

Breast Cancer Data Analysis

Mercy and Unity Cancer Program

By Dana Carlson, MD, Medical Advisor of the Breast Care Program

Diagnosis:

Breast Cancer cases diagnosed and treated at Mercy and Unity Hospitals have gone from a total of 51 cases in 1981, to 309 cases in 2008. It is assumed the increase is as a result of increased utilization of our Breast Diagnostic Center during this period, the increase in population in the Northern suburbs, and the positive reputation of the Diagnostic Center and hospitals.

Figure 1

Mercy and Unity Breast Cancer Volume 1981 through 2008

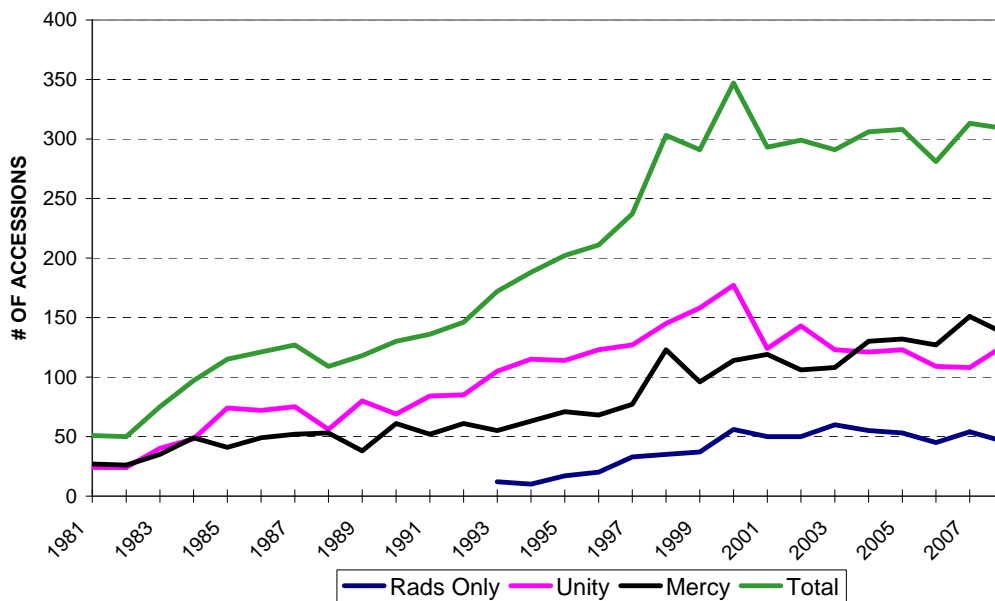


Figure 2 shows the age at diagnosis. The trend is toward diagnosis at an older age. This likely reflects an aging population.

Figure 3 and 4 show the stage distribution at diagnosis for the past 5 years. More than half of breast cancers diagnosed in 2008, were diagnosed at stages 0 and 1, when breast cancer is highly curable. These cancers were far more likely to be detected by mammography, whereas, advanced stage cancers were detected by palpation. Interestingly, in patients under 50 over 50% of cancers diagnosed presented as a palpable lump found by the patient. This may reflect poor screening in this age group. Early diagnosis is strongly associated with annual screening mammography.

Figure 2

2004-2008 Age of Breast Cancer Patients
 (Percent values shown compare our 2006 data with NCDB 2006 data)

