



LAKE CUMBERLAND
Regional Hospital

Leading the way to better healthcare.

***2009 Cancer Program Annual
Report***

with statistical data from 2008

Focus : Breast Cancer

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Cancer Registry

The cancer registry at Lake Cumberland Regional Hospital plays an active role in the cancer program by providing services and support for our Commission on Cancer (CoC) approved program. The cancer registry is a team of specialists who collect and analyze all reportable cancers diagnosed and/or treated at Lake Cumberland Regional Hospital. Data is maintained, analyzed and reported for the purpose of research and quality improvement analysis. In addition to routine cancer registry responsibilities, registrars serve as ACoS accreditation coordinators by playing key roles on Cancer Committee and by ensuring Lake Cumberland Regional Hospital Cancer Program meets and/or exceeds all CoC standards. Cancer registry coordinates and supports the quarterly Cancer Committee meetings and weekly Cancer Conferences. The data in the registry is available to medical and administrative staff to use for audits, special studies and research.

A Certified Tumor Registrar manages the cancer registry and database. The staff is responsible for:

- Identifying and accessioning all reportable cancer cases.
- Collecting information on all diagnostic and screening services.
- Adhering to the current Standards set by Commission on Cancer and Kentucky State Cancer Registry.
- Documenting diagnosis, stage of the disease and treatment on each patient in the database.
- Completing an abstract on each patient in a timely fashion.
- Conducting annual follow-up on all analytic cases.
- Performing quality control of registry data.
- Responding to data request for administrative and research purposes.
- Submitting NCH data to National Cancer Data Base (NCDB).

Cancer Registry

- Continued

Activities & Accomplishments 475 analytic cases accessioned in 2008. Submission of LCRH data to the National Cancer Database (NCDB), without errors. Participated in state and national cancer registry educational activities. Completed quality studies for Breast and Colon cancer for compliance with National standards. More than 10% of cases reviewed by a physician for quality of registry data, AJCC staging and compliance with CAP protocols per CoC Standards. Physician staged cases by AJCC Staging continue to meet the greater than 90% goal.

GLOSSARY OF REGISTRY TERMS

AJCC Staging American Joint Committee on Cancer; TNM Staging & Classification system is a method for measuring the extent of disease at the time of diagnosis. Clinical and Pathological staging both are used as appropriate, based on type of cancer.

Analytic Cases A category of class of case which indicates that the cancer was initially diagnosed and/or treated at a specific health care facility and is eligible for inclusion in that registry's statistical reports of treatment efficacy and survival.

NCDB A clinically oriented electronic database of cancer cases submitted to the Commission on Cancer by approved cancer programs of American College of Surgeons in the United States, which can be used as reference database to compare the management of cancer patients in one facility or region with similar patients in other regions or nationally.

