



THE PRIDE OF NAVY MEDICINE

CANCER PROGRAM ANNUAL REPORT 2011

The success of the Cancer Program at Naval Medical Center, San Diego depends on the leadership of the Oncology Advisory Group (OAG), a multidisciplinary standing committee of the medical staff. The OAG includes medical representatives from all medical specialties involved in the care of the cancer patient, as well as representatives from patient administration, oncology nursing, pharmacy, tumor registry, clinical research, nutrition, social services, pastoral care, and the American Cancer Society. The OAG meets bi-monthly and is responsible for planning, initiating, stimulating and assessing all cancer related activities in the hospital, and the clinical supervision of the Tumor Registry.

Naval Medical Center, San Diego participates in the American College of Surgeons Commission on Cancer Accreditations Program. The OAG is responsible for following the standards set forth by the college. Participation as a CoC-accredited cancer program ensures that our patients receive quality care, cancer education, access to prevention and early detection programs, comprehensive care including state-of-the-art services, a multidisciplinary team coordinating the most appropriate treatment options, information on clinical trials and developing treatments, support services, a cancer registry which is vital to providing lifelong patient follow-up to monitor disease recurrence, ongoing monitoring and improvements in cancer care.

Naval Medical Center San Diego was the first Military Treatment Facility to earn the Commission on Cancer Outstanding Achievement Award, and is the only MTF to earn multiple OAAs.

A message from Dr. Preston Gable, Cancer Liaison Physician;

The Oncology Advisory Group would like to give credit to the hospital leadership—our Commander Rear Adm. C. Forrest Faison III, Deputy Commander Capt. Mark Kobelja, and the entire Executive Steering Council for providing the support and leadership necessary for us to provide truly outstanding cancer care to our military beneficiaries. Cancer care is truly a team effort—the patient is at the center, and is supported on all sides by nursing, physicians from surgery, radiology, pathology, medical oncology, radiation oncology and gynecologic oncology as well as social workers, nutritionists, physical therapy, the tumor registry, our clinical trials office, and even our local American Cancer Society. Our leadership has fostered this team approach and it has paid off—NMCS D is now a 3 time winner of the Commission on Cancer’s Outstanding Achievement Award.

As a cancer patient in our system, you will be treated like family. After all, we are one big military family. While we can’t cure everyone, we will do our best to provide professional, compassionate health care, where the patient comes first.

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The Tumor Registry



Tumor Registry; Who we are and what we do.

The Tumor Registry, under the administrative supervision of the Patient Administration Department and the clinical supervision of the Oncology Advisory Group, manages a complete database on all patients that have been diagnosed and/or treated for a malignant disease at Naval Medical Center, San Diego. The data collected by the registry is used for the evaluation of the care of our patients. The reports created enable the command to assess the cancer treatment given and also compare our data with that of other healthcare facilities.

The Tumor Registry documents and stores all the significant elements of the

patient's history and treatment, which includes demographics, anatomic site, and extent or stage of disease at the time of diagnosis. The Tumor Registry also performs follow-up annually on all cancer patients to gather survival/treatment statistics. Lifetime follow-up is essential in providing the medical staff and researchers with outcome and end results data.

The Tumor Registry assists the Oncology Advisory Group with bi-monthly meetings, attendance at Tumor Boards, Quality Improvement of the Cancer Program at NMCS D, and the survey for the American College of Surgeons Accredited Cancer Programs.

Tumor Registry Services

- Up—to date and accurate cancer data for researchers and medical administrators for prevention and control of cancer.
- Cancer statistics for supporting evidence for medical staff, clinical trials studies, and patient care improvement.
- Custom reports of cancer data and analysis available on request for staff, residents and interns.

Oncology Advisory Group 2011 – 2012

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M. ODEN, LCDR, MSC, USN	REHABILITATION SERVICES COORDINATOR



Cancer Screening Programs—HEDIS Initiatives

We have worked to improve breast, cervical, and colorectal cancer screening at NMCS D and to exceed national benchmarks for clinical preventive services and care. There are three areas where women can receive mammograms to be able to detect breast cancer early and treat if it is found. TOC Chula Vista, TOC Clairemont, and the Breast Health Center at NMCS D all offer mammography. Mammograms are scheduled by appointments, but each of the areas will walk -in patients if the schedule allows. In the Pharmacy, Radiology, and Lab Waiting areas, patients can pick up the "Mammo While You Wait" cards and take to the Breast Health Center , where they will try to provide walk-in mammograms if the schedule permits. NMCS D uses the Mammography Reporting System to remind patients who have had mammo-grams here in the past thirty days prior to their due date.



