St. Elizabeth's Medical Center
A STEWARD FAMILY HOSPITAL

Cancer Program Annual Report 2011–2012

Cancer Program and Cancer Registry
Prepared by the Cancer Care Committee

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CANCER CARE COMMITTEE
CHAIRMAN'S REPORT
2011

In 2011, the Cancer Care Committee continued to oversee all aspects of the Cancer Program at St. Elizabeth's Medical Center. St. Elizabeth's received three-year approval as a Teaching Hospital Cancer Program from the Commission on Cancer of the American College of Surgeons in 2010. At that time, our program had no deficiencies and received commendations in four areas. As we prepare for our next survey in Spring 2013, the committee is working to ensure continued success.

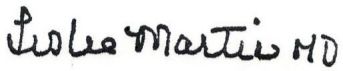
One highlight of 2011 was the opening of our brand new, state-of-the-art Radiation Oncology Center in the Connell Building. Patients and families are very pleased with the warm atmosphere and excellent care they receive. The facility has the most up-to-date equipment (Varian 2300) and the capability for Intensity-Modulated Radiation Therapy (IMRT).

Another highlight of the year was our affiliation with the Dana-Farber Cancer Institute (DFCI). Steward Medical Group and DFCI signed an agreement in July 2011, and the Medical Oncology faculty became employed by DFCI as of November 2011. As part of this affiliation, extensive renovation of the Outpatient Hematology/Oncology treatment area and implementation of the MOSAIQ electronic medical record system have been planned for 2012. All policies, procedures, and treatment protocols will be aligned with those at DFCI. Patients will have greater access to clinical trials and will be able to go back and forth from St. Elizabeth's to DFCI easily. The affiliation also provides opportunities for collaboration on research projects and elective rotations for our fellowship trainees to enhance their education.

The Division of Hematology/Oncology remains committed to clinical trials. In 2011, 128 patients participated in trials. Janet LaPointe, RN, and Wendy Loeser, RN, work in the Clinical Trials Office and are dedicated to their work and to the improvement in cancer treatments. Press Ganey surveys from patients receiving cancer care at St. Elizabeth's report very high satisfaction rates.

As in previous years, I thank all the Cancer Care Committee members for their ideas, hard work, and contributions. Their commitment to the provision of the highest quality of cancer care is strong. I also thank Daria James, CTR, and Laurie MacDougall, CTR, for their hard work and commitment.

Respectfully submitted,



Leslie A. Martin, MD
Chair, Division of Medical Oncology
Chair, Cancer Care Committee

CANCER CARE COMMITTEE

The Cancer Care Committee at St. Elizabeth's Medical Center (SEMC) is composed of specialists in all areas dealing with cancer. The committee, which includes both physician and non-physician members, meets four to six times a year. Its agenda includes reviewing all cancer-related activities at SEMC, as well as overseeing the multidisciplinary care of cancer patients in the institution. As required by the American College of Surgeons/Commission on Cancer, the committee provides leadership and is responsible for various activities that are aimed at the improvement of the delivery of cancer patient care. Some of these activities include patient care evaluation studies, performance improvement projects, cancer conferences, and the ongoing use of the cancer registry data. The Cancer Care Committee is considered the cornerstone and most important component of an Approved Hospital Cancer Program.

The following were members of the Cancer Care Committee in 2011:

Chairperson: Leslie A. Martin, MD, *Medical Oncology*

Daria James, CTR, *Cancer Coordinator*
Mark Amster, MD, *Dermatology*
Timothy Anderson, MD, *Cardiothoracic Surgery*
Sarah Clancey, *Pastoral Care*
Caryl Diengott, MSW, *Social Services*
Paul Fallon, MD, *Primary Care*
Sarah Francis, *Medical Oncology Administrative Director*
Martin Goldberg, RPh, *Pharmacy*
Nanyamka Hales, *American Cancer Society*
Janet LaPointe, RN, *Medical Oncology*
Lily Lawn-Tsao, MD, *Radiation Oncology*
Fran Leonard, RN, ONC, *Oncology*
Patricia Masters, RPh, *Pharmacy*
Suzanne Markwarth, RN, *Nurse Navigator, Hematology/Oncology*
Claire Melvin, RN, *Performance Improvement*
Sharon Memolo, RPT, *Rehabilitation Services*
Asif Merchant, MD, *Geriatric and Palliative Care*
Allison Morse, RNNP, *GYN Oncology*
Gordon Novak, MD, *Pain Clinic*
Sue O'Connor, RN, *Surgical Oncology*
Kevin O'Donnell, MD, *Surgery*
Robin Pelletier, RN, *Steward Hospice*
Sheila Quinn, *Director of Mission and Community Partnerships*
David Ricklan, MD, *Pathology*
Rebecca Schwartz, MD, *Radiology*
Michael Steller, MD, *GYN Oncology*
Alicia Taylor, RN, OCN, *Oncology Patient Care Director*
Ingolf Tuerk, MD, *Urology*
Ray Wilburn, *Director of Radiology*
Anisha Varma-Wilson, MD, *Gastroenterology*
Denise Wilson, RN, *Performance Improvement*
Gail Wolfe, MD, *Pathology*

