DELAWARE HOSPITAL DISCHARGE SUMMARY REPORT▪2005

DELAWARE HEALTH AND SOCIAL SERVICES
Division of Public Health

Acknowledgments

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EXECUTIVE SUMMARY

This report describes:

Patient Characteristics
Most Frequent Reason for Hospitalizations
Patient Admission Source
Hospital Charges and Billing Patterns
Patient Discharge Status
Patient Distribution

Data in this report will present 2005 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 upon 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: A.I. duPont, St. Francis, Christiana Care Health System (which consists of Wilmington and Christiana Care), Bayhealth Medical Center (which consists of Kent General and Milford), Beebe, and Nanticoke[1].

More information on how annual files are created, as well as definitions of terms used in this report, can be found in the Technical Notes.

Maps displaying patient distribution and hospital location are located in the Maps section.

Key findings:

- There were 87,824 discharges from acute care hospitals in Delaware in 1995. By 2005, that had increased by 31.6 percent to 115,618 discharges. During the same time, aggregate charges more than doubled, from $849 million to $1.9 billion.

- In 2005, the average length of stay was 4.8 days and the mean charge for a hospitalization was $16,569.

- The maximum charges for each year from 2001 to 2005 were the result of infants suffering from birth defects, perinatal conditions, or complications due to short gestation and very low birth weight.

- Admissions from the emergency department (ED) accounted for 51 percent of all hospital admissions in 2005; 46 percent came from physicians, and the remaining 3 percent were admitted from clinics, HMOs, or transferred from other facilities.

- The most frequent reasons for hospitalization fell under the category of diseases of the circulatory system, and included heart failure, coronary atherosclerosis, and chest pain.

- Thirteen percent of all discharges from Delaware hospitals were non-residents, most of which came from Pennsylvania, Maryland, and New Jersey.

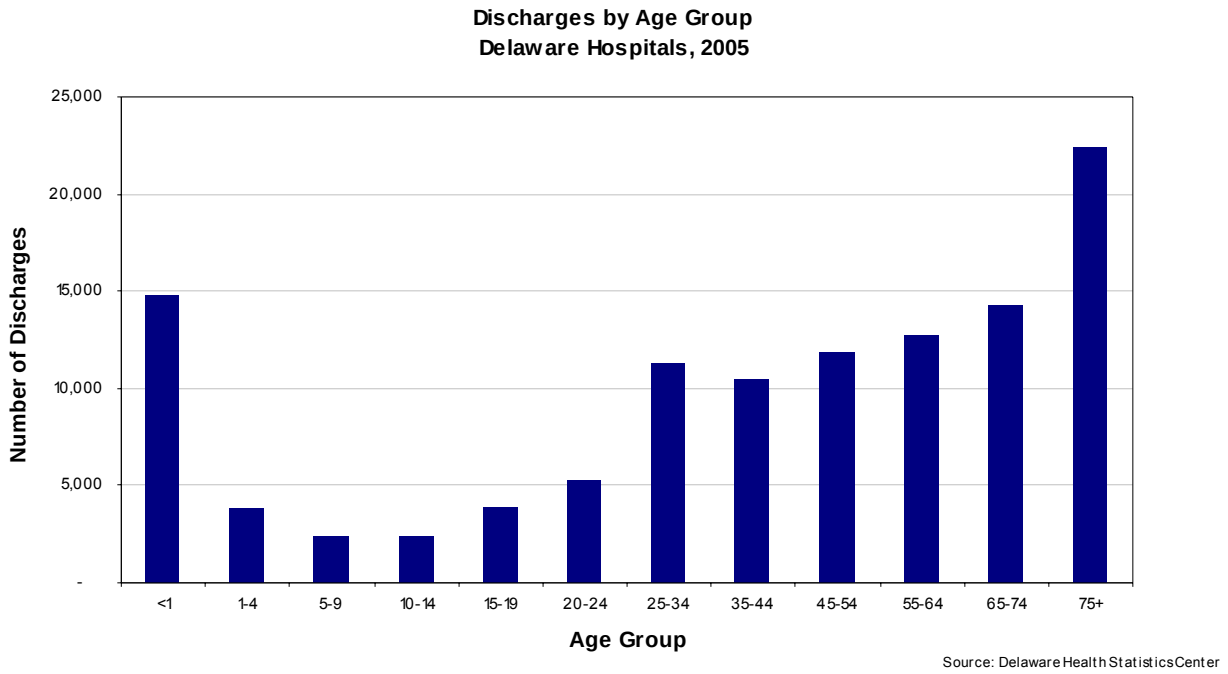
[1] See the Hospital Profiles at the end of this report for details about each of Delaware's acute care hospitals.

EXECUTIVE SUMMARY

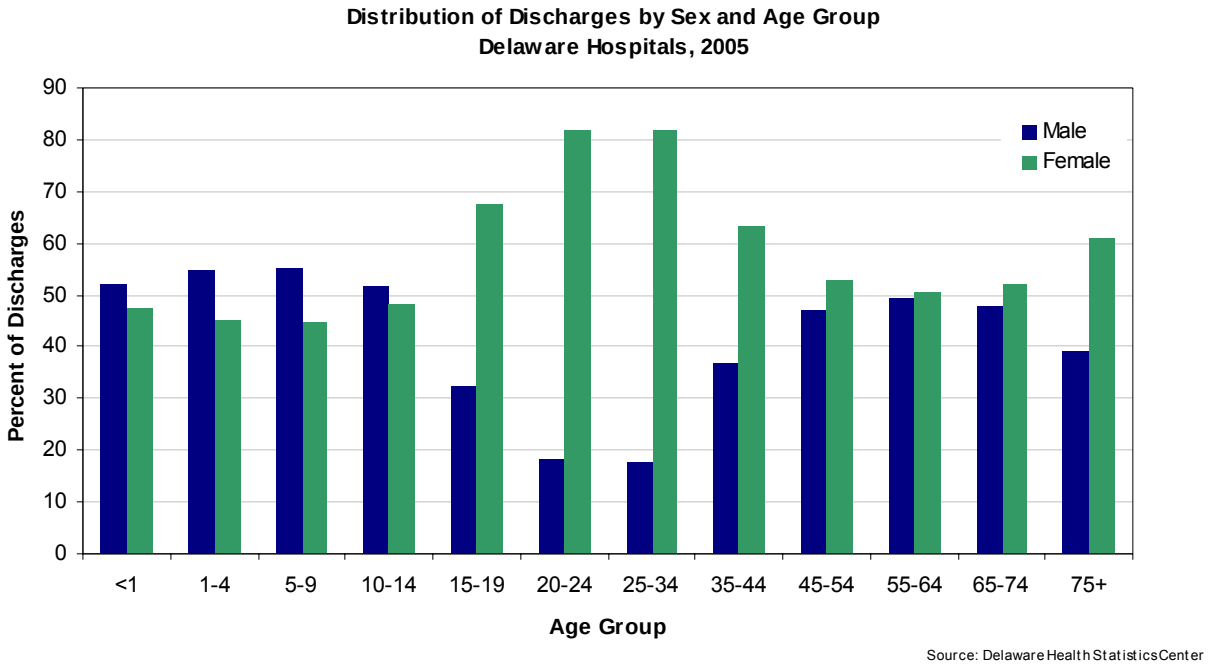
- Hospital stays for liveborn infants varied by type of delivery and plurality.
  - The average length of stay (ALOS) for infants delivered by cesarean section was 3.7 days, versus 2.2 days for infant delivered vaginally, and
  - The ALOS for infants who were part of a plural birth was more than three times that of singleton births (11 days versus 3 days).
- Women accounted for 58.5 percent of all discharges. In the 20 to 34 year age group, four out of every five discharges were women.
- The three most frequently performed principal procedures were related to pregnancy and childbirth; together, they accounted for nearly one-fifth of all principal procedures.
- Patients who were uninsured were more frequently admitted through the ED than any other route; 78.8 percent of uninsured patients were admitted through the ED in 2005, an increase of 32 percent since 1995.
- Medicare and private insurers were the primary payers in 36.9 and 36.6 percent of all hospital discharges in 2005. Medicaid was the primary payer in 21.4 percent of all hospital stays, and uninsured hospitalizations accounted for 3 percent of the total stays. The remaining 2 percent of hospitalizations were covered by other programs or were unknown.

PATIENT CHARACTERISITCS

Patients under 1 accounted for almost 13 percent of all discharges in 2005; the majority of these discharges were comprised of infants hospitalized by virtue of being born in the hospital. Patients 65 and older were responsible for 32 percent of all discharges in 2005.



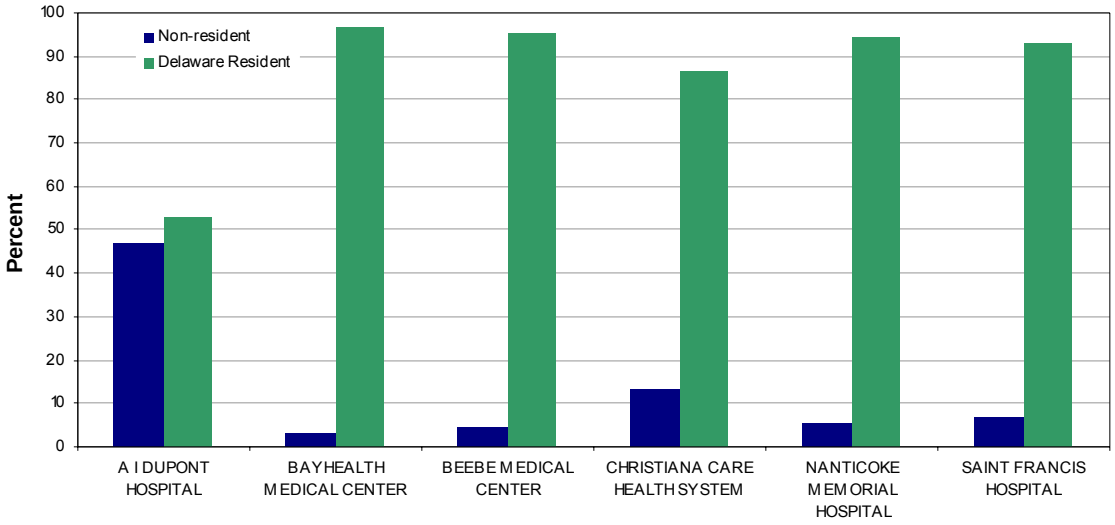
Males made up the majority of discharges in the age groups under 15. For those age groups 15 and higher, females made up the majority of discharges, and in the 20 to 34 year age range, four out of every five discharges were women. In 2005, 58.5 percent of all discharges were women.



PATIENT CHARACTERISITCS

Thirteen percent of all discharges from Delaware hospitals were non-residents, most of whom came from Pennsylvania, Maryland, and New Jersey. With almost half of their patients coming from out-of-state, A.I. duPont hospital had the largest proportion of non-resident patients.

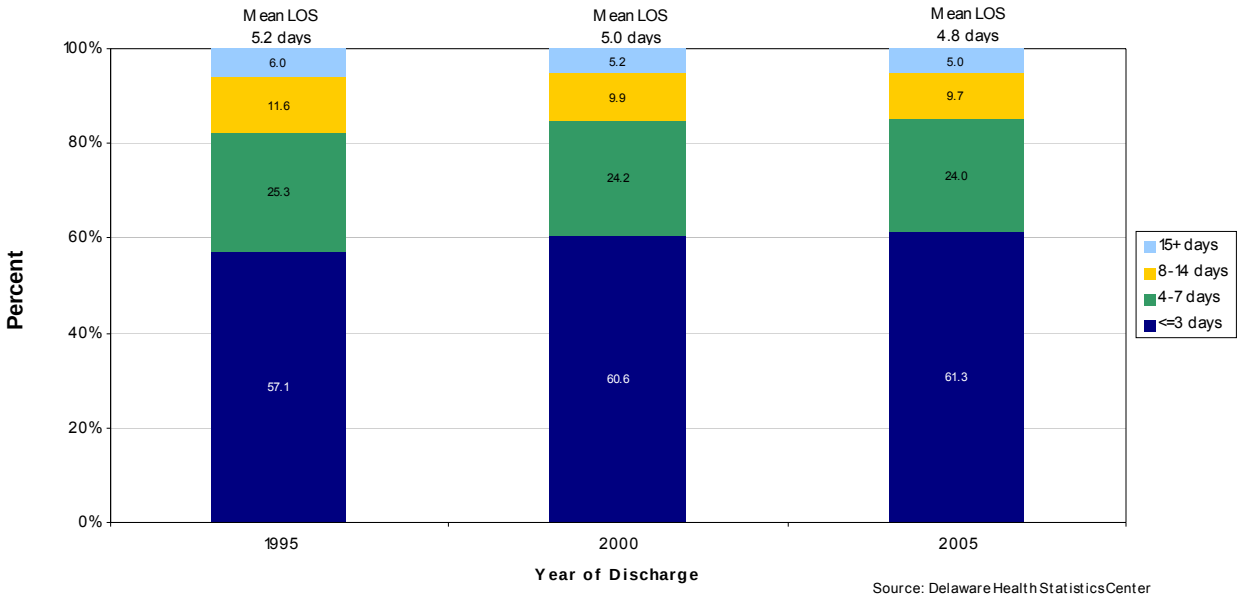
Percent of Total Discharges by Residency and Hospital System
Delaware, 2005



Source: Delaware Health Statistics Center

Between 1995 and 2005, distribution in ALOS shifted toward shorter hospital stays; as the ALOS decreased, the percent of patients staying three or fewer days increased. In 2005, 61.3 percent of hospitalizations were three days or less, 24 percent were 4-7 days, 9.7 percent were 8-14 days, and 5 percent were 15 days or more.

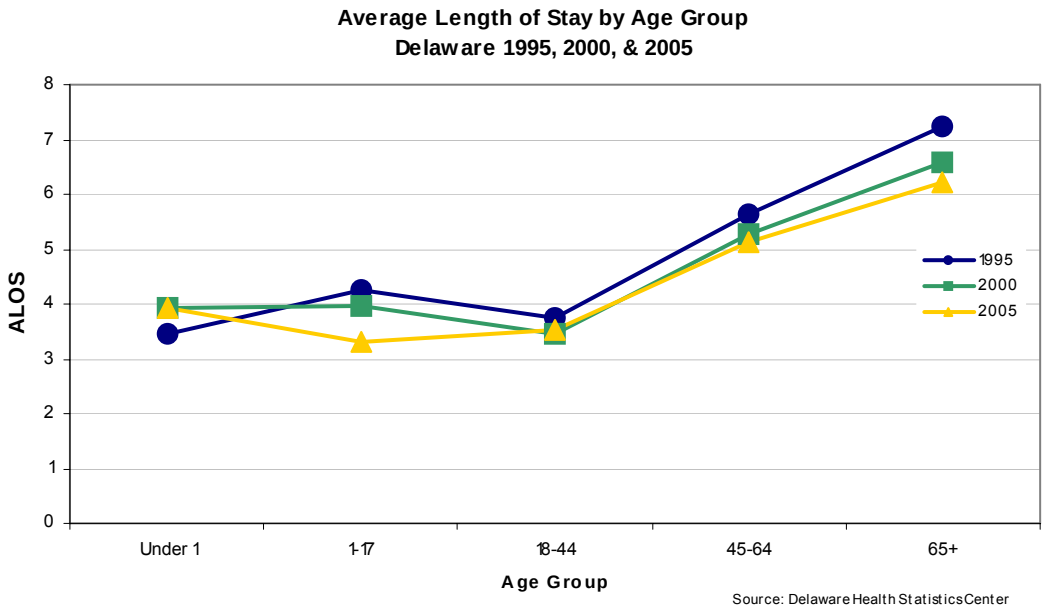
Percent Distribution of Hospital Discharges by Average Length of Stay (ALOS)
Delaware, Selected Years 1995-2005



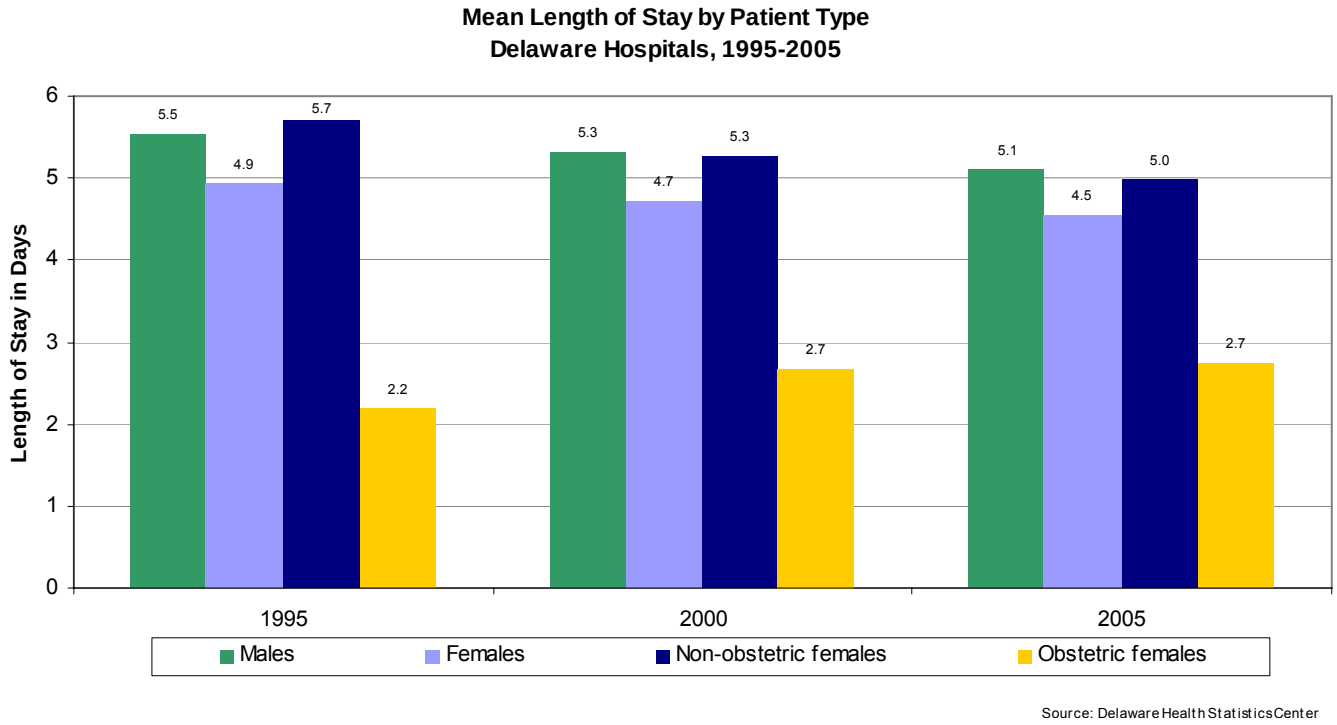
Source: Delaware Health Statistics Center

PATIENT CHARACTERISITCS

From age 1 and up, the ALOS in 2005 increased linearly with age group, rising from 3.3 days for those ages 1-17, to 6.2 days for those 65 and older. Patients under 1 had an ALOS of 3.9 days. With the exception of the under 1 age group, ALOS decreased for all groups from 1995 to 2005.



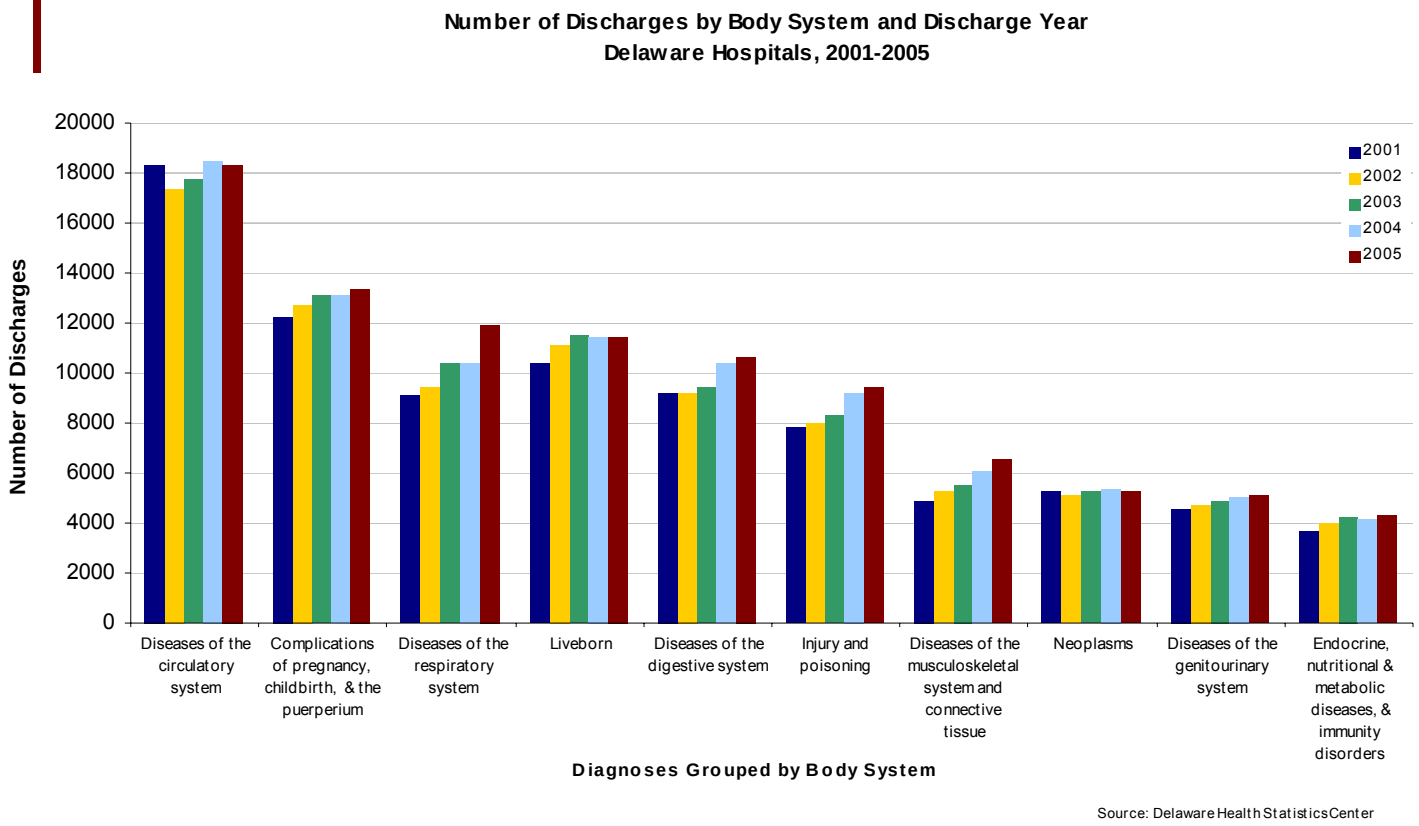
Though male and female patients experienced similar decreases in ALOS from 1995 and 2005, there was little or no change from 2000 to 2005. When female obstetrical patients were excluded from the calculation of average length of stay, male and female patients had very similar ALOS figures in all time periods. Surprisingly, the only increase in ALOS from 1995 to 2005 was seen in female obstetrical patients.



WHY PATIENTS WERE HOSPITALIZED

Most frequent reasons for hospitalization by primary diagnosis and body system[2]:

In 2005, diseases of the circulatory system accounted for 15.9 percent of the total discharges and represented the most common reasons for hospitalization; some of the most common diagnoses in that category were congestive heart failure, coronary atherosclerosis, nonspecific chest pain, irregular heart beat, heart attack, and stroke. Pregnancy and childbirth comprised 11.6 percent of the total discharges, and 10.3 percent of all discharges were related to diseases of the respiratory system, which included pneumonia, chronic obstructive pulmonary disease, and asthma. Together, these three categories accounted for approximately 38 percent of all hospitalizations.



Source: Delaware Health Statistics Center

Although hospitalizations due to certain conditions originating in the perinatal period did not occur frequently enough for them to appear in the graph above, the largest percent increase (64.8) in hospitalizations from 2001 to 2005 occurred in that category. Other perinatal conditions, such as other respiratory conditions of the newborn, along with conditions involving the integument and temperature regulation of the newborn were the most significant contributors to the upward trend. Diseases of the skin and subcutaneous tissue also demonstrated a large percentage increase (62.5) from 2001 to 2005, and at 58.3 percent, the third largest increase in hospitalizations was due to infections and parasitic disease. This increase was driven primarily by a rise in the number of septicemia hospitalizations, which made up 61 percent of all hospitalizations for infections and parasitic diseases in 2005.

[2] See Appendix A for details about the primary diagnoses and body system classifications.

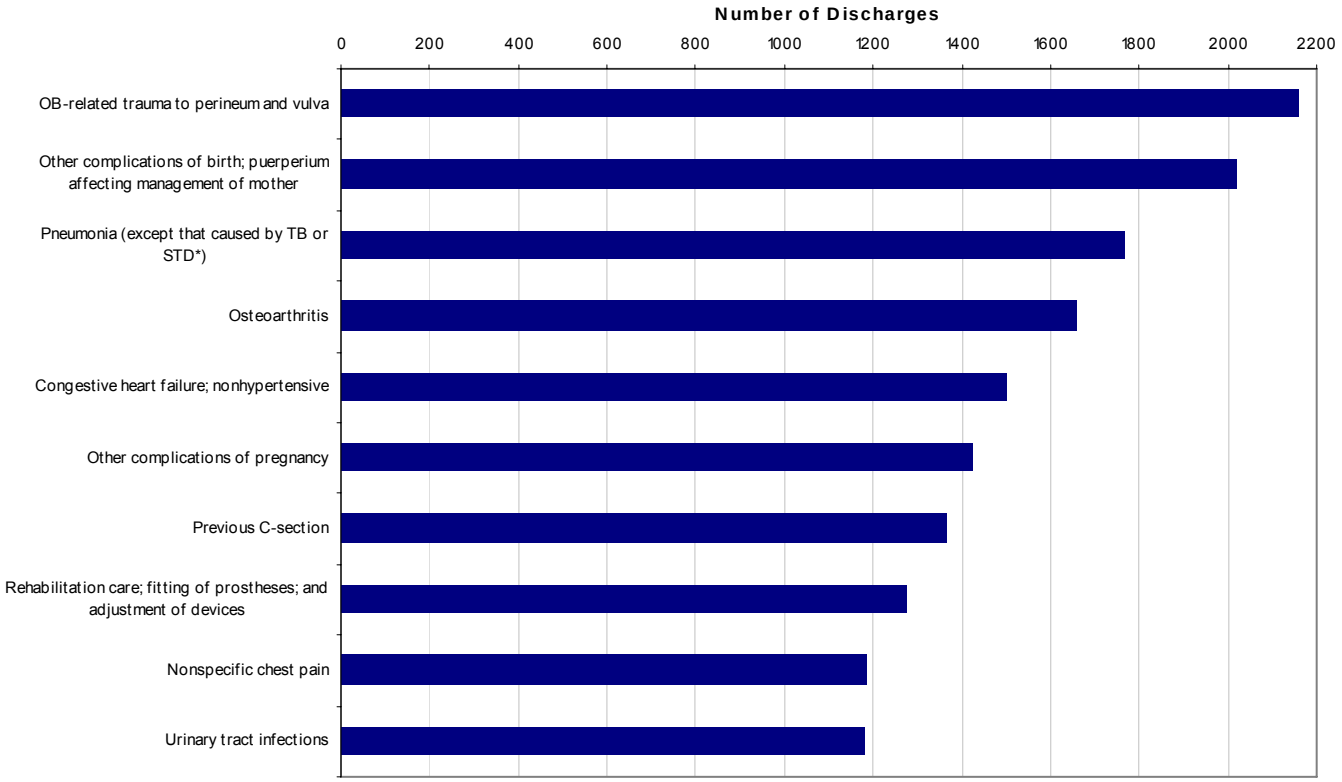
WHY PATIENTS WERE HOSPITALIZED

Most frequent reasons for hospitalization by sex (excluding liveborn infants):

The three most frequent reasons for hospitalizations were very similar when looking at discharges by body system and gender. Both males and females had diseases of the circulatory system and diseases of the respiratory system in their three most frequent reasons for hospitalization, however those two categories were ranked first and second for men while they were second and third, behind pregnancy and childbirth, for women.

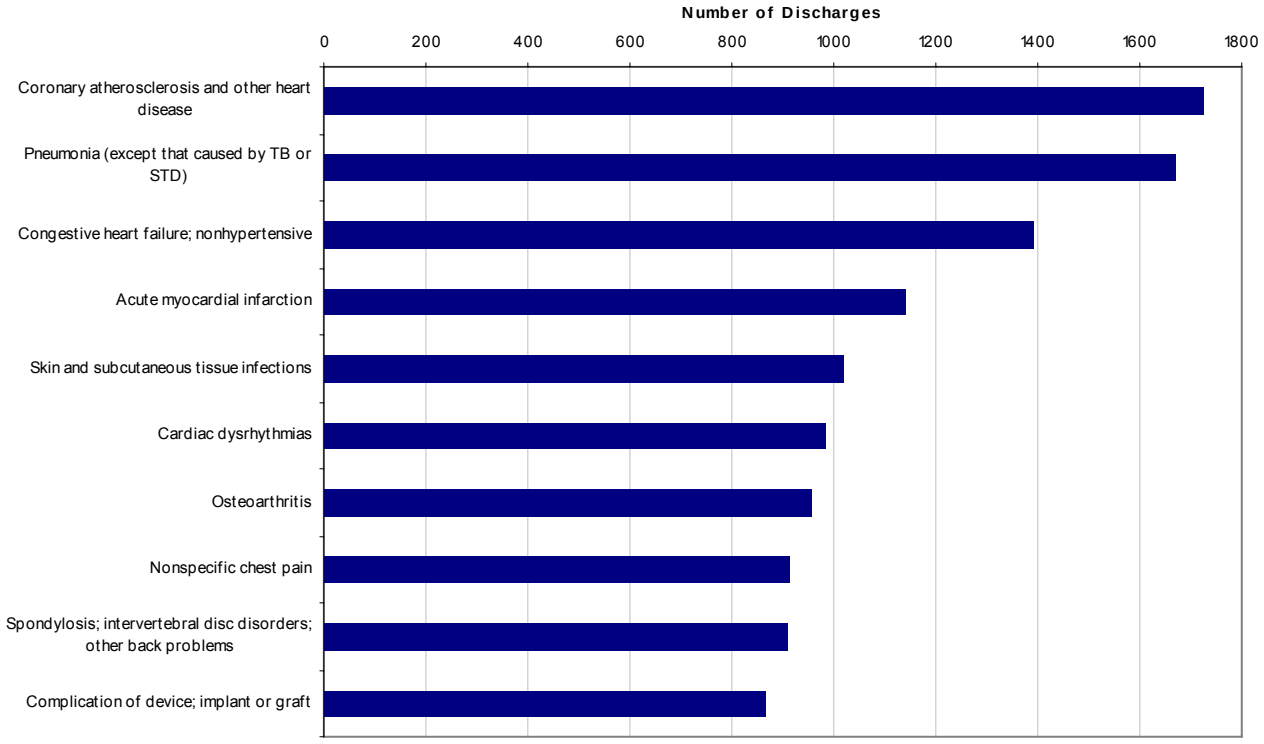
Specific diagnoses varied by sex, but much of that was a result of the large number of women hospitalized due to pregnancy and delivery related conditions. Though 4 out the top 10 diagnoses for women were related to pregnancy and childbirth, men and women both experienced high numbers of discharges due to pneumonia (except that caused by tuberculosis and sexually transmitted diseases), congestive heart failure, osteoarthritis, and nonspecific chest pain. The following two graphs show the 10 most frequent diagnoses for both men and women.

Top 10 Principal Diagnoses (CCS Defined) for Female Hospitalizations
Delaware, 2005



* TB is the acronym for tuberculosis and STD is the acronym for sexually transmitted disease.
Source: Delaware Health Statistics Center

Top 10 Principal Diagnoses (CCS defined) for Male Hospitalizations
Delaware, 2005



Source: Delaware Health Statistics Center

Most frequent reasons for hospitalization by age groups:

Though the most common reasons for hospitalization differed by age, pneumonia appeared in the 10 most frequent diagnoses for four of the five age groups, and skin and subcutaneous tissue infections were present in three of the five age groups (when pregnancy and childbirth were excluded from the 18-44 age group).

