

Mastectomies in Connecticut

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The Connecticut Office of Health Care Access, through the collection of hospital financial and billing data, is a resource in the analysis and reporting of evolving trends in the utilization of health services, access, and quality of care.

Acknowledgments

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Overview

Women's health care, particularly the treatment of breast cancer, has recently been the focus of much attention both nationally and in Connecticut. Among concerns regarding mastectomies are patient-physician decisions on management of care and the impact of length of hospital stays on quality of care.

These concerns are a reflection of the high incidence of breast cancer in our society today. As the incidence of breast cancer increases, whether due to improved detection methods, women's health behaviors, or as an overall pattern of increased cancers of all types in women, more information about the care of women with breast cancer is needed. This report provides some basic information.

Risk Factors

All women, regardless of race, lifestyle, educational level or socioeconomic status, are at risk for breast cancer. In 1996, breast cancer was the leading cause of death in women age 40 to 44 years. One out of every eight women will develop breast cancer. Furthermore, the mortality rate has not changed significantly in more than thirty years.

Although neither diagnostic nor prognostic, there seems to be a pattern of factors that increase the risk of breast cancer. Family history leads the list of risk factors, particularly in three categories. First, women who have had a previous diagnosis of breast cancer are likely to be at greater risk than women who have never had the disease. Second, the risk is greater if there are two or more women in one's immediate family (first degree relatives) with a diagnosis of breast cancer. Either bilateral (both breasts) or premenopausal breast cancer in an immediate relative is the third risk category within family history.

Another component of the breast cancer risk factor pattern is origin of birth in either North America or Northern Europe. While inconclusive as to why these women are at greater risk, whether due to diet, lifestyle or some other factor, the pattern is evident.

Other factors which complete the risk factor pattern are postmenopausal obesity, early onset of menstruation (earlier than age 12), and late menopause (after age 55), first full term pregnancy after age 35, and oral contraceptive use prior to age 20 and/or totaling more than six years. While not inherently disease producing, hormones seem to act as both initiators and/or promoters of breast cancer through atrophy, cell differentiation (changes) and cell expansion.

Women who have never had children, who consume a diet high in fat, and who undergo ERT (estrogen replacement therapy) complete the risk factor pattern. Consistent with the hormone discussion above, women who have never experienced

pregnancy have a constant estrogen hormone flow which seems to increase the incidence of breast cancer. The high fat diet as a risk factor is based on both compelling animal research and the low incidence of breast cancer in women in countries known for low fat diets, Japan in particular.

Thus, a prototypical woman at risk for breast cancer is greater than 50 years old, has a relative with a breast cancer diagnosis, is North American, does not follow a low fat diet, used oral contraceptives for more than six years and either did not have a full term pregnancy until after age 35, or never had a pregnancy.

Detection and Treatment

Breast cancer detection tools include self breast exams and periodic mammographies at facilities accredited by the American College of Radiologists. Mammograms should begin at age 40 (or earlier if indicated by physician exam) and should continue with screenings on an annual basis. These screenings should preferably be done at the same site or facility for consistency because each site has different radiologists and may use different techniques.

If a lesion is found in the screening process, then the diagnostic process begins in order to determine whether it is a benign or a malignant mass. Depending on the characteristics of the mass, a biopsy may be performed on the lesion. Mammograms, sonograms, MRIs and fine needle aspirations determine the characteristics of the type of lesion in question and how to proceed with treatment.

The various options for treatment for the breast cancer patient depend on the patient's individual circumstances and her physician's recommendations. Treatment alternatives include breast conservation procedures (such as lumpectomy, partial mastectomy, or removal of only sections or quadrants of the affected breast) in conjunction with radiation therapy. For the majority of women, this type of treatment is becoming more standard and a more preferable treatment. Depending upon the involvement or stage of the disease, chemotherapy and bone marrow transplant may also be treatment alternatives.

A more traditional treatment option may include the surgical removal of the breast or a component of the breast, known as mastectomy. The different mastectomy procedures are defined as follows:

- simple mastectomy: all breast tissue and surrounding tissue are removed;
- modified radical mastectomy: all breast tissue, the axillary lymph nodes, the covering or lining of the chest wall muscles is removed; and
- radical mastectomy: all breast tissue, the axillary nodes and the muscles of the chest walls, including the pectoralis major, are removed.

Potential complications following both breast preserving surgery or following a mastectomy include:

- arm edema: a local or generalized condition in which the arm tissues contain an excessive amount of tissue fluid;
- seroma: the localized collection of fluid;
- flap necrosis: death of tissue left over the area where the breast was;
- lymphedema: edema due to obstruction of the lymph system; or
- wound infection, shoulder dysfunction, upper extremity weakness, fatigue, or limitation of mobility.

Regardless of post operative length of stay, the patient must have clear discharge instructions prior to discharge. Mastectomy education focuses on wound care and maintaining the function of the arm wound drains, if present. Education should be conducted pre-operatively and post-operatively.

