Cancer Report 2010

Sacred Heart Cancer Center

2010 Cancer Committee

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2010 Chairman's Report

Dr. Rod Krentel
Radiation Oncologist
Gulf Region Radiation Oncology Centers

I am pleased to present the 2010 Annual Report summarizing the accomplishments of the Cancer Program at Sacred Heart Hospital.

2010 was an exciting and growth-filled year for the Sacred Heart Cancer Center. The new Sacred Heart Cancer Center on the campus of Sacred Heart Hospital opened in February. The center enhanced and combined all of our cancer services, on the Sacred Heart Hospital campus, in one building. This allows for increased collaboration among providers, limits delay in treatment and improves care for patients. Along with treatment services, patients also have access to a number of support services.

The support services available to patients in the new Cancer Center include:
• **Social Work Services** - We have 2 masters-prepared social workers in the Cancer Center who provide emotional support and guidance to patients as well as guidance to community resources. They also facilitate our support groups at the Cancer Center.
• **American Cancer Society (ACS) Gift Closet** - We have trained ACS volunteers who provide patients with wigs, turbans, hats and other items in a comfortable setting within the Cancer Center.
• **Support Groups** - We have partnered with the Leukemia and Lymphoma Society to provide support and education to patients with hematologic malignancies. We also offer Breast Cancer and Prostate Cancer Support Groups.

• **Breast Cancer Retreat** - We were awarded a grant from Cancer Support Community and the Breast Cancer Fund of National Philanthropic Trust to hold a Couples retreat for those with Breast Cancer.

During this past year we have made great strides to improve multidisciplinary treatment planning and started a breast cancer-specific Tumor Board. Physicians from Surgery, Medical Oncology, Radiation Oncology, Radiology and Pathology come together every other week to discuss patient cases and determine a treatment plan. This has been very successful in improving patient care and benefiting our patients. This Tumor Board is in addition to our weekly tumor board and the MD Anderson tumor board that is held every other week.

At Cancer Conference/Tumor Board in 2010 a total of 421 cases were presented representing 36% of our annual analytic caseload. The American College of Surgeons requires at least 10% of the annual analytic caseload be presented. We have also seen an increase in the multidisciplinary participation in our Cancer Conferences resulting in better care for patients.

Our Cancer Registry accrued 1,475 new cases, with the top five sites being breast, lung, colon, prostate and bladder.

Our affiliation with MD Anderson Physicians Network continued throughout 2010. As an affiliate of MD Anderson Physicians Network, we participated in a "concordance study", which measured our concordance to the MD Anderson Guidelines for care in Non-Hodgkin's Lymphoma. This was a great quality improvement project that has focused our efforts for improvement.

The Nemours Children's Clinic at Sacred Heart Hospital cares for children with cancer. During this past year a total of 30 pediatric cancer cases were accrued into the Cancer Registry. There is a weekly, multidisciplinary Pediatric Tumor Conference where patient cases are presented for discussion regarding further treatment and evaluation. This past year they have also announced that they will dedicate a new Pediatric Cancer Unit at Sacred Heart Hospital.

This has been a year of growth and development for the Cancer Program at Sacred Heart Hospital. As we look to the future, we anticipate 3 new medical oncologists and 1 surgical oncologist joining our program over the next few months. We continue to see our research program grow, as well as the continuation of our affiliation with MD Anderson Physician Network, and improved service to our community and the patients we serve. We are pleased to present this 2010 Annual Report.

Rod Krentel, MD
Chair, Cancer Committee
Radiation Oncologist

Breast Cancer Study

Dee McLeod, MD

Breast Cancer continues to be the most common cancer in women. In 2010 an estimated 207,090 new female cases were reported. According to the American Cancer Society Surveillance and Health Policy Research, 14,080 new breast cancer cases were estimated for the state of Florida. The incidence of new breast cancer cases at Sacred Heart Hospital for 2010 was 226.

However, the mortality rates from breast cancer have continued to decline over the last 30 years. There was an estimated 40,230 breast cancer deaths in 2010. The decline can partially be attributed to early detection.

Mammograms and, in some instances, magnetic resonance imaging (MRI) have both been used to detect early breast cancers that would not have otherwise been detected by physical examination. Annual MRI examinations are recommended in women 25 years of age or older who have either a strong family history or genetic predisposition (i.e. BRCA mutation). Women with a calculated breast cancer risk assessment greater than 20% based on breast cancer models such as the Modified Gail model are also candidates for annual MRI screening.