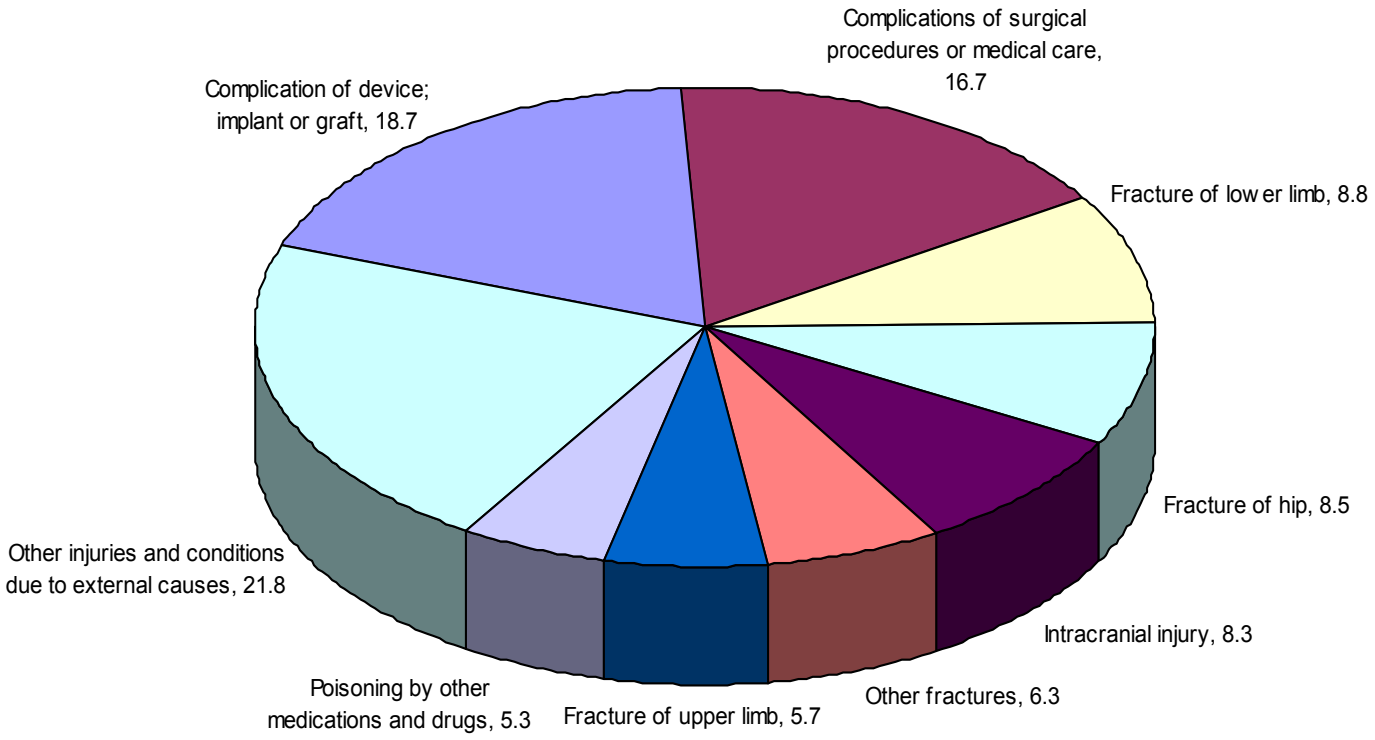
- Excluding liveborn infants, patients under 1 were hospitalized most often for bronchitis, other perinatal conditions, and hemolytic and perinatal jaundice.
- For those ages 1 to 17, asthma, fluid and electrolyte disorders, and pneumonia made up the top three diagnoses.
- For those ages 18 to 44, the first 9 out of the top 10 diagnoses were associated with pregnancy and childbirth. If pregnancy and childbirth were excluded, affective disorders, spondylosis (includes intervertebral disc disorders and other back problems), and skin and subcutaneous tissue infections became the three most common reasons for hospitalization.
- For those ages 45 to 64, coronary atherosclerosis and other heart disease, nonspecific chest pain, and osteoarthritis comprised the top three diagnoses.
- For those over 65, congestive heart failure, pneumonia, and rehabilitation care were the top three diagnoses.

Injury hospitalizations:

Injury hospitalizations accounted for 8.2 percent of the total number of discharges and $194 million in aggregate charges in 2005. The majority of patients were admitted through the emergency department (ED) and the average charge for an injury stay ranged from $7,978 for poisoning by psychotropic agents to $56,855 for spinal cord injuries, with an overall average charge of $20,546 (see Appendix A).

The most common primary diagnosis for an injury hospitalization in 2005 was complication of device, implant, or graft, which accounted for 19 percent of injury hospitalizations. Nearly 17 percent of injury hospitalizations were due to complications of surgical procedures or medical care, and fractures of the lower limb and hip were each responsible for 9 percent, followed by intracranial (brain) injury at 8 percent.

Most Frequent Injury Diagnoses, 2005

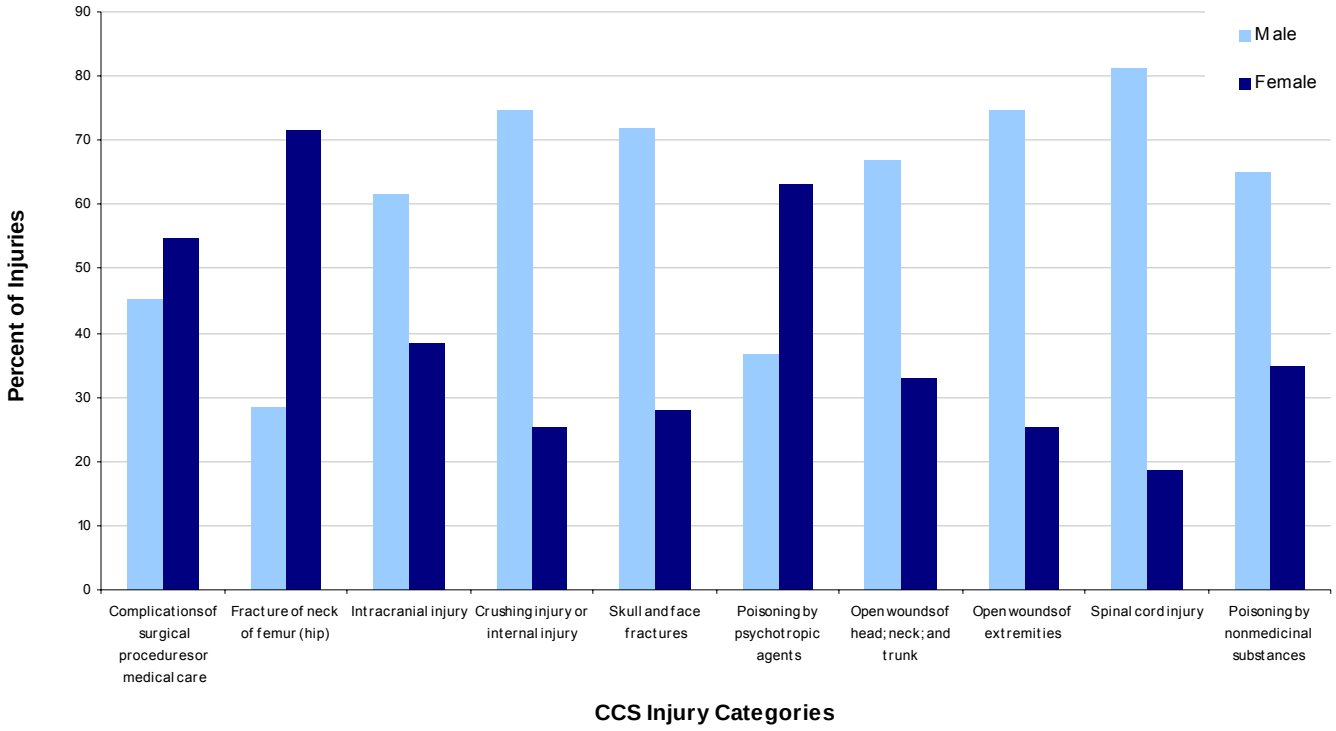


Looking at injuries with a specified external cause (as defined by the E-code listed on the discharge record), falls were the leading external cause of injury; they accounted for 86 percent of hip fractures, 52 percent of lower limb fractures, 47 percent of spinal cord injuries, and 45 percent of intracranial injuries. Motor vehicle accidents were responsible for 36 percent of intracranial injuries and 30 percent of spinal cord injuries.

WHY PATIENTS WERE HOSPITALIZED—INJURIES

The number of injury hospitalizations was split almost equally between males and females, though the distribution was not the same for all injuries. Women were more likely to have been hospitalized for hip fractures, complications of surgical procedures or medical care, and poisoning by psychotropic agents (these include drugs used to treat depression, anxiety, and attention deficit disorder). Men were more likely to have been hospitalized for spinal cord, intracranial, crushing, or internal injuries, skull fractures, open wounds, and poisoning by nonmedicinal substances.

Selected Primary Diagnoses for Injury Hospitalizations by Gender
Delaware Hospitals, 2005



Source: Delaware Health Statistics Center

WHY PATIENTS WERE HOSPITALIZED—MHSA DISORDERS

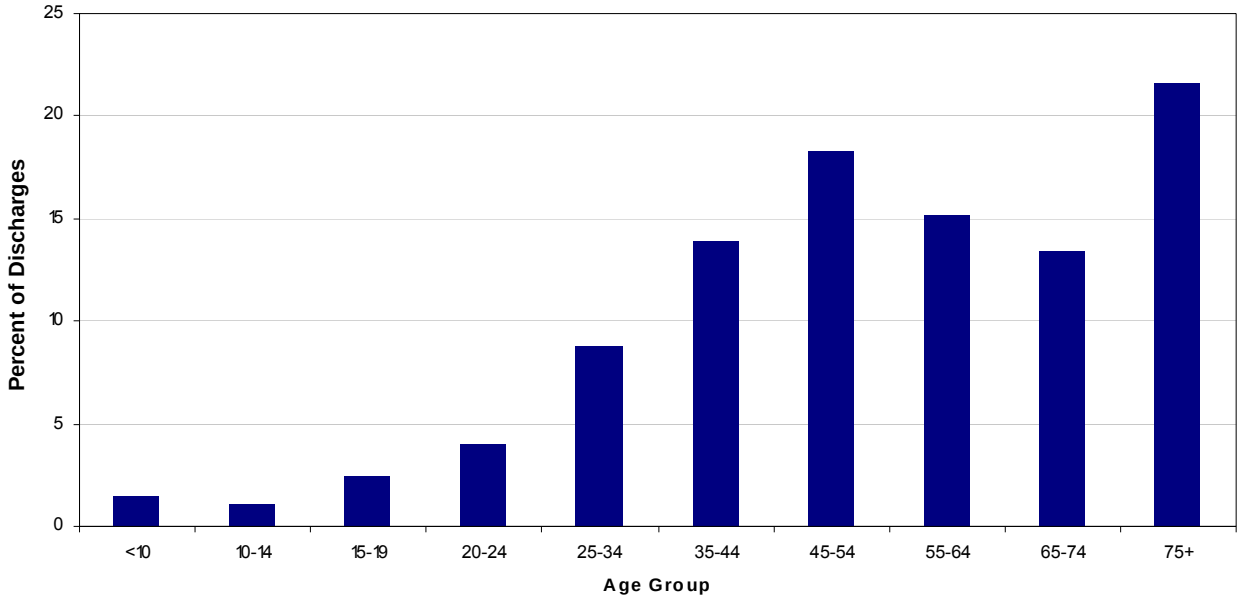
Mental health and substance abuse (MHSA) disorders[3]:

MHSA disorders were listed as the primary reason for hospitalization in three percent of all discharges in 2005. However, when all additional secondary diagnoses were considered, MHSA disorders were associated with 24 percent of all hospitalizations; this was nearly twice the proportion of MHSA associated hospitalizations in 1994.

Two-thirds of all MHSA related hospitalizations that had an MHSA disorder as either the primary or one of the secondary diagnoses, had only one MHSA related diagnosis; 23 percent had two MHSA diagnoses, and 11 percent had three or more MHSA diagnoses.

Older patients were more likely to have an MHSA associated hospitalization. Patients 75 and older accounted for the largest proportion (21.5 percent) of MHSA related hospitalizations. Less than 10 percent of all MHSA related hospitalizations in 2005 were patients under 25.

Distribution of Patients with a MHSA Diagnosis by Age Group
Delaware Hospitals, 2005



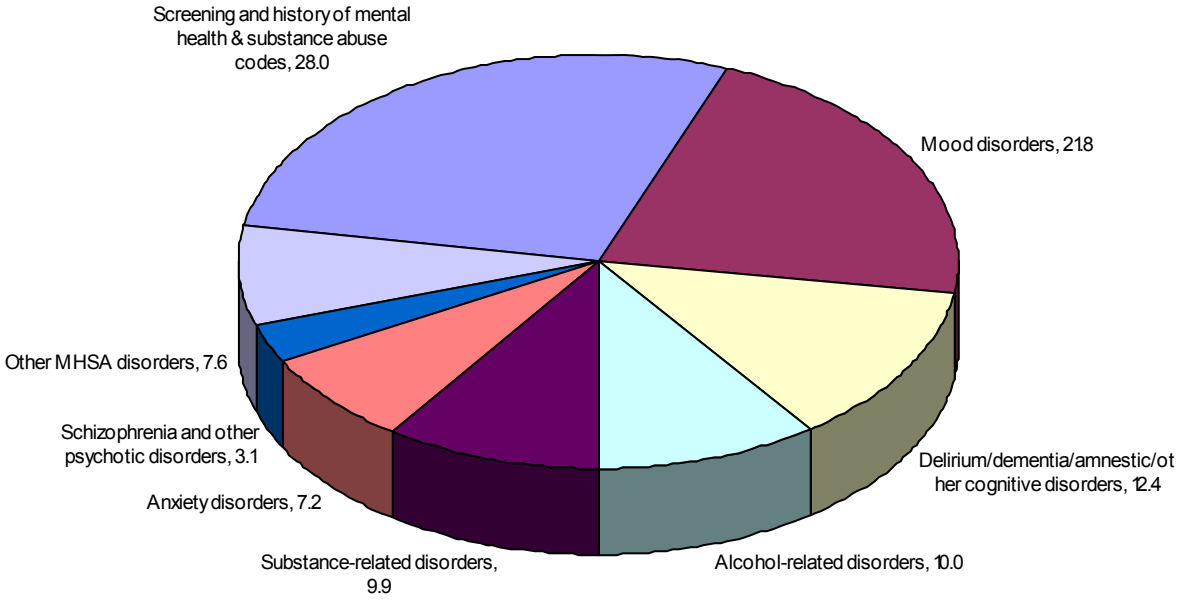
Source: Delaware Health Statistics Center

[3] See Appendix D for details about the MHSA classifications.

WHY PATIENTS WERE HOSPITALIZED—MHSA DISORDERS

The specific MHSA diagnosis that appeared most frequently in any of the nine possible diagnoses was screening and history of mental health and substance abuse, which comprised 28 percent of all MHSA related hospitalizations. Mood disorders, delirium/dementia/amnestic and other cognitive disorders, and alcohol-related disorders accounted for 21.8, 12.4, and 10 percent of MHSA diagnoses.

Distribution of All-listed MHSA Diagnoses by Specific Disorders
Delaware Hospitals, 2005



Source: Delaware Health Statistics Center

In 2005, 568 hospitalizations were related to suicide or suicide attempts. More than 9 out of 10 hospitalizations for suicide involved at least one MHSA disorder, and nearly two-thirds of all suicides had two or more MHSA diagnoses.

Mood disorders, followed by substance-related and alcohol-related disorders, were the most frequently listed MHSA diagnoses involved with suicides and suicide attempts.

WHY PATIENTS WERE HOSPITALIZED –PROCEDURES

Most frequent reasons for hospitalization by procedure:

In 2005, 60 percent of discharges had at least one associated procedure. Of the 68,997 hospital stays with an accompanying procedure, 44 percent had only a principal procedure performed; the remaining 56 percent had 2 or more procedures.

According to the CCS procedure classification system, procedures can be grouped into four broad classes: minor therapeutic, minor diagnostic, major therapeutic, and major diagnostic[4]. Major therapeutic and major diagnostic procedures are considered valid operating room procedures. Just over one-half of all principal procedures (51 percent) were valid operating room procedures.

The three most frequently performed principal procedures were related to pregnancy and childbirth; together, other procedures to assist delivery, circumcisions, and cesarean sections accounted for nearly one-fifth of all principal procedures.

Most Frequent Principal Procedure by Selected Characteristics, 2005

CCS Procedure	ALOS	Average Charges	Percent Expired	Average Age	% of Discharges	
					Male	*Female*
Other procedures to assist delivery	2.2	$ 4,298	0.0	27	0.0	100.0
Circumcision	3.3	$ 4,282	0.0	0	100.0	0.0
Cesarean section	3.7	$ 9,047	0.0	29	0.0	100.0
Upper gastrointestinal endoscopy; biopsy	5.7	$ 15,844	1.8	58	43.9	56.1
Respiratory intubation and mechanical ventilation	12.5	$ 47,607	25.8	43	51.7	48.3
Arthroplasty knee	3.2	$ 24,973	0.0	65	35.9	64.1
Diagnostic cardiac catheterization; coronary arteriography	4.0	$ 21,665	1.2	59	52.1	47.9
Percutaneous transluminal coronary angioplasty (PTCA)	3.1	$ 37,057	1.2	63	65.3	34.7
Hysterectomy; abdominal and vaginal	2.7	$ 12,367	0.1	47	0.0	100.0
Repair of current obstetric laceration	2.2	$ 4,713	0.0	27	0.0	100.0
Other vascular catheterization; not heart	9.7	$ 30,087	10.7	54	42.0	58.0
Hip replacement; total and partial	4.4	$ 28,988	0.4	68	39.4	60.6
Cholecystectomy and common duct exploration	5.3	$ 21,714	0.9	52	36.8	63.2
Colorectal resection	10.1	$ 38,517	3.7	63	46.6	53.4
Appendectomy	2.5	$ 13,900	0.0	33	56.4	43.6

Note: Principal procedure is the first-listed procedure and refers to the procedure performed as a specific treatment for the hospitalization, or the one most closely related to the principal diagnosis; excludes unspecified minor diagnostic and therapeutic procedures.
Source: Delaware Health Statistics Center

The 10 most frequently performed principal procedures experienced minor changes from 1995 to 2005, the same three procedures were the top three, though the rankings of circumcision and other procedures to assist delivery were reversed. Most notably, by 2005, episiotomies and laminectomies were no longer in the ten most common procedures, and arthroplasty knee and PTCAs moved into the top 10.

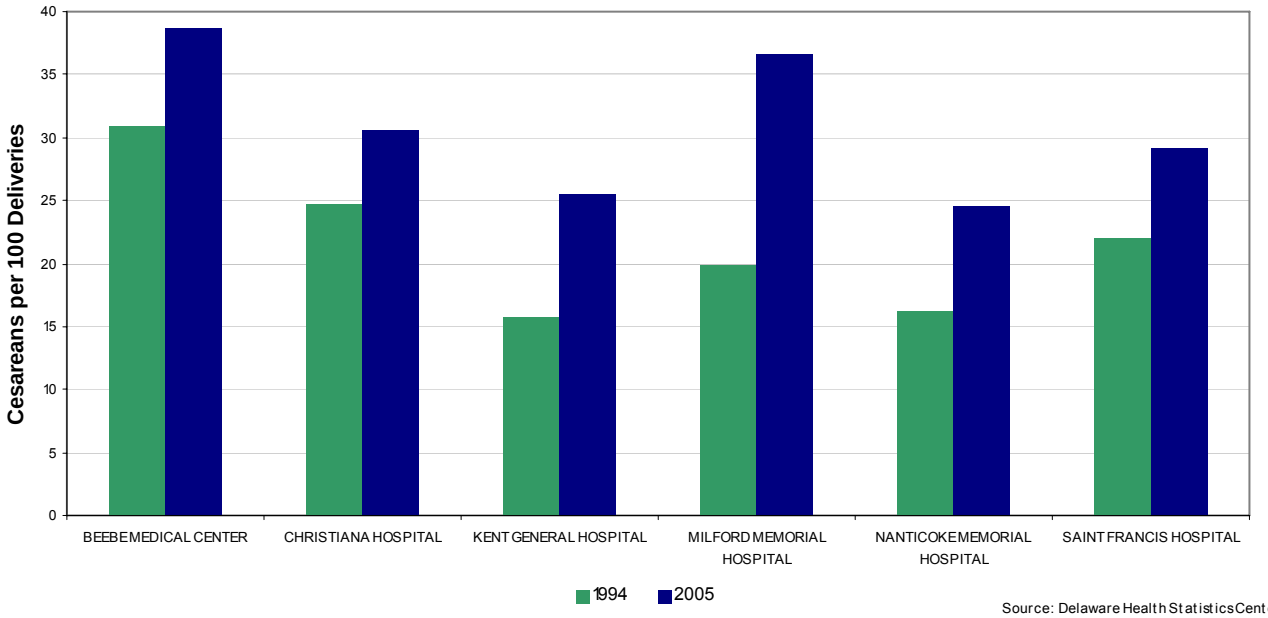
As women accounted for 60 percent of all hospitalizations in 2005, it is not surprising that 4 of the 15 most commonly performed procedures were performed exclusively on women, and 3 of those 4 were obstetric procedures. Patients undergoing obstetric procedures had a shorter than average length of stay (2.2 to 3.7 days), were younger (27-29 years of age), and had lower average charges associated with their stays than the average patient.

[4] See the definition of Procedure Classes in the Definitions section of the Technical Notes.

WHY PATIENTS WERE HOSPITALIZED—PROCEDURES

A major component of obstetrical procedures are related to cesarean delivery of newborn infants. Since 1994, annual cesarean delivery rates increased for every hospital in Delaware; by 2005, 30 of every 100 deliveries were cesarean. Milford, Kent, and Nanticoke hospitals showed the greatest increases, at 84, 61, and 51 percent respectively. Beebe and Milford had the highest rates, at 38.7 and 36.7 cesareans per 100 deliveries in 2005.

Annual Cesarean Delivery Rates by Hospital
Delaware Hospitals, 1994 and 2005



Source: Delaware Health Statistics Center

Gender

Obstetrical procedures accounted for nearly one-third of the principal procedures performed on females, and included other procedures to assist delivery, cesarean sections, repair of current obstetrical laceration, and forceps; vacuum; and breech delivery.

Operations on the cardiovascular system accounted for 20 percent of the principal procedures performed on males, and included PTCA, diagnostic cardiac catheterization, and other vascular catheterization. Circumcisions were the single most common procedure performed on males.

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

- respiratory intubation and mechanical ventilation,
- diagnostic cardiac catheterization; coronary arteriography,
- upper gastrointestinal endoscopy; biopsy,
- arthroplasty knee, and
- other vascular catheterization; not heart.

WHY PATIENTS WERE HOSPITALIZED–PROCEDURES

Age

- Circumcision was the most commonly performed procedure for patients under 1, followed by respiratory intubation and mechanical ventilation, and prophylactic vaccinations and inoculations.
- For patients ages 1 to 17, tonsillectomy and/or adenoidectomy, appendectomy, and blood transfusions were the most frequent principal procedures.
- Obstetric procedures, specifically other procedures to assist delivery, cesarean section, and repair of current laceration, were the most common procedures for those ages 18-44.
- Patients 45 to 64 and those 65 and older had four of their five most frequently performed procedures in common: PTCA, diagnostic cardiac catheterization; coronary arteriography, knee arthroplasty, and upper gastrointestinal endoscopy; biopsy.

Average Length of Stay

The principal procedures associated with the longest hospital stays[5] were tracheostomy (49.7 days) and other organ transplantation (46.3 days). Because length of stay is closely related to the total charges incurred for a hospital stay, it is not surprising that these same two procedures were also associated with the highest average charges, though other organ transplantation had average total charges nearly double that of tracheostomy ($474,668 versus $238,684).

In-hospital Mortality

Patients who underwent the following principal procedures during their hospital stay had the highest proportions of in-hospital mortality:

- Swan-Ganz catheterization for monitoring - 55 percent expired
- Respiratory intubation and mechanical ventilation - 26 percent expired
- Tracheostomy; temporary and permanent - 23 percent expired

By itself, having one of the above procedures does not indicate a higher risk of mortality, but its presence on the discharge may be an indicator of sicker patients and/or the employment of end-of-life care, both of which have a higher risk of mortality.

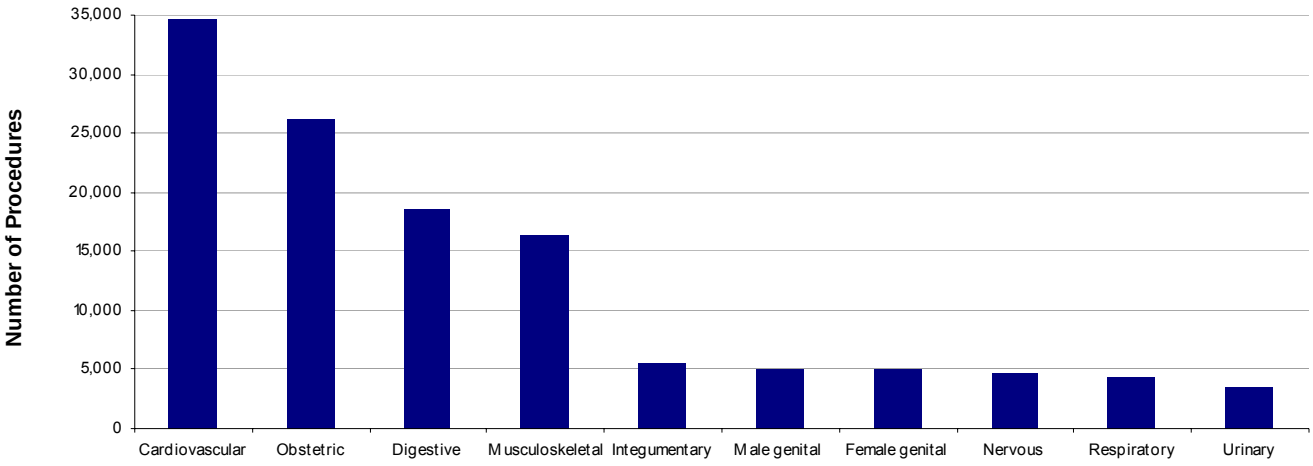
[5] Principal procedures with fewer than 5 occurrences were excluded from the calculations, as a result, destruction of lesion of retina and choroid was not included in the list.

All-listed procedures

All-listed procedures refer to the principal plus any secondary procedures performed during a hospital stay. Because more than one procedure may be performed during a single hospital discharge, the total number of all-listed procedures is normally greater than the number of discharges. In 2005, 157,014 total procedures were performed.

From 1995 to 2005, the three most common types of all-listed procedures classified by body system remained stable, though obstetric procedures moved from the most common to the second most common type of procedures.

Most Frequent Types of All-listed Procedures by Body System[1]
Delaware Hospitals, 2005



Note: Excludes miscellaneous diagnostic and therapeutic procedures.
Source: Delaware Health Statistics Center

When all secondary procedures were included in the determination of the most commonly performed all-listed procedures, the ranking of procedures differed from that of principal procedures. Other procedures to assist delivery dropped from first to second and was replaced by diagnostic cardiac catheterization, coronary arteriography. Respiratory intubation and mechanical ventilation became the third most frequent procedure. Six of the ten most commonly performed all-listed procedures involved pregnancy and childbirth.

Most Frequent All-listed Inpatient Procedures, 2005

CCS Procedure	*# of All-listed Procedures*	*% of Discharges with a Procedure*
Diagnostic cardiac catheterization; coronary arteriography	12,678	18.4
Other procedures to assist delivery	8,817	12.8
Respiratory intubation and mechanical ventilation	6,392	9.3
Other vascular catheterization; not heart	4,898	7.1
Circumcision	4,586	6.6
Repair of current obstetric laceration	4,119	6.0
Artificial rupture of membranes to assist delivery	4,020	5.8
Fetal monitoring	3,717	5.4
Upper gastrointestinal endoscopy; biopsy	3,714	5.4
Cesarean section	3,598	5.2

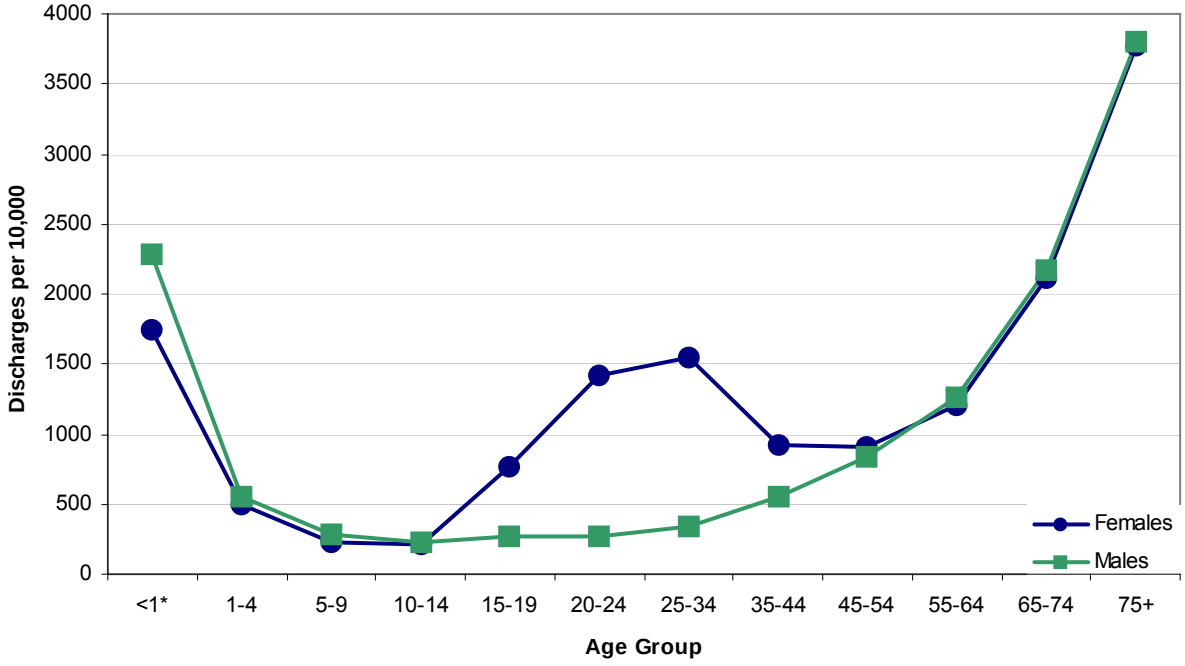
Note: All-listed procedures refer to all procedures performed during a hosptial stay: excludes minor diagnostic and therapeutic procedures.
Source: Delaware Health Statistics Center

HOSPITALIZATIONS OF DELAWARE RESIDENTS

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

Discharge rates of Delaware residents under the age of 1 were higher than the rates of all other age groups except those 65 and older. Discharge rates decreased with each increase in age group between those patients under 1 and those ages 10-14; the trend reversed at the 15-19 age group and 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 1.5 to 5 times that of males.

Resident Discharge Rates* by Sex and Age
Delaware Hospitals, 2005



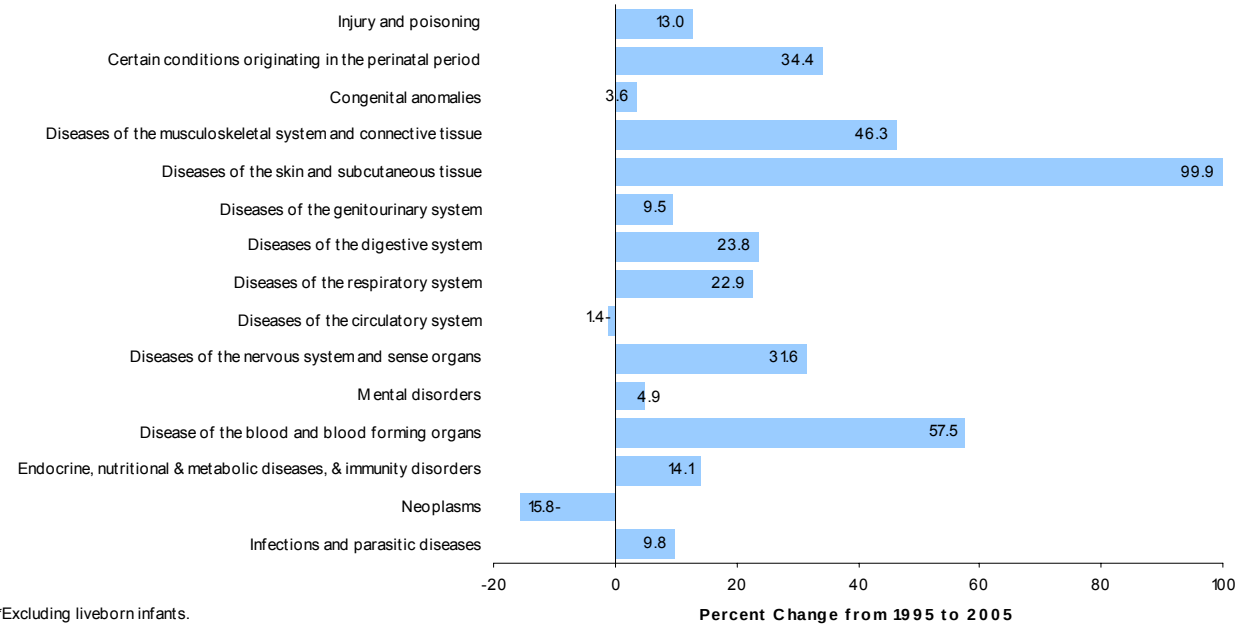
*This rate excludes all infants <1 who were admitted by virtue of being born in the hospital.