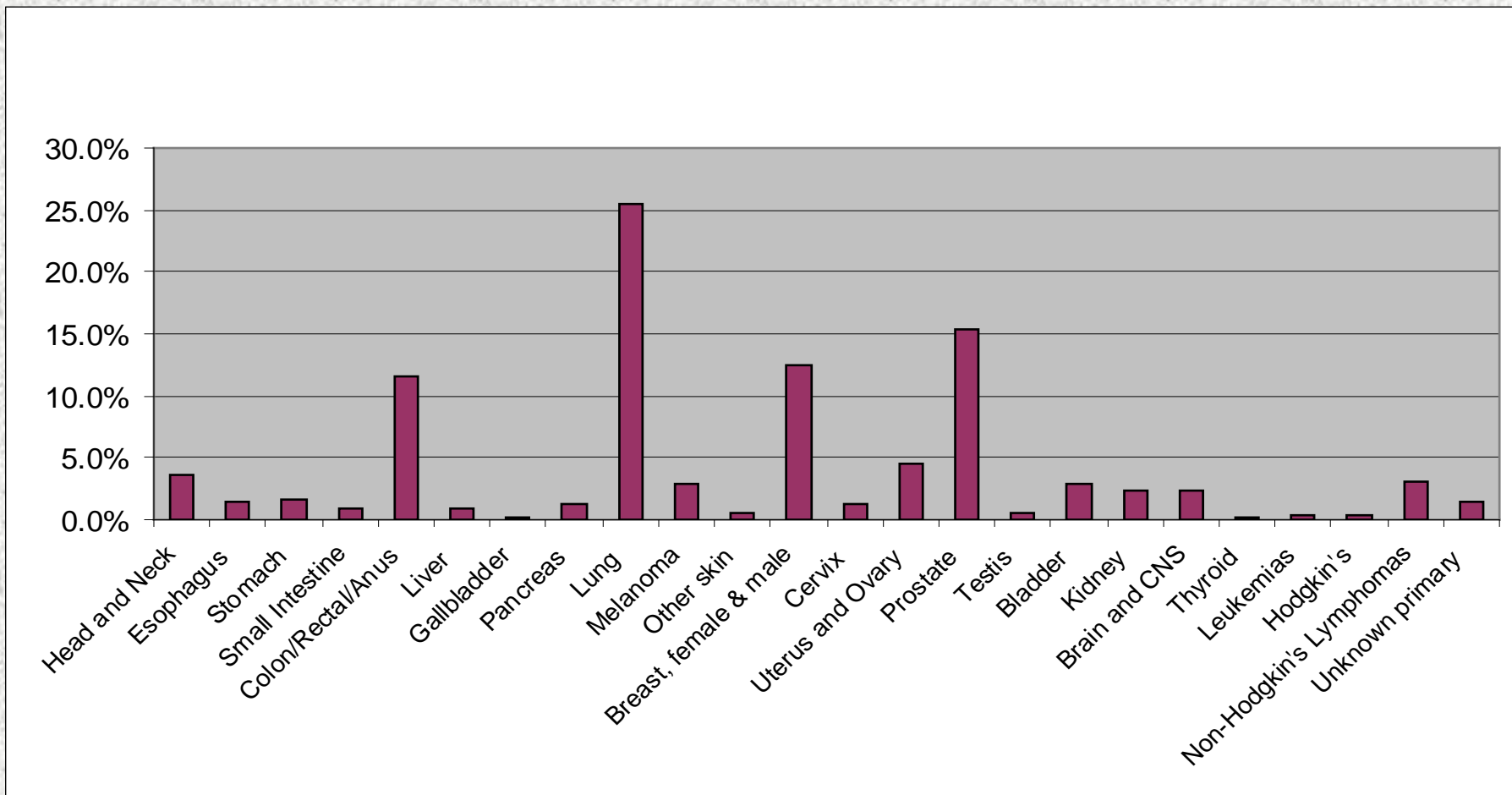
ACoS American College of Surgeons

CoC Commission on Cancer

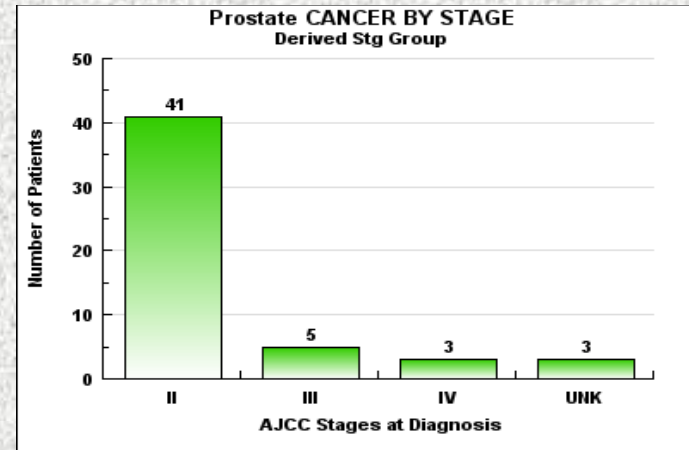
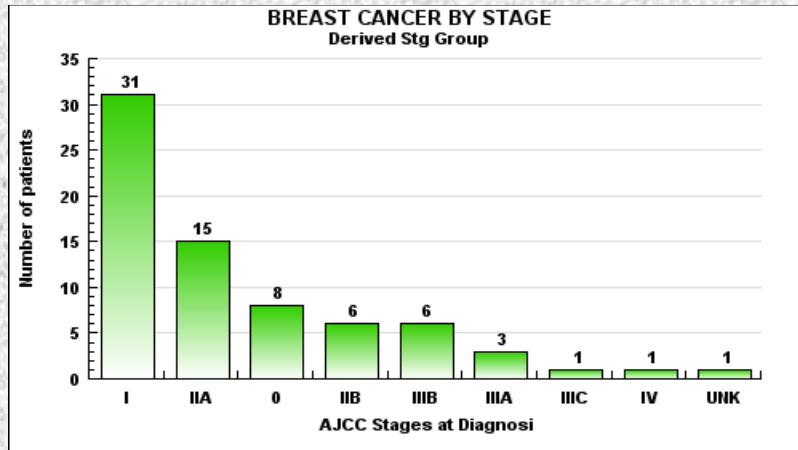