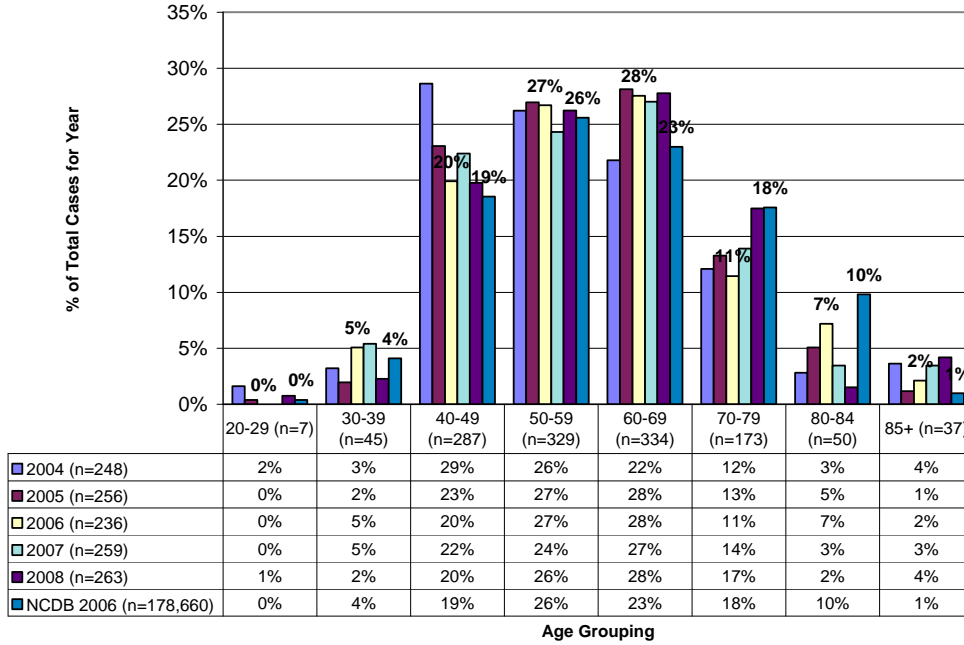
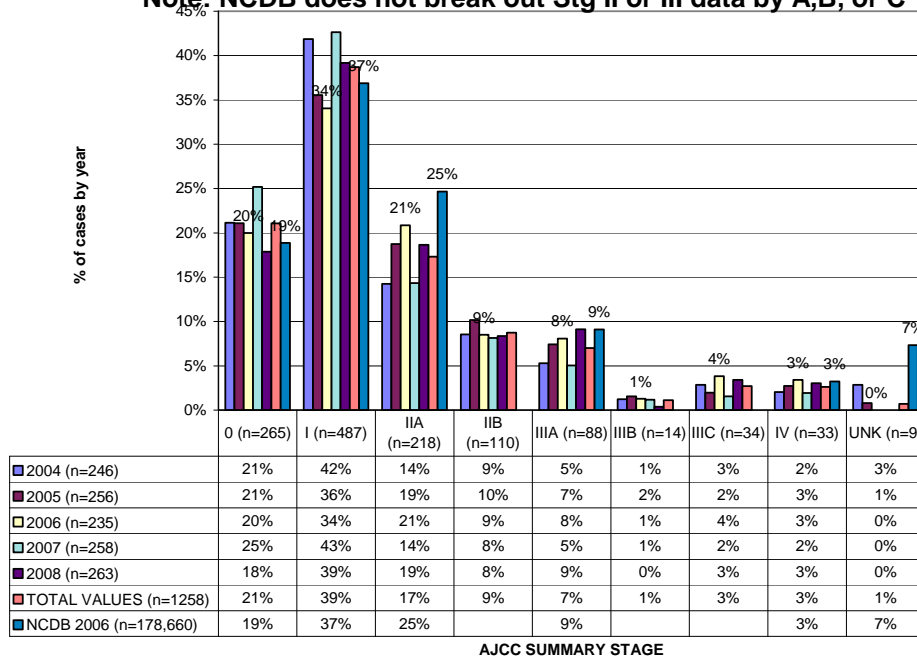


Figure 3

2004-2008 AJCC STAGE BY ACCESSION YEAR
 (Percent values shown compare our 2006 data with NCDB 2006 data)