The Cancer Care Committee met six times in 2011:
January 26, March 9, May 11, July 13, September 14, and November 9.

CANCER REGISTRY REPORT

St. Elizabeth's Medical Center Cancer Registry is a data system designed for the collection, management, and analysis of data on persons with a diagnosis of a malignant disease. Data is also maintained on several benign brain and central nervous system tumors as well as other diagnoses that are on a list of "Reportable Diagnosis" recommended by the Cancer Care Committee and the Massachusetts Cancer Registry (MCR). The Cancer Registry assists the Cancer Care Committee in setting the goals of education, lifetime follow-up of the cancer patient, and research. The ultimate goal of the Cancer Registry is to provide the medical staff at St. Elizabeth's Medical Center with the data that will enable them to assess the results of their diagnostic and therapeutic efforts, therefore providing quality care of the cancer patient.

In 2011, the Cancer Registry at St. Elizabeth's Medical Center abstracted 907 new cases of cancer, 855 (95%) of which were analytic and 52 (5%) of which were non-analytic. Analytic cases provide us with the most accurate data, and they are the cases used when we complete studies for the American College of Surgeons/Commission on Cancer (ACoS/CoC). Non-analytic cases are cases that were originally diagnosed and received all first course of treatment elsewhere and were seen here at the time of persistent, recurrent, or metastatic disease.

The major sites seen at SEMC in 2011 were prostate, lung, breast, endometrial, and bladder cancers. Most of these cases came from surrounding areas, with the majority coming from the Allston/Brighton area.

This year, the Cancer Committee elected to review breast cancers from 2001-2011 for our annual long-term comparison study. In addition, the Cancer Registry continued to receive many requests from physicians, residents, and outside organizations such as the Boston University School of Public Health. Many of these requests resulted in published papers or lectures using registry data.

As in any department, quality management plays an important role. Quality management is upheld with monthly physician chart review by members of the Cancer Care Committee and built-in software edits used by the MCR and the National Cancer Data Base (NCDB) at the CoC. In addition, this year the registry volunteered to participate in the Rapid Quality Reporting System (RQRS) through the NCDB. RQRS is a reporting and quality improvement tool that provides real-clinical-time assessment of hospital adherence to National Quality Forum-endorsed quality of cancer care measures for breast and colorectal cancers. Monthly submissions began in March 2012.

As always, the focus of the Cancer Registry is to keep current with case abstracting and follow-up while continuously complying with the ACoS/CoC Standards. The registry continues to stage cancers with SEER, TNM, and Collaborative Staging. In the coming year the registry looks forward to the challenging changes in the cancer registry data collection.

