

The background is an abstract, artistic representation of a DNA double helix. It features vibrant, multi-colored lines in shades of purple, blue, green, and yellow, which appear to be in motion, creating a sense of depth and flow. A bright, glowing point of light is visible in the lower right quadrant, suggesting a focal point or a source of energy. The overall aesthetic is scientific and futuristic.

Centra Health
CANCER CARE SERVICES

prevention

detection

treatment

cure

ANNUAL REPORT 2003
Based on 2002 Statistics

As Chairman of the Cancer Care Committee, I am pleased to introduce the Annual Report for the year 2003 for Centra Health Cancer Care Services. This is a comprehensive overview of the multi-faceted program that is a reflection of the widespread net that Cancer Care Services cover including inpatient care, outreach programs, treatment programs both in and outside the hospital, patient education and more. The report also includes statistics for our community cancer care and compares them to national results.

During the year 2002, there were 1,108 new cases of cancer which represents a trend of increasing number of cancer diagnoses being made over the past five years. The majority of these cases are from Lynchburg City itself, but also reflect care given to patients in the surrounding counties and at some distance as well. Breast cancer represents the overwhelming majority of diagnosed cases and as usual it represents the most common cancer among women. Lung cancer counted for 189 cases including both men and women; it was the most common cancer in men and second most common in women. The majority of new diagnoses of cancer fall in the age groups between the sixth and eighth decade of life. Women represented a slight predominance in new cancer cases probably reflecting the large number of breast cancer cases.

Our statistics on prostate cancer compare favorably with national averages which has been true for most of our cancer care diagnoses over the past few years.

A significant number of patients are still diagnosed with advanced or stage 3 or stage 4 carcinoma, so patient and physician education and early diagnosis are still challenges.

Within the report are descriptions of our various cancer care programs which have become stronger and stronger over the last five years. Our cancer registry has become an outstanding resource of information regarding cancer statistics and of course these statistics help support statewide and national programs for evaluating a cancer problem. As always, this is a very time consuming and difficult task which fortunately is carried on by very capable and experienced professionals.

Our breast cancer program continues to be an outstanding part of cancer care services. Extensive review of each patient's individual case by a multi-faceted staff of physicians, nurses and other professionals enables prompt and expert care to be given to the patients early and comprehensively. Another addition to the cancer care services, has been an attempt to bring to our patients more access to drug trials via investigational cancer treatment programs supported by both the hospital and community physicians. We continue to have a dedicated and well educated staff of professionals who care for both inpatients and outpatients at Centra Health. Their enthusiasm and loving care have made a successful program which is reflected in the outstanding reviews received by these various programs both at the hospital and as an adjunct to the hospital. Compliments are due to all of the professionals who have contributed to the cancer care program and I would also like to thank, on behalf of the Medical Staff, the excellent Centra Health administration for supporting such an extensive program and allowing it to grow and become even more comprehensive.

In the future, we plan not only to strengthen these programs but also to augment them and, in the not so distant future, a Cancer Center will rise. This center will coordinate all of these outstanding efforts.

Sincerely,



John J. Halpin, M.D.

Centra Health CANCER CARE SERVICES

prevention

detection

treatment

cure

ANNUAL REPORT 2003

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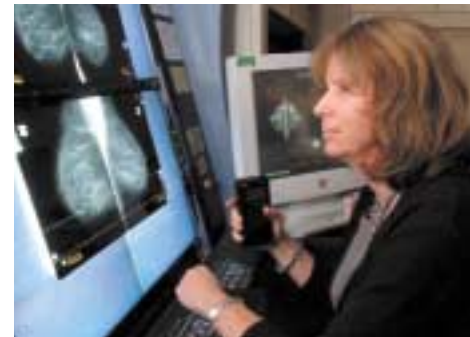
Overview of Cancer Services

BREAST IMAGING SERVICES

Centra Health's breast imaging services are multifaceted and led by dedicated radiologists and mammography and ultrasound technologists. Services are provided to patients through facilities at the Oak Vassar medical building adjacent to Virginia Baptist Hospital, Timberlake Mammography Center, Tate Springs Mammography Center, a mobile mammography van and a satellite unit at Women's Health Services of Central Virginia. The mammography and ultrasound technologists are all board certified or board eligible. Currently, Centra Health's breast imaging services perform approximately 20,000 screening studies and over 15,000 diagnostic studies annually.

Months of planning and building have brought great improvements to our breast imaging facilities. In May 2001, Centra Health opened a beautiful, spacious screening facility on Timberlake Road. This facility houses two mammography rooms, a public meeting room and a library. In early 2002, our facility at Tate Springs Road was refurbished. It reopened with one mammography room on June 24, 2002. With the reopening of this facility, patients have the convenience of choosing the screening center located closest to their home or place of employment. Centra Health's breast imaging relocated to Oak Vassar medical building in June 2001 with four mammography units and three ultrasound units. This is Centra Health's site for diagnostic mammography and breast ultrasound. This service is for women with breast symptoms and problems and to further investigate abnormal or suspicious screening mammograms. Services provided at Centra Health's breast imaging department include ultrasound, needle localizations, ultrasound guided core biopsies, stereotactic biopsies, fine needle aspirations and cyst aspirations.

Breast imaging and Timberlake Mammography Center feature private registration areas and gown/waiting rooms for the comfort of our patients. The library at the Timberlake center has informational pamphlets on various medical subjects and is open to the public. Various groups within the Centra organization use the meeting room, which features a computer with Internet access.



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Screening exams for women without symptoms or breast problems can be performed at the Tate Springs and Timberlake Mammography Centers, the mobile van and the satellite unit. Centra Health's screening facilities offer women in Lynchburg and surrounding counties a program of low cost mammography.

To encourage patients to return annually, scheduling secretaries at the Timberlake and Tate Springs Road offices make patients' next mammography appointments before they leave the facility. Patients also receive reminder cards in the mail one month before their scheduled appointments.

A new mobile mammography van was placed in operation on September 17, 2001. This van travels to various businesses, industrial sites and physician offices to accommodate women who want yearly mammograms without missing time from work. It also makes mammography more accessible for women in counties surrounding Lynchburg.

The R2 ImageChecker, a computer-aided detection system, is an important addition to Centra's breast imaging services. Mammograms are reviewed first by the radiologist. The R2 ImageChecker then analyzes the content of mammograms and highlights possible suspicious areas on the images. The radiologist then reviews highlighted areas to determine if further evaluation is necessary.

Centra Health is committed to providing women in central Virginia with the highest quality, most convenient and compassionate breast health care possible.