Note: NCDB does not break out Stg II or III data by A,B, or C



AJCC SUMMARY STAGE

Figure 4

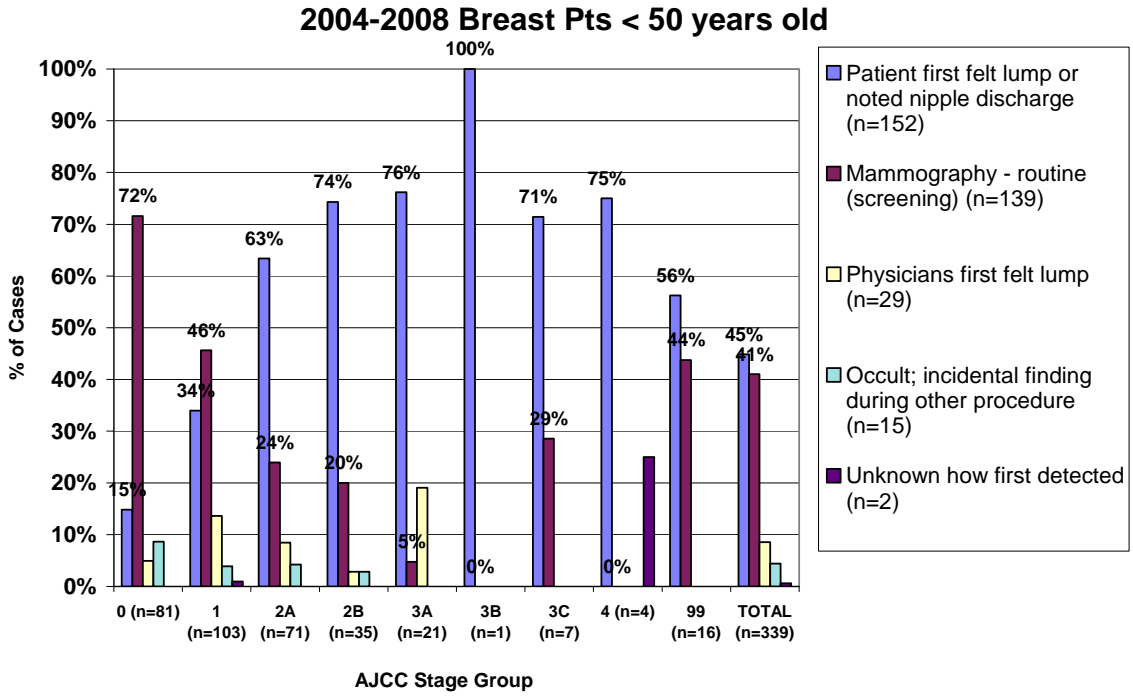
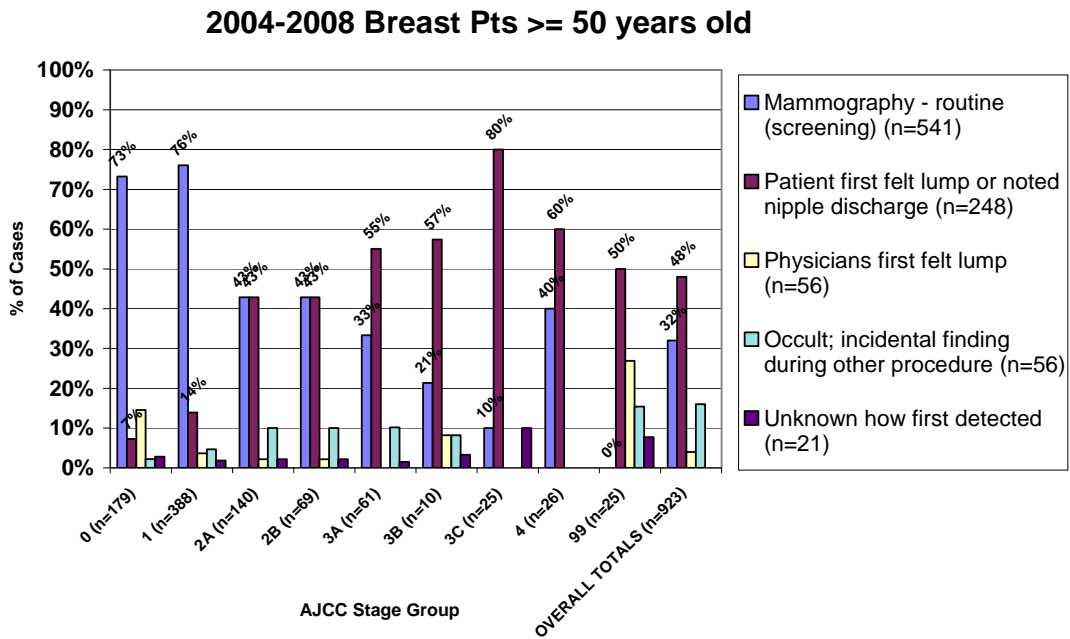


