



LAKE CUMBERLAND
Regional Hospital

Leading the way to better healthcare.

***2008 Cancer Program Annual
Report***

with statistical data from 2007

Lake Cumberland Regional Hospital

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Cancer Committee

Mullai, N., MD (Medical Oncologist) (chair)

Kassem, Bachar, MD (Medical Oncologist)

Khan, Amtullah, MD (Radiation Oncologist)

Jobson, Brenda, MD (Gastroenterologist)

Patterson, Chad, MD (General Surgery)

Crosslin, Kevin, MD (OB/Gyn)

Drake, Robert, MD (Family Practice)

DeLair, Sean, MD (Urologist)

Baker, William, MD (Diagnostic radiologist)

Zeater, Mohamed, MD (Pulmonologist)

McMillen, Marilyn, MD (Pathologist)

Citak, Michael, MD (General Surgery)

Parker, Robert (Radiology Director)

Harper, Shona (Tumor Registrar)

Bowman, Tammy (Cancer Program Adm)

Brock, Tim (Dir Med/Sur)

Travis, Jeanne (Executive Director Hospice)

Wilson, Susan (Administration)

Sams, Gloria (Kentucky Cancer Program rep)

Cary, Brooke (American Cancer Society rep)

La Cour, Cathy (Social worker)

Grant, Kim (Nurse, CTC)

Bowers, Tonya (Quality, Risk Director)

Upton, John (Physicist, CTC)

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 467 analytic cases accessioned in 2007. 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.

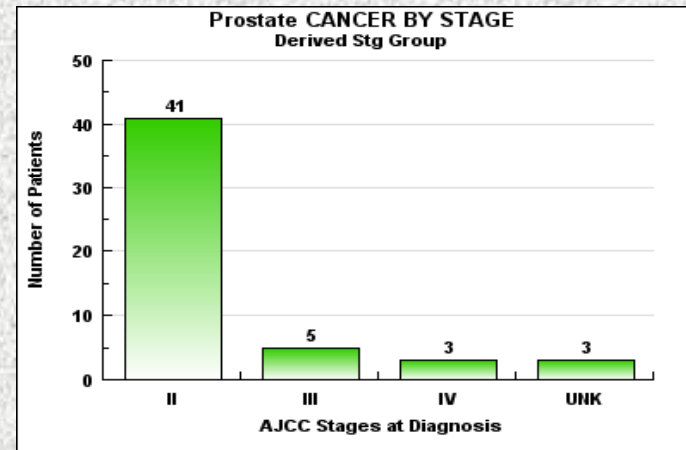
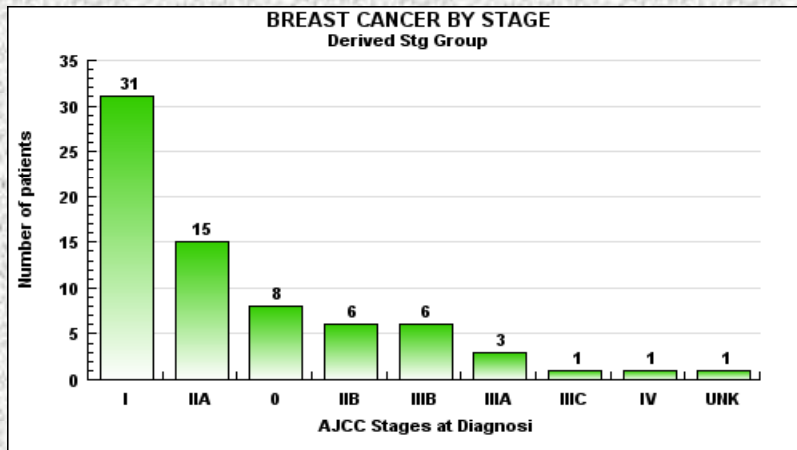
Analytic Cases A category of class of case which indicates that the cancer was initially diagnosed and/or treated at a specific health care facility and is eligible for inclusion in that registry's statistical reports of treatment efficacy and survival.

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.

