charges for all hospitalizations in Delaware equaled \$3.47 billion, a 45.5 percent increase in aggregate charges from 2008. The number of discharges were basically unchanged at 112,107 in 2008 and 112,120 in 2016. Total aggregate charges increased by \$268,117,180 between 2015 and 2016.

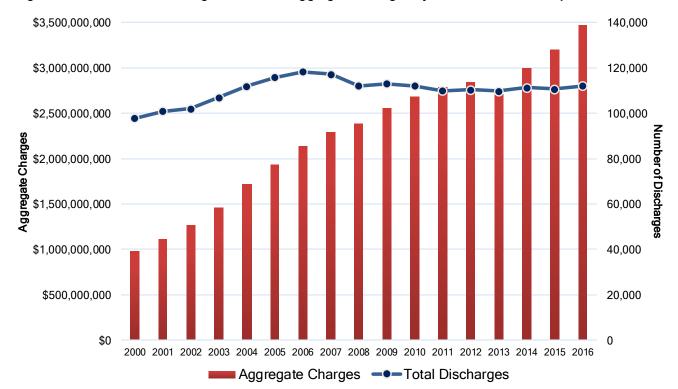


Figure 21. Number of Discharges and Total Aggregate Charges by Year, Delaware Hospitals, 2000 - 2016

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

The average charge for a hospital stay rose in 2016 to \$30,965 compared to \$21,289 in 2008, while the median charge per stay was \$15,758 in 2016 compared to \$11,802 in 2008.

The diagnostic groups with the highest average charges per hospital stay were congenital anomalies, Infections and parasitic diseases, and diseases of the musculoskeletal system and connective tissue, with average charges ranging from \$48,200 to \$211,944. The first two of these three diagnostic groups also had the longest average stays, ranging from 8.3 to 12.5 days.

Looking at specific diagnoses within groups showed that the most expensive diagnoses were cardiac and circulatory congenital anomalies, respiratory distress syndrome, leukemias, and short gestation; low birth weight; and fetal growth retardation. However, the ten most expensive diagnoses occurred relatively rarely and accounted for just 1.5 percent of all discharges in 2016. In comparison, the 10 diagnoses that occurred most frequently accounted for 33.3 percent of the total discharges in 2016 (see Appendix E for more information).

From 2006 to 2016, 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 (129 percent),
- liveborn (113 percent).
- skin and subcutaneous tissue infections (74 percent).

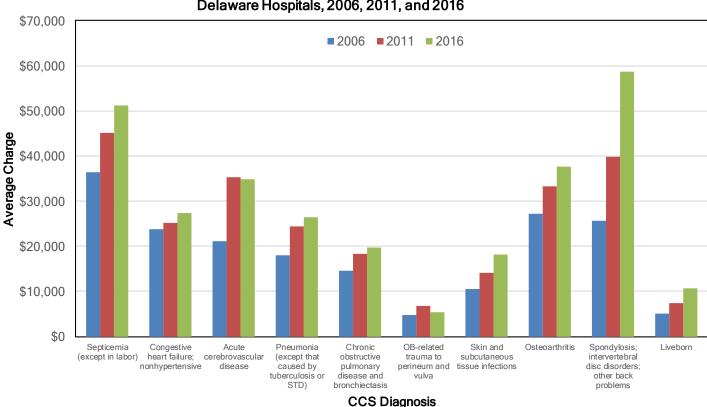


Figure 22. Average Hospital Charges for Highest* Volume CCS Diagnoses, Delaware Hospitals, 2006, 2011, and 2016

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

- In 2006, the aggregate charges for 2016's highest volume diagnoses totaled \$467.6 million and accounted for 21.9 percent of the total aggregate charges for all diagnoses.
- By 2016, the aggregate charges for those same diagnoses had more than doubled to \$1,008.3 million, which accounted for 29.1 percent of the total aggregate charges.

In 2016, the 10 conditions with the highest total billed charges accounted for 35.8 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 \$224.8 million. Although hospital stays for newborns had relatively low average charges, their high frequency resulted in liveborn infants having the fifth highest aggregate charges (see Appendix E for more information).

^{*}Based on 10 most common diagnoses in 2016. Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Insurance status:

The following payer sources are listed in this report:

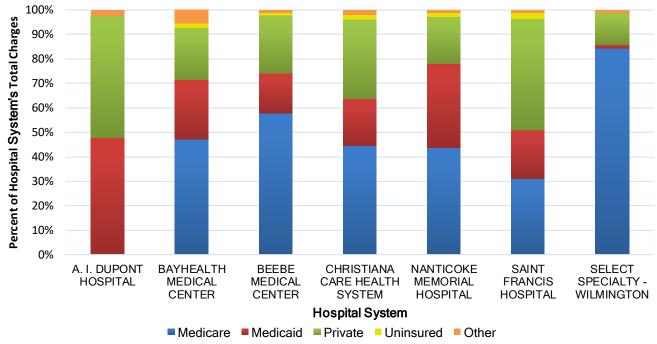
- Medicare
- Medicaid
- Private insurance carriers, such as:
 - Blue Cross Blue Shield
 - HMOs
 - Commercial insurance
- Uninsured
 - Patients who have no insurance and self-pay
- Other types of insurance, such as:
 - Workman's compensation
 - CHAMPUS (Civilian Health and Medical Program of the Uniformed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

In 2016, 65.0 percent of hospitalizations were billed to Medicare (41.9 percent) and Medicaid (23.1 percent), 30.9 percent were billed to private insurance, and the remaining 4.1 percent was billed to other types of coverage (2.5 percent) or to the patient (1.6 percent uninsured).

Patients whose care was primarily billed to Medicare had both the highest average charges (\$33,665) and the greatest aggregate charges (\$1.6 billion).

In 2016, Select Specialty - Wilmington had the highest percent of charges billed to Medicare. A. I. Dupont Hospital had the highest percentage billed to both privately insured and Medicaid covered patients, and Saint Francis Hospital had the highest percent of charges with no coverage.

Figure 23. Distribution of Total Charges by Primary Payer Type and Hospital System, Delaware, 2016



Medicare:

From 2006 to 2016, the percent of hospital stays whose primary payer was Medicare increased from 36.6 to 41.9 percent. Over the same time period, the proportion of aggregate charges billed to Medicare remained stable at around 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 16.8 percent of Medicare hospitalizations. The three most frequent diagnoses for Medicare patients in 2016 were⁷:

- septicemia (except in labor);
- osteoarthritis;
- congestive heart failure; nonhypertensive.

Medicaid:

From 2006 to 2016, Medicaid covered hospitalizations increased from 22.6 to 23.1 percent. Over the same time period, the proportion of aggregate charges billed to Medicaid rose from 17.9 to 23.3 percent.

Four of the 10 most frequent diagnoses for Medicaid patients were related to pregnancy and childbirth. The three most frequent diagnoses accounted for 26.1 percent of Medicaid stays. The three most frequent diagnoses for Medicaid patients in 2016 were⁷:

- liveborn infants;
- other complications of birth; puerperium affecting management of mother;
- asthma.

Private Insurers:

From 2006 to 2016, privately insured stays decreased from 35.9 to 30.9 percent. Over the same time period, the proportion of aggregate charges billed to private insurance decreased from 31.4 to 27.2 percent.

Five 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 16.0 percent of all stays covered by private insurers. The three most frequent diagnoses for privately insured patients in 2016 were⁷:

- liveborn infants:
- osteoarthritis;
- other complications of birth; puerperium affecting management of mother.

Uninsured:

From 2006 to 2016, uninsured hospitalizations decreased from 2.9 to 1.6 percent. Over the same time period, the proportion of aggregate charges billed to uninsured patients decreased from 2.3 to 1.1 percent. The three most frequent diagnoses accounted for 18.3 percent of uninsured stays.

The three most frequent diagnoses for uninsured patients in 2016 were⁷:

- liveborn;
- septicemia (except in labor);
- alcohol-related disorders.

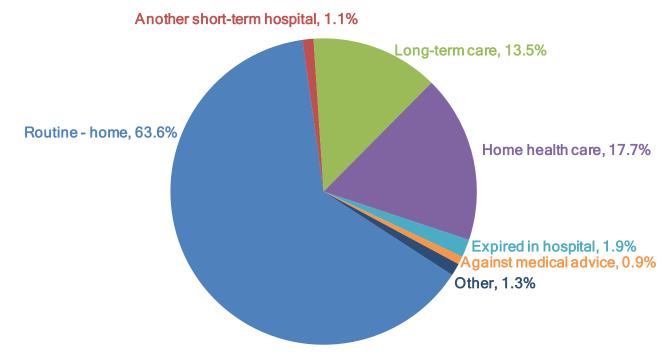
See Appendix F for the top 10 principal diagnoses by payer type.

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 2016 the majority of patients (63.6 percent) were discharged to their homes, less than two percent of patients died in the hospital, and less than one percent left against medical advice.

Figure 24. Percentage of Discharges by Discharge Status, Delaware Hospitals, 2016



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;
- respiratory failure; insufficiency; arrest (adult).

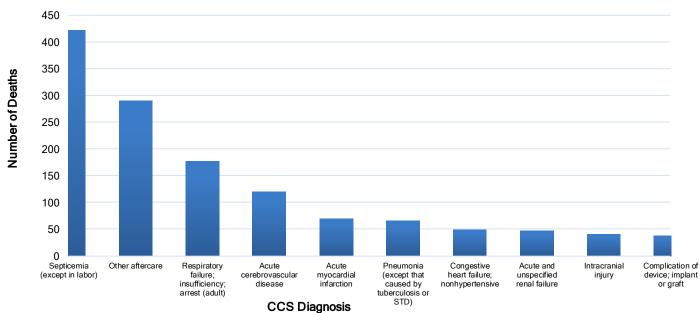


Figure 25. Number of Diagnoses with the Greatest Numbers of In-Hospital Deaths, Delaware Hospitals, 2016

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

The most frequent causes of in-hospital mortality varied by age group. Cardiac and circulatory congenital anomalies accounted for the largest number of deaths to those under one, while intracranial injury caused the highest number of deaths to those ages 1 to 17. Substance-related disorders was the most frequent cause of death for ages 18 to 44 and septicemia (except in labor) was the most frequent cause of death for those aged 45 and over.

Patients ages 65 and older accounted for 69.4 percent of all in-hospital mortality. For more information see Appendices G and H.

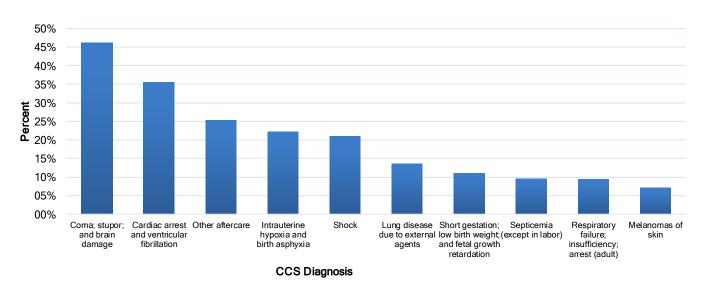
How Patients Were Discharged

Percentages

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

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

Figure 26. Percentages of CCS Diagnoses with the Greatest Percentage of In-Hospital Mortality, Delaware Hospitals, 2016



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

Patients who left against medical advice:

Around 1 percent of patients left the hospital against medical advice. Males were twice as likely as females to leave the hospital against medical advice; uninsured patients were about 13 times as likely when compared to privately insured patients.

The three most frequent diagnoses of patients who left the hospital against medical advice were alcohol-related disorders, skin and subcutaneous tissue infections, and septicemia (except in labor).

- For women, alcohol-related disorders, septicemia (except in labor), and pneumonia (except that caused by tuberculosis or std) made up the top three.
- For men, alcohol-related disorders, skin and subcutaneous tissue infections, and diabetes mellitus with complications made up the top three.

Patients transferred to another facility:

The majority of patients discharged to another facility were transferred to a long-term care (LTC) facility. For those 65 and older, each 10-year increase in patient age saw at least a ten percent increase in the likelihood of being transferred to LTC facilities. In 2016, around 5 percent of those under 65 were discharged to long-term care facilities, compared to 18.8 percent of those ages 65-74, 29.9 percent of those ages 75-84, and 47.2 percent of those 85 and older.

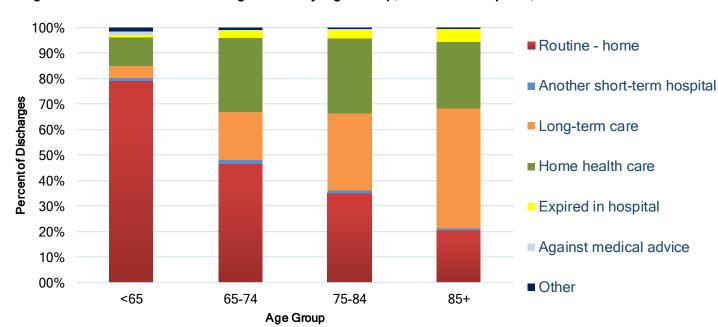


Figure 27. Distribution of Discharge Status by Age Group, Delaware Hospitals, 2016

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

In 2016, the most common diagnoses for patients discharged to LTC facilities were; septicemia (except in labor), acute cerebrovascular disease, and fracture of neck of femur (hip).

- The three most common diagnoses for patients under 65 (excluding liveborn infants) were septicemia (except in labor), acute cerebrovascular disease, and respiratory failure; insufficiency; arrest (adult).
- For patients ages 65-74, septicemia (except in labor), acute cerebrovascular disease, and respiratory failure; insufficiency; arrest (adult) were the three most common diagnoses.
- For patients ages 75-84, septicemia (except in labor), acute cerebrovascular disease, and fracture of neck of femur (hip) were the three most common diagnoses.
- For patients 85 and older, septicemia (except in labor), fracture of neck of femur (hip), and acute cerebrovascular disease were the three most common diagnoses.