According to the Women's Health Initiative, invasive breast cancer risks are increased for postmenopausal women with active and passive smoking. Additional risk factors for breast cancer include initiation of hormone replacement therapy within 5 years of post-menopause, consumption of alcohol, history of taking DES, family history of breast cancer, prior personal history of breast cancer, prior chest radiation, physical inactivity, elevated body mass index, reproductive history: early menarche, late menopause, nulliparity, and age at first live birth. The two most significant risk factors are gender (being female) and simply aging.

Treatment involves factors such as patient's preference, stage, and tumor size. Treatment options may involve surgery with lumpectomy, or mastectomy and in some cases removal of some axillary lymph nodes. Treatment may also include radiation therapy, chemotherapy, hormone therapy or targeted therapy such as trastuzumab for patients with over expression of the Her2neu gene.

Survival is linked to a patient's stage of disease. According to *Cancer Facts & Figures 2010* compiled by the American Cancer Society, the survival rate for patients with localized disease (disease confined to the breast without involvement of regional lymph nodes or other areas) is approximately 98%. This drops to 84% if regional lymph nodes are involved and even further to a dismal 23% for distant metastases.

American Joint Committee on Cancer (AJCC) TNM Staging*

Table 1

Primary Tumor (T)	
Tx	Primary tumor cannot be assesses
T0	No evidence of primary tumor
Tis	Carcinoma in situ
Tis (DCIS)	Ductal carcinoma in situ
Tis (LCIS)	Lobular carcinoma in situ
Tis (Paget's)	Paget's disease of the nipple not associated with invasive Carcinoma and/or carcinoma in situ
T1	Tumor ≤ 20mm or less in greatest dimension
T1mi	Tumor ≤ 1mm
T1a	Tumor > 1mm but ≤ 5 mm
T1b	Tumor > 5 mm but ≤ 10 mm
T1c	Tumor > 10mm but ≤ 20 mm
T2	Tumor > 20 mm but ≤ 50 mm
T3	Tumor > 50 mm in greatest dimension
T4	Tumor of any size with direct extension to the chest wall and/or skin (ulceration or skin nodules)
T4a	Extension to the chest wall, not including only pectoralis muscle adherence/invasion
T4b	Ulceration and/or ipsilateral satellite nodules and/or edema of skin (including peau d'orange) of the skin, which do not meet the criteria for inflammatory carcinoma
T4c	Both T4a and T4b
T4d	Inflammatory carcinoma
Regional Lymph Nodes (N)	
Clinical	
Nx	Regional lymph nodes cannot be assessed (e.g., previously removed)
N0	No regional lymph node metastases
N1	Metastases to movable ipsilateral level I, II axillary lymph node(s)
N2	Metastases in ipsilateral level I,II axillary lymph nodes that are clinically fixed or matted; or in clincially detected ipsilateral internal mammary nodes in the absence of clinically evident axillary lumph node metastases
N2a	Metastases in ipsilateral level I, II axillary lymph nodes fixed to one another or matted to other structures
N2b	Metastases in ipsilateral infraclavicular (level III axillary) lymph Node with/without level I, II axillary lymph node involvement, Ipsilateral internal mammary lymph node with clinically evident Level I, II axillary lymph node metastases, or metastases in Ipsilateral supraclavicular lymph node
N3	Metastases in ipsilateral infraclavicular (level III axillary) lymph node(s) with or without level I, II axillary lumph node invovlement; or in clinically detected ipsilateral internal mammary lymph node(s) with clinically evident level I, II axillary lumph note metastases; or metastases in ipsilateral supraclavicular lymph node(s) with or without axillary or internal mammary lymph node involvement.
N3a	Metastases in ipsilateral infraclavicular lymph nodes
N3b	Metastases in ipsilateral internal mammary lymph nodes and Axillary lymph node
N3c	Metastases in ipsilateral supraclavicular lymph node

Pathologic (pN)