Source: Delaware Health Statistics Center

From 1995 to 2005, the discharge rate for diseases of the skin and subcutaneous tissue showed the largest percent growth, doubling from an annual discharge rate of 10.1 in 1995 to 20.2 in 2005. Hospitalization rates due to diseases of the blood and blood forming organs (which include anemias and coagulation and hemorrhagic disorders) rose by 58 percent, and diseases of the musculoskeletal system and connective tissue (which include osteoarthritis and spondylosis) rose by 46 percent. The cancer hospitalization rate showed the only true decrease, dropping from 64.3 in 1995 to 54.1 discharges per 10,000 in 2005.

The graph on the following page shows the percent change in resident hospitalization rates by body system.

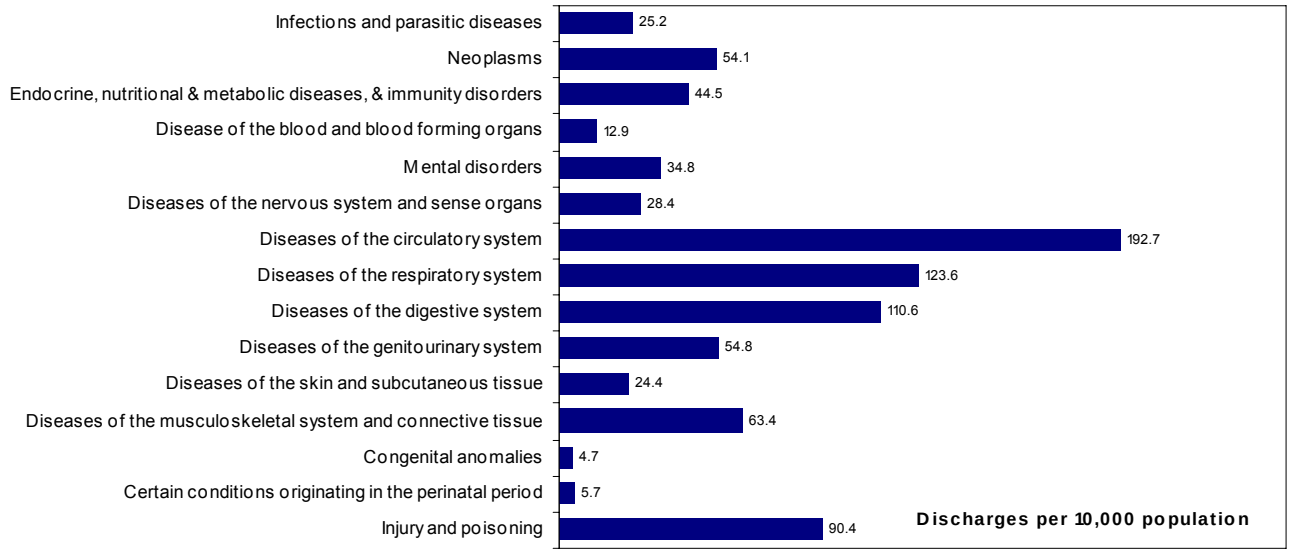
Percent Change in Hospitalization Rates by Body System
Delaware Residents, 1995 versus 2005



*Excluding liveborn infants.
Source: Delaware Health Statistics Center

The types of discharges by body system with the highest hospitalization rates in 2005 were not the same as those that showed the greatest increase from 1995 to 2005. In 2005, Delawareans were discharged most frequently for diseases of the circulatory, respiratory, and digestive systems.

Hospitalization Rates by Body System
Delaware Residents, 2005



*Excluding liveborn infants.
Source: Delaware Health Statistics Center

HOSPITALIZATIONS OF DELAWARE RESIDENTS

When the specific diagnoses that comprise each body system were examined, the following twenty principal diagnoses had the highest discharge rates of Delaware residents in 2005. Diseases of the circulatory system accounted for 6 of the 20 conditions with the highest hospitalization rates; these included:

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

Three of the circulatory conditions listed above showed significant decreases in their rates since 1995, coronary atherosclerosis and other heart disease, acute myocardial infarction, and acute cerebrovascular disease.

Looking at the diagnoses with the highest discharge rates showed that respiratory failure, osteoarthritis, and skin and subcutaneous tissue infections had the largest increases in their rates since 1995.

Top 20 CCS Diagnoses with the Highest Hospital Discharge Rates* for Delaware Residents

CCS Diagnosis	1995		2000		2005		% Difference from
	Number	Rate	Number	Rate	Number	Rate	1995 to 2005
Pneumonia (except that caused by TB or STD)	2531	34.7	2806	35.7	3120	37.1	6.9
Congestive heart failure; nonhypertensive	2231	30.6	2610	33.2	2704	32.1	5.1
Coronary atherosclerosis and other heart disease	2507	34.4	2425	30.8	2429	28.9	-16.0
Osteoarthritis	855	11.7	1164	14.8	2317	27.5	134.9
Nonspecific chest pain	1677	23.0	2455	31.2	1918	22.8	-0.8
Rehabilitation care; fitting of prostheses; and adjustment of devices	1579	21.6	2054	26.1	1910	22.7	4.9
Cardiac dysrhythmias	1316	18.0	1549	19.7	1715	20.4	13.0
Chronic obstructive pulmonary disease and bronchiectasis	1308	17.9	1525	19.4	1704	20.2	12.9
Skin and subcutaneous tissue infections	739	10.1	890	11.3	1704	20.2	99.9
Acute myocardial infarction	1652	22.6	1773	22.5	1613	19.2	-15.4
Spondylosis; intervertebral disc disorders; other back problems	1169	16.0	1330	16.9	1554	18.5	15.2
Urinary tract infections	797	10.9	1166	14.8	1481	17.6	61.1
Fluid and electrolyte disorders	1367	18.7	1227	15.6	1479	17.6	-6.2
Asthma	1362	18.7	1168	14.9	1406	16.7	-10.5
Complication of device; implant or graft	901	12.3	1098	14.0	1385	16.5	33.3
Diabetes mellitus with complications	1115	15.3	1090	13.9	1371	16.3	6.6
Acute cerebrovascular disease	1336	18.3	1483	18.9	1358	16.1	-11.9
Septicemia (except in labor)	909	12.5	589	7.5	1357	16.1	29.4
Complications of surgical procedures or medical care	681	9.3	931	11.8	1314	15.6	67.3
Respiratory failure; insufficiency; arrest (adult)	267	3.7	635	8.1	1273	15.1	313.3

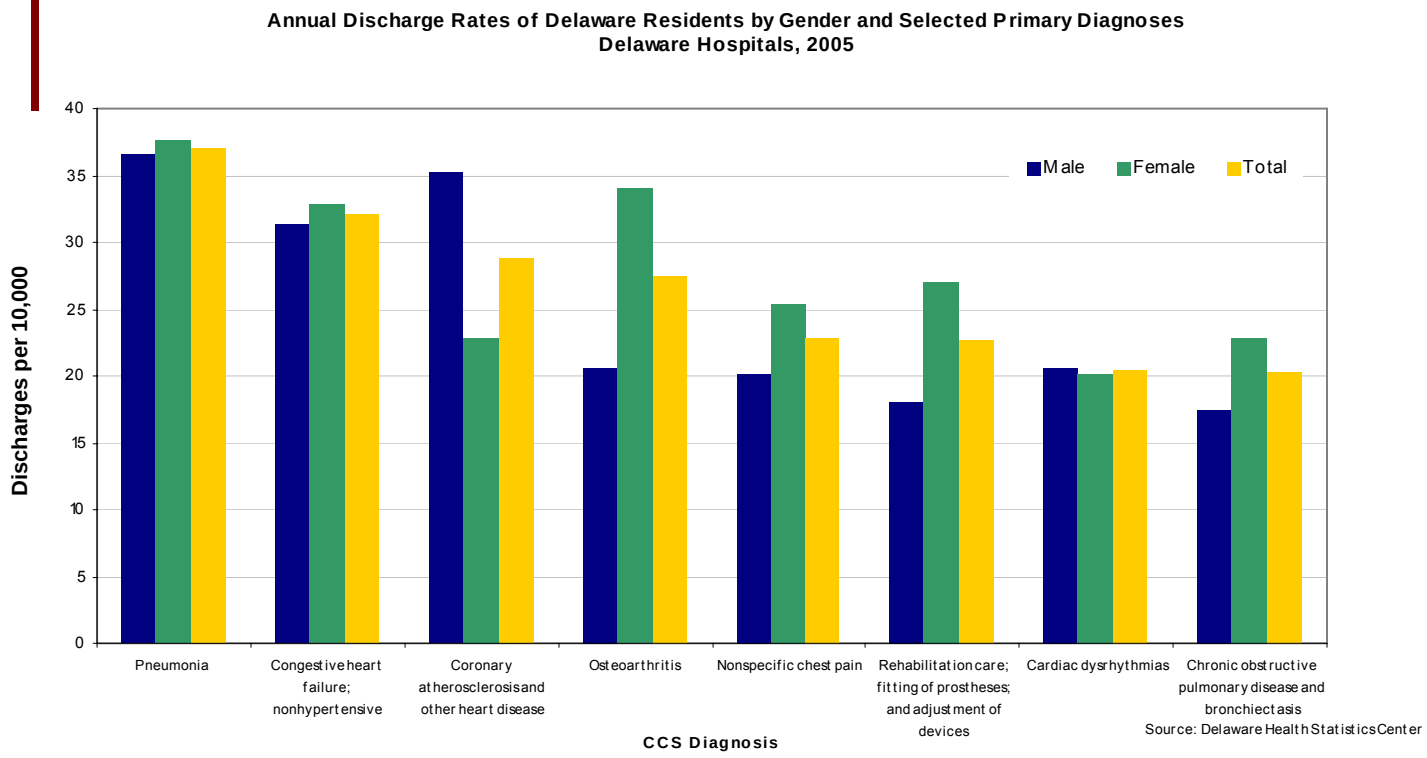
*Hospitalization Rate per 10,000. Excluding pregnancy-related discharges and liveborn infants.
Source: Delaware Health Statistics Center

Though the hospitalization rate for acute and unspecified renal failure was not high enough to be included in the table above, its rate increased the most between 1995 and 2005, rising from 2.2 to 10.6 discharges per 10,000. Influenza discharge rates experienced the second largest increase, mowing from .5 in 1995 to 2.2 in 2005. Hospital discharge rates for respiratory failure had the third largest increase, growing from 3.7 in 1995 to 15.1 in 2005, and moving into the top 20 diagnoses with the highest discharge rates in 2005.

HOSPITALIZATIONS OF DELAWARE RESIDENTS

The graph below shows annual discharge rates of the most common primary diagnoses, excluding pregnancy and childbirth, by gender[6]. Five of the eight diagnoses below differed significantly between males and females.

Hospital discharge rates for coronary atherosclerosis and other heart disease were higher for males. Females had higher discharge rates of osteoarthritis, nonspecific chest pain, rehabilitation care, and chronic obstructive pulmonary disease (COPD).

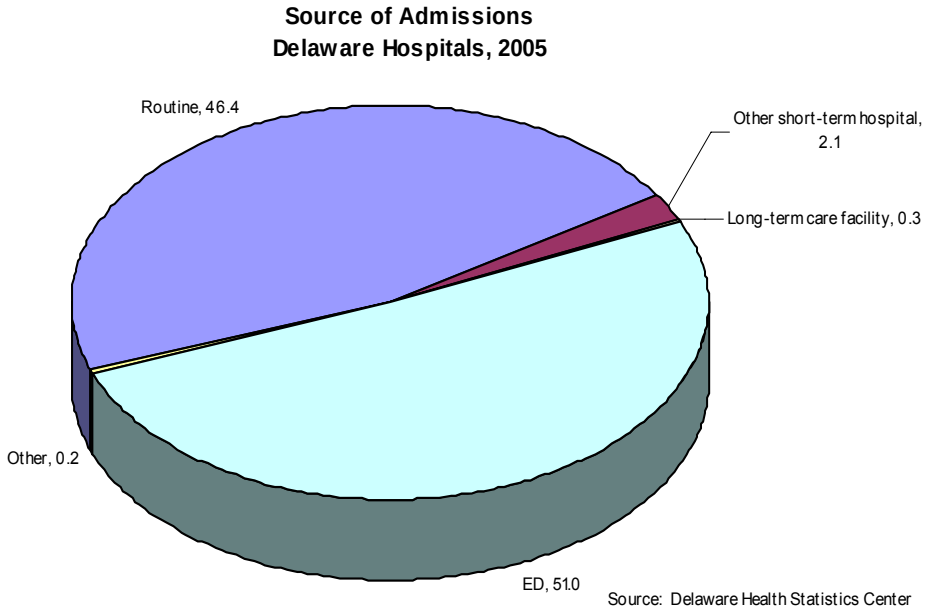


[6] See Appendix E for rates of the 20 most frequent diagnoses by gender.

How Patients Were Admitted

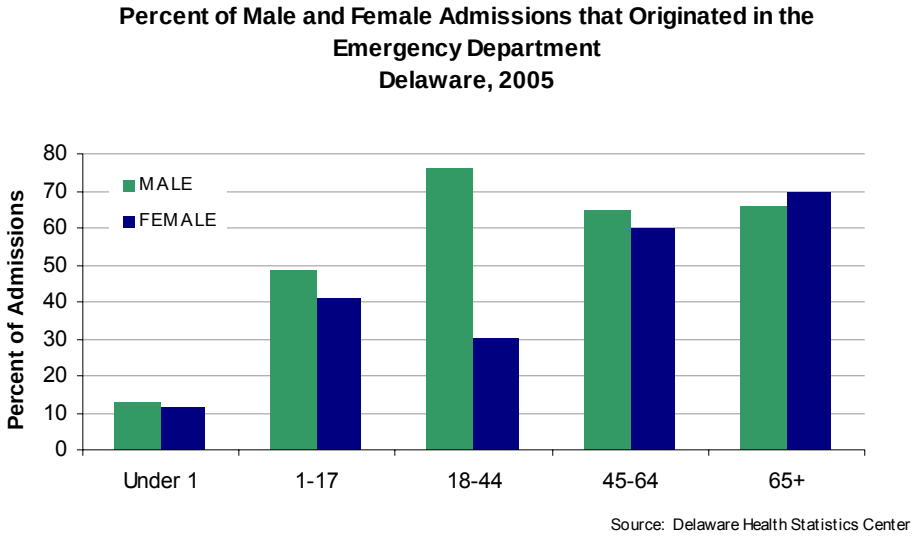
Source of admissions:

Routine admissions and admissions from the ED accounted for 97 percent of all hospital discharges in 2005. The remaining hospital admissions came from other short-term hospitals, long-term care facilities, and other sources.



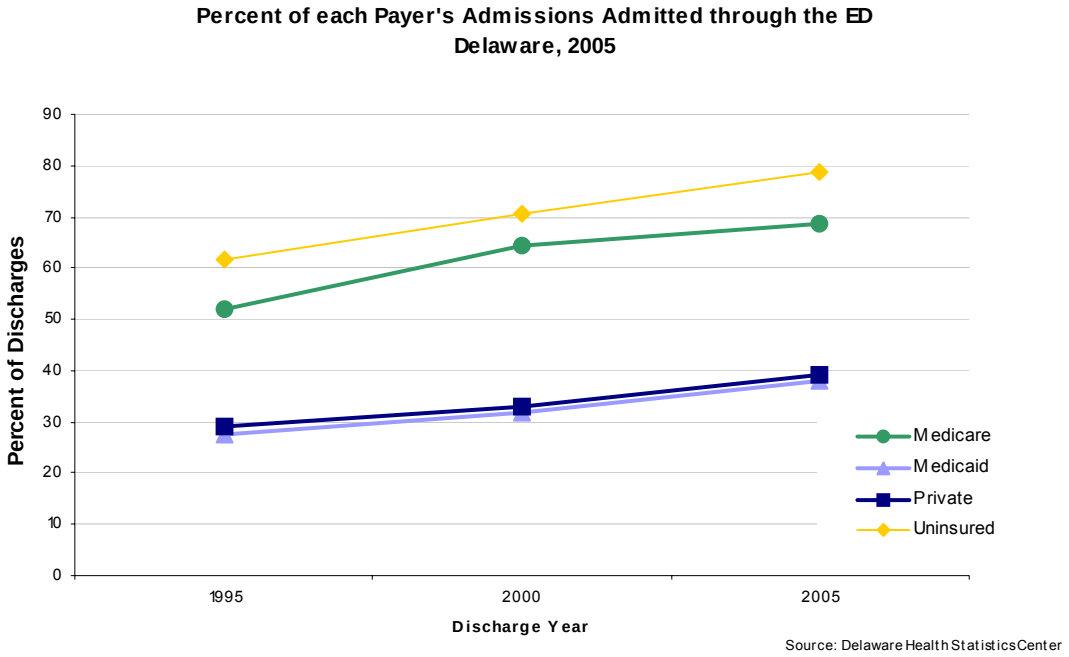
Though routine and ED admissions accounted for nearly all hospital admissions (95 percent) in 1995, the distribution of admission source shifted from a majority of patients being routinely admitted in 1995 to the majority coming from the ED in 2005. In 1995, routine and ED admissions accounted for 57 and 39 percent of all admissions. By 2005, those proportions had changed to 46 and 51 percent.

More women than men were admitted from the ED in 2005, but men had a higher proportion of their admissions come from the ED. This was true in every age group under 65; the largest difference was in the 18-44 age group.



How Patients Were Admitted

Admissions initiated in the ED varied by payer type, and since 1995, the proportion of patients admitted from the ED increased for all primary payers. By 2005, 78.8 percent of uninsured admissions, 68.5 percent of Medicare admissions, 38.1 of Medicaid admissions, and 39.3 percent of private admissions originated in the ED.



The most common diagnoses of patients admitted through the emergency department were pneumonia, congestive heart failure, and nonspecific chest pain.

2005 ED Admissions - Most Common Diagnoses	*Frequency*	*Percent* [1]
Pneumonia (except that caused by TB or STD)	2923	5.0
Congestive heart failure; nonhypertensive	2470	4.2
Nonspecific chest pain	1930	3.3
Chronic obstructive pulmonary disease and bronchiectasis	1601	2.7
Acute myocardial infarction	1499	2.5
Skin and subcutaneous tissue infections	1469	2.5
Urinary tract infections	1433	2.4
Acute cerebrovascular disease	1429	2.4
Cardiac dysrhythmias	1406	2.4
Fluid and electrolyte disorders	1371	2.3

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

There were no diagnoses in common between the 10 most frequent diagnoses for ED admissions and the top 10 diagnoses which had the majority of their admissions come from the ED. The diagnoses which had the largest proportion of their discharges admitted from the ED were:

- open wounds of the head and neck (98 percent),
- conditions associated with dizziness or vertigo (97.6 percent),
- transient cerebral ischemia (96.5 percent),
- poisoning by psychotropic agents, (96.5 percent), and
- intracranial injury (96 percent).

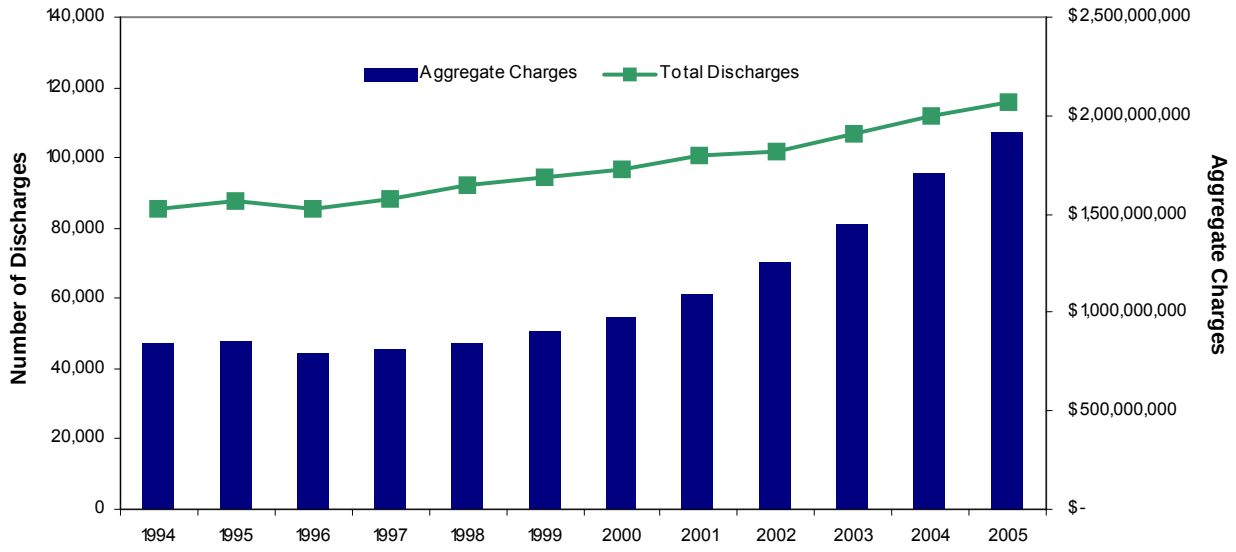
Hospital Charges and Billing

Inpatient charges:

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

In 2005, total aggregate charges for all hospitalizations in Delaware equaled 1.9 billion, more than double the 849 million in 1995. During the same time period the number of discharges rose from 87,824 to 115,618, a 31.6 percent increase.

Number of Discharges and Total Aggregate Charges by Year
Delaware Hospitals, 1994-2005



Source: Delaware Health Statistics Center

The average charge for a hospital stay in 2005 was $16,569. At $9,133, median charges for 2005 were considerably lower, illustrating how the average can be skewed by extremely high charges, such as the 19 discharges with total charges of over $1,000,000.00.

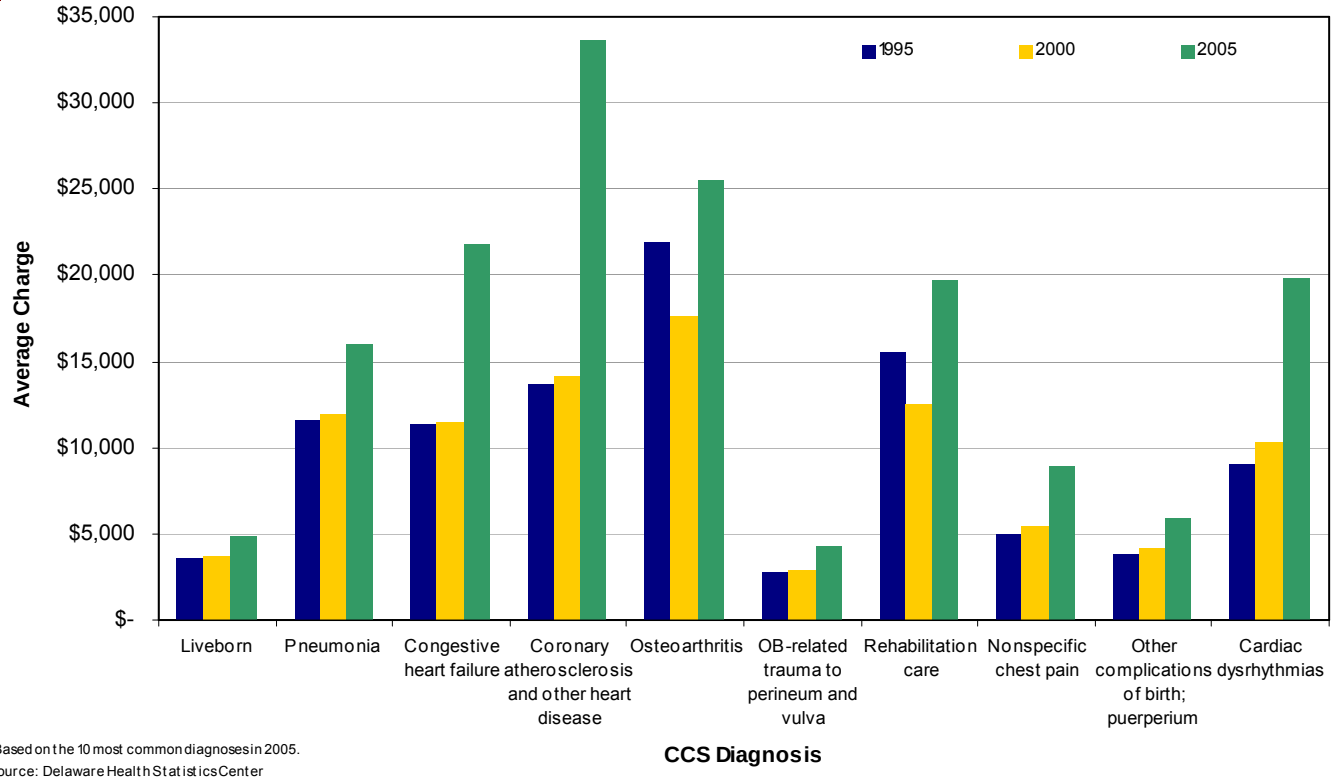
The diagnostic groups with the highest average charges per hospital stay were congenital anomalies, perinatal conditions, and infections and parasitic diseases, with average charges ranging from $27,377 to $57,175. These three diagnostic groups also had the longest average stays, ranging from 6 to 10 days.

Looking at specific diagnoses within groups showed that the most expensive diagnoses were cardiac and circulatory birth defects, heart valve disorders, and respiratory distress syndrome. However, the 10 most expensive diagnoses occurred relatively rarely and accounted for just over 1 percent of all discharges in 2005. In comparison, the 10 diagnoses that occurred most frequently accounted for 29 percent of the total discharges in 2005 (see Appendix F for more information).

From 1995 to 2005, the average charges rose for each of the 10 highest volume diagnoses. The diagnoses whose average charges increased the most were:

- coronary atherosclerosis and other heart disease (146%),
- congestive heart failure (91%), and
- nonspecific chest pain (79%).

Average Hospital Charges for Highest* Volume CCS Diagnoses
Delaware Hospitals, 1995 - 2005



*Based on the 10 most common diagnoses in 2005.
Source: Delaware Health Statistics Center

Though the average charges of the high volume diagnoses increased over time, the proportion of total aggregate charges represented by them has remained relatively stable at 24 percent.

- In 1995, the aggregate charges for the 10 high volume diagnoses totaled $213,098,918 and accounted for 25.1 percent of the total aggregate charges for all diagnoses.
- By 2005, the aggregate charges for those same diagnoses had more than doubled, to $455,458,701, which accounted for 23.8 percent of the total aggregate charges.

Insurance status:

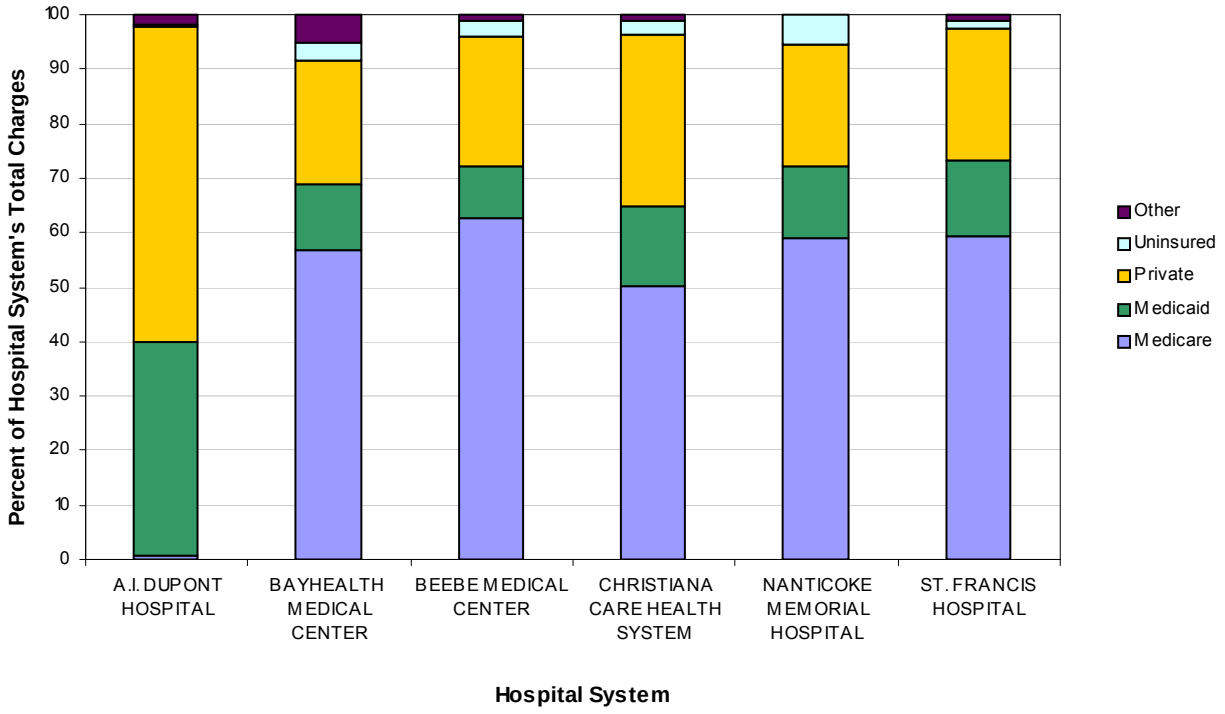
The following payer sources are listed in this report:

- 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

From 1995 to 2005, the percent of hospital stays whose primary payer was Medicare increased from 34 to 36.9 percent, Medicaid covered hospitalizations increased from 16.4 to 21.4 percent, privately insured stays decreased from 42.3 to 36.6 percent, and uninsured hospitalizations decreased from 5.7 to 3 percent.

In 2005 Beebe had the highest proportion of patients whose primary payer was Medicare. A.I. DuPont had the highest proportion of both privately insured and Medicaid covered patients, and Nanticoke had the highest percent of uninsured patients.

Distribution of Total Charges by Primary Payer Type and Hospital System
Delaware, 2005



Source: Delaware Health Statistics Center

Hospital Charges and Billing

Medicare:

From 1995 to 2005, the percent of hospital stays whose primary payer was Medicare increased from 34 to 36.9 percent. Over the same time period, the proportion of aggregate charges billed to Medicare remained at 46 percent.

Five of the top 10 most frequent diagnoses for Medicare patients were related to diseases of the circulatory system; together they accounted for 17.7 percent of Medicare hospitalizations. The three most frequent diagnoses for Medicare patients in 2005 were[7]:

- congestive heart failure; nonhypertensive,
- pneumonia (except that caused by TB or STD), and
- rehabilitation care; fitting of prostheses; and adjustment of devices.

Medicaid:

From 1995 to 2005, Medicaid covered hospitalizations increased from 16.4 to 21.4 percent. Over the same time period, the proportion of aggregate charges billed to Medicaid rose from 13.8 to 17.1 percent.

Six of the 10 most frequent diagnoses for Medicaid patients were related to pregnancy and childbirth, and accounted for 33.9 percent of Medicaid stays. The three most frequent diagnoses for Medicaid patients in 2005 were[7]:

- liveborn infants,
- other complications of birth; puerperium affecting management of mother, and
- other complications of pregnancy.

Private Insurers:

From 1995 to 2005, privately insured stays decreased from 42.3 to 36.6. Over the same time period, the proportion of aggregate charges billed to private insurance decreased from 34.1 to 32.1 percent.

Four of the 10 most frequent diagnoses for patients whose primary payer was private insurance were related to pregnancy and childbirth, and accounted for 21.2 percent of all stays covered by private insurers . The three most frequent diagnoses for privately insured patients in 2005 were[7]:

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

Uninsured:

From 1995 to 2005, uninsured hospitalizations decreased from 5.7 to 3 percent. Over the same time period, the proportion of aggregate charges billed to uninsured patients decreased from 4.2 to 2.5 percent.

Unlike the other payer types, two of the 10 most frequent diagnoses for uninsured patients were mental health related, and accounted for 6.8 percent of uninsured stays. The three most frequent diagnoses for uninsured patients in 2005 were[7]:

- liveborn infants,
- skin and subcutaneous tissue infections, and
- nonspecific chest pain.