A.I. duPont Hospital for Children						
2016 Disc	harge Dist	tribution				
Zip / State	Number	<u>%</u>				
PA	2,801	29.0%				
NJ	847	8.8%				
19805	504	5.2%				
19720	500	5.2%				
MD	415	4.3%				
19702	370	3.8%				
19802	313	3.2%				
19709	288	3.0%				
19701	255	2.6%				
19808	242	2.5%				
19713	236	2.4%				
19801	212	2.2%				
19711	186	1.9%				
19901	178	1.8%				
19804	147	1.5%				
Other State	145	1.5%				
19904	140	1.5%				
19703	138	1.4%				
19810	122	1.3%				
19803	107	1.1%				
19973	97	1.0%				
19977	95	1.0%				
19809	94	1.0%				
19963	92	1.0%				
19947	84	0.9%				
19958	82	0.8%				
19962	72	0.7%				
19734	66	0.7%				
19707	65	0.7%				
19966	59	0.6%				
19938	56	0.6%				
19934	55	0.6%				
19956	54	0.6%				
19943	46	0.5%				
19933	41	0.4%				
19952	37	0.4%				
19960	35	0.4%				
19806	35	0.4%				
19950	30	0.3%				
19975	30	0.3%				
19945	26	0.3%				
19953	24	0.2%				
19807	23	0.2%				
19941	23	0.2%				
19968	20	0.2%				
19971	18	0.2%				
19946	18 16	0.2%				
19940	16	0.2% 0.2%				
19939 19706	16 16	0.2% 0.2%				
19706	16	0.2%				

^{*}Zip codes with less than 10 cases

16

66

9,653

0.2%

0.7%

100.0%

19954

Undisclosed*

Utilization Characteristics

	2014	2015	2016
Aggregate charges	\$538,716,405	\$574,833,593	\$626,917,555
Average charges	\$62,496	\$63,357	\$64,945
Average charge per day	\$10,769	\$11,116	\$11,746
Number of Discharges	8,620	9,073	9,653
Total All-listed Procedures ¹	10,595	11,024	12,279
Non-operating room procedures 2	6,174	7,739	7,319
Valid operating room procedures 2	4,421	3,285	4,960
Average Lenth of Stay	5.6	5.5	5.3
Primary Payer Distribution	·	·	
Medicare	0.6%	0.3%	0.4%
Medicaid	45.2%	44.4%	47.4%
Private Insurance	50.6%	51.7%	49.9%
Uninsured	0.2%	1.5%	0.1%
Other	3.3%	2.1%	2.3%
Point of Origin Distribution			
Home-Work-etc.	54.4%	56.3%	59.3%
Clinic/Physician Office	24.0%	23.1%	21.4%
Transfers-Health Facility	21.0%	19.1%	17.3%
Newborn	0.0%	0.0%	0.0%
Other/Unknown	0.7%	1.5%	2.0%
Discharge Status Distribution			
Routine - home	93.1%	94.1%	95.5%
Another short-term hospital	0.7%	0.7%	0.6%
Long-term care facility	0.9%	1.1%	0.7%
Home health care	3.1%	2.6%	1.7%
Expired in hospital	0.6%	0.5%	0.5%
Left against medical advice	0.1%	0.0%	0.0%
Other/Unknown	1.5%	0.9%	1.0%
Sex			
Male	52.9%	53.4%	52.4%
Female	47.1%	46.6%	47.6%
Age			
<1	20.0%	22.2%	23.2%
1-4	23.6%	24.0%	24.8%
<i>5-9</i>	17.4%	18.4%	17.9%
<i>10-14</i>	21.4%	18.8%	17.5%
<i>15-19</i>	16.3%	15.7%	15.4%
20-24	1.2%	0.9%	1.0%
<i>25-34</i>	0.1%	0.0%	0.1%
35-44	0.0%	0.0%	0.0%
45-54	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%
Unknown	0.1%	0.0%	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

^{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.

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

2016 Disc	harge Dis	tribution	Utilization Characteristics			
Zip / State	Number	%		2014	2015	2016
19901	3,731	18.5%	Aggregate charges	\$548,672,174	\$588,617,400	\$622,882,503
19904	3,375	16.7%	Average charges	\$26,028	\$28,649	\$30,810
19963	1,795	8.9%	Average charge per day	\$6,545	\$7,349	\$7,892
19977	1,460	7.2%	Number of Discharges	21,080	20,546	20,217
19943	1,278	6.3%	Total All-listed Procedures ¹	20,048	20,379	19,501
19934	1,173	5.8%	Non-operating room procedures 2	12,969	14,929	12,534
19962	1,004	5.0%	Valid operating room procedures ²	7,079	5,450	6,967
19952	921	4.6%	Average Lenth of Stay	5.1	5.1	5.1
19938	554	2.7%	Primary Payer Distribution	0.1	0.1	0.1
19960	470	2.3%	Medicare	47.7%	47.0%	47.0%
19946	429	2.1%	Medicaid	25.2%	25.1%	24.4%
MD	407	2.0%	Private Insurance	20.0%	20.8%	21.2%
19953	399	2.0%	Uninsured	1.7%	1.7%	1.8%
19950	370	1.8%	Other	5.4%	5.5%	
19947	302	1.5%		5.4%	5.5%	5.6%
19966	202	1.0%	Point of Origin Distribution	02.20/	70.69/	71 20/
Other State	194	1.0%	Home-Work-etc.	83.3%	79.6%	71.3%
19968	191	0.9%	Clinic/Physician Office	3.9%	7.0%	9.8%
19941	189	0.9%	Transfers-Health Facility	1.9%	2.0%	6.6%
19973	177	0.9%	Newborn	11.0%	11.4%	11.6%
19734	155	0.8%	Other/Unknown	.0%	.0%	.7%
19954	151	0.7%	Discharge Status Distribution			
19933	147	0.7%	Routine - home	66.0%	62.4%	60.2%
19709	137	0.7%	Another short-term hospital	3.1%	2.5%	2.3%
19958	131	0.6%	Long-term care facility	11.0%	15.2%	15.2%
19964	128	0.6%	Home health care	12.5%	15.9%	16.7%
19956	79	0.4%	Expired in hospital	2.1%	2.2%	2.3%
19979	77	0.4%	Left against medical advice	1.1%	1.1%	1.1%
19936	67	0.3%	Other/Unknown	4.1%	0.7%	2.0%
PA	67	0.3%	Sex			
19971	55	0.3%	Male	42.2%	41.8%	42.7%
19903	49	0.2%	Female	57.8%	58.2%	57.3%
19701	29	0.1%	Age			
NJ	26	0.1%	<1	11.9%	12.3%	12.5%
19720	25	0.1%	1-4	0.5%	0.5%	0.5%
19939	25	0.1%	<i>5-9</i>	0.3%	0.2%	0.2%
19955	25	0.1%	10-14	0.2%	0.2%	0.1%
19975	24	0.1%	15-19	1.3%	1.1%	1.3%
19980	22	0.1%	20-24	4.6%	4.4%	4.2%
19970	19	0.1%	25-34	10.1%	10.1%	10.4%
19702	17	0.1%	35-44	6.1%	6.4%	6.0%
19945	16	0.1%	45-54	10.5%	9.8%	9.6%
19805	10	0.0%				
19930	10	0.0%	55-64 65-74	13.7%	14.4%	15.0%
19940	10	0.0%	65-74	17.1%	16.7%	17.8%
19951	10	0.0%	75+	23.8%	23.8%	22.5%
Undisclosed*	85	0.4%	Notes:			

Total 20,217 100.0%

*Zip codes with less than 10 cases

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

Beebe Medical Center

2016	Discharge	Distribution
2010	Discharge	Distribution

Utilization Characteristics

Zip / State	Number	<u>%</u>		<u>2014</u>	<u>2015</u>
19966	2,657	23.0%	Aggregate charges	\$398,595,606	\$419,853,505
19958	2,183	18.9%	Average charges	\$35,855	\$38,671
19971	1,111	9.6%	Average charge per day	\$10,710	\$11,729
19947	1,020	8.8%	Number of Discharges	11,117	10,857
19968	885	7.7%	Total All-listed Procedures ¹	15,800	15,496
19970	543	4.7%	Non-operating room procedures 2	10,192	11,370
19939	392	3.4%	Valid operating room procedures 2	5,608	4,126
19945	345	3.0%	Average Lenth of Stay	4.1	4.3
MD	263	2.3%	Primary Payer Distribution		
19975	203	2.3%	Medicare	57.4%	56.5%
	188		Medicaid	17.5%	17.2%
19963		1.6%	Private Insurance	22.2%	23.6%
19973	174	1.5%	Uninsured	1.8%	1.3%
19960	172	1.5%	Other	1.1%	1.4%
Other State	152	1.3%	Point of Origin Distribution		
PA	152	1.3%	Home-Work-etc.	27.0%	26.6%
19951	147	1.3%	Clinic/Physician Office	65.2%	65.0%
19930	146	1.3%	Transfers-Health Facility	0.0%	0.0%
19956	104	0.9%	Newborn	7.8%	8.4%
19941	79	0.7%	Other/Unknown	0.0%	0.1%
19933	72	0.6%	Discharge Status Distribution		
19952	64	0.6%	Routine - home	55.0%	51.7%
19950	61	0.5%	Another short-term hospital	1.6%	1.9%
19967	59	0.5%	Long-term care facility	17.3%	18.0%
19904	29	0.3%	Home health care	21.3%	24.6%
19943	28	0.2%	Expired in hospital	1.9%	2.1%
19901	25	0.2%	Left against medical advice	0.6%	0.9%
NJ	23	0.2%	Other/Unknown	2.2%	0.8%
19944	22	0.2%	Sex	45.00/	45.00/
19969	17	0.1%	<i>Male</i>	45.2%	45.8%
19946	15	0.1%	Female	54.8%	54.2%
19720	12	0.1%	Age	0.40/	0.50/
19940	12	0.1%	<1	8.1%	8.5%
19962	11	0.1%	1-4	0.1%	0.1%
19709	10	0.1%	<i>5-9</i> <i>10-14</i>	0.1%	0.1%
19934	10	0.1%	10-14 15-19	0.1% 0.8%	0.0%
19977	10	0.1%			0.7%
Undisclosed*	95	0.8%	20-24 _ 25-34	2.5%	2.5%
Total	11,528	100.0%	_ <i>25-34</i> _ <i>35-44</i>	6.5% 4.6%	6.9% 5.1%
*Zip codes wit			_ 35-44 45-54		
ZIP COUGS WII	ar 1000 triair	10 00363	40-04	9.2%	8.8%

^{*}Zip codes with less than 10 cases

55-64

65-74

14.1%

23.8%

30.1%

13.9%

23.4%

29.8%

2016

\$471,645,540

\$40,913

\$12.649

11,528

15,946

9,988

5,958

58.0%

16.1%

23.5%

1.2%

1.2%

26.3%

66.2%

0.0%

7.5%

0.0%

51.5% 1.6%

16.2%

26.8%

2.3%

1.0%

0.7%

46.7%

53.3%

7.6%

0.1%

0.1%

0.1%

0.5%

2.4% 6.8%

4.7%

7.8%

14.9%

24.7%

30.3%

4.2

⁷⁵⁺ 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 Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

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

	charge Dis		system (includes both Wilmington and Utilizat	ion Characteri	•	
Zip / State	Number	<u>%</u>		2014	2015	2016
19720	5,876	10.0%	Aggregate charges	\$1,214,327,405	\$1,317,194,106	\$1,425,735,665
19702	4,278	7.3%		\$20,736	\$22,507	\$24,196
19805 19808	3,734 3,504	6.3% 5.9%	Average charges			
19711	3,324	5.6%	Average charge per day	\$4,880	\$5,372	\$6,070
19713	3,334	5.7%	Number of Discharges	58,561	58,524	58,924
MD 19701	3,251 3,113	5.5% 5.3%	Total All-listed Procedures ¹	127,016	115,550	89,206
19709	2,973	5.0%	Non-operating room procedures ²	95,859	91,998	51,684
19802	2,720	4.6%	Valid operating room procedures 2	31,157	23,552	37,522
PA 19801	2,458 2,035	4.2% 3.5%	Average Lenth of Stay	5.0	5.0	5.2
19804	1,778	3.0%	Primary Payer Distribution		0.0	0.2
19810	1,947	3.3%	Medicare	42.9%	44.3%	44.4%
19803 NJ	1,677 1,569	2.8% 2.7%				
19703	1,168	2.0%	Medicaid	18.5%	19.3%	19.2%
19809	1,209	2.1%	Private Insurance	32.5%	32.4%	32.5%
19707 19806	1,180 959	2.0% 1.6%	Uninsured	1.1%	2.1%	1.7%
19734	910	1.5%	Other	5.0%	1.9%	2.1%
19977	844	1.4%	Point of Origin Distribution	· · · · · · · · · · · · · · · · · · ·	•	
19807 19904	496 393	0.8% 0.7%	Home-Work-etc.	63.1%	62.5%	62.8%
Other State	397	0.7%	Clinic/Physician Office	21.9%	22.9%	22.6%
19901	414	0.7%	Transfers-Health Facility	3.6%	3.6%	3.6%
19938 19706	323 253	0.5% 0.4%	Newborn	11.4%	11.0%	11.0%
19973	258	0.4%	Other/Unknown			
19966	222	0.4%		.0%	.0%	.0%
19958 19963	211 174	0.4% 0.3%	Discharge Status Distribution			
19903	160	0.3%	Routine - home	61.8%	61.4%	62.1%
19947	155	0.3%	Another short-term hospital	0.4%	0.4%	0.5%
19943	132	0.2%	Long-term care facility	12.0%	14.3%	14.2%
19971 19956	131 123	0.2% 0.2%	Home health care	20.9%	20.4%	19.7%
19962	117	0.2%	Expired in hospital	1.4%	1.4%	1.4%
19952	103	0.2%	Left against medical advice	0.6%	0.8%	0.8%
19968 19933	102 70	0.2% 0.1%	Other/Unknown	2.8%	1.3%	1.3%
19953	73	0.1%	*	2.070	1.570	1.570
19960	80	0.1%	Sex	40.00/	44.00/	40.40/
19730 19950	55 61	0.1% 0.1%	Male -	42.0%	41.9%	42.4%
19946	42	0.1%	Female	58.0%	58.1%	57.6%
19970	42	0.1%	Age			
19939 19945	50 35	0.1% 0.1%	<1	11.6%	11.2%	11.2%
19714	31	0.1%	1-4	0.0%	0.0%	0.0%
19899	25	0.0%	<i>5-9</i>	0.0%	0.0%	0.0%
19733 19975	30 34	0.1% 0.1%	10-14	0.1%	0.0%	0.0%
19731	18	0.0%	<i>15-19</i>	1.1%	1.0%	1.0%
19941	34	0.1%	20-24	3.7%	3.7%	3.4%
19940 19850	23 33	0.0% 0.1%				
19964	10	0.0%	25-34	11.4%	11.3%	11.4%
19732	23	0.0%	<i>35-44</i>	8.0%	7.9%	7.7%
19930 19710	21 15	0.0% 0.0%	<i>45-54</i>	11.2%	11.0%	10.7%
19954	13	0.0%	<i>55-64</i>	15.0%	15.2%	16.1%
19936	15	0.0%	<i>65-74</i>	16.2%	16.7%	17.4%
19951 19955	15 8	0.0% 0.0%	<i>75+</i>	21.6%	21.8%	21.1%
19955	12	0.0%	Notes:		-	
19712	2	0.0%	Total all-listed procedures represents the total num	ther of procedures perform	ed: un to six procedures	may he
19979 19708	3 7	0.0%	· · ·	·		•
19708	4	0.0% 0.0%	recorded per discharge, as a result the total number of the control of the contro	oi ail-listed procedures can	exceed the total number	OI .
10002		0.00/	discharges.			

discharges.

19903

19967

19718

Undisclosed*

0.0%

0.0%

0.0%

0.0%

100.0%

4

4

23

Total 58,924 100.0%
*Zip codes with less than 10 cases

^{2.} Procedures were classified using AHRQ's HCUP procedure class software. See AHRQ's website for more information: $\underline{\text{http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp.}}$

^{3.} Percentages may not sum to 100 due to rounding.