Well-woman exams and PAP tests for cervical cancer are provided through patient's Primary Care Providers and the OB/GYN Department. In the last year we have sent reminder letters to over 3,650 women. Over 13, 600 women enrolled to NMCS D have completed their cervical cancer screening exams.

A number of screening methods are available to prevent or detect colorectal cancer, such as colonoscopy, flex-sigmoidoscopy, and for those patients who have specific health conditions who should not undergo colonoscopy, NMCS D offers Colonography. Currently, clinical research and medical evidence indicates that colonoscopy is the best method to prevent colorectal cancer, however if patients elect not to have colonoscopy, test kits for stool specimens are available in each of the Primary Care Clinics. These test kits require only one specimen and may either be dropped off at any NMCS D lab or may be mailed in. Over, 8,800 patients have completed their colorectal cancer screening.

NMCS D provides high quality care and has received accreditation from the Joint Commission and the American College of Surgeons. Furthermore, NMCS D's Cancer Programs was the first Naval Medical Center to Receive an Accommodation award for excellence in cancer care. If breast cancer is detected, the Breast Health Center offers world-class coordination of care and treatments. Patients with cancer may also be referred to the Hematology/Oncology Department for multidisciplinary care and chemotherapy, General Surgery, and to Radiation Oncology. Patients are referred for enrollment in Clinical Trials that they may qualify for and Genetic Counselors are also available.

Cancer Prevention and Early Detection Programs

Cancer prevention and early detection screening programs are provided on an ongoing basis through breast, cervical, and colorectal cancer screening provided in the Primary Care Clinics, General Surgery, Gastroenterology, and Radiology Departments. The Cancer prevention and early screening programs utilize HEDIS benchmarks and uses nationally recognized evidence-based clinical practice guidelines which are posted on the Office of Clinical Quality's SharePoint website under the Resource library.

NMCS D has a pivot table of data for the command, clinic, Medical Home Team, and to the provider level and this is accessible to all staff to review current HEDIS data and trends. Furthermore, there is a patient registry available to all clinical outpatient staff to comprehensively identify the ongoing cancer screening needs of individual patients. The Breast Health Center operates the Mammography Reporting System (MRS) which sends automated letters to patients who have had a previous mammogram within NMCS D, reminding them of the need for a mammogram thirty days prior to their due date. Additionally, there are several Women's Health Events in the courtyard which offers walk-in Paps and mammograms for routine screening. Walk-in mammograms are available through our "Mammo While You Wait" program at the hospital Pharmacy Department for routine screening. Evening appointments are available at all three sites that provide mammograms, and pending availability of certified staff, weekend mammography clinics may be offered.

Clinical Trials

Clinical research advance science and ensures that cancer patients receive the highest possible level of care. NMCS D patients who participate in clinical trials have the opportunity to advance evidence-based medicine.

NMCS D enrolls cancer in patients in several ongoing trials, that include, but are not limited to the following;

BREAST:40601 (D) Randomized Phase III trial of Paclitaxel +Trastuzumab +Lapatinib vs. Paclitaxel + Trastuzumab as Neoadjuvant Treatment of HER2-Positive Primary Breast Ca

COLORECTAL: 80405 (D) Phase III FOLFOX Or FOLFIRI With Bev Or Cetuximab In Patients With Previously Untreated Metastatic Colorectal Adenocarcinoma

LUNG CANCER: 30607 (D) Phase III Double-Blind Placebo-Controlled Sunitinib as Maintenance in Advanced NSCLC

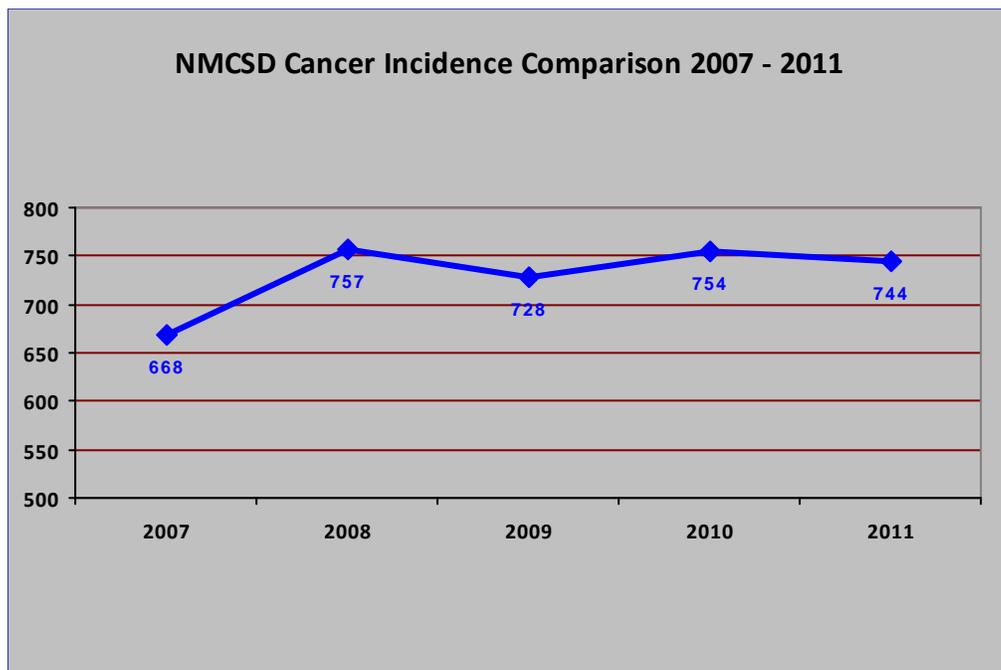
MET BREAST, PROSTATE CANCER AND MULTIPLE MYELOMA: 70604 Phase III Zoledronic Acid(Standard vs Longer)In Met Prostate, Met Breast, Or Multiple Myeloma