For all patients, wound care, assessment of potential infection, family support or support from significant others at home, emotional support and follow up care must be in place. If no support is at home then arrangements prior to discharge need to be made with home care nurses. Some studies have shown that if all of these factors are in place then shorter lengths of stay may be appropriate. Early discharge to a familiar environment has also been shown to be a positive factor in healing.

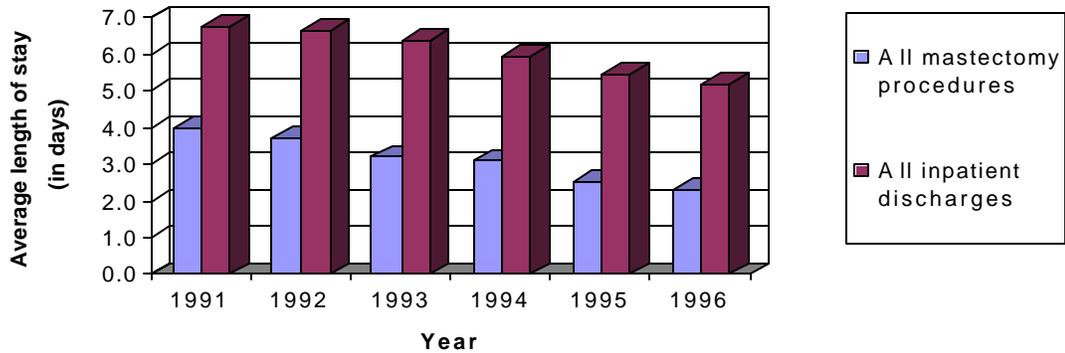
Connecticut Experience

The following data examines length of stay, charges and demographic data on mastectomies. All data, unless otherwise noted, is from the Office of Health Care Access Inpatient Discharge Database. The database contains discharge abstract and UB 92 billing data for all of Connecticut's acute care hospitals. Outpatient data is derived from the Connecticut Health Information Management Exchange (CHIME) report 929, which hospitals are required to file with OHCA as part of their annual reporting. Please note that analyses contained in this report pertain to mastectomy as a principal procedure only, and do not include Connecticut residents who may be receiving treatment in neighboring New York, Massachusetts or Rhode Island hospitals.

LENGTH OF STAY

The average length of stay for all inpatient discharges has continued to decline since 1991. Average length of stay for mastectomy discharges has mirrored this trend.

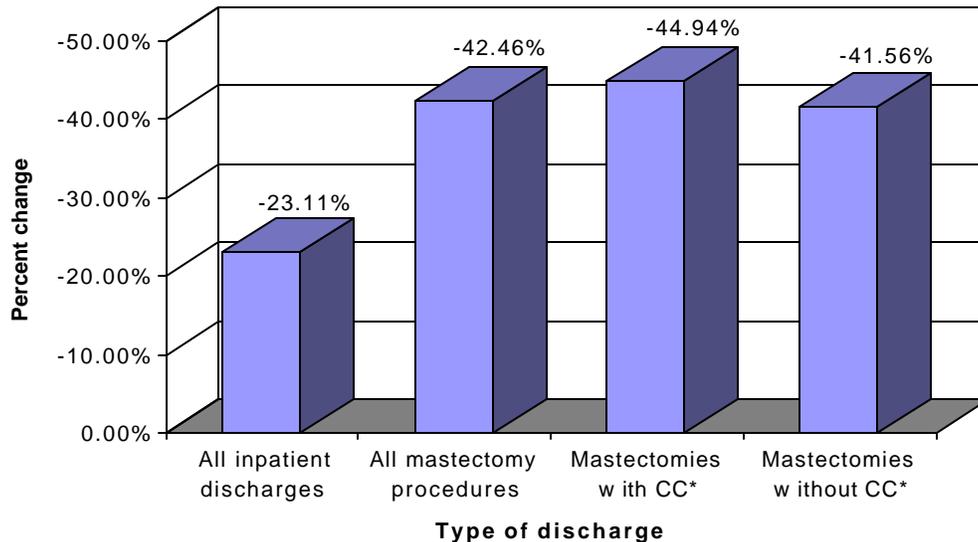
Average length of stay for all inpatient discharges vs. only mastectomy discharges, FY 1991 to 1996



Note: Mastectomy length of stay outliers were removed from the analysis.

Specifically, average length of stay from 1991 to 1996 dropped by 23.11% for all inpatient discharges, whereas it fell by 42.46% for all mastectomy discharges. Average length of stay dropped most dramatically for those mastectomy discharges with complications and/or comorbidities, falling by almost 45%. Whether this drop in length of stay is due to better management of post-operative complications or to patients with significant problems being sent home earlier warrants further study.

Percent change in average length of stay FY 1991 to 1996



Note: Mastectomy length of stay outliers were removed from the analysis.

*CC: Complications and/or comorbidities.