BREAST HEALTH EDUCATORS

The role of the breast health educators continues to expand due to the continued growth and development of the comprehensive breast program. These educators serve as liaisons between physicians and patients, facilitating the plan of treatment from diagnosis through the end of treatment and beyond. Within this scope of care, the educators perform the following services:

- Assist with core biopsies
- Make all surgical referrals
- Provide preoperative teaching
- Provide resource material such as hats, wigs, prosthesis, turbans
- Provide education for everyday changes that occur as the result of breast cancer



*Centra Health
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providing the
highest quality,
most convenient
and compassionate
breast health care
possible.*

- Provide emotional support to the family and patient during treatment and recovery. This includes providing patients with their home phone numbers, going with them to the operating room, X-ray, doctor's visits and more.
- Facilitate two support groups, one of which has varied cancer diagnoses.
- Partner with the American Cancer Society, The Free Clinic and The Public Health Department
- Provide outreach to the community through the Witness Project providing 41 programs for the year 2002 and reaching 2,483 women
- Provide resource information for underserved and uninsured populations

WITNESS PROJECT

The Witness Project began in February 2000 and continues to provide a valuable addition to the comprehensive breast program. The Witness Project is comprised of volunteers who give their time speaking in the community setting and educating the public on the importance of early detection and treatment of breast and cervical cancer. One hundred fifty mammograms have been provided annually for uninsured women along with clinical exams.

MAAM

MAAM (Mammography Annually A Must) is a local volunteer group associated with the Centra Health Foundation with a mission to raise awareness of the importance of screening mammograms. MAAM members have been touched by breast cancer and want to make a difference in the health of the region. The MAAM group increases awareness and promotes screening mammography by ensuring access to mammograms and providing education about them.

Since it was established in 2001, MAAM has offered three free mammography screening days for the community and launched a media campaign to build awareness about mammography. Through the free mammography screening days in 2002, 287 mammograms were given to women in our community who otherwise might not have received this important health screening.



*One hundred fifty
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INPATIENT ONCOLOGY UNIT

The oncology unit is dedicated to caring for cancer patients in a holistic way — body, mind and spirit. The unit provides a range of care from diagnosis and treatment to palliative. Our specially trained staff works with patients and families in various stages of the disease process and takes pride in providing “Excellent Care...Every Time.” Their dedication is evidenced by a patient satisfaction score of 87.5 percent for 2002. In addition to this score, many patients and their families keep in contact with the staff through personal visits, cards, flowers and food. We were privileged to provide care for 1,321 patients on our inpatient unit this year. Our top admitting diagnosis was respiratory neoplasm. Plans of care are discussed in weekly cancer conferences and breast conferences.



Our clinical coordinator works with staff and physicians to meet the educational needs of patients and their families. The coordinator has developed various educational materials and uses many resources to assist patients with their home care and medications. Her work with the interdisciplinary team has helped to reduce our length of stay from 5.33 days in 2001 to 5.18 in 2002. Her role also includes coordinating the care of all hospitalized cancer patients in both of our hospitals — not just on our unit. This provides patients and families a more coordinated course of care.

Nurses on the oncology unit are certified in several areas: oncology, medical-surgical and gerontology. Their combined years of nursing experience exceeds 410 and their average age is 39. Some staff nurses are pursuing advanced degrees and several of our CNAs are nursing students. Many nurses are members of the Oncology Nursing Society and our local ONS chapter.

There have been many opportunities for our staff to participate in community events promoting cancer screening and awareness. We work in conjunction with our local American Cancer Society to develop and identify these opportunities. Many of our staff have promoted nursing at career days in local schools.

Our oncology staff use their hands and their hearts to provide the special care that cancer patients and their families need and deserve. Their pride in their profession and dedication to their patients makes oncology nursing rewarding and our oncology unit a special place to work.

*The oncology unit
is dedicated to
caring for cancer
patients in a
holistic way — body,
mind and spirit.*



COMMUNITY EDUCATION AND PROGRAMS

Educating the community is important both to Centra Health and to Cancer Care Services. Working with our local American Cancer Society, the oncology nursing staff have participated in many cancer screenings and cancer awareness events within the community, including speaking to area businesses, organizations and churches on selected topics related to cancer. As an organization, we have worked with our local churches and those within our surrounding counties to offer screenings such as PSA levels, colon cancer screening, mammograms and skin assessment for possibility of skin cancer.

STAFF EDUCATION AND DEVELOPMENT

Staff development and continuing education is committed to assisting the nursing staff in maintaining current knowledge level and delivering the highest quality of care possible. Programs and information are made available for all oncology staff members to aid them in the care of oncology patients, including assessment, treatment regimens, pain management, symptom management and oncology related issues. Emphasis is placed on training the staff in delivery of care and identifying the needs of the patient as an ongoing process. A chemotherapy administration course is taught to all new oncology nurses with at least one year of oncology experience. The course is aimed at teaching the fundamentals of administering chemotherapy and in identifying symptoms associated with chemotherapy.



PROSTATE IMPLANT STUDY

Robert Driskill, MD

A retrospective analysis of the interstitial brachytherapy (prostate implant) experience at Centra Health was performed. The purpose of this analysis was to define the longer term biochemical outcomes after treatment of these patients with prostate brachytherapy. We reviewed data from the tumor registry, hospital records and office records from both radiation oncology and urology offices.

The Centra Health prostate brachytherapy program began with our first implants on October 7, 1998. For the present analysis, patients who had

at least two years of follow-up after their implant were reviewed; particularly patients with three- or four-year follow-up data. At the time of analysis in May 2003, there were seven patients with four years of follow-up. Of those

patients, two had developed progressive disease both clinically and by biochemical criteria. One other patient had a rising PSA at last measurement but no clinical progression of malignancy, and had not met some criteria for biochemical failure. Four patients had no clinical or biochemical signs of failure.

There were 45 patients with at least three years of follow up information. Of these, five had evidence of progressive disease and three others had a rising PSA at last testing. All three patients with a rising

PSA had only one rise in their value at time of last analysis and still had low absolute PSA values (0.66, 0.2, and 0.08). Therefore 37 of the 45 patients (82.2 percent) had no signs of clinical or biochemical failure at the time of last analysis.

There were 87 patients with at least two years of follow-up information available. Seven patients had evidence of clinical or biochemical failure, and eight other patients had a rising PSA at last testing. Most patients with a rising PSA still had a low absolute PSA value (range 0.08–0.66), with only a single rise in their PSA value. Therefore a total of 72 patients (82.8 percent) had no evidence of progressive disease.

Depending on which criteria are used to define biochemical failure, four-year (4Y) biochemical disease-free survival (DFS) varied. Using a definition of PSA ≥ 0.2 for failure, the 4Y biochemical DFS was 74.71 percent. If failure is defined as PSA ≥ 0.5 , 4Y biochemical DFS was 84.57 percent. Requiring three rising PSA values to define failure, the 4Y biochemical DFS was 90.8 percent. Benign PSA rises were very common, occurring in 50 percent of patients (36/72) who had a falling PSA at last testing.