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

Nanticoke Memorial Hospital

2016	Discha	rao Di	ctrih	utio
ZUID	DISCHA	ırge Di	Strib	utioi

2016 Discharge Distribution					
Zip / State	Number	<u>%</u>			
19973	2,105	34.0%			
19956	1,063	17.2%			
19933	656	10.6%			
19947	653	10.5%			
MD	472	7.6%			
19966	268	4.3%			
19950	235	3.8%			
19940	180	2.9%			
19975	58	0.9%			
19963	57	0.9%			
Other State	57	0.9%			
19939	54	0.9%			
19945	46	0.7%			
19968	27	0.4%			
19952	25	0.4%			
19941	24	0.4%			
19904	22	0.4%			
19971	20	0.3%			
19901	19	0.3%			
19960	18	0.3%			
19970	18	0.3%			
19958	16	0.3%			
19934	13	0.2%			
19977	13	0.2%			
19943	10	0.2%			
Undisclosed*	62	1.0%			

Total 6,191 100.0%
*Zip codes with less than 10 cases

Utilization Characteristics

Aggregate charges	4407 000 500		<u> 2016 </u>
	\$107,306,566	\$111,693,089	\$115,157,155
Average charges	\$17,488	\$18,368	\$18,601
Average charge per day	\$5,440	\$6,065	\$6,654
Number of Discharges	6,136	6,081	6,191
Total All-listed Procedures ¹	12,057	10,456	7,300
Non-operating room procedures 2	10,212	8,956	5,006
Valid operating room procedures 2	1,845	1,500	2,294
Average Lenth of Stay	3.5	3.4	3.3
Primary Payer Distribution			
Medicare	45.9%	45.7%	43.5%
Medicaid	33.1%	33.4%	34.3%
Private Insurance	17.3%	18.3%	19.1%
Uninsured	1.7%	1.4%	1.8%
Other	1.9%	1.2%	1.2%
Point of Origin Distribution		·	
Home-Work-etc.	63.2%	60.7%	59.9%
Clinic/Physician Office	22.9%	25.1%	26.1%
Transfers-Health Facility	0.0%	0.0%	0.0%
Newborn	14.0%	14.1%	14.0%
Other/Unknown	0.0%	0.0%	0.0%
Discharge Status Distribution			
Routine - home	59.6%	62.6%	62.1%
Another short-term hospital	2.9%	3.2%	2.7%
Long-term care facility	16.2%	13.4%	14.5%
Home health care	16.5%	16.4%	17.2%
Expired in hospital	1.9%	1.8%	1.6%
Left against medical advice	0.9%	0.6%	1.0%
Other/Unknown	2.0%	1.9%	0.9%
Sex			
Male	42.4%	40.1%	39.8%
Female	57.6%	59.9%	60.2%
Age			
<1	15.1%	15.2%	15.1%
1-4	0.6%	0.3%	0.4%
<i>5-9</i>	0.3%	0.3%	0.4%
10-14	0.3%	0.3%	0.2%
<i>15-19</i>	1.7%	1.6%	1.7%
20-24	4.7%	4.8%	4.3%
<i>25-34</i>	10.6%	10.4%	10.9%
<i>35-44</i>	5.9%	5.8%	6.7%
<i>45-54</i>	8.6%	7.9%	9.2%
<i>55-64</i>	12.8%	13.8%	13.0%
<i>65-74</i>	16.0%	18.1%	17.1%
<i>75+</i>	23.6%	21.4%	20.9%

Notes:

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

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

^{3.} Percentages may not sum to 100 due to rounding.

St. Francis Hospital

2010 Discharge Distribution				
Zip / State	Number	<u>%</u>		
19805	1,232	23.4%		
19801	517	9.8%		
19802	509	9.7%		
19720	494	9.4%		
19806	298	5.7%		
19810	234	4.5%		
19703	213	4.1%		
19808	197	3.7%		
19809	193	3.7%		
19804	189	3.6%		
19803	181	3.4%		
19702	152	2.9%		
19711	125	2.4%		
PA	116	2.2%		
19701	105	2.0%		
19713	102	1.9%		
19707	67	1.3%		
19709	53	1.0%		
MD	44	0.8%		
NJ	40	0.8%		
19807	28	0.5%		
19977	20	0.4%		
19904	16	0.3%		
Other State	15	0.3%		
19734	12	0.2%		
19901	10	0.2%		
Undisclosed*	96	1.8%		
Total	5 258	100 0%		

^{*}Zip codes with less than 10 cases

Utilization Characteristics

	2014	2015	2016
Aggregate charges	\$149,319,914	\$140,237,431	\$140,837,657
Average charges	\$27,134	\$26,237	\$26,785
Average charge per day	\$8,004	\$7,899	\$8,187
Number of Discharges	5,503	5,345	5,258
Total All-listed Procedures ¹	5,628	5,081	4,480
Non-operating room procedures 2	3,636	3,679	2,664
Valid operating room procedures 2	1,992	1,402	1,816
Average Lenth of Stay	4.2	4.2	4.2
Primary Payer Distribution			
Medicare	34.3%	29.9%	31.0%
Medicaid	33.7%	21.9%	20.0%
Private Insurance	28.5%	44.6%	45.3%
Uninsured	2.6%	3.1%	2.6%
Other	1.0%	0.5%	1.1%
Point of Origin Distribution			
Home-Work-etc.	83.0%	79.5%	81.4%
Clinic/Physician Office	1.0%	1.2%	0.5%
Transfers-Health Facility	2.3%	4.1%	4.8%
Newborn	12.6%	13.7%	12.4%
Other/Unknown	1.2%	1.5%	.9%
Discharge Status Distribution	•	·	
Routine - home	65.3%	65.0%	67.1%
Another short-term hospital	2.1%	2.1%	1.8%
Long-term care facility	11.1%	11.3%	12.5%
Home health care	13.1%	13.3%	9.2%
Expired in hospital	3.0%	5.6%	6.8%
Left against medical advice	2.2%	1.8%	1.7%
Other/Unknown	3.2%	1.0%	1.0%
Sex			
Male	39.6%	39.3%	38.8%
Female	60.4%	60.7%	61.2%
Age			
<1	12.8%	14.1%	12.6%
1-4	0.0%	0.0%	0.0%
5-9	0.0%	0.0%	0.0%
10-14	0.0%	0.1%	0.1%
15-19	1.5%	1.1%	1.2%
20-24	4.7%	4.5%	4.0%
<i>25-34</i>	13.2%	13.9%	12.2%
<i>35-44</i>	10.4%	9.5%	9.8%
<i>45-54</i>	12.9%	12.1%	11.8%
<i>55-64</i>	14.3%	14.6%	15.7%
<i>65-74</i>	11.0%	11.6%	12.8%
<i>75+</i>	19.3%	18.6%	19.7%

Notes:

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

^{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 Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Select Specialty Hospital - Wilmington

2016 Discharge Distribution

	90 2	J J. G.
Zip / State	Number	<u>%</u>
MD	53	15.2%
19720	22	6.3%
NJ	18	5.2%
19805	17	4.9%
19966	13	3.7%
19701	12	3.4%
19709	12	3.4%
19802	12	3.4%
19973	12	3.4%
19801	11	3.2%
19702	10	2.9%
19711	10	2.9%
19901	10	2.9%
Undisclosed*	137	39.3%
Total	349	100.0%

^{*}Zip codes with less than 10 cases

Utilization Characteristics

Utilizatio	n Characteris		2016
Aggregate charges	2014 \$44,786,921	2015 \$51,254,726	2016 \$69,624,055
Aggregate charges		\$51,254,726	\$68,624,955
Average charge per dev	\$138,231	\$143,170	\$196,633
Average charge per day Number of Discharges	\$4,440 324	\$4,938 358	\$5,727 349
		576	
Total All-listed Procedures ¹	801		544
Non-operating room procedures ²	653	465	374
Valid operating room procedures ²	148	111	170
Average Lenth of Stay	30.5	29.1	32.9
Primary Payer Distribution	75.00/	05.50/	0.4.00/
Medicare	75.0%	85.5%	84.2%
Medicaid	0.3%	0.6%	1.4%
Private Insurance	23.8%	12.6%	13.2%
Uninsured	0.0%	0.0%	0.0%
Other	0.9%	1.4%	1.1%
Point of Origin Distribution			
Home-Work-etc.	0.0%	1.1%	0.6%
Clinic/Physician Office	0.0%	0.0%	0.0%
Transfers-Health Facility	100.0%	98.9%	99.4%
Newborn	0.0%	0.0%	0.0%
Other/Unknown	0.0%	0.0%	0.0%
Discharge Status Distribution			
Routine - home	16.0%	5.6%	6.9%
Another short-term hospital	3.4%	8.9%	6.6%
Long-term care facility	50.6%	59.2%	61.0%
Home health care	14.2%	15.6%	12.3%
Expired in hospital	7.1%	7.3%	9.2%
Left against medical advice	1.2%	0.8%	0.6%
Other/Unknown	7.4%	2.5%	3.4%
Sex			
Male	51.2%	46.4%	55.0%
Female	48.8%	53.6%	45.0%
Unknown	0.0%	0.0%	0.0%
Age		<u> </u>	
<1	0.0%	0.0%	0.0%
1-4	0.0%	0.0%	0.0%
<i>5-9</i>	0.0%	0.0%	0.0%
10-14	0.0%	0.0%	0.0%
<i>15-19</i>	0.0%	0.0%	0.6%
20-24	0.3%	0.3%	0.6%
<i>25-34</i>	5.2%	1.7%	0.9%
<i>35-44</i>	6.8%	6.4%	1.7%
45-54	13.6%	10.6%	12.6%
55-64	21.9%	19.0%	23.8%
65-74	25.9%	29.9%	35.0%
<i>75+</i>	26.2%	32.1%	24.9%
Notes:			=

Notes:

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

^{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.

 $^{3. \, \}text{Percentages} \, \, \text{may} \, \text{not} \, \, \text{sum} \, \, \text{to} \, \, 100 \, \, \text{due} \, \, \text{to} \, \, \text{rounding}.$

Clinical classification system:

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

Number and Percent of Discharges, Mean Length of Stay, Mean Charges, Percent Expired, and Percent with an Emergency Priority at Admission by Principal Diagnosis Delaware Hospitals, 2016

Clinical Class	ifications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergenc Priority
Infections and	Tuberculosis	13	0.3%	16.5	\$90,885	0.0%	53.89
parasitic	Septicemia (except in labor)	4,387	87.8%	8.4	\$51,249	9.6%	77.0
diseases	Bacterial infection; unspecified site	103	2.1%	8.6	\$45,389	0.0%	69.9
	Mycoses	44	0.9%	5.5	\$22,838	2.3%	72.7
	HIV infection	120	2.4%	13.7	\$63,912	5.0%	85.8
	Hepatitis	54	1.1%	4.9	\$35,781	0.0%	77.8
	Viral infection	217	4.3%	3.5	\$21,355	0.0%	77.0
	Other infections; including parasitic	40	0.8%	12.4	\$89,299	0.0%	72.5
	Sexually transmitted infections (not HIV or hepatitis)	16	0.3%	6.3	\$21,582	0.0%	50.0
	Immunizations and screening for infectious disease	1	0.0%	9.0	\$80,086	0.0%	0.0
	Total	4,995	100.0%	8.3	\$50,035	8.6%	76.8
No onloams	Cancer of head and neck	62	1.6%	7.2	\$37,199	1.6%	29.0
Neoplasms	Cancer of esophagus	32	0.8%	8.4	\$43,681	0.0%	68.8
	Cancer of stomach	77	1.9%	8.5	\$45,066	2.6%	50.6
	Cancer of colon	307	7.7%	7.9	\$50,533	1.0%	32.2
	Cancer of rectum and anus	95	2.4%	7.4	\$52,133	0.0%	16.8
	Cancer of liver and intrahepatic bile duct	52	1.3%	6.0	\$38,218	5.8%	55.8
	Cancer of pancreas	88	2.2%	5.9	\$31,531	3.4%	58.0
	Cancer of other GI organs; peritoneum	56	1.4%	8.4	\$47,358	1.8%	41.1
	Cancer of bronchus; lung	364	9.1%	6.0	\$43,259	4.9%	52.5
	Cancer; other respiratory and intrathoracic	3	0.1%	5.0	\$34,316	0.0%	33.3
	Cancer of bone and connective tissue	42	1.1%	5.0	\$48,019	0.0%	26.2
	Melanomas of skin	14	0.4%	3.5	\$15,025	7.1%	21.4
	Other non-epithelial cancer of skin	9	0.2%	4.0	\$17,207	0.0%	0.0
	Cancer of breast	59	1.5%	5.7	\$28,405	0.0%	35.6
	Cancer of uterus	106	2.7%	3.5	\$22,646	0.0%	13.2
	Cancer of cervix	32	0.8%	5.3	\$32,563	0.0%	34.4
	Cancer of ovary	56	1.4%	6.0	\$32,901	0.0%	25.0
	Cancer of other female genital organs	15	0.4%	2.3	\$12,586	6.7%	6.7
	Cancer of prostate	121	3.0%	2.7	\$30,589	0.0%	17.4
	Cancer of testis	5	0.1%	9.4	\$41,806	0.0%	40.0
	Cancer of other male genital organs	1	0.0%	2.0	\$3,121	0.0%	0.0
	Cancer of bladder	76	1.9%	7.1	\$41,850	1.3%	50.0
	Cancer of kidney and renal pelvis	108	2.7%	4.6	\$33,830	3.7%	16.7
	Cancer of other urinary organs	13	0.3%	6.5	\$52,221	0.0%	7.7
	Cancer of brain and nervous system	98	2.5%	9.8	\$85,761	1.0%	53.1
	Cancer of thyroid	30	0.8%	2.1	\$19,672	3.3%	0.0
	Hodgkin's disease	18	0.5%	7.4	\$68,017	0.0%	