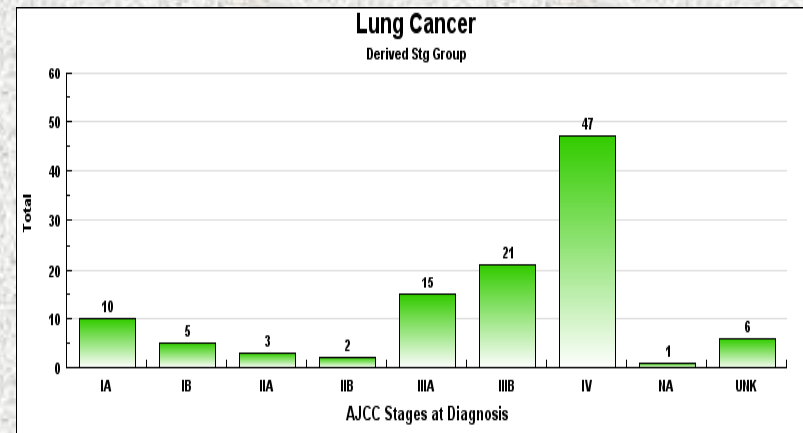
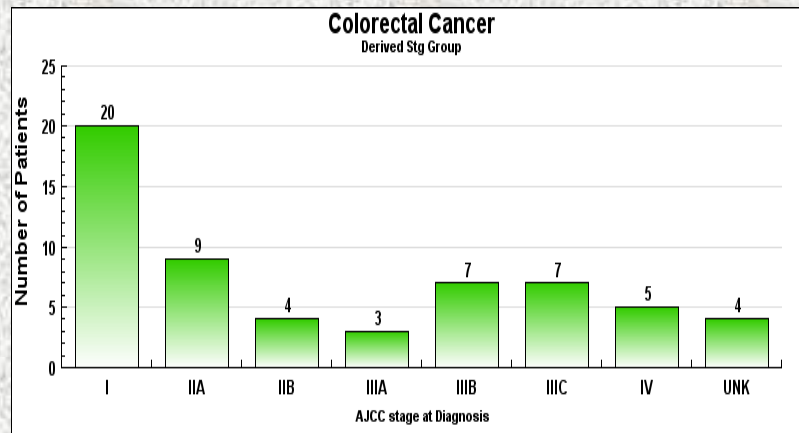
ACoS American College of Surgeons

CoC Commission on Cancer

Cancer Registry - Continued



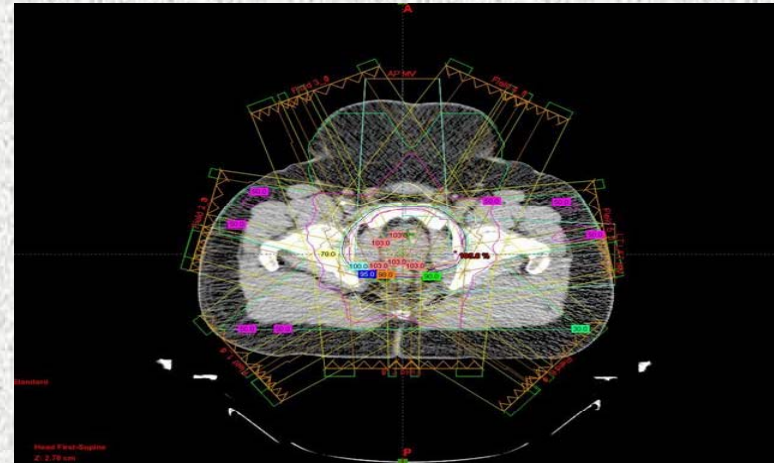
The majority of newly diagnosed breast cases are discovered in the early stages, thus providing the best opportunity for cure. Unfortunately, the opposite is happening with lung and colorectal cancer. The majority of newly diagnosed lung cancer cases are discovered when they have stage 4 disease, which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



Major Site Analysis—Prostate Cancer

Prostate cancer is the most common cancer among men. About one in six men will be diagnosed with prostate cancer during his lifetime and about one in thirty-four will die from the disease. According to the American Cancer Society's Cancer Facts and Figures, an estimated 186,320 new cases will be diagnosed with an estimated 28,660 deaths in the US during 2008. The incidence rate in African American men is significantly higher than in white men, with the death rate more than twice as high in this population.