This study indicates that the prostate brachytherapy program at Centra Health has been successful in achieving biochemical control — and hopefully long term cure — in the majority of our patients. Biochemical disease-free survival rates are similar to nationally reported results from other centers.



RADIATION ONCOLOGY

The goal of radiation therapy is to reduce or eliminate the viability of a tumor while allowing the surrounding normal structures to maintain function. This is a delicate balance where we capitalize on the normal structures' ability to repair or resist damage, while the abnormal process does not have the same level of refinement in its support structure. Because the path to a cancerous process generally involves penetration into the body, treatment beams are directed from several directions which converge at the tumor.

The Radiation Oncology department has embarked on a quantum leap in the process of treatment. While the radiation treatment of cancer patients remains high energy x-ray photons and electrons, the control of the treatment process and verification have become controlled digitally. This integration has allowed for more complex treatment plans which convey benefit to the patient in reduced morbidity. All of this integration increases greatly the complexity of a treatment which necessitates an increase in the already rigorous and comprehensive quality assurance program that is required for our current 3D conformal therapy.

We are replacing an old linear accelerator with one that has improved precision in the control of the radiation beam. Digital imaging technologies are being added to better characterize the tumor location and movement during the course of treatment. For the first time we will be able to monitor the lesion during the actual treatment, rather than before or after. Additional hardware is being added to shape the spatial location of the beam and modulate its intensity across the treatment region. This, along with improved precision in the treatment planning algorithms, will allow dose to better conform to the target and spare other structures.

CLINICAL TRIALS

In 2003, cancer services in a partnership with the medical oncologists, hired a clinical trials coordinator. Sherry Groome came to Centra Health with a strong background in oncology clinical trials proving to be a positive addition to the cancer program. Within three short months Sherry had enrolled Centra in the Minnie Pearl Research Network and had several trials open.



*Centra Health was
the first institution
in central Virginia —
and one of only two
in the state — to offer
intravascular
brachytherapy.*



The physicists' decisions contribute to optimal, safe and effective care.

CLINICAL MEDICAL PHYSICIST


Centra Health employs two full-time medical physicists and a physics technologist whose responsibilities include quality control of medical imaging and therapy equipment and management of the hospital's radiation safety program. The physicists are responsible for the techniques used to standardize and calibrate this equipment and for staying abreast of the research and development of new techniques, physical methods and equipment. The latter includes educating and monitoring staff members who work in radiation areas and assuring that the hospital's program is in compliance with state and national regulatory bodies.

The physicists play an important role through indirect patient care. They assure that all physical data being used to treat patients is accurate and appropriate by routinely reviewing all records and treatment plans for patients undergoing radiation therapy. In addition, the physicists are called upon to contribute scientific advice and resources to solve numerous and diverse physical problems that arise in many specialized medical areas of the hospital. The physicists' decisions contribute to optimal, safe and effective patient care.

PATHOLOGY DEPARTMENT

Pathology Consultants of Central Virginia provides pathology services to all Centra Health facilities and is an integral part of the cancer program at Centra Health. The physicians and staff of the Department of Pathology are dedicated to providing the highest quality services in a timely fashion.

In 2002, over 6,500 surgical specimens were received at Virginia Baptist Hospital, and just over 4,300 were received at Lynchburg General Hospital. Over 96 percent of cases were completed within 48 hours and over 85 percent in 24 hours. The histology laboratory provides a flexible menu of immunohistochemical stains that aid in the diagnosis and characterization of cancers. In 2002 we added the ACIS system, a computer-assisted digital image analyzer that allows reproducible quantitation of specific immunoperoxidase stains. This system is currently used to standardize the evaluation of breast cancers for the production of the Her-2/neu protein, which aids in establishing prognosis and directing therapy. In the future, new antibodies are expected to have similar applications in treating cancers from other primary sites, such as the lung.



In addition, the department is proud to be the only community-based practice in the United States to provide large format histologic sections to aid in the evaluation of surgical pathology specimens from the breast.

Quality assurance is a fundamental aspect of the diagnosis and treatment of cancer. The Lynchburg Breast Pathology Database, created by Karl Biesemier, MD, in 1999, allows ongoing data analysis. The multidisciplinary breast cancer conference, which is moderated by a physician from the department, has become a model for similar case-based conferences. The pathologists contribute to all of the multidisciplinary cancer conferences by assisting with case selection, reviewing the cases for discussion, and presenting the pathologic findings using digital images during the weekly cancer conferences. At the start of each day, an intra-departmental meeting is held where challenging cases are reviewed at a multi-headed microscope to help assure an accurate diagnosis. In 2002, 1,165 cases were reviewed in this manner. John Salmon, MD, assists the cancer liaison by serving as an on-site consultant to the Cancer Registry. All of these efforts combine to provide strong support for the cancer program at Centra Health and the outstanding care of patients in central Virginia.

PHARMACEUTICAL SERVICES

The pharmacy staff provides timely, safe and efficient pharmaceutical distribution services to our oncology patients. Licensed pharmacists do chemotherapy preparation in the sterile, protected environment of the main pharmacy. All medications for oncology patients are prepared and dispensed from the central pharmacy. Clinical pharmacists monitor patients for drug/drug interaction and appropriate dosing of chemotherapeutic drugs based on patient-specific parameters such as height, weight, lab values and renal/hepatic function. Clinical pharmacists are always available to assist nurses and physicians with drug-related questions, dosing and monitoring and to counsel patients regarding any of their medications. Clinical pharmacists are also available to physicians for pain management consults. The pharmacists are considered experts in drug pharmacology and are respected throughout our organization for recommending and monitoring a wide range of medication options for our patients with pain.





DIETITIAN

A patient's nutritional status can affect how they feel and how well they cope with medical treatments. A well-nourished body can aid in recuperation from surgery, radiation therapy, chemotherapy and stress, as well as build new tissues and prevent tissue breakdown and weight loss.

Nutritional intervention is an essential component of care for oncology patients. Clinical dietitians offer information to oncology inpatients and outpatients, which is integral to understanding, minimizing and possibly overcoming the components of cancer that affect nutritional status. Information is offered during counseling sessions and individual meal plans may be provided to meet a person's specialized needs.

Dietitians also provide appropriate medical nutritional therapy to combat the ill effects of cancer. They may suggest providing smaller, more frequent meals, nutritional supplements and alternative food choices (foods from home or additional foods from the kitchen). Nutrition assistants are available to assist patients with menu selections and offer other foods which are not listed on the menu but are available within the department or from the kitchen. The clinical dietitian offers education and support for both inpatients and outpatients who require tube feedings for nourishment. Community programs are presented regarding eating habits that can help prevent cancer or delay disease.