Clinical Classi	fications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergend Priority
	Non-Hodgkin`s lymphoma	115	2.9%	11.6	\$91,561	5.2%	51.3
	Leukemias	122	3.1%	18.9	\$176,192	6.6%	55.7
Endocrine, nutritional & metabolic diseases, & immunity disorders	Multiple myeloma	58	1.5%	11.1	\$78,432	0.0%	53.4
	Cancer; other and unspecified primary	26	0.7%	6.0	\$61,571	3.8%	34.6
	Secondary malignancies	475	11.9%	6.3	\$35,378	2.9%	64.6
	Malignant neoplasm without specification of site	31	0.8%	8.5	\$48,804	6.5%	58.1
	Neoplasms of unspecified nature or uncertain behavior	129	3.2%	5.4	\$49,598	3.1%	43.4
	Maintenance chemotherapy; radiotherapy	442	11.1%	5.7	\$52,975	0.2%	0.5
	Benign neoplasm of uterus	267	6.7%	2.6	\$21,714	0.0%	3.4
	Other and unspecified benign neoplasm	378	9.5%	5.3	\$39,423	0.8%	17.
	Total	3,982	100.0%	6.5	\$47,485	2.0%	33.5
	Thyroid disorders	79	1.6%	5.8	\$38,777	1.3%	59.
•	Diabetes mellitus without complication	12	0.2%	3.0	\$15,126	0.0%	75.0
	Diabetes mellitus with complications	1,860	38.6%	5.1	\$24,656	0.3%	77.
	Other endocrine disorders	207	4.3%			1.0%	75.4
-	Nutritional deficiencies	55	1.1%	5.2	\$24,321		54.
disorders				14.3	\$64,596	0.0%	
	Disorders of lipid metabolism Cout and other crystal arthropathics	3	0.1%	5.3	\$18,926	0.0%	33.3
	Gout and other crystal arthropathies	77	1.6%	3.9	\$15,332	0.0%	80.
	Fluid and electrolyte disorders	1,072	22.3%	3.9	\$17,157	0.9%	80.9
	Cystic fibrosis	42	0.9%	8.7	\$89,351	0.0%	38.
	Immunity disorders	23	0.5%	10.3	\$80,508	4.3%	65.2
	Other nutritional; endocrine; and metabolic disorders	1,386		2.5	\$33,897	0.4%	11.0
	Total	4,816	100.0%	4.3	\$26,974	0.5%	58.2
Diagram of the	Deficiency and other anemia	500	34.6%	4.1	\$24,664	1.0%	77.0
	Acute posthemorrhagic anemia	257	17.8%	4.9	\$26,864	0.8%	55.3
	Sickle cell anemia	377	26.1%	3.9	\$22,816	0.3%	82.2
	Coagulation and hemorrhagic disorders	152	10.5%	4.0	\$44,538	2.0%	48.
	Diseases of white blood cells	146	10.1%	4.9	\$32,271	0.7%	68.
	Other hematologic conditions	13	0.9%	5.2	\$47,139	0.0%	61.5
	Total	1,445	100.0%	4.3	\$27,634	0.8%	70.5
	Adjustment disorders	7	0.2%	2.0	\$8,848	0.0%	71.4
Mental disorders	Anxiety disorders	28	0.9%	2.4	\$11,707	0.0%	75.0
	Attention-deficit	3	0.1%	2.0	\$21,285	0.0%	100.
	Delirium	150	4.8%	11.7	\$24,830	0.7%	92.0
	Developmental disorders	3	0.1%	1.7	\$12,531	0.0%	100.0
	Disorders usually diagnosed in infancy	10	0.3%	4.4	\$93,767	0.0%	40.0
	Impulse control disorders	1	0.0%	2.0	\$14,829	0.0%	0.0
	Mood disorders	875		6.9	\$13,249	0.0%	77.7
	Personality disorders	145		10.1	\$21,371	0.0%	86.2
	Schizophrenia and other psychotic disorders	1,035		5.3	\$21,558	1.2%	83.9
	Alcohol-related disorders	365	11.8%	4.4	\$19,261	3.3%	70.4
	Substance-related disorders	408	13.1%	4.5	\$22,478	1.2%	82.4
	Screening and history of mental health and substance abuse codes	1		7.0	\$13,933	0.0%	0.0
	Miscellaneous disorders	75	2.4%	3.9	\$22,578	0.0%	70.
	Total	3,106	100.0%	6.0	\$19,344	1.0%	80.3
Diseases of th	Meningitis (except that caused by tuberculosis or STD)	93		4.5	\$27,488	0.0%	77.
Diseases of the nervous system	Encephalitis (except that caused by tuberculosis or STD)	41	1.2%	13.4	\$94,544	0.0%	75.
and sense	Other CNS infection and poliomyelitis	31	0.9%	28.1	\$100,099	0.0%	71.
organs	Parkinson's disease	35	1.0%	5.5	\$15,596	0.0%	71.
-	Multiple sclerosis	70		5.5	\$15,596	0.0%	77.
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	Other hereditary and degenerative nervous system conditions	77	2.2%	5.8	\$33,184	1.3%	71.
	Paralysis Enilopes consulcions	93	2.7%	8.3	\$72,143	0.0%	23.
	Epilepsy; convulsions	1,020		4.0	\$24,495	0.4%	75.
	Headache; including migraine	334	9.7%	2.5	\$13,977	0.0%	82.
	Coma; stupor; and brain damage	26	0.8%	12.7	\$63,907	46.2%	53.

APPENDIX A

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Clinical Classi	fications Software Categories and Chapter Headings	Number of	Percent of	Length of	Mean Total	Percent	Percent Emergency
Olinical Glassi	meations continue categories and chapter readings	Discharges	Discharges	Stay	Charges	Expired	Priority
	Cataract	0	0.0%	N/A	N/A	N/A	N/A
	Retinal detachments; defects; vascular occlusion; and retinopathy	10	0.3%	4.6	\$35,701	0.0%	50.0%
	Glaucoma	0	0.0%	N/A	N/A	N/A	N/A
	Blindness and vision defects	27	0.8%	2.4	\$9,854	0.0%	92.6%
	Inflammation; infection of eye (except that caused by		0.070	2.7	ψ5,004	0.070	
	tuberculosis or sexually transmitteddisease)	50	1.4%	3.2	\$15,880	0.0%	72.0%
	Other eye disorders	35	1.0%	2.1	\$12,672	0.0%	80.0%
	Otitis media and related conditions	48	1.4%	5.2	\$67,435	0.0%	77.1%
	Conditions associated with dizziness or vertigo	177	5.1%	2.1	\$7,773	0.0%	90.4%
	Other ear and sense organ disorders	32	0.9%	2.4	\$14,182	0.0%	78.1%
	Other nervous system disorders	1,251	36.3%	6.4	\$34,823	1.1%	53.2%
	Total	3,450	100.0%	5.2	\$29,729	0.9%	67.4%
Diseases of the	Heart valve disorders	381	2.3%	6.2	\$113,148	0.8%	16.0%
circulatory	Peri-; endo-; and myocarditis; cardiomyopathy (except that caused by tuberculosis or STD)	249	1.5%	8.8	\$50,597	3.6%	66.7%
system	Essential hypertension	129	0.8%	2.8	\$14,901	0.0%	86.8%
	Hypertension with complications and secondary hypertension	1,042	6.3%	5.9	\$27,684	1.2%	77.2%
	Acute myocardial infarction	1,796	10.8%	4.5	\$56,153	3.8%	72.8%
	Coronary atherosclerosis and other heart disease	943	5.7%	4.6	\$60,843	1.1%	38.1%
	Nonspecific chest pain	375	2.3%	2.2	\$14,625	0.0%	83.7%
	Pulmonary heart disease	748	4.5%	4.8	\$28,179	2.5%	78.6%
	Other and ill-defined heart disease	41	0.2%	5.0	\$47,752	4.9%	63.4%
	Conduction disorders	178	1.1%	4.0	\$55,206	1.7%	66.3%
	Cardiac dysrhythmias	1,796	10.8%	4.0	\$29,900	1.4%	71.5%
	Cardiac arrest and ventricular fibrillation	101	0.6%	5.9	\$72,327	35.6%	76.2%
	Congestive heart failure; nonhypertensive	2,965	17.8%	5.5	\$27,346	1.7%	78.1%
	Acute cerebrovascular disease	2,766	16.7%	6.4	\$34,861	4.4%	81.1%
	Occlusion or stenosis of precerebral arteries	361	2.2%	2.0	\$29,386	0.3%	10.2%
	Other and ill-defined cerebrovascular disease	130	0.8%	5.1	\$40,171	0.8%	29.2%
	Transient cerebral ischemia	506	3.0%	2.4	\$12,826	0.4%	90.1%
	Late effects of cerebrovascular disease	393	2.4%	14.6	\$38,473	0.3%	14.5%
	Peripheral and visceral atherosclerosis	434	2.6%	5.2	\$42,907	4.4%	41.7%
	Aortic; peripheral; and visceral artery aneurysms	274	1.6%	4.6	\$88,879	4.7%	33.6%
	Aortic and peripheral arterial embolism or thrombosis	98	0.6%	5.7	\$55,804	5.1%	67.3%
	Other circulatory disease	368	2.2%	4.5	\$21,162	1.1%	78.0%
	Phlebitis; thrombophlebitis and thromboembolism	382	2.3%	4.6	\$27,368	0.3%	77.0%
1	Varicose veins of lower extremity	11	0.1%	5.6	\$17,320	0.0%	63.6%
1	Hemorrhoids	86	0.5%	3.6	\$14,147	1.2%	81.4%
	Other diseases of veins and lymphatics	58	0.3%	5.6	\$23,335	0.0%	62.1%
1	Total	16,611	100.0%	5.2	\$37,833	2.5%	68.6%
Diseases of the	Pneumonia (except that caused by tuberculosis or STD)	3,152	26.4%	5.2	\$26,459	2.1%	80.9%
respiratory	Influenza	362	3.0%	4.2	\$23,095	1.7%	89.5%
system	Acute and chronic tonsillitis	125	1.0%	2.1	\$16,218	0.0%	56.0%
	Acute bronchitis	1,199	10.1%	2.9	\$18,922	0.1%	85.0%
1	Other upper respiratory infections	401	3.4%	2.5	\$22,844	0.0%	78.3%
1	Chronic obstructive pulmonary disease and bronchiectasis	2,105	17.6%	4.4	\$19,762	1.1%	84.7%
	Asthma	1,202	10.1%	2.3	\$16,853	0.0%	87.7%
	Aspiration pneumonitis; food/vomitus	534	4.5%	6.8	\$33,220	4.9%	69.7%
1	Pleurisy; pneumothorax; pulmonary collapse	383	3.2%	6.3	\$31,464	2.9%	73.1%
1	Respiratory failure; insufficiency; arrest (adult)	1,876	15.7%	10.6	\$84,428	9.4%	63.9%
	Lung disease due to external agents	22	0.2%	9.9	\$64,700	13.6%	54.5%
	Other lower respiratory disease	397	3.3%	4.6	\$28,951	3.3%	73.6%
1	Other upper respiratory disease	169	1.4%	4.3	\$27,398	1.2%	80.5%
	Total	11,927	100.0%	5.3	\$32,969	2.7%	78.8%
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APPENDIX A

APPENDIX A							
Clinical Classi	fications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergency Priority
	Intestinal infection	1,074	10.4%	4.2	\$20,081	0.7%	80.9%
Diseases of the	Disorders of teeth and jaw	81	0.8%	2.7	\$27,691	0.0%	51.9%
digestive system	Diseases of mouth; excluding dental	75		3.4	\$14,870	1.3%	70.7%
	Esophageal disorders	333	3.2%	4.9	\$30,336	0.6%	68.8%
	Gastroduodenal ulcer (except hemorrhage)	127	1.2%	5.2	\$30,910	3.9%	78.0%
	Gastritis and duodenitis	207	2.0%	3.7	\$18,825	0.0%	76.8%
	Other disorders of stomach and duodenum	166	1.6%	5.7	\$31,401	1.8%	73.5%
	Appendicitis and other appendiceal conditions	423	4.1%	4.1	\$29,308	0.0%	69.5%
	Abdominal hernia	674	6.5%	5.0	\$31,234	0.6%	34.6%
	Regional enteritis and ulcerative colitis	318	3.1%	5.5	\$29,482	0.0%	71.7%
	Intestinal obstruction without hernia	1,069	10.3%	6.1	\$31,498	1.5%	70.3%
	Diverticulosis and diverticulitis	1,003	9.7%	5.3	\$27,920	1.2%	60.2%
	Anal and rectal conditions	116	1.1%	3.6	\$18,778	0.0%	65.5%
	Peritonitis and intestinal abscess	91	0.9%	8.1	\$10,778	2.2%	79.1%
	Biliary tract disease	-					
	Other liver diseases	1,023 336	9.9% 3.2%	4.0 6.2	\$27,536 \$32,934	0.4%	63.0%
	Pancreatic disorders (not diabetes)	1,003	3.2% 9.7%	4.8	\$32,934 \$22,356	3.9% 0.6%	75.0% 75.3%
	Gastrointestinal hemorrhage Noninfectious gastroenteritis	1,287 293	12.4% 2.8%	4.7 3.9	\$24,597	2.3%	81.6% 79.2%
	Other gastrointestinal disorders				\$18,017	0.7%	
	Total	671	6.5%	5.9	\$34,011	0.7%	56.9%
	Nephritis; nephrosis; renal sclerosis	10,375	100.0% 0.9%	4.9	\$26,962	1.1%	68.9%
Diseases of the	Acute and unspecified renal failure	46		7.0	\$47,244	4.3%	41.3%
genitourinary	Chronic renal failure	1,992	39.6%	5.6	\$24,670	2.4%	77.6%
system		74	1.5%	6.6	\$87,986	0.0%	48.6%
	Urinary tract infections	1,660	33.0%	4.3	\$15,698	0.2%	85.8%
	Calculus of urinary tract	135	2.7%	2.9	\$21,685	0.0%	71.9%
	Other diseases of kidney and ureters	396		3.2	\$24,641	0.0%	58.3%
	Other diseases of bladder and urethra	70	1.4%	5.9	\$45,392	0.0%	28.6%
	Genitourinary symptoms and ill-defined conditions	87	1.7%	3.6	\$14,543	2.3%	75.9%
	Hyperplasia of prostate	28	0.6%	4.3	\$21,991	3.6%	57.1%
	Inflammatory conditions of male genital organs	83	1.6%	5.5	\$22,131	0.0%	81.9%
	Other male genital disorders	14	0.3%	3.7	\$19,848	0.0%	35.7%
	Nonmalignant breast conditions	40	0.8%	3.2	\$14,997	0.0%	55.0%
	Inflammatory diseases of female pelvic organs	85	1.7%	3.5	\$18,378	0.0%	71.8%
	Endometriosis	31	0.6%	3.5	\$22,780	0.0%	12.9%
	Prolapse of female genital organs	97		1.2		0.0%	1.0%
	Menstrual disorders	37	0.7%	1.8	\$16,238	0.0%	32.4%
	Ovarian cyst	44	0.9%	2.6	\$20,516	0.0%	36.4%
	Menopausal disorders	16		2.4	\$22,059	0.0%	18.8%
	Female infertility	0	0.0%	N/A	N/A	N/A	N/A
	Other female genital disorders	101	2.0%	4.2	\$24,918	0.0%	36.6%
	Total	5,036	100.0%	4.6	\$22,243	1.1%	73.2%
Complications of	Contraceptive and procreative management	0	0.0%	N/A	N/A	N/A	N/A
pregnancy, childbirth, & the	Spontaneous abortion	29		1.4	\$6,731	0.0%	69.0%
puerperium	Induced abortion	5	0.0%	1.6	\$6,537	0.0%	80.0%
Faciliani	Postabortion complications Establish programmer	0	0.0%	N/A	N/A	N/A	N/A
	Ectopic pregnancy Other complications of prognancy	17	0.1%	2.1	\$17,032	0.0%	100.0%
	Other complications of pregnancy	1,064	9.0%	3.3	\$9,813	0.0%	42.1%
	Hemorrhage during pregnancy; abruptio placenta; placenta previa	150	1.3%	4.4	\$12,091	0.0%	43.3%
	Hypertension complicating pregnancy; childbirth and the puerperium	1,094		3.8	\$10,912	0.0%	39.1%
	Early or threatened labor	417	3.5%	3.0	\$8,607	0.0%	57.6%
1	Prolonged pregnancy	919	7.8%	2.8	\$8,109	0.0%	12.3%
<u></u>	Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium	435	3.7%	2.9	\$9,231	0.0%	20.9%