At Lake Cumberland Regional Hospital, besides traditional radiation and surgical approaches, advanced technologies are offered, with a commitment to improved patient outcomes such as quality of life. New technologies can offer important benefits including greater precision, less pain, quicker recovery, and a lower risk of side effects like incontinence and impotence.



Some of the advanced technologies offered at Lake Cumberland Cancer Treatment Center include Brachytherapy, or prostate seed implants, which is an essential form of treatment for early stage prostate cancer. The procedure is done as a single modality treatment or as a boost after external beam radiation therapy. In the calendar year 2008, twenty three (23) procedures were performed by the brachytherapy team, consisting of a urologist, radiation oncologist, and medical physicist. No major complications or long term effects have been reported to date.

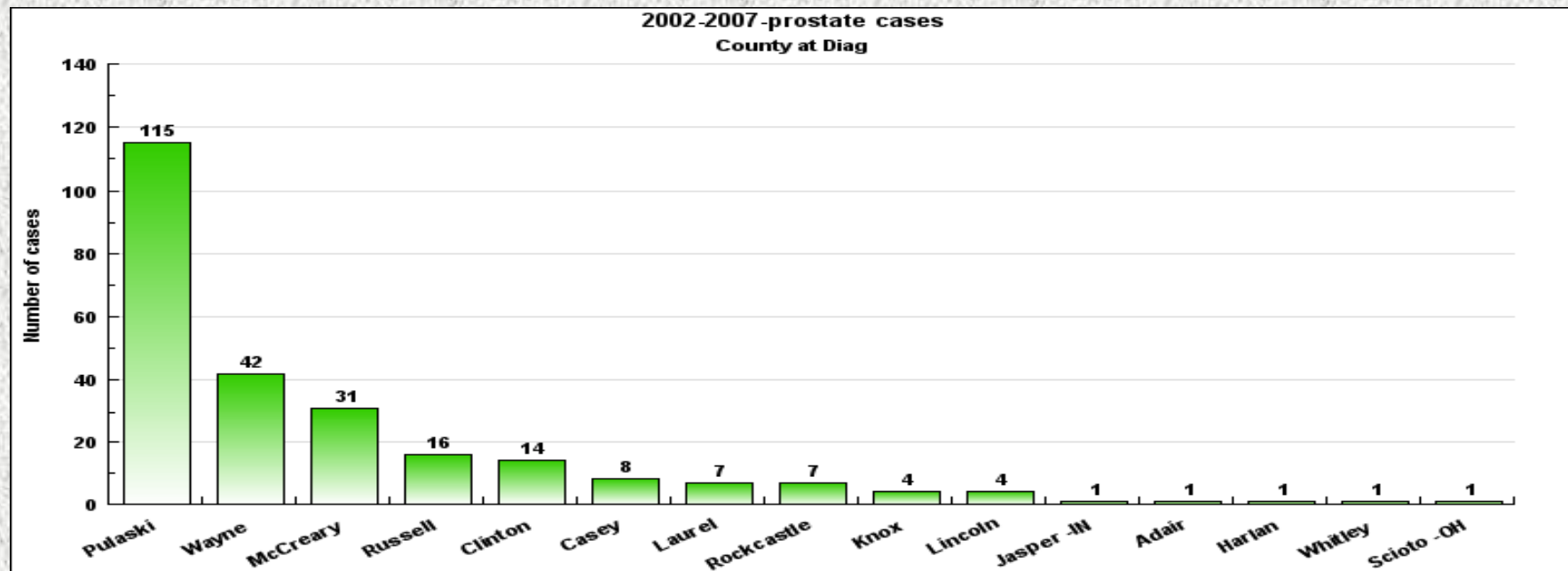
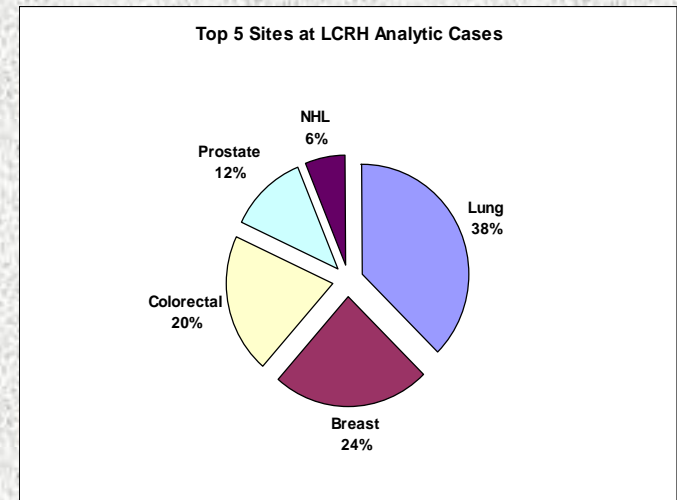
Major Site Analysis—Prostate Cancer