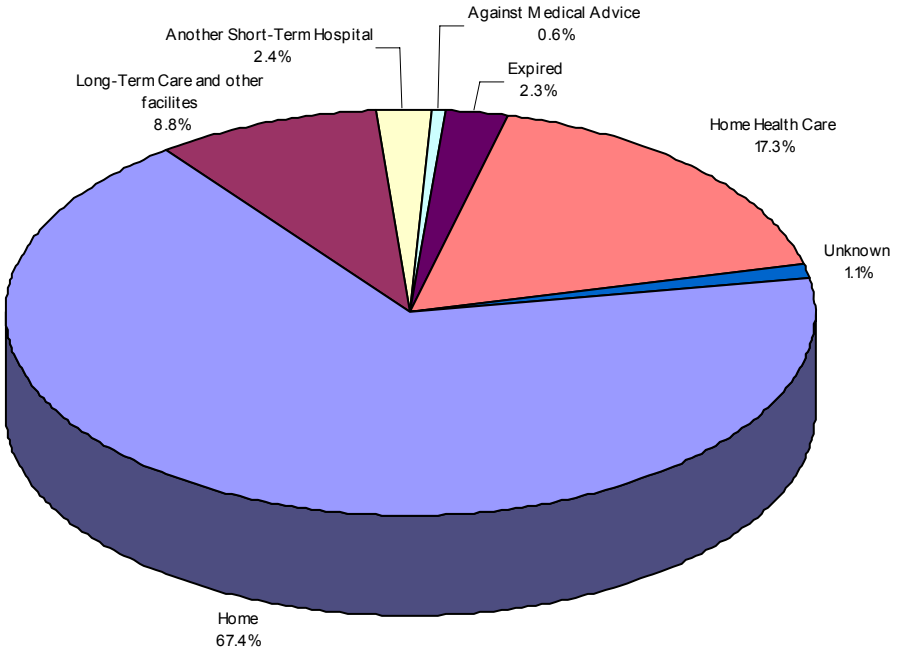
[7] See Appendix G for the top 10 principal diagnoses by payer type.

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. The majority of patients (67 percent) in 2005 were discharged to their homes, less than 3 percent of patients died in the hospital, and fewer than 1 percent left against medical advice.

Percent of Discharges by Discharge Status
Delaware Hospitals, 2005



Source: Delaware Health Statistics Center

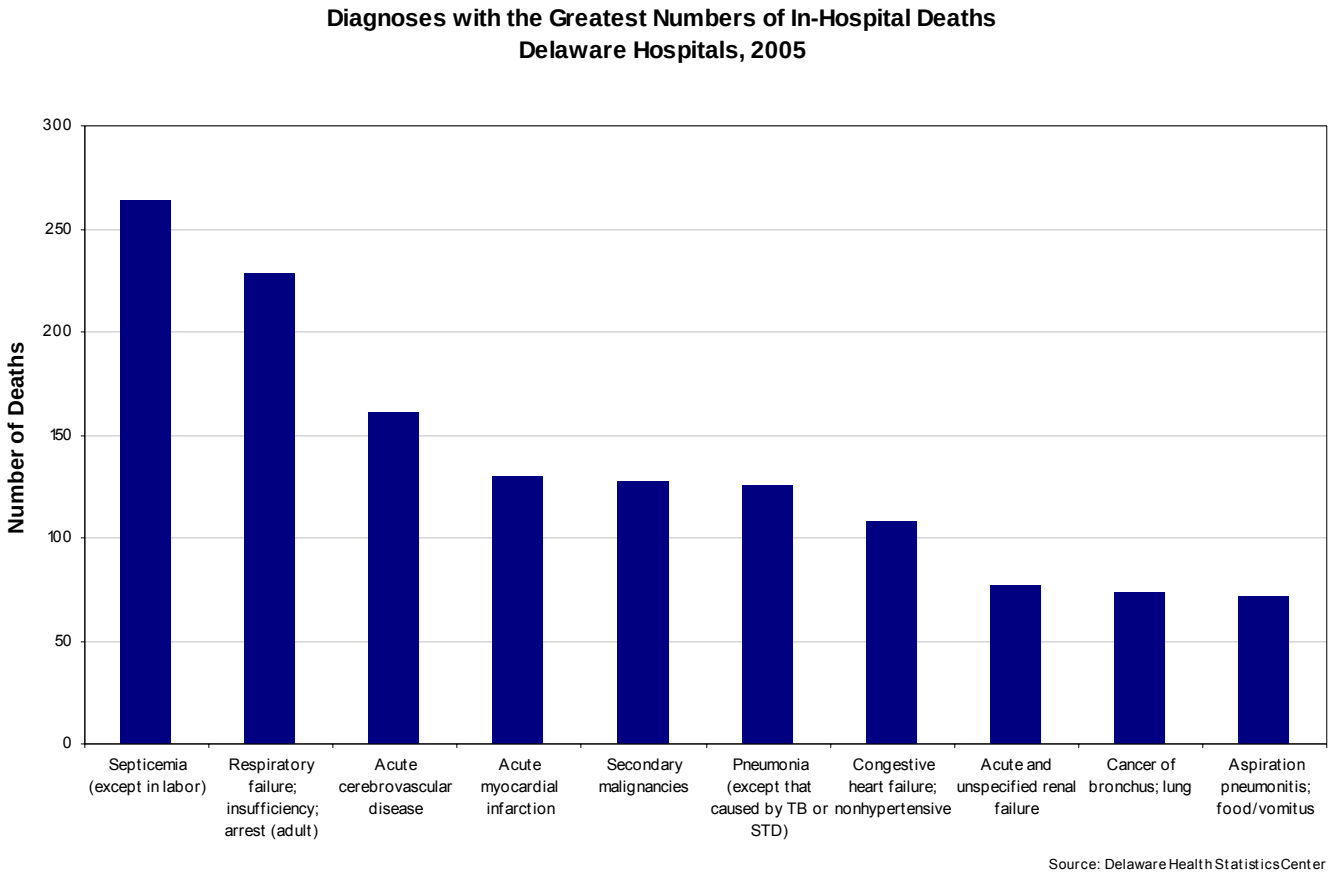
Expired patients:

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,
- respiratory failure, and
- acute cerebrovascular disease.



Age affected which diagnoses contributed to the largest numbers of deaths.

- For those under 1, disorders related to low birthweight and prematurity accounted for the highest number of deaths.
- For those ages 1-17, complication of device; implant or graft and fluid and electrolyte disorders accounted for the highest number of deaths.
- For those ages 18-44, intracranial injuries and HIV infection accounted for the highest number of deaths.
- For those ages 45-64, secondary malignancies and septicemia accounted for the highest number of deaths.
- For those 65 and older, septicemia and respiratory failure accounted for the highest number of deaths.

Patients ages 65 and older accounted for 70 percent of all in-hospital mortality (for more information see Appendices H and I).

Percentages

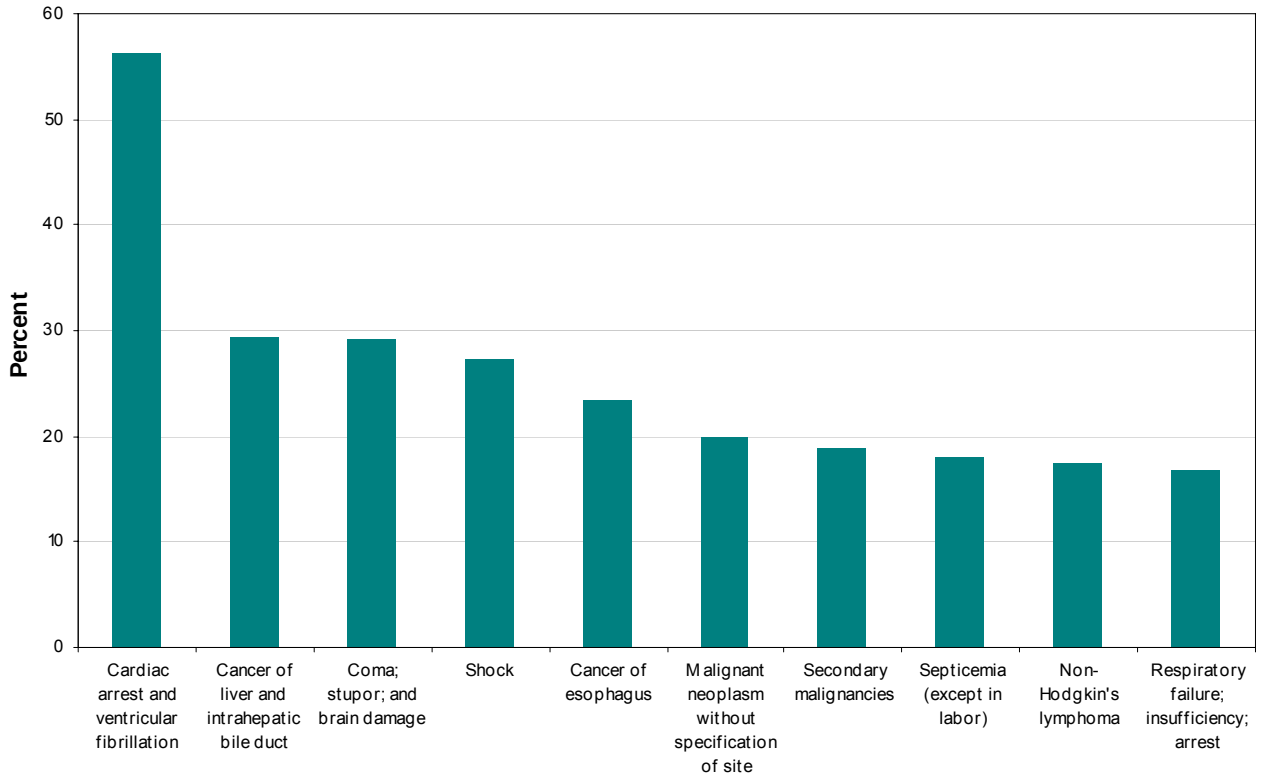
Those diagnoses with the greatest percentages of in-hospital mortality were:

- cardiac arrest and ventricular fibrillation,
- cancer of liver and intrahepatic bile duct, and
- coma; stupor; and brain damage.

How Patients Were Discharged

Five of the ten diagnoses with the greatest percentages of in-hospital mortality were cancer-related, and included cancer of liver and intrahepatic bile duct, cancer of esophagus, cancer without specification of site, secondary malignancies, and Non-Hodgkin's lymphoma.

CCS Diagnoses with the Greatest Percent of In-Hospital Mortality
Delaware Hospital, 2005



Source: Delaware Health Statistics Center

Patients who left against medical advice:

Less than one percent of patients left the hospital against medical advice. Patients who left the hospital against medical advice were more likely to be:

- in the 18 to 44 age group (54 percent),
- male (58 percent), and
- covered by Medicaid (39 percent).

The three most frequent diagnoses of patients who left the hospital against medical advice were nonspecific chest pain, pancreatic disorders, and pneumonia.

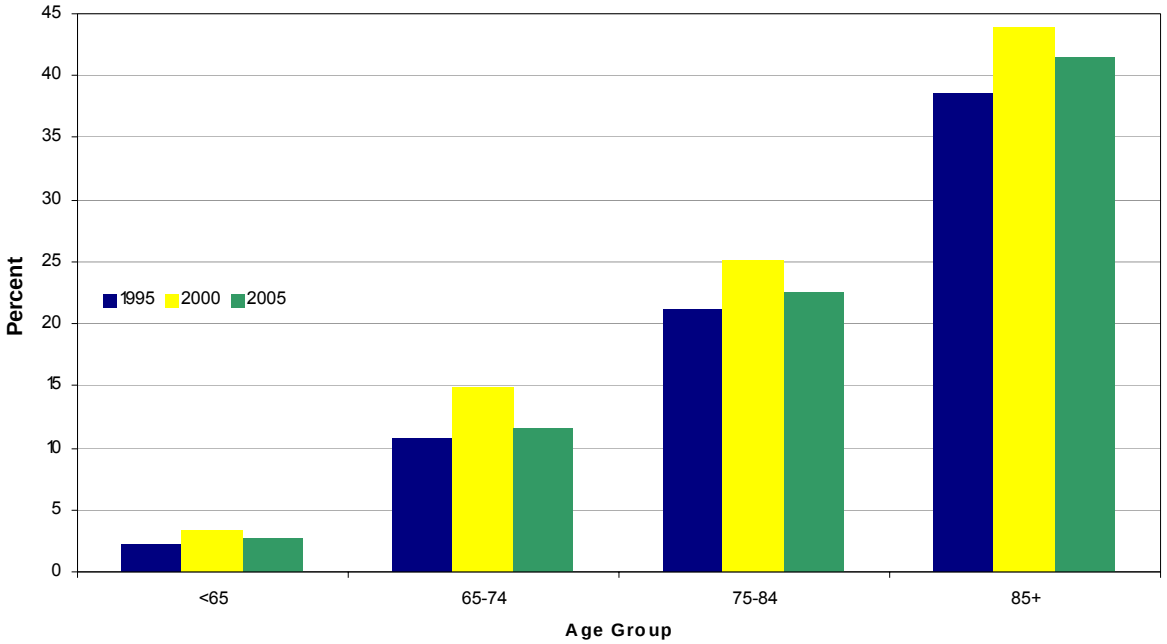
- For women, nonspecific chest pain, pneumonia, and early or threatened labor made up the top three.
- For men, nonspecific chest pain, pancreatic disorders, and diabetes with complications made up the top three.

How Patients Were Discharged

Patients transferred to another facility:

The majority of patients discharged to another facility were transferred to a long-term care (LTC) facility. For those 65 and older, each 10 year increase in patient age nearly doubled the percent of those transferred to LTC facilities. In 2005, less than 3 percent of those under 65 were discharged to long-term care facilities, compared to 11.5 percent of those 65-74, 22.5 percent of those 75-84, and 41.5 percent of those 85 and older.

Percent of Patients Transferred to a Long-term Care by Age Group
Delaware Hospitals, 1995-2005



Source: Delaware Health Statistics Center

In 2005, the most common diagnoses for patients discharged to LTC facilities were pneumonia, congestive heart failure, and urinary tract infections.

- For patients under 65 (excluding liveborn infants), poisoning by other medications and drugs, septicemia, and poisoning by psychotropic agents were the three most common diagnoses.
- For patients 65-74, urinary tract infections, pneumonia, and osteoarthritis were the three most common diagnoses.
- For patients 75-84, pneumonia, congestive heart failure, and urinary tract infections were the three most common diagnoses.
- For patients 85 and older, pneumonia , hip fracture, and congestive heart failure were the three most common diagnoses.

A.I. duPont Hospital for Children

2005 Discharge Distribution

Zip / State	Number	%
19805	573	5.2
19720	500	4.5
19702	439	3.9
19802	377	3.4
19801	307	2.8
19701	266	2.4
19713	252	2.3
19709	251	2.3
19808	244	2.2
19711	227	2.0
19901	174	1.6
19804	153	1.4
19810	152	1.4
19803	136	1.2
19904	132	1.2
19703	129	1.2
19809	121	1.1
19977	111	1.0
19707	102	0.9
19947	91	0.8
19956	87	0.8
19966	81	0.7
19934	69	0.6
19973	68	0.6
19943	64	0.6
19963	63	0.6
19734	60	0.5
19938	58	0.5
19962	53	0.5
19933	46	0.4
19807	42	0.4
19975	42	0.4
19806	41	0.4
19958	37	0.3
19952	35	0.3
19960	29	0.3
19968	27	0.2
19953	25	0.2
19971	25	0.2
19939	24	0.2
19945	24	0.2
19970	24	0.2
19950	23	0.2
19964	17	0.2
19940	16	0.1
19951	15	0.1
19941	14	0.1
19706	12	0.1
19946	11	0.1
19899	9	0.1
19850	8	0.1
DE Other	29	0.3
DE Unk	0	0.0
MD	716	6.4
NJ	1,255	11.3
PA	3,096	27.8
Other Non-DE	134	1.2
Invalid	7	0.1
Total	11,123	100

Utilization Characteristics

	1995	2000	2005
Aggregate charges	$67,767,865	$104,950,236	$275,884,812
Average charges	$14,148	$17,021	$24,803
Average charge per day	$2,738	$3,681	$6,409
Number of Discharges	4,790	6,166	11,123
Total All-listed Procedures[1]	5,522	8,198	13,022
Non-operating room procedures[2]	2,372	3,697	6,822
Valid operating room procedures[2]	3,150	4,501	6,200
Average Lenth of Stay	5.5	4.8	4.0
Primary Payer Distribution			
Medicare	0.1	0.2	0.2
Medicaid	36.3	35.9	37.4
Private Insurance	56.2	49.0	60.4
Uninsured	4.9	0.8	0.5
Other	2.4	14.1	1.5
Admission Source Distribution			
Routine	52.2	42.3	41.7
Other short-term hospital	11.8	12.8	10.3
Long-term care facility	0.3	0.4	0.9
ER	31.8	39.6	45.9
Other	3.8	4.8	1.1
Discharge Status Distribution			
Routine	96.7	96.1	93.0
Another short-term hospital	1.2	0.9	0.5
Long-term care	1.3	1.4	0.9
Home health care	0.2	0.3	5.2
Expired	0.5	1.0	0.4
Against medical advice	0.1	0.0	0.1
Other/Unknown	0.0	0.1	0.0
Sex			
Male	55.3	54.2	54.7
Female	44.7	45.8	45.3
Age			
<1	22.4	25.6	22.8
1-4	27.8	27.4	28.9
5-9	20.2	18.1	18.8
10-14	17.5	18.3	17.2
15-19	11.4	10.0	11.6
20-24	0.6	0.6	0.6
25-34	0.0	0.1	0.0
35-44	0.1	0.0	0.0
45-54	0.0	0.0	0.0
55-64	0.0	0.0	0.0
65-74	0.0	0.0	0.0
75+	0.0	0.0	0.0

Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to 6 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 technical notes for more information.

BayHealth Medical Center

2005 Discharge Distribution

Zip / State	Number	%
19901	3,911	19.2
19904	2,874	14.1
19963	2,090	10.3
19977	1,435	7.1
19943	1,110	5.5
19952	1,019	5.0
19934	917	4.5
19962	823	4.0
19960	540	2.7
19938	508	2.5
19953	444	2.2
19947	427	2.1
19950	401	2.0
19946	371	1.8
19966	288	1.4
19968	259	1.3
19973	240	1.2
19941	206	1.0
19958	194	1.0
19933	180	0.9
19734	155	0.8
19954	127	0.6
19971	123	0.6
19956	112	0.6
19964	112	0.6
19709	99	0.5
19939	62	0.3
19936	59	0.3
19903	58	0.3
19979	54	0.3
19945	51	0.3
19970	43	0.2
19955	41	0.2
19975	31	0.2
19980	30	0.1
19951	28	0.1
19902	22	0.1
19805	20	0.1
19961	20	0.1
19701	16	0.1
19940	15	0.1
19711	14	0.1
19801	14	0.1
19720	13	0.1
19713	12	0.1
19702	11	0.1
19930	11	0.1
19802	9	0.0
19706	6	0.0
19703	5	0.0
19809	5	0.0
DE Other	27	0.1
DE Unknown	0	0.0
MD	469	2.3
NJ	25	0.1
PA	51	0.3
Other Non-DE	148	0.7
Invalid	1	0.0
Total	20,336	100

Utilization Characteristics

	1995	2000	2005
Aggregate charges	$133,712,642	$164,583,685	$301,554,921
Average charges	$8,198	$8,844	$14,829
Average charge per day	$1,847	$2,198	$3,671
Number of Discharges	16,311	18,610	20,336
Total All-listed Procedures[1]	15,830	18,426	22,744
Non-operating room procedures[2]	9,253	11,578	14,550
Valid operating room procedures[2]	6,577	6,848	8,194
Average Lenth of Stay	5.3	4.9	5.1
Primary Payer Distribution[3]			
Medicare	38.1	38.5	41.5
Medicaid	17.6	16.4	21.9
Private Insurance	34.6	32.7	25.9
Uninsured	6.0	4.1	3.7
Other	3.6	8.3	7.1
Admission Source Distribution			
Routine	64.3	53.1	52.1
Other short-term hospital	1.2	0.5	0.8
Long-term care facility	0.6	0.0	0.3
ER	34.0	46.0	46.3
Other	0.0	0.3	0.5
Discharge Status Distribution			
Routine	74.9	68.0	67.9
Another short-term hospital	4.1	3.9	3.1
Long-term care	6.7	10.1	7.9
Home health care	10.3	14.8	14.9
Expired	3.0	2.5	2.3
Against medical advice	1.0	0.6	0.8
Other/Unknown	0.0	0.0	3.1
Sex			
Male	42.9	39.3	39.9
Female	57.1	60.7	60.1
Age			
<1	10.2	10.2	10.7
1-4	3.5	1.8	1.5
5-9	1.7	1.2	0.8
10-14	1.8	1.5	0.7
15-19	3.5	4.1	3.2
20-24	4.8	5.6	5.9
25-34	10.5	9.8	9.6
35-44	9.4	9.3	8.9
45-54	9.2	10.2	10.5
55-64	10.7	10.8	11.5
65-74	16.1	15.0	14.4
75+	18.6	20.5	22.3

Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to 6 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 technical notes for more information.
3. Primary payer distribution for 1995 does not total to 100 due to discharges without a specified primary payer.

Beebe Medical Center

2005 Discharge Distribution

Zip / State	Number	%
19966	1,856	18.9
19958	1,829	18.7
19971	988	10.1
19947	943	9.6
19968	643	6.6
19970	473	4.8
19945	402	4.1
19939	371	3.8
19975	293	3.0
19963	217	2.2
19930	204	2.1
19973	188	1.9
19956	155	1.6
19951	108	1.1
19960	108	1.1
19933	100	1.0
19941	62	0.6
19950	50	0.5
19952	43	0.4
19969	35	0.4
19967	24	0.2
19904	23	0.2
19944	21	0.2
19901	20	0.2
19934	20	0.2
19940	20	0.2
19808	17	0.2
19946	16	0.2
19943	13	0.1
19954	11	0.1
19701	9	0.1
19720	9	0.1
19977	9	0.1
19702	6	0.1
19804	6	0.1
19962	6	0.1
19803	5	0.1
DE Other	34	0.3
DE Unknown	2	0.0
MD	175	1.8
NJ	22	0.2
PA	116	1.2
Other Non-DE	141	1.4
Invalid	4	0.0
Total	9,797	100

Utilization Characteristics

	1995	2000	2005
Aggregate charges	$60,557,517	$89,480,851	$166,332,043
Average charges	$8,766	$10,016	$16,978
Average charge per day	$2,148	$2,834	$5,152
Number of Discharges	6,908	8,934	9,797
Total All-listed Procedures[1]	5,519	10,140	11,589
Non-operating room procedures[2]	2,948	6,039	6,568
Valid operating room procedures[2]	2,571	4,101	5,021
Average Lenth of Stay	4.4	3.9	3.8
Primary Payer Distribution			
Medicare	46.9	51.5	48.6
Medicaid	14.6	15.0	17.9
Private Insurance	29.7	29.5	29.5
Uninsured	8.1	3.2	2.8
Other	0.7	0.7	1.1
Admission Source Distribution			
Routine	34.9	45.3	47.1
Other short-term hospital	0.3	0.0	0.0
Long-term care facility	11.7	0.3	0.0
ER	53.1	54.3	52.9
Other	0.0	0.1	0.0
Discharge Status Distribution			
Routine	81.2	59.0	55.9
Another short-term hospital	2.6	5.1	4.6
Long-term care	8.3	13.3	10.9
Home health care	4.4	19.6	23.0
Expired	2.7	2.5	2.1
Against medical advice	0.7	0.5	0.4
Other/Unknown	0.0	0.0	3.2
Sex			
Male	43.3	42.3	43.7
Female	56.7	57.7	56.3
Age			
<1	7.0	8.7	10.7
1-4	3.1	0.6	0.9
5-9	0.6	0.4	0.2
10-14	1.0	0.4	0.3
15-19	2.1	2.1	1.8
20-24	5.1	4.0	4.1
25-34	10.0	7.7	6.9
35-44	8.1	7.8	7.5
45-54	7.6	9.1	8.8
55-64	11.4	11.5	13.1
65-74	22.4	21.1	19.4
75+	21.6	26.7	26.2

Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to 6 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 technical notes for more information.

Christiana Care Health System

2005 Discharge Distribution

Zip / State	Number	%
19720	6,425	10.8
19702	4,381	7.4
19805	3,987	6.7
19808	3,903	6.6
19711	3,547	6.0
19713	3,390	5.7
19701	3,068	5.2
19802	3,028	5.1
19709	2,251	3.8
19804	2,084	3.5
19801	1,811	3.0
19803	1,783	3.0
19810	1,670	2.8
19707	1,275	2.1
19703	1,254	2.1
19809	1,167	2.0
19806	1,027	1.7
19734	620	1.0
19807	605	1.0
19977	568	1.0
19904	351	0.6
19901	327	0.6
19706	298	0.5
19966	214	0.4
19938	201	0.3
19963	190	0.3
19958	174	0.3
19973	132	0.2
19971	114	0.2
19934	110	0.2
19952	103	0.2
19943	101	0.2
19947	96	0.2
19956	87	0.1
19962	78	0.1
19953	71	0.1
19899	66	0.1
19968	65	0.1
19946	62	0.1
19933	55	0.1
19730	46	0.1
19960	44	0.1
19950	39	0.1
19731	36	0.1
19970	33	0.1
19945	30	0.1
19975	28	0.0
19733	25	0.0
19714	24	0.0
19708	23	0.0
19940	22	0.0
19941	22	0.0
19710	21	0.0
19955	20	0.0
19736	19	0.0
19732	18	0.0
19850	17	0.0
19939	17	0.0
19717	16	0.0
19964	15	0.0
19930	14	0.0
19712	13	0.0
19903	11	0.0
DE Other	71	0.1
DE Unknown	13	0.0
MD	3,349	5.6
NJ	1,607	2.7
PA	2,678	4.5
Other Non-DE	389	0.7
Invalid	17	0.0
Total	59,416	100.0

Utilization Characteristics

	1995	2000	2005
Aggregate charges	$427,962,381	$482,274,462	$913,151,785
Average charges	$10,225	$9,922	$15,369
Average charge per day	$2,148	$2,094	$3,788
Number of Discharges	41,856	48,607	59,416
Total All-listed Procedures[1]	59,867	78,304	86,640
Non-operating room procedures[2]	36,733	52,545	56,119
Valid operating room procedures[2]	23,134	25,759	30,521
Average Lenth of Stay	5.2	5.4	5.0
Primary Payer Distribution			
Medicare	31.2	36.8	38.2
Medicaid	13.8	14.4	18.3
Private Insurance	49.1	46.1	39.6
Uninsured	4.5	2.1	3.0
Other	1.4	0.7	0.9
Admission Source Distribution			
Routine	60.6	54.5	47.3
Other short-term hospital	3.3	2.3	1.6
Long-term care facility	0.5	0.0	0.2
ER	35.5	43.1	51.0
Other	0.0	0.0	0.0
Discharge Status Distribution			
Routine	64.5	65.2	65.0
Another short-term hospital	0.5	0.8	2.4
Long-term care	6.6	9.6	9.0
Home health care	25.5	20.9	20.3
Expired	2.3	3.1	2.7
Against medical advice	0.7	0.4	0.6
Other/Unknown	0.0	0.0	0.0
Sex			
Male	40.7	39.4	40.1
Female	59.2	60.6	59.9
Age			
<1	15.7	14.8	12.8
1-4	0.7	0.3	0.3
5-9	0.5	0.2	0.2
10-14	0.6	0.3	0.3
15-19	2.9	2.5	2.3
20-24	4.9	4.5	4.8
25-34	15.6	12.6	12.2
35-44	11.1	11.3	10.9
45-54	9.9	10.5	12.2
55-64	10.1	10.7	12.2
65-74	14.5	13.6	12.5
75+	13.3	18.7	19.3

Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to 6 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 technical notes for more information.

Nanticoke Memorial Hospital

2005 Discharge Distribution

Zip / State	Number	%
19973	2,833	41.2
19956	1,190	17.3
19947	629	9.1
19933	602	8.8
19966	312	4.5
19940	240	3.5
19950	239	3.5
19975	79	1.1
19945	62	0.9
19939	50	0.7
19968	45	0.7
19952	31	0.5
19963	27	0.4
19931	25	0.4
19958	22	0.3
19941	19	0.3
19960	16	0.2
19901	12	0.2
19943	8	0.1
19951	7	0.1
19970	6	0.1
DE Other	41	0.6
DE Unknown	0	0.0
MD	338	4.9
NJ	11	0.2
PA	4	0.1
Other Non-DE	31	0.5
Invalid	0	0.0
Total	6,879	100

Utilization Characteristics

	1995	2000	2005
Aggregate charges	$45,154,566	$54,901,142	$89,303,960
Average charges	$7,416	$8,508	$12,982
Average charge per day	$1,776	$2,241	$3,079
Number of Discharges	6,089	6,453	6,879
Total All-listed Procedures[1]	7,982	8,032	13,307
Non-operating room procedures[2]	5,941	5,942	10,891
Valid operating room procedures[2]	2,041	2,090	2,416
Average Lenth of Stay	4.4	4.0	4.5
Primary Payer Distribution			
Medicare	37.1	40.1	42.1
Medicaid	21.0	18.8	26.6
Private Insurance	35.2	34.3	24.6
Uninsured	6.7	6.7	6.6
Other	0.0	0.0	0.0
Admission Source Distribution			
Routine	51.8	42.9	36.0
Other short-term hospital	0.2	0.4	0.1
Long-term care facility	0.7	0.4	0.1
ER	47.3	56.2	63.9
Other	0.0	0.0	0.0
Discharge Status Distribution			
Routine	83.3	75.9	71.9
Another short-term hospital	4.3	4.9	3.2
Long-term care	9.0	10.7	12.8
Home health care	0.1	5.5	8.6
Expired	2.5	2.2	2.0
Against medical advice	0.8	0.8	0.8
Other/Unknown	0.0	0.0	0.7
Sex			
Male	39.6	39.1	39.7
Female	60.4	60.9	60.3
Age			
<1	13.1	7.6	11.9
1-4	1.6	1.1	0.6
5-9	0.8	0.5	0.4
10-14	1.0	0.7	0.5
15-19	4.3	3.4	3.5
20-24	6.4	6.2	5.7
25-34	12.2	11.7	8.6
35-44	9.5	12.0	9.8
45-54	9.2	11.5	10.7
55-64	8.9	11.2	12.6
65-74	15.0	13.5	12.7
75+	18.1	20.7	23.0

Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to 6 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 technical notes for more information.

St. Francis Hospital

2005 Discharge Distribution

Zip / State	Number	%
19805	1,872	23.2
19802	829	10.3
19801	642	8.0
19720	638	7.9
19806	407	5.0
19810	393	4.9
19803	366	4.5
19808	297	3.7
19703	286	3.5
19804	279	3.5
19809	247	3.1
19702	200	2.5
19711	180	2.2
19713	175	2.2
19707	147	1.8
19701	123	1.5
19807	100	1.2
19709	68	0.8
19977	28	0.3
19901	21	0.3
19706	20	0.2
19734	18	0.2
19966	15	0.2
19904	13	0.2
19899	12	0.1
19943	11	0.1
19938	8	0.1
19963	8	0.1
19971	8	0.1
19933	7	0.1
19952	7	0.1
19968	7	0.1
19850	6	0.1
19934	5	0.1
19945	5	0.1
19958	5	0.1
DE Other	41	0.5
DE Unknown	1	0.0
MD	128	1.6
NJ	72	0.9
PA	240	3.0
Other Non-DE	130	1.6
Invalid	2	0.0
Total	8,067	100

Utilization Characteristics

	1995	2000	2005
Aggregate charges	$114,031,182	$75,905,231	$169,398,271
Average charges	$9,607	$9,828	$20,999
Average charge per day	$1,906	$2,632	$6,805
Number of Discharges	11,870	7,723	8,067
Total All-listed Procedures[1]	9,774	7,583	9,712
Non-operating room procedures[2]	5,476	4,419	6,262
Valid operating room procedures[2]	4,298	3,164	3,450
Average Lenth of Stay	5.7	4.5	4.4
Primary Payer Distribution			
Medicare	42.8	47.3	47.7
Medicaid	14.9	20.3	21.5
Private Insurance	34.3	29.1	27.1
Uninsured	7.8	1.9	2.4
Other	0.2	1.4	1.2
Admission Source Distribution			
Routine	48.0	46.9	40.1
Other short-term hospital	0.0	4.1	2.0
Long-term care facility	6.5	1.3	1.0
ER	45.0	47.6	56.3
Other	0.5	0.1	0.6
Discharge Status Distribution			
Routine	64.6	55.0	59.2
Another short-term hospital	2.3	2.9	1.0
Long-term care	11.9	18.0	14.8
Home health care	18.0	20.2	19.0
Expired	2.7	2.8	2.2
Against medical advice	0.5	0.5	0.9
Other/Unknown	0.0	0.6	2.8
Sex			
Male	36.5	34.4	36.3
Female	63.5	65.6	63.7
Age			
<1	10.7	11.8	8.5
1-4	1.1	0.0	0.0
5-9	0.5	0.0	0.0
10-14	0.7	0.1	0.0
15-19	3.2	2.5	2.3
20-24	4.5	5.8	4.1
25-34	10.1	9.7	9.8
35-44	9.7	8.6	9.2
45-54	8.4	8.0	10.9
55-64	10.5	9.8	12.2
65-74	16.0	15.7	14.2
75+	24.7	28.0	28.7

Notes:

1. Total all-listed procedures represents the total number of procedures performed; up to 6 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 technical notes for more information.