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Clinical Classi	fications Software Categories and Chapter Headings	Number of	Percent of	Length of	Mean Total	Percent	Percent Emergency
Omnical Glassi	incations cortware categories and chapter readings	Discharges	Discharges	Stay	Charges	Expired	Priority
	Malposition; malpresentation	440	3.7%	2.9	\$10,052	0.0%	23.6%
	Fetopelvic disproportion; obstruction	104	0.9%	2.7	\$12,438	0.0%	19.2%
	Previous C-section	1,287	10.9%	2.7	\$9,813	0.0%	13.9%
	Fetal distress and abnormal forces of labor	327	2.8%	2.8	\$8,628	0.0%	50.5%
	Polyhydramnios and other problems of amniotic cavity	1,058	9.0%	3.3	\$8,898	0.0%	58.4%
	Umbilical cord complication	536	4.5%	2.2	\$7,611	0.0%	35.1%
	OB-related trauma to perineum and vulva	1,260	10.7%	2.2	\$5,436	0.0%	60.9%
	Forceps delivery	1	0.0%	3.0	\$5,365	0.0%	100.0%
	Other complications of birth; puerperium affecting management of mother	2,135	18.1%	2.5	\$8,928	0.0%	38.2%
	Normal pregnancy and/or delivery	528	4.5%	2.2	\$8,771	0.0%	21.4%
	Total	11,806	100.0%	2.8	\$8,892	0.0%	37.2%
Diseases of the	Skin and subcutaneous tissue infections	1,808	87.6%	4.5	\$18,237	0.2%	73.2%
skin and	Other inflammatory condition of skin	41	2.0%	3.4	\$14,630	0.0%	82.9%
subcutaneous	Chronic ulcer of skin	172	8.3%	12.7	\$53,812	2.3%	53.5%
tissue	Other skin disorders	44	2.1%	3.4	\$19,761	0.0%	65.9%
	Total	2,065	100.0%	5.1	\$21,161	0.4%	71.6%
Diseases of the	Infective arthritis and osteomyelitis (except that caused by tuberculosis or STD)	404	4.7%	10.1	\$49,608	1.0%	59.2%
musculo-	Rheumatoid arthritis and related disease	42	0.5%	3.6	\$38,845	0.0%	38.1%
skeletal system and connective	Osteoarthritis	4,426	52.0%	2.0	\$37,632	0.0%	0.4%
tissue	Other non-traumatic joint disorders	108	1.3%	4.7	\$46,843	0.0%	41.7%
	Spondylosis; intervertebral disc disorders; other back problems	2,159	25.4%	3.0	\$58,740	0.2%	13.7%
	Osteoporosis	0	0.0%	N/A	N/A	N/A	N/A
	Pathological fracture	204	2.4%	6.9	\$43,180	1.5%	65.7%
	Acquired foot deformities	37	0.4%	3.6	\$51,033	0.0%	2.7%
	Other acquired deformities	348	4.1%	5.2	\$115,956	0.0%	1.1%
	Systemic lupus erythematosus and connective tissue disorders	89	1.0%	5.7	\$36,606	2.2%	70.8%
	Other connective tissue disease	462	5.4%	5.8	\$32,912	0.9%	58.4%
	Other bone disease and musculoskeletal deformities	229	2.7%	3.1	\$89,368	0.0%	9.6%
	Total	8,508	100.0%	3.2	\$48,200	0.2%	13.0%
Congenital	Cardiac and circulatory congenital anomalies	208	37.4%	20.2	\$377,900	4.3%	9.1%
anomalies	Digestive congenital anomalies	87	15.6%	12.0	\$133,264	0.0%	24.1%
	Genitourinary congenital anomalies	39	7.0%	3.8	\$72,708	2.6%	7.7%
	Nervous system congenital anomalies	48	8.6%	5.6	\$66,713	0.0%	10.4%
	Other congenital anomalies	174	31.3%	7.5	\$124,172	0.6%	5.2%
	Total	556	100.0%	12.5	211,944	2.0%	10.3%
Certain	Liveborn	11,152	95.6%	4.1	\$10,707	0.3%	0.0%
conditions	Short gestation; low birth weight; and fetal growth retardation	45	0.4%	27.4	\$170,065	11.1%	8.9%
originating in the perinatal period	Intrauterine hypoxia and birth asphyxia	9	0.1%	10.7	\$148,287	22.2%	0.0%
,	Respiratory distress syndrome	34	0.3%	35.5	\$356,231	2.9%	5.9%
	Hemolytic jaundice and perinatal jaundice	156	1.3%	1.4	\$6,217	0.0%	33.3%
	Birth trauma	3	0.0%	1.3	\$8,609	0.0%	33.3%
	Other perinatal conditions	265	2.3%	11.7	\$133,462	1.5%	38.1%
	Total	11,664	100.0%	4.5	\$15,163	0.4%	1.4%
Injury and	Joint disorders and dislocations; trauma-related	69	0.8%	8.4	\$62,589	2.9%	42.0%
poisoning	Fracture of neck of femur (hip)	941	10.6%	6.5	\$46,935	1.5%	67.3%
	Spinal cord injury	38	0.4%	10.5	\$58,502	0.0%	68.4%
	Skull and face fractures	142	1.6%	6.3	\$51,755	1.4%	83.8%
	Fracture of upper limb	398	4.5%	3.6	\$31,061	0.3%	75.6%
	Fracture of lower limb	726	8.2%	5.6	\$44,416	0.4%	67.1%
	Other fractures	910	10.3%	6.8	\$35,604	1.2%	80.5%
	Sprains and strains	41	0.5%	4.6	\$23,702	0.0%	75.6%

APPENDIX A

Clinical Classi	fications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Length of Stay	Mean Total Charges	Percent Expired	Percent Emergency Priority
	Intracranial injury	772	8.7%	10.2	\$51,408	5.2%	83.7%
	Crushing injury or internal injury	383	4.3%	6.4	\$39,775	3.1%	90.9%
	Open wounds of head; neck; and trunk	112	1.3%	5.8	\$37,755	1.8%	87.5%
	Open wounds of extremities	102	1.2%	4.5	\$26,321	0.0%	84.3%
	Complication of device; implant or graft	1,725	19.5%	6.2	\$47,418	2.2%	49.0%
	Complications of surgical procedures or medical care	1,632	18.4%	6.3	\$35,768	0.9%	58.3%
	Superficial injury; contusion	104	1.2%	3.8	\$17,028	0.0%	86.5%
	Burns	13	0.1%	4.8	\$20,084	0.0%	84.6%
	Poisoning by psychotropic agents	97	1.1%	4.6	\$21,791	2.1%	84.5%
	Poisoning by other medications and drugs	318	3.6%	3.8	\$22,640	4.1%	76.7%
	Poisoning by nonmedicinal substances	61	0.7%	7.0	\$36,914	1.6%	75.4%
	Other injuries and conditions due to external causes	284	3.2%	6.2	\$41,241	4.6%	77.1%
	Total	8,868	100.0%	6.4	\$40,973	1.9%	68.0%
Other conditions	Syncope	337	14.1%	2.6	\$14,816	0.3%	88.7%
Other conditions	Fever of unknown origin	75	3.1%	2.8	\$12,271	0.0%	77.3%
	Lymphadenitis	53	2.2%	2.6	\$21,231	0.0%	64.2%
	Gangrene	112	4.7%	9.4	\$61,072	4.5%	40.2%
	Shock	147	6.2%	10.8	\$73,602	21.1%	86.4%
	Nausea and vomiting	91	3.8%	3.5	\$13,366	0.0%	78.0%
	Abdominal pain	197	8.3%	2.9	\$12,131	1.0%	83.8%
	Malaise and fatigue	102	4.3%	8.1	\$25,949	0.0%	43.1%
	Allergic reactions	67	2.8%	2.5	\$12,429	0.0%	80.6%
	Rehabilitation care; fitting of prostheses; and adjustment of	18	0.8%	6.7	\$42,929	0.0%	11.1%
	Administrative/social admission	0	0.0%	N/A	N/A	N/A	N/A
	Medical examination/evaluation	0	0.0%	N/A	N/A	N/A	N/A
	Other aftercare	1,142	47.9%	9.0	\$19,261	25.4%	1.1%
	Other screening for suspected conditions (not mental disorders or infectious disease)	43	1.8%	3.0	\$16,751	0.0%	51.2%
	Total	2,384	100.0%	6.8	\$23,185	13.8%	39.2%
Total All CCS Dia	gnostic Codes	111,829	100.0%	5.0	\$30,955	1.9%	53.5%

Note: Total All CSS Diagnostic Codes includes three unknown Diagnoses.

APPENDIX B

Clinical classification system for Ecodes:

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

B1. Number and Percent of Discharges, Mean Length of Stay, Mean Charges, Percent Expired, and Percent with an Emergency Priority at Admission by Ecode Delaware Hospitals, 2016

Clinical Classifications Software Categories for Ecodes	Number of Discharges	Percent of Discharges	Mean LOS	Mean Total Charges	Percent Expired	Percent Emergency Admission
E Codes: Cut/pierce	41	0.6%	2.9	\$13,356	0.0	100.0
E Codes: Fall	1,144	16.4%	4.1	\$22,056	0.4	88.5
E Codes: Fire/burn	5	0.1%	2.4	\$13,826	0.0	80.0
E Codes: Firearms	72	1.0%	4.9	\$29,372	6.9	90.3
E Codes: Machinery	14	0.2%	3.3	\$18,223	0.0	78.6
E Codes: Motor vehicle traffic (MVT)	393	5.6%	3.6	\$21,605	0.3	90.1
E Codes: Pedal cyclist; not MVT	25	0.4%	3.0	\$16,393	0.0	80.0
E Codes: Pedestrian; not MVT	11	0.2%	4.5	\$28,686	0.0	100.0
E Codes: Transport; not MVT	71	1.0%	2.9	\$21,409	N/A	90.1
E Codes: Natural/environment	98	1.4%	3.6	\$15,039	2.0	84.7
E Codes: Overexertion	8	0.1%	3.5	\$22,547	0.0	100.0
E Codes: Struck by; against	140	2.0%	3.0	\$18,330	0.0	92.1
E Codes: Adverse effects of medical care	376	5.4%	4.5	\$29,766	0.3	50.0
E Codes: Adverse effects of medical drugs	2,186	31.3%	4.5	\$29,424	0.2	55.3
E Codes: Other specified and classifiable	15	0.2%	3.1	\$12,648	0.0	93.3
E Codes: Other specified; NEC	11	0.2%	6.7	\$14,419	0.0	100.0
E Codes: Unspecified	1,225	17.5%	3.6	\$17,590	0.7	90.4
E Codes: Place of occurrence	1,158	16.6%	3.7	\$19,602	1.0	90.0

Total 6,993 100.0% 4.0 \$23,349 0.5 76.8

C1. Number of All-listed Procedures Performed during the Inpatient Stay by Procedure and Sex of Patient Delaware Hospitals, 2016

Single level CCS	Procedure Categories and Chapter Headings	Male	Female	Tota
Operations an	Incision and excision of CNS	202	205	4
Operations on	Insertion; replacement; or removal of extracranial ventricular shunt	71	66	1
the nervous	Laminectomy; excision intervertebral disc	721	822	1,5
system	Diagnostic spinal tap	482	418	
	Insertion of catheter or spinal stimulator and injection into spinal canal	54	73	
	Decompression peripheral nerve	473	446	(
	Other diagnostic nervous system procedures	100	77	
	Other non-OR or closed therapeutic nervous system procedures	126	151	
	Other OR therapeutic nervous system procedures	549	513	1,
	Total	2,778	2,771	5,
Operations on	Thyroidectomy; partial or complete	18	51	
the endocrine	Diagnostic endocrine procedures	16	20	
system	Other therapeutic endocrine procedures	53	55	
•	Total	87	126	
perations on	Comeal transplant	0,	0	
the eye	Glaucoma procedures	0	0	
uic cye	Lens and cataract procedures	0	2	
	Repair of retinal tear; detachment	0	3	
	Destruction of lesion of retina and choroid	15	6	
		10	17	
	Diagnostic procedures on eye Other the procedures on eyelids: conjunctive: corporations are procedured in the procedures on eyelids: conjunctive: corporation and the procedures of the procedures of the procedures on eyelids: conjunctive: corporation and the procedures of the procedure of the	33	29	
	Other therapeutic procedures on eyelids; conjunctiva; cornea Other intraocular therapeutic procedures		29 7	
		3	/	
	Other extraocular muscle and orbit therapeutic procedures	5	0.5	
	Total	66	65	
perations on	Tympanoplasty	1	2	
the ear	Myringotomy	47	46	
	Mastoidectomy	3	1	
	Diagnostic procedures on ear	40	32	
	Other therapeutic ear procedures	128	93	
	Total	219	174	
perations on	Control of epistaxis	35	31	
the nose,	Plastic procedures on nose	1	3	
mouth, and	Dental procedures	88	90	
pharynx	Tonsillectomy and/or adenoidectomy	86	39	
	Diagnostic procedures on nose; mouth and pharynx	146	141	
	Other non-OR therapeutic procedures on nose; mouth and pharynx	147	100	
	Other OR therapeutic procedures on nose; mouth and pharynx	141	107	
	Total	644	511	1,
norotions on	Tracheostomy; temporary and permanent	247	147	
perations on	Tracheoscopy and laryngoscopy with biopsy	28	16	
ne respiratory system	Lobectomy or pneumonectomy	92	92	
əyətem	Diagnostic bronchoscopy and biopsy of bronchus	664	600	1,
	Other diagnostic procedures on lung and bronchus	7	10	
	Incision of pleura; thoracentesis; chest drainage	920	780	1,
	Other diagnostic procedures of respiratory tract and mediastinum	76	65	
	Other non-OR therapeutic procedures on respiratory system	276	192	
	Other OR Rx procedures on respiratory system and mediastinum	366	1,023	1,
	Total	2,676	2,925	5,
	Heart valve procedures	262	206	- ,
Operations on	Coronary artery bypass graft (CABG)	999	299	1,
the	Percutaneous transluminal coronary angioplasty (PTCA)			
ardiovascular	Coronary thrombolysis	1,141	564	1,
system		4 200	3 749	
	Diagnostic cardiac catheterization; coronary arteriography	4,309	2,748	7,
	Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/defibrillator	881	704	1,
	Other OR heart procedures	371	280	
	Extracorporeal circulation auxiliary to open heart procedures	554	263	

Single level CCS	Procedure Categories and Chapter Headings	Male	Female	Total
	Endarterectomy; vessel of head and neck	390	214	604
	Aortic resection; replacement or anastomosis	14	9	23
	Varicose vein stripping; lower limb	0	0	(
	Other vascular catheterization; not heart	3,477	3,332	6,809
	Peripheral vascular bypass	185	111	29
	Other vascular bypass and shunt; not heart	19	15	34
	Creation; revision and removal of arteriovenous fistula or vessel-to-vessel cannula for dialysis	0	0	
	Hemodialysis	1,077	765	1,84
	Other OR procedures on vessels of head and neck	266	226	49
	Embolectomy and endarterectomy of lower limbs	303	206	509
	Other OR procedures on vessels other than head and neck	1,919	1,159	3,07
	Other diagnostic cardiovascular procedures	-		
		517	417	93
	Other non-OR therapeutic cardiovascular procedures	513	405	918
	Total	17,202	11,926	29,12
Operations on	Bone marrow transplant	28	24	5
the hemic and	Bone marrow biopsy	131	92	223
lymphatic	Procedures on spleen	47	34	8
system	Other therapeutic procedures; hemic and lymphatic system	517	534	1,05
	Total	723	684	1,40
Oneretions on	Injection or ligation of esophageal varices	0	0	
Operations on	Esophageal dilatation	44	46	9
the digestive	Upper gastrointestinal endoscopy; biopsy	1,780	1,933	3,71
system	Gastrostomy; temporary and permanent	300	220	52
	Colostomy; temporary and permanent	109	131	24
	lleostomy and other enterostomy	91	93	18
	Gastrectomy; partial and total	238	811	1,04
	Small bowel resection	21	22	4:
	Colonoscopy and biopsy	308	398	70
	Proctoscopy and anorectal biopsy	69	86	15
	Colorectal resection	311	348	65
	Local excision of large intestine lesion (not endoscopic)	178	188	36
	Appendectomy	257	253	51
	Hemorrhoid procedures	4	2	31
	Endoscopic retrograde cannulation of pancreas (ERCP)	56	91	14
	Biopsy of liver	97	94	
				19
	Cholecystectomy and common duct exploration	393	533	92
	Inguinal and femoral hernia repair	101	26	12
	Other hernia repair	152	243	39
	Laparoscopy (Gl only)	66	118	18
	Abdominal paracentesis	477	370	84
	Exploratory laparotomy	13	13	2
	Excision; lysis peritoneal adhesions	426	704	1,13
	Peritoneal dialysis	63	62	12
	Other bowel diagnostic procedures	444	425	86
	Other non-OR upper GI therapeutic procedures	495	445	94
	Other OR upper GI therapeutic procedures	332	630	96
	Other non-OR lower GI therapeutic procedures	339	303	64
	Other OR lower GI therapeutic procedures	626	875	1,50
	Other gastrointestinal diagnostic procedures	415	399	81
	Other non-OR gastrointestinal therapeutic procedures	538	612	1,15
	Other OR gastrointestinal therapeutic procedures	600	741	1,34
	Total	9,343	11,215	20,55
	Endoscopy and endoscopic biopsy of the urinary tract	135	146	28
Operations on	Transurethral excision; drainage; or removal urinary obstruction	242	99	34
the urinary	Ureteral catheterization			
system		54	81	13!
-	Nephrotomy and nephrostomy	12	12	24