PROSTATE/GENITOURINARY: 90203 (D) Phase III Neo-Adjuvant Docetaxel Androgen Deprivation Prior To Radical Prostatectomy Vs Radical Prostatectomy in High Risk Prostate Ca Patients

70807: The Men's Eating and Living (MEAL) Study: A Randomized Trial Of Diet to Alter Disease Progression In Prostate Cancer Patients on Active Surveillance.

NMCS D Cancer Incidence 2011

In 2011 there were 786 new cancer cases accessioned into the ACTUR database. 744 cases were newly diagnosed and/or treated at Naval Medical Center, San Diego. **NOTE: Data in this report pertains to these 744 cases only.** This is a 1% decrease in the number of identified cancer cases compared to 2010. The 5 years incidence rate is illustrated in chart below.

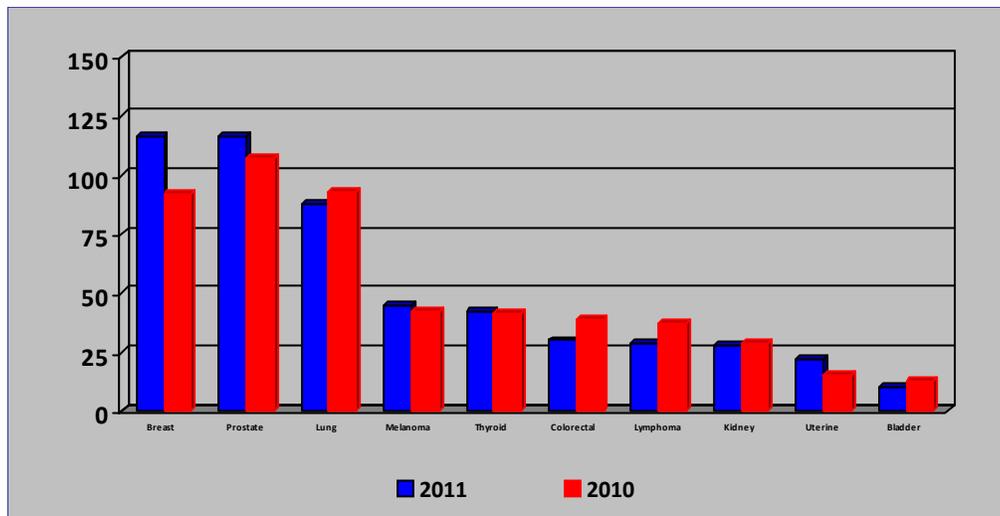


2011 saw an increase in the number of bladder and uterine cancer cases (35 % and 32% respectively), as well as increases in the number of breast cancer cases. There was however a fairly significant decrease in the number of reportable colorectal cancer cases as well as a decrease in lymphomas and lung cancer cases. Prostate cancer remains the most prevalent malignant disease diagnosed and/or treated at NMCS D. The table at right illustrates the top 10 sites of 2011 in comparison to the totals in 2010.