Respectfully submitted,

Daria M. James, CTR
Cancer Coordinator

Figure 1. Analytic Cancer Cases, 2011: Comparison of Age at Diagnosis by Site

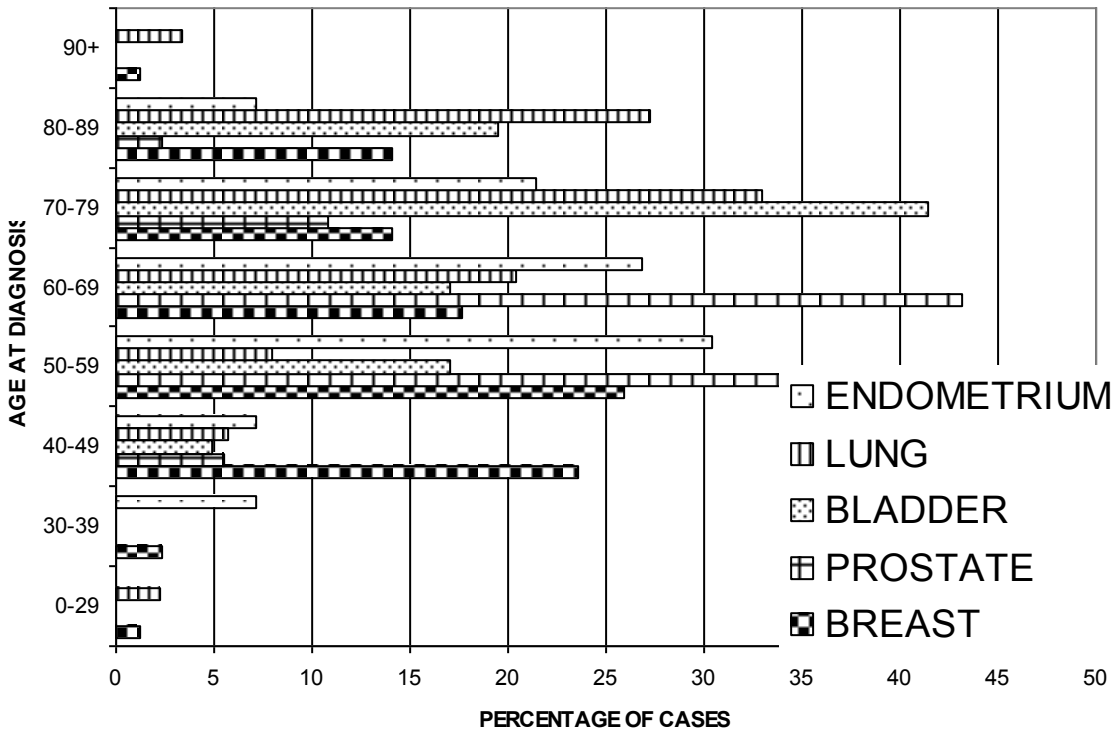


Figure 2. Analytic Cancer Cases, 2011: Comparison of Stage at Diagnosis by Site

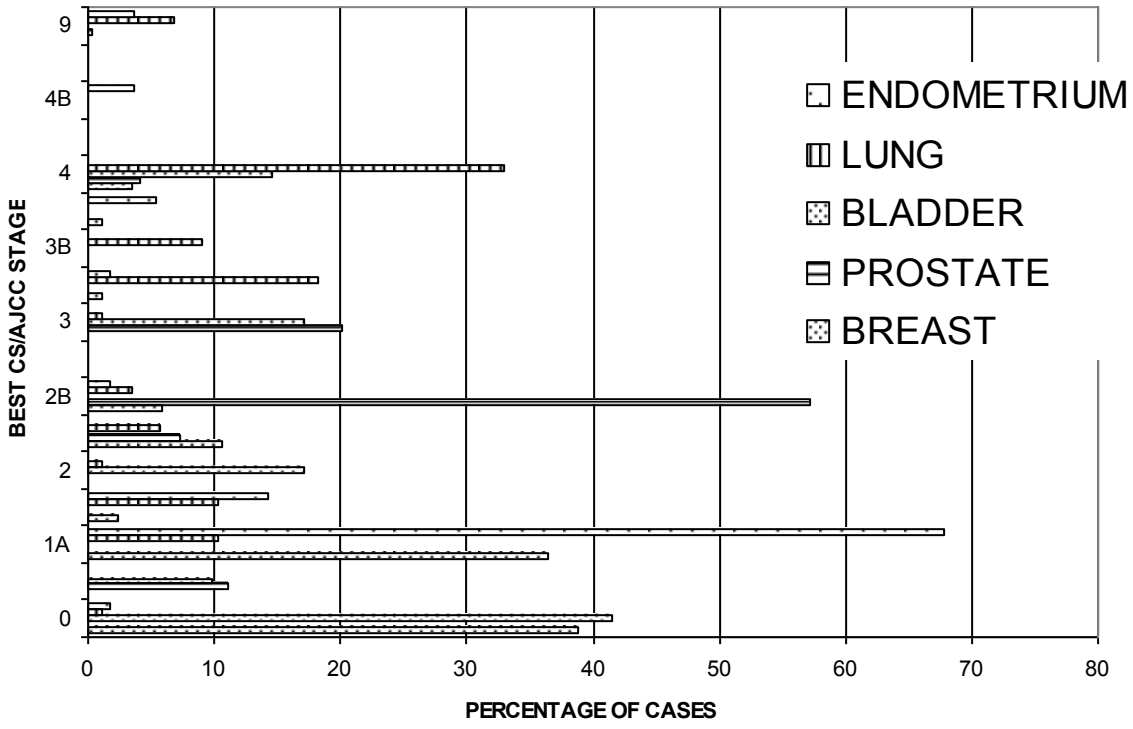


Table 1. Analytic Cancer Cases, 2011: Comparison of Initial Treatment by Site

Treatment	Breast (n=89)	Prostate (n=361)	Bladder (n=53)	Lung (n=93)	Endometrium (n=57)
SRG only	16.3%	86.6%	73.2%	22.7%	64.2%
RAD only		2.9%		12.5%	
CHEMO only				15.9%	1.8%
HRM only	3.5%				1.8%
IMMUNOTHERAPY only			2.4%		
NO TX/BX ONLY	10.5%	3.8%	2.4%	26.1%	5.4%
SRG CHEMO	4.6%		14.7%	2.3%	8.9%
SRG CHEMO HMN	1.2%				
SRG RAD	14.0%	0.9%			12.5%
SRG CHEMO IM			2.4%		
SRG IM			4.9%		
RAD CHEMO				20.5%	
RAD CHEMO HMN					
SRG RAD CHEMO HMN	8.1%				
SRG RAD CHEMO HMN IM	3.5%				
SRG RAD CHEMO IM	2.3%				
SRG RAD CHEMO	2.3%				5.4%
SRG RAD HMN	22.1%	0.6%			
HMN SRG	11.6%	2.3%			
HMN RAD		2.9%			

SRG = Surgery
RAD = Radiation
CHEMO = Chemotherapy
HMN = Hormone Therapy
IM = Immunotherapy

Table 2. Newly Diagnosed Cancer Cases by Site, 2011

Primary Site	#	%
ORAL CAVITY & PHARYNX	10	1.1%
Tongue	3	0.3%
Salivary Glands	2	0.2%
Floor of Mouth	1	0.1%
Gum & Other Mouth	1	0.1%
Oropharynx	1	0.1%
Hypopharynx	1	0.1%
Other Oral Cavity & Pharynx	1	0.1%
DIGESTIVE SYSTEM	86	9.5%
Esophagus	1	0.1%
Stomach	7	0.8%
Small Intestine	1	0.1%
Colon Excluding Rectum	32	3.5%
Cecum	7	
Appendix	1	
Ascending Colon	3	
Hepatic Flexure	3	
Transverse Colon	3	