Length of stay and percent change for inpatient hospital mastectomies, FY 1991 to 1996

| Hospital fiscal year | Average length of stay for all mastectomy procedures* | % change from prior year | Average length of stay for mastectomies with cc** | % change from prior year | Average length of stay for mastectomies w/o cc*** | % change from prior year |
|----------------------|---|--------------------------|---|--------------------------|---|--------------------------|
| 1991 | 3.98 | | 4.45 | | 3.44 | |
| 1992 | 3.72 | -6.5% | 4.02 | -9.7% | 3.26 | -5.2% |
| 1993 | 3.20 | -14.0% | 3.51 | -12.7% | 2.79 | -14.4% |
| 1994 | 3.09 | -3.4% | 3.44 | -2.0% | 2.71 | -2.9% |
| 1995 | 2.51 | -18.8% | 2.71 | -21.2% | 2.26 | -16.6% |
| 1996 | 2.29 | -8.8% | 2.45 | -9.6% | 2.01 | -11.1% |

Note: Mastectomy length of stay outliers were removed from the analysis.

*Discharges where the principal procedure was identified as a mastectomy (ICD-9-CM codes 85.41 through 85.48).

**Discharges identified as diagnosis related group 257, total mastectomy with comorbidities and/or complications.

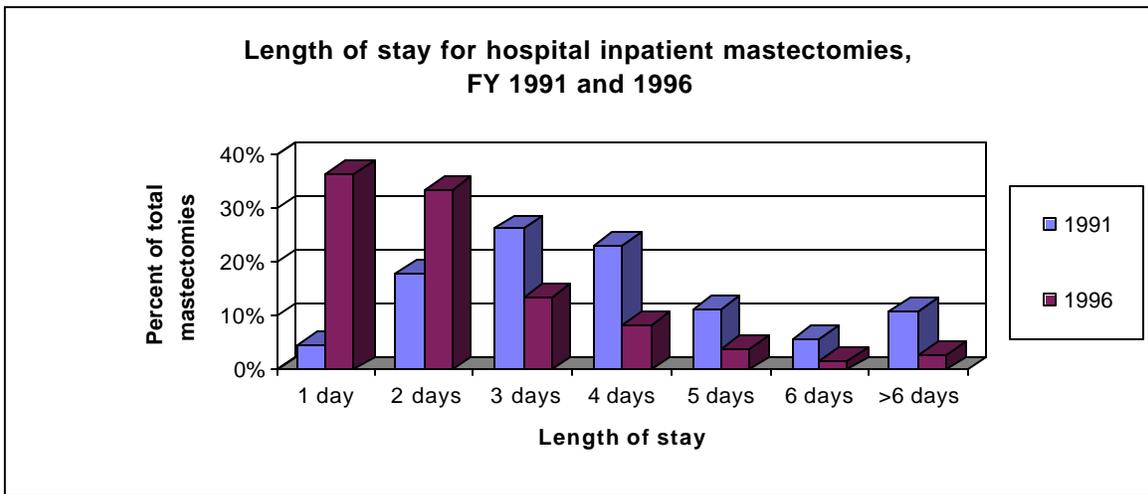
***Discharges identified as diagnosis related group 258, total mastectomy without comorbidities and/or complications.

From 1991 to 1993, most mastectomy patients were discharged after three day stays, whereas in 1994 and 1995, most were discharged after two day stays. In 1996, the majority of mastectomy discharges were one day stays. As a percent of total mastectomies, the percentage of mastectomy patients discharged after one day stays grew by nearly 700% from 1991 to 1996. In 1996, length of stay for nearly half of all mastectomies performed was either same day (outpatient) or one day.

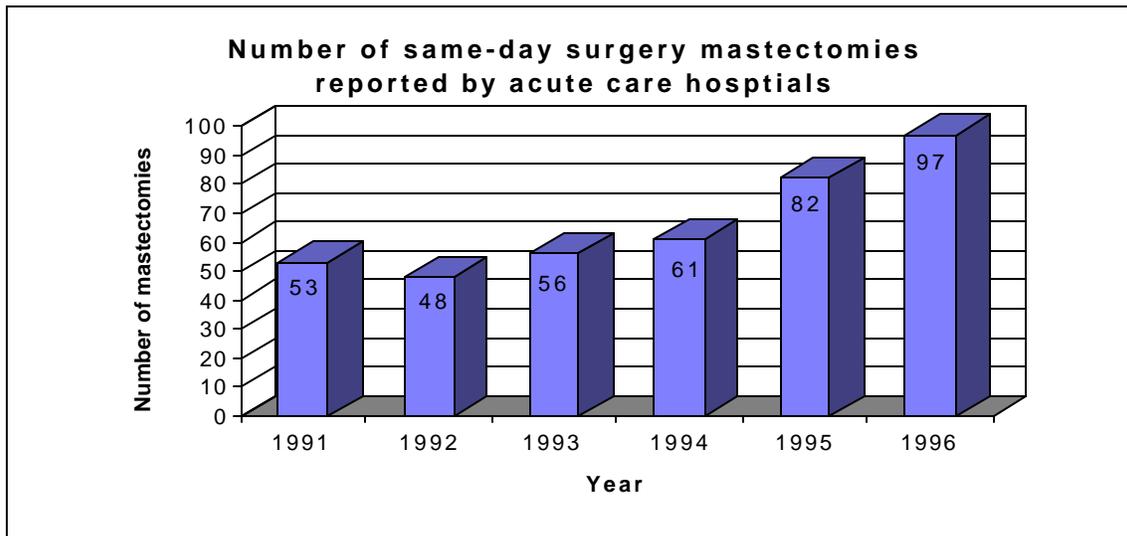
Length of stay in days for hospital inpatient mastectomies, FY 1991 to 1996