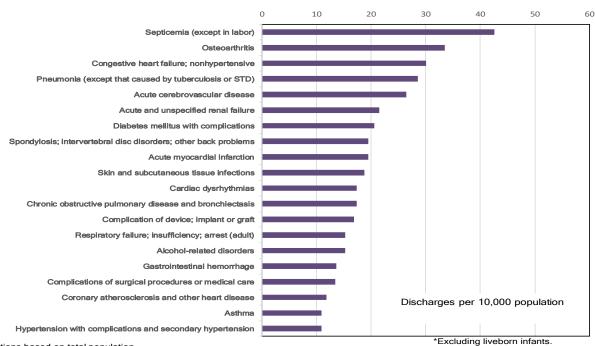
Single level CCS	Procedure Categories and Chapter Headings	Male	Female	Total
	Nephrectomy; partial or complete	93	76	169
	Kidney transplant	19	15	34
	Genitourinary incontinence procedures	2	8	10
	Extracorporeal lithotripsy; urinary	18	24	42
	Indwelling catheter	226	114	340
	Procedures on the urethra	64	55	119
	Other diagnostic procedures of urinary tract	70	50	120
	Other non-OR therapeutic procedures of urinary tract	280	223	503
	Other OR therapeutic procedures of urinary tract	553	605	1,158
	Total	1,768	1,508	3,276
	Transurethral resection of prostate (TURP)	36	0	36
Operations on	Open prostatectomy	104	0	104
the male	Circumcision	4,425	0	4,425
genital organs	Diagnostic procedures; male genital	31	0	31
	Other non-OR therapeutic procedures; male genital	38	0	38
	Other OR therapeutic procedures; male genital	87		
	· · · · · · · · · · · · · · · · · · ·		0	87
	Total Control of the Lord	4,721	0	4,721
Operations on	Oophorectomy; unilateral and bilateral	0	480	480
the female	Other operations on ovary	0	101	101
genital organs	Ligation or occlusion of fallopian tubes	0	400	400
3	Other operations on fallopian tubes	0	1,002	1,002
	Hysterectomy; abdominal and vaginal	0	606	606
	Other excision of cervix and uterus	0	582	582
	Abortion (termination of pregnancy)	0	10	10
	Dilatation and curettage (D&C); aspiration after delivery or abortion	0	121	121
	Diagnostic dilatation and curettage (D&C)	0	26	26
	Repair of cystocele and rectocele; obliteration of vaginal vault	0	10	10
	Other diagnostic procedures; female organs	0	90	90
	Other non-OR therapeutic procedures; female organs	1	3,222	3,223
	Other OR therapeutic procedures; female organs	0	423	423
	Total	1	7,073	7,074
	Removal of ectopic pregnancy	0	14	14
Obstetrical	Episiotomy	0	247	247
procedures	Cesarean section	1	3,499	3,500
•	Forceps; vacuum; and breech delivery	0	409	409
	Artificial rupture of membranes to assist delivery	0	2,878	2,878
	Other procedures to assist delivery	1	7,131	7,132
	Diagnostic amniocentesis	0	1	1,1.02
	Fetal monitoring	0	454	454
	Repair of current obstetric laceration	0	0	101
	Other therapeutic obstetrical procedures	0	101	101
	Total	2	14,734	14,736
	Partial excision bone	646	516	1,162
	Bunionectomy or repair of toe deformities	040	0 0	_
Operations on the		83	-	121
musculoskeletal system	Treatment; factore or dislocation		48	131
2,0.0	Treatment; fracture or dislocation of radius and ulna	133	145	278
	Treatment; fracture or dislocation of hip and femur	448	643	1,091
	Treatment; fracture or dislocation of lower extremity (other than hip or femur)	464	506	970
	Other fracture and dislocation procedure	338	381	719
	Arthroscopy	3	0	3
	Division of joint capsule; ligament or cartilage	31	36	67
	Excision of semilunar cartilage of knee	0	0	C
	Arthroplasty knee	1,218	1,925	3,143
	Hip replacement; total and partial	833	1,073	1,906

Single level CCS	S Procedure Categories and Chapter Headings	Male	Female	Total
	Arthroplasty other than hip or knee	155	212	367
	Arthrocentesis	100	65	165
	Injections and aspirations of muscles; tendons; bursa; joints and soft tissue	154	213	367
	Amputation of lower extremity	556	259	815
	Spinal fusion	1,722	1,949	3,671
	Other diagnostic procedures on musculoskeletal system	442	344	786
	Other therapeutic procedures on muscles and tendons	799	2,498	3,297
	Other OR therapeutic procedures on bone	513	439	952
	Other OR therapeutic procedures on joints	701	737	1,438
	Other non-OR therapeutic procedures on musculoskeletal system	138	120	258
	Other OR therapeutic procedures on musculoskeletal system	140	86	226
	Total	9,617	12,195	21,812
	Breast biopsy and other diagnostic procedures on breast	0	20	20
Operations on	Lumpectomy; quadrantectomy of breast	0	13	13
the	Mastectomy	0	35	35
integumentary	Incision and drainage; skin and subcutaneous tissue	408	364	772
system	Debridement of wound; infection or burn	0	0	0
	Excision of skin lesion	144	124	268
	Suture of skin and subcutaneous tissue	433	1,191	1,624
	Skin graft	85	41	126
	Other diagnostic procedures on skin and subcutaneous tissue	181	172	353
	Other non-OR therapeutic procedures on skin and breast	517	552	1,069
	Other OR therapeutic procedures on skin and breast	726	672	1,398
	Total	2,494	3,184	5,678
	Other organ transplantation	1	5	6
Miscellaneous	Computerized axial tomography (CT) scan head	4	5	9
diagnostic and	CT scan chest	3	0	3
therapeutic	CT scan abdomen	5	9	14
procedures	Other CT scan	16	20	36
	Myelogram	18	30	48
	Mammography	0	0	0
	Routine chest X-ray	0	0	0
	Intraoperative cholangiogram	8	6	14
	Upper gastrointestinal X-ray	16	16	32
	Lower gastrointestinal X-ray	1	0	1
	Intravenous pyelogram	109	118	227
	Cerebral arteriogram	286	271	557
	Contrast aortogram	234	147	381
	Contrast arteriogram of femoral and lower extremity arteries	150	131	281
	Arterio- or venogram (not heart and head)	446	405	851
	Diagnostic ultrasound of head and neck	71	89	160
	Diagnostic ultrasound of heart (echocardiogram)	540		900
	Diagnostic ultrasound of gastrointestinal tract	9	300	
	Diagnostic ultrasound of urinary tract	1	1	16 5
	Diagnostic ultrasound of abdomen or retroperitoneum		- 4	
	Other diagnostic ultrasound	101	5 240	10
	Magnetic resonance imaging	191	240	431
		118	118	236
	Electroencephalogram (EEG)	122	144	266
	Nonoperative urinary system measurements	1	0	1
	Cardiac stress tests	8	6	14
	Electrocardiogram	161	132	293

APPENDIX C

le level CCS Procedure Categories and Chapter Headings	Male	Female	Total
Electrographic cardiac monitoring	4	5	,
Swan-Ganz catheterization for monitoring	71	68	139
Arterial blood gases	0	0	(
Radioisotope bone scan	2	0	2
Radioisotope pulmonary scan	0	0	C
Radioisotope scan and function studies	0	0	C
Other radioisotope scan	2	4	6
Therapeutic radiology for cancer treatment	35	34	69
Diagnostic physical therapy	2	1	3
Physical therapy exercises; manipulation; and other procedures	5	8	13
Traction; splints; and other wound care	119	109	228
Other physical therapy and rehabilitation	1	6	7
Respiratory intubation and mechanical ventilation	5,195	4,912	10,107
Other respiratory therapy	104	84	188
Psychological and psychiatric evaluation and therapy	37	27	64
Alcohol and drug rehabilitation/detoxification	5	3	8
Ophthalmologic and otologic diagnosis and treatment	21	26	47
Nasogastric tube	174	182	356
Blood transfusion	1,243	1,200	2,443
Enteral and parenteral nutrition	321	361	682
Cancer chemotherapy	255	206	461
Conversion of cardiac rhythm	500	383	883
Other diagnostic radiology and related techniques	340	421	761
Other diagnostic procedures (interview; evaluation; consultation)	337	273	610
Prophylactic vaccinations and inoculations	378	640	1,018
Nonoperative removal of foreign body	129	97	226
Other therapeutic procedures	1,060	3,642	4,702
Total	12,864	14.960	27,824

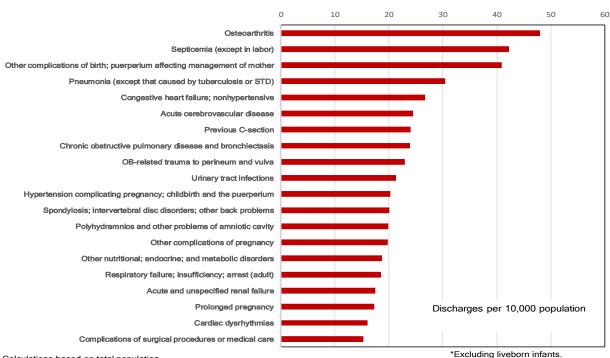
D1. Annual Hospitalization Rates for the 20 Most Frequent Diagnoses* of Male Residents, Delaware, 2016



Note: Calculations based on total population.

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

D2. Annual Hospitalization Rates for the 20 Most Frequent Diagnoses* of Female Residents, Delaware, 2016



Note: Calculations based on total population.

E1. Number and Percentage of Conditions with the 10 Highest Total Charges, Delaware Hospitals, 201

Rank	CCS Principal Diagnoses	Total Billed	% of Total	Number of
Malik	CCS Philicipal Diagnoses	Charges	Charges	Discharges
1	Septicemia (except in labor)	\$224,829,170	6.5%	4,387
2	Osteoarthritis	\$166,558,545	4.8%	4,426
3	Respiratory failure; insufficiency; arrest (adult)	\$158,387,232	4.6%	1,876
4	Spondylosis; intervertebral disc disorders; other back problems	\$126,820,486	3.7%	2,159
5	Liveborn	\$119,401,184	3.4%	11,152
6	Acute myocardial infarction	\$100,851,067	2.9%	1,796
7	Acute cerebrovascular disease	\$96,424,968	2.8%	2,766
8	Pneumonia (except that caused by tuberculosis or STD)	\$83,399,595	2.4%	3,152
9	Complication of device; implant or graft	\$81,796,632	2.4%	1,725
10	Congestive heart failure; nonhypertensive	\$81,079,965	2.3%	2,965
Total for 1	0 most expensive conditions	\$1,239,548,845	35.8%	36,404
Total aggr	egate charges for all discharges	\$3,461,666,654	100.0%	111,829

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

E2. Number and Percentage of Discharges with Highest Mean Charges, Delaware Hospitals, 2016

CCS Principal Diagnoses	Number Discharges			% of Total Discharges			Mean Charges		
CC3 Fillicipal Diagnoses	2006	2011	2016	2006	2011	2016	2006	2011	2016
Total All Discharges	118,388	109,965	111,829	100.0%	100.0%	100.0%	\$18,020	\$25,359	\$30,955
Cardiac and circulatory congenital anomalies	312	217	208	0.3%	0.2%	0.2%	\$101,848	\$247,424	\$377,900
Respiratory distress syndrome	52	37	34	0.0%	0.0%	0.0%	\$69,124	\$169,733	\$356,231
Leukemias	107	106	122	0.1%	0.1%	0.1%	\$88,154	\$225,979	\$176,192
Short gestation; low birth weight; and fetal	101	65	45	0.1%	0.1%	0.0%	\$37,132	\$84,563	\$170,065
Intrauterine hypoxia and birth asphyxia	5	4	9	0.0%	0.0%	0.0%	\$79,849	\$33,288	\$148,287
Other perinatal conditions	384	361	265	0.3%	0.3%	0.2%	\$60,692	\$83,106	\$133,462
Digestive congenital anomalies	132	99	87	0.1%	0.1%	0.1%	\$36,190	\$67,888	\$133,264
Other congenital anomalies	295	251	174	0.2%	0.2%	0.2%	\$41,175	\$92,336	\$124,172
Other acquired deformities	289	271	348	0.2%	0.2%	0.3%	\$69,273	\$90,601	\$115,956
Heart valve disorders	326	324	381	0.3%	0.3%	0.3%	\$82,900	\$88,782	\$113,148

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

E3. Number, Percentage and Mean Charges for the Highest Volume of Hospital Discharges, Delaware, 2016

CCS Bringing Diagnoses		Number Discharges			% of Total Discharges			Mean Charges		
CCS Principal Diagnoses	2006	2011	2016	2006	2011	2016	2006	2011	2016	
Total All Discharges	118,388	109,965	111,829	100.0%	100.0%	100.0%	\$18,020	\$25,359	\$30,955	
Liveborn	11,861	11,388	11,152	10.0%	10.4%	10.0%	\$5,021	\$7,428	\$10,707	
Osteoarthritis	2,573	3,141	4,426	2.2%	2.9%	4.0%	\$27,141	\$33,254	\$37,632	
Septicemia (except in labor)	1,723	2,716	4,387	1.5%	2.5%	3.9%	\$36,346	\$45,099	\$51,249	
Pneumonia (except that caused by tuberculosis or STD)	3,142	3,475	3,152	2.7%	3.2%	2.8%	\$17,947	\$24,335	\$26,459	
Congestive heart failure; nonhypertensive	3,009	2,798	2,965	2.5%	2.5%	2.7%	\$23,841	\$25,243	\$27,346	
Acute cerebrovascular disease	1,614	1,914	2,766	1.4%	1.7%	2.5%	\$21,078	\$35,264	\$34,861	
Spondylosis; intervertebral disc disorders; other back	1,892	1,985	2,159	1.6%	1.8%	1.9%	\$25,615	\$39,815	\$58,740	
Other complications of birth; puerperium affecting	1,983	1,750	2,135	1.7%	1.6%	1.9%	\$6,792	\$11,486	\$8,928	
Chronic obstructive pulmonary disease and bronchiectasis	1,693	2,182	2,105	1.4%	2.0%	1.9%	\$14,572	\$18,286	\$19,762	
Acute and unspecified renal failure	1,276	1,714	1,992	1.1%	1.6%	1.8%	\$21,024	\$22,884	\$24,670	