Splenic Flexure	3	
Descending Colon	1	
Sigmoid Colon	11	
Rectum & Rectosigmoid	9	1.0%
Rectosigmoid Junction	3	
Rectum	6	
Anus, Anal Canal, & Anorectum	1	0.1%
Liver & Intrahepatic Bile Duct	5	0.6%
Gallbladder	5	0.6%
Other Biliary	2	0.2%
Pancreas	21	2.3%
Retroperitoneum	1	0.1%
Peritoneum, Omentum, & Mesentery	1	0.1%
RESPIRATORY SYSTEM	99	10.9%
Nose, Nasal Cavity, & Middle Ear	1	0.1%
Larynx	5	0.6%
Lung & Bronchus	93	10.3%
SOFT TISSUE	4	0.4%
Soft Tissue (including Heart)	4	0.4%
SKIN EXCLUDING BASAL & SQUAMOUS	75	0.8%
Melanoma - Skin	5	0.6%
Other Non-Epithelial Skin	2	0.2%
BREAST	89	9.8%
Breast	89	9.8%
FEMALE GENITAL SYSTEM	86	9.5%
Cervix Uteri	5	0.6%
Corpus & Uterus, NOS	57	6.3%
Ovary	15	1.7%
Vulva	9	1.0%

continued...

Table 2. Newly Diagnosed Cancer Cases by Site, 2011 *(continued)*

Primary Site	#	%
MALE GENITAL SYSTEM	364	40.1%
Prostate	361	39.8%
Testis	3	0.3%
URINARY SYSTEM	101	11.1%
Urinary Bladder	53	5.8%
Kidney & Renal Pelvis	43	4.7%
Ureter	4	0.4%
Other Urinary Organs	1	0.1%
BRAIN & OTHER NERVOUS SYSTEM	10	1.1%
Brain	7	0.8%
Cranial Nerves & Other Nervous System	3	0.3%
ENDOCRINE SYSTEM	7	0.8%
Thyroid	7	0.8%
LYMPHOMA	24	2.6%
Hodgkin Lymphoma	3	0.3%
Non-Hodgkin Lymphoma	21	2.3%
NHL - Nodal	11	
NHL - Extranodal	10	
MYELOMA	3	0.3%
Myeloma	3	0.3%
LEUKEMIA	7	0.8%
Lymphocytic Leukemia	1	0.3%
Myeloid & Monocytic Leukemia	6	0.7%
Acute Myeloid Leukemia	4	
Other Myeloid/Monocytic Leukemia	2	
MESOTHELIOMA	2	0.2%
Mesothelioma	2	0.2%
KAPOSI SARCOMA	1	0.1%
Kaposi Sarcoma	1	0.1%
MISCELLANEOUS	7	0.8%
Miscellaneous	7	0.8%
TOTAL	907	