| Length of stay in days | -----1991----- | | -----1992----- | | -----1993----- | | -----1994----- | | -----1995----- | | -----1996----- | |
|------------------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
| | Number | % of total |
| 1 | 72 | 4.6% | 88 | 6.4% | 123 | 10.0% | 160 | 12.9% | 316 | 26.6% | 421 | 36.3% |
| 2 | 280 | 18.1% | 298 | 21.7% | 343 | 27.9% | 400 | 32.1% | 416 | 35.1% | 390 | 33.6% |
| 3 | 408 | 26.3% | 371 | 27.0% | 358 | 29.2% | 308 | 24.7% | 220 | 18.5% | 156 | 13.5% |
| 4 | 357 | 23.0% | 265 | 19.3% | 203 | 16.5% | 167 | 13.4% | 102 | 8.6% | 95 | 8.2% |
| 5 | 177 | 11.4% | 158 | 11.5% | 102 | 8.3% | 101 | 8.1% | 70 | 5.9% | 44 | 3.8% |
| 6 | 88 | 5.7% | 85 | 6.2% | 40 | 3.3% | 44 | 3.5% | 40 | 3.4% | 20 | 1.7% |
| >6 | 169 | 10.9% | 111 | 8.1% | 59 | 4.8% | 65 | 5.2% | 22 | 1.9% | 33 | 2.8% |
| Total | 1,551 | 100.0% | 1,376 | 100.0% | 1,228 | 100.0% | 1,245 | 100.0% | 1,186 | 100.0% | 1,159 | 100.0% |

Note: Mastectomy length of stay outliers were removed from the analysis.



Same day (outpatient) mastectomies increased by over 80 percent from 1991 to 1996.



Source: Connecticut Health Information Management Exchange (CHIME) report 929.

PRIMARY PAYERS

From 1991 to 1996, average length of stay dropped most dramatically for those discharges covered by Medicare and Medicaid. HMO/PPO discharges showed the smallest change in length of stay over the same time period.

Number of discharges and average length of stay for hospital inpatient mastectomies

| Primary Payer | -----1991----- | | -----1992----- | | -----1993----- | | -----1994----- | | -----1995----- | | -----1996----- | | Percent change in mean length of stay 1991 to 1996 |
|---------------------|----------------|------------------------|----------------|------------------------|----------------|------------------------|----------------|------------------------|----------------|------------------------|----------------|------------------------|--|
| | Number | Average length of stay | |
| Medicare | 727 | 4.32 | 657 | 4.07 | 584 | 3.45 | 638 | 3.12 | 561 | 2.50 | 532 | 2.21 | -49% |
| Medicaid | 46 | 5.07 | 52 | 4.12 | 39 | 3.95 | 46 | 4.07 | 49 | 2.92 | 58 | 2.98 | -41% |
| Commercial Ins. Co. | 338 | 3.66 | 290 | 3.32 | 266 | 2.91 | 231 | 3.07 | 208 | 2.58 | 172 | 2.25 | -39% |
| Blue Cross | 268 | 3.52 | 199 | 3.24 | 168 | 2.93 | 128 | 2.88 | 128 | 2.52 | 97 | 2.13 | -39% |
| HMO/PPO | 123 | 3.65 | 149 | 3.46 | 151 | 2.94 | 187 | 2.99 | 214 | 2.48 | 276 | 2.44 | -33% |
| Total* | 1,551 | 3.98 | 1,376 | 3.72 | 1,228 | 3.20 | 1,245 | 3.09 | 1,186 | 2.51 | 1,159 | 2.29 | -42% |

Note: Mastectomy length of stay outliers were removed from the analysis.