Nx	Regional lymph nodes cannot be assessed
N0	No regional lymph node metastasis
pN0(i-)	No regional lymph node metastases histologically, negative IHC
pN0(i+)	Malignant cells no greater than 0.2 mm detected by IHC
pN0(mol-)	No regional lymph node metastases histologically, negative by RT-PCR (reverse transcriptase/ polymerase chain reaction)
pN0(mol+)	Positive molecular findings (RT-PCR), but no regional lymph node metastases detected by histology or IHC
pN1	Micrometastases or metastases in 1-3 axillary lymph nodes; and/or internal mammary lymph nodes
pN1mi	Micrometastases (greater than 0.2 mm and/or more than 200 Cells but none greater than 2.0 mm)
pN1a	Metastases in 1-3 axillary lymph nodes, at least one metastasis greater than 2.0 mm
pN1b	Metastases in internal mammary nodes detected by sentinel lymph node biopsy but not clinically detected
pN1c	Metastases in 1-3 axillary lymph nodes and in internal mammary lymph nodes detected by sentinel lymph node biopsy
pN2	Metastases in 4-9 axillary lymph nodes or in clinically detected internal mammary lymph nodes
pN2a	Metastases in 4-9 axillary lymph nodes(at least 1 tumor deposit greater than 2.0 mm)
pN2b	Metastases in clinically detected internal mammary lymph nodes in the absence of axillary lymph node metastases
pN3	Metastases in 10 or more axillary lymph nodes, or in infraclavicular, or clinically detected ipsilateral internal mammary lymph nodes in the presence of axillary lymph nodes
pN3a	Metastases in 10 or more axillary lymph nodes or metastses to the infraclavicular lymph nodes
pN3b	Metastases in clinically detected ipsilateral internal mammary lymph nodes in the presence of 1 or more positive axillary lymph nodes and in internal mammary lymph nodes with micro metastases or macrometastases
pN3c	Metastsis in ipsilateral supraclavicular lymph nodes

Distant Metastasis

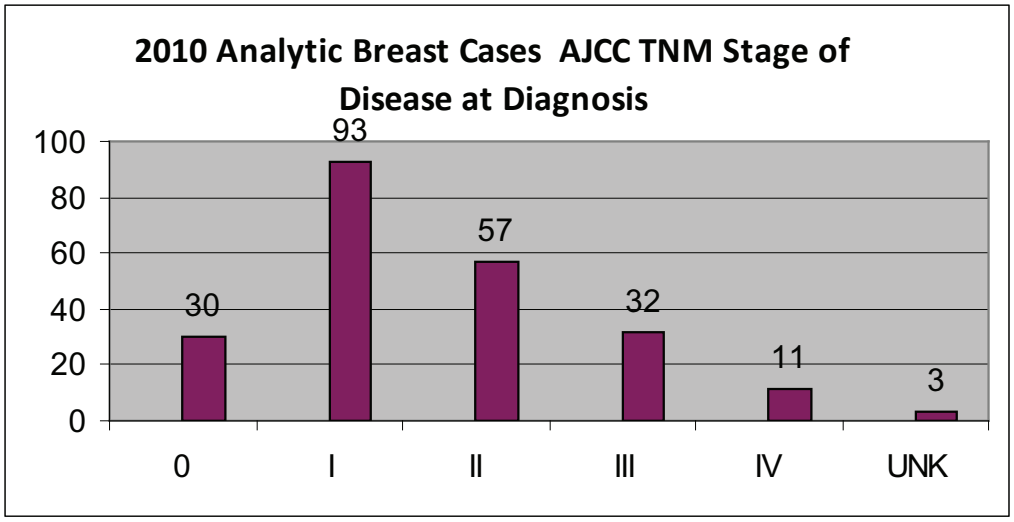
M0	No clinical or radiographic evidence of distant metastases
cM0(i+)	No clinical or radiographic evidence of distant metastases but deposits of molecularly or microscopically detected tumor cells in circulating blood, bone marrow, or other non regional nodal tissue that are no larger than 0.2 mm
M1	Clinical or radiographic metastases greater than 0.2 mm

Table 2: AJCC TNM Anatomic Stage/Prognostic Groups

Stage 0	Tis	N0	M0
Stage IA	T1	N0	M0
Stage IB	T0	N1mi	M0
	T1	N1mi	M0
Stage IIA	T0	N1	M0
	T1	N1	M0
	T2	N0	M0
Stage IIB	T2	N1	M0
	T3	N0	M0
Stage IIIA	T0	N2	M0
	T1	N2	M0
	T2	N2	M0
	T3	N1	M0
	T3	N2	M0
Stage IIIB	T4	N0	M0
	T4	N1	M0
	T4	N2	M0
Stage IIIC	Any T	N3	M0
Stage IV	Any T	Any N	M1

* AJCC Cancer Staging Manual 7th edition, 2010

Table 3 shows the analytic incidence of breast cancer by stage at initial diagnosis for Sacred Heart Hospital in 2010. Table 4 shows Sacred Heart Hospital Cancer Registry has also compiled five year survival data by stage for 2002 through 2004 in comparison with the National Cancer Data Base (see Table 4 on next page)



The combination of early diagnosis and improvement in treatment strategies has led to improvements in the 5 year relative survival rates and brings optimism as we look toward the future.