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APPENDICES

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APPENDIX A

Clinical classification system:

Diagnoses and procedures 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 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 Admitted from the ED by Principal Diagnosis
Delaware Hospitals, 2005

Clinical Classifications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Mean LOS	Mean Total Charges	Percent Expired	Percent Admitted from ED
Infections and parasitic diseases	**2398**	**2.1**	**8.5**	**$ 27,377**	**12.8**	**82.0**
Tuberculosis	15	0.6	25.7	$ 45,816	6.7	66.7
Septicemia (except in labor)	1467	61.2	9.9	$ 32,673	18.0	86.8
Bacterial infection; unspecified site	42	1.8	6.6	$ 30,217	4.8	71.4
Mycoses	80	3.3	9.5	$ 35,002	12.5	78.8
HIV infection	233	9.7	9.8	$ 27,047	11.2	87.6
Hepatitis	89	3.7	4.9	$ 14,679	2.2	68.5
Viral infection	352	14.7	3.2	$ 10,197	0.6	72.7
Other infections; including parasitic	108	4.5	4.4	$ 14,655	0.0	58.3
Sexually transmitted infections (not HIV or hepatitis)	10	0.4	7.0	$ 17,721	0.0	50.0
Immunizations and screening for infectious disease	2	0.1	2.0	$ 3,080	0.0	50.0
Neoplasms	**5276**	**4.6**	**6.3**	**$ 24,121**	**7.2**	**24.0**
Cancer of head and neck	88	1.7	7.4	$ 25,769	6.8	19.3
Cancer of esophagus	30	0.6	8.5	$ 22,108	23.3	30.0
Cancer of stomach	74	1.4	11.5	$ 43,360	9.5	40.5
Cancer of colon	339	6.4	9.3	$ 33,496	4.4	27.1
Cancer of rectum and anus	129	2.4	9.3	$ 30,959	7.8	21.7
Cancer of liver and intrahepatic bile duct	34	0.6	7.1	$ 30,942	29.4	61.8
Cancer of pancreas	83	1.6	10.1	$ 29,581	14.5	49.4
Cancer of other GI organs; peritoneum	43	0.8	7.7	$ 30,160	0.0	32.6
Cancer of bronchus; lung	443	8.4	7.9	$ 27,843	16.7	42.9
Cancer; other respiratory and intrathoracic	12	0.2	8.4	$ 25,552	16.7	33.3
Cancer of bone and connective tissue	33	0.6	7.8	$ 35,282	9.1	24.2
Melanomas of skin	14	0.3	2.5	$ 13,135	0.0	0.0
Other non-epithelial cancer of skin	54	1.0	2.0	$ 10,549	0.0	1.9
Cancer of breast	191	3.6	2.9	$ 14,432	2.1	6.8
Cancer of uterus	139	2.6	4.0	$ 14,625	2.2	5.0
Cancer of cervix	75	1.4	3.6	$ 14,481	1.3	10.7
Cancer of ovary	67	1.3	6.9	$ 23,002	9.0	29.9
Cancer of other female genital organs	10	0.2	3.5	$ 11,082	0.0	10.0
Cancer of prostate	162	3.1	3.3	$ 17,680	1.2	4.3
Cancer of testis	3	0.1	11.0	$ 29,679	0.0	66.7
Cancer of other male genital organs	1	0.0	1.0	$ 10,464	0.0	0.0
Cancer of bladder	119	2.3	5.6	$ 22,465	4.2	22.7
Cancer of kidney and renal pelvis	129	2.4	6.0	$ 25,920	2.3	10.9
Cancer of other urinary organs	12	0.2	5.3	$ 17,404	8.3	16.7
Cancer of brain and nervous system	125	2.4	8.3	$ 35,648	8.0	32.8
Cancer of thyroid	22	0.4	2.3	$ 14,241	4.5	13.6
Hodgkin's disease	23	0.4	10.9	$ 44,922	13.0	30.4

Clinical Classifications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Mean LOS	Mean Total Charges	Percent Expired	Percent Admitted from ED
Non-Hodgkin's lymphoma	132	2.5	11.0	$ 46,694	17.4	40.9
Leukemias	170	3.2	12.4	$ 57,065	11.2	28.8
Multiple myeloma	50	0.9	10.4	$ 33,100	16.0	32.0
Cancer; other and unspecified primary	69	1.3	3.3	$ 19,344	0.0	8.7
Secondary malignancies	670	12.7	7.6	$ 22,817	19.0	53.0
Malignant neoplasm without specification of site	5	0.1	4.8	$ 13,141	20.0	40.0
Neoplasms of unspecified nature or uncertain behavior	139	2.6	6.1	$ 23,524	6.5	44.6
Maintenance chemotherapy; radiotherapy	402	7.6	4.7	$ 22,047	0.7	0.5
Benign neoplasm of uterus	658	12.5	2.5	$ 11,110	0.0	3.3
Other and unspecified benign neoplasm	527	10.0	4.7	$ 19,435	0.6	17.3
Endocrine, nutritional & metabolic diseases, & immunity disorders	**4354**	**3.8**	**4.2**	**$ 13,313**	**2.1**	**66.8**
Thyroid disorders	83	1.9	4.0	$ 13,497	1.2	57.8
Diabetes mellitus without complication	62	1.4	4.5	$ 8,441	0.0	74.2
Diabetes mellitus with complications	1501	34.5	5.0	$ 13,958	1.1	79.5
Other endocrine disorders	125	2.9	5.1	$ 12,915	2.4	81.6
Nutritional deficiencies	25	0.6	8.0	$ 19,876	8.0	48.0
Disorders of lipid metabolism	1	0.0	1.0	$ 6,129	0.0	100.0
Gout and other crystal arthropathies	74	1.7	4.8	$ 9,905	0.0	83.8
Fluid and electrolyte disorders	1740	40.0	3.8	$ 9,811	3.7	78.8
Cystic fibrosis	39	0.9	9.9	$ 61,982	0.0	10.3
Immunity disorders	5	0.1	1.2	$ 4,937	0.0	0.0
Other nutritional; endocrine; and metabolic disorders	699	16.1	2.7	$ 18,604	0.9	9.7
Disease of the blood and blood forming organs	**1282**	**1.1**	**4.8**	**$ 16,020**	**1.7**	**60.3**
Deficiency and other anemia	513	40.0	4.0	$ 14,477	1.8	62.0
Acute posthemorrhagic anemia	28	2.2	3.9	$ 14,247	7.1	67.9
Sickle cell anemia	367	28.6	6.0	$ 15,097	0.8	68.7
Coagulation and hemorrhagic disorders	205	16.0	3.9	$ 18,862	1.5	53.2
Diseases of white blood cells	149	11.6	5.4	$ 19,158	3.4	41.6
Other hematologic conditions	20	1.6	5.4	$ 22,511	0.0	65.0
Mental disorders	**3117**	**2.7**	**6.4**	**$ 8,274**	**0.2**	**65.8**
Mental retardation	2	0.1	5.5	$ 5,282	0.0	100.0
Alcohol-related mental disorders	293	9.4	4.7	$ 10,212	0.7	90.4
Substance-related mental disorders	169	5.4	3.6	$ 7,603	0.0	81.7
Senility and organic mental disorders	307	9.8	7.9	$ 12,088	1.3	88.6
Affective disorders	1079	34.6	7.3	$ 8,274	0.0	58.9
Schizophrenia and related disorders	246	7.9	8.3	$ 8,443	0.0	63.0
Other psychoses	156	5.0	8.6	$ 9,849	0.0	62.8
Anxiety; somatoform; dissociative; and personality disorders	140	4.5	4.4	$ 7,882	0.0	75.7
Preadult disorders	3	0.1	5.0	$ 5,397	0.0	33.3
Other mental conditions	722	23.2	4.9	$ 5,721	0.0	52.5
Diseases of the nervous system and sense organs	**3060**	**2.6**	**4.4**	**$ 14,998**	**1.5**	**72.7**
Meningitis (except that caused by tuberculosis or STD)	175	5.7	4.7	$ 16,496	0.6	88.0
Encephalitis (except that caused by tuberculosis or STD)	28	0.9	10.6	$ 45,715	3.6	82.1
Other CNS infection and poliomyelitis	33	1.1	13.2	$ 42,653	0.0	72.7
Parkinson's disease	31	1.0	5.7	$ 10,684	3.2	87.1
Multiple sclerosis	68	2.2	5.0	$ 12,464	2.9	67.6
Other hereditary and degenerative nervous system conditions	128	4.2	6.2	$ 19,269	3.9	52.3
Paralysis	59	1.9	7.9	$ 24,083	0.0	49.2
Epilepsy; convulsions	911	29.8	3.6	$ 11,709	1.1	75.2
Headache; including migraine	291	9.5	2.6	$ 7,731	0.0	83.2
Coma; stupor; and brain damage	48	1.6	10.9	$ 42,288	29.2	79.2
Retinal detachments; defects; vascular occlusion; and retinopathy	10	0.3	2.9	$ 9,005	0.0	60.0

Clinical Classifications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Mean LOS	Mean Total Charges	Percent Expired	Percent Admitted from ED
Blindness and vision defects	10	0.3	2.7	$ 8,712	0.0	70.0
Inflammation; infection of eye (except that caused by tuberculosis or STD)	63	2.1	3.6	$ 9,940	0.0	66.7
Other eye disorders	36	1.2	2.0	$ 10,742	0.0	58.3
Otitis media and related conditions	165	5.4	1.5	$ 8,964	0.0	21.2
Conditions associated with dizziness or vertigo	208	6.8	2.6	$ 8,038	0.0	97.6
Other ear and sense organ disorders	60	2.0	1.7	$ 17,953	0.0	33.3
Other nervous system disorders	736	24.1	5.9	$ 20,230	1.6	75.5
Diseases of the circulatory system	**18334**	**15.9**	**4.8**	**$ 24,074**	**3.4**	**72.3**
Heart valve disorders	272	1.5	10.7	$ 76,241	2.6	32.4
Peri-; endo-; and myocarditis; cardiomyopathy (except that caused by tuberculosis or STD)	286	1.6	6.8	$ 35,325	5.9	62.2
Essential hypertension	142	0.8	2.8	$ 8,889	0.0	87.3
Hypertension with complications and secondary hypertension	570	3.1	6.0	$ 20,292	2.5	81.6
Acute myocardial infarction	1943	10.6	5.4	$ 35,907	6.7	77.1
Coronary atherosclerosis and other heart disease	2830	15.4	3.6	$ 33,656	0.8	47.3
Nonspecific chest pain	2100	11.5	1.9	$ 8,935	0.0	91.9
Pulmonary heart disease	421	2.3	7.0	$ 22,587	5.7	84.8
Other and ill-defined heart disease	15	0.1	7.5	$ 28,188	0.0	73.3
Conduction disorders	187	1.0	3.7	$ 31,551	3.2	61.0
Cardiac dysrhythmias	1953	10.7	4.0	$ 19,819	1.2	72.0
Cardiac arrest and ventricular fibrillation	48	0.3	11.6	$ 54,028	56.3	83.3
Congestive heart failure; nonhypertensive	2896	15.8	5.8	$ 21,735	3.7	85.3
Acute cerebrovascular disease	1550	8.5	7.1	$ 21,482	10.4	92.2
Occlusion or stenosis of precerebral arteries	453	2.5	2.6	$ 16,284	1.1	16.3
Other and ill-defined cerebrovascular disease	67	0.4	4.9	$ 16,936	0.0	74.6
Transient cerebral ischemia	605	3.3	3.0	$ 10,383	0.2	96.5
Late effects of cerebrovascular disease	40	0.2	3.9	$ 9,341	2.5	87.5
Peripheral and visceral atherosclerosis	489	2.7	6.1	$ 27,117	3.7	39.9
Aortic; peripheral; and visceral artery aneurysms	257	1.4	5.5	$ 43,336	12.1	32.3
Aortic and peripheral arterial embolism or thrombosis	105	0.6	7.5	$ 38,154	3.8	36.2
Other circulatory disease	406	2.2	5.1	$ 17,232	2.0	77.3
Phlebitis; thrombophlebitis and thromboembolism	534	2.9	5.5	$ 15,239	1.5	63.5
Varicose veins of lower extremity	18	0.1	7.8	$ 16,990	0.0	38.9
Hemorrhoids	86	0.5	3.3	$ 8,277	0.0	74.4
Other diseases of veins and lymphatics	61	0.3	5.4	$ 13,667	1.6	52.5
Diseases of the respiratory system	**11936**	**10.3**	**5.5**	**$ 17,467**	**4.2**	**79.9**
Pneumonia (except that caused by tuberculosis or STD)	3435	28.8	5.7	$ 16,016	3.6	85.1
Influenza	216	1.8	4.9	$ 13,392	1.9	86.6
Acute and chronic tonsillitis	456	3.8	1.2	$ 6,899	0.2	15.1
Acute bronchitis	930	7.8	3.4	$ 12,217	0.1	79.1
Other upper respiratory infections	442	3.7	2.5	$ 9,799	0.2	77.6
Chronic obstructive pulmonary disease and bronchiectasis	1795	15.0	5.4	$ 14,211	2.5	89.2
Asthma	1630	13.7	3.0	$ 9,377	0.1	80.7
Aspiration pneumonitis; food/vomitus	524	4.4	9.3	$ 26,325	13.7	89.9
Pleurisy; pneumothorax; pulmonary collapse	363	3.0	7.2	$ 20,601	4.4	67.5
Respiratory failure; insufficiency; arrest (adult)	1349	11.3	10.8	$ 40,834	16.9	88.7
Lung disease due to external agents	19	0.2	5.4	$ 18,476	0.0	68.4
Other lower respiratory disease	555	4.6	3.5	$ 13,878	2.0	54.8
Other upper respiratory disease	222	1.9	6.2	$ 29,412	0.9	59.0
Diseases of the digestive system	**10657**	**9.2**	**4.9**	**$ 16,860**	**1.8**	**75.7**
Intestinal infection	653	6.1	4.2	$ 11,341	2.6	83.5
Disorders of teeth and jaw	70	10.7	2.4	$ 11,801	0.0	38.6
Diseases of mouth; excluding dental	49	70.0	4.0	$ 14,149	2.0	57.1
Esophageal disorders	607	1238.8	3.2	$ 11,871	1.0	68.0
Gastroduodenal ulcer (except hemorrhage)	90	14.8	5.9	$ 22,571	3.3	85.6

Clinical Classifications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Mean LOS	Mean Total Charges	Percent Expired	Percent Admitted from ED
Gastritis and duodenitis	374	415.6	3.7	$ 10,906	0.8	82.9
Other disorders of stomach and duodenum	269	71.9	5.0	$ 14,497	1.5	76.2
Appendicitis and other appendiceal conditions	955	355.0	2.7	$ 14,295	0.2	90.1
Abdominal hernia	686	71.8	4.1	$ 18,615	0.7	32.5
Regional enteritis and ulcerative colitis	269	39.2	6.1	$ 20,597	0.7	65.4
Intestinal obstruction without hernia	899	334.2	6.5	$ 19,387	4.2	87.0
Diverticulosis and diverticulitis	944	105.0	5.7	$ 17,851	0.7	70.3
Anal and rectal conditions	150	15.9	5.2	$ 16,206	2.0	66.7
Peritonitis and intestinal abscess	75	50.0	12.2	$ 45,635	5.3	73.3
Biliary tract disease	1212	1616.0	4.5	$ 19,698	0.9	74.3
Liver disease; alcohol-related	146	12.0	7.8	$ 21,381	10.3	87.0
Other liver diseases	315	215.8	5.8	$ 16,353	7.3	77.1
Pancreatic disorders (not diabetes)	821	260.6	6.6	$ 21,447	0.7	88.9
Gastrointestinal hemorrhage	891	108.5	4.8	$ 15,921	3.6	88.0
Noninfectious gastroenteritis	458	51.4	3.0	$ 8,131	0.4	86.5
Other gastrointestinal disorders	724	158.1	5.7	$ 19,022	1.7	58.1
Diseases of the genitourinary system	**5156**	**4.5**	**4.3**	**$ 13,223**	**2.4**	**62.6**
Nephritis; nephrosis; renal sclerosis	62	1.2	4.6	$ 18,720	1.6	46.8
Acute and unspecified renal failure	953	18.5	7.1	$ 19,080	8.1	87.2
Chronic renal failure	34	0.7	7.1	$ 32,736	8.8	50.0
Urinary tract infections	1622	31.5	4.8	$ 11,021	2.2	88.3
Calculus of urinary tract	529	10.3	2.5	$ 10,917	0.2	72.8
Other diseases of kidney and ureters	145	2.8	3.7	$ 15,547	1.4	37.9
Other diseases of bladder and urethra	81	1.6	5.7	$ 27,051	1.2	33.3
Genitourinary symptoms and ill-defined conditions	86	1.7	3.2	$ 10,333	2.3	68.6
Hyperplasia of prostate	132	2.6	2.7	$ 10,614	0.0	16.7
Inflammatory conditions of male genital organs	75	1.5	5.2	$ 12,808	0.0	77.3
Other male genital disorders	55	1.1	3.7	$ 13,969	0.0	54.5
Nonmalignant breast conditions	58	1.1	2.6	$ 11,470	1.7	41.4
Inflammatory diseases of female pelvic organs	181	3.5	3.4	$ 11,418	0.0	54.1
Endometriosis	158	3.1	2.4	$ 10,946	0.0	3.2
Prolapse of female genital organs	275	5.3	1.9	$ 11,701	0.0	0.4
Menstrual disorders	257	5.0	2.2	$ 10,985	0.0	7.8
Ovarian cyst	216	4.2	2.4	$ 10,292	0.0	40.7
Menopausal disorders	17	0.3	2.4	$ 11,958	0.0	11.8
Other female genital disorders	220	4.3	2.6	$ 12,164	0.0	20.0
Complications of pregnancy, childbirth, & the puerperium	**13369**	**11.6**	**2.7**	**$ 5,881**	**0.0**	**8.6**
Contraceptive and procreative management	3	0.0	1.3	$ 7,735	0.0	0.0
Spontaneous abortion	51	0.4	1.9	$ 5,588	0.0	45.1
Induced abortion	23	0.2	2.2	$ 6,232	0.0	34.8
Postabortion complications	6	0.0	3.8	$ 8,986	0.0	66.7
Ectopic pregnancy	93	0.7	1.8	$ 10,470	0.0	75.3
Other complications of pregnancy	1423	10.6	2.4	$ 5,174	0.0	23.5
Hemorrhage during pregnancy; abruptio placenta; placenta previa	175	1.3	4.6	$ 8,690	0.0	27.4
Hypertension complicating pregnancy; childbirth and the puerperium	822	6.1	3.7	$ 7,797	0.0	13.1
Early or threatened labor	734	5.5	3.9	$ 5,954	0.0	26.7
Prolonged pregnancy	774	5.8	2.5	$ 5,283	0.0	0.9
Diabetes or abnormal glucose tolerance complicating pregnancy; childbirth; or the puerperium	299	2.2	2.5	$ 5,357	0.0	6.0
Malposition; malpresentation	527	3.9	3.6	$ 8,405	0.0	3.2
Fetopelvic disproportion; obstruction	167	1.2	2.5	$ 6,036	0.0	1.8
Previous C-section	1365	10.2	2.8	$ 7,539	0.0	1.8
Fetal distress and abnormal forces of labor	645	4.8	2.8	$ 6,348	0.0	2.9

Clinical Classifications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Mean LOS	Mean Total Charges	Percent Expired	Percent Admitted from ED
Polyhydramnios and other problems of amniotic cavity	734	5.5	3.4	$ 6,208	0.0	7.2
Umbilical cord complication	472	3.5	2.4	$ 4,562	0.0	1.3
OB-related trauma to perineum and vulva	2158	16.1	2.1	$ 4,286	0.0	1.8
Forceps delivery	134	1.0	2.3	$ 4,482	0.0	2.2
Other complications of birth; puerperium affecting management of mother	2021	15.1	2.7	$ 5,867	0.0	7.1
Normal pregnancy and/or delivery	743	5.6	2.2	$ 4,770	0.0	2.7
Diseases of the skin and subcutaneous tissue	**2303**	**2.0**	**5.1**	**$ 11,518**	**0.9**	**70.9**
Skin and subcutaneous tissue infections	1909	82.9	4.4	$ 9,803	0.7	77.0
Other inflammatory condition of skin	39	1.7	4.2	$ 9,925	0.0	74.4
Chronic ulcer of skin	300	13.0	9.8	$ 22,446	2.0	37.3
Other skin disorders	55	2.4	3.2	$ 12,567	0.0	40.0
Diseases of the musculoskeletal system and connective tissue	**6555**	**5.7**	**3.9**	**$ 26,004**	**0.3**	**18.9**
Infective arthritis and osteomyelitis	242	3.7	9.4	$ 26,207	0.0	55.4
Rheumatoid arthritis and related disease	66	1.0	4.5	$ 20,864	0.0	43.9
Osteoarthritis	2615	39.9	3.2	$ 25,510	0.0	1.6
Other non-traumatic joint disorders	187	2.9	5.7	$ 27,549	0.0	57.8
Spondylosis; intervertebral disc disorders; other back problems	1875	28.6	3.2	$ 23,069	0.2	22.3
Osteoporosis	10	0.2	2.2	$ 12,611	0.0	0.0
Pathological fracture	225	3.4	6.3	$ 21,810	3.6	62.2
Acquired foot deformities	69	1.1	3.7	$ 23,285	0.0	1.4
Other acquired deformities	276	4.2	7.0	$ 64,382	0.0	2.2
Systemic lupus erythematosus and connective tissue disorders	128	2.0	4.4	$ 16,708	1.6	38.3
Other connective tissue disease	518	7.9	3.8	$ 15,702	0.4	51.2
Other bone disease and musculoskeletal deformities	344	5.2	3.5	$ 37,605	0.6	14.0
Congenital anomalies	**848**	**0.7**	**6.4**	**$ 57,175**	**1.4**	**9.6**
Cardiac and circulatory congenital anomalies	327	38.6	9.9	$ 97,764	3.7	7.3
Digestive congenital anomalies	113	13.3	6.9	$ 44,726	0.0	35.4
Genitourinary congenital anomalies	68	8.0	2.2	$ 16,915	0.0	4.4
Nervous system congenital anomalies	28	3.3	3.8	$ 27,996	0.0	7.1
Other congenital anomalies	312	36.8	3.6	$ 30,537	0.0	3.8
Certain conditions originating in the perinatal period	**664**	**0.6**	**9.6**	**$ 35,020**	**1.4**	**31.0**
Short gestation; low birth weight; and fetal growth retardation	84	9.9	25.1	$ 56,804	2.4	0.0
Intrauterine hypoxia and birth asphyxia	2	0.2	10.5	$ 53,346	0.0	0.0
Respiratory distress syndrome	62	7.3	21.1	$ 64,416	6.5	0.0
Hemolytic jaundice and perinatal jaundice	190	22.4	1.8	$ 3,471	0.0	33.7
Birth trauma	6	0.7	3.5	$ 18,659	0.0	0.0
Other perinatal conditions	320	37.7	8.0	$ 42,531	0.9	44.4
Injury and poisoning	**9462**	**8.2**	**5.2**	**$ 20,546**	**2.2**	**74.2**
Joint disorders and dislocations; trauma-related	114	1.2	2.4	$ 14,721	0.0	43.0
Fracture of neck of femur (hip)	804	8.5	6.3	$ 23,843	3.5	91.8
Spinal cord injury	70	0.7	13.6	$ 56,855	5.7	90.0
Skull and face fractures	215	2.3	3.5	$ 13,857	0.9	84.7
Fracture of upper limb	544	5.7	2.8	$ 13,980	0.0	83.6
Fracture of lower limb	832	8.8	4.1	$ 17,577	0.6	86.4
Other fractures	594	6.3	4.9	$ 16,704	1.0	88.4
Sprains and strains	157	1.7	2.9	$ 10,036	0.6	80.3
Intracranial injury	784	8.3	7.6	$ 26,569	7.4	96.2
Crushing injury or internal injury	349	3.7	6.7	$ 28,638	4.3	94.6
Open wounds of head; neck; and trunk	152	1.6	2.8	$ 11,852	0.0	98.0
Open wounds of extremities	151	1.6	3.5	$ 12,943	0.0	89.4
Complication of device; implant or graft	1765	18.7	6.2	$ 30,297	2.5	37.2
Complications of surgical procedures or medical care	1578	16.7	6.2	$ 19,669	1.5	57.3
Superficial injury; contusion	192	2.0	3.2	$ 9,454	0.0	91.7

Clinical Classifications Software Categories and Chapter Headings	Number of Discharges	Percent of Discharges	Mean LOS	Mean Total Charges	Percent Expired	Percent Admitted from ED
Burns	29	0.3	4.3	$ 9,386	0.0	89.7
Poisoning by psychotropic agents	199	2.1	2.5	$ 7,978	0.5	96.5
Poisoning by other medications and drugs	502	5.3	2.8	$ 9,090	1.2	94.4
Poisoning by nonmedicinal substances	60	0.6	3.0	$ 13,990	1.7	81.7
Other injuries and conditions due to external causes	371	3.9	3.6	$ 12,685	3.8	84.9
Liveborn	**11402**	**9.9**	**3.5**	**$ 4,862**	**0.6**	**0.1**
Other conditions	**5341**	**4.6**	**7.1**	**$ 14,340**	**0.5**	**43.2**
Syncope	942	17.6	2.9	$ 10,795	0.3	93.5
Fever of unknown origin	380	7.1	3.6	$ 11,142	0.5	70.3
Lymphadenitis	61	1.1	3.3	$ 15,553	0.0	55.7
Gangrene	145	2.7	12.7	$ 36,111	5.5	36.6
Shock	11	0.2	5.9	$ 25,070	27.3	81.8
Nausea and vomiting	137	2.6	2.9	$ 8,304	0.0	80.3
Abdominal pain	758	14.2	2.9	$ 8,385	0.4	86.3
Malaise and fatigue	51	1.0	3.7	$ 9,547	0.0	94.1
Allergic reactions	113	2.1	2.8	$ 7,677	0.9	79.6
Rehabilitation care; fitting of prostheses; and adjustment of devices	2108	39.5	12.9	$ 19,699	0.1	0.3
Administrative/social admission	6	0.1	3.7	$ 7,078	0.0	50.0
Medical examination/evaluation	2	0.0	2.0	$ 2,792	0.0	0.0
Other aftercare	24	0.4	2.5	$ 10,270	8.3	0.0
Other screening for suspected conditions (not mental disorders or infectious disease)	7	0.1	1.3	$ 4,728	0.0	42.9
Residual codes; unclassified	596	11.2	2.2	$ 8,436	0.3	24.7
Other/Unknown	**104**	**0.1**	**4.4**	**$ 10,005**	**1.9**	**19.2**
Total	115618	100	4.8	$ 16,569	2.3	51.0

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 diagnoses for Ecodes are 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.

Number and Percent of Discharges, Mean Length of Stay, Mean Charges, Percent Expired, and Percent Admitted from the ED by Ecode
Delaware Hospitals, 2005

Clinical Classifications Software Categories for Ecodes	Number of Discharges	Percent of Discharges	Mean LOS	Mean Total Charges	Percent Expired	Percent Admitted from ED
E Codes: Cut/pierceb	210	2.1	3.6	$ 11,691	1.0	95.7
E Codes: Drowning/submersion	19	0.2	3.2	$ 18,161	0.0	78.9
E Codes: Fall	3514	35.1	5.9	$ 18,582	3.0	89.2
E Codes: Fire/burn	42	0.4	5.3	$ 11,155	0.0	85.7
E Codes: Firearm	89	0.9	8.9	$ 35,757	6.7	98.9
E Codes: Machinery	50	0.5	2.9	$ 14,634	2.0	88.0
E Codes: Motor vehicle traffic (MVT)	1231	12.3	6.4	$ 26,440	2.4	94.1
E Codes: Pedal cyclist; not MVT	65	0.6	2.6	$ 13,513	0.0	86.2
E Codes: Pedestrian; not MVT	12	0.1	5.6	$ 18,370	0.0	100.0
E Codes: Transport; not MVT	181	1.8	3.8	$ 15,345	1.1	90.1
E Codes: Natural/environment	196	2.0	4.0	$ 10,956	2.0	79.6
E Codes: Overexertion	122	1.2	3.3	$ 12,789	0.8	75.4
E Codes: Poisoning	645	6.4	3.2	$ 9,381	0.6	90.4
E Codes: Struck by; against	301	3.0	2.9	$ 10,999	0.3	90.0
E Codes: Suffocation	60	0.6	7.7	$ 30,897	15.0	85.0
E Codes: Adverse effects of medical care	1036	10.3	10.4	$ 59,702	3.4	42.3
E Codes: Adverse effects of medical drugs	1252	12.5	6.0	$ 21,169	2.6	74.3
E Codes: Other specified and classifiable	447	4.5	8.9	$ 19,540	1.3	38.9
E Codes: Other specified; NEC	119	1.2	6.4	$ 21,702	2.5	59.7
E Codes: Unspecified	411	4.1	5.8	$ 18,654	1.9	65.2
E Codes: Place of occurrence	14	0.1	6.9	$ 27,293	0	78.6
Total	10016	100.0	6.2	$ 23,118	2.5	79.4

Number of Patients who had a Principal Procedure during the Inpatient Stay
by Principal Procedure and Sex of Patient
Delaware Hospitals, 2005

Single level CCS Procedure Categories and Chapter Headings	Male	Female	Total
Operations on the nervous sytem	**1335**	**1292**	**2627**
Incision and excision of CNS	150	128	278
Insertion; replacement; or removal of extracranial ventricular shunt	66	62	128
Laminectomy; excision intervertebral disc	487	431	918
Diagnostic spinal tap	429	477	906
Insertion of catheter or spinal stimulator and injection into spinal canal	31	50	81
Decompression peripheral nerve	4	7	11
Other diagnostic nervous system procedures	26	15	41
Other non-OR or closed therapeutic nervous system procedures	20	27	47
Other OR therapeutic nervous system procedures	122	95	217
Operations on the endocrine system	**60**	**80**	**140**
Thyroidectomy; partial or complete	23	41	64
Diagnostic endocrine procedures	7	7	14
Other therapeutic endocrine procedures	30	32	62
Operations on the eye	**55**	**34**	**89**
Corneal transplant	0	1	1
Glaucoma procedures	3	4	7
Lens and cataract procedures	1	3	4
Repair of retinal tear; detachment	1	0	1
Destruction of lesion of retina and choroid	0	1	1
Other therapeutic procedures on eyelids; conjunctiva; cornea	36	18	54
Other intraocular therapeutic procedures	2	4	6
Other extraocular muscle and orbit therapeutic procedures	12	3	15
Operations on the ear	**127**	**88**	**215**
Tympanoplasty	9	4	13
Myringotomy	75	57	132
Mastoidectomy	11	8	19
Diagnostic procedures on ear	1	1	2
Other therapeutic ear procedures	31	18	49
Operations on the nose, mouth, and pharynx	**464**	**358**	**822**
Control of epistaxis	52	35	87
Plastic procedures on nose	9	16	25
Dental procedures	26	24	50
Tonsillectomy and/or adenoidectomy	233	179	412
Diagnostic procedures on nose; mouth and pharynx	6	9	15
Other non-OR therapeutic procedures on nose; mouth and pharynx	33	24	57
Other OR therapeutic procedures on nose; mouth and pharynx	105	71	176
Operations on the respiratory system	**1122**	**946**	**2068**
Tracheostomy; temporary and permanent	160	116	276
Tracheoscopy and laryngoscopy with biopsy	43	42	85
Lobectomy or pneumonectomy	124	130	254
Diagnostic bronchoscopy and biopsy of bronchus	236	206	442
Other diagnostic procedures on lung and bronchus	25	23	48
Incision of pleura; thoracentesis; chest drainage	352	285	637
Other diagnostic procedures of respiratory tract and mediastinum	45	31	76
Other non-OR therapeutic procedures on respiratory system	23	20	43
Other OR Rx procedures on respiratory system and mediastinum	114	93	207
Operations on the cardiovascular system	**5755**	**4630**	**10385**
Heart valve procedures	157	114	271
Coronary artery bypass graft (CABG)	440	202	642
Percutaneous transluminal coronary angioplasty (PTCA)	1267	672	1939
Diagnostic cardiac catheterization; coronary arteriography	1019	938	1957
Insertion; revision; replacement; removal of cardiac pacemaker or cardioverter/ defibrillator	507	377	884
Other OR heart procedures	236	180	416
Extracorporeal circulation auxiliary to open heart procedures	1	1	2

