

healing

ARTS IN CANCER CARE



ANNUAL REPORT 2011

{based on 2010 statistics}

Martha
Jefferson Cancer Care Center

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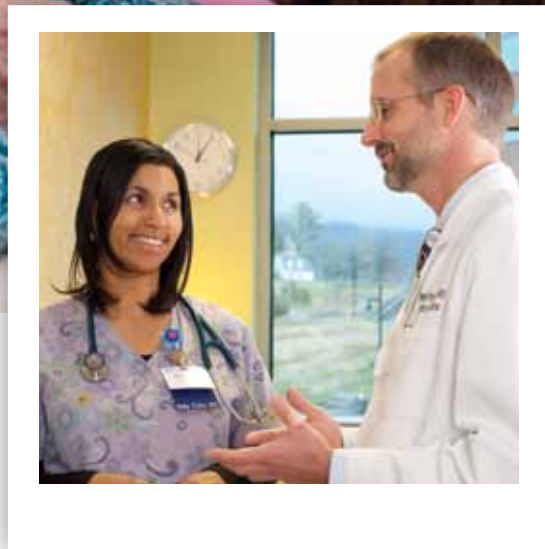
CANCER CENTER ANNUAL

overview

2011 was a very eventful year, culminating in the move to the beautiful new Phillips Cancer Center, featuring the same warm and welcoming Caring Tradition with dedicated, at-the-door parking and healing gardens. The move resulted in a greatly expanded infusion center, filled with color and sunlight, offering both private and open areas for enhanced comfort.



MARTHA JEFFERSON'S ANNUAL CELEBRATION OF LIFE EVENT BRINGS OUT HUNDREDS OF SURVIVORS, FRIENDS AND FAMILY EACH SPRING.



During the summer, just in time to make the move, Rob Pritchard, M.D. and Gordon Morris, M.D. welcomed Mark Prichard, M.D. to the Martha Jefferson Hematology Oncology practice.

Many enhancements occurred in Radiation Oncology in 2011. The stereotactic body radiotherapy program was expanded to include primary cancers of the pancreas and lung as well as metastatic cancers involving the liver, adrenal glands and bone. Fiducial marker protocols were put into practice for enhanced targeting precision. To increase protection of the heart for left-sided breast cancer patients receiving radiation therapy, a program of deep breath inspiration hold was implemented.

Our relocation allowed the acquisition of two new factory-matched Varian TrueBeam linear accelerators that provide higher quality imaging along with faster and even more precise treatment delivery for patients. As part of



the installation, an Aria island for imaging was added to facilitate our unique standard of physician pre-treatment review of targeting in real time — a practice that serves to prevent rather than correct targeting issues.

In Diagnostic Radiology, quality improvement focused on mammography. Computer assisted detection (CAD) was added as a double-check system, alerting physicians to areas of possible concern. Cross-training of the technical staff between mammography and ultrasound reduced wait times for diagnostic mammog-

raphy, enhancing patient comfort and decreasing anxiety.

The Cancer Committee, unfazed by the transition, continued to meet bimonthly and in September received its Commission on Cancer re-accreditation with five commendations: for outcomes analysis, for meeting National Cancer Data Base (NCDB) quality criteria, for meeting the College of Anatomic Pathologists guidelines, for its prevention and early detection programs and for cancer-related quality improvements.

The Cancer Committee chal-

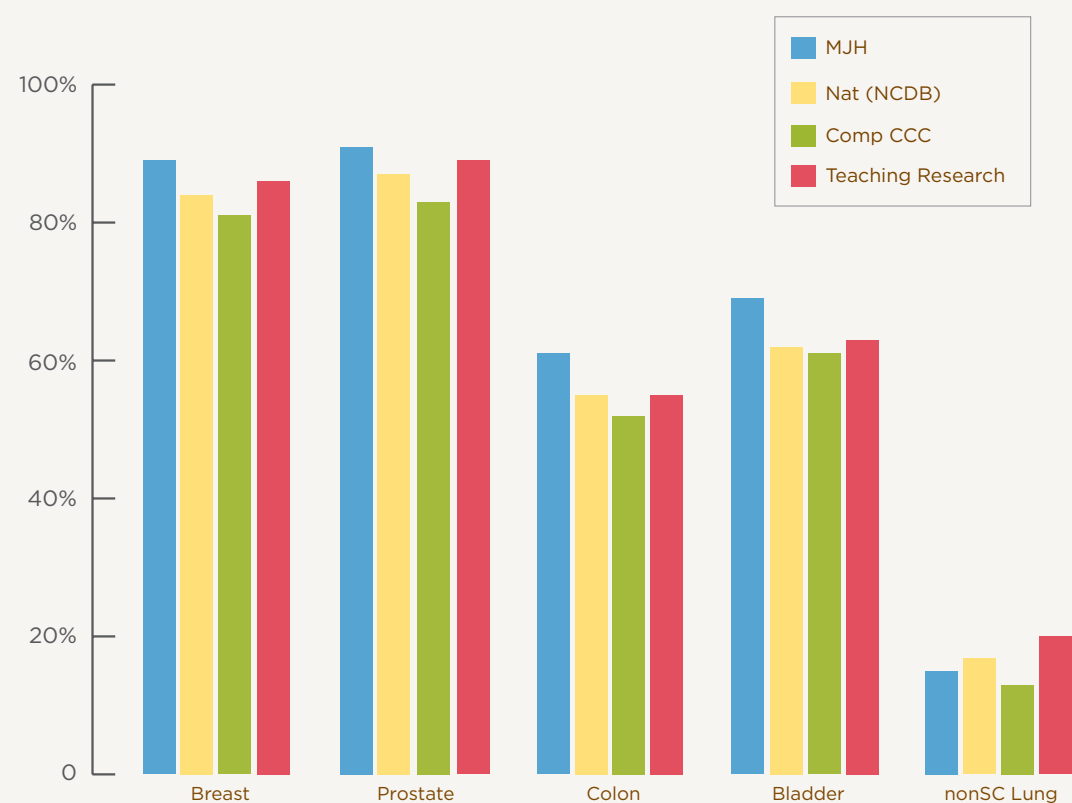
lenged the Cancer Conference to raise the number of cases presented at the weekly meeting, increasing to greater than fifteen per cent of all cancer cases diagnosed at Martha Jefferson. The Breast Cancer Conference presented over forty per

cent of all breast cancers diagnosed in 2011, with helpful oversight by the Breast Cancer Committee.