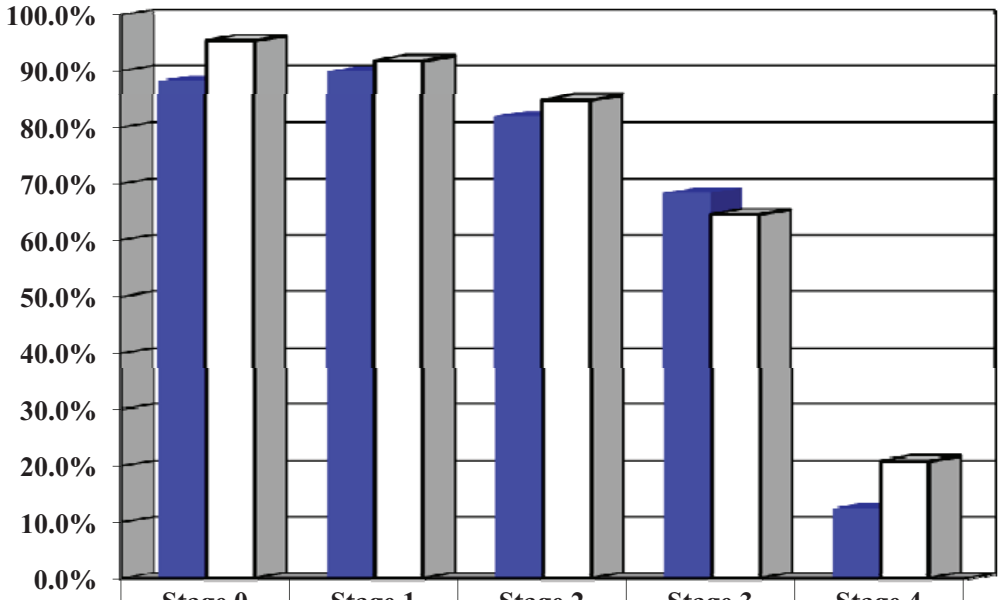
Table 4:

SACRED HEART HOSPITAL

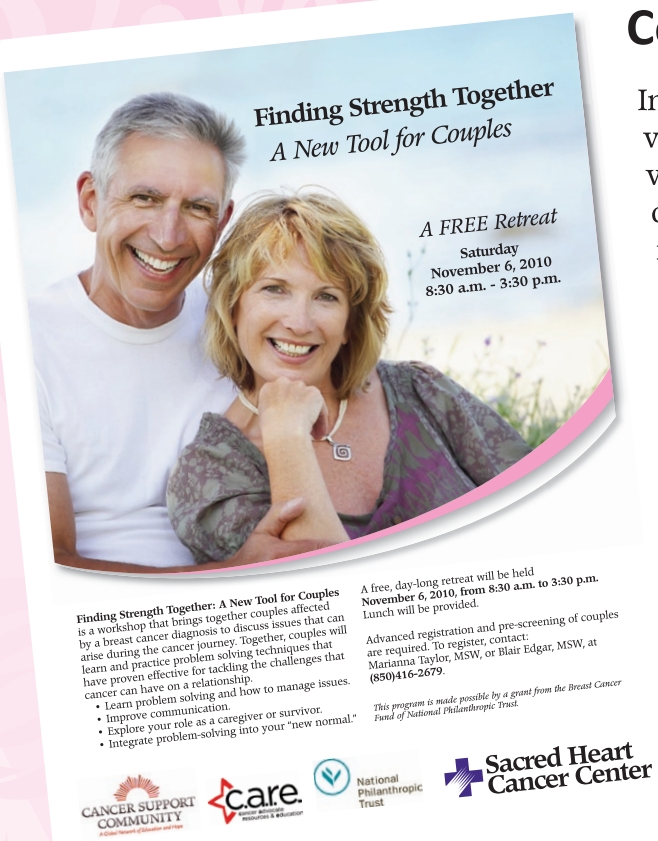
SACRED HEART HOSPITAL
BREAST CANCER 2002-2004
FIVE YEAR OBSERVED SURVIVAL RATE BY STAGE
COMPARED TO NATIONAL/NCDB
***NATIONAL CANCER DATA BASE PATIENTS DIAGNOSED IN 2003**