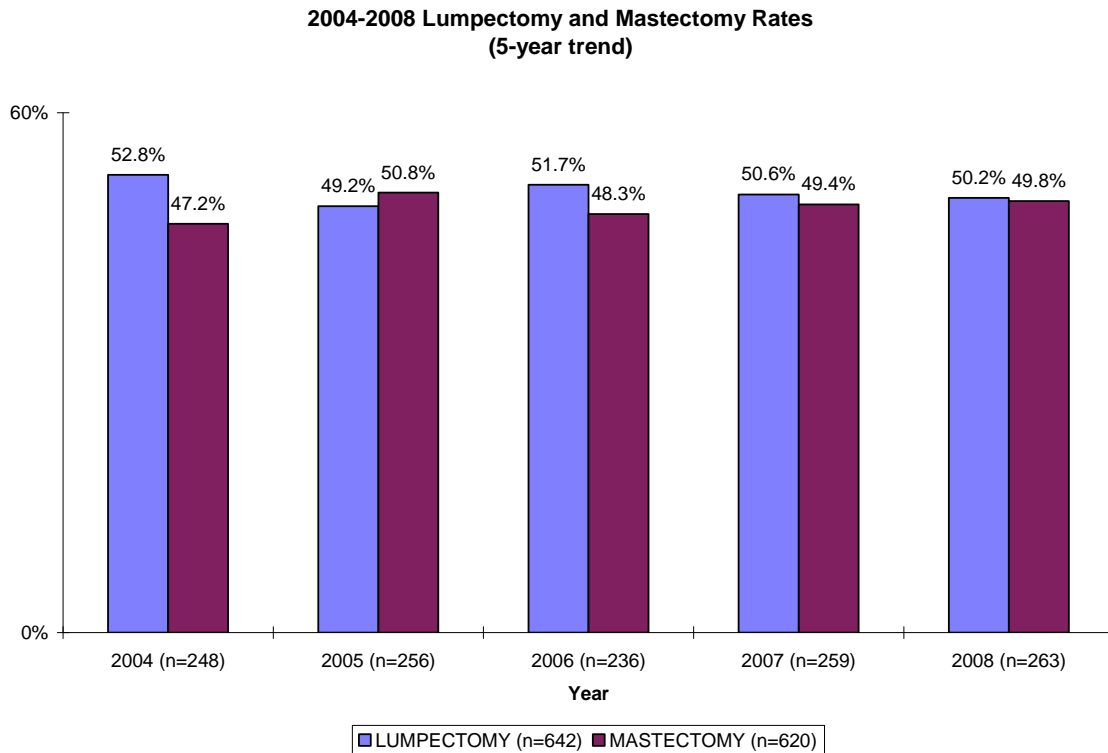
Figure 5



Treatment:

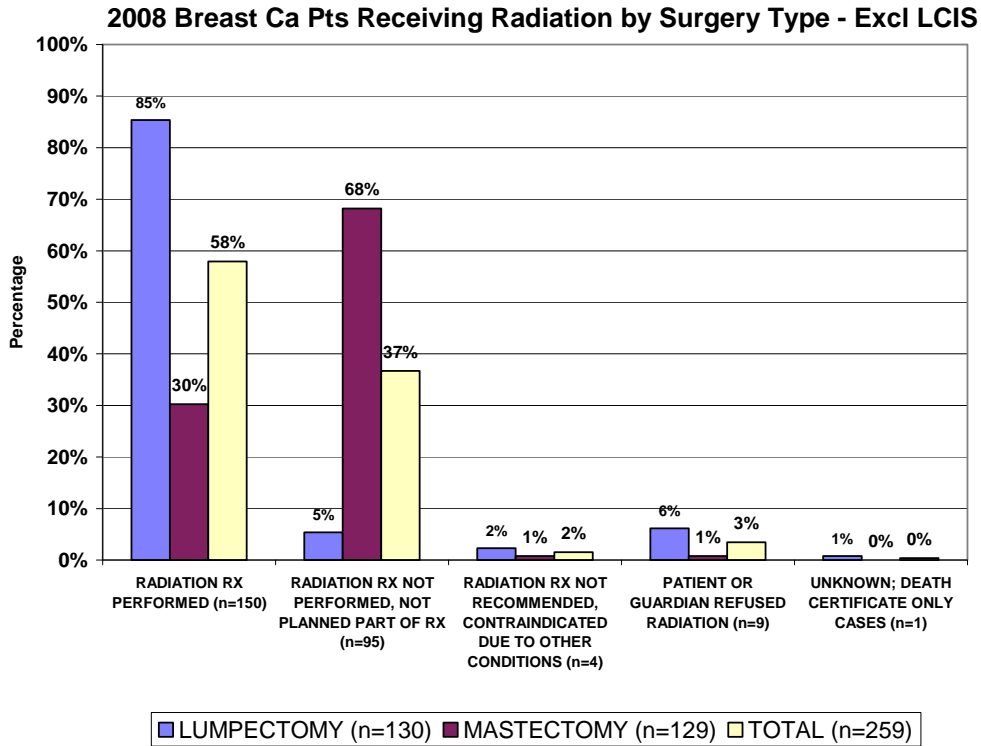
Mercy and Unity use the National Comprehensive Cancer Network (NCCN) guidelines to help determine the best approaches for diagnosing, treating, and managing patients at every stage. Surgical treatment for breast cancer requires partial or total mastectomy for complete excision of the tumor. Survival rates for partial mastectomy with radiation and for total mastectomy are similar, leading to recommendations based on patient choice. Several factors such as size of tumor and other contraindications to radiation do affect patient choice. Figure 6 shows that mastectomy rates have remained stable over the past 5 years