**Totals do not add up because some primary payers were excluded due to a small number of mastectomies covered.*

CHARGES

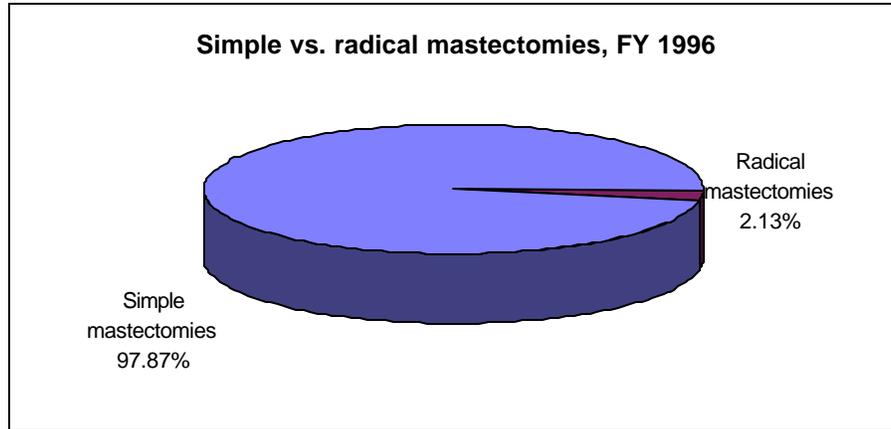
HMO/PPO discharges for mastectomies more than doubled from 1991 to 1996, while average charges increased by over 50 percent. Average charges do not necessarily apply to mastectomy only, but may include secondary procedures such as breast reconstruction or unrelated procedures. While Medicaid had the highest average charges in 1991, HMO/PPOs had the highest average charges in 1996. At the time of the mastectomy, 30 percent of HMO/PPO patients had breast reconstruction and repair performed, compared to 25 percent for Commercial insurance patients and only 3 percent for Medicare and Medicaid.

Average charges by primary payer, FY 1991 through FY 1996

| Payer name | 1991 | 1991 | 1996 | 1996 | Percent change in charges 1991-1996 |
|------------------------------|----------------------|-----------------|----------------------|-----------------|-------------------------------------|
| | Number of discharges | Average charges | Number of discharges | Average charges | |
| Medicare | 727 | \$6,795 | 532 | \$7,212 | 6.13% |
| Medicaid | 46 | \$7,765 | 58 | \$9,084 | 16.98% |
| Commercial Insurance Company | 338 | \$6,971 | 172 | \$9,080 | 30.26% |
| Blue Cross | 268 | \$6,936 | 97 | \$8,555 | 23.35% |
| HMO/PPO | 123 | \$6,017 | 276 | \$9,342 | 55.26% |
| Total | 1,551 | \$6,814 | 1,159 | \$8,191 | 20.20% |

MASTECTOMY AND RELATED PROCEDURES

Most mastectomies performed in 1996 were simple rather than radical procedures.



The majority of breast repair and reconstruction, 61 percent, were paid for by HMOs/PPOs. This may explain the higher charges in the table on page 7. Almost half of all breast reconstruction was done in the 40-49 age group.

Repairs and reconstruction of the breast at time of mastectomy*, FY 1996

-----Primary Payer-----

| Age | -----Primary Payer----- | | | | | Number of discharges |
|-------|-------------------------|---------------------|---------|----------|----------|----------------------|
| | Blue Cross | Commercial ins. co. | HMO/PPO | Medicaid | Medicare | |
| 20-29 | 1 | 0 | 0 | 1 | 0 | 2 |
| 30-39 | 3 | 9 | 13 | 2 | 0 | 27 |
| 40-49 | 12 | 18 | 47 | 2 | 0 | 79 |
| 50-59 | 6 | 13 | 20 | 2 | 0 | 41 |
| 60-69 | 3 | 4 | 5 | 0 | 4 | 16 |
| >69 | 0 | 0 | 0 | 0 | 7 | 7 |
| | 25 | 44 | 85 | 7 | 11 | 172 |

**Based on first secondary procedure.*

HOSPITAL SPECIFIC DATA

Number of mastectomies performed as principal procedure by hospital, FY 1996

| Hospital | Number of discharges | Percent of total |
|---|----------------------|------------------|
| William W. Backus Hospital | 35 | 2.99% |
| Bradley Memorial Hospital and Health Center | 10 | 0.85% |
| Bridgeport Hospital | 52 | 4.44% |
| Bristol Hospital | 23 | 1.97% |
| Danbury Hospital | 59 | 5.04% |
| Day Kimball Hospital | <6 | <1.00% |
| John Dempsey Hospital | 16 | 1.37% |
| Greenwich Hospital | 37 | 3.16% |
| Griffin Hospital | 32 | 2.74% |
| Hartford Hospital | 103 | 8.80% |
| Charlotte Hungerford Hospital | 10 | 0.85% |
| Johnson Memorial Hospital | 11 | 0.94% |
| Lawrence and Memorial Hospital | 33 | 2.82% |
| Manchester Memorial Hospital | 21 | 1.79% |
| Middlesex Memorial Hospital | 59 | 5.04% |
| Milford Hospital | 18 | 1.54% |
| New Britain General Hospital | 50 | 4.27% |
| New Milford Hospital | 22 | 1.88% |
| Norwalk Hospital | 14 | 1.20% |
| Rockville General Hospital | <6 | <1.00% |
| Saint Francis Hospital | 97 | 8.29% |
| Saint Joseph's Medical Center | 14 | 1.20% |
| Saint Mary's Hospital | 20 | 1.71% |
| Hospital of Saint Raphael | 104 | 8.89% |
| Saint Vincent's Medical Center | 67 | 5.73% |
| Sharon Hospital | 11 | 0.94% |
| Stamford Hospital | 39 | 3.33% |
| Veteran's Memorial Medical Center | 32 | 2.74% |
| Waterbury Hospital | 31 | 2.65% |
| Windham Community Memorial Hospital | 17 | 1.45% |
| Winsted Memorial Hospital | 6 | 0.51% |
| Yale-New Haven Hospital | 121 | 10.34% |
| Total | 1,170 | 100.00% |