Due to staging changes implemented in 2003, outcomes data has a new platform. Therefore our five-year observed survival outcomes

can only be reported based on two years of diagnoses. Nonetheless, the outcomes remain higher than the national, comprehensive community cancer centers and teaching research hospitals in most categories. See Figure A below:

Figure A.
Observed 5-yr Survival Rates by Site based on Cases dx'd 2003-2004



2011 CANCER COMMITTEE MEMBERS

Robert S. Pritchard, MD, Medical Oncologist, Chair

Christopher Willms, MD, General and Thoracic Surgery, Cancer Liaison Physician

Joyce Agati Miller, PhD, Cancer Conference Coordinator, Cancer Program Manager

Maria Barnes, CTR, Quality of Cancer Registry Data Coordinator

Victoria Brunjes, BSN, RN, OCN, Cancer Resource Center Coor., Community Outreach Coor.

Kim Lavin, MSN, MPH, Performance Improvement, Quality Improvement Coordinator

Faye Satterly, BSN, RN, CRNI, Director, Cancer Services and Planetree

Maya Ghaemmaghmi, MD, Medical Oncologist

Laura Spinelli, MD, Pathologist

Patricia Mitchell, RN, Sr. Clinical Research Nurse

Jonathan Ciambotti, MD, Radiologist, Director of Radiology

Cynthia Spaulding, MD, Radiation Oncologist

Michele Howe, PT, CLT-LANA, Certified Lymphedema Therapist

Mina Ford, RN, MSN, AOCN

Setour Dillard, RN, OCN, Nurse Manager, Cornell 2

Janet Silvester, RPh, MBA, Director, Pharmacy and Emergency Services

Ann Atwell, MSW, Cancer Center Social Worker

Suzanne Hilton Smith, Chaplain



2011 BREAST CANCER COMMITTEE MEMBERS

Linda Sommers, MD, Breast Surgeon, Chair

John Jones, MD, Breast Surgeon

Maya Ghaemmaghmi, MD, Medical Oncologist

Victoria Vastine, MD, Reconstructive Surgeon

Joyce Agati Miller, PhD, Coordinator of Breast Cancer Committee, Cancer Program Manager

Patricia Mitchell, RN, Senior Clinical Research Nurse

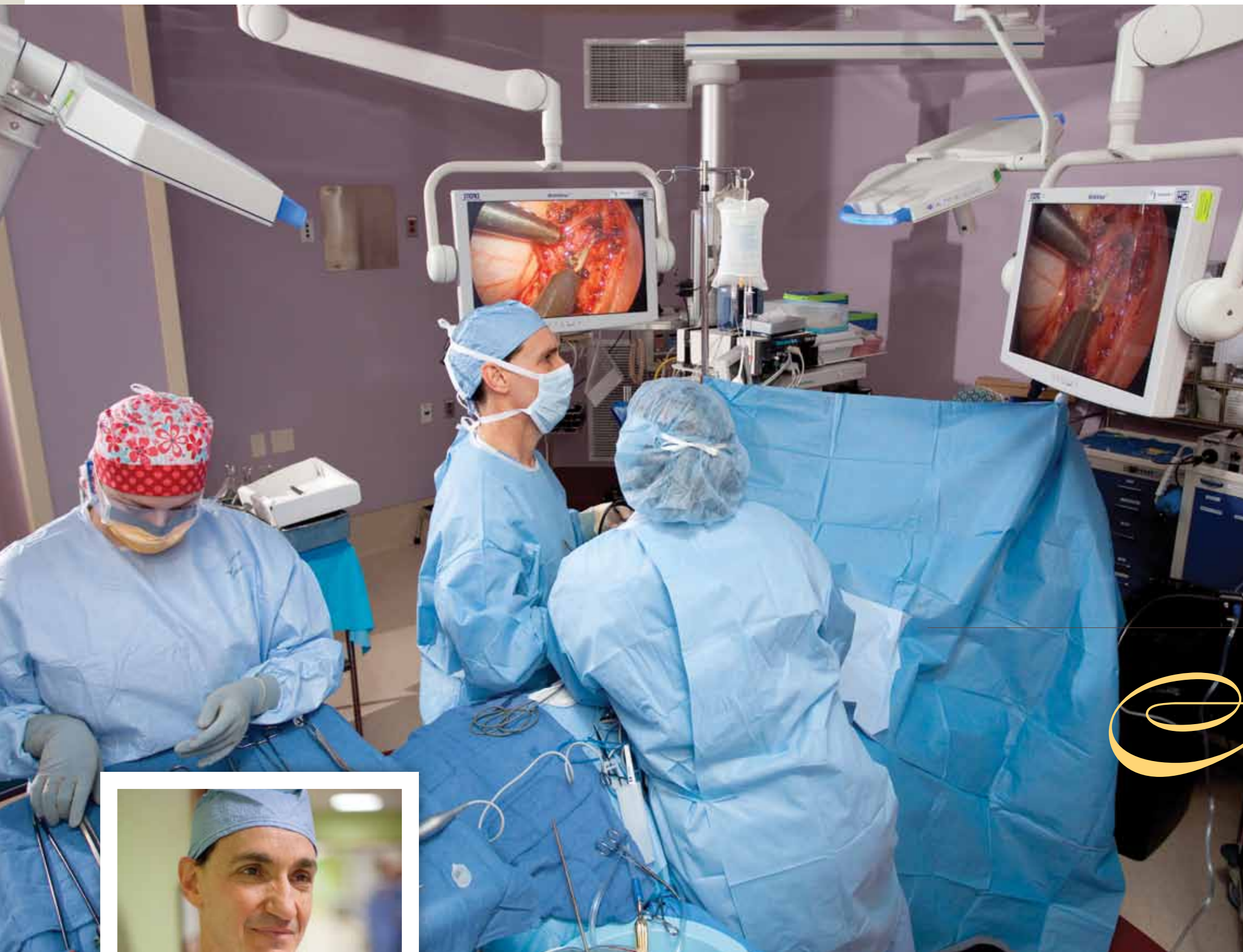
Robert S. Pritchard, MD, Medical Oncologist, Chair of Cancer Committee

Faye Satterly, RN, BSN, CRNI, Director, Cancer Care Center

Meg McIntire, OTL, CHT, CLT, Certified Hand and Lymphedema Therapist

Michele Howe, PT, CLT-LANA, Certified Lymphedema Therapist

LUNG CANCER *study*



Lung cancer remains the leading cause of cancer related deaths in the United States in both men and women. In fact, it kills more people than the next four leading causes of cancer combined, including colon, breast, prostate and rectal cancer. In 2010, almost 223,000 new cases of lung cancer were diagnosed in the United States. 5500 of these were in our own state of Virginia. The incidence rate has significantly declined in men over the past 20 years. In women, the rate has reached a plateau after a steady incline over the preceding several decades. We know lung cancer to be associated with cigarette smoking. However, the incidence of lung cancer in non-smoking women has seen a dramatic increase. Since 1987, more women have died from lung cancer each year than from breast cancer. Female lung cancer death rates continuously increased for several decades and then stabilized after 2003. These trends in lung cancer mortality reflect historical differences in cigarette smoking between sexes and the decrease in smoking rates over the past half century.