	SACRED HEART		NATIONAL	
	Cases	Rate	Cases	Rate
Stage 0	61	88.2%	24,816	95.4%
Stage 1	183	89.9%	50,645	91.8%
Stage 2	97	81.9%	36,758	84.8%
Stage 3	42	68.3%	13,831	64.5%
Stage 4	16	12.5%	4,661	20.8%

BREAST CANCER 2002-2004 OBSERVED 5 YEAR SURVIVAL RATES
SACRED HEART HOSPITAL - NATIONAL/NCDB
AJCC TNM 6th EDITION STAGING SYSTEM



	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4
SHH	88.2%	89.9%	81.9%	68.3%	12.5%
USA	95.4%	91.8%	84.8%	64.5%	20.8%



Couples Retreat

In 2010, the Sacred Heart Cancer Center expanded its services to patients in the community by adding a Social Services department in efforts to meet the psychosocial needs of those affected by cancer. The social workers identified the need to provide couples with support and communication skills training to help them cope with a diagnosis of cancer. The Sacred Heart Cancer Center Social Services department applied for and was awarded a program grant made possible through the Cancer Support Community and the Breast Cancer Fund of National Philanthropic Trust. The program, titled "Finding Strength Together: A New Tool for Couples", provided partnered couples education and support around communication and problem-solving issues that arise during the journey with breast cancer. The patients and their partners were taught the COPE model of problem solving during a six hour retreat at Sacred Heart Miracle Camp in Beulah, Fla.

Patient Navigator

Patricia Dye, RNC, CBPN-IC

A Brief History of Patient Navigation

In 1989, Dr. Harold Freeman, a surgeon in New York, was serving as the President of the American Cancer Society. After holding a series of hearings, Dr. Freeman became convinced that poor patients faced enormous barriers when attempting to obtain care for cancer. These barriers included financial concerns, lack of access to cancer screenings, inability to obtain follow-up, absence of insurance coverage, communication breakdowns, fragmentation of care, and lack of coordination of services. The Harlem Cancer Education and Demonstration Project at Harlem Hospital was initiated by Dr. Freeman in 1990. A major component of this project was the formation of a patient navigation program to attempt to decrease or eliminate some of the barriers to cancer care that were encountered by the poor. The US President's Cancer Panel Report, issued in 2001, indicated that fragmentation of cancer care was a problem experienced by all socioeconomic levels, not just the poorer members of society. The report recommendations included a statement of support of patient navigation programs. As a result of the continuing work by Dr. Freeman and of the recommendations of the President's Cancer Panel, patient navigation programs began to be instituted nationwide and focused on providing support for patients seeking screening and care for cancer. The Patient Navigator, Outreach, and Chronic Disease Prevention Act, signed into law in 2005, provided funds to create patient navigation programs in centers across the United States.

What Role Do Patient Navigators Play?

Patients attempting to obtain cancer screening, those with abnormal tests results, patients newly diagnosed with cancer, patients receiving treatment for cancer, and patients entering survivorship or end of life care can all be supported by patient navigation. Navigation services are not limited to finding financial resources for patients. Identifying any barrier to care, and helping a patient overcome that barrier is the essence of the navigator's role. Facilities are utilizing outreach, diagnostic, treatment and financial navigators and programs may vary with each institution. The spectrum of work for the patient navigator can begin with broad, community outreach educational activities and progress to the guiding of one individual patient through the daunting experience of cancer diagnosis, treatment and survivorship.

Benefits of Patient Navigation

The benefits of navigation to patients, health care organizations and individual providers have been validated in multiple studies. In one study of patients who had suspicious breast findings, the patients that received navigation services had significant reductions in the time interval between mammography and core biopsy. Another study demonstrated that after a breast health navigator program was implemented, 99% of all clinic patients had follow-up appointments scheduled prior to leaving the facility as compared with 25% before the implementation of the program. Patient navigators provide information that can assist the cancer patient in achieving the maximum benefits from their treatments. By assisting the patient in understanding the importance of completing treatment and then overcoming transportation issues with the patient, the navigator provides educational and practical components of care. The contributions of the navigator benefit the facility as shown by the study which revealed that patients who were navigated reported satisfaction scores of over 91%. The patients presented for appointments on a more consistent basis, and were better prepared, making more efficient use of clinic time. Navigators continuously assess the patient for barriers to care and the system for gaps in service and assist in bridging both of these areas.