*A well-nourished
body can aid in
recuperation.*



SOCIAL WORK

As part of its multidisciplinary approach to patient care, Centra Health employs an oncology social worker who is trained to meet the special needs of the oncology patient. A primary area of support is aiding patients and families with discharge planning. This may include securing equipment, home health, hospice or outpatient services and alternate living arrangements as needed. The social worker connects patients to community-based resources (such as transportation services and medication funding assistance), and may also provide assistance in applying for disability or Medicaid as indicated. In general, the oncology social worker provides support and guidance throughout the patient's treatment.

PASTORAL CARE

The department of pastoral care at Centra Health is dedicated to helping patients and their families regain their sense of “wholeness.” In fact, that is the very essence of what “pastoral” means.

Centra Health’s commitment to holistic care is evident in its support of pastoral care. Chaplains are available to oncology patients and family members to provide emotional and spiritual support. Centra Health chaplains are part of a vital interdisciplinary health care team and are available to visit with patients anytime they are needed. Chaplains seek to help patients and their families draw strength from their own spiritual resources and faith community. Additionally, our chaplains work closely with local clergy and encourage the involvement of congregation members and clergy in the pastoral care of patients and their family members.

Centra Health chaplains work beside other oncology team members to create an environment of comfort that facilitates healing — physically, emotionally and spiritually.




HOSPICE OF THE HILLS

Hospice of the Hills was established in 1983 by a group of dedicated volunteers. Its mission is to provide quality of life to the terminally ill, their families, significant others and those in the community affected by death and dying. It has developed into a comprehensive interdisciplinary team of health care professionals composed of physicians, registered nurses, certified nursing assistants, social workers, chaplains and volunteers.

In 2001, the hospice program served over 200 patients and their families. Cancer remains the top diagnosis of the patients admitted to hospice, cancer of the lung being the leading diagnosis. Congestive heart failure is the leading non-cancerous diagnosis.

Volunteers still remain the foundation of hospice, providing patient/family support, bereavement, fundraising, clerical support and community education. Volunteers donated more than 2,000 hours to hospice last year.



In October 2000, the Hospice House was opened as an option of care for terminally ill patients. End-of-life needs are met in a home-like environment where personal independence and quality of life are priorities. The 3,000 square foot house is centrally located and accommodates four patients with around-the-clock care. It has provided services to almost 70 individuals since opening.

To educate the community and health care fields about our program of care and services, Hospice of the Hills participates in many health fairs and community activities. Our bereavement coordinator and specially trained volunteers offer bereavement workshops to families in the community. Hospice of the Hills continues to recruit volunteers to support its mission.

A REPORT FROM THE CANCER LIAISON

William L. Kittrell, Jr., MD



The Cancer Liaison Program of the Commission on Cancer was developed to recruit volunteers in the management of clinically related cancer activities within the hospital and community settings. Today, 60 percent of the 1,800 cancer liaisons nationwide are surgeons and the remaining 40 percent come from a diverse group of specialties. The primary role of the cancer liaison is to provide leadership, direction and support for the facility's cancer program, following the criteria established by the Approvals Program of the Commission on Cancer. The cancer liaison also works with the local American Cancer Society to support cancer control programs in the community.

As the Centra Health cancer liaison, I was invited to become a member of the Board of Directors of the Lynchburg chapter of the American Cancer Society (ACS). Our facility works closely with the local chapter of the ACS to provide patient/community education, early detection programs and a wide range of support services for families living with cancer. ACS fundraising is conducted annually through the Relay For Life, a 24-hour walk-a-thon in which volunteers solicit donations for each lap they walk. I am pleased that so many physicians and hospital employees support this effort. The ACS also promotes public awareness on cancer care and treatment facilities through its web site. (For more information on Centra Health's cancer care services visit the ACS website at www.cancer.org/asp/search/ftc/ftc_global.asp)

Over the past year, I have assisted the Cancer Registry of Centra Health in the quality review of case abstracts. The Cancer Registry is required to have ten percent of all new case abstracts reviewed by a physician member of the cancer committee. Thanks to all the physicians who participated in the review. Our Cancer Registry staff is dedicated to quality improvement and providing useful data to the physicians in our area and each year we see the results of their commitment when reviewing abstracts. I continue to support and work with the staff of the Cancer Registry to improve compliance rates for AJCC staging. The Commission on Cancer requires a complete AJCC staging of all cancers by the managing physician. Complete staging should include the T (tumor), N (nodes) and M (metastasis) as well as the stage group. I would like to use this opportunity to encourage all managing physicians to provide M0 (no evidence of metastasis) or M1 (evidence of metastatic disease) staging on the AJCC staging forms. MX is considered incomplete and will result in our local data being excluded from use by the National Cancer Database.

Here at Centra Health, we continue to set new goals and higher standards for the care our patients receive. I have enjoyed the opportunity to serve as the Cancer Liaison and look forward to the challenges for the coming year. I invite and welcome comments from physicians, staff and members of our community on how we can improve the services we provide.



Registry data is used to determine mortality and cancer trends in local, state and national studies.

ONCOLOGY INFORMATION CENTER

The Centra Health Oncology Information Center (Cancer Registry) is located in the radiation oncology department at Virginia Baptist Hospital and has a full-time staff of two. Joyce Martin came to the registry in 1998 after 10 years in health information and Linda Crist joined the registry staff in August 2000 after 28 years in pathology/laboratory at Centra Health. Faith Coles, administrative secretary for cancer care services, brings several years of experience from radiation oncology and works “limbo,” assisting with abstracting and follow-up. The staff is responsible for collecting and reporting local cancer data to the Virginia Cancer Registry (a division of the Department of Health) and to the National Cancer Database through the American College of Surgeons. The data is collected using ERS (Electronic Registry Systems) software and is used to determine mortality rates and cancer trends in local, state and national studies.

The Oncology Information Center also maintains a separate database for the Breast Cancer Program at Centra Health. The Breast Pathology Database was developed in 1998 and contains demographic, procedure, lesion, sentinel lymph node and interventional imaging data on over 1,900 breast cancer patients diagnosed in our facility since 1991.

During the 2003 calendar year, our registry staff identified and abstracted 1,108 new cases of cancer diagnosed in the year 2002 and conducted follow-up on the 7,205 living, analytic cases in our database. One hundred cancer conferences were organized by the registry staff, including five didactic presentations on the following topics:

- Balancing Palliation & Treatment in the Treatment of Non Small Cell Lung Cancer
- Oral Complications/Effects of High Dose Chemo/Radiation in Head & Neck Cancer
- Use of Aldara in the Treatment of Skin Cancer & Treating Transplant Patients
- Update of Prostate Brachytherapy Program
- Radioimmunotherapy for Non-Hodgkins Lymphoma

Challenges and successes of the Oncology Information Center in 2003 included:

- Registry staff participated in a multidisciplinary quality improvement project whose goal is to improve the documentation process for cancers diagnosed in the interventional radiology department. The project involved members from radiology, mammography, health information, patient registration,

information systems, administration, corporate compliance, and clinical effectiveness. This project is on-going.