Besides cigarette smoking, other risk factors include cigar and pipe smoking, occupational or environmental exposure to second hand smoke, radon, asbestos, certain metals, some organic chemicals, radiation, air pollution and a history of tuberculosis. Genetic susceptibility also plays a role in the development of lung cancer, particularly those who develop it at an early age.

Earlier detection with CT lung cancer screening is gaining popularity to potentially detect it at an earlier stage and hopefully improve survival. New technologies are being developed to help in earlier detection and diagnosis as well. Current treatment therapies have become more effective and less invasive allowing treatment of some patients who were previously not healthy enough to tolerate it. Treatment options are determined by the type and stage of cancer. Martha Jefferson Hospital has state of the art medical imaging services and pathology services to aid in evaluation of the lung cancer patient.

At the Martha Jefferson Hospital we provide aggressive thoracic surgery for localized non-small cell lung cancers, which is usually the »

“MOST OF THE TIME THESE OPERATIONS ARE PERFORMED USING A MINIMALLY INVASIVE APPROACH...RETURNING PEOPLE TO THEIR LIFESTYLE MORE QUICKLY.”

—Chris Willms, MD, Board-Certified Thoracic Surgeon

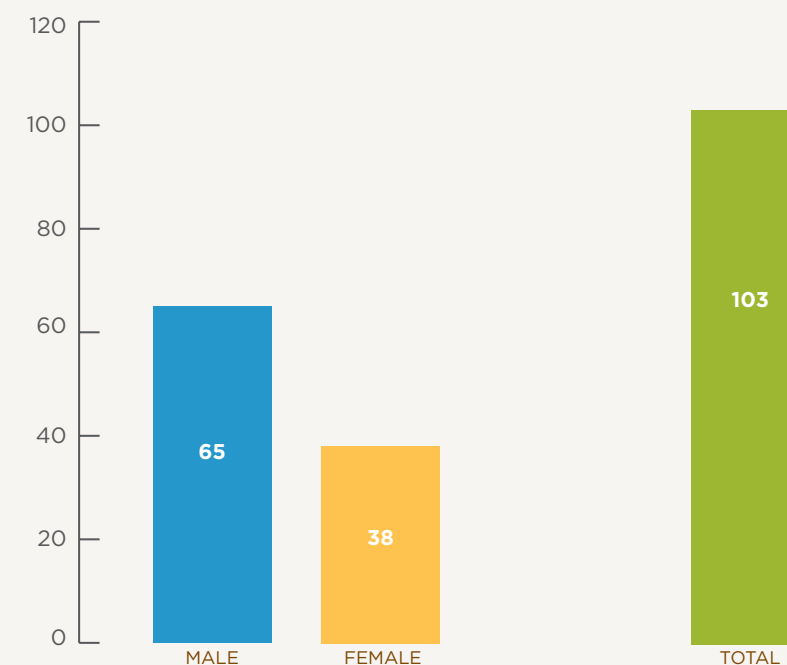
treatment of choice. Most of the time these operations are performed using a minimally invasive approach, minimizing pain and co-morbidities, shortening length of hospital stay and returning patients to their lifestyle more quickly. Targeted therapies such as bevacizumab and erlotinib are available through our medical oncologists, in addition to traditional chemotherapy. Often the disease has spread by the time it is discovered so that radiation therapy and chemotherapy are used, sometimes in combination with surgery. When appropriate, stereotactic body radiation therapy or percutaneous ablative therapy may be used for treatment. New technologies using endoscopic techniques are being acquired to evaluate lung nodules and lymph nodes and aid in diagnosis, staging and treatment. Electromagnetic navigational bronchoscopy can be used to place fiducial markers to direct radiotherapy as well. Many patients are discussed at Martha Jefferson Hospital cancer confer-

ence, allowing multidisciplinary discussion and collaboration of treatment among different medical specialists.

In order to assess the outcomes of our non-small cell lung cancer patients, we evaluated the observed five-year survival rate for patients diagnosed between 2003 and 2004 and then compared them with the latest state and national data reported by the National Cancer Center Database/ Commission on Cancer. These 103 patients diagnosed with non-small cell lung cancer and treated at Martha Jefferson Hospital had a five-year observed survival rate of only 15 percent, similar to state (16 percent) and national (17 percent) five-year survival rates. At five years there seems to be a slightly lower survival rate at the Martha Jefferson and in the state of Virginia compared with the National Cancer Data Base. It could be surmised that this is related to Virginia being a tobacco growing state and having a higher prevalence of lung cancer risk in general.

There continues to be more men (63 percent) than women (37 percent) diagnosed with non-small cell lung cancer at the Martha Jefferson Hospital (Figure 1).

Figure 1. Diagnosis by Sex in 2003-04



The distribution of patient ages at the time of diagnosis is shown in Figure 2. This confirms the known age related increase in the incidence of the disease.