In 2009, Sacred Heart Hospital made a commitment to breast cancer patients with the decision to fund the position of a breast health nurse navigator. This action fell perfectly in alignment with Sacred Heart's mission to provide care for the poor and underserved in the community. The leaders who supported this decision also understood that all patients can be served by navigation services since not all barriers are economic. The benefits of having these services were best summed up by a breast cancer survivor. In describing her navigator, the patient stated, "she just made me feel safe. I knew she was watching over me."

Cancer Registry

Wendy Williams, RHIT, CTR
Julie Manley RHIT, CTR
Laura Kindergan, RHIT

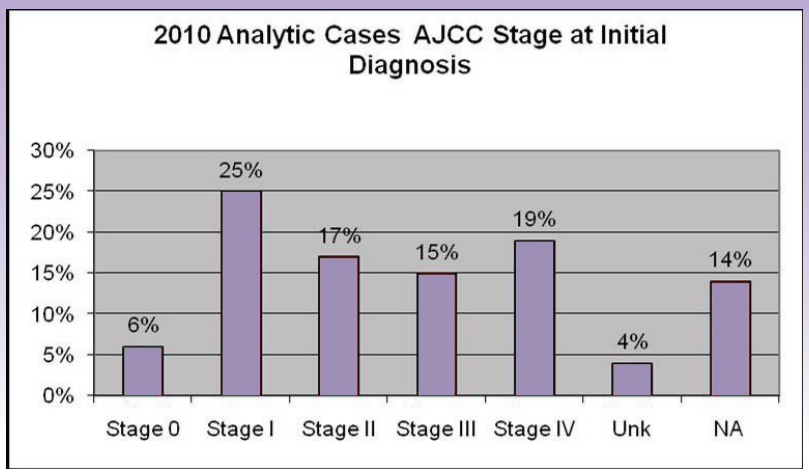
The Cancer Registry is a vital component of the Community Hospital Comprehensive Cancer Program at Sacred Heart Hospital. The registry's reference date is January 1, 1979. The registry receives and maintains data on patients diagnosed and/or receiving treatment for cancer at our facility. This data is used to monitor cancer incidence and cancer care management. It also serves as a source for tracking outcome and survival statistics of patients through annual follow-up on all analytic cases.

The Sacred Heart Cancer Registry conducts annual follow-up on more than 10,000 patients.

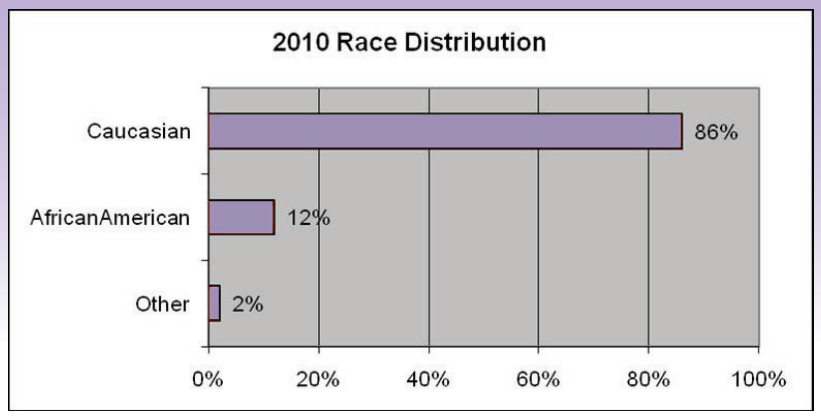
In 2010, the Cancer Registry accessioned 1,475 new cases into the database with 1,173 (80%) representing analytic cases and 302 (20%) representing non analytic cases. As required by state law, cases are submitted to the Florida Cancer Data System (FCDS). All analytic cases are reported annually to the National Cancer Data Base (NCDB) as required by the American College of Surgeons, Commission on Cancer.

The Cancer Registry currently conducts annual follow-up on over 10,000 patients and has a current follow-up rate of 85% for all analytic patients and a 92% follow-up rate for analytic patients diagnosed within the last five years.