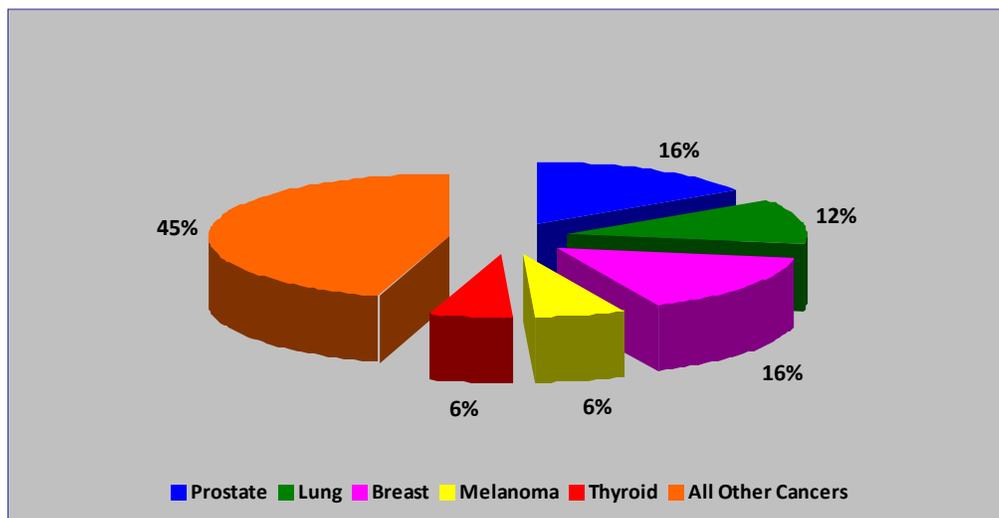
	2011	2010	Change	+	-
Breast	116	92	+24	21%	
Prostate	116	107	+8	7%	
Bronchus & Lung	88	93	-5		5%
Melanoma	45	42	+3	7%	
Thyroid	42	41	+1	2%	
Colorectal	30	39	-9		23%
Lymphoma NOS	29	37	-8		22%
Kidney	28	29	-1		3%
Corpus Uteri	22	15	+7	32%	
Bladder	20	13	+7	35%	

Top Ten Site Comparison 2010 — 2011

The chart to the right further illustrates the cancer incidence for 2011 vs. 2010.