A REVIEW OF BREAST CANCER DIAGNOSIS AND TREATMENT AT ST. ELIZABETH'S MEDICAL CENTER, 2001-2011

Between 2001 and 2011, 3,509 new cases of breast cancer were seen at St Elizabeth's Medical Center (SEMC). Of these, 543 patients (15%) had *in situ* cancers (DCIS) and 2,966 patients (85%) had invasive disease at diagnosis.

Figure 3 shows the distribution of age at diagnosis for patients diagnosed with *in situ* breast cancer at SEMC between 2001 and 2011, as compared with data from the National Cancer Data Base (NCDB). The peak incidence of DCIS at SEMC is during the sixth decade of life, with approximately 24% of cases being diagnosed between the ages of 50 and 59. A disproportionately higher percentage of SEMC patients are elderly (ages 70 and older) than nationally.

Figure 3. *In Situ* Breast Cancer, 2001-2011: Comparison by Age at Diagnosis

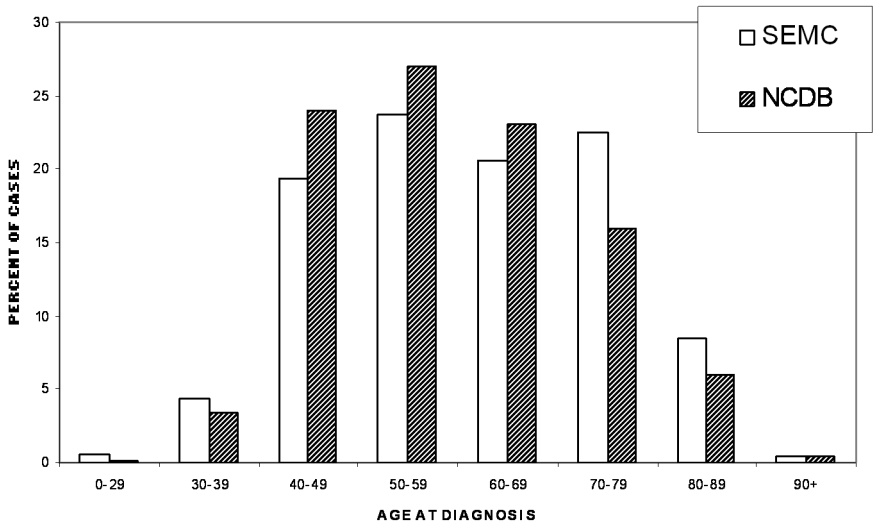


Figure 4 demonstrates the modalities used for the initial treatment of non-invasive cancer at our institution, in comparison with national averages. As seen in this figure, approximately 50% of cases with DCIS were treated with surgery alone, a figure that is slightly higher than the national average. This may be a reflection of the higher percentage of elderly patients with DCIS seen at our institution. Approximately 27% of patients received radiation as part of their treatment, a percentage that is lower than the national average. It is important to note that patients in the Greater Boston area have access to a number of medical facilities offering radiation treatment, and these data do not reflect patients who received treatment elsewhere. Therefore, it is likely that a greater percentage of patients receive radiation than is reflected here.