DEMOGRAPHIC DATA

The majority of mastectomy discharges were for individuals 60 years of age and older.

Number of mastectomies by age, FY 1996

| Patient age | Number of discharges | Percent of all discharges |
|----------------|-------------------------|------------------------------|
| 0 to 19 | <6 | <1.0% |
| 20 to 29 | <6 | <1.0% |
| 30 to 39 | 67 | 5.73% |
| 40 to 49 | 218 | 18.63% |
| 50 to 59 | 216 | 18.46% |
| 60 to 69 | 240 | 20.51% |
| > 69 | 424 | 36.24% |
| Total | 1,170 | 100.00% |

The distribution of breast cancer roughly mirrors the distribution of race within Connecticut.

Breast cancer and mastectomies by race, FY 1996

| | Percent of total CT population* | Principal diagnosis of breast cancer | Percent of principal diagnosis of breast cancer | Mastectomy as principal procedure | Percent of mastectomy as principal procedure |
|--------------|---------------------------------------|---|--|---|---|
| White | 87.0% | 1,544 | 89.5% | 1,045 | 89.3% |
| Black | 8.4% | 111 | 6.4% | 76 | 6.5% |
| Asian | 1.6% | 10 | 0.6% | 2 | 0.2% |
| All other | 3.1% | 61 | 3.5% | 47 | 4.0% |
| Total | 100.0% | 1,726 | 100.0% | 1,170 | 100.0% |

Population data is from the Connecticut Department of Economic Development's **Connecticut Town Profiles, 1996-1997 edition.*

While the majority of mastectomies discharged were female, just over one percent were male.

Number of mastectomies by gender, FY 1996

| Gender | Number of discharges | Percent of all discharges |
|--------------|-------------------------|------------------------------|
| Male | 13 | 1.11% |
| Female | 1,157 | 98.89% |
| Total | 1,170 | 100.00% |

There appears to be geographic variation in mastectomies across the state.

Number of mastectomies per 1,000 females aged 15 and older, FY 95-96*
Top 25 towns

| Rank | Town | Female population 15 and older | Total mastectomy discharges | Discharges per 1,000 females |
|------|----------------|-----------------------------------|-----------------------------------|------------------------------------|
| 1 | Bridgewater | 695 | <6 | 5.76 |
| 2 | Durham | 2,330 | 11 | 4.72 |
| 3 | Essex | 2,637 | 12 | 4.55 |
| 4 | Berlin | 7,007 | 25 | 3.57 |
| 5 | Bozrah | 885 | <6 | 3.39 |
| 6 | East Haven | 11,375 | 37 | 3.25 |
| 7 | Hamden | 23,237 | 72 | 3.10 |
| 8 | Hampton | 655 | <6 | 3.05 |
| 9 | Woodbridge | 3,292 | 10 | 3.04 |
| 10 | Killingworth | 2,010 | 6 | 2.99 |
| 11 | Winchester | 4,803 | 14 | 2.91 |
| 12 | North Haven | 9,636 | 28 | 2.91 |
| 13 | North Canaan | 1,379 | <6 | 2.90 |
| 14 | Bloomfield | 8,644 | 25 | 2.89 |
| 15 | Haddam | 2,792 | 8 | 2.87 |
| 16 | North Branford | 5,289 | 15 | 2.84 |
| 17 | Trumbull | 13,524 | 38 | 2.81 |
| 18 | Seymour | 6,092 | 17 | 2.79 |
| 19 | Guilford | 8,301 | 23 | 2.77 |
| 20 | Monroe | 6,869 | 19 | 2.77 |
| 21 | Hartland | 728 | <6 | 2.75 |
| 22 | Deep River | 1,825 | <6 | 2.74 |
| 23 | Suffield | 4,783 | 13 | 2.72 |
| 24 | Stratford | 21,764 | 59 | 2.71 |
| 25 | Roxbury | 743 | <6 | 2.69 |