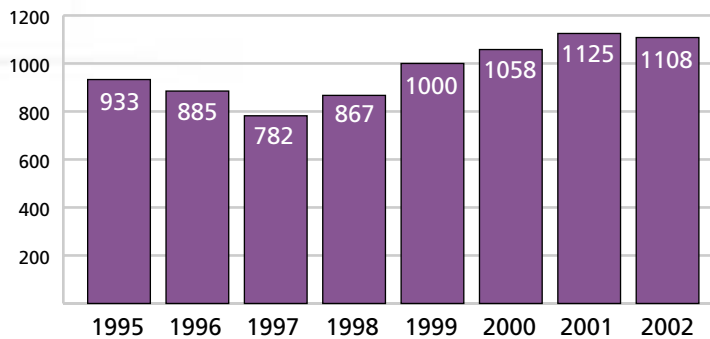
- Physicians from Lynchburg Hematology/Oncology granted the registry staff access to their office system (OptX) which has significantly improved our data collection for treatment information and follow-up.
- The Oncology Information Center staff participated in the evaluation and implementation of the Carolina Mammography Registry (CMR) database which will replace Magview, our current mammography database in early 2004. Registry staff will continue to provide technical support for CMR as they have for Magview. CMR will also allow cross-queries with ERS and the Breast Pathology Database, which will enable us to provide even more comprehensive data for our breast cancer program.
- Published a cancer registry newsletter for physicians to keep them abreast of changes in our required data collection, AJCC staging, and more.

It was another busy year for the cancer registry and we could not have achieved so much without the support of our administrators and physicians. Our goals for 2004 are to continue improving the quality of cancer data collection, encourage the use of local data by our physicians and to promote awareness of the Oncology Information Center in our community.