Single level CCS Procedure Categories and Chapter Headings	Male	Female	Total
Endarterectomy; vessel of head and neck	214	188	402
Aortic resection; replacement or anastomosis	151	41	192
Varicose vein stripping; lower limb	1	3	4
Other vascular catheterization; not heart	565	781	1346
Peripheral vascular bypass	133	108	241
Other vascular bypass and shunt; not heart	18	11	29
Creation, revision & removal of arteriovenous fistula or vessel-to-vessel cannula for dialysis	46	51	97
Hemodialysis	354	343	697
Other OR procedures on vessels of head and neck	10	7	17
Embolectomy and endarterectomy of lower limbs	29	28	57
Other OR procedures on vessels other than head and neck	386	410	796
Other diagnostic cardiovascular procedures	62	49	111
Other non-OR therapeutic cardiovascular procedures	159	126	285
Operations on the hemic and lymphatic system	**188**	**150**	**338**
Bone marrow transplant	16	20	36
Bone marrow biopsy	63	55	118
Procedures on spleen	38	24	62
Other therapeutic procedures; hemic and lymphatic system	71	51	122
Operations on the digestive system	**4462**	**5687**	**10149**
Injection or ligation of esophageal varices	2	1	3
Esophageal dilatation	10	25	35
Upper gastrointestinal endoscopy; biopsy	990	1266	2256
Gastrostomy; temporary and permanent	100	102	202
Colostomy; temporary and permanent	17	14	31
Ileostomy and other enterostomy	13	5	18
Gastrectomy; partial and total	30	21	51
Small bowel resection	81	105	186
Colonoscopy and biopsy	251	384	635
Proctoscopy and anorectal biopsy	31	31	62
Colorectal resection	466	535	1001
Local excision of large intestine lesion (not endoscopic)	4	1	5
Appendectomy	533	412	945
Hemorrhoid procedures	14	8	22
Endoscopic retrograde cannulation of pancreas (ERCP)	18	28	46
Biopsy of liver	54	71	125
Cholecystectomy and common duct exploration	411	707	1118
Inguinal and femoral hernia repair	131	25	156
Other hernia repair	134	260	394
Laparoscopy (GI only)	10	46	56
Abdominal paracentesis	167	162	329
Exploratory laparotomy	28	28	56
Excision; lysis peritoneal adhesions	92	163	255
Peritoneal dialysis	12	23	35
Other bowel diagnostic procedures	8	5	13
Other non-OR upper GI therapeutic procedures	155	126	281
Other OR upper GI therapeutic procedures	177	530	707
Other non-OR lower GI therapeutic procedures	116	149	265
Other OR lower GI therapeutic procedures	198	197	395
Other gastrointestinal diagnostic procedures	26	21	47
Other non-OR gastrointestinal therapeutic procedures	64	100	164
Other OR gastrointestinal therapeutic procedures	119	136	255
Operations on the urinary system	**751**	**689**	**1440**
Endoscopy and endoscopic biopsy of the urinary tract	80	51	131
Transurethral excision; drainage; or removal urinary obstruction	188	107	295
Ureteral catheterization	84	114	198
Nephrotomy and nephrostomy	58	44	102
Nephrectomy; partial or complete	94	83	177
Kidney transplant	0	2	2
Genitourinary incontinence procedures	0	70	70
Extracorporeal lithotripsy; urinary	4	4	8
Indwelling catheter	19	11	30
Procedures on the urethra	51	7	58
Other diagnostic procedures of urinary tract	31	25	56
Other non-OR therapeutic procedures of urinary tract	25	85	110
Other OR therapeutic procedures of urinary tract	117	86	203

APPENDIX C

Single level CCS Procedure Categories and Chapter Headings	Male	Female	Total
Operations on the male genital organs	**4788**	**1**	**4789**
Transurethral resection of prostate (TURP)	148	0	148
Open prostatectomy	126	0	126
Circumcision	4394	0	4394
Diagnostic procedures; male genital	12	0	12
Other non-OR therapeutic procedures; male genital	28	0	28
Other OR therapeutic procedures; male genital	80	1	81
Operations on the female genital organs	**0**	**2331**	**2331**
Oophorectomy; unilateral and bilateral	0	234	234
Other operations on ovary	0	87	87
Ligation or occlusion of fallopian tubes	0	80	80
Other operations on fallopian tubes	0	11	11
Hysterectomy; abdominal and vaginal	0	1482	1482
Other excision of cervix and uterus	0	91	91
Abortion (termination of pregnancy)	0	18	18
Dilatation and curettage (D&C); aspiration after delivery or abortion	0	63	63
Diagnostic dilatation and curettage (D&C)	0	26	26
Repair of cystocele and rectocele; obliteration of vaginal vault	0	74	74
Other diagnostic procedures; female organs	0	37	37
Other non-OR therapeutic procedures; female organs	0	12	12
Other OR therapeutic procedures; female organs	0	116	116
Obstetrical procedures	**0**	**12031**	**12031**
Removal of ectopic pregnancy	0	68	68
Episiotomy	0	323	323
Cesarean section	0	3588	3588
Forceps; vacuum; and breech delivery	0	689	689
Artificial rupture of membranes to assist delivery	0	370	370
Other procedures to assist delivery	0	5071	5071
Diagnostic amniocentesis	0	6	6
Fetal monitoring	0	428	428
Repair of current obstetric laceration	0	1463	1463
Other therapeutic obstetrical procedures	0	25	25
Operations on the musculoskeletal system	**3684**	**4468**	**8152**
Partial excision bone	100	70	170
Bunionectomy or repair of toe deformities	2	4	6
Treatment; facial fracture or dislocation	64	21	85
Treatment; fracture or dislocation of radius and ulna	97	71	168
Treatment; fracture or dislocation of hip and femur	298	496	794
Treatment; fracture or dislocation of lower extremity (other than hip or femur)	284	256	540
Other fracture and dislocation procedure	206	157	363
Arthroscopy	2	4	6
Division of joint capsule; ligament or cartilage	7	11	18
Excision of semilunar cartilage of knee	6	5	11
Arthroplasty knee	726	1294	2020
Hip replacement; total and partial	462	711	1173
Arthroplasty other than hip or knee	34	84	118
Arthrocentesis	67	54	121
Injections and aspirations of muscles; tendons; bursa; joints and soft tissue	11	13	24
Amputation of lower extremity	217	128	345
Spinal fusion	425	514	939
Other diagnostic procedures on musculoskeletal system	83	76	159
Other therapeutic procedures on muscles and tendons	278	236	514
Other OR therapeutic procedures on bone	146	134	280
Other OR therapeutic procedures on joints	109	74	183
Other non-OR therapeutic procedures on musculoskeletal system	17	30	47
Other OR therapeutic procedures on musculoskeletal system	43	25	68
Operations on the integumentary system	**1326**	**1457**	**2783**
Breast biopsy and other diagnostic procedures on breast	1	9	10
Lumpectomy; quadrantectomy of breast	1	39	40
Mastectomy	2	137	139
Incision and drainage; skin and subcutaneous tissue	300	238	538
Debridement of wound; infection or burn	403	360	763
Excision of skin lesion	39	33	72

Single level CCS Procedure Categories and Chapter Headings	Male	Female	Total
Suture of skin and subcutaneous tissue	186	132	318
Skin graft	71	57	128
Other diagnostic procedures on skin and subcutaneous tissue	22	28	50
Other non-OR therapeutic procedures on skin and breast	261	304	565
Other OR therapeutic procedures on skin and breast	40	120	160
Miscellaneous diagnostic and therapeutic procedures	**4944**	**5694**	**10638**
Other organ transplantation	4	8	12
Computerized axial tomography (CT) scan head	60	67	127
CT scan chest	18	22	40
CT scan abdomen	30	59	89
Other CT scan	19	20	39
Myelogram	3	3	6
Intraoperative cholangiogram	0	2	2
Upper gastrointestinal X-ray	1	2	3
Intravenous pyelogram	2	1	3
Cerebral arteriogram	6	12	18
Contrast aortogram	13	16	29
Contrast arteriogram of femoral and lower extremity arteries	11	9	20
Arterio- or venogram (not heart and head)	20	13	33
Diagnostic ultrasound of heart (echocardiogram)	430	409	839
Diagnostic ultrasound of gastrointestinal tract	1	1	2
Diagnostic ultrasound of abdomen or retroperitoneum	1	2	3
Other diagnostic ultrasound	0	4	4
Magnetic resonance imaging	84	106	190
Electroencephalogram (EEG)	16	17	33
Cardiac stress tests	1	1	2
Electrocardiogram	1	1	2
Swan-Ganz catheterization for monitoring	9	2	11
Arterial blood gases	2	1	3
Microscopic examination (bacterial smear; culture; toxicology)	0	2	2
Radioisotope scan and function studies	0	2	2
Other radioisotope scan	1	1	2
Therapeutic radiology for cancer treatment	37	53	90
Diagnostic physical therapy	1	6	7
Physical therapy exercises; manipulation; and other procedures	3	3	6
Traction; splints; and other wound care	58	75	133
Respiratory intubation and mechanical ventilation	1079	1007	2086
Other respiratory therapy	2	1	3
Psychological and psychiatric evaluation and therapy	8	45	53
Alcohol and drug rehabilitation/detoxification	19	7	26
Ophthalmologic and otologic diagnosis and treatment	0	1	1
Nasogastric tube	1	8	9
Blood transfusion	416	482	898
Enteral and parenteral nutrition	33	24	57
Cancer chemotherapy	255	262	517
Conversion of cardiac rhythm	139	109	248
Other diagnostic radiology and related techniques	26	45	71
Other diagnostic procedures (interview; evaluation; consultation)	1534	1745	3279
Prophylactic vaccinations and inoculations	165	379	544
Nonoperative removal of foreign body	22	13	35
Other therapeutic procedures	413	646	1059
Total	**29061**	**39936**	**68997**

APPENDIX D

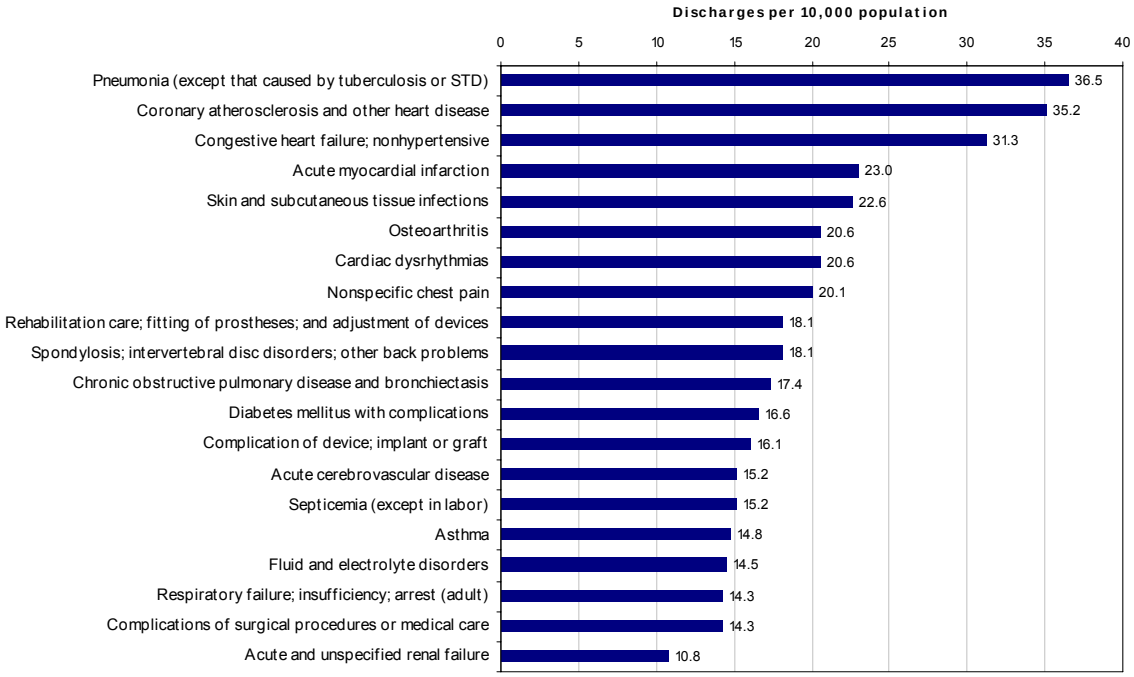
The mental health and substance abuse disorders category was defined according to the Mental Health and Substance Abuse Clinical Classification Software (CCS-MHSA) developed by the Agency for Healthcare Research and Quality (AHRQ). The CCS-MHSA aggregates mental health and substance abuse disorders into clinically meaningful categories based on ICD-9-CM codes. In this report, the following 14 categories were examined:

- Adjustment disorders
- Anxiety disorders
- Attention-deficit/conduct/disruptive behavior disorders
- Delirium/dementia/amnestic/other cognitive disorders
- Developmental disorders
- Disorders usually diagnosed in infancy/childhood
- Impulse control disorders
- Mood disorders
- Personality disorders
- Schizophrenia and other psychotic disorders
- Alcohol-related disorders
- Substance-related disorders
- Screening and history of mental health & substance abuse codes
- Miscellaneous mental disorders

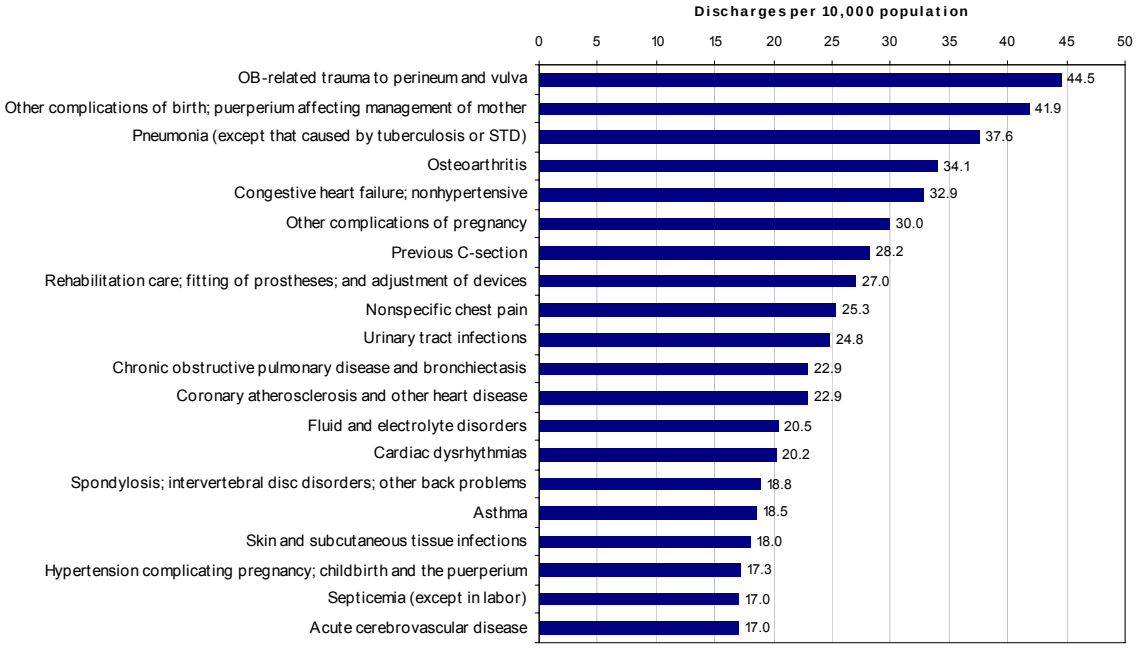
MHSA disorders were identified by the presence of one of the specified codes in either the primary diagnosis field or in any of the secondary diagnosis fields. Identification of the type of MHSA disorder associated with a particular discharge was based on all-listed MHSA diagnoses.

More detailed information on the CCS-MHSA classification system can be found at: http://www.hcup-us.ahrq.gov/tools_software.jsp.

Annual Hospitalization Rates for 20 Most Frequent Diagnoses* of Males
Delaware Residents, 2005



Annual Hospitalization Rates for 20 Most Frequent Diagnoses*of Females
Delaware Residents, 2005



*Excluding liveborn infants.
Source: Delaware Health Statistics Center

Number, Percent, and Mean Charges for the Highest Volume Discharges in 2005

CCS Principal Diagnoses	*Number Discharges* 1995	2000	2005	*Percent Discharges* 1995	2000	2005	*Mean Charges* 1995	2000	2005
All Discharges	87,824	96,493	115,618	100.0	100.0	100.0	$ 9,669	$ 10,074	$ 16,569
Liveborn	9,830	10,421	11,402	11.2	10.8	9.9	$ 3,549	$ 3,667	$ 4,862
Pneumonia	2,716	3,016	3,435	3.1	3.1	3.0	$ 11,581	$ 11,940	$ 16,016
Congestive heart failure	2,361	2,767	2,896	2.7	2.9	2.5	$ 11,362	$ 11,433	$ 21,735
Coronary atherosclerosis and other heart disease	2,891	2,848	2,830	3.3	3.0	2.4	$ 13,658	$ 14,127	$ 33,656
Osteoarthritis	921	1,277	2,615	1.0	1.3	2.3	$ 21,957	$ 17,586	$ 25,510
OB-related trauma to perineum and vulva	2,026	2,461	2,158	2.3	2.6	1.9	$ 2,807	$ 2,953	$ 4,286
Rehabilitation care	1,827	2,236	2,108	2.1	2.3	1.8	$ 15,527	$ 12,551	$ 19,699
Nonspecific chest pain	1,840	2,716	2,100	2.1	2.8	1.8	$ 4,966	$ 5,503	$ 8,935
Other complications of birth; puerperium	1,064	1,617	2,021	1.2	1.7	1.7	$ 3,836	$ 4,159	$ 5,867
Cardiac dysrhythmias	1,429	1,713	1,953	1.6	1.8	1.7	$ 9,060	$ 10,313	$ 19,819

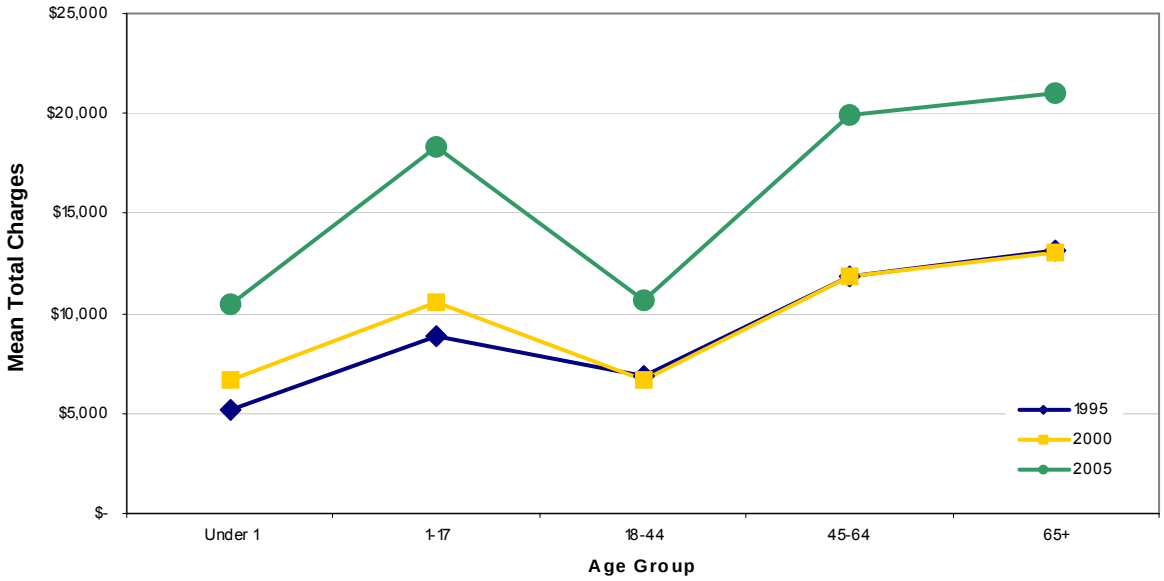
Source: Delaware Health Statistics Center

Number, Percent, and Mean Charges for Discharges with Highest Mean Charges in 2005

CCS Principal Diagnoses	*Number Discharges* 1995	2000	2005	*Percent Discharges* 1995	2000	2005	*Mean Charges* 1995	2000	2005
All Discharges	87,824	96,493	115,618	100.0	100.0	100.0	$ 9,669	$ 10,074	$ 16,569
Cardiac and circulatory congenital anomalies	69	277	327	0.1	0.3	0.3	$ 35,080	$ 58,189	$ 97,764
Heart valve disorders	130	193	272	0.1	0.2	0.2	$ 39,445	$ 36,825	$ 76,241
Respiratory distress syndrome	31	43	62	0.0	0.0	0.1	$ 28,927	$ 30,145	$ 64,416
Other acquired deformities	189	208	276	0.2	0.2	0.2	$ 21,750	$ 31,222	$ 64,382
Cystic fibrosis	10	17	39	0.0	0.0	0.0	$ 19,624	$ 31,565	$ 61,982
Leukemias	106	121	170	0.1	0.1	0.1	$ 61,425	$ 55,737	$ 57,065
Spinal cord injury	22	29	70	0.0	0.0	0.1	$ 43,786	$ 22,506	$ 56,855
Short gestation; low birth weight; and fetal growth retardation	72	68	84	0.1	0.1	0.1	$ 48,351	$ 27,259	$ 56,804
Cardiac arrest and ventricular fibrillation	71	59	48	0.1	0.1	0.0	$ 26,289	$ 34,915	$ 54,028
Non-Hodgkin's lymphoma	106	112	132	0.1	0.1	0.1	$ 20,893	$ 25,140	$ 46,694

Source: Delaware Health Statistics Center

Mean Charges by Age Group and Year
Delaware, 1995 to 2005



Source: Delaware Health Statistics Center

Top 10 Most Frequent Diagnoses for Medicare

CCS Diagnosis	*Number of Discharges*	*Percent of hospitalizations for this condition billed to Medicare*
Congestive heart failure; nonhypertensive	2386	82.4
Pneumonia (except that caused by TB or STD)	2068	60.2
Rehabilitation care; fitting of prostheses; and adjustment of devices	1697	80.5
Coronary atherosclerosis and other heart disease	1611	56.9
Osteoarthritis	1577	60.3
Chronic obstructive pulmonary disease and bronchiectasis	1372	76.4
Cardiac dysrhythmias	1296	66.4
Acute myocardial infarction	1183	60.9
Septicemia (except in labor)	1086	74.0
Acute cerebrovascular disease	1063	68.6

Top 10 Most Frequent Diagnoses for Medicaid

CCS Diagnosis	*Number of Discharges*	*Percent of hospitalizations for this condition billed to Medicaid*
Liveborn	5078	44.5
Other complications of birth; puerperium affecting management of mother	861	42.6
Other complications of pregnancy	780	54.8
OB-related trauma to perineum and vulva	710	32.9
Previous C-section	577	42.3
Asthma	562	34.5
Pneumonia (except that caused by TB or STD)	498	14.5
Acute bronchitis	418	44.9
Early or threatened labor	408	55.6
Skin and subcutaneous tissue infections	405	21.2

Top 10 Most Frequent Diagnoses for Privately Insured

CCS Diagnosis	*Number of Discharges*	*Percent of hospitalizations for this condition billed to Private Insurers*
Liveborn	5828	51.1
OB-related trauma to perineum and vulva	1341	62.1
Other complications of birth; puerperium affecting management of mother	1085	53.7
Spondylosis; intervertebral disc disorders; other back problems	928	49.5
Coronary atherosclerosis and other heart disease	921	32.5
Osteoarthritis	910	34.8
Nonspecific chest pain	828	39.4
Pneumonia (except that caused by TB or STD)	746	21.7
Previous C-section	727	53.3
Asthma	681	41.8

Top 10 Most Frequent Diagnoses for Uninsured

CCS Diagnosis	*Number of Discharges*	*Percent of hospitalizations for this condition billed to Uninsured Patients*
Liveborn	170	1.5
Skin and subcutaneous tissue infections	151	7.9
Nonspecific chest pain	134	6.4
Affective disorders	134	12.4
Other mental conditions	105	14.5
Acute myocardial infarction	101	5.2
Pneumonia (except that caused by TB or STD)	88	2.6
Diabetes mellitus with complications	87	5.8
Pancreatic disorders (not diabetes)	80	9.7
Appendicitis and other appendiceal conditions	78	8.2

Source: Delaware Health Statistics Center

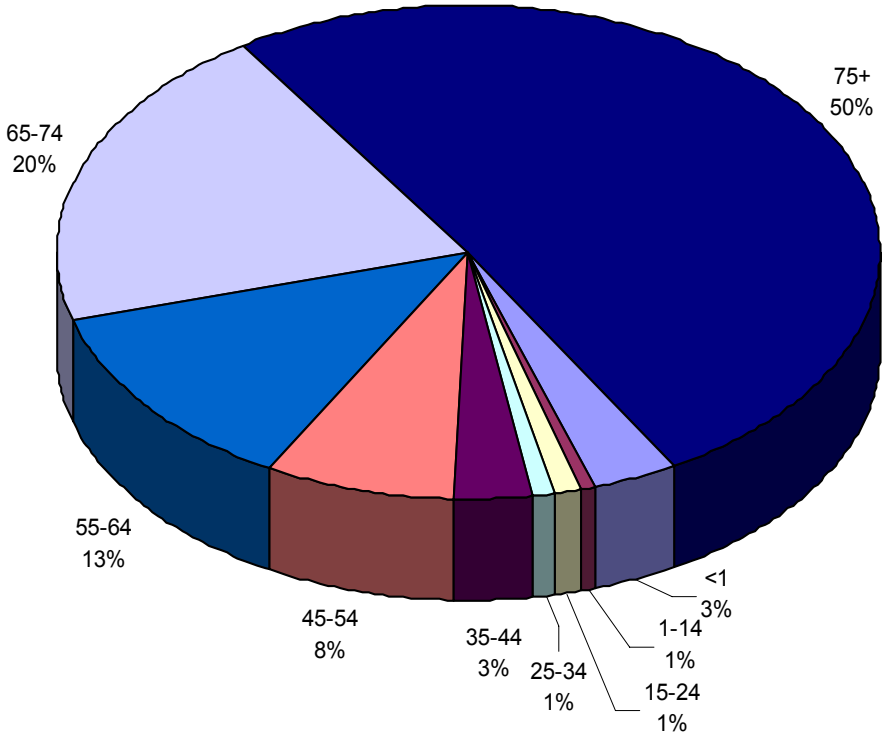
Conditions with the Highest Number of In-Hospital Deaths by Age Group
Delaware Hospitals, 2005

Primary Diagnosis	Age Group in Years					TOTAL
	Under 1	1-17	18-44	45-64	65+	
All Discharges	*14,850*	*10,557*	*28,878*	*24,592*	*36,740*	*115,618*
Liveborn[1]	63					63
Cardiac and circulatory congenital anomalies	11					11
Respiratory distress syndrome	4					4
Other perinatal conditions	3					3
Short gestation; low birth weight; and fetal growth retardation	2					2
Respiratory failure; insufficiency; arrest	2		8	45	172	227
Complication of device; implant or graft		3		15		18
Fluid and electrolyte disorders		3				3
Intracranial injury[2]		2	12			14
HIV infection			11	14		25
Crushing injury or internal injury[3]			8			8
Secondary malignancies			7		69	76
Septicemia (except in labor)			7	46	209	262
Acute myocardial infarction			5		112	117
Acute cerebrovascular disease			4	35	122	161
Secondary malignancies				51		51
Cancer of bronchus; lung				21	51	72
Pneumonia (except that caused by tuberculosis or STD)				16	108	124
Other liver diseases				15		15
Congestive heart failure; nonhypertensive					96	96
Acute and unspecified renal failure					64	64
Aspiration pneumonitis; food/vomitus					60	60

Notes:

1. Nearly all of these infants were of low birth weight (<2500 grams) and 94 percent were very low birth weight (<1500 grams).
2. The causes of such injuries include motor vehicle accidents, falls, and firearms.
3. The causes of such injuries include motor vehicle accidents, cuts, and firearms.

Age Distribution of Patients who Died while Hospitalized
Delaware Hospitals, 2005



Source: Delaware Health Statistics Center

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PATIENT DISTRIBUTION MAPS

Patient density maps display the quantity and distribution of 2005 hospital discharges as a graphical display of areas of lowest concentration to areas of highest concentration for each hospital in Delaware.