Percent Distribution of Cancer at LCRH by Site of Origin

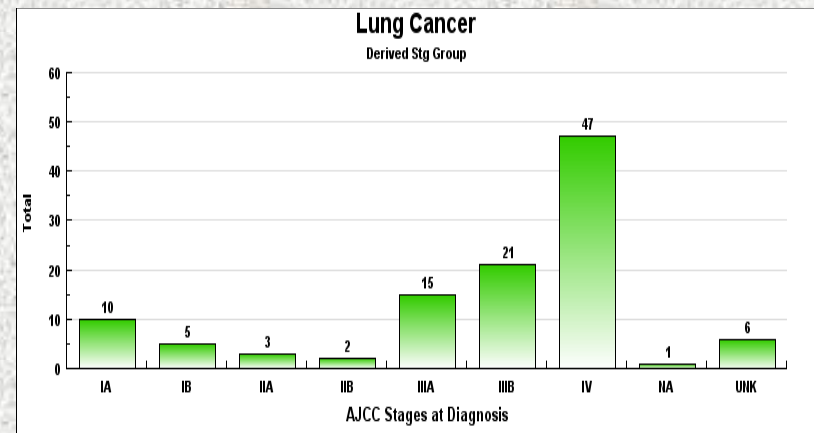
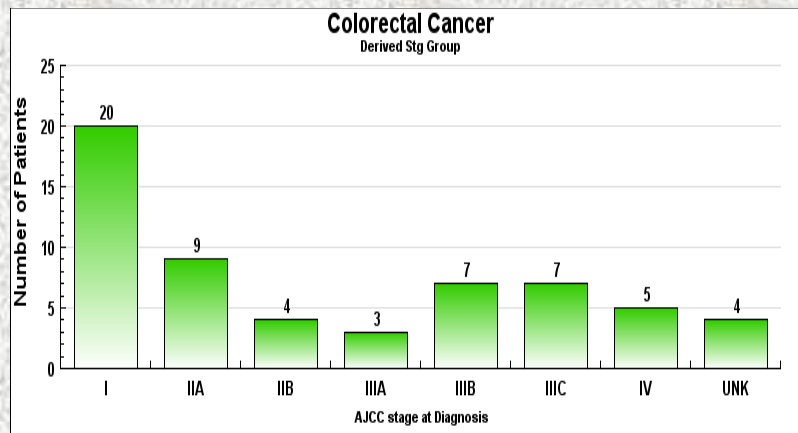
Many different cancer types are diagnosed and treated annually at LCRH. Below are the major sites of diagnoses in 2008.



Cancer Registry



The majority of newly diagnosed breast cases are discovered in the early stages, thus providing the best opportunity for cure. Unfortunately, the opposite is happening with lung and colorectal cancer. The majority of newly diagnosed lung cancer cases are discovered when they have stage 4 disease, which is a poor prognostic indicator in overall survival.



Major Site Analysis: Breast Cancer

Breast cancer is the second leading cause of cancer deaths in women today (after lung cancer) and is the most common cancer among women, excluding nonmelanoma skin cancers. According to the American Cancer Society, about 1.3 million women will be diagnosed with breast cancer annually worldwide about 465,000 will die from the disease. Breast cancer death rates have been dropping steadily since 1990, according to the Society, because of earlier detection and better treatments. About 40,910 breast cancer deaths are expected in 2007. According to the American Cancer Society, in general, breast cancer rates have risen about 30% in the past 25 years in western countries, due in part to increased screening which detects the cancer in earlier stages. In the United States, though, breast cancer rates decreased by 10% between 2000-2004, due in part to a reduction in the use of hormone replacement therapy. Although breast cancer rates are rising in many western countries, deaths from the disease have decreased in some countries as a result of improved screening and treatment.



Breast Cancer Rates by Age

The risk of getting breast cancer increases with age. The table below shows the percentage of women (how many out of 100) who will get breast cancer over different time periods. The time periods are based on the woman's current age.