The standard treatments for prostate cancer include: surgery – prostatectomy, external beam radiation therapy, prostate “seed” brachytherapy, hormonal therapy, combinations of these, and cryotherapy (freezing the prostate). Patients may also elect close observation, in which they do not receive immediate treatment, but are followed by their doctor and treatment is initiated if the cancer progresses or becomes symptomatic. It is important to understand that on a pathological/cellular basis many men will develop prostate cancer before they die, and yet most men will not even know that they have it or require treatment.

Prostate cancer is most commonly diagnosed in our community and in the United States by a Prostate Specific Antigen (PSA) serum screening test. The PSA may be elevated above “normal” or the physician may be suspicious of an increasing PSA trend over time. The PSA increases with the size of the prostate as men age, with infections of the prostate, and when cancer is present. A rectal exam may reveal nodules on the prostate, in a similar fashion that women with breast cancer may be identified because of concerning nodules on the breast. Not all breast masses and not all prostate masses are cancerous, but they need to be evaluated by a physician. The urologist determines by patient history and physical examination if a biopsy of the prostate is necessary.

Major Site Analysis—Prostate Cancer

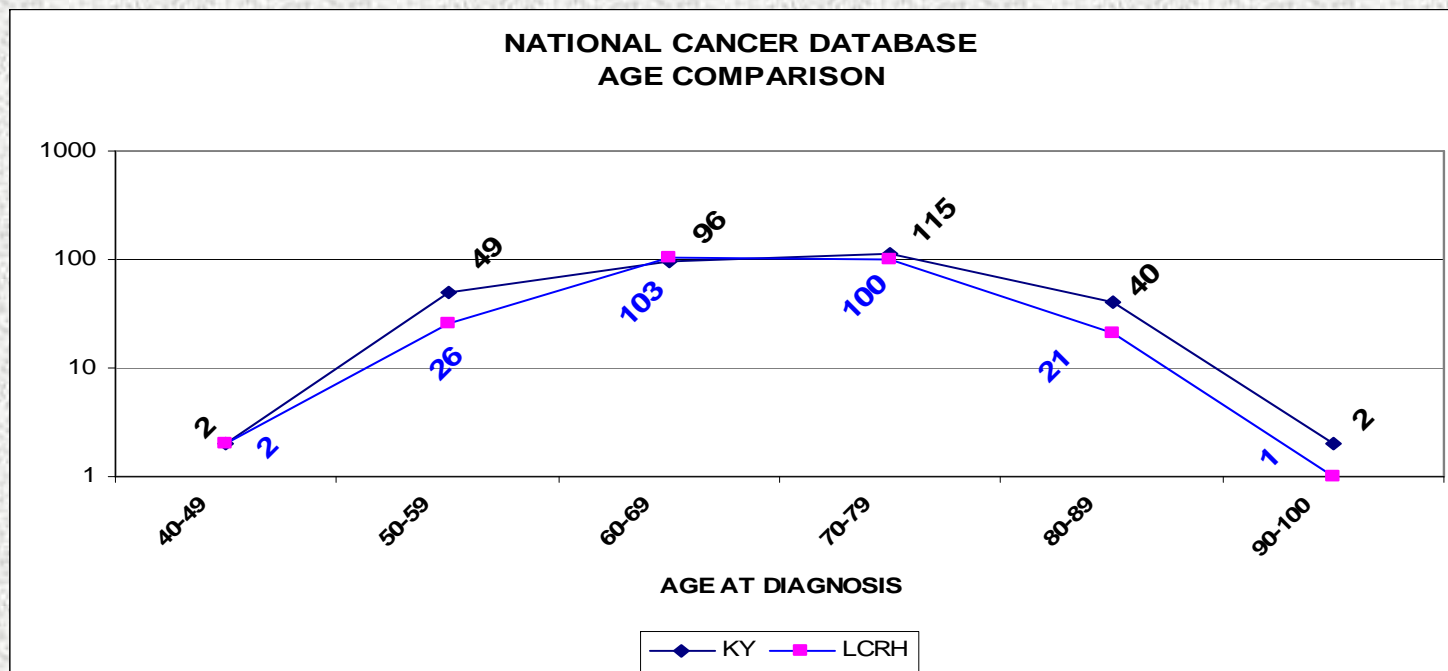
A retrospective review was performed of all prostate cancer cases in the Lake Cumberland Regional Hospital from the years 2002- 2007, based on registry data. The total number of new diagnoses in that time frame was 221 cases, approximately 12% of all cases. These reflect all patients who received any portion of their treatment at Lake Cumberland Regional Hospital and/or Lake Cumberland Cancer Treatment Center. As shown below, the majority of patients reside in Pulaski County.