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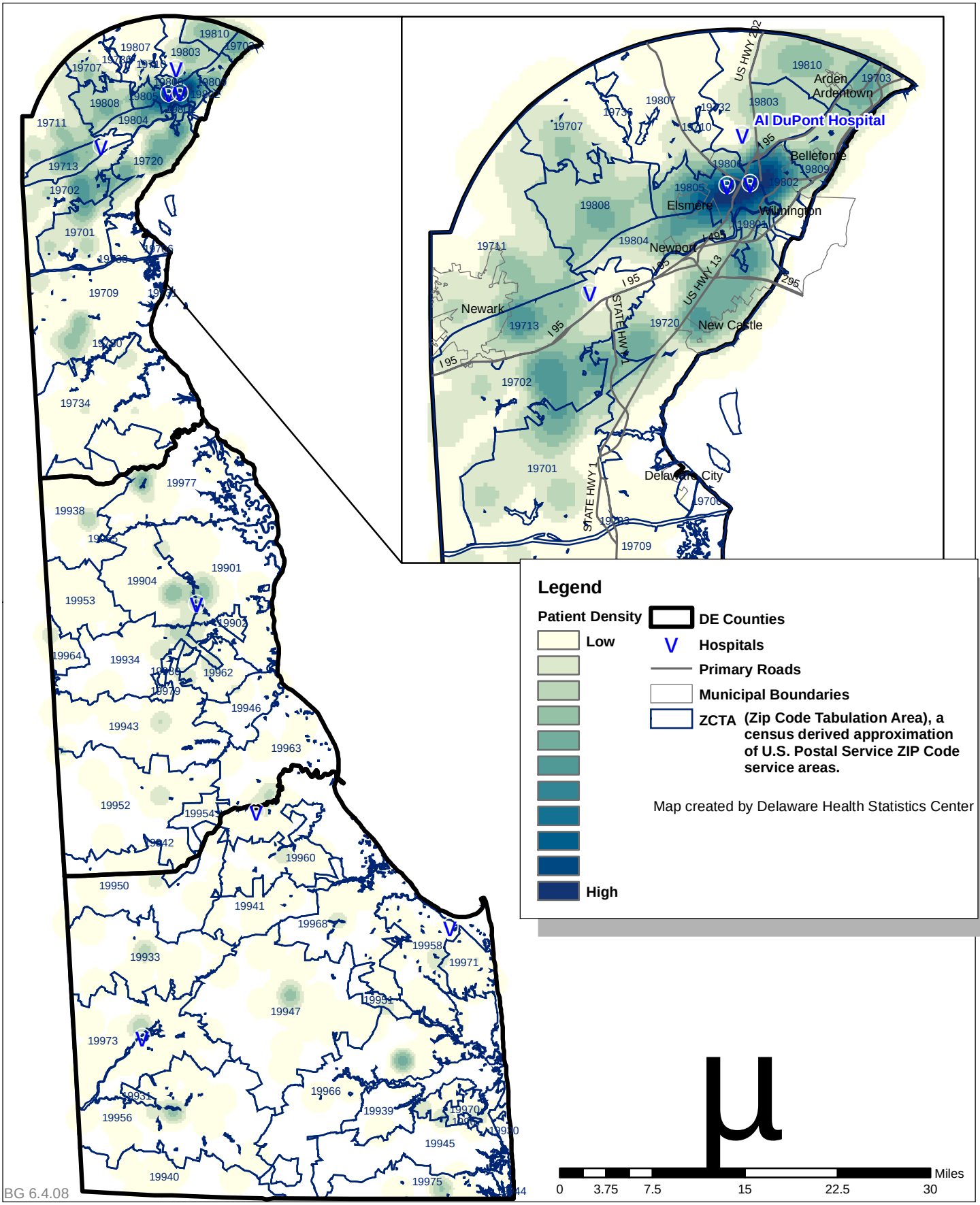
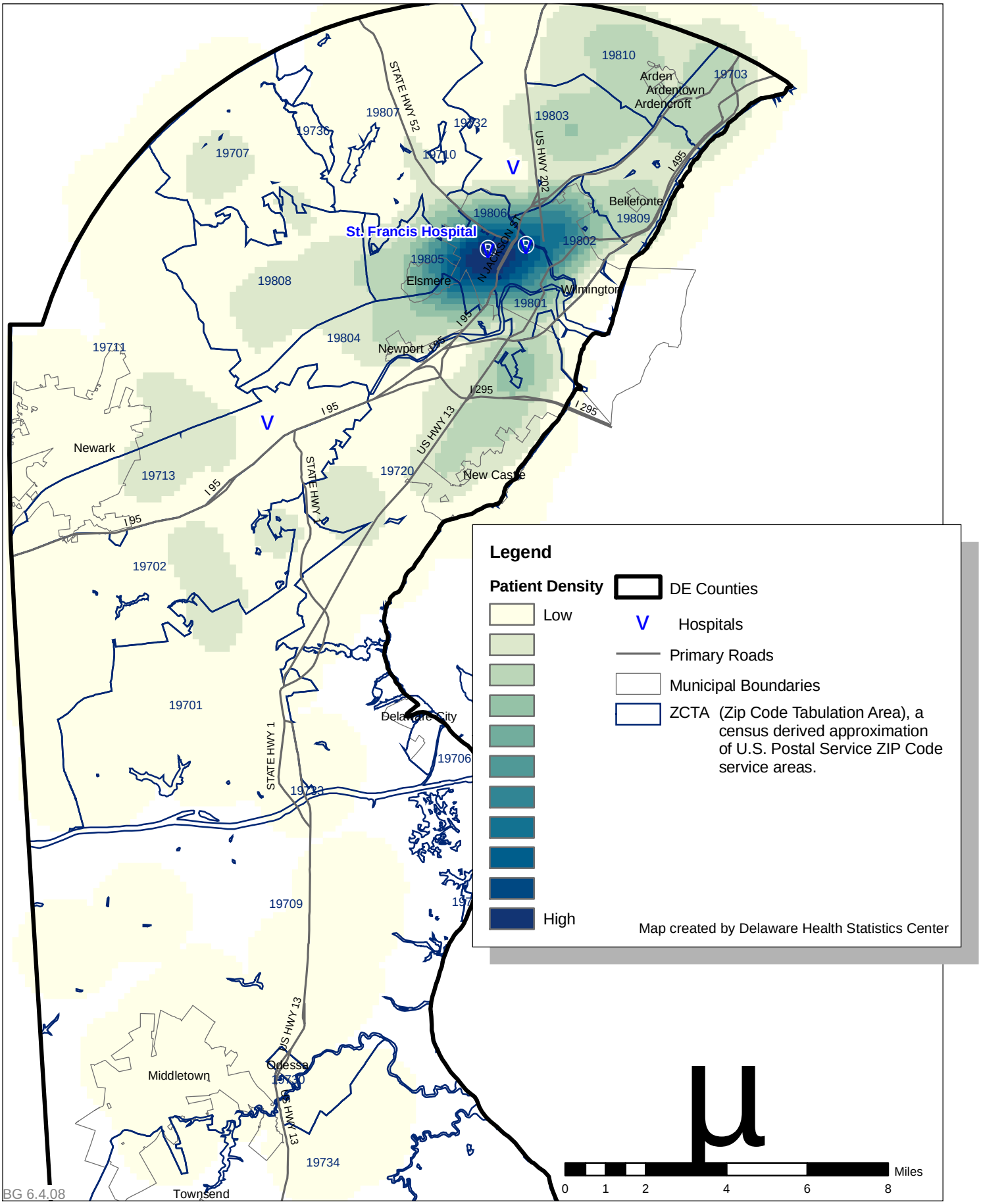
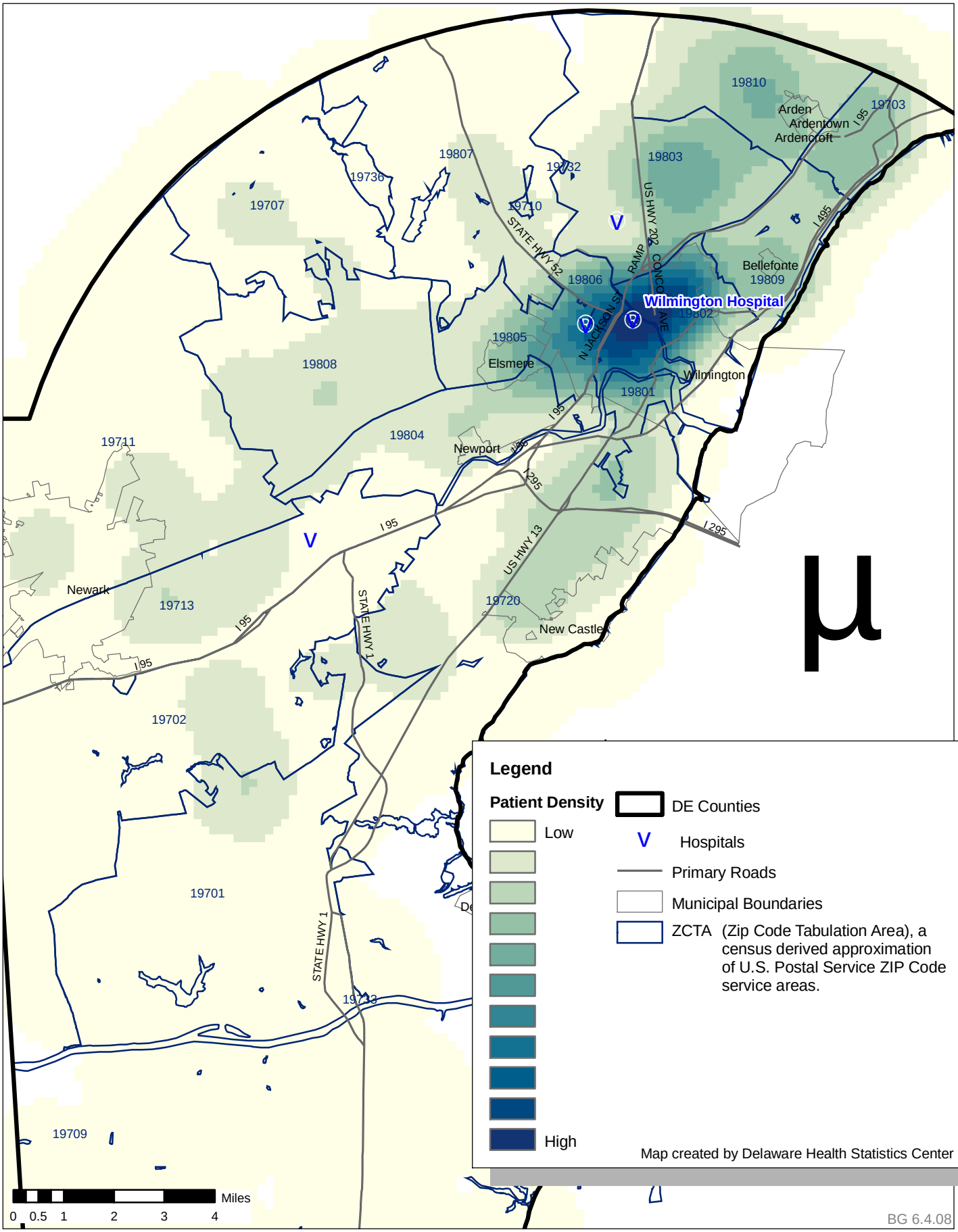
Discharge Density
Alfred I. duPont Hospital, 2005



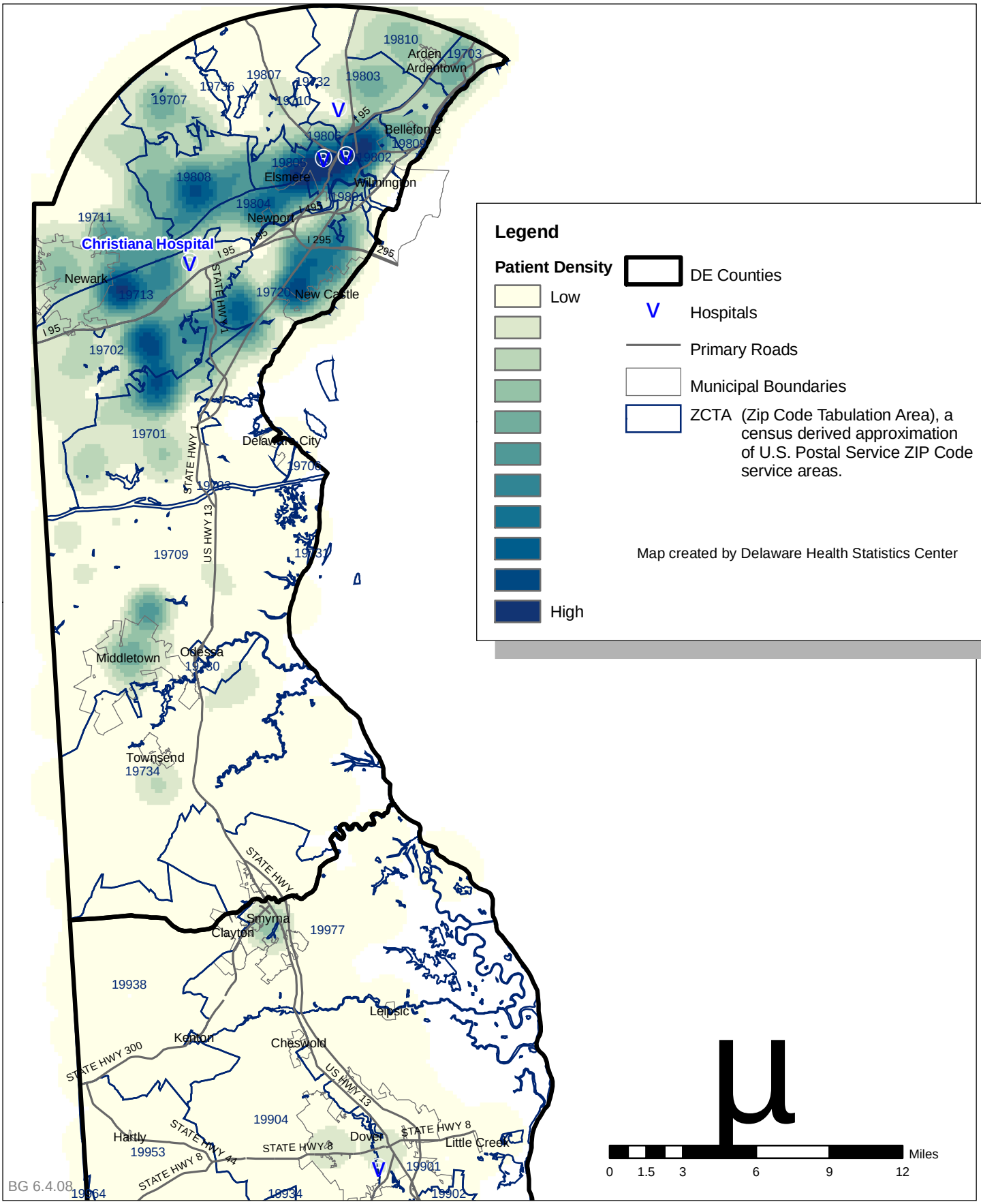
Discharge Density
St. Francis Hospital, 2005



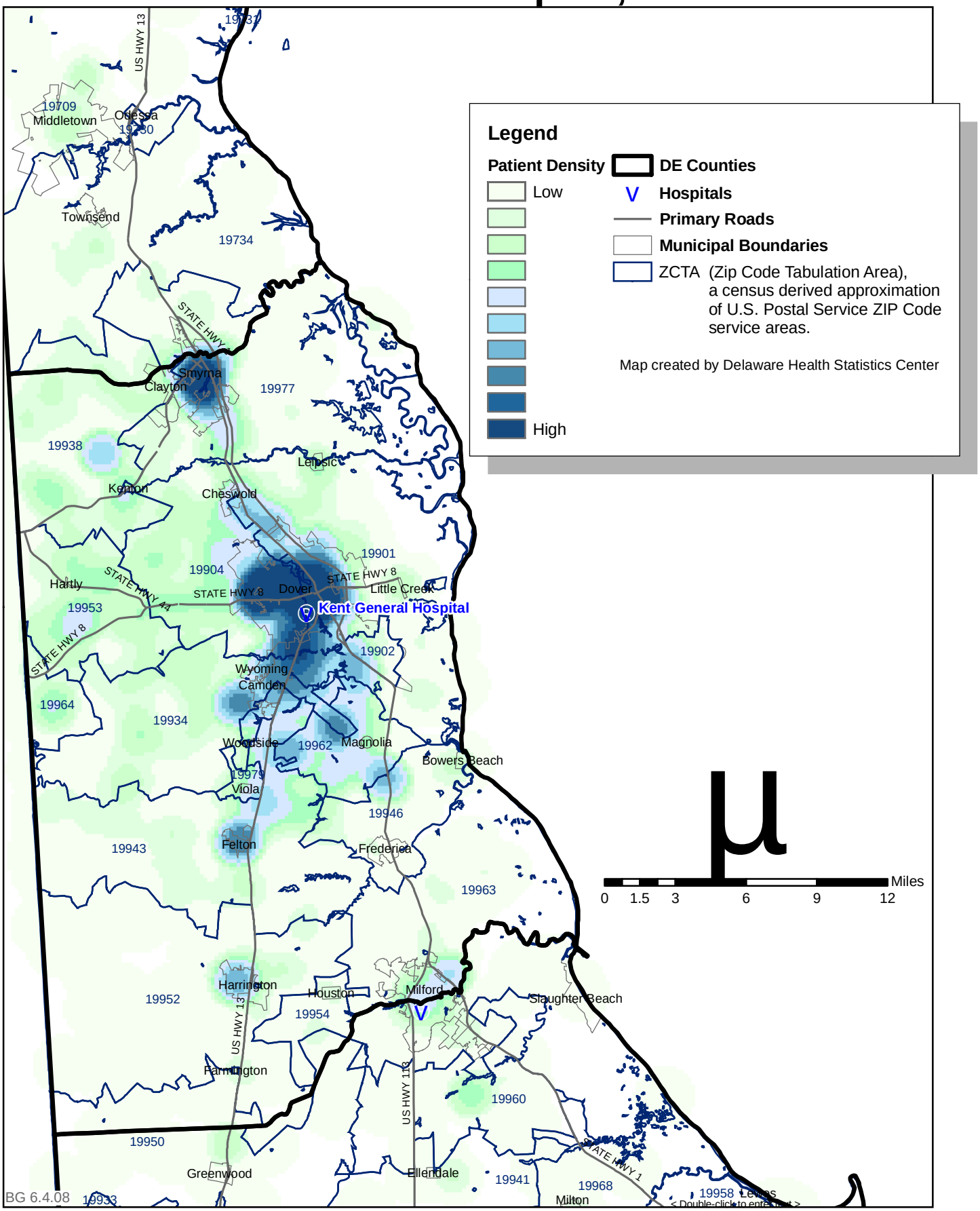
Discharge Density
Wilmington Hospital, 2005



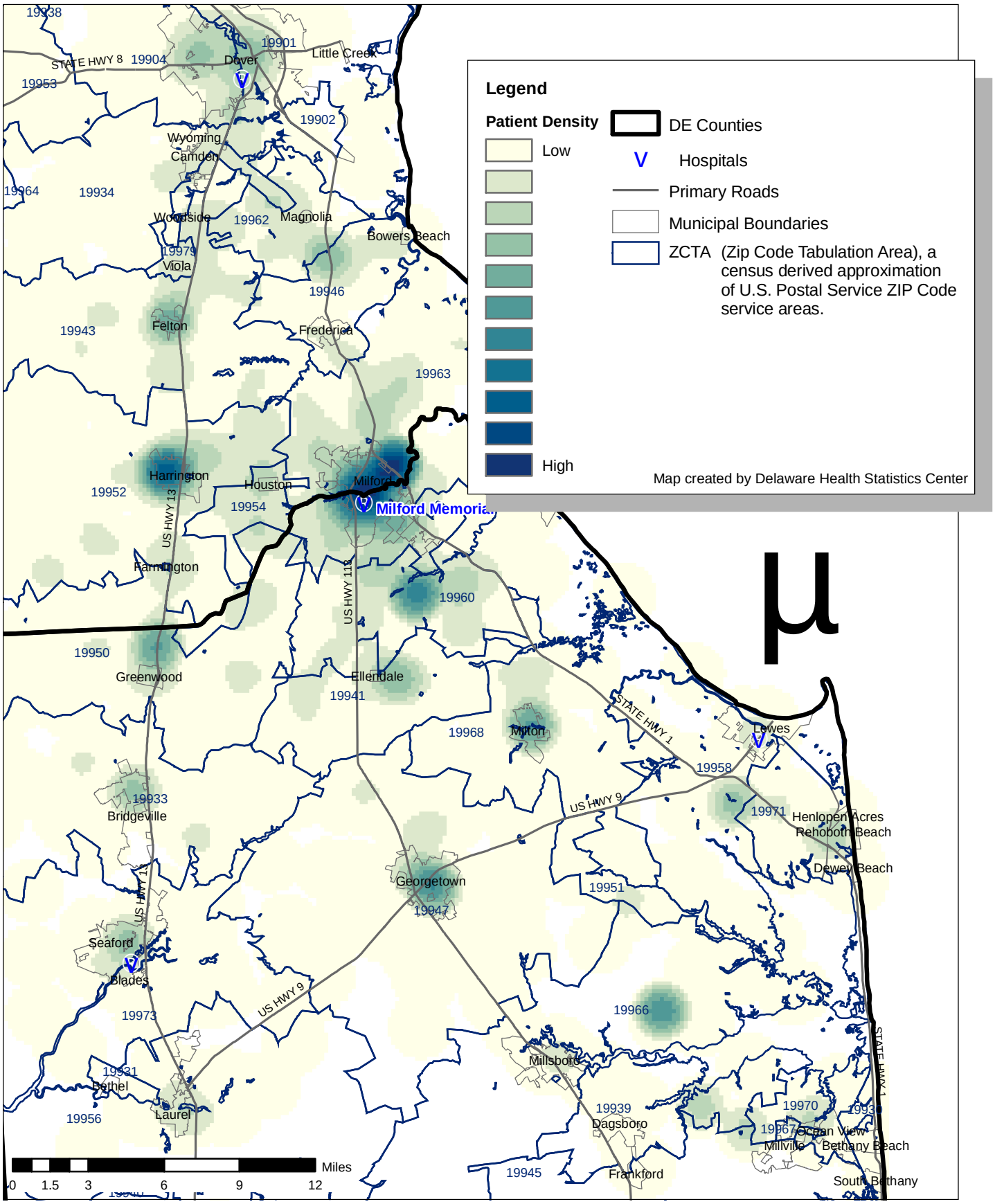
Discharge Density
Christiana Care Hospital, 2005



Discharge Density
Kent General Hospital, 2005



Discharge Density
Milford Memorial Hospital, 2005



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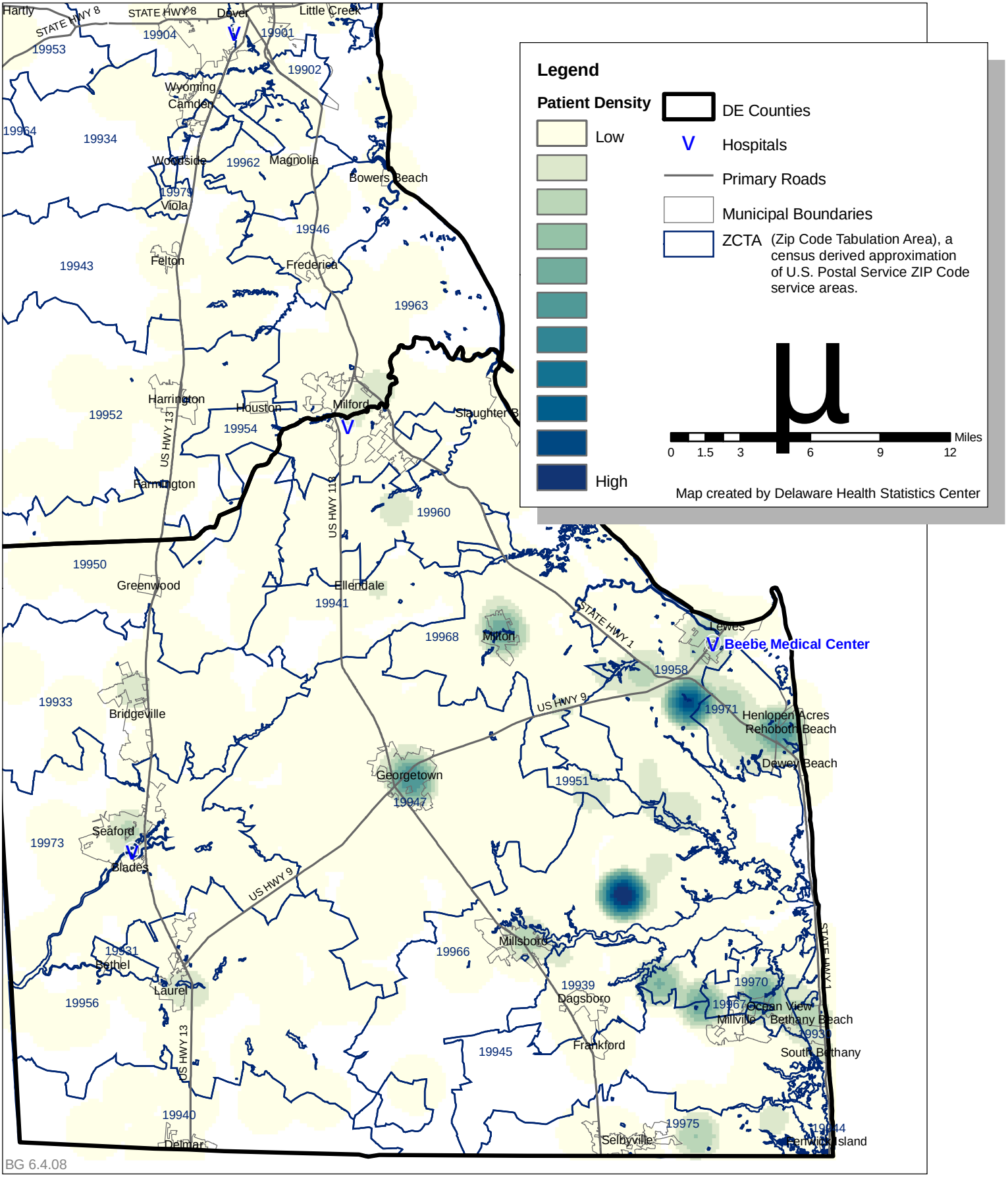
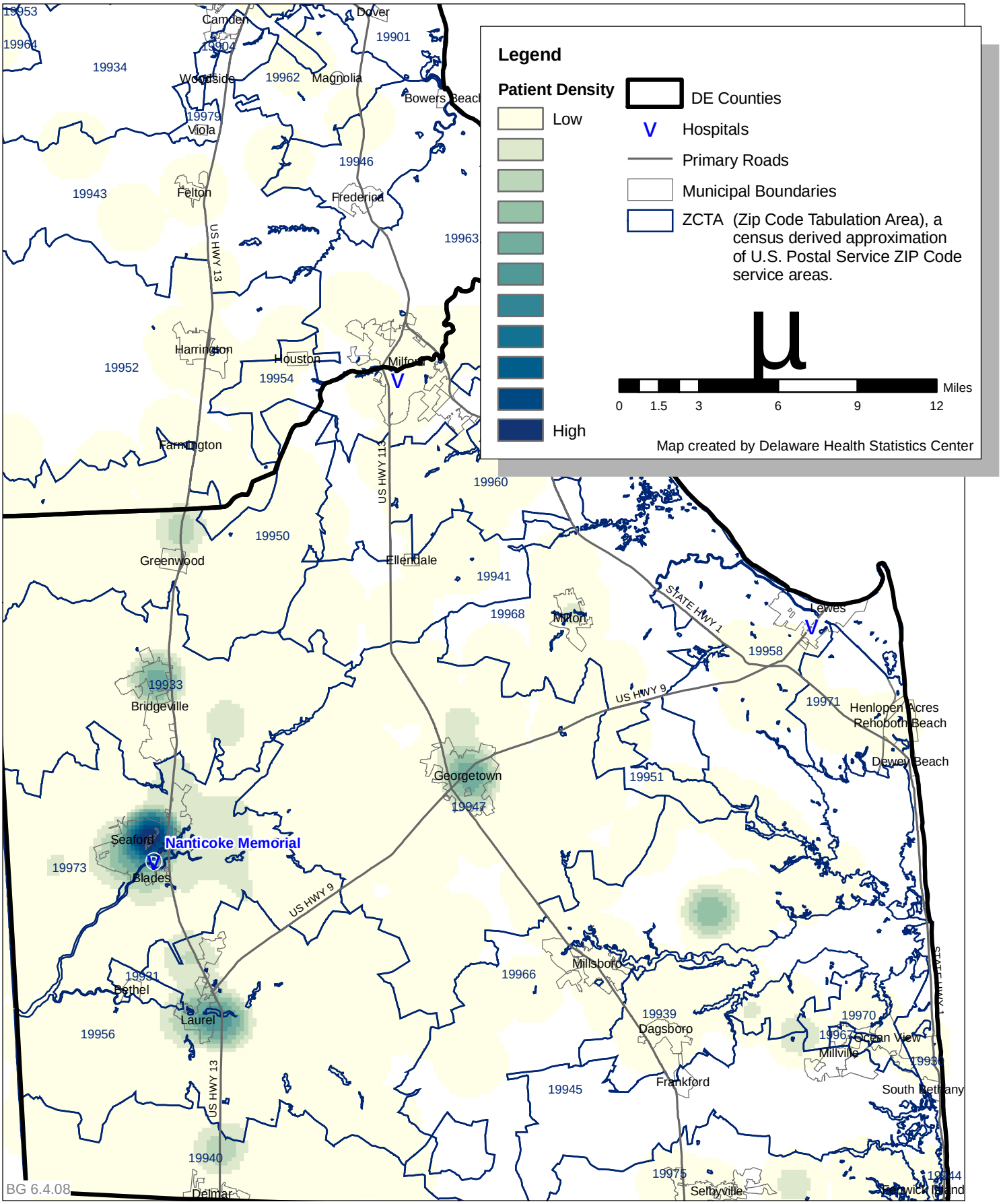
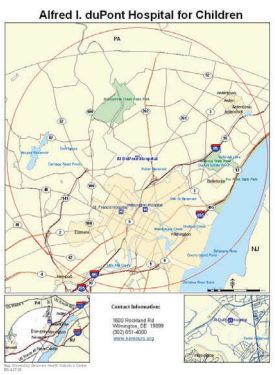
Discharge Density
Beebe Medical Center, 2005

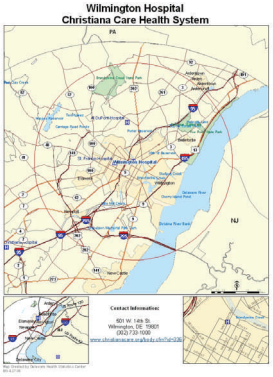


Discharge Density
Nanticoke Memorial Hospital, 2005



HOSPITAL PROFILES
AND
HOSPITAL LOCATION MAPS





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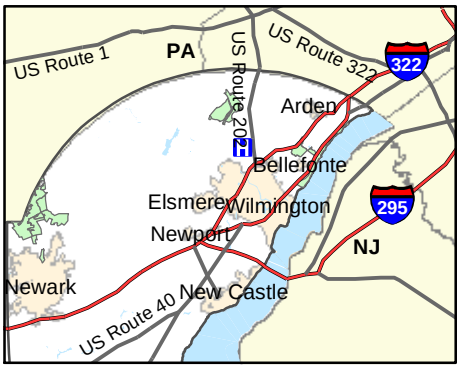
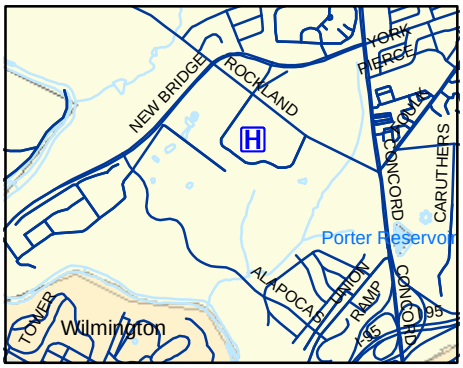
Alfred I. duPont Hospital for Children



Contact Information:

1600 Rockland Rd
Wilmington, DE 19899
(302) 651-4000
www.nemours.org



Map Created by Delaware Health Statistics Center
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Alfred I. duPont Hospital for Children Profile

Introduction:

Name — Alfred I. duPont Hospital for Children

General Background — Since our founding in 1940, the Alfred I. duPont Hospital for Children has served thousands of children from across the country and around the world. The hospital is a division of Nemours, which operates one of the nation's largest subspecialty health systems devoted to pediatric patient care, teaching, and research. Located just outside of Wilmington, Delaware, on 300 acres of parkland, the hospital offers a remarkably beautiful and tranquil setting in which to heal.

Accreditation — The Nemours Children's Clinic provides the physician services of the hospital at its main campus, and at pediatric primary and specialty care locations throughout Delaware, southeastern Pennsylvania, and southern New Jersey. Together the duPont Hospital and Nemours Children's Clinic are the academic partner of Thomas Jefferson University and Jefferson Medical College.

Mission Statement: To provide leadership, institutions, and services to restore and improve the health of children through care and programs not readily available, with one high standard of quality and distinction regardless of the recipient's financial status.

Ownership: Nemours (Jacksonville, Fla.)

Medical Staff: 447 physicians, clinical psychologists, APNs and PAs

Services Offered: The Nemours/Alfred I. duPont Hospital or Children offers all the specialties of pediatric medicine, surgery, and dentistry in a spacious, comfortable, and family-focused facility.

Number of Employees: 3,200

Licensed Beds: 200
Staffed Beds: 159

Location of Facilities: 1600 Rockland Road
Wilmington, Delaware 19803

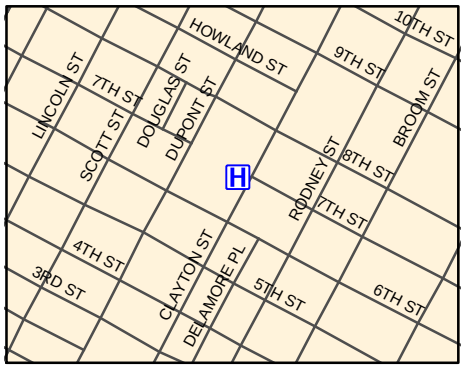
St. Francis Hospital

Map Created by Delaware Health Statistics Center
BG 4.27.06

Contact Information:

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

www.stfrancishealthcare.org/



St. Francis Hospital Profile

Introduction:

Name — St. Francis Healthcare Services

General Background — The Sisters of St. Francis of Philadelphia established St. Francis Hospital in 1924. Today, St. Francis Hospital is a member of Catholic Health East, the largest Catholic healthcare system on the East Coast and operates under the identity of St. Francis Healthcare Services. In addition to the hospital, St. Francis Healthcare Services includes Franciscan Care Center at Brackenville, the Center of Hope, the North Wilmington Women's Center and the Women's Place.

Accreditation — St. Francis Hospital is accredited by the Joint Commission on Accreditation of Healthcare Organizations. St. Francis Home Care is accredited by the Joint Commission on Accreditation of Healthcare Services, and the Family Practice Residency Program is accredited by the American Council on Graduate Medical Education.

Mission Statement:

Our Mission

St. Francis Healthcare Services, a member of Catholic Health East, under the sponsorship of Hope ministries, is a compassionate, healing presence in our community, providing state-of-the-art, person-centered health services that enable those we care for to achieve their optimal quality of life, and those who serve to achieve their highest potential.

Our Vision

Committed to our Mission, our Faith, and our Core Values, St. Francis Healthcare Services will achieve excellence in all we do.

Our Core Values

Reverence for each person
We believe that each person is a manifestation of the sacredness of human life.

Community
We demonstrate our connectedness to each other through inclusive and compassionate relationships.

Justice
We advocate for a society in which all can realize their full potential and achieve the common good.

Commitment to those who are poor
We give priority to those whom society ignores.

Stewardship
We care for and strengthen the ministry and all resources entrusted to us.

Courage
We dare to take the risks our faith demands of us.

Integrity
We keep our word and are faithful to who we say we are.