Figure 4. *In Situ* Breast Cancer, 2001-2011: Comparison by Initial Treatment

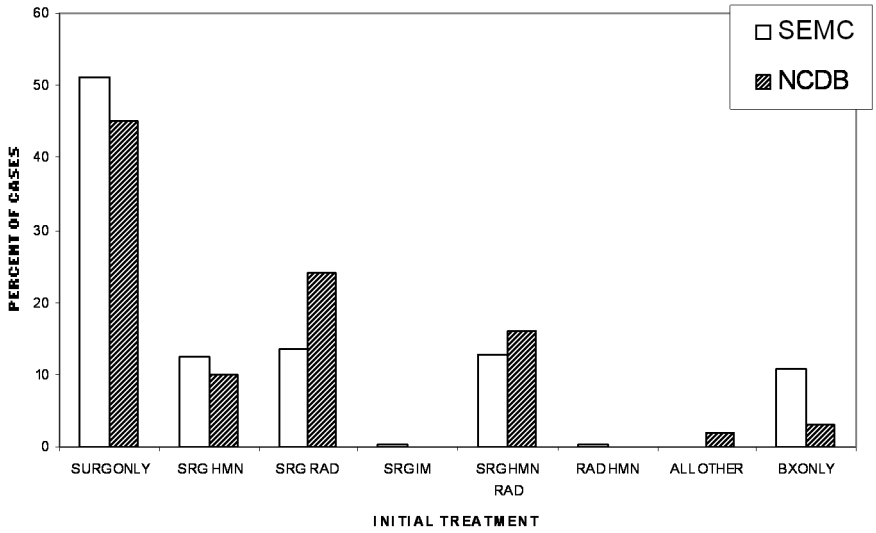


Figure 5 compares age at diagnosis for patients with invasive breast cancer at both the local and national level over this period. The peak incidence of invasive breast cancer among SEMC patients is ages 70-79. As with DCIS, we see a disproportionately higher percentage of elderly patients with breast cancer and fewer patients diagnosed between the ages of 40 and 59.

Figure 5. Invasive Breast Cancer, 2001-2011: Comparison by Age at Diagnosis

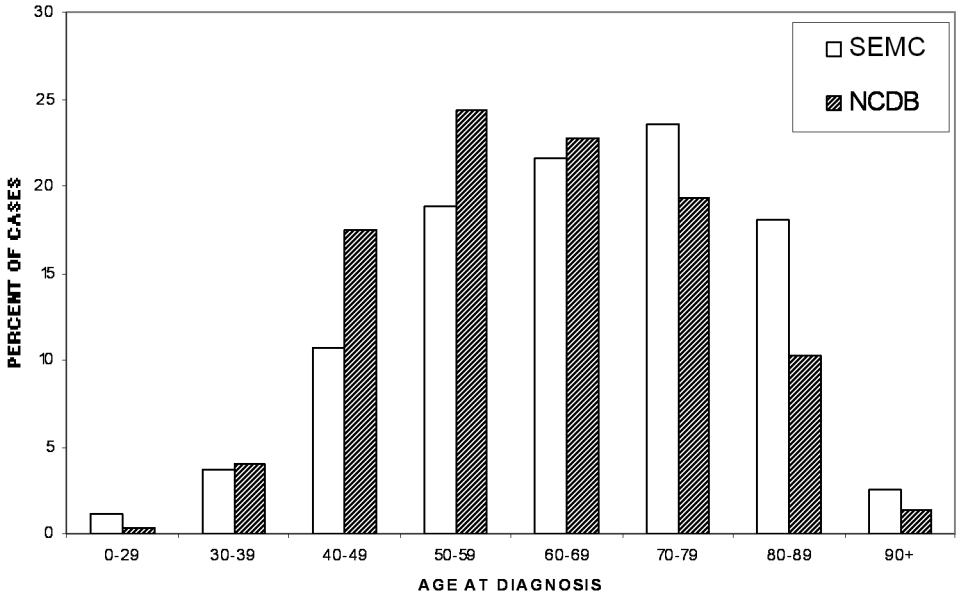
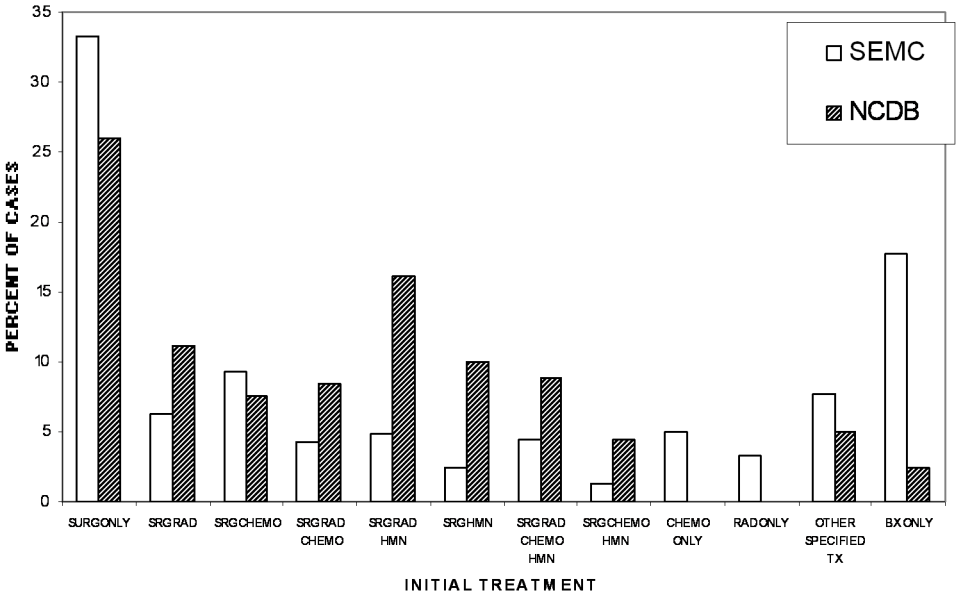