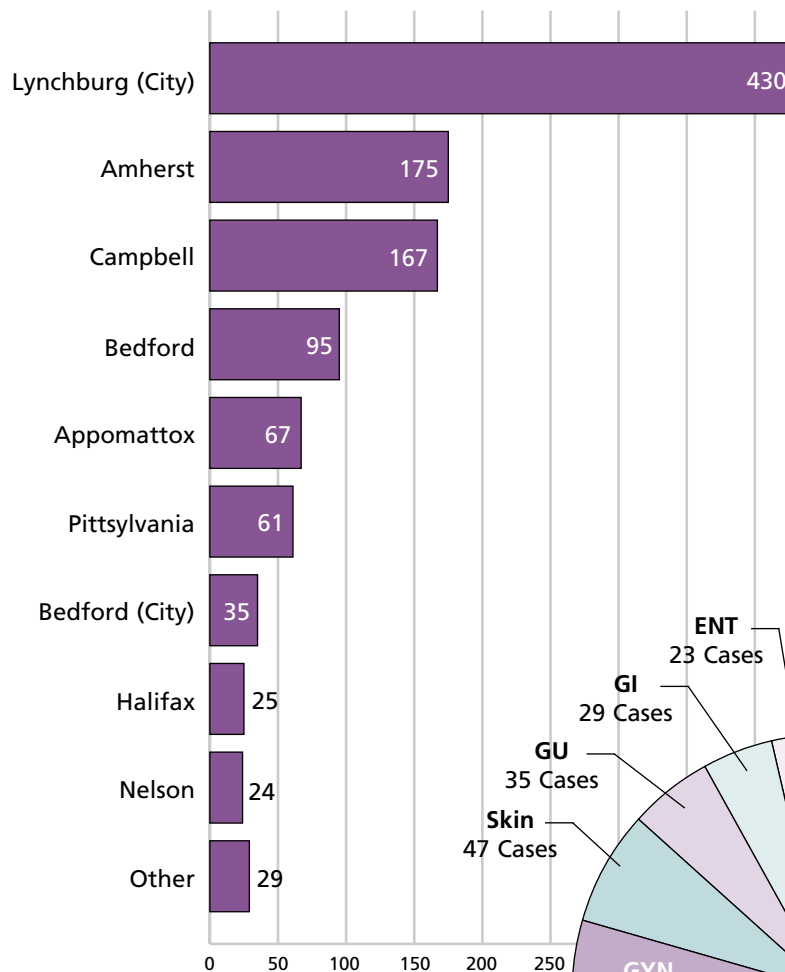


Centra Health Cancer Statistics 2002

**TOTAL NUMBER OF CASES PER YEAR
NUMBER OF CASES
BY YEAR**

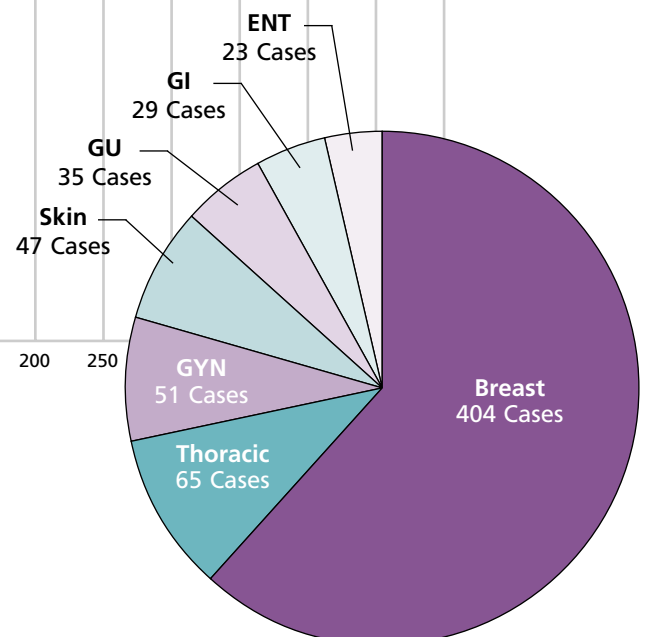


**LOCALITY OF NEW 2002 CASES
NUMBER OF CASES
BY LOCALITY**

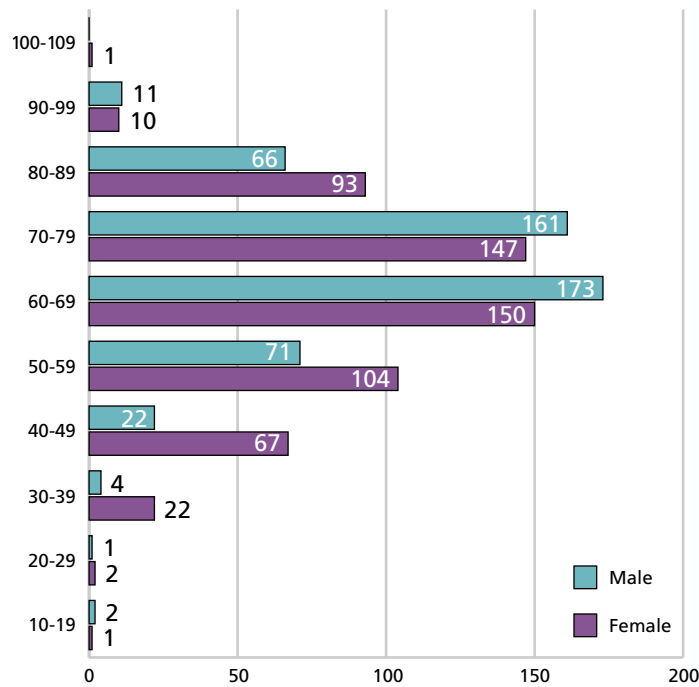


**2003 CANCER CONFERENCES
TOTAL CASES
PRESENTED BY SITE**

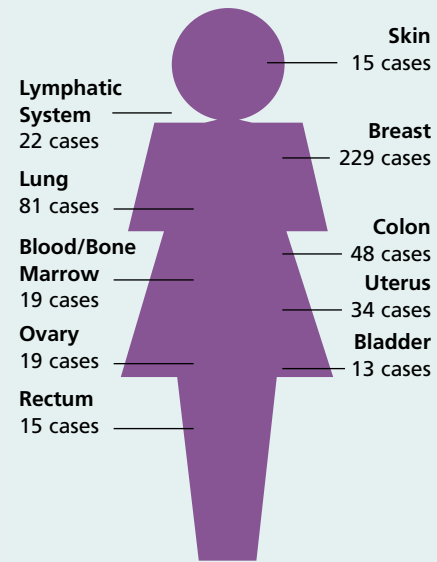
Total Cases Presented: 654



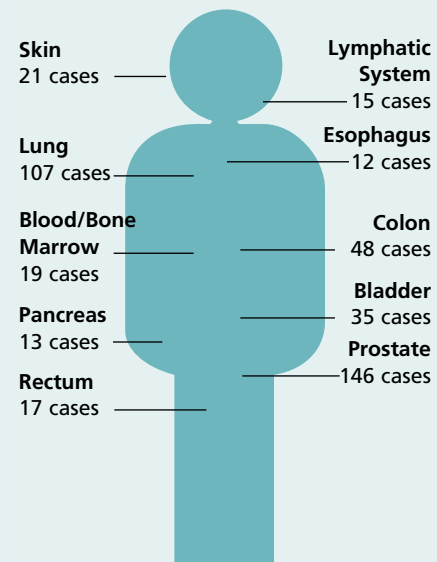
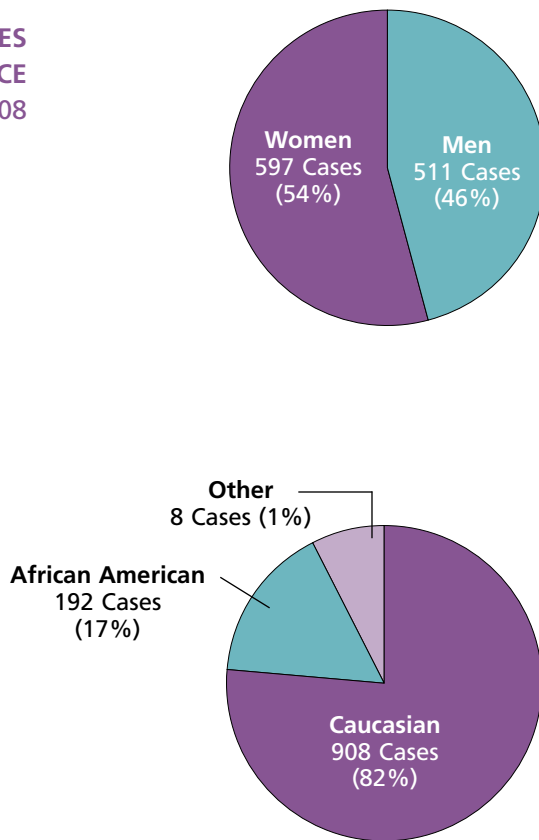
DISTRIBUTION OF CASES BY AGE AND SEX
NUMBER OF CASES BY AGE AT DIAGNOSIS