Figure 2. Age at Diagnosis 2003-04

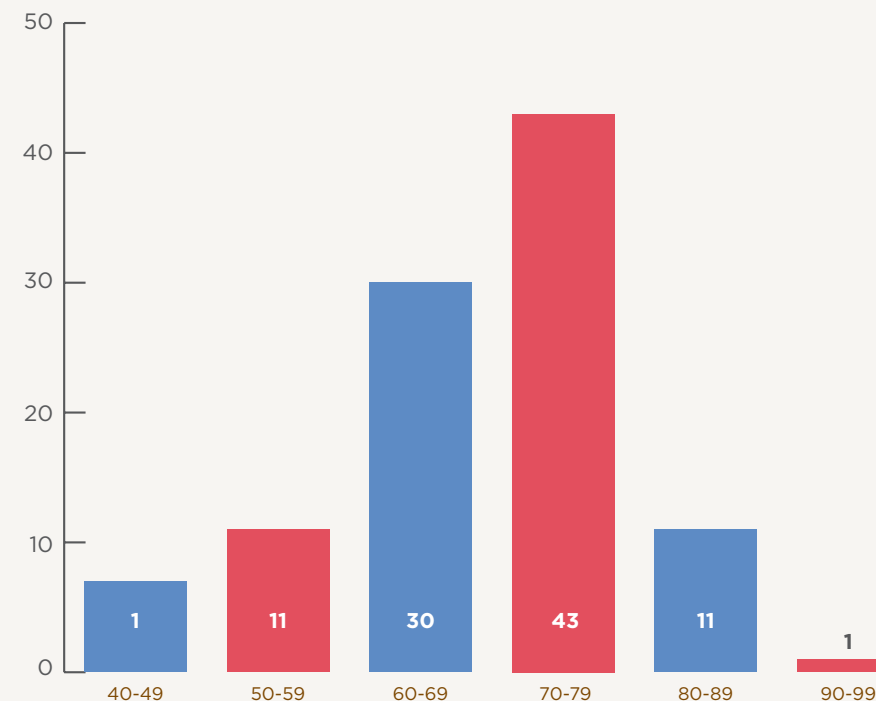


Figure 3 shows the distribution of stages for the 103 patients diagnosed with non small cell lung cancer at Martha Jefferson Hospital in 2003 and 2004: 16 percent were diagnosed with stage I disease, 6 percent stage II, 23 percent stage III and 55 percent stage IV. These statistical numbers are similar to national and Virginia state representative samples drawn from comprehensive community cancer centers as reported to the National Cancer Data Base (NCDB).

Figure 3. Stage at Diagnosis 2003-04

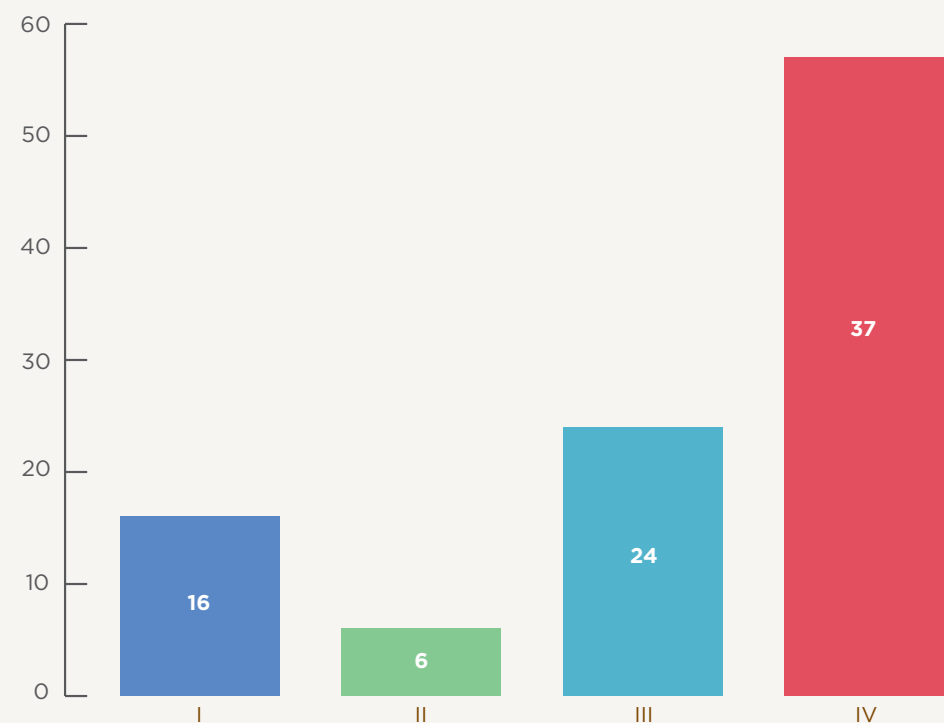


Figure 4. Treatment Modality for cases dx'd 2003-04

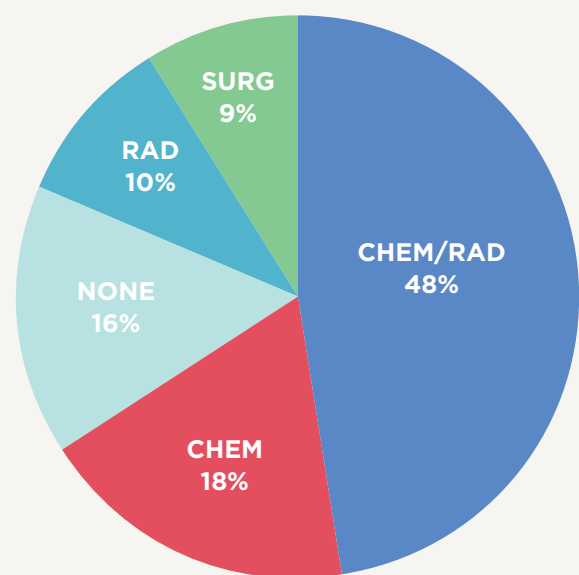
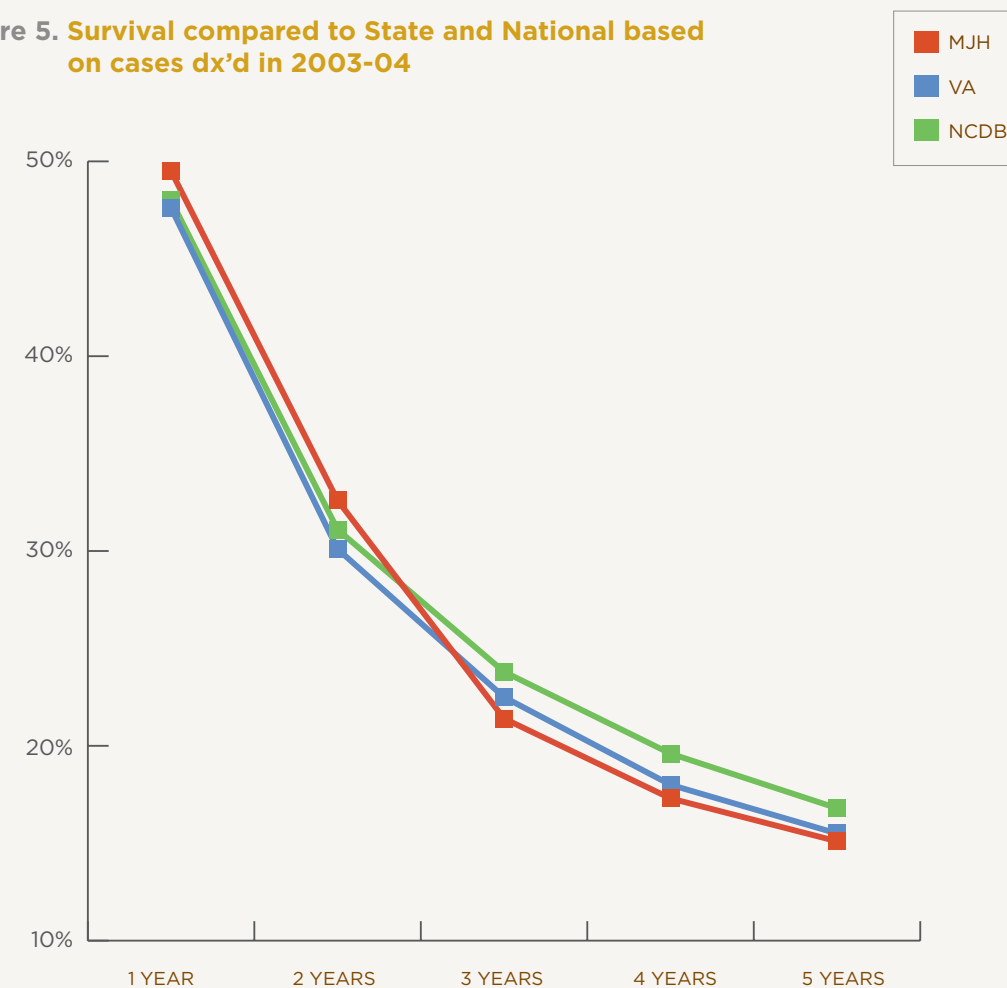