Major Site Analysis—Prostate Cancer

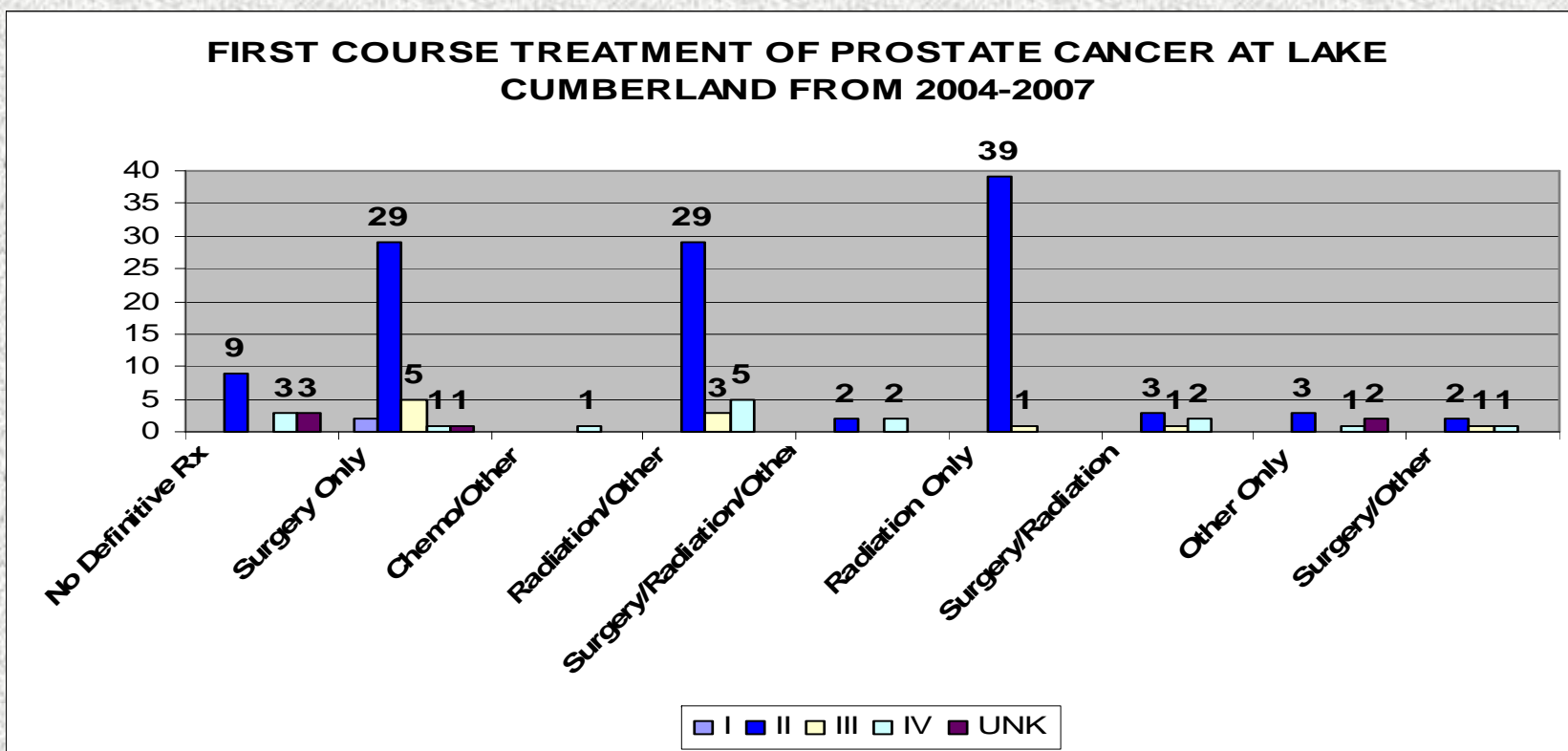
Distribution by age peaks in the 6th and 7th decade of life of cases seen at Lake Cumberland Regional Hospital as does national incidence, as seen in graph below.