Figure 6



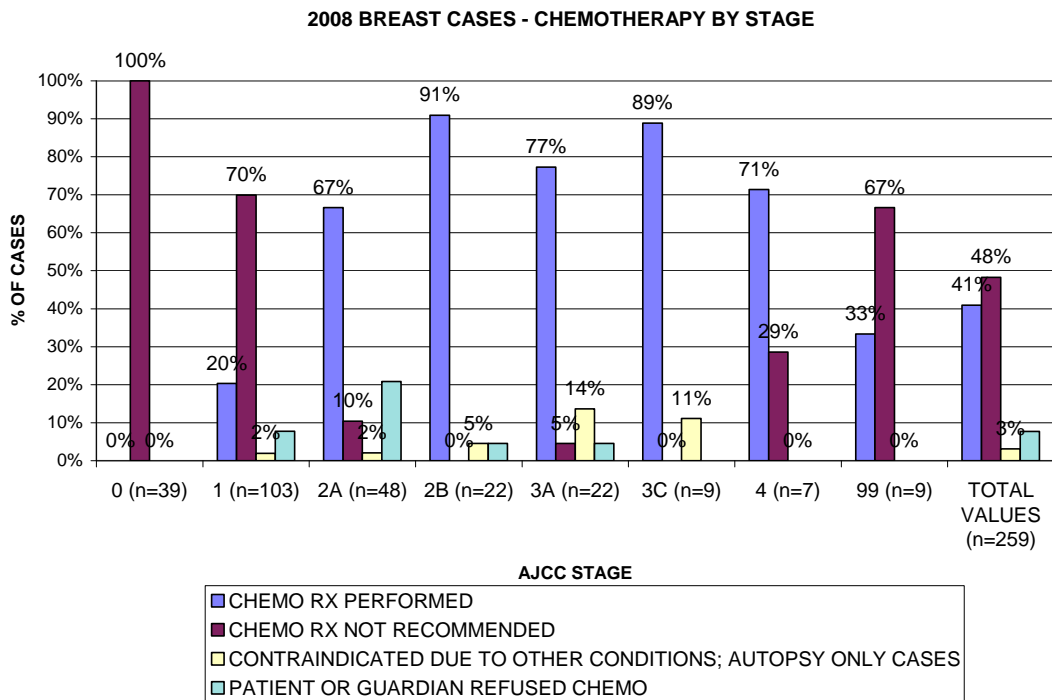
Radiation is a local-regional treatment. Recommendation for radiation is common for patients with breast cancer having lumpectomy, and for those with several positive nodes. Rates for radiation in 2008 are presented in figure 7.