Figure 6 compares initial treatment for invasive breast cancers at SEMC with national data. As seen in this figure, approximately one-third of cases with invasive cancers were treated with surgery alone, slightly higher than the national average. Again, this may be a reflection of the higher percentage of elderly patients with invasive breast cancer seen at our institution. As before, a lower proportion of patients received radiation as part of their treatment. A substantially higher proportion of SEMC patients received no treatment beyond a biopsy, which may include patients who went elsewhere after being diagnosed at our facility.

Figure 6. Invasive Breast Cancer, 2001-2011: Comparison by Initial Treatment



Figures 7 and 8 present data for 2011 SEMC analytic breast cancer cases only. Figure 7 provides the distribution of age at diagnosis. Again, the peak age at diagnosis is the sixth decade of life, with approximately 26% of cases being diagnosed between the ages of 50 and 59 years. More than 30% of cases were diagnosed at 70 years of age and greater.

Figure 7. Analytic Breast Cancer Cases, SEMC, 2011: Age at Diagnosis

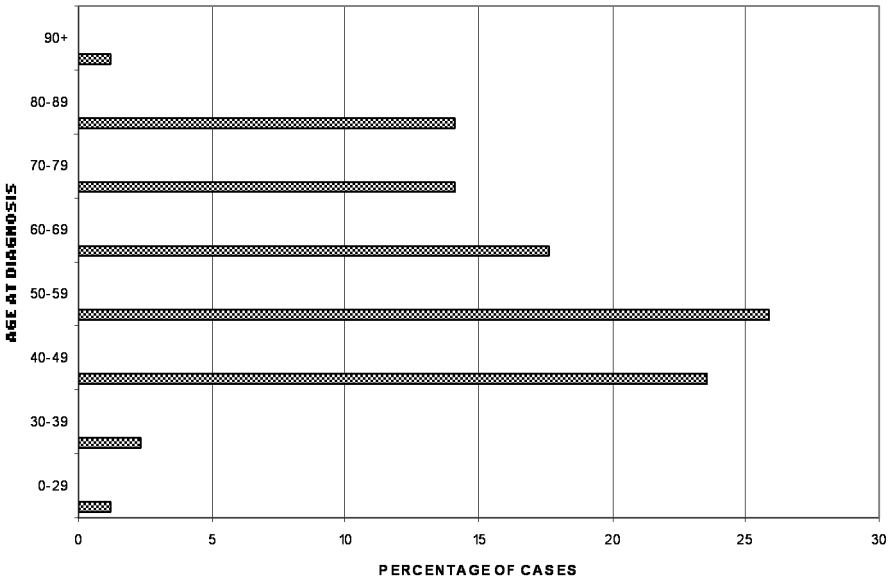


Figure 8 shows the initial treatment of breast cancer cases diagnosed at SEMC in 2011. Surgery was performed as part of the treatment of breast cancer in 85% of cases. In 10% of patients, no treatment was given or recorded beyond the initial biopsy. Approximately 50% of patients received hormonal therapy, 52% received radiation, and only 22% received chemotherapy. Again, these percentages may be influenced by either referrals to other institutions or the greater percentage of elderly patients seen at our institution, who may not have opted for these treatments.