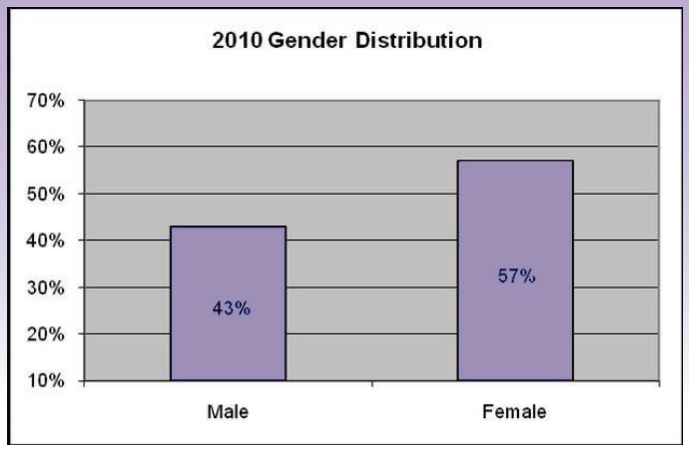
2010 Analytic Cases AJCC Stage at Initial Diagnosis



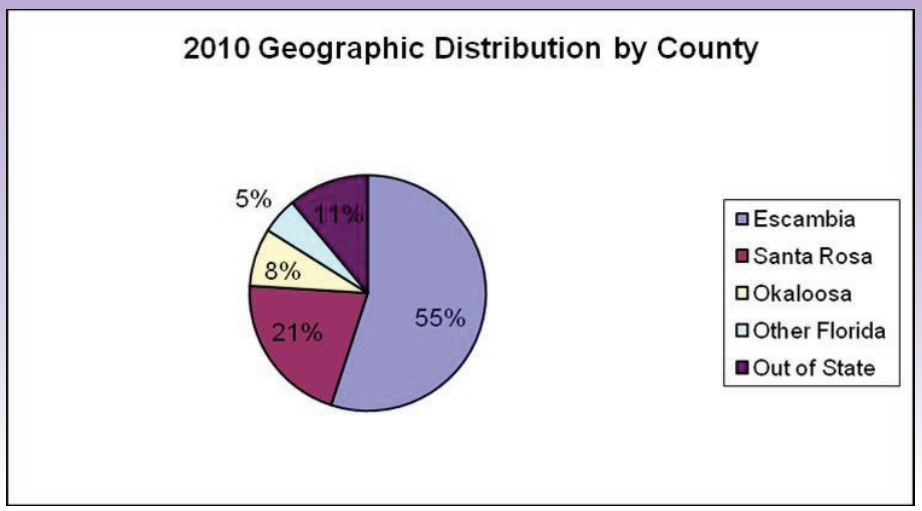
2010 Race Distribution



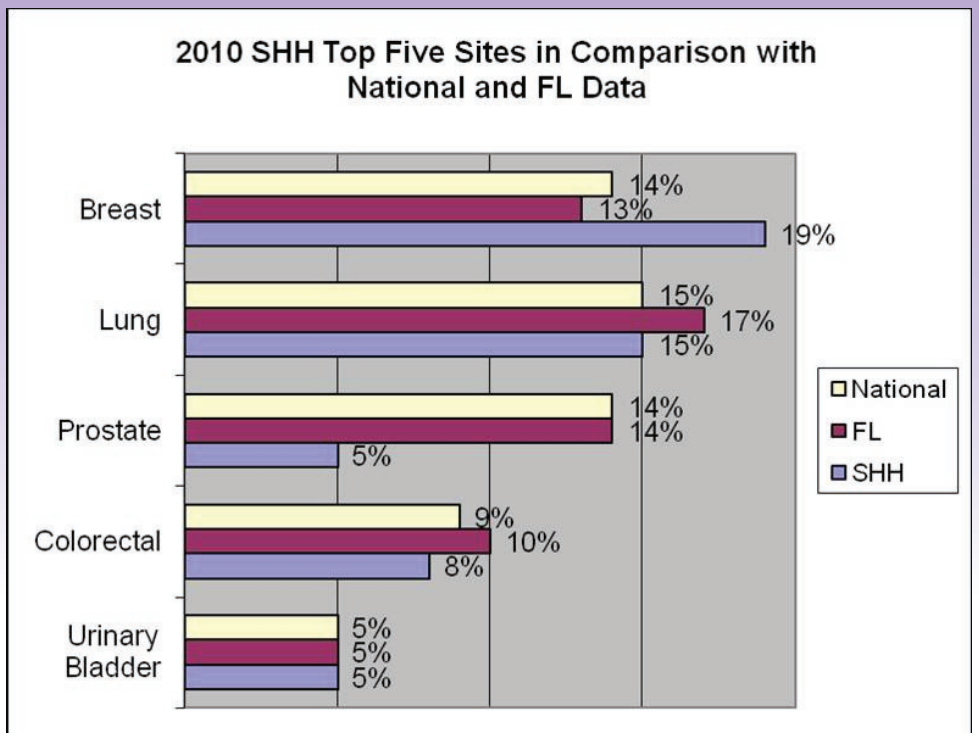
2010 Gender Distribution



2010 Geographic Distribution by County



2010 Top 5 Sites in Comparison with National & State Data



2010 Primary Site Tabulation

PRIMARY SITE	TOTAL	CLASS		SEX	
		A	N/A	M	F
ALL SITES	**1475**	**1173**	**302**	**678**	**797**
ORAL CAVITY	**44**	**35**	**9**	**33**	**11**
LIP	2	1	1	0	2
TONGUE	12	9	3	11	1
OROPHARYNX	1	0	1	1	0
HYPOPHARYNX	2	2	0	0	2
OTHER	27	23	4	21	6
DIGESTIVE SYSTEM	**233**	**178**	**54**	**130**	**103**
ESOPHAGUS	16	7	9	15	1
STOMACH	17	9	8	11	6
COLON	73	63	10	42	31
RECTUM	43	32	11	21	22
ANUS/ANAL CANAL	6	6	0	2	4
LIVER	24	19	5	18	6
PANCREAS	39	30	9	16	23
OTHER	15	13	2	5	10
RESPIRATORY SYSTEM	**238**	**191**	**47**	**132**	**106**
NASAL/SINUS	1	1	0	1	0
LARYNX	12	11	1	10	2
LUNG/BRONCHUS	222	178	44	118	104
OTHER	3	1	2	3	0
BLOOD & BONE MARROW	**92**	**60**	**32**	**43**	**49**
LEUKEMIA	42	35	7	25	17
MULTIPLE MYELOMA	23	13	10	5	18
OTHER	27	12	15	13	14