TEN MOST COMMON SITES BY GENDER



INCIDENCE OF CASES BY SEX AND RACE
TOTAL CASES: 1,108

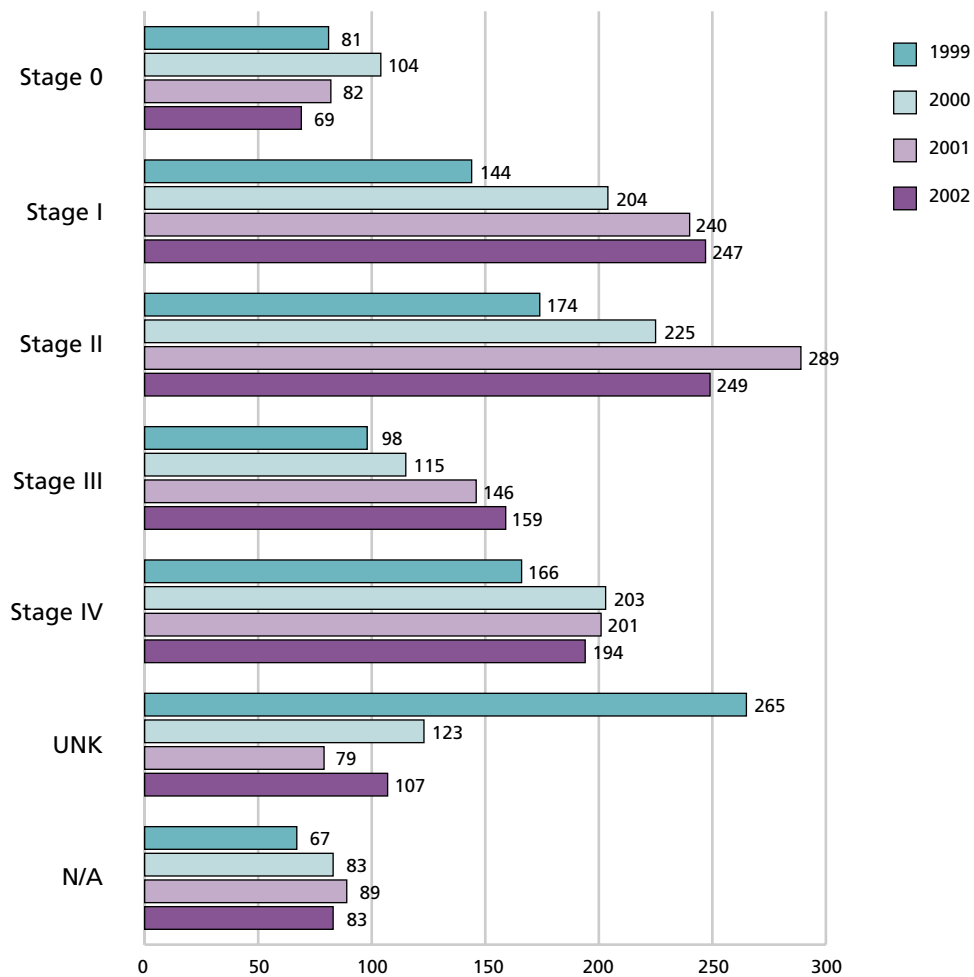


PRIMARY SITE DISTRIBUTION

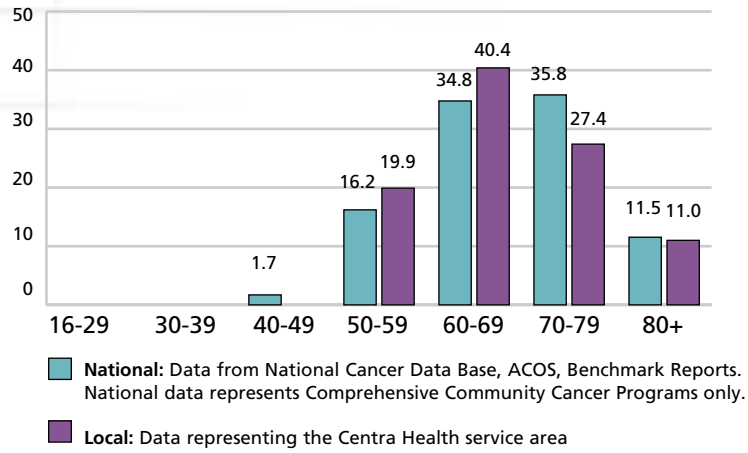
SITE	TOTAL	CLASS		SEX		STAGE						
		Analytic	Non-Analytic	M	F	0	I	II	III	IV	UNK	N/A
ALL SITES	1108	1053	55	511	597	69	247	249	159	194	107	83
Oral Cavity	17	16	1	12	5	1	5	1	2	7	1	0
Lip	5	5	0	3	2	1	3	1	0	0	0	0
Tongue	2	2	0	0	2	0	0	0	2	0	0	0
Oropharynx	0	0	0	0	0	0	0	0	0	0	0	0
Hypopharynx	0	0	0	0	0	0	0	0	0	0	0	0
Other	10	9	1	9	1	0	2	0	0	7	1	0
Digestive System	209	202	7	111	98	5	34	35	42	58	26	9
Esophagus	17	16	1	12	5	0	0	8	1	6	2	0
Stomach	12	11	1	5	7	0	0	1	2	4	3	2
Colon	96	93	3	48	48	3	18	15	30	23	6	1
Rectum	32	32	0	17	15	2	11	7	5	5	2	0
Anus	2	2	0	0	2	0	1	0	1	0	0	0
Liver	7	7	0	4	3	0	0	0	1	3	3	0
Pancreas	25	23	2	13	12	0	3	2	0	12	8	0
Other	18	18	0	12	6	0	1	2	2	5	2	6
Respiratory System	202	200	2	117	85	0	35	12	62	83	9	1
Nasal/Sinus	0	0	0	0	0	0	0	0	0	0	0	0
Larynx	10	9	1	6	4	0	3	1	2	4	0	0
Lung/Bronchus	188	187	1	107	81	0	31	11	59	78	9	0
Other	4	4	0	4	0	0	1	0	1	1	0	1
Blood & Bone Marrow	38	32	6	19	19	0	0	0	0	0	0	38
Leukemia	18	16	2	8	10	0	0	0	0	0	0	18
Multiple Myeloma	11	9	2	7	4	0	0	0	0	0	0	11
Other	9	7	2	4	5	0	0	0	0	0	0	9
Bone	2	1	1	1	1	0	0	0	0	0	2	0
Connect/Soft Tissue	4	4	0	0	4	0	1	0	1	2	0	0
Skin	36	32	4	21	15	6	8	11	5	1	5	0
Melanoma	28	26	2	15	13	6	5	8	4	1	4	0
Other	8	6	2	6	2	0	3	3	1	0	1	0
Breast	229	224	5	0	229	37	91	63	14	9	15	0
Female Genital	77	73	4	0	77	5	35	9	12	11	4	1
Cervix Uteri	17	17	0	0	17	0	9	5	3	0	0	0
Corpus Uteri	34	34	0	0	34	0	24	3	1	2	3	1
Ovary	19	16	3	0	19	0	2	1	7	8	1	0
Vulva	4	3	1	0	4	3	0	0	1	0	0	0
Other	3	3	0	0	3	2	0	0	0	1	0	0
Male Genital	147	130	17	147	0	1	1	99	12	9	25	0
Prostate	146	129	17	146	0	0	1	99	12	9	25	0
Testis	0	0	0	0	0	0	0	0	0	0	0	0
Other	1	1	0	1	0	1	0	0	0	0	0	0
Urinary System	67	63	4	47	20	14	19	11	3	6	14	0
Bladder	48	45	3	35	13	12	11	10	1	1	13	0
Kidney/Renal	15	14	1	9	6	0	7	1	2	4	1	0
Other	4	4	0	3	1	2	1	0	0	1	0	0
Brain & CNS	15	14	1	8	7	0	0	0	0	0	0	15
Brain	14	13	1	8	6	0	0	0	0	0	0	14
Other	1	1	0	0	1	0	0	0	0	0	0	1
Endocrine	12	10	2	5	7	0	4	0	1	0	5	2
Thyroid	10	8	2	3	7	0	4	0	1	0	5	0
Other	2	2	0	2	0	0	0	0	0	0	0	2
Lymphatic System	40	39	1	18	22	0	14	8	5	8	1	4
Hodgkin's Disease	4	4	0	2	2	0	1	1	1	1	0	0
Non-Hodgkin's	36	35	1	16	20	0	13	7	4	7	1	4
Unknown Primary	13	13	0	5	8	0	0	0	0	0	0	13

This report excludes CA in-situ cervix cases, squamous and basal cell skin cases and intraepithelial neoplasia cases.