Current Age	10 Years	20 Years`	30 years
30	0.44	1.86	4.15
40	1.44	3.75	6.83
50	2.39	5.57	8.62
60	3.40	6.65	8.59

Treatment Options for Breast Cancer

- **General types of treatment**
- Treatments can be put into broad groups based on how they work and when they are used.
- **Local or systemic treatment**
- Local treatment is used to treat a tumor without affecting the rest of the body. Surgery and radiation are examples of local treatment.
- Systemic treatment is given into the bloodstream or by mouth and goes throughout the body to reach cancer cells that may have spread beyond the breast. Chemotherapy, hormone therapy, and targeted therapy are systemic treatments.
- **Adjuvant and neoadjuvant therapy**
- When people who seem to have no cancer left after surgery are given more treatment it is called adjuvant therapy. Doctors now think that cancer cells can break away from the main tumor and begin to spread through the bloodstream in the early stages of the disease. It's very hard to tell if this has happened. But if it has, the cancer cells can start new tumors in other organs or in the bones. The goal of adjuvant therapy is to kill these hidden cells. But not every patient needs adjuvant therapy.
- Some people are given systemic treatment (most likely chemotherapy) before surgery to shrink a tumor. This is called neoadjuvant therapy.

Surgical Options for Breast Cancer: Lumpectomy

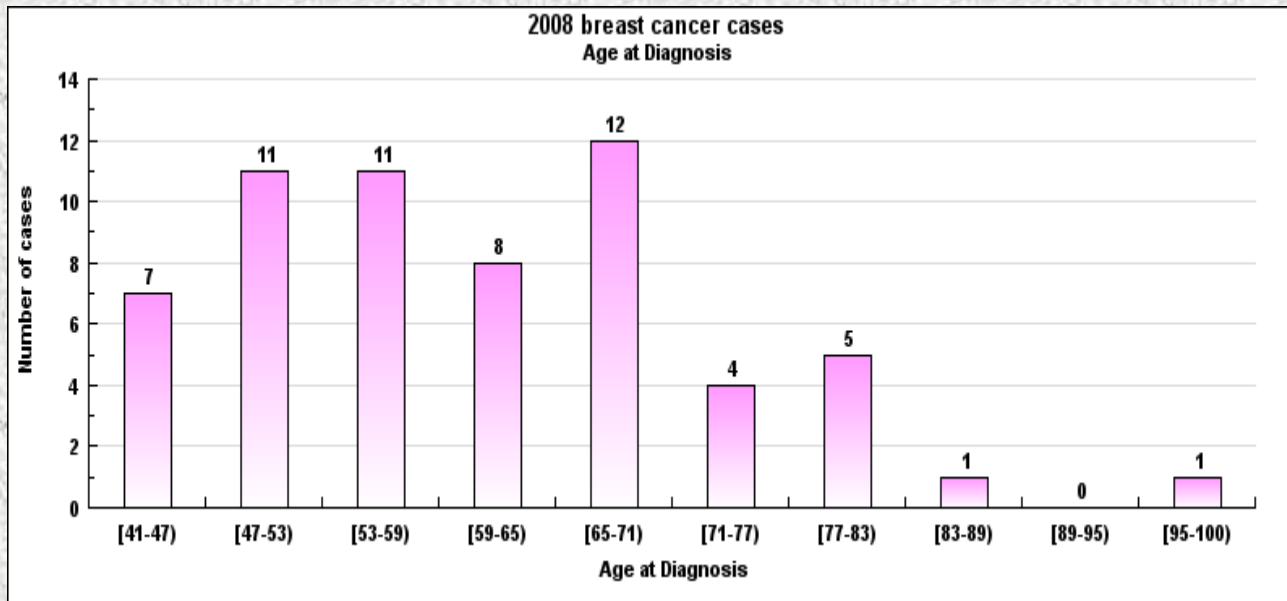
- **Surgery for breast cancer**
 - Most women with breast cancer have some type of surgery to treat the main breast tumor. The purpose of surgery is to remove as much of the cancer as possible. Surgery can also be done to find out whether the cancer has spread to the lymph nodes under the arm, to restore the breast's shape after a mastectomy, or to relieve symptoms of advanced cancer. Following is a list of some of the most common types of breast cancer surgery.
 - **Breast-conserving surgery**
 - In these types of surgery, only a part of the breast is removed. How much is removed depends on the size and place of the tumor and other factors.
 - **Lumpectomy:** This surgery removes only the breast lump and some normal tissue around it. Radiation treatment is usually given after this type of surgery. If chemotherapy is also going to be used, the radiation may be put off until the chemo is finished. If there is cancer at the edge (called the margin) of the piece of tissue that was removed, the surgeon may need to go back and take out more tissue.
 - **Partial (segmental) mastectomy or quadrantectomy:** This surgery removes more of the breast tissue than in a lumpectomy. It is usually followed by radiation therapy. But radiation may be delayed if chemotherapy is also going to be given.
 - Side effects of these operations can include pain, short-term swelling, tenderness, and hardness due to scar tissue that forms in the surgical site.
 - The more of breast removed, the more likely it is that there will be a change in the shape of the breast afterward. If the breasts look very different after surgery, you might be able to have some type of reconstructive surgery (see the section, "Reconstructive surgery"), or have the other breast made smaller to make the breasts look more alike. This might even be done during the first surgery. So you should talk with your doctor before surgery to get an idea of how your breasts are likely to look afterward, and to learn what your options might be.
- under the breast.