**Total number of mastectomies performed for FY 1995 and 1996 combined.*

Number of mastectomies in Connecticut per 1,000 females aged 15 and older, FY 95-96*

| Town | 1995 | | | Town | 1995 | | |
|-----------------|----------------------------------|-----------------------------|------------------------------|------------------|----------------------------------|-----------------------------|------------------------------|
| | female population 15 and older** | Total mastectomy discharges | Discharges per 1,000 females | | female population 15 and older** | Total mastectomy discharges | Discharges per 1,000 females |
| Andover | 1,059 | <6 | 1.89 | Naugatuck | 12,545 | 21 | 1.67 |
| Ansonia | 7,433 | 17 | 2.29 | New Britain | 30,391 | 44 | 1.45 |
| Ashford | 1,381 | <6 | 0.72 | New Canaan | 7,590 | 14 | 1.84 |
| Avon | 6,095 | 10 | 1.64 | New Fairfield | 5,151 | 8 | 1.55 |
| Barkhamsted | 1,287 | <6 | 2.33 | New Hartford | 2,329 | <6 | 1.72 |
| Beacon Falls | 2,150 | <6 | 1.86 | New Haven | 51,510 | 69 | 1.34 |
| Berlin | 7,007 | 25 | 3.57 | New London | 11,081 | 16 | 1.44 |
| Bethany | 1,808 | <6 | 0.55 | New Milford | 9,643 | 24 | 2.49 |
| Bethel | 7,009 | <6 | 0.57 | Newington | 12,970 | 30 | 2.31 |
| Bethlehem | 1,344 | <6 | 0.74 | Newtown | 8,456 | 14 | 1.66 |
| Bloomfield | 8,644 | 25 | 2.89 | Norfolk | 811 | <6 | 2.47 |
| Bolton | 1,794 | <6 | 0.56 | North Branford | 5,289 | 15 | 2.84 |
| Bozrah | 885 | <6 | 3.39 | North Canaan | 1,379 | <6 | 2.90 |
| Branford | 12,629 | 26 | 2.06 | North Haven | 9,636 | 28 | 2.91 |
| Bridgeport | 56,112 | 81 | 1.44 | North Stonington | 1,887 | <6 | 0.53 |
| Bridgewater | 695 | <6 | 5.76 | Norwalk | 33,258 | 24 | 0.72 |
| Bristol | 25,240 | 41 | 1.62 | Norwich | 15,212 | 30 | 1.97 |
| Brookfield | 5,752 | 9 | 1.56 | Old Lyme/Lyme | 3,617 | 6 | 1.66 |
| Brooklyn | 2,625 | <6 | 0.38 | Old Saybrook | 4,243 | 5 | 1.18 |
| Burlington | 2,826 | <6 | 1.77 | Orange | 5,280 | 14 | 2.65 |
| Canaan | 428 | <6 | 2.34 | Oxford | 3,427 | <6 | 0.29 |
| Canterbury | 1,749 | <6 | 1.14 | Plainfield | 5,576 | 6 | 1.08 |
| Canton | 3,585 | <6 | 0.56 | Plainville | 7,376 | 16 | 2.17 |
| Chaplin | 842 | <6 | 1.19 | Plymouth | 4,672 | <6 | 1.07 |
| Cheshire | 10,330 | 19 | 1.84 | Pomfret | 1,302 | <6 | 0.77 |
| Chester | 1,443 | <6 | 1.39 | Portland | 3,519 | 6 | 1.71 |
| Clinton | 5,111 | 9 | 1.76 | Preston | 2,098 | <6 | 2.38 |
| Colchester | 5,001 | <6 | 0.80 | Prospect | 3,273 | 6 | 1.83 |
| Columbia | 1,807 | <6 | 1.66 | Redding | 3,120 | <6 | 1.60 |
| Cornwall/Warren | 949 | <6 | 2.11 | Ridgefield | 8,481 | 13 | 1.53 |
| Coventry | 3,992 | <6 | 1.25 | Rocky Hill | 6,953 | 16 | 2.30 |
| Cromwell | 5,339 | 11 | 2.06 | Roxbury | 743 | <6 | 2.69 |
| Danbury | 26,788 | 41 | 1.53 | Salem | 1,326 | <6 | 0.75 |
| Darien | 7,451 | 8 | 1.07 | Salisbury | 1,747 | <6 | 2.29 |
| Deep River | 1,825 | <6 | 2.74 | Seymour | 6,092 | 17 | 2.79 |
| Derby | 5,296 | 10 | 1.89 | Sharon | 1,180 | <6 | 2.54 |
| Durham | 2,330 | 11 | 4.72 | Shelton | 14,739 | 31 | 2.10 |
| East Haddam | 2,639 | <6 | 1.89 | Sherman | 1,204 | <6 | 1.66 |
| East Hampton | 4,226 | 6 | 1.42 | Simsbury | 9,122 | 11 | 1.21 |
| East Hartford | 20,532 | 30 | 1.46 | Somers | 3,166 | 8 | 2.53 |
| East Haven | 11,375 | 37 | 3.25 | South Windsor | 9,231 | 17 | 1.84 |
| East Lyme | 6,535 | 9 | 1.38 | Southbury | 7,595 | 17 | 2.24 |
| East Windsor | 3,976 | 6 | 1.51 | Southington | 15,922 | 33 | 2.07 |
| Easton | 2,458 | 6 | 2.44 | Sprague | 1,303 | <6 | 1.53 |
| Ellington | 4,545 | <6 | 0.66 | Stafford+Union | 4,757 | 8 | 1.68 |
| Enfield | 17,900 | 22 | 1.23 | Stamford | 45,499 | 62 | 1.36 |
| Essex | 2,637 | 12 | 4.55 | Sterling | 915 | <6 | 1.09 |
| Fairfield | 23,832 | 50 | 2.10 | Stonington | 6,824 | <6 | 0.59 |
| Farmington | 8,748 | 12 | 1.37 | Stratford | 21,764 | 59 | 2.71 |
| Glastonbury | 11,965 | 20 | 1.67 | Suffield | 4,783 | 13 | 2.72 |
| Granby | 3,756 | 8 | 2.13 | Thomaston | 2,888 | 6 | 2.08 |
| Greenwich | 24,866 | 46 | 1.85 | Thompson | 3,583 | <6 | 0.84 |
| Griswold+Lisbon | 5,408 | 9 | 1.66 | Tolland | 4,208 | 6 | 1.43 |