APPENDIX F

2016 Delaware Hospitalizations

F1. Number and Percentage of Top 10 Most Frequent Diagnoses for Medicare, Delaware Hospitals, 2016

CCS Diagnosis	Number of	Percent of hospitalizations for this
CC3 Diagnosis	Discharges	condition billed to Medicare
Septicemia (except in labor)	2,949	6.3%
Osteoarthritis	2,556	5.5%
Congestive heart failure; nonhypertensive	2,386	5.1%
Acute cerebrovascular disease	1,909	4.1%
Pneumonia (except that caused by tuberculosis or STD)	1,884	4.0%
Chronic obstructive pulmonary disease and bronchiectasis	1,547	3.3%
Acute and unspecified renal failure	1,411	3.0%
Cardiac dysrhythmias	1,335	2.8%
Respiratory failure; insufficiency; arrest (adult)	1,136	2.4%
Urinary tract infections	1,123	2.4%

F2. Number and Percentage of Top 10 Most Frequent Diagnoses for Medicaid, Delaware Hospitals, 2016

CCS Diagnosis	Number of	Percent of hospitalizations for this
CC3 Diagnosis	Discharges	condition billed to Medicaid
Liveborn	5,092	19.7%
Other complications of birth; puerperium affecting management of mother	1,041	4.0%
Asthma	610	2.4%
Septicemia (except in labor)	605	2.3%
Acute bronchitis	595	2.3%
Previous C-section	590	2.3%
Diabetes mellitus with complications	547	2.1%
Pneumonia (except that caused by tuberculosis or STD)	535	2.1%
Alcohol-related disorders	514	2.0%
Other complications of pregnancy	496	1.9%

F3. Number and Percentage of Top 10 Most Frequent Diagnoses for Privately Insured, Delaware Hospitals, 2016

CCS Diagnosis	Number of	Percent of hospitalizations for this
CC3 Diagnosis	Discharges 0 5,540 1,556 f mother 990 833 810 698 667	condition billed to Private Insurers
Liveborn	5,540	16.0%
Osteoarthritis	1,556	4.5%
Other complications of birth; puerperium affecting management of mother	990	2.9%
Other nutritional; endocrine; and metabolic disorders	833	2.4%
OB-related trauma to perineum and vulva	810	2.3%
Spondylosis; intervertebral disc disorders; other back problems	698	2.0%
Septicemia (except in labor)	667	1.9%
Hypertension complicating pregnancy; childbirth and the puerperium	656	1.9%
Previous C-section	647	1.9%
Pneumonia (except that caused by tuberculosis or STD)	639	1.8%

F4. Number and Percentage of Top 10 Most Frequent Diagnoses for Uninsured, Delaware Hospitals, 2016

CCS Diagnosis	Number of	Percent of hospitalizations for this
CCS Diagnosis	Discharges	condition billed to Uninsured Patients
Liveborn	186	10.4%
Septicemia (except in labor)	76	4.2%
Alcohol-related disorders	67	3.7%
Acute cerebrovascular disease	59	3.3%
Skin and subcutaneous tissue infections	59	3.3%
Diabetes mellitus with complications	51	2.8%
Pancreatic disorders (not diabetes)	48	2.7%
Mood disorders	47	2.6%
Acute myocardial infarction	43	2.4%
Congestive heart failure; nonhypertensive	41	2.3%

APPENDIX G

G1. Conditions with the Highest Number of In-Hospital Deaths by Age Group¹, Delaware Hospitals, 2016

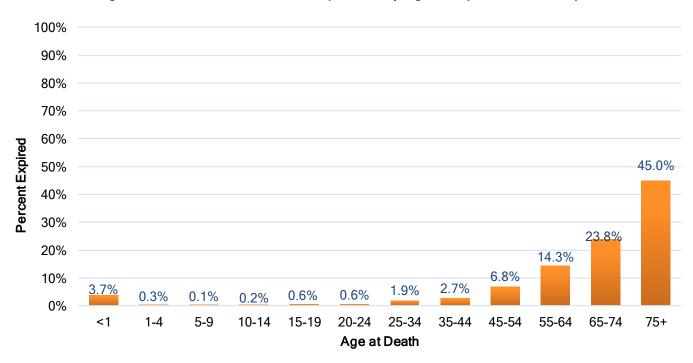
Diaments		TOTAL				
Diagnosis -		0-17	18-44	45-64	65+	TOTAL
Septicemia (except in labor)	2	1	10	101	309	423
Other aftercare	0	0	1	53	236	290
Respiratory failure; insufficiency; arrest (adult)	4	3	11	46	112	176
Acute cerebrovascular disease	0	1	6	26	88	121
Acute myocardial infarction	0	0	3	20	46	69
Pneumonia (except that caused by tuberculosis or STD)	0	1	3	8	53	65
Congestive heart failure; nonhypertensive	0	0	0	6	43	49
Acute and unspecified renal failure	0	0	1	8	38	47
Intracranial injury	0	4	10	9	17	40
Complication of device; implant or graft	0	0	0	10	28	38
Cardiac arrest and ventricular fibrillation	0	2	4	11	19	36
Shock	0	0	4	9	18	31
Gastrointestinal hemorrhage	0	0	0	5	25	30
Liveborn	30	0	0	0	0	30
Other injuries and conditions due to external causes	1	0	3	4	5	13
Poisoning by other medications and drugs	0	0	9	1	3	13
Coma; stupor; and brain damage	0	3	3	2	4	12
Crushing injury or internal injury	0	0	5	2	5	12
Substance-related disorders	0	0	12	0	0	12
Cardiac and circulatory congenital anomalies	8	0	0	1	0	9
Intestinal infection	0	1	0	0	7	8
Pancreatic disorders (not diabetes)	0	1	1	1	3	6
Short gestation; low birth weight; and fetal growth retardation	5	0	0	0	0	5
Other perinatal conditions	4	0	0	0	0	4
Conduction disorders	0	2	0	0	1	3
Intrauterine hypoxia and birth asphyxia	2	0	0	0	0	2
Other congenital anomalies	1	0	0	0	0	1
Respiratory distress syndrome	1	0	0	0	0	1
Diseases of mouth; excluding dental	0	0	0	0	1	1
Hyperplasia of prostate	0	0	0	0	1	1
Diseases of white blood cells	0	0	0	0	1	1
Cancer; other and unspecified primary	0	0	0	0	1	1
All Discharges to Death	60	21	114	444	1,449	2,088

Notes:

 $^{1. \ {\}sf Diagnoses} \ {\sf selected} \ {\sf by} \ {\sf taking} \ {\sf the} \ {\sf top} \ {\sf ten} \ {\sf diagnoses} \ {\sf for} \ {\sf each} \ {\sf age} \ {\sf group}.$

APPENDIX H

H1. Percentage of Patients who Died while Hospitalized by Age Group, Delaware Hospitals, 2016



Number of Discharges by ZIP Code and Delaware Hospital, 2016

ZIP CODE	A I DUPONT HOSPITAL	BAYHEALTH MEDICAL CENTER	BEEBE MEDICAL CENTER	CHRISTIANA CARE HEALTH SYSTEM	NANTICOKE MEMORIAL HOSPITAL	SAINT FRANCIS HOSPITAL	SELECT MEDICAL WILIMINGTON
19701	255	29	*	3,113	*	105	12
19702	370	17	*	4,278	*	152	10
19703	138	*	*	1,168	*	213	*
19706	16	*	*	253	*	*	*
19707	65	*	*	1,180	*	67	*
19708	*	*	*	*	*	*	*
19709	288	137	10	2,973	*	53	12
19710	*	*	*	15	*	*	*
19711	186	*	*	3,324	*	125	10
19712	*	*	*	*	*	*	*
19713	236	*	*	3,334	*	102	*
19714	*	*	*	31	*	*	*
19715	*	*	*	*	*	*	*
19716	*	*	*	*	*	*	*
19718	*	*	*	*	*	*	*
19720	500	25	12	5,876	*	494	22
19721	*	*	*	*	*	*	*
19730	*	*	*	55	*	*	*
19731	*	*	*	18	*	*	*
19732	*	*	*	23	*	*	*
19733	*	*	*	30	*	*	*
19734	66	155	*	910	*	12	*
19735	*	*	*	*	*	*	*
19736	*	*	*	12	*	*	*
19801	212	*	*	2,035	*	517	11
19802	313	*	*	2,720	*	509	12
19803	107	*	*	1,677	*	181	*
19804	147	*	*	1,778	*	189	*
19805	504	10	*	3,734	*	1,232	17
19806	35	*	*	959	*	298	*
19807	23	*	*	496	*	28	*
19808	242	*	*	3,504	*	197	*
19809	94	*	*	1,209	*	193	*

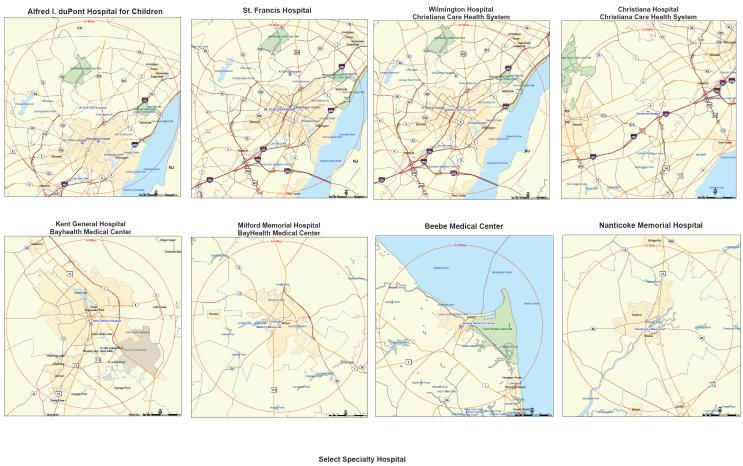
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ZIP CODE	A I DUPONT HOSPITAL	BAYHEALTH MEDICAL CENTER	BEEBE MEDICAL CENTER	CHRISTIANA CARE HEALTH SYSTEM	NANTICOKE MEMORIAL HOSPITAL	SAINT FRANCIS HOSPITAL	SELECT MEDICAL WILIMINGTON
19810	122	*	*	1,947	*	234	*
19850	*	*	*	33	*	*	*
19899	*	*	*	25	*	*	*
19901	178	3,731	25	414	19	10	10
19902	*	*	*	*	*	*	*
19903	*	49	*	*	*	*	*
19904	140	3,375	29	393	22	16	*
19906	*	*	*	*	*	*	*
19930	*	10	146	21	*	*	*
19931	*	*	*	*	*	*	*
19933	41	147	72	70	656	*	*
19934	55	1,173	10	160	13	*	*
19936	*	67	*	15	*	*	*
19938	56	554	*	323	*	*	*
19939	16	25	392	50	54	*	*
19940	16	10	12	23	180	*	*
19941	23	189	79	34	24	*	*
19943	46	1,278	28	132	10	*	*
19944	*	*	22	*	*	*	*
19945	26	16	345	35	46	*	*
19946	18	429	15	42	*	*	*
19947	84	302	1,020	155	653	*	*
19950	30	370	61	61	235	*	*
19951	*	10	147	15	*	*	*
19952	37	921	64	103	25	*	*
19953	24	399	*	73	*	*	*
19954	16	151	*	13	*	*	*
19955	*	25	*	*	*	*	*
19956	54	79	104	123	1,063	*	*
19958	82	131	2,183		16		*
19960	35	470	172	80	18	*	*
19961	*	*	*	*	*	*	*
19962	72	1,004	11	117	*	*	*
19963	92	1,795	188	174	57	*	*
19964	*	128	*	10	*	*	*
19966	59	202	2,657	222	268	*	13
19967	*	*	59	*	*	*	
.5507							

ZIP CODE	A I DUPONT HOSPITAL	BAYHEALTH MEDICAL CENTER	BEEBE MEDICAL CENTER	CHRISTIANA CARE HEALTH SYSTEM	NANTICOKE MEMORIAL HOSPITAL	SAINT FRANCIS HOSPITAL	SELECT MEDICAL WILIMINGTON
19968	20	191	885	102	27	*	*
19969	*	*	17	*	*	*	*
19970	*	19	543	42	18	*	*
19971	18	55	1,111	131	20	*	*
19973	97	177	174	258	2,105	*	12
19975	30	24	240	34	58	*	*
19977	95	1,460	10	844	13	20	*
19979	*	77	*	*	*	*	*
19980	*	22	*	*	*	*	*
MD	415	407	263	3,251	472	44	53
NJ	847	26	23	1,569	*	40	18
Other State	145	194	152	397	57	15	*
PA	2,801	67	152	2,458	*	116	*
Unknown	20	*	10	*	*	*	*
Total	9,653	20,217	11,528	58,924	6,191	5,258	349

*Zip codes with less than 10 cases Source: Delaware Department of Health and Social Services, Division of Public Health, Delaware Health Statistics Center