Figure 8. Analytic Breast Cancer Cases, SEMC, 2011: Initial Treatment

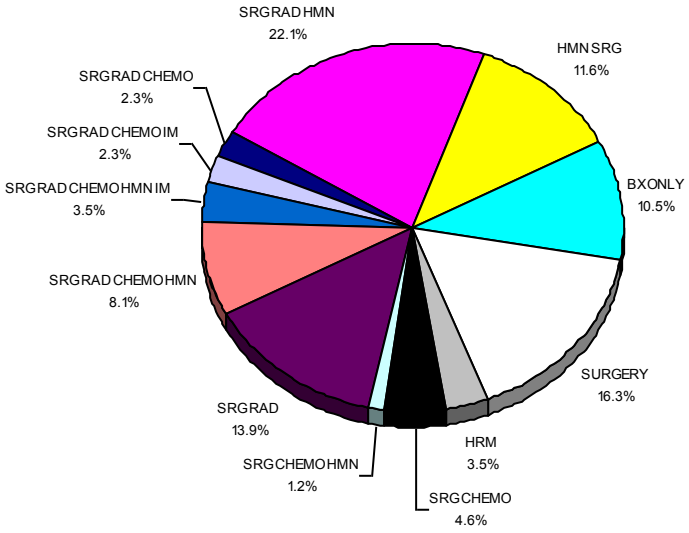


Figure 9 compares stage of disease at presentation with national data for 2001-2011. We see a higher percentage of advanced breast cancers at our institution. However, five-year observed survival data for all stages of breast cancer (Figure 10) compares favorably with that seen on the national level. For cancers diagnosed at an early stage (0, 1, or 2), the five-year observed survival is in excess of 90%, comparable to national data. (Note: only summary stage data are available from NCDB.)

Figure 9. Invasive Breast Cancer, 2001-2011: Comparison by Best CS/AJCC Stage at Diagnosis

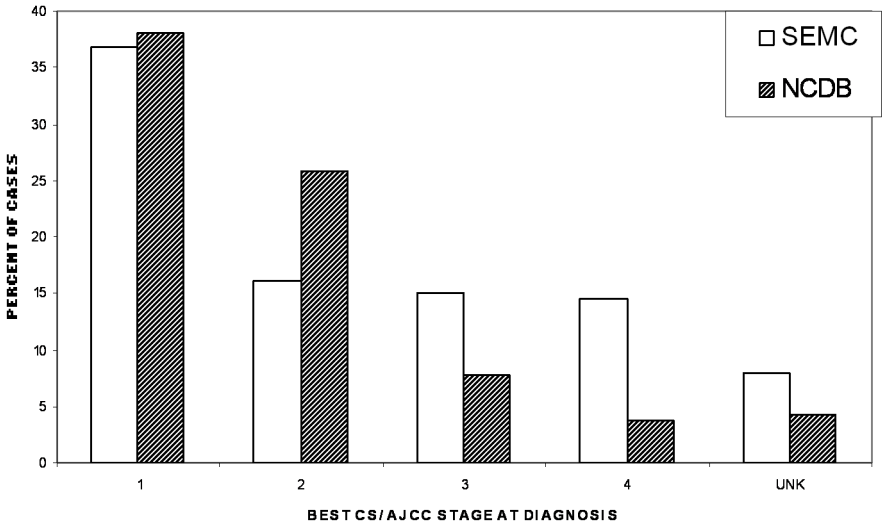
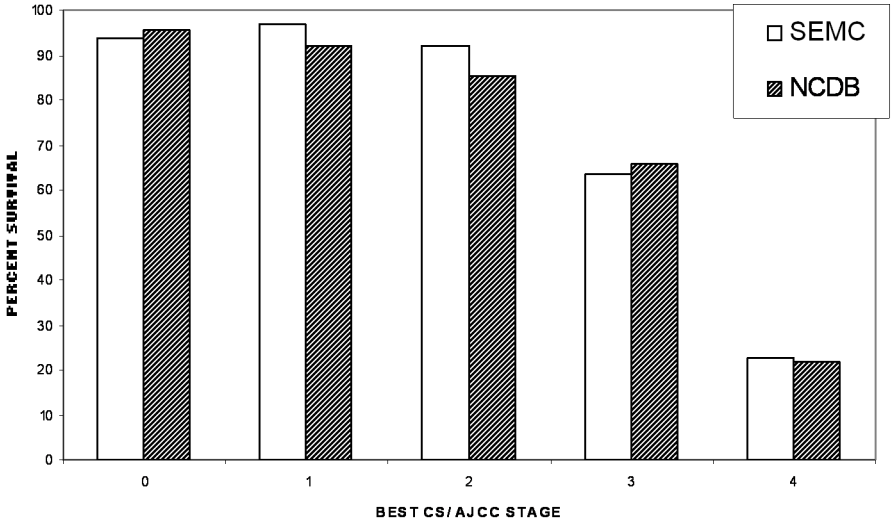


Figure 10. Breast Cancer, 2001-2011: Comparison of Five-Year Observed Survival by Best CS/AJCC Stage at Diagnosis



In summary, breast cancer continues to be a very treatable disease, especially when diagnosed at an early stage. The increased availability of more effective adjuvant therapy, and the ability to tailor therapy more closely to the biological subtype of the cancer, has allowed us to make further gains in breast cancer survival. Overall, our results compare favorably with national averages.

Respectfully,

Charu Taneja, MD
Breast Surgeon
Center for Breast Care

Cancer Program Annual Report 2011-2012

Cancer Program and Cancer Registry
Prepared by the Cancer Care Committee

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