Number of mastectomies in Connecticut per 1,000 females aged 15 and older, FY 95-96*

| Town | 1995 | Total mastectomy discharges | Discharges per 1,000 females | Town | 1995 | Total mastectomy discharges | Discharges per 1,000 females |
|--------------|--|-----------------------------------|------------------------------------|---------------|--|-----------------------------------|------------------------------------|
| | female population 15 and older** | | | | female population 15 and older** | | |
| Groton | 14,786 | 17 | 1.15 | Torrington | 14,252 | 20 | 1.40 |
| Guilford | 8,301 | 23 | 2.77 | Trumbull | 13,524 | 38 | 2.81 |
| Haddam | 2,792 | 8 | 2.87 | Vernon | 12,312 | 15 | 1.22 |
| Hamden | 23,237 | 72 | 3.10 | Voluntown | 834 | <6 | 1.20 |
| Hampton | 655 | <6 | 3.05 | Wallingford | 17,289 | 29 | 1.68 |
| Hartford | 52,826 | 66 | 1.25 | Washington | 1,591 | <6 | 1.89 |
| Hartland | 728 | <6 | 2.75 | Waterbury | 44,948 | 61 | 1.36 |
| Harwington | 2,136 | <6 | 0.94 | Waterford | 7,699 | 13 | 1.69 |
| Hebron | 2,728 | <6 | 1.10 | Watertown | 8,411 | 15 | 1.78 |
| Kent | 1,212 | <6 | 2.48 | West Hartford | 28,601 | 45 | 1.57 |
| Killingly | 6,436 | 7 | 1.09 | West Haven | 22,451 | 32 | 1.43 |
| Killingworth | 2,010 | 6 | 2.99 | Westbrook | 2,370 | <6 | 1.69 |
| Ledyard | 5,996 | 6 | 1.00 | Weston | 3,305 | <6 | 1.51 |
| Litchfield | 3,479 | 7 | 2.01 | Westport | 10,521 | 13 | 1.24 |
| Madison | 6,531 | 15 | 2.30 | Wethersfield | 11,608 | 25 | 2.15 |
| Manchester | 22,173 | 38 | 1.71 | Willington | 2,411 | <6 | 1.24 |
| Mansfield | 8,788 | <6 | 0.34 | Wilton | 6,775 | <6 | 0.59 |
| Marlborough | 2,068 | <6 | 0.97 | Winchester | 4,803 | 14 | 2.91 |
| Meriden | 24,447 | 40 | 1.64 | Windham | 9,357 | 12 | 1.28 |
| Middlebury | 2,620 | 4 | 1.53 | Windsor | 11,726 | 26 | 2.22 |
| Middlefield | 1,558 | <6 | 0.64 | Windsor Locks | 5,254 | 8 | 1.52 |
| Middletown | 18,187 | 21 | 1.15 | Wolcott | 5,678 | 7 | 1.23 |
| Milford | 21,095 | 48 | 2.28 | Woodbridge | 3,292 | 10 | 3.04 |
| Monroe | 6,869 | 19 | 2.77 | Woodbury | 3,666 | 7 | 1.91 |
| Montville | 6,623 | 8 | 1.21 | State | 1,359,312*** | 2,294 | 1.68 |

*Total number of mastectomies performed for FY 1995 and 1996 combined.

Population data is from the Connecticut Department of Economic Development's **Connecticut Town Profiles, 1996-1997 edition.

***Total 15 and older female population includes towns in which no mastectomies were performed.

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