Figure 4 illustrates the breakdown of treatment by modality for the non small cell lung cancer patients diagnosed at Martha Jefferson Hospital in 2003 and 2004. There is a clear predominance of multimodality delivery of care. The smaller number of patients treated with surgery alone reflects the lower number of patients with lung cancer detected at an early stage.

Figure 5 compares the five-year survival rates for patients diagnosed and treated at Martha Jefferson Hospital to patients diagnosed and treated at other Virginia hospitals and nationally. Overall survival is in line with state and national statistics.

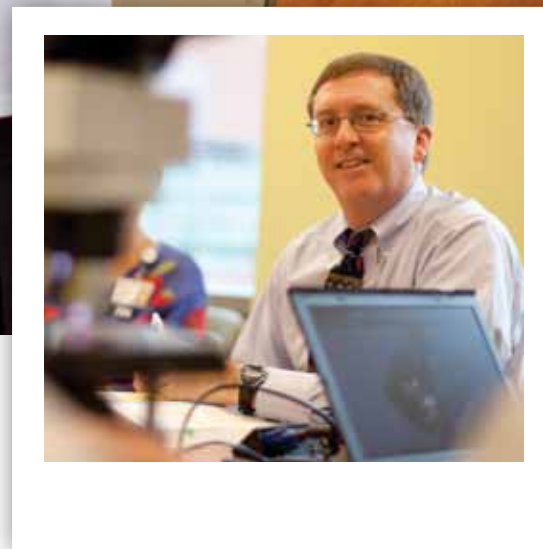
Figure 5. Survival compared to State and National based on cases dx'd in 2003-04



Source: NCDB, Commission on Cancer, ACoS/ACS Survival Reports, v2.0 - December 23, 2011

Efforts are continually being made to bring the most advanced lung cancer care to patients at Martha Jefferson Hospital. We are now working on developing a lung cancer CT screening program as well as acquiring new technologies to diagnose, stage and treat lung cancer earlier. As we know, the best chance of cure for lung cancer is early detection. This allows it to be treated at an earlier stage, thereby improving survival. Providing these state of the art technologies to our patients is in keeping with our Caring Tradition.

PRIMARY SITE TABULATION FOR 2010 CASELOAD



“A MAJOR EMPHASIS OF THE CANCER PROGRAM AT MARTHA JEFFERSON HOSPITAL IS ON THE COMPREHENSIVE AND MULTIDISCIPLINARY CARE OF PATIENTS.”