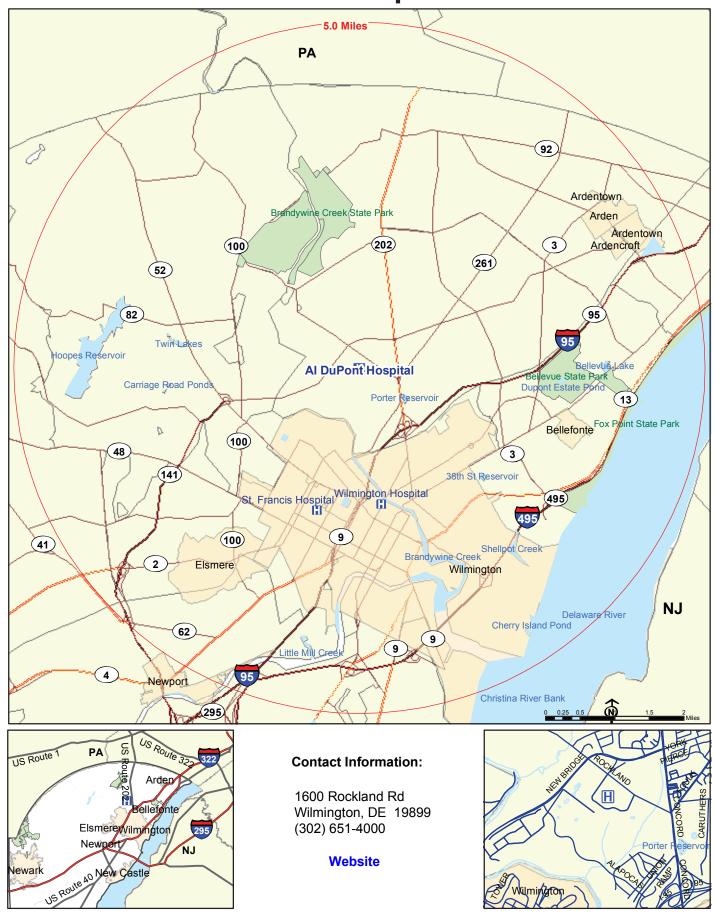
Selected Accident Events, 2016					
	Number				
Adverse effect of antineoplastic and immunosup drugs, init	276				
Adverse effect of glucocort/synth analog, init					
Fall same lev from slip/trip w/o strike against object, init	247				
Unspecified fall, initial encounter	167				
Unsp street and highway as place	161				
Nosocomial condition	150				
Adverse effect of anticoagulants, initial encounter	126				
Activity, walking, marching and hiking	121				
Blood alcohol level of 240 mg/100 ml or more	112				
Fall on same level, unspecified, initial encounter	104				
Implnt of artif int dev cause abn react/compl, w/o misadvnt	101				
Oth surgical procedures cause abn react/compl, w/o misadvnt	101				
Adverse effect of other systemic antibiotics, init encntr	98				
Adverse effect of other opioids, initial encounter	96				
Advrs eff of crbnc-anhydr inhibtr, benzo/oth diuretc, init	91				
Fall (on) (from) unspecified stairs and steps, init encntr	87				
Other fall on same level, initial encounter	86				
Adverse effect of unspecified narcotics, initial encounter	82				
Fall (on) (from) other stairs and steps, initial encounter	61				
Car driver injured in collision w car in traf, init	59				
Civilian activity done for income or pay	51				
Adverse effect of antineopl and immunosup drugs, sequela	50				
Fall on and from ladder, initial encounter	46				
Adverse effect of nonsteroidal anti-inflammatory drugs, init	46				
Adverse effect of drug/meds/biol subst, init	45				
Blood alcohol level of 120-199 mg/100 ml	45				
Adverse effect of angiotens-convert-enzyme inhibitors, init	43				
Oth place in unsp non-institut (private) residence as place	43				
Fall from bed, initial encounter	40				
Adverse effect of beta-adrenoreceptor antagonists, init	40				
Adverse effect of penicillins, initial encounter	40				
Assault by unspecified firearm discharge, initial encounter	37				
Adverse effect of diagnostic agents, initial encounter	37				
Adverse effect of insulin and oral hypoglycemic drugs, init	37				
Adverse effect of loop diuretics, initial encounter	35				
Adverse effect of sulfonamides, initial encounter	35				
Bathrm of unsp non-institut resdnce sngl-fmly house as place	35				
Adverse effect of antiasthmatics, initial encounter	34				
Adverse effect of antiepileptic and sed-hypntc drugs, init	33				
Adverse effect of benzodiazepines, initial encounter	33				
Adverse effect of unsp systemic antibiotic, init encntr	33				
Adverse effect of unsp drug/meds/biol subst, init	32				
Unsp place in nursing home as place	32				
Driver of other type car injured in collision with fixed or	31				
Oth medical procedures cause abn react/compl, w/o misadvnt	30				

HOSPITAL LOCATION MAPS

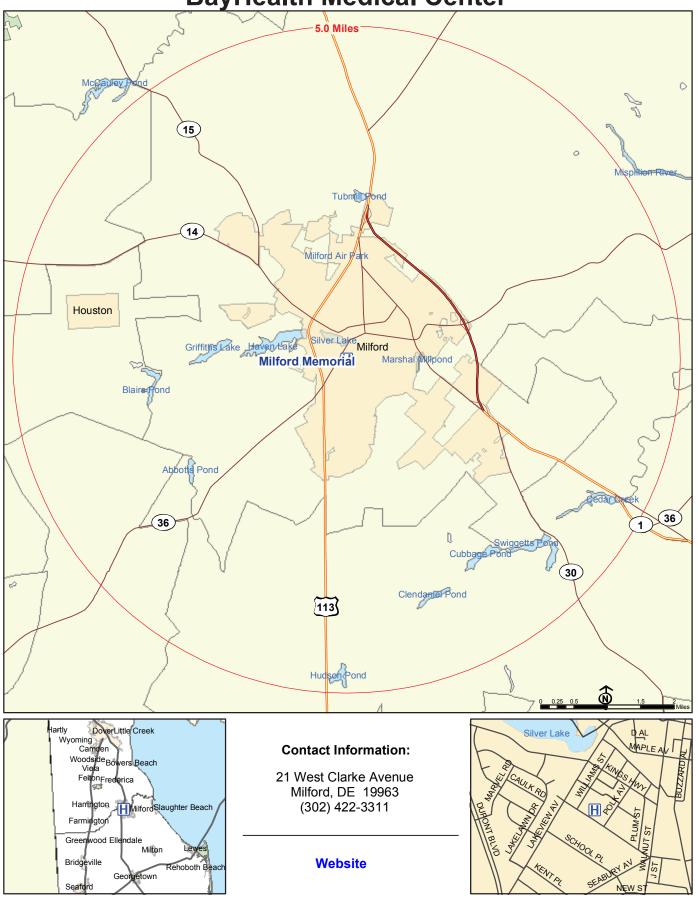




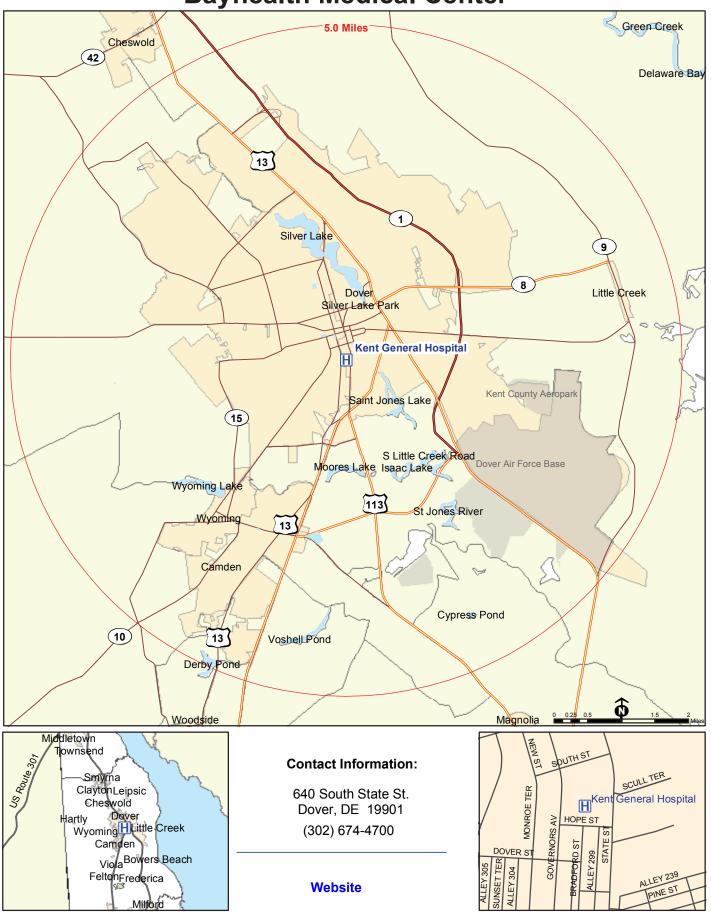
Alfred I. duPont Hospital for Children



Milford Memorial Hospital BayHealth Medical Center



Kent General Hospital Bayhealth Medical Center



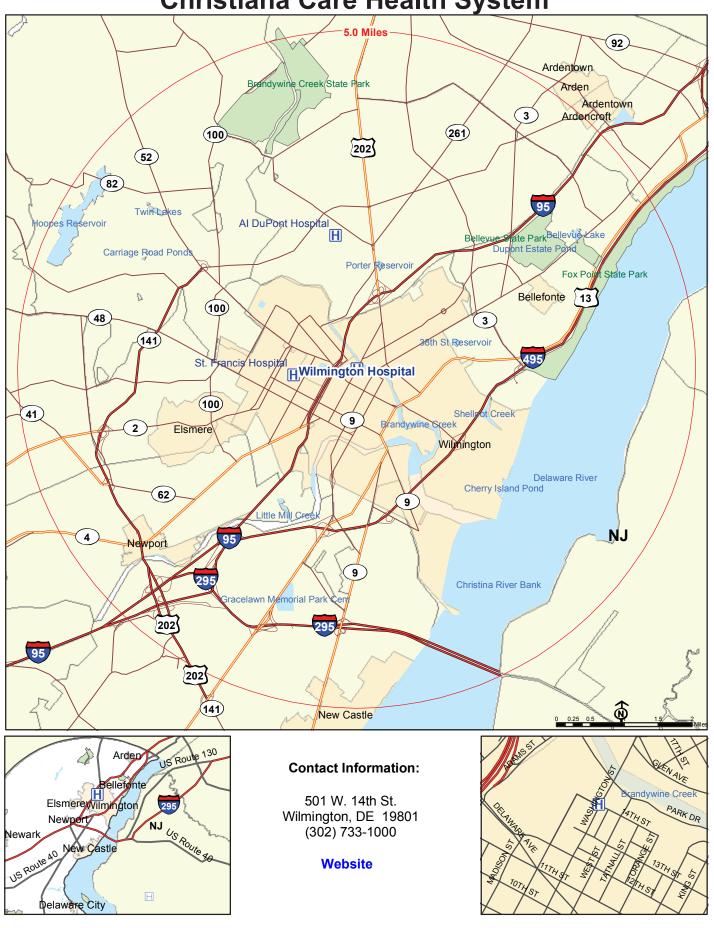
Beebe Medical Center



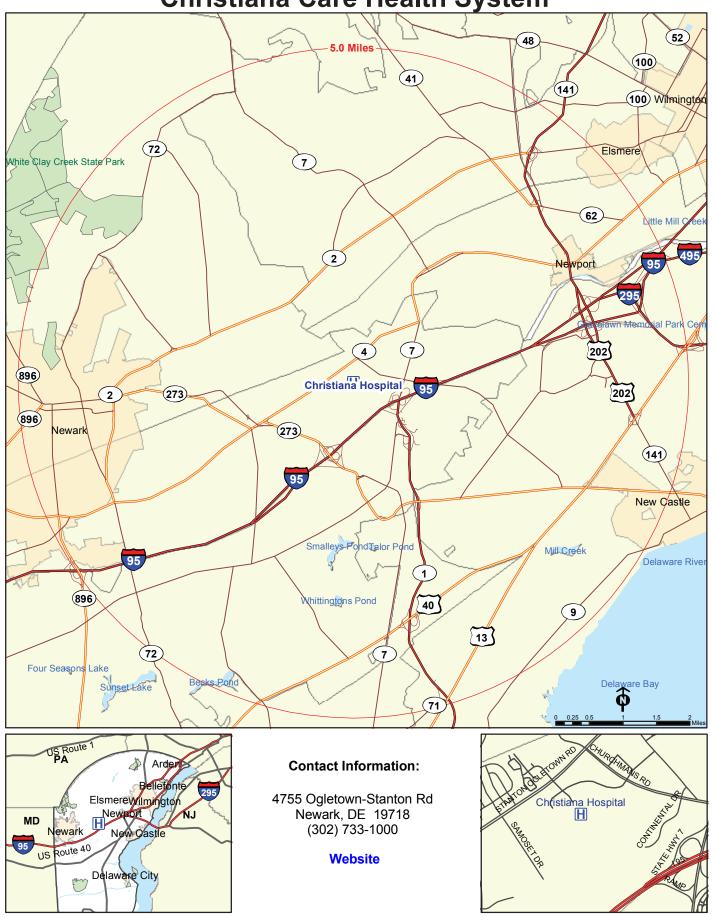
St. Francis Hospital



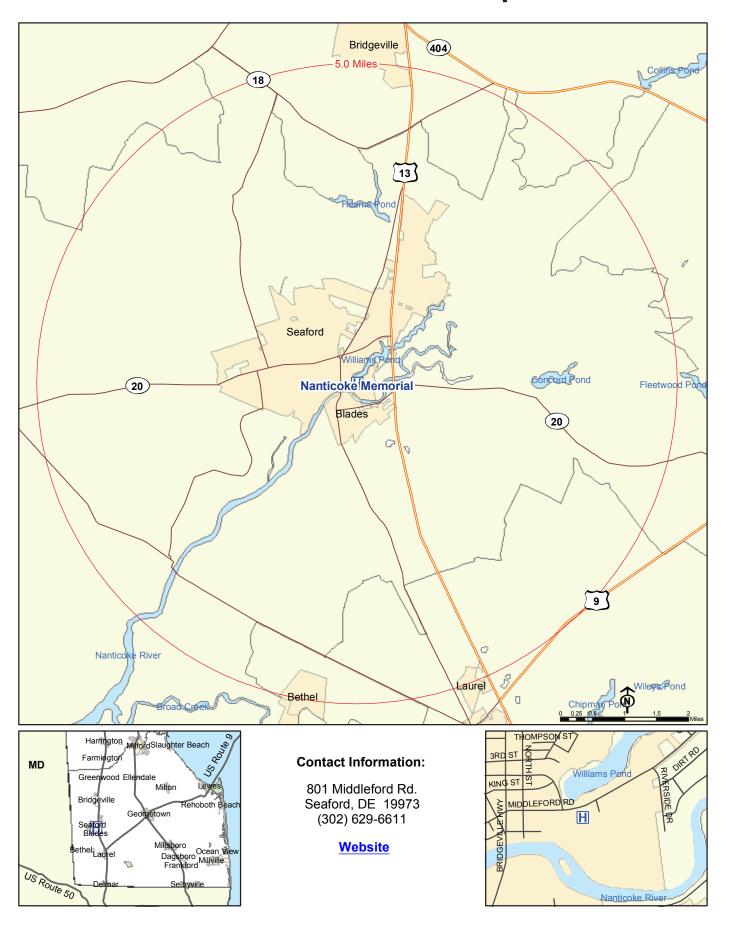
Wilmington Hospital
Christiana Care Health System



Christiana Hospital
Christiana Care Health System



Nanticoke Memorial Hospital



Select Specialty Hospital



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 2015 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:

<u>Rates</u> - 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.

$$z = \frac{\frac{R}{1} - \frac{R}{2}}{\sqrt{\left(\frac{R^{2}}{N_{1}} + \frac{R^{2}}{N_{2}}\right)}}$$

where

R₁ = first rate

 R_2 = second rate

N₁ = first number of discharges

 N_2 = second number of discharges

<u>Percents</u> - 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.

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

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

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

where

 N_1 = first denominator

N₁ = second denominator

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

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 2016 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.

- 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, Tenth Revision, Clinical Modification (ICD-10-CM) - The ICD-10-CM (International Classification of Diseases, Tenth Revision, Clinical Modification) is a system used by physicians and other healthcare providers to classify and code all diagnoses, symptoms and procedures recorded in conjunction with hospital care in the United States. It provides a level of detail that is necessary for diagnostic specificity and morbidity classification in the U.S. Like its predecessor ICD-9-CM, ICD-10-CM is based on the International Classification of Diseases, which is published by the World Health Organization (WHO) and which uses unique alphanumeric codes to identify known diseases and other health problems. According to WHO, physicians, coders, health information managers, nurses and other healthcare professionals also use ICD-10-CM to assist them in the storage and retrieval of diagnostic information. ICD records are also used in the compilation of national mortality and morbidity statistics. All Health Insurance Portability and Accountability Act (HIPAA)-covered entities must adhere to ICD-10-CM codes, as mandated by the U.S Department of Health and Human Services (HHS). More information can be found online at: https://www.cdc.gov/nchs/icd/icd10cm.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. The Procedure Classes Refined for ICD-10-PCS is updated annually to coincide with fiscal year updates to the ICD-10-PCS coding system and retains procedure codes valid from the start of ICD-10-PCS in October 2015. More information can be found at: https://www.hcup-us.ahrq.gov/toolssoftware/procedureicd10/procedure_icd10.jsp.

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

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:

(Five-year total number of discharges / 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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