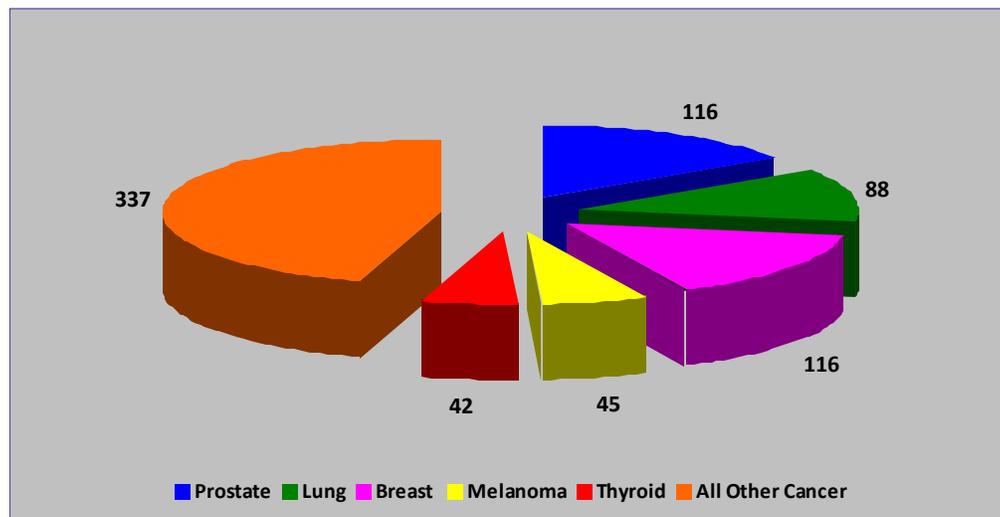


NMCS D Cancer Incidence 2011



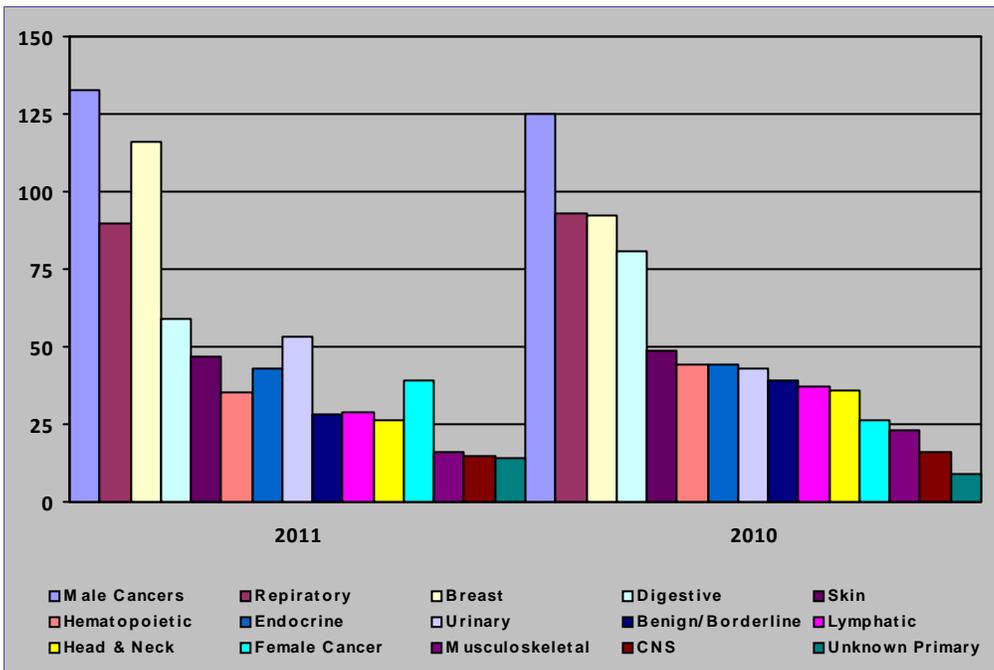
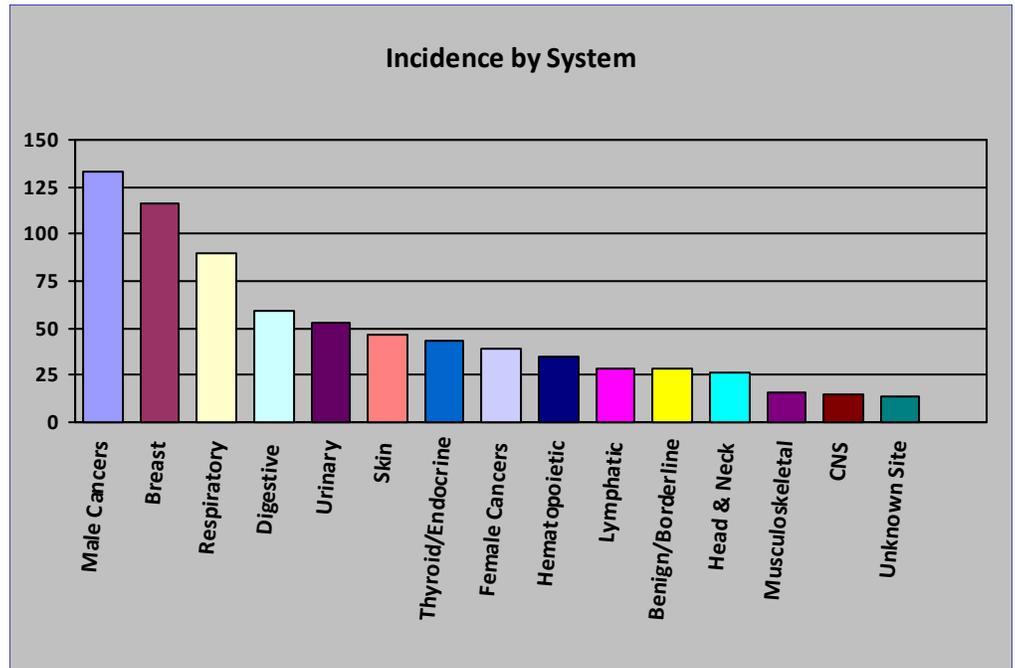
The most prevalent incidences of cancer were Breast Cancer, Prostate Cancer, Lung Cancer, Melanoma, and Thyroid Cancer, all told these 5 cancers accounted for 56% of all reported cancers in 2011 as demonstrated in the pie charts at left.

The top chart illustrates the tops site by number of incidence, and the bottom chart illustrates the top sites by percentage.



2010 – 2010 site Comparison

A review of cancers by system shows that male genital cancers (including prostate) were the most prevalent incidence of cancer in 2011, followed by breast, respiratory system and digestive system. The chart at left illustrated the number of new cancers identified at NMCS D by system.



The chart to the left compares the system incidence of 2011 to 2010. The 5 most prevalent cancers show little variance in number year to year. In 2011 NMCS D saw an overall increase in male genital cancers of 6%; an increase of 21% in breast cancer; and an increase in urinary system cancers of 19%. On the flip side, respiratory system cancers decreased by 3% compared to 2010, and digestive system cancers decreased by 27%.

The Primary Site Table shown on pages 8 and 9 illustrates the cancer incidence distribution at Naval Medical Center San Diego by site, Gender Stage of disease at diagnosis and analytic (reportable to the NCDB) vs. non-analytic (non-reportable to the NCDB). The Primary Site Table is instrumental in determining cancer trends.