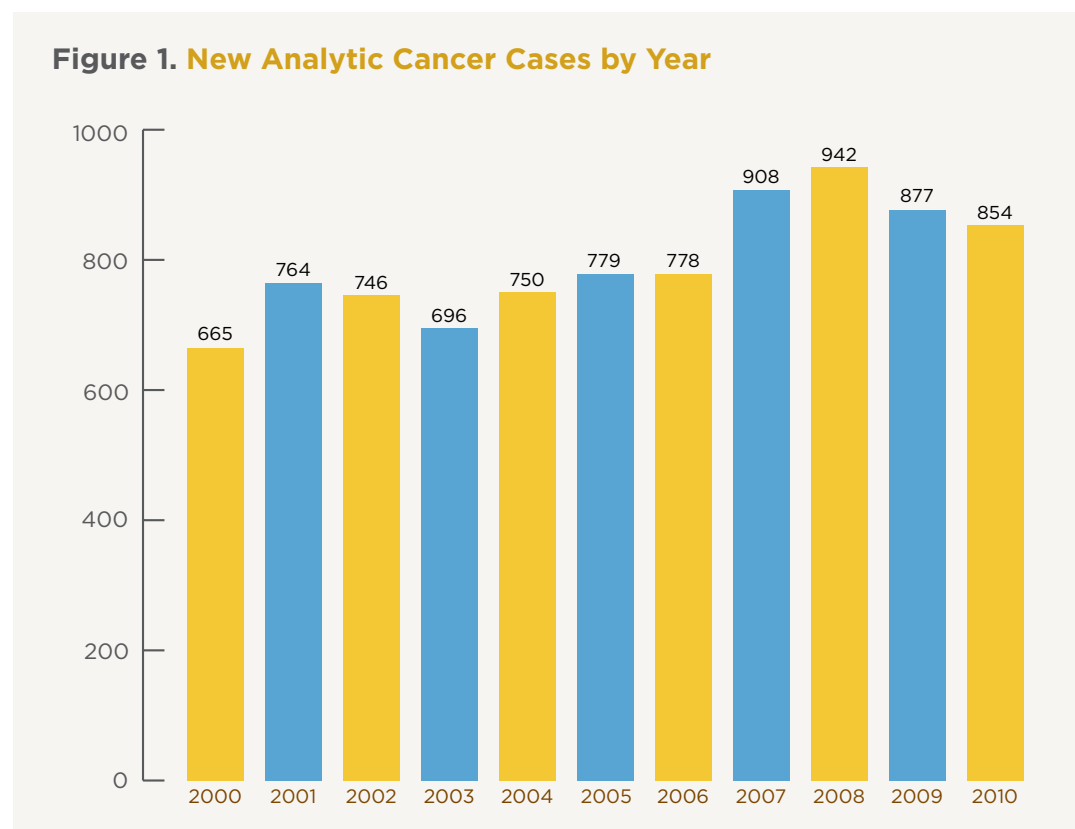
—Rob Pritchard, MD

PRIMARY SITE	TOTAL	CLASS		SEX		AJCC STAGE GROUP						
		A	N/A	M	F	0	I	II	III	IV	UNK	N/A
All Site	1059	854	205	508	551	163	265	201	101	145	116	64
Oral Cavity	18	16	2	12	6	0	5	1	2	5	4	1
Lip	6	5	1	6	0	0	3	0	0	0	3	0
Tongue	4	4	0	2	2	0	1	1	1	0	1	0
Oropharynx	1	1	0	0	1	0	1	0	0	0	0	0
Other	7	6	1	4	3	0	0	0	1	5	0	1
Digestive System	167	156	11	80	87	8	27	27	37	42	20	6
Esophagus	14	14	0	12	2	0	1	3	2	8	0	0
Stomach	13	11	2	3	10	0	1	2	3	1	5	1
Colon	73	69	4	32	41	7	13	16	21	13	3	0
Rectum	23	19	4	17	6	1	7	2	5	5	3	0
Anus/anal canal	0	0	0	0	0	0	0	0	0	0	0	0
Liver	8	8	0	5	3	0	3	1	1	0	1	2
Pancreas	23	22	1	6	17	0	1	1	4	12	5	0
Other	13	13	0	5	8	0	1	2	1	3	3	3
Respiratory System	129	124	5	65	64	2	23	12	24	61	7	0
Nasal/Sinus	1	1	0	0	1	0	1	0	0	0	0	0
Larynx	9	9	0	8	1	2	1	1	0	5	0	0
Lung/Bronchus	119	114	5	57	62	0	21	11	24	56	7	0
Other	0	0	0	0	0	0	0	0	0	0	0	0
Blood & Bone Marrow	28	21	7	15	13	0	0	0	0	0	1	27
Leukemia	17	14	3	12	5	0	0	0	0	0	0	17
Multiple Myeloma	4	3	1	0	4	0	0	0	0	0	1	3
Other	7	4	3	3	4	0	0	0	0	0	0	7
Bone	0	0	0	0	0	0	0	0	0	0	0	0
Connect/Soft Tissue	4	4	0	1	3	0	1	0	0	1	1	1
Skin	129	27	102	75	54	43	43	11	1	2	29	0
Melanoma	127	26	101	74	53	43	42	11	1	2	28	0
Other	2	1	1	1	1	0	1	0	0	0	1	0
Breast	218	208	10	3	215	62	74	49	12	3	18	0
Female Genital	45	33	12	0	45	10	18	1	4	5	7	0
Cervix Uteri	7	5	2	0	7	3	2	0	0	0	2	0
Corpus Uteri	22	15	7	0	22	1	16	0	1	1	3	0
Ovary	8	7	1	0	8	0	0	0	2	4	2	0
Vulva	5	3	2	0	5	5	0	0	0	0	0	0
Other	3	3	0	0	3	1	0	1	1	0	0	0
Male Genital	156	111	45	156	0	0	42	83	7	6	18	0
Prostate	149	104	45	149	0	0	36	82	7	6	18	0
Testis	6	6	0	6	0	0	6	0	0	0	0	0
Other	1	1	0	1	0	0	0	1	0	0	0	0
Urinary System	76	75	1	61	15	38	19	6	3	4	5	1
Bladder	54	53	1	45	9	34	11	5	1	1	1	1
Kidney/Renal	17	17	0	11	6	0	8	1	2	3	3	0
Other	5	5	0	5	0	4	0	0	0	0	1	0

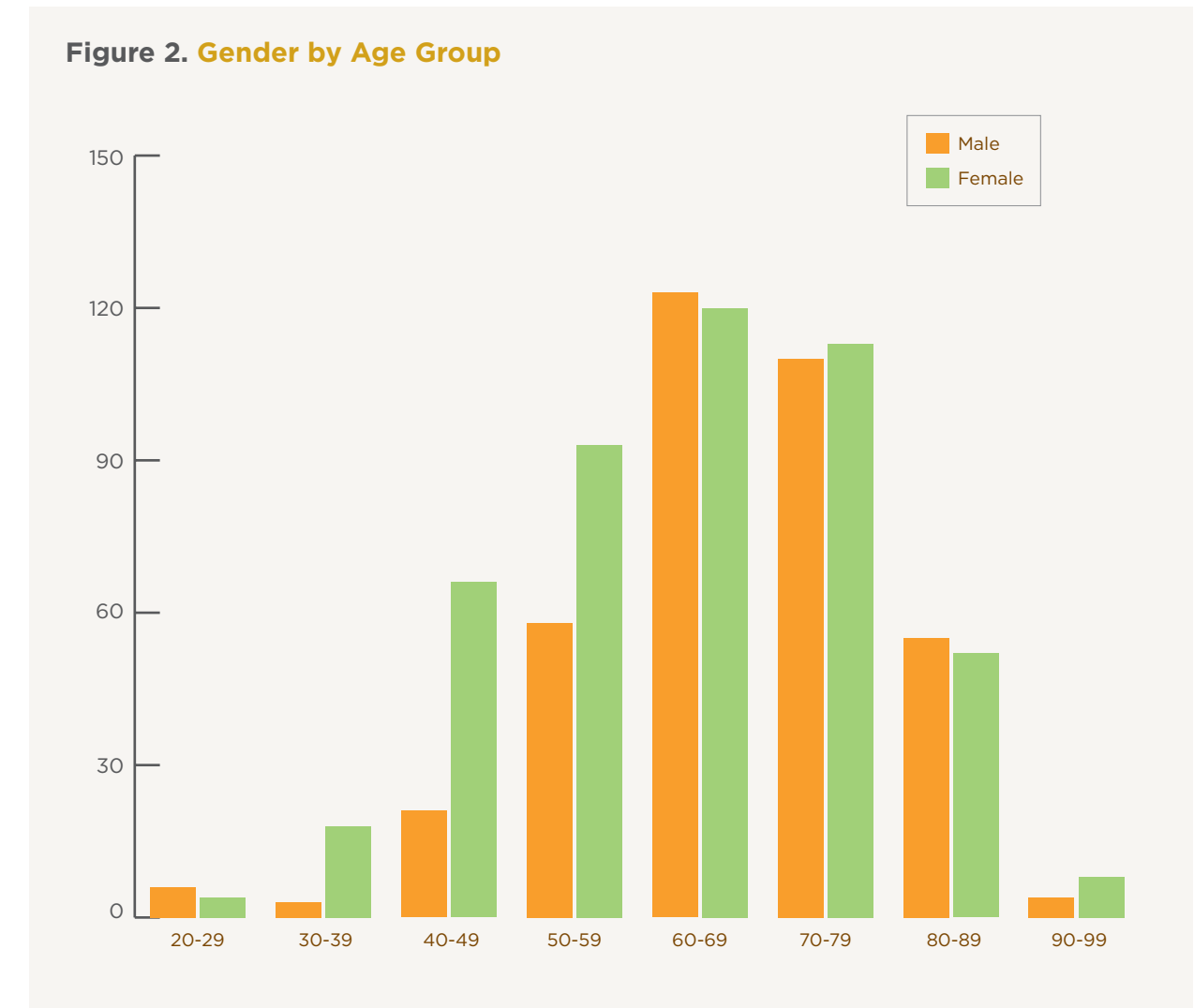
PRIMARY SITE	TOTAL	CLASS		SEX		AJCC STAGE GROUP						
		A	N/A	M	F	0	I	II	III	IV	UNK	N/A
All Site	1059	854	205	508	551	163	265	201	101	145	116	64
Brain & CNS	9	9	0	4	5	0	0	0	0	0	0	9
Brain (Benign)	4	4	0	3	1	0	0	0	0	0	0	4
Brain (Malignant)	0	0	0	0	0	0	0	0	0	0	0	0
Other	5	5	0	1	4	0	0	0	0	0	0	5
Endocrine	16	13	3	4	12	0	6	1	1	1	5	2
Thyroid	14	11	3	2	12	0	6	1	1	1	5	0
Other	2	2	0	2	0	0	0	0	0	0	0	2
Lymphatic System	49	43	6	25	24	0	7	10	10	15	5	2
Hodgkin's Disease	4	4	0	2	2	0	0	1	2	1	0	0
Non-Hodgkin's	45	39	6	23	22	0	7	9	8	14	5	2
Unknown Primary	15	14	1	7	8	0	0	0	0	0	0	15
Other/ill-defined	0	0	0	0	0	0	0	0	0	0	0	0