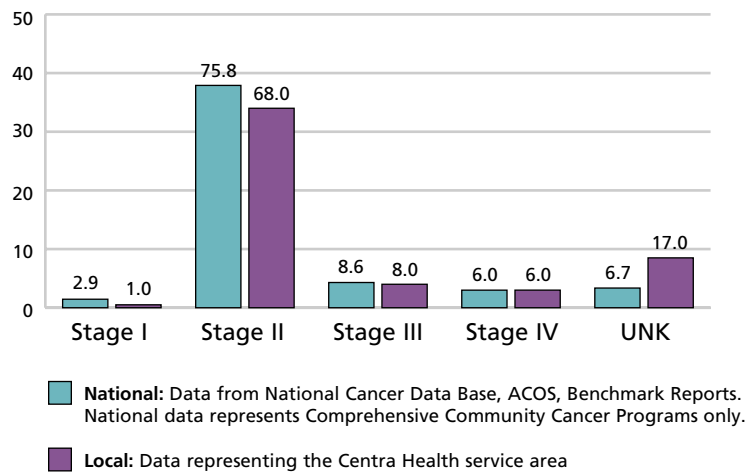
**AJCC STAGE AT
DIAGNOSIS**
NUMBER OF CASES
BY STAGE AND YEAR



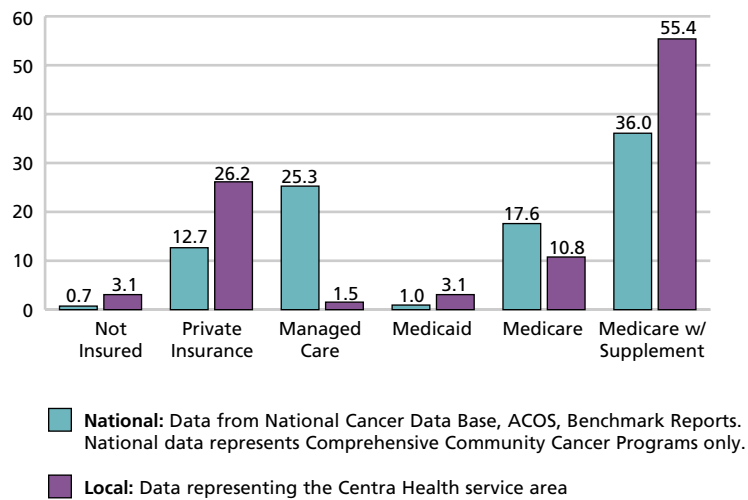
**PROSTATE CANCER
AGE AT DIAGNOSIS
NATIONAL VS. LOCAL
PERCENT OF CASES**



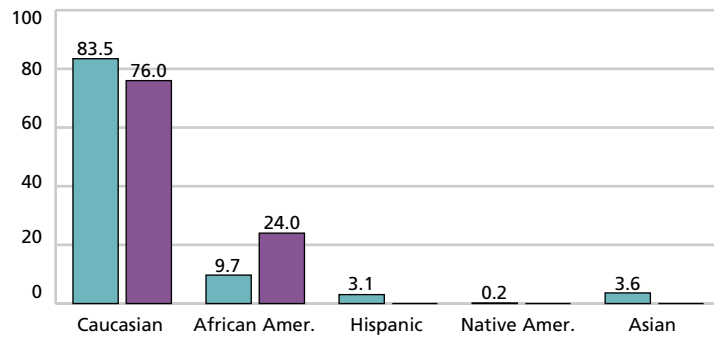
**PROSTATE CANCER
STAGE AT DIAGNOSIS
NATIONAL VS. LOCAL
PERCENT OF CASES**



**PROSTATE CANCER
INSURANCE DATA
NATIONAL VS. LOCAL
PERCENT OF CASES**



**PROSTATE CANCER
INCIDENCE BY RACE
NATIONAL VS. LOCAL
PERCENT OF CASES**



■ National: Data from National Cancer Data Base, ACOS, Benchmark Reports. National data represents Comprehensive Community Cancer Programs only.

■ Local: Data representing the Centra Health service area

**PROSTATE CANCER
FIVE-YEAR SURVIVAL
NATIONAL VS. LOCAL
SURVIVAL RATES BY
STAGE AT DIAGNOSIS**

Years Surviving	Stage I		Stage II		Stage III		Stage IV	
	National	Local	National	Local	National	Local	National	Local
1	95.9	90.9	97.7	100	98.0	100	80.2	100
2	91.1	81.8	94.7	98.1	95.1	100	63.1	80
3	86.6	72.7	91.3	96.2	92.1	88.8	52.0	60
4	81.6	63.6	87.8	96.2	88.2	77.7	43.6	50
5	76.7	54.5	94.1	92.2	84.4	65.8	38.2	37.5

Glossary of Terms

Analytic Case	Case first diagnosed and/or received all or part of the first course of treatment at a Centra Health facility. (Class 0, 1, 2)
Non-Analytic Case	Case diagnosed and received first course of treatment outside of Centra Health but currently receiving treatment through Centra Health. Also includes cases first diagnosed at autopsy.
Class of Case	<p>Class is assigned to all analytic cases and indicates where diagnosis and treatment occurred.</p> <p>Class 0: Diagnosed at Centra Health since 1995; all first course of treatment elsewhere</p> <p>Class 1: Diagnosed and received all or part of first course of treatment at Centra Health</p> <p>Class 2: Diagnosed elsewhere; received all or part of the first course of treatment at Centra Health.</p>
TNM Stage	<p>A system of classifying the spread or extent of disease at the time of diagnosis. Guidelines are dictated by the American Joint Committee on Cancer Staging System (AJCC) and are based on:</p> <ul style="list-style-type: none">T: Size and extent of tumorN: Involvement of regional lymph nodesM: Distant metastasis <p>The American College of Surgeons (ACOS) requires that a physician stage the “M” portion of the code as either “M0,” indicating no distant metastatic disease or “M1,” which indicates that there is distant metastasis.</p>
First Course of Treatment	A treatment plan that is determined immediately following initial diagnosis of cancer.
Subsequent Treatment	Any treatment administered after the failure of the first course of treatment.
Abstract	A summary or abbreviated record maintained in the Cancer Registry using the Electronic Registry Systems (ERS) database. The record contains the patient demographics and pertinent information regarding the diagnosis, treatment and disease process throughout the remainder of the patient’s life.
Cancer Registry	A sub-department of Cancer Care Services at Centra Health that identifies newly diagnosed cases of cancer and maintains the abstract. Data is reported to the State of Virginia and the National Cancer database. Cancer Registry staff also conduct yearly follow-up of all cases in the database, coordinate the weekly Cancer Conferences and work with physicians to provide data for special studies and presentations.



prevention

detection

treatment

cure

Centra Health
Cancer Care Services

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