Surgery Options: Mastectomy

- **Mastectomy**
- Mastectomy involves removing of all of the breast tissue, sometimes along with other nearby tissues.
- **Simple or total mastectomy:** In this surgery the entire breast is removed, but not the lymph nodes under the arm or the muscle tissue beneath the breast. Sometimes both breasts are removed, especially when mastectomy is done to try to prevent cancer. If a hospital stay is needed, most women can go home the next day.
- For some women who are planning on having reconstruction right away, a skin-sparing mastectomy can be done. For this, most of the skin over the breast (other than the nipple and areola) is left intact. This can work as well as a simple mastectomy. The amount of breast tissue removed is the same as with a simple mastectomy. Although this approach has not been used for as long as the more standard type of mastectomy, many women prefer it because there is less scar tissue and the reconstructed breast seems more natural.
- **Modified radical mastectomy:** This operation involves removing the entire breast and some of the lymph nodes under the arm. This is the most common surgery for women with breast cancer who are having the whole breast removed.
- **Radical mastectomy:** This is a major operation where the surgeon removes the entire breast, underarm (axillary) lymph nodes, and the chest wall muscles under the breast. This surgery was once very common, but it is rarely done now because modified radical mastectomy has proven to work just as well. But this operation may still be done for large tumors that are growing into the muscles