Number of cases excluded: 1
This report EXCLUDES CA in-situ cervix cases, squamous and basal cell skin cases, and intraepithelial neoplasia cases

In 2010, a total of 1060 cases of cancer were registered at Martha Jefferson Hospital of which 854 were analytical cases. Analytical cases include patients who were diagnosed and/or received their first course of therapy at Martha Jefferson Hospital. This compares to 877 analytical cases in the previous year (Figure 1).

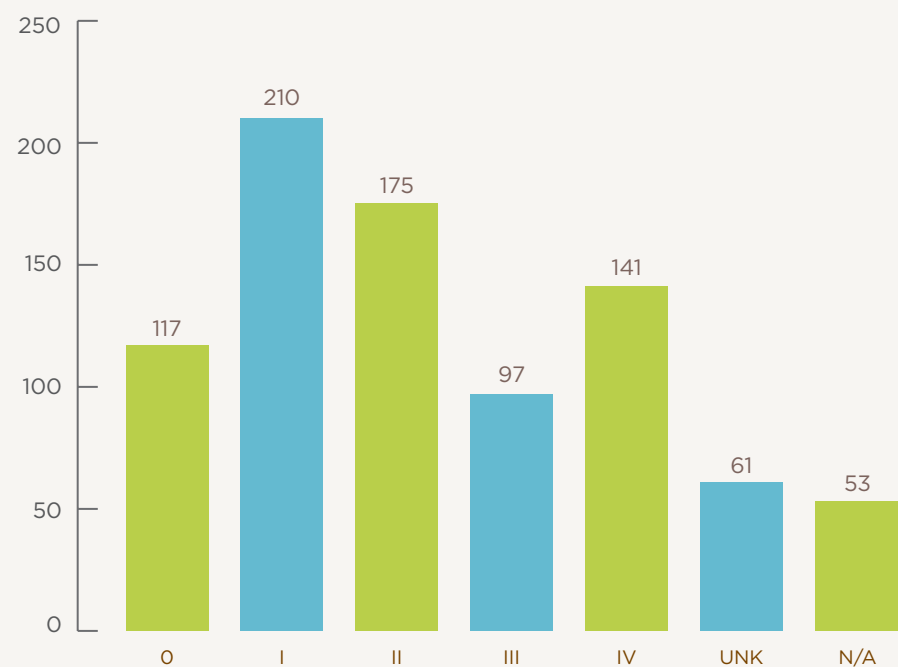


Cancer remains largely a disease of an aging population and the median age at diagnosis of patients at Martha Jefferson Hospital was about 68. Approximately two thirds of patients were aged 60 and older at the time of diagnosis; 40 percent were aged 70 and older (Figure 2). Among the analytic cases there were slightly more women than men.



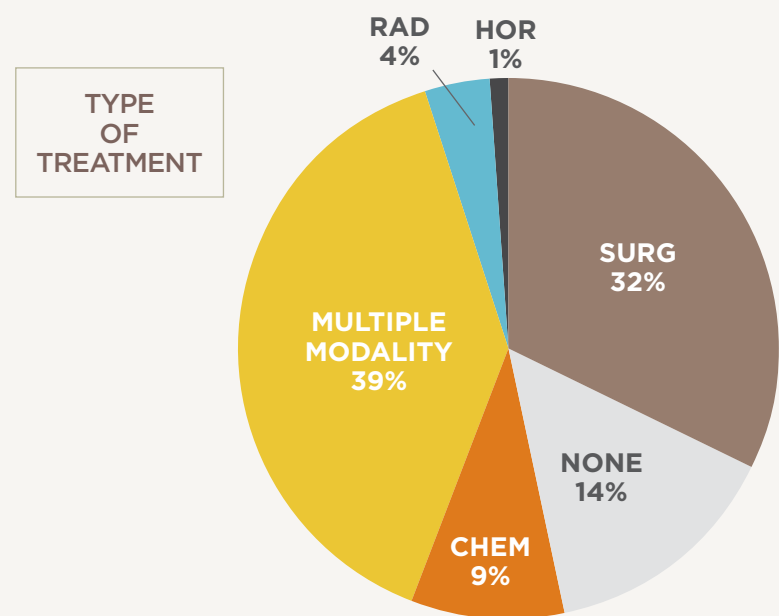
The most commonly treated cancers at the Martha Jefferson Hospital continue to reflect national trends. The four commonest cancer diagnoses in 2010, as in previous years, were cancers of the breast, lung, prostate and large intestine. Fifty-nine percent of patients were diagnosed with early stage disease (defined as stage 0, I, or II) when chance for cure is the greatest (Figure 3). Twenty-eight percent were diagnosed with locally advanced or metastatic disease.