2011 Primary Site Table

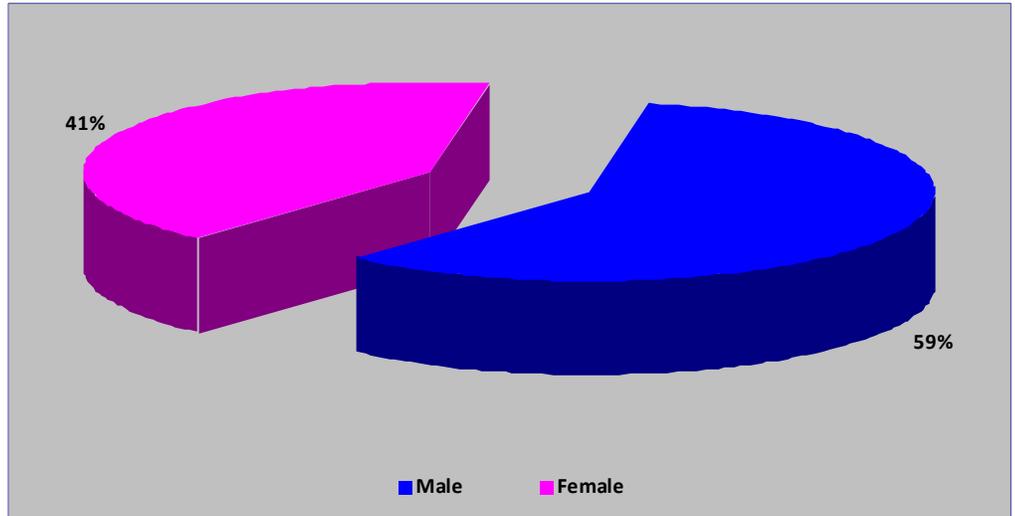
	<u>Cases</u>		<u>Sex</u>		<u>ACoS Stage @ Diagnosis</u>						
	Total	Analytic	Male	Female	0	I	II	III	IV	UNK	N/A
	786	744	440	304	67	261	130	77	110	1	98
HEAD & NECK											
Lip/Oral Cavity	2	2	2	0	0	1	0	0	1	0	0
Tongue	6	6	6	0	0	0	0	1	5	0	0
Tonsil	4	4	3	1	0	0	0	1	3	0	0
Oropharynx	1	1	1	0	0	0	0	0	1	0	0
Nasopharynx	1	1	1	0	0	0	0	1	0	0	0
Larynx	9	8	7	1	0	2	2	0	3	0	1
Sinuses	1	1	0	0	0	0	0	0	1	0	0
Salivary Glands	2	2	1	1	0	2	0	0	0	0	0
Other Head & Neck	1	1	1	0	0	0	0	0	1	0	0
DIGESTIVE SYSTEM											
Esophagus	4	4	4	0	0	0	0	2	2	0	0
Stomach	3	3	1	2	0	2	0	1	0	0	0
Small Intestine	2	2	2	0	0	0	1	1	0	0	0
Colon	20	18	12	6	1	3	0	5	9	0	0
Appendix	3	3	2	1	0	1	0	2	0	0	0
Rectum	12	12	11	1	0	5	2	2	3	0	0
Anus & Anal Canal	1	1	1	0	0	0	1	0	0	0	0
Liver	8	8	5	3	0	2	1	0	5	0	0
Gallbladder	1	1	1	0	0	1	0	0	0	0	0
Pancreas	7	7	5	2	0	1	1	1	4	0	0
RESPIRATORY SYSTEM											
Bronchus & Lung	93	88	56	32	0	26	7	19	35	1	0
Pleura	2	2	2	0	0	0	1	0	1	0	0
MUSCULOSKELETAL SYSTEM											
Bone	6	6	4	2	0	3	0	0	1	1	1
Connective & Soft Tissue	11	10	8	2	0	2	3	2	2	0	1
HEMATOPOIETIC SYSTEM											
Leukemia	23	23	16	7	0	0	0	0	0	0	23
Multiple Myeloma	3	3	2	1	0	0	0	0	0	0	3
Other Blood & BM	9	9	6	3	0	0	0	0	0	0	9