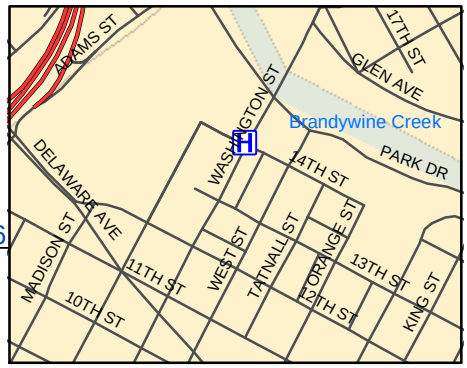
Ownership: Not for profit Catholic healthcare system

Medical Staff:	679 members of the medical staff and 131 allied health professionals. With retirees, we have 803 members of the medical staff.
Services Offered:	24-Hour Emergency Services - Level IV Trauma Designation Ambulatory Rehabilitation Bariatric Surgery Center of Excellence daVinci@ Surgical System Home Care Services Imaging Services, including x-ray, CT, nuclear medicine, ultrasound, MRI, digital mammography, R2 ImageChecker System (computerized detection unit that assists the radiologist in locating abnormalities depicted in mammograms) GI Lab Inpatient and Outpatient Cardiac Catheterization Lab Level II Neonatal Nursery Maternity and Family Birthplace Minimally Invasive Surgery Center Orthopaedics/joint replacement Passport Health (travel medicine service) Skilled Nursing Facility Neurodiagnostics/Sleep Center Franciscan Care Center at Brackenville North Wilmington Women's Center Physical Medicine Rehabilitation The Women's Place St. Francis Family Practice Center St. Francis Heart Center St. Francis OB/GYN Centers St. Francis Pain Center
Number of Employees:	1,317
Licensed Beds: Staffed Beds:	395 225
Location of Facilities:	**St. Francis Hospital**, Wilmington, DE **Franciscan Care Center at Brackenville**, Hockessin, DE **St. Francis Home Care**, Wilmington, DE **St. Francis Pain Center**, Wilmington, DE **St. Francis Family Practice Center**, Wilmington, DE **St. Francis OB/GYN Center** • St. Francis Hospital, Wilmington, DE • North Wilmington Women's Center, Wilmington, DE • Henderson OB/GYN, Wilmington, DE **St. Francis Radiology** • St. Francis Hospital, Wilmington, DE **St. Francis Rehabilitation** • Inpatient only – St. Francis Hospital, Wilmington, DE • Cardiac Rehabilitation, Wilmington, DE **St. Clare Medical Outreach Program** (providing medical care to the uninsured, in partnership with the Ministry of Caring), Wilmington, DE **Center of Hope** (providing medical care to all people – immigrants and citizens, insured and uninsured), Newark, DE **Tiny Steps** (providing prenatal and postpartum care to low-income women) Wilmington (Family Practice Center) and Newark (Center of Hope), DE **Passport Health** (travel medicine service)

Wilmington Hospital
Christiana Care Health System

Contact Information:

501 W. 14th St.
Wilmington, DE 19801
(302) 733-1000
www.christianacare.org/body.cfm?id=336



Map Created by Delaware Health Statistics Center
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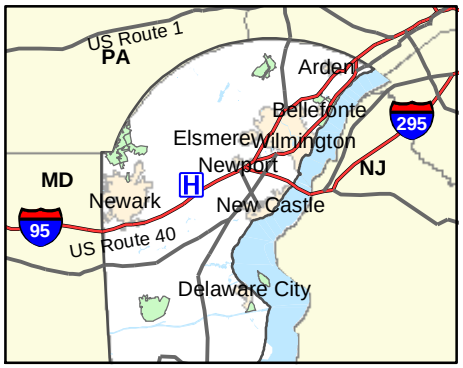
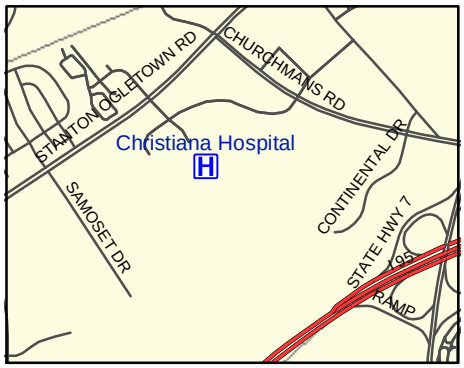
Christiana Hospital
Christiana Care Health System



Contact Information:

4755 Ogletown-Stanton Rd
Newark, DE 19718
(302) 733-1000
www.christianacare.org



Map Created by Delaware Health Statistics Center
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Christiana Care Health System Profile

Introduction:

Name — Christiana Care Health System

General Background — Christiana Care Health System, which dates back to 1888, is one of the region's largest not-for-profit health care providers, serving the people of Delaware as well as neighboring Maryland, Pennsylvania and New Jersey. A teaching hospital, Christiana Care is recognized as a regional center for excellence in cardiology, cancer, and women's health services, as well as Level-I trauma care and Level-3 neonatal intensive care (both highest capability). Christiana Care operates two hospitals, transitional care services, preventive medicine and rehabilitation services, a network of primary care physician offices, and an extensive range of outpatient and home health services. Christiana Care provided $32.6 million of free care and medicine last year.

Accreditation — In the 2007 survey, Christiana Care was accredited by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO).

Mission Statement: Christiana Care Health System is dedicated to improving the health of all individuals in the communities we serve through health care services, education, and research.

Ownership: Christiana Care is a not-for-profit, private teaching health system operated by the Board of Directors of the Christiana Care Corporation. The Board represents a cross-section of business and community leaders.

Medical Staff: Christiana Care's medical and dental staff includes more than 1,200 community physicians, surgeons and dentists representing every medical practice and specialty.

Services Offered: Christiana Hospital, Christiana Care's flagship tertiary care facility, is the state's designated Level I (highest capability) trauma center. The Christiana Hospital campus is also home to Christiana Care's:

Helen F. Graham Cancer Center – a state-of-the-art outpatient facility, which serves as headquarters for our regionally acclaimed cancer program. The Cancer Program emphasizes improving prevention and early detection and improving survival and quality-of-life. Designated by the National Cancer Institute as a community clinical oncology program, Christiana Care provides access to today's most promising cancer research clinical trials.

Center for Heart and Vascular Health– the program's comprehensive services include open heart surgery (more than 800 cardiovascular surgeries each year), diagnostic and interventional cardiac catheterization, dedicated electrophysiology lab, noninvasive studies, research, lipid program, rehabilitation and primary and secondary heart disease prevention.

Women's health program – one of the busiest (7,241 births a year), most advanced maternity services in the nation, including a Level III (highest capability) neonatal intensive care unit.

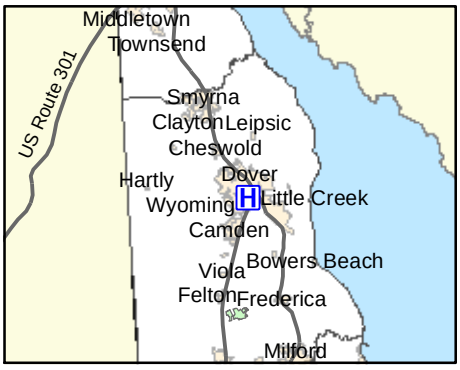
The Eugene du Pont Preventive Medicine & Rehabilitation Institute features a full range of medically supervised preventive and alternative/complementary health services including nutrition and fitness, stress reduction and smoking cessation, adolescent pregnancy prevention, and special programs for arthritis, asthma, cancer, cardiovascular disease, diabetes weight management and osteoporosis.

Wilmington Hospital – includes an inpatient rehabilitation facility, joint replacement center, outpatient surgical facility, psychiatry services, speech and hearing services and an accredited sleep disorders center.

Number of Employees:	10,296 full and part-time, system-wide
Licensed Beds:	Wilmington Hospital -- 241 Christiana Hospital -- 907 Riverside -- 99 Total Licensed Beds -- 1,247
Staffed Beds:	Wilmington and Christiana - 1,148
Location of Facilities:	Throughout the state of Delaware, in southern New Jersey and southeastern Pennsylvania. The major facilities are: • Wilmington Hospital, Wilmington, DE • Christiana Hospital, Newark, DE • Eugene du Pont Preventive Medicine & Rehabilitation Institute, Wilmington, DE • Helen F. Graham Cancer Center, Newark, DE • Riverside Transitional Care, Wilmington, DE • Christiana Care Visiting Nurse Association, New Castle, DE • Primary Care/Internal Medicine Offices • Health Care Center at Christiana, Newark, DE • Springside Plaza, Glasgow, DE

Kent General Hospital
Bayhealth Medical Center

5.0 Miles
Cheswold
42
Green Creek
Delaware Bay
13
1
Silver Lake
9
8
Little Creek
Dover
Silver Lake Park
Kent General Hospital
Kent County Aeropark
Saint Jones Lake
15
S Little Creek Road
Moores Lake
Isaac Lake
Dover Air Force Base
Wyoming Lake
113
St Jones River
Wyoming
13
Camden
Cypress Pond
10
13
Voshell Pond
Derby Pond
Woodside
Magnolia
0 0.25 0.5 1.5 2 Miles

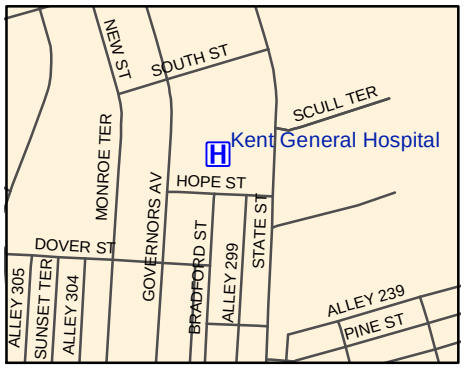


Map Created by Delaware Health Statistics Center
BG 4.27.06

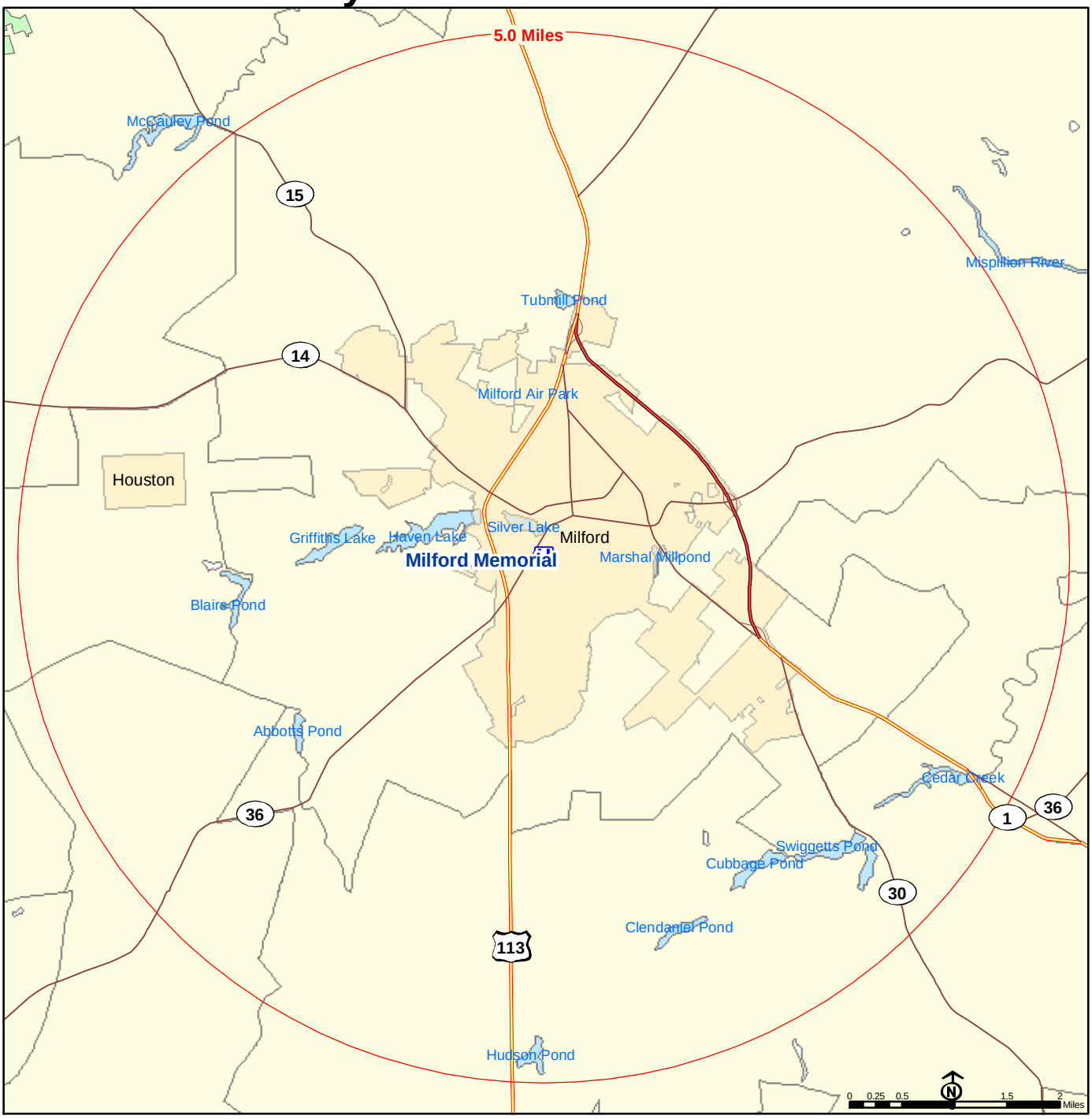
Contact Information:

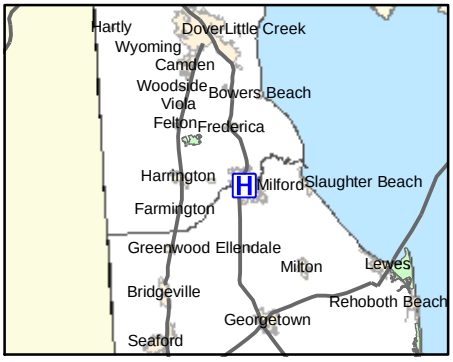
640 South State St.
Dover, DE 19901
(302) 674-4700

www.bayhealth.org



Milford Memorial Hospital
BayHealth Medical Center





Contact Information:

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

www.bayhealth.org/about/milford.asp

Map Created by Delaware Health Statistics Center
BG 4.27.06

Bay*health* Medical Center Profile

Introduction:

Name

Bay*health* Medical Center

General Background

Kent General Hospital, founded in 1927, and Milford Memorial Hospital, founded in 1907, merged in January of 1997. The combined organization, Bayhealth Medical Center, is a not-for-profit health care facility that includes Middletown Medical Center and numerous satellite locations. Bayhealth is southern Delaware's largest healthcare system and is a member of the Premier Health Alliance.

Accreditation

- Bay*health* – Kent General Hospital and Milford Memorial Hospital - Accredited by the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO).
- Cancer Programs - The American College of Surgeons Community Hospital Comprehensive Cancer Program
- Diagnostic Imaging and Women's Centers– ACR Mammography Accreditation, ACR Ultrasound Breast & Breast Biopsy Accreditation and ACR Ultrasound & Vascular Accreditation.
- Laboratory - The American Association of Blood Banks, JCAHO – Pathology and Clinical Laboratory Services, and Certification by the Healthcare Financing Administration.
- Home Health Care - Skilled Home Health Agency License.
- Pharmacy at Kent General - DEA Controlled Substance Certificate, Certification with State of DE Division of Professional Regulation, Uniform Controlled Substance Certificate and ASHP – American Society of Health – System Pharmacists
- Rehabilitation Services – Council for the Accreditation of Rehabilitation Facilities (CARF).
- Sleep Center at Kent General - AASM – American Academy of Sleep Medicine

Mission Statement:

To improve the health status of all members of the Bayhealth community.

Ownership:

Bay*health*, Inc. is the non-profit and parent corporation of Bay*health* Medical Center, Inc. and six other corporate entities, including the Bayhealth Foundation.

Medical Staff:

The medical staff of Bay*health* totals 450 active, provisional active and courtesy staff.

Services Offered:

Surgical Services

- Cardiac Surgery and Intervention
- Major services include orthopedics, general and vascular surgery, ophthalmology, urology, gynecology and plastic surgery.
- Day Surgery Services
- Endoscopic Suite
- Incontinence Center
- Otolaryngology
- Thoracic

Services Offered:

Diagnostic Imaging

- PET/CT Scanning
- Magnetic Resonance Imaging, including Open MRI
- Digital PACS (Picture Archiving Communications System)
- Magnetic Resonance Angiography
- Computerized Tomography
- Nuclear Medicine
- Digital Vascular Imaging
- Ultrasonography
- Low-dose Mammography
- General Radiography
- Fluoroscopy
- Stereotactic Breast Biopsy
- Bone densitometry

Critical Care

- Cardiovascular Surgical Intensive Care
- Intensive Care, Intermediate Care & Dialysis Units
- 33 Additional Monitored Beds on new 4th Floor Unit

Emergency Services

- 24-hour emergency services
- Kent General and Milford Memorial Emergency Departments are designated trauma centers

Obstetric and Pediatric Services

- New Two-Floor Maternity and Women's Services unit at Kent General featuring all private rooms, 10 delivery rooms, 15 neonatal intensive care beds, and a newborn nursery
- LDRP Suites at Milford Memorial
- Level II neonatal intensive care (KGH)
- Pediatric Intermediate Care Unit (KGH)
- Inpatient Pediatric Centers
- Ronald Room

Cancer Care Services

- Chemotherapy
- Radiation Therapy
- 3 – D imaging
- Prostate Seed Implants
- IMRT
- Clinical Trials

Rehabilitation Services

- Inpatient Rehabilitation Center (MMH) – CARF accredited
- Physical and Occupational Therapy Services
- Certified Speech Pathologists
- Sports Medicine
- Three-phase Cardiac Rehabilitation Services
- Aquatic Therapy
- Home Health Care

Services Offered:

Community Related Services

- Community based outpatient laboratory services
- Occupational Health Programs
- Consumer Health Education Programs
- Diabetes Care Centers
- Support Groups
- Free Health Screenings
- Health Fair
- Guest Relations Program
- High School-based Wellness Centers at Brandywine, Milford, Smyrna, Caesar Rodney and Woodbridge.

Number of Employees: 2,900

Licensed Beds: 389
Staffed Beds: 336

Location of Facilities:

- Kent General Hospital, Dover, DE
- Milford Memorial Hospital, Milford, DE
- WalkIn Medical Care, Dover, DE
- WalkIn Medical Care, Middletown, DE
- Cancer Center at Bayhealth, Dover, DE
- Cancer Center at Bayhealth, Milford, DE
- Outpatient Rehabilitation Center, Dover, DE
- Middletown Medical Center, Middletown, DE
- Inpatient Rehabilitation Center, Milford, DE
- Women's Center at Kent General, Dover, DE
- Women's Center at Milford Memorial, Milford, DE
- Outpatient Service Center at Kent General, Dover
- Outpatient Service Center at Milford Memorial, Milford
- Smyrna Clayton Medical Services, Smyrna, DE
- Smyrna Physician Specialty Practices
- Harrington Outpatient Services Center, Harrington, DE
- Milton Outpatient Services Center, Milton, DE

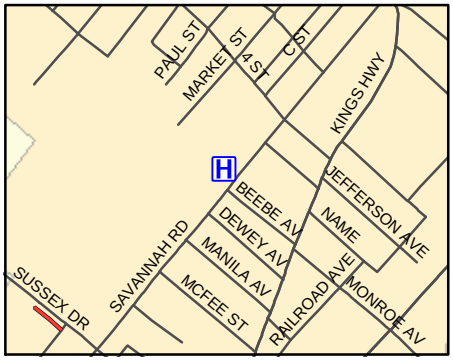
Beebe Medical Center

Map Created by Delaware Health Statistics Center
BG 4.27.06

Contact Information:

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

www.beebemed.org



Beebe Medical Center Profile

Introduction: Beebe Medical Center, in conjunction with its Medical-Dental Staff, provides healthcare services in a variety of locations throughout eastern Sussex County.

Name Beebe Medical Center

General Background Beebe Medical Center is a community hospital system offering a broad spectrum of services and facilities to serve people living in or visiting our service area.

Accreditation

Beebe Medical Center – Joint Commission on the Accreditation of Healthcare Organizations (JCAHO)
Beebe Home Health Agency – Joint Commission on the Accreditation of Healthcare Organizations (JCAHO)
Cancer Program – The Commission on Cancer, the American College of Surgeons
Beebe School of Nursing – National League for Nursing
Vascular Laboratory – Intersocietal Commission for the Accreditation of Vascular Laboratories
Laboratory – The College of American Pathologists; American Association of Blood Banks
Mammography – The American College of Radiology
Ultrasonography – The American College of Radiology

Mission Statement: Beebe Medical Center's charitable mission is to encourage healthy living, prevent illness, and restore optimal health with the people residing, working, or visiting in the communities we serve.

Ownership: Community owned, private, not-for-profit hospital, governed by a local Board of Directors.

Medical Staff: 173 active staff doctors serving a variety of medical specialties.

Services Offered:

- Tunnell Cancer Center, offering comprehensive, hospital-based diagnosis and treatment, including medical oncology, radiation oncology, and surgical oncology.
- Comprehensive Cardiac Care, including cardiac catheterization, non-invasive diagnostic testing, cardiac rehabilitation, and preventive care. Open Heart Surgery in affiliation with Christiana Care Health System.
- Physical Rehabilitation Therapy Services offering physical therapy, occupational therapy, and speech therapy.
- Women's Health Pavilion.
- Diagnostic Imaging services including magnetic resonance imaging (MRI), computed tomography (CT), nuclear imaging, Positron Emission Tomography (PET), Electronic Bean Computed Tomogrpahy (EBCT) digital interventional radiology, ultrasonography, mammography, stereotactic breast biopsy, bone densitometry, fluoroscopy, and general radiography.
- Beebe Lab Express.

Specialized programs such as:

- Wound Care and Diabetes Management Center
- Sleep Disorders Center
- Integrative Health
- 24-hour Emergency Medicine Department in Lewes Level III Trauma Designation
- Millville Emergency Center (summer)

Services Offered:

Specialized programs such as:

- Accredited Vascular Laboratory
- Inpatient and Outpatient surgery
- Home Health services
- Beebe School of Nursing (RN to BSN option offered in conjunction with Wilmington University, CAN program)
- High School-based Wellness Centers (Cape Henlopen, Indian River and Sussex Central High Schools)
- Gull House–Adult Day Care

Number of Employees: 1,600 employees

Licensed Beds: 210 – Beebe Medical Center
Staffed Beds: 128 – Beebe Medical Center

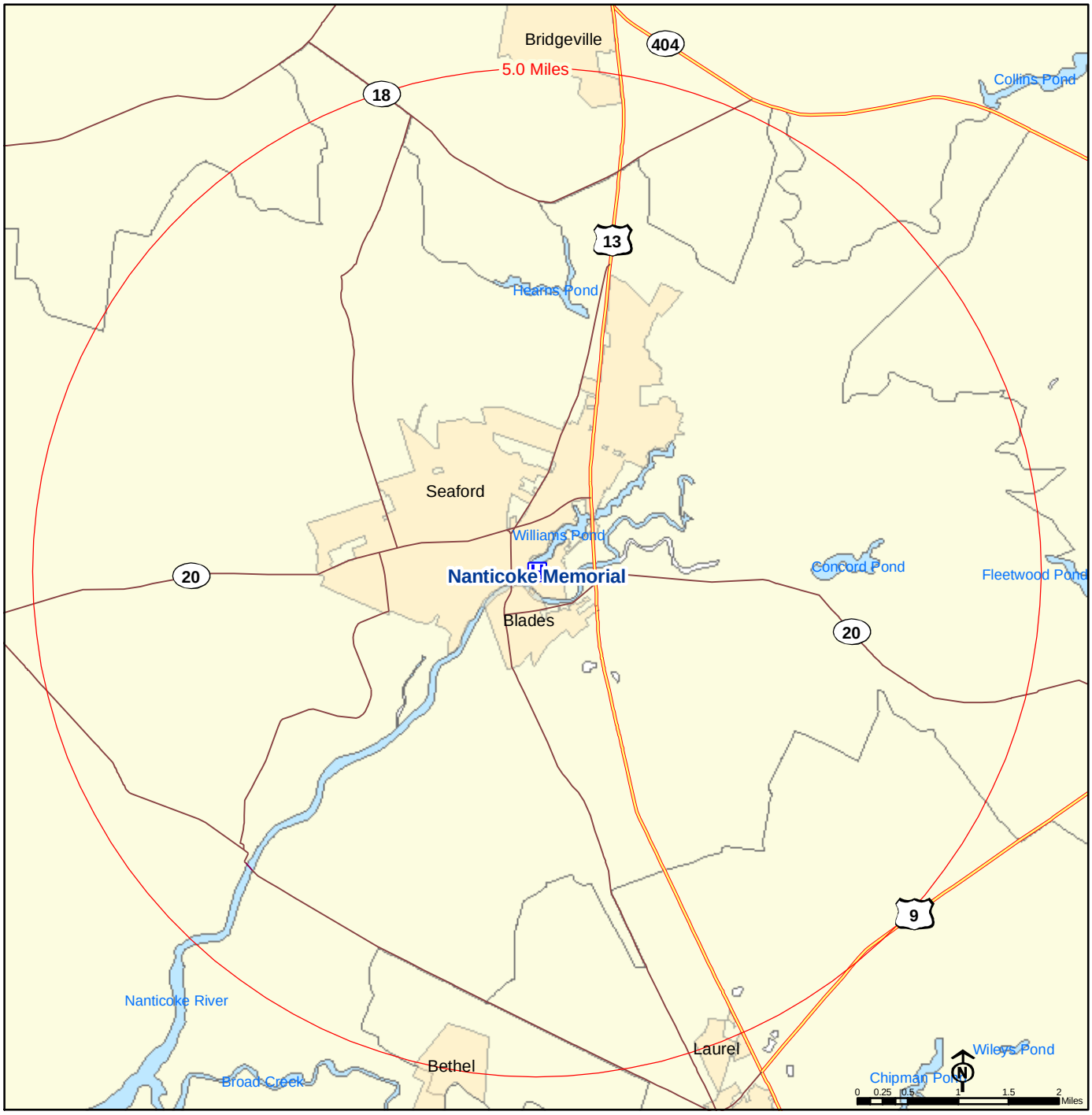
Location of Facilities:

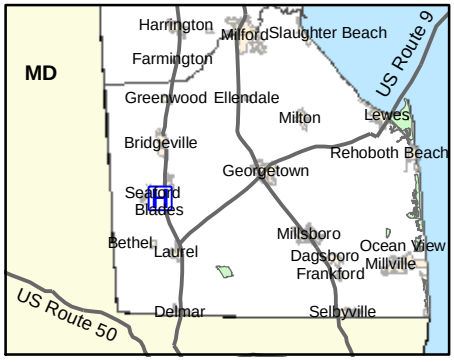
Beebe Medical Center
Lewes, DE
Beebe Medical Foundation
Lewes, DE
Beebe Health Campus
Rehoboth Beach, DE, Route 24
Diagnostic Imaging
Physical Therapy
Walk-in lab, x-ray, EKG, and blood draw
Tunnell Cancer Center
Beebe Physician Network Practices
Lewes, DE (Lewes Pulmonary)
Lewes, DE (Lewes Infectious Diseases)
Rehoboth Beach, DE (Surgical Oncology)
Lewes, DE (Interventional Cardiology)
Lewes, DE (Hospitalists)
Millville, DE (Millville Weekend Walk In Health Center) Labor Day through Memorial Day)
Beebe Imaging
Georgetown, DE
Millsboro, DE
Millville, DE
Rehoboth Beach, DE
Lewes, DE
Beebe Emergency Services
Lewes, DE
Millville, DE (summer only)
Gull House Adult Day Care Center
Rehoboth Beach, DE
Beebe Lab Express
Lewes, DE
Rehoboth Beach, DE
Georgetown, DE
Milton, DE
Millsboro, DE
Millville, DE
Long Neck, DE

Location of Facilities:

Beebe Physical Rehabilitation Therapy
Lewes, DE
Rehoboth Beach, DE
Millsboro, DE
Millville, DE
Wellness Centers
Indian River High School
Cape Henlopen High School
Sussex Central High School
Wound Care and Diabetes Management
Long Neck, DE
Beebe Sleep Disorders Center
Rehoboth Beach, DE

Nanticoke Memorial Hospital

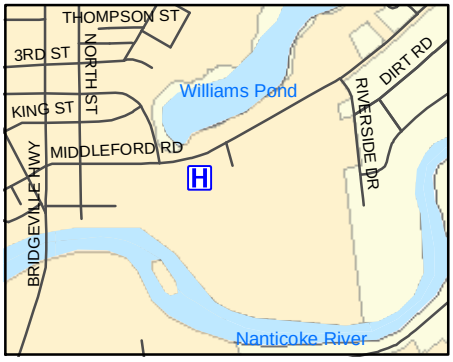




Contact Information:

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

www.nanticoke.org



Map Created by Delaware Health Statistics Center
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Nanticoke Memorial Hospital Profile

Introduction:

Name — Nanticoke Memorial Hospital

General Background — Nanticoke Memorial Hospital was originally incorporated in 1945 by a group of citizens concerned by the lack of health care facilities in western Sussex County. Over the years, involved citizens and a progressive administrative team have continued to direct the course of Nanticoke Memorial Hospital, and its affiliates, organized under the corporate title of Nanticoke Health Services. What started as a 32-bed hospital in 1952 has grown to include extended care, business services, outpatient services, cancer care services, medical centers across Sussex County Delaware, and a host of preventative medicine and health programs.

Accreditation — Accreditation
Joint Commission on Accreditation of Healthcare Organizations
American Association of Blood Banks
Nuclear Regulatory Commission
American College on Radiology
Mammography Quality Standards Act

Mission Statement: "We exist to positively impact our communities' quality of life through improved health status."

Ownership: Nanticoke Health Services, Inc. is the non-profit and parent corporation of Nanticoke Memorial Hospital and four other corporate entities.

Medical Staff: The medical staff of Nanticoke Memorial Hospital totals 139 active and consultant staff members.

Services Offered:

Medical Services
- Major services include acute inpatient care comprised of cardiology, gastroenterology, infectious disease, neurology and pulmonology.
- Nutrition Services
- Cardiac Services including cardiac catherizations, echocardiography, pacemakers, stress testing and telemetry
- Cancer Services including radiation therapy, chemotherapy and pain management

Surgical Services
- Major services include orthopedics, general and vascular surgery, ophthalmology, urology, gynecology, plastic/reconstructive surgery, bariatric (obesity) surgery, otolaryngology (ENT), thoracic, podiatry and laser
- Day Surgery Services
- Lithotripsy

Diagnostic Services
- General radiology
- Fluoroscopy
- Magnetic resonance imaging
- Computerized tomography
- Nuclear medicine
- Ultrasound
- Endoscopy suite
- EEG
- Sleep disorder studies
- Mammography
- Stereotactic breast biopsy

Services Offered:

Critical Care
- Multidisciplinary intensive care and progressive care unit
- Hemodialysis
- Peritoneal dialysis

Emergency Services
- 24-hour emergency services

Obstetric and Pediatric Services
- Birthing suites
- Ronald McDonald rooms

Rehabilitation Services
- Physical and occupational therapy
- Speech pathology
- Cardiac rehabilitation services
- Wound Care & Hyperbariac Chambers

Community Related Services
- Laboratory courier services
- Consumer health education programs
- Support groups
- Health Screenings: cholesterol, blood sugar monitoring, prostate cancer screening, risk for stroke assessment, blood pressure checks
- High school-based wellness centers
- Nutrition counseling

Number of Employees: 1050

Licensed Beds:
139 Hospital Beds
110 Extended Care Beds

Location of Facilities:

Acute Care
Nanticoke Memorial Hospital, Seaford, DE

Extended Care
LifeCare at Lofland Park, Seaford, DE

Off Campus Care
Mid-Sussex Medical Center, Millsboro, DE
Georgetown Medical Center
Seaford Medical Center

Wellness Centers
Seaford High School Wellness Center
Laurel High School Wellness Center
Delmar High School Wellness Center

Business Services
Nanticoke Occupational Health Services, Seaford, DE
Practice Management Associates, Seaford, DE

Affiliations:
- Clinical rotations with various schools in nursing, radiology, laboratory, and certified nursing assistant
- Student intern program with Seaford and Laurel High School

Patient Mix:

Based on Discharges (FY07)
Medicare % 47
Medicaid % 23
Others (Commercial & Self Pay) % 30

Based on Patient Days (FY07)
Medicare % 60
Medicaid % 15
Others (Commercial & Self Pay) % 25

Uncompensated Care: Charity Care & Bad Debt at cost – (FY05) - $ 8,200,000

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.

Due to its status as a long-term care facility, Select Specialty in Wilmington is excluded from the data presented in this report. Select Specialty is associated with St. Francis hospital. A short-stay hospital is one where the average length of stay is less than 30 days.

Maps were created using ESRI's ArcView software.

Rate calculations and significance testing:

Hospital Discharge Rates were calculated using the Delaware Population Consortium's (DPC) October 11, 2005 population projections, and were presented as the number of discharges per 10,000 population. Significance testing for the difference between rates was performed using the following formula:

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

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

where

R_1 = first rate
R_2 = second rate
N_1 = first number of discharges
N_2 = second number of discharges

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

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

where

N_1 = first denominator
N_1 = second denominator

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

p_1=the first percent
p_2=the second percent

TECHNICAL NOTES

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 2007 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 http://www.ahrq.gov/data/hcup/.

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.

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.
  - 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, Ninth Revision, Clinical Modification (ICD-9-CM) - The official system of assigning codes to diagnoses and procedures associated with hospital stays in the United States. The ICD-9-CM is based on and is compatible with the World Health Organization's International Classification of Diseases, Ninth Revision. ICD-9-CM is divided into 17 chapters and 2 supplemental classifications. Diagnoses are grouped under chapters arranged primarily by body system. In addition, there are chapters for infectious and parasitic diseases; neoplasms; endocrine, metabolic, and nutritional diseases; mental disorders; complications of pregnancy, childbirth and puerperium; certain conditions originating in the perinatal period; congenital anomalies; and symptoms, signs and ill-defined conditions. The two supplemental classifications are for factors influencing health status and contact with health services and classification of external causes of injury and poisoning. More information can be found online at www.cdc.gov/nchs/icd9.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 the mentally retarded and developmentally disabled.

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 – The branch of care that deals with the management of pregnancy, labor, and the puerperium.

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

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

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

Procedure classes – Refers to AHRQ's HCUP classification system for procedures, which are categorized into four general categories: minor diagnostic, minor therapeutic, major diagnostic, and major therapeutic. The two minor categories are considered non-operating procedures and the two major categories are considered valid operating procedures. This report uses the 2008 version of the classification system. More information can be found at: http://www.hcup-us.ahrq.gov/toolssoftware/procedure/procedure.jsp.

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

TECHNICAL NOTES

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. Due to its status as a long-term care facility, Select Specialty in Wilmington was excluded from the data presented in this report. Select Specialty is associated with St. Francis hospital.

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

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