PRIMARY SITE	TOTAL	CLASS		SEX	
		A	N/A	M	F
BONE	**5**	**4**	**1**	**4**	**1**
CONNECT/SOFT TISSUE	**7**	**6**	**1**	**4**	**3**
SKIN	**37**	**20**	**17**	**27**	**10**
MELANOMA	36	20	16	26	10
OTHER	1	0	1	1	0
BREAST	**249**	**226**	**23**	**3**	**246**
FEMALE GENITAL	**133**	**121**	**12**	**0**	**133**
CERVIX UTERI	24	21	3	0	24
CORPUS UTERI	32	31	1	0	32
OVARY	41	39	2	0	41
VULVA	27	14	13	0	27
OTHER	9	7	2	0	9
MALE GENITAL	**100**	**67**	**33**	**100**	**0**
PROSTATE	90	57	33	90	0
TESTIS	6	6	0	6	0
OTHER	4	4	0	4	0
URINARY SYSTEM	**137**	**107**	**32**	**102**	**37**
BLADDER	78	55	23	60	18
KIDNEY/RENAL	56	47	9	37	19
OTHER	5	5	0	5	0
BRAIN & CNS	**70**	**62**	**8**	**44**	**26**
BRAIN (BENIGN)	1	1	0	1	0
BRAIN (MALIGNANT)	44	40	4	34	10
OTHER	25	21	4	9	16
ENDOCRINE	**35**	**31**	**4**	**11**	**24**
THYROID	25	23	2	6	19
OTHER	10	8	2	5	5
LYMPHATIC SYSTEM	**60**	**45**	**15**	**31**	**29**
HODGKIN'S DISEASE	12	12	0	6	6
NON-HODGKIN'S	48	33	15	25	23
UNKNOWN PRIMARY	**20**	**18**	**2**	**10**	**10**
OTHER/ILL-DEFINED	**13**	**10**	**3**	**4**	**9**

Number of cases excluded: 0

This report includes intraepithelial neoplasia cases.