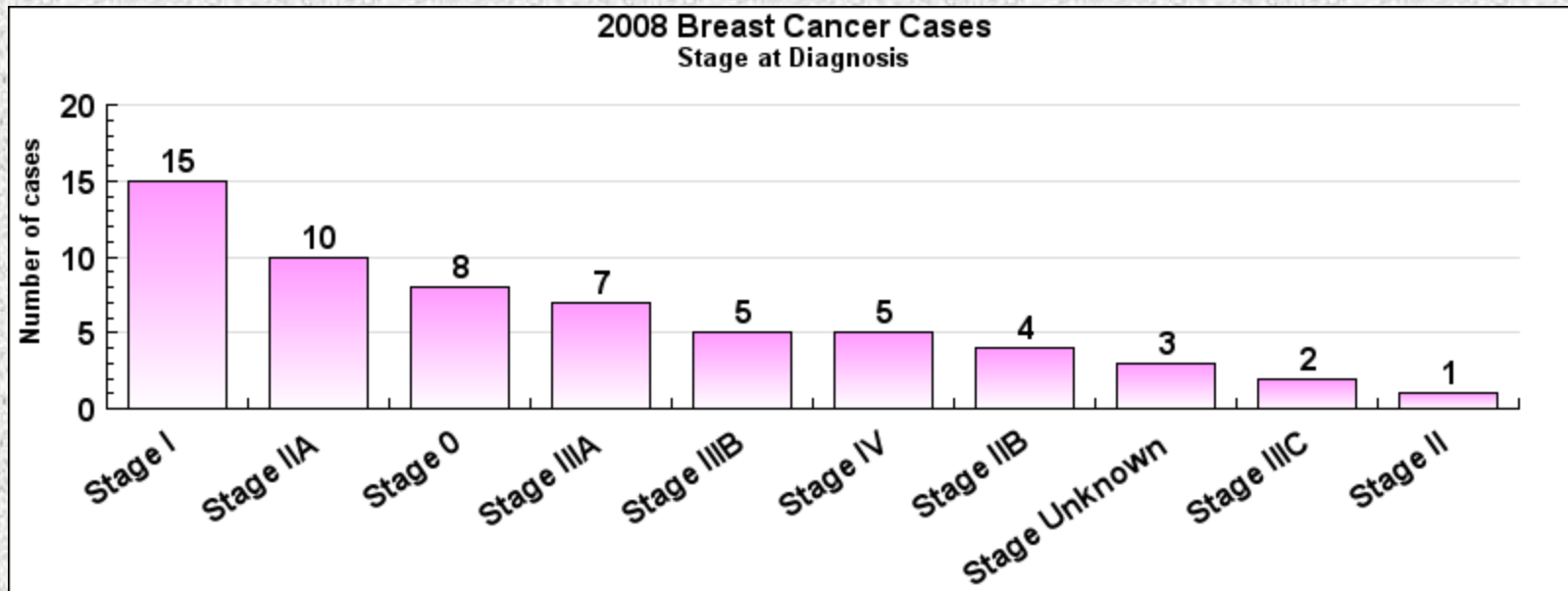
Breast Cancer statistics at LCRH

- Age of patient at the time of diagnosis:
 - This signifies the importance of aggressive screening after age 40



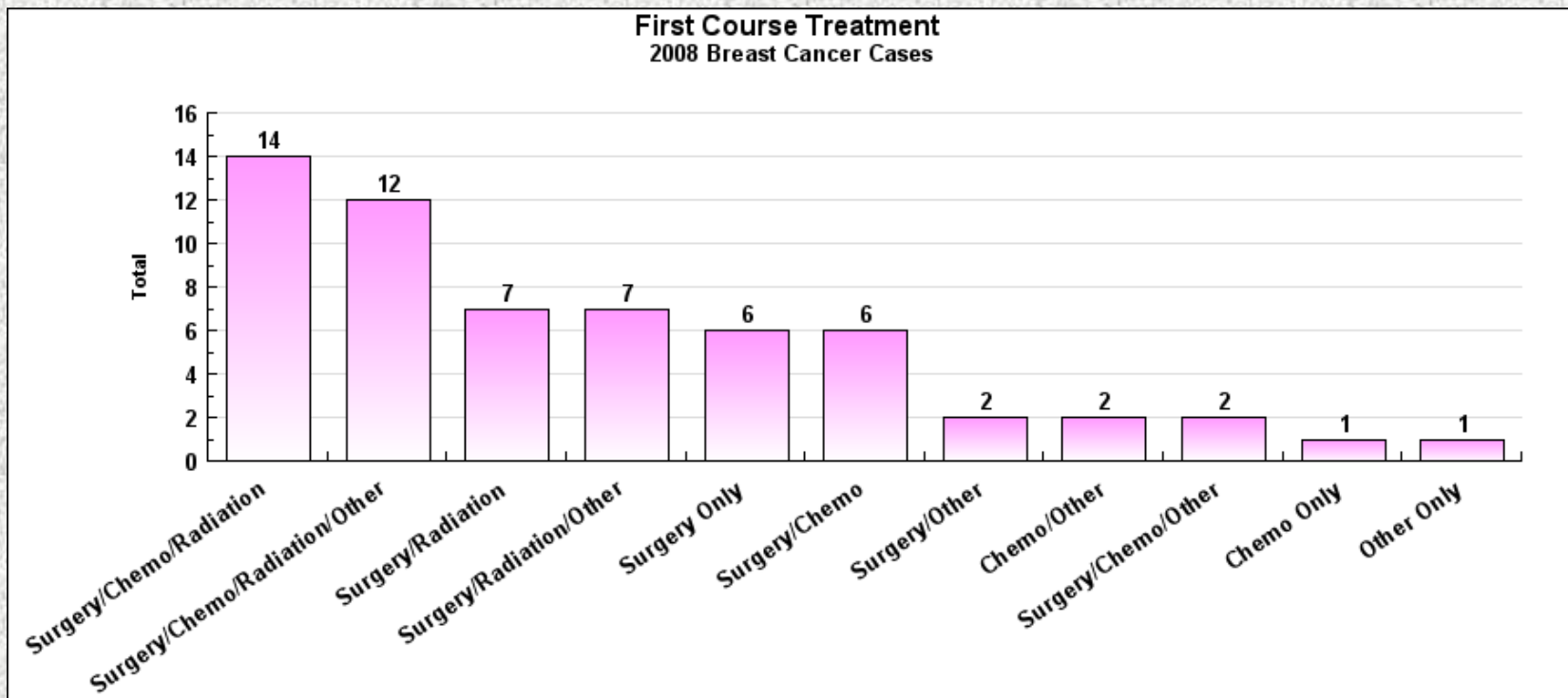
Breast Cancer statistics at LCRH

- Stage at time of diagnosis
 - Many are early stage cancers which contribute to overall good survival rates