2011 Primary Site Table

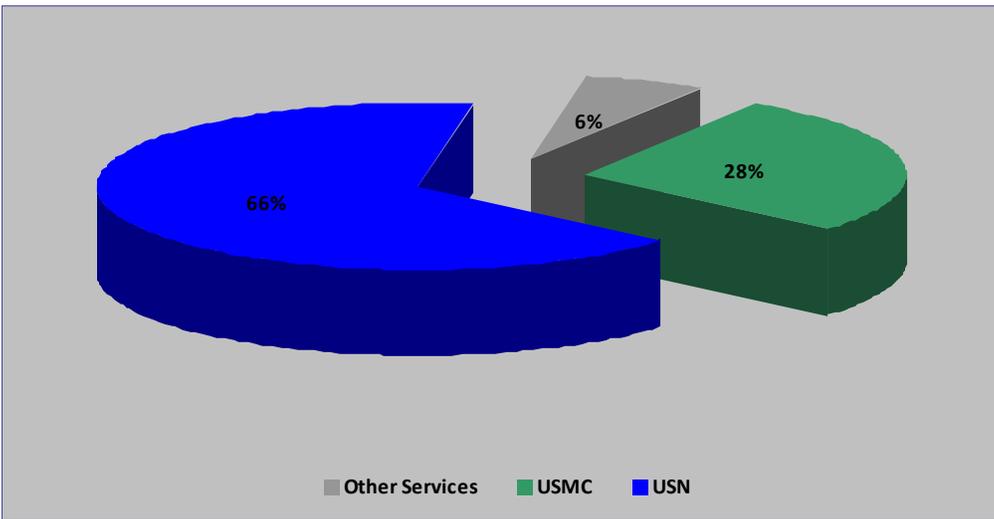
	<u>Cases</u>		<u>Sex</u>		<u>ACoS Stage @ Diagnosis</u>						
	Total	Analytic	Male	Female	0	I	II	III	IV	UNK	N/A
	786	744	440	304	67	261	130	77	110	1	98
CARCINOMA OF THE SKIN											
Melanoma	46	45	29	16	14	24	6	1	0	0	0
Other Skin Carcinoma	2	2	1	1	0	2	0	0	0	0	0
BREAST											
Breast	121	116	0	116	40	43	23	5	5	0	0
FEMALE GENITAL SYSTEM											
Vulva	1	1	0	1	0	1	0	0	0	0	0
Cervix Uteri	10	9	0	9	1	8	0	0	0	0	0
Corpus Uteri	23	22	0	22	0	16	1	3	2	0	0
Ovary	7	7	0	7	0	2	0	4	1	0	0
MALE GENITAL SYSTEM											
Prostate	134	116	116	0	0	35	62	11	8	0	0
Testis	17	17	17	0	0	13	2	2	0	0	0
URINARY SYSTEM											
Kidney	29	28	20	8	0	18	2	2	5	0	1
Renal Pelvis & Ureter	4	4	4	0	1	2	0	1	0	0	0
Bladder	20	20	16	4	9	6	1	1	3	0	0
Other Urinary	1	1	0	1	0	0	0	1	0	0	0
EYE											
Eye	1	1	1	0	0	0	0	0	0	0	1
CENTRAL NERVOUS SYSTEM											
Brain	16	14	13	1	0	0	0	0	0	0	14
Other CNS	1	1	1	0	0	0	0	0	0	0	1
THYROID & ENDOCRINE GLANDS											
Thyroid	45	42	15	27	0	35	4	0	3	0	0
Adrenal Gland	1	1	1	0	0	0	1	0	0	0	0
LYMPHATIC SYSTEM											
Hodgkin Disease	5	4	2	2	0	0	3	1	0	0	0
Non-Hodgkin Lymphoma	25	25	18	7	0	10	6	3	6	0	0
UNKNOWN PRIMARY											
Unknown Primary	14	14	8	6	0	0	0	0	0	0	14
BENIGN/BORDERLINE											
Benign/Borderline	28	28	18	10	0	0	0	0	0	0	28

2011 Cancer Incidence Male to Female Ratio

In 2011 the Male to Female patient ration was 440:304. Males made up 59% of our patient load compared to females at 41%. This is fairly consistent with historical trends both at NMCS D and nationally.



Active Duty Service Member Breakdown



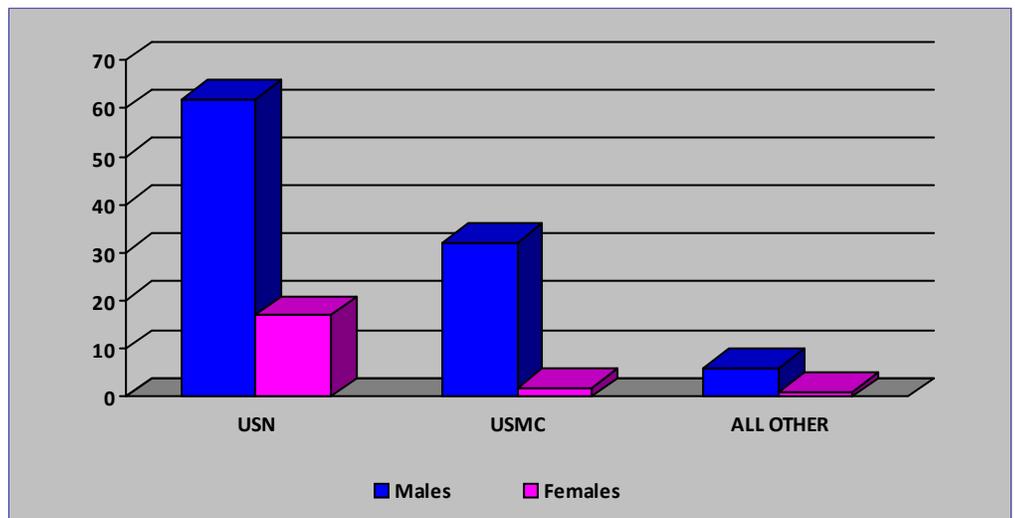
Active duty service members made up 16% of our cancer burden in 2011

The chart at left illustrates the breakdown of our active patients by branch of service in 2011.