Figure 7



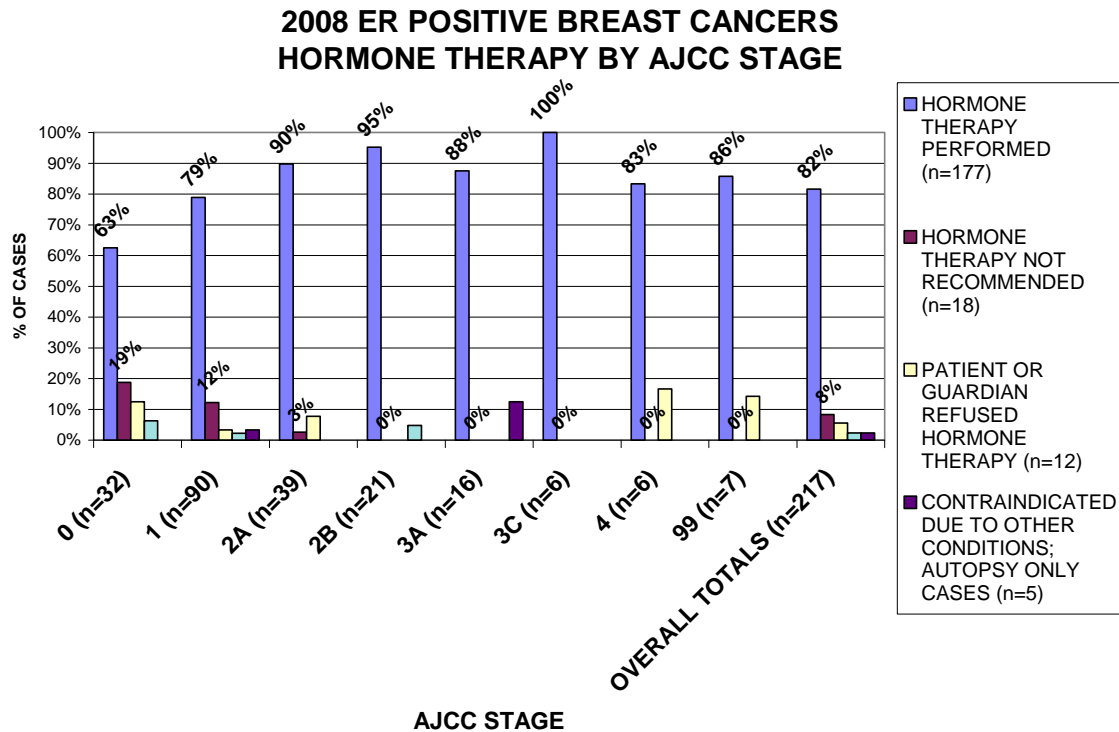
In most cases, systemic treatment is the standard for the treatment of breast cancer. Chemotherapy was performed for the majority of patients diagnosed with an invasive cancer. Figure 8 shows the status of chemotherapy by stage.

Figure 8



Hormone therapy is recommended for women with breast cancer who have positive estrogen receptors. Figure 9 indicates the hormone treatment status of women who are ER positive by AJCC stage.

Figure 9



In order to assist patients in making decisions concerning systemic therapy, the program established the goal that 90% of patients with breast cancer should see a medical oncologist. Figure 10 indicates that in 2008, this goal was exceeded, with 99% of patients with breast cancer seeing a medical oncologist. 95% saw an oncologist at the Hubert Humphrey Cancer Center. Over the 5 year period the trend shows patients staying within the Mercy and Unity system.

Figure 10

Breast Cancer Patients seeing Medical Oncologists
2004-2008 Trend Data (excl. LCIS)