Figure 3. TNM STAGE GRP Distribution Graph | 2010-CASES

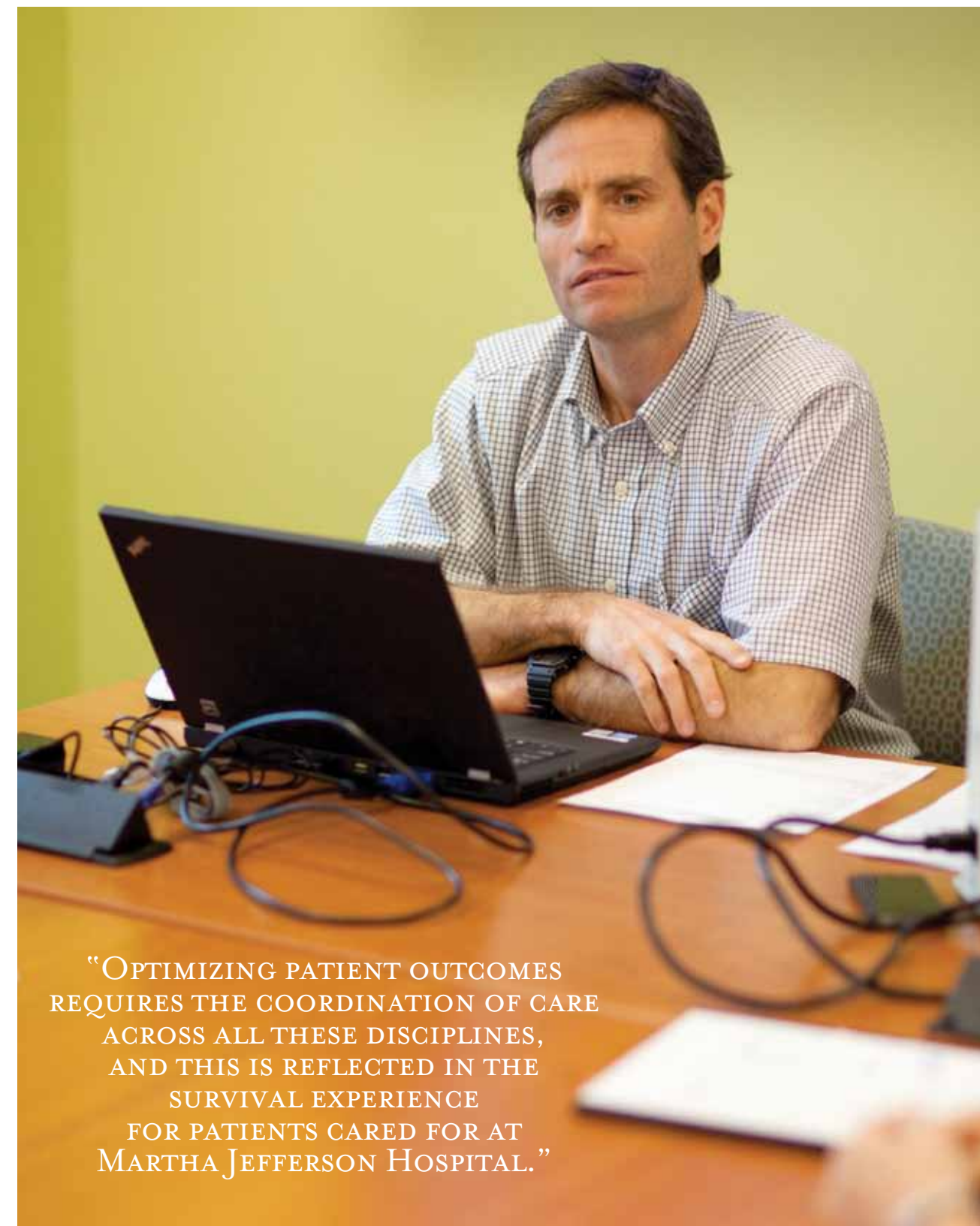


A major emphasis of the cancer program at Martha Jefferson Hospital is on the comprehensive and multidisciplinary care of patients. Nearly half of patients were treated with more than one modality including some combination of surgery, radiation treatment and chemotherapy.

Figure 4. RX Combination Graph | 2010 ANALYTIC CASES



Optimizing patient outcomes requires the coordination of care across these disciplines and this is reflected in the survival experience for patients cared for at Martha Jefferson Hospital. Overall survival rates for patients cared for at Martha Jefferson Hospital remains as good as and often better than state and national averages (see Figure A, page 4).



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CANCER CARE AT MARTHA JEFFERSON HOSPITAL

Making a difference through personal

philanthropy

Philanthropy at Martha Jefferson Cancer Center helps support our mission and the exceptional, compassionate care given to each patient. Whether supplementing our technological resources or our softer services, philanthropy provides programs that facilitate patient comfort during challenging times.

Massage therapy may seem like a spa luxury, but for our patients undergoing cancer treatment, it is an integral and reassuring part of their care. Intended to enhance relaxation and an overall sense of well-being, seated massage, given by a certified massage therapist, is available to our patients three days a week. More than 1200 complimentary massages were given last year to grateful patients and/or their caregivers.

Palliative Care is another program supported by philanthropy. This consultative service helps provide relief of troubling symptoms for patients suffering chronic or advanced illness. Palliative Care does not replace other medical treatment, but rather is given simultaneously, and unlike hospice, is not restricted to the last six months of life. It addresses a variety of physical, emotional and spiritual needs including assistance with difficult conversations.

For all of our services, and especially Cancer Care, patient comfort is essential to achieving the best possible outcomes. Through the support offered by our community, we are able to provide personalized care and help our patients truly *feel* better.




“ANYONE WHO HAS STRUGGLED WITH A SERIOUS ILLNESS OR SEEN A LOVED ONE SUFFER CAN UNDERSTAND HOW VITAL PALLIATIVE CARE SERVICES ARE TO OUR PATIENTS—SERVICES IN LARGE PART MADE POSSIBLE BY THE UNWAVERING SUPPORT OF OUR COMMUNITY.”

To make your gift in support of Cancer Care at Martha Jefferson Hospital, or to make a gift in honor of special friend, family member or valued caregiver, contact the Foundation office at (434) 654-8258 or visit us online at www.mjhfoundation.org



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