The majority of cancers are detected by virtue of an elevated PSA. The aggressiveness of prostate cancer can be estimated a pathologist at diagnosis by the Gleason Score, which can range from a low of two to 10. More aggressive cancers have higher scores. Prostate cancer can be divided into four stages, depending on the location of the cancer in the prostate, how the cancer was detected (if by PSA and not by a nodule on the prostate), whether there is invasion of the cancer to other organs (seminal vesicles, bladder, or rectum), lymph node involvement, and presence of metastatic (distant) disease (such as bone involvement).

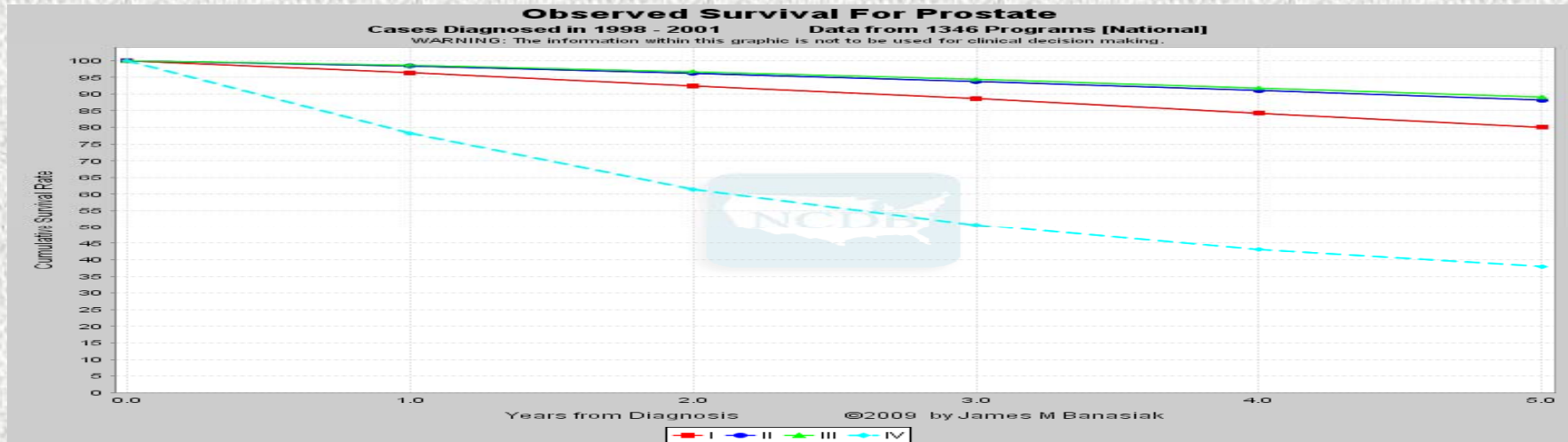


Major Site Analysis—Prostate Cancer

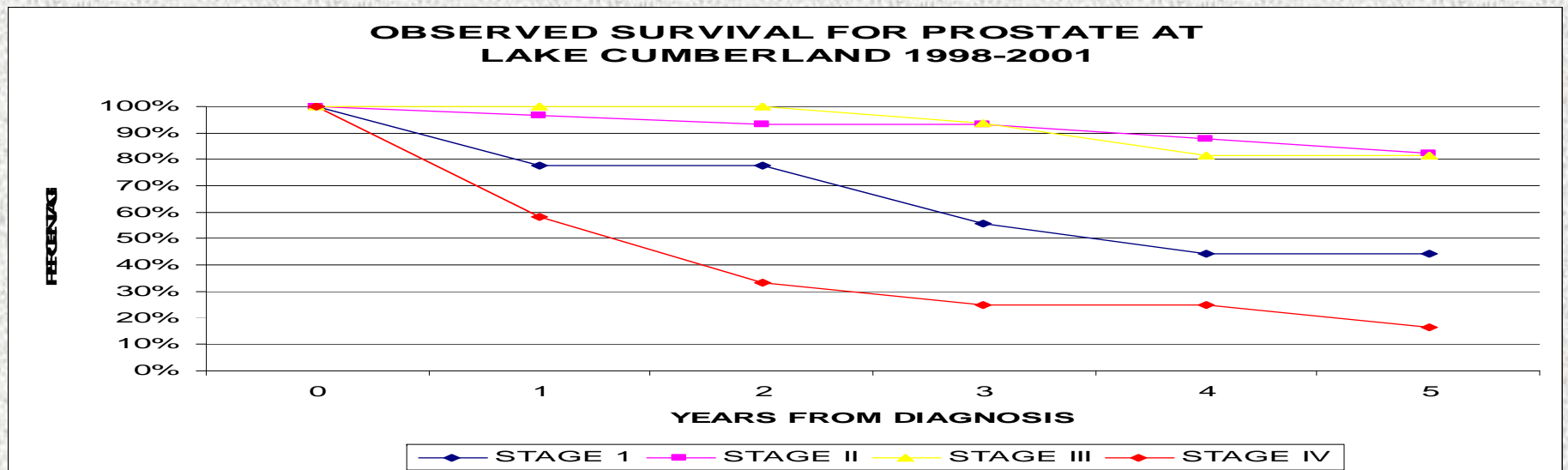
The vast majority of patients had localized (Stage 2) cancer at the time of diagnosis. Patients were treated with a variety of modalities, however surgery was the primary treatment in approximately 25% of cases at Lake Cumberland. Radiation Therapy alone or with another treatment was the treatment of choice of 49% of Stage 2 cancers.



OVERALL SURVIVAL COMPARISON FOR PROSTATE CANCER – NCDB (KENTUCKY) WITH LAKE CUMBERLAND



Early stage (Stage I) survival at LCRH at 44% was significantly lower than NCDB figures at 85% of 5 year survival rate. There are many factors that would cause a drop in overall survival, one reason being is the amount of stage 1 cases seen at LCRH. Stage II and III overall, closely parallel with NCDB 5 year survival rate. However, Stage IV prostate cancers at LCRH did poorly with less than 20% at overall survival of 5 years as compared to 35% at the state level.



Major Site Analysis—Prostate Cancer

The Lake Cumberland Regional Hospital Cancer Program continues to support and develop high quality treatment programs, including multi-modality therapy, new minimally invasive therapy, such as cryosurgery. The Cancer Program remains strong due to combined input from all departments including the Department of Urology, Pathology, Diagnostic Radiology, Radiation Oncology, Medical Oncology and the Cancer Registry support staff.

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American Joint Committee on Cancer Manual for Staging of Cancer, Sixth Edition 2002, Springer-Verlag, New York

Berlin Heidelberg. International Classification of Disease for Oncology (ICD-O), Third Edition. Geneva: World Health Organization 2000.

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

LAKE CUMBERLAND CANCER TREATMENT CENTER STAFF