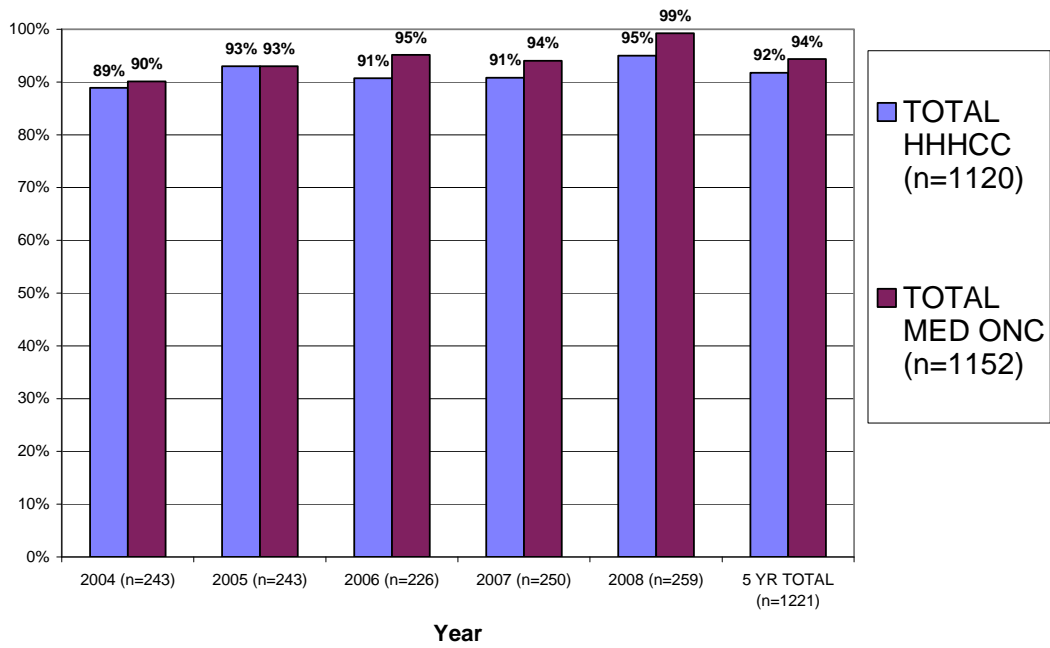
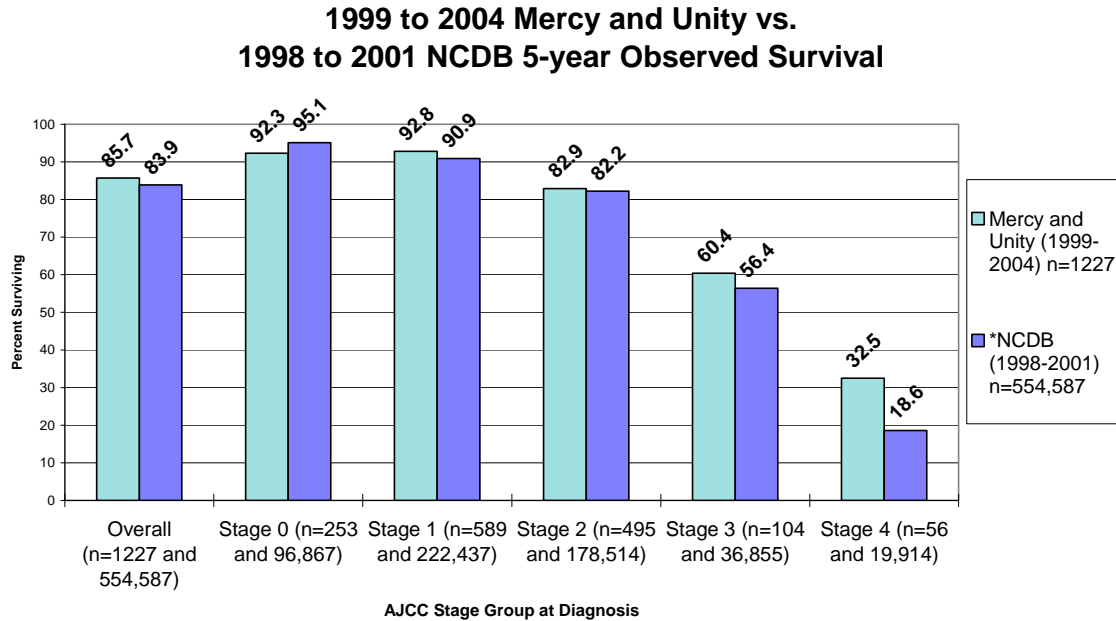


Figure 11 shows five year survival data for patients in our program as compared with national (NCDB) data. Program overall survival data compares favorably, and in most cases exceeds the national data.

**Figure
11**



Summary:

Overall, the Breast Program volumes are stable. More of these patients are also staying within the Mercy/Unity system for their oncology and radiation treatment. Our overall survival and recurrence rates are on track with national averages.

Future directions:

In 2010, we will continue to stress the importance of yearly screening starting at age 40 through communication with primary care providers and through the community newsletters. We are measuring quality of breast care at an Allina level with the formation of a Breast Program Committee.