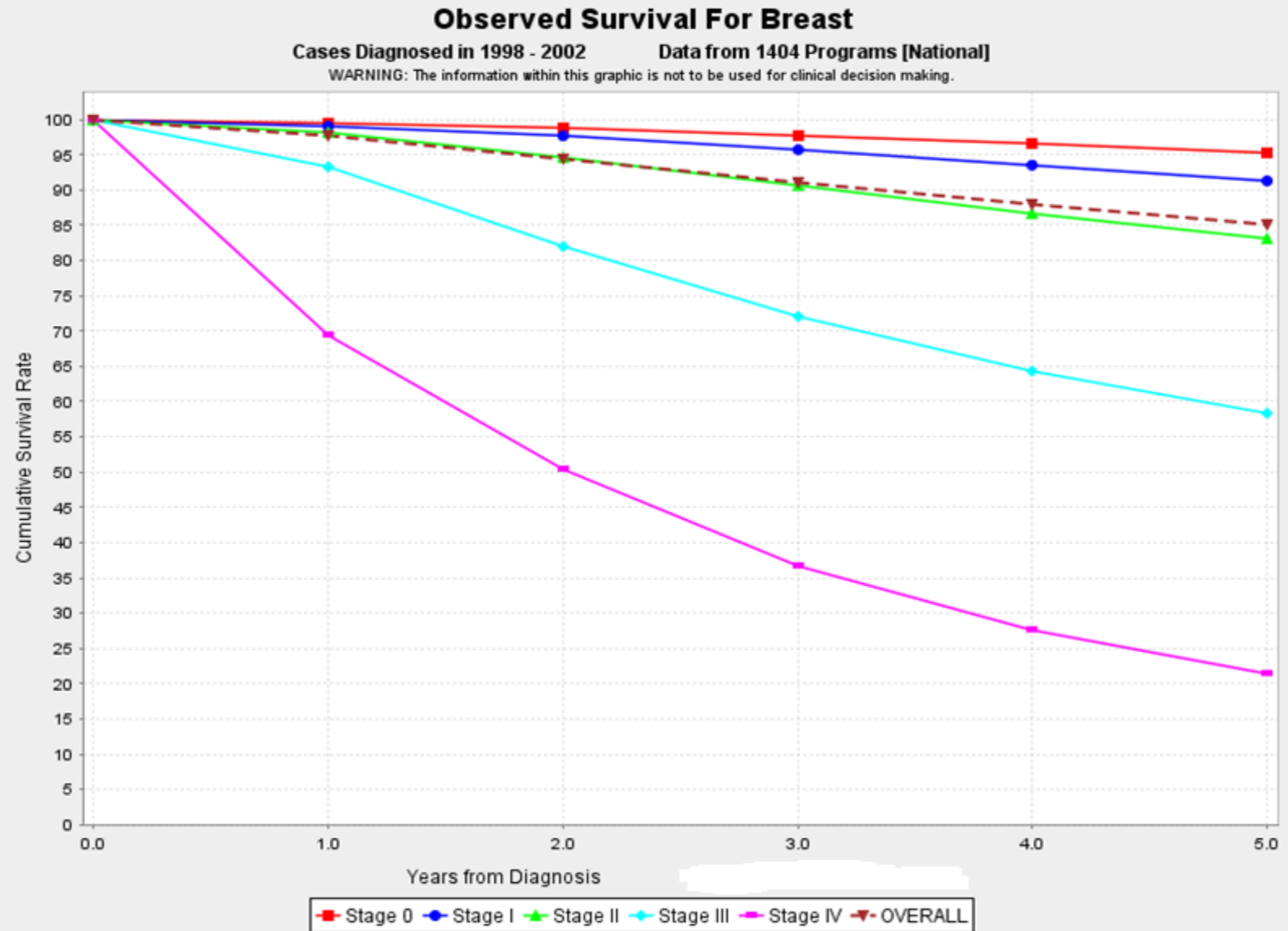


Breast Cancer statistics at LCRH

- Multi-modality treatments are commonly used for breast cancer

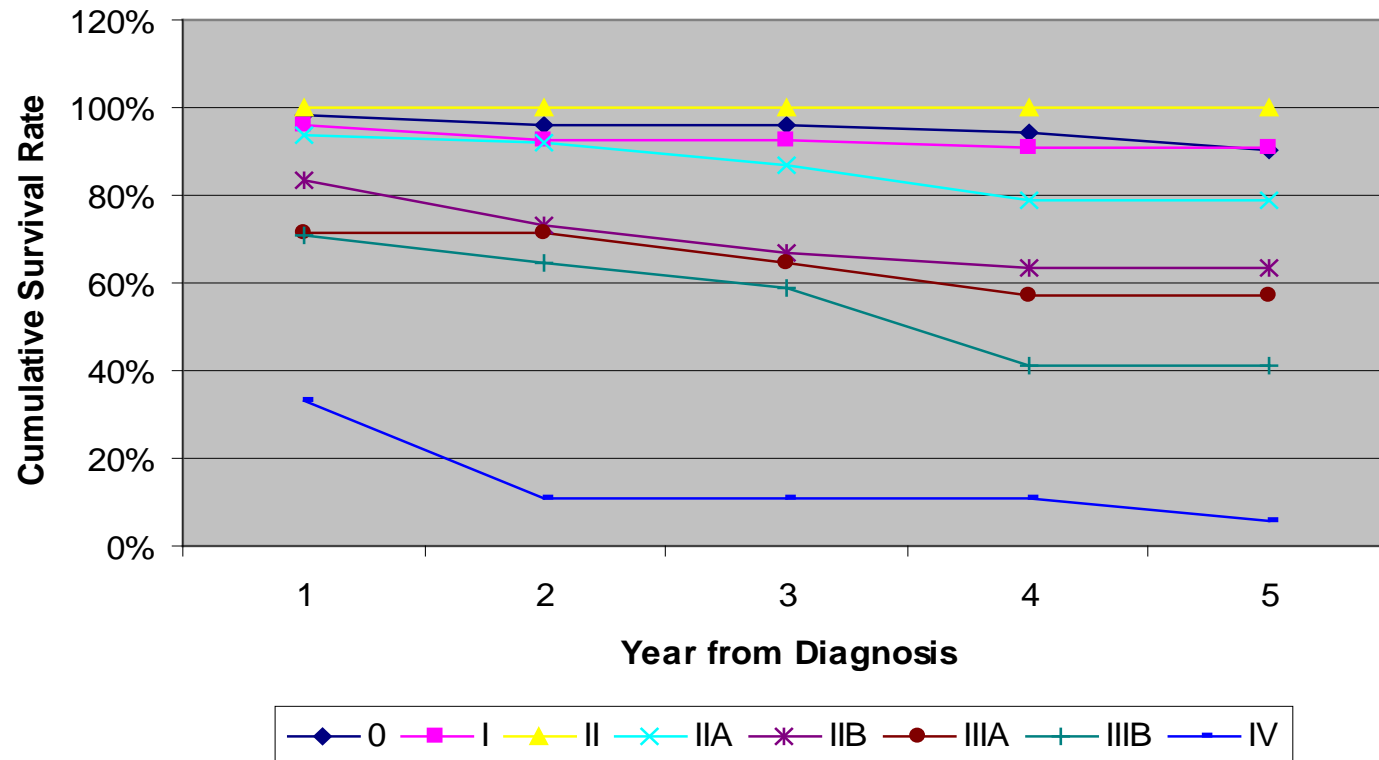


Survival Analysis of the National hospitals from the NCDB database.



Survival Analysis at LCRH

**5 Year Survival of Breast Cancer Based on Stage at Diagnosis
Diagnosis years 1998-2002**



Major Site Analysis: Breast Cancer

The comparison of the survival rate of the NCDB database and LCRH have variances, especially stage 4 breast cancer cases. The overall survival rate for NCDB in 5 years is 20% and LCRH is 11%. Also stage 2 for the NCDB 5 year survival rate is at 80% and LCRH is at 100%. The variance with survival doesn't show the variable of some other cause such as natural cause.

Major Site Analysis: Breast Cancer

The Lake Cumberland Regional Hospital Cancer Program continues to support and develop high quality treatment programs, including multi-modality therapy, digital mamography, and all types of breast surgery. The Cancer Program remains strong due to combined input from all departments including the Department of Surgery, Pathology, Diagnostic Radiology, Radiation Oncology, Medical Oncology and the Cancer Registry support staff.

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NCDB, Commission on Cancer, ACoS. Benchmark Reports, v8.0

LAKE CUMBERLAND CANCER TREATMENT CENTER STAFF