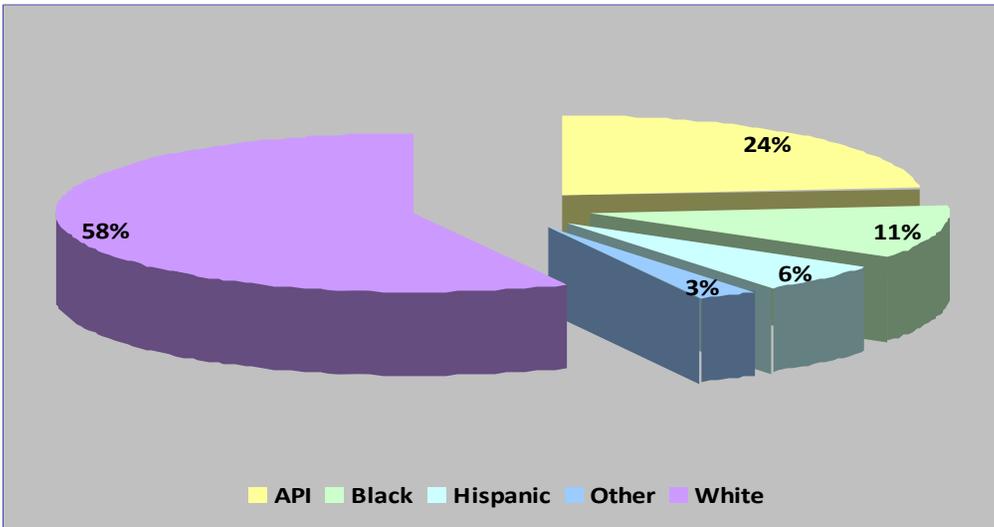
As to be expected, of the active duty patients, active duty Navy made up two thirds of the total while active duty Marines accounted for 28%. The other uniformed services (Army, Air Force, Coast Guard) accounted for just 6% of the patient load.

Active Duty Patients by Branch and Gender

This chart illustrates the gender of our active duty patients by branch of service at the time of diagnosis. As would be expected, the number of active duty navy outnumber all other branches of service combined.



Cancer Patient Breakdown by Race

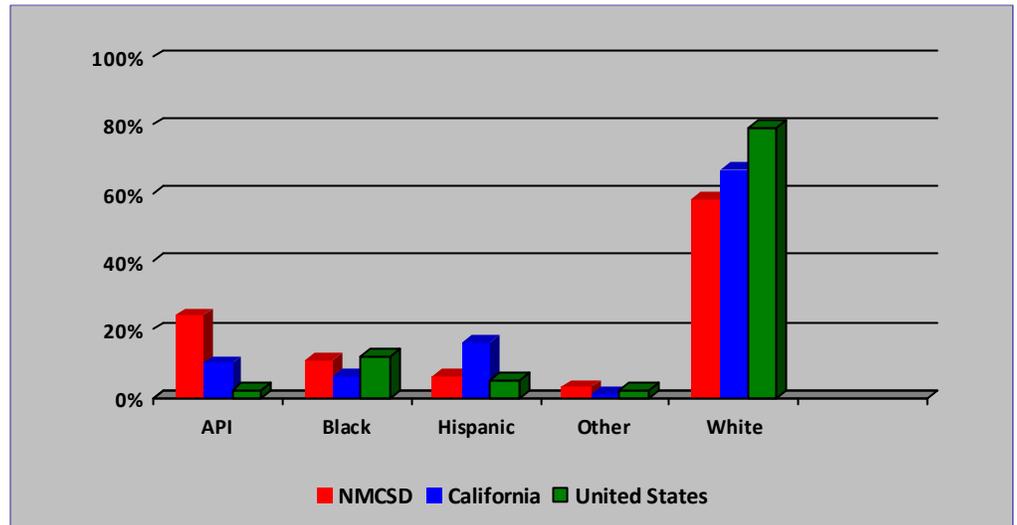


The breakdown of cancer patients is illustrated in this pie chart. Caucasians make up the major of our cancers, followed by Asian-Pacific Islanders (including Filipinos). This breakdown is the historic trend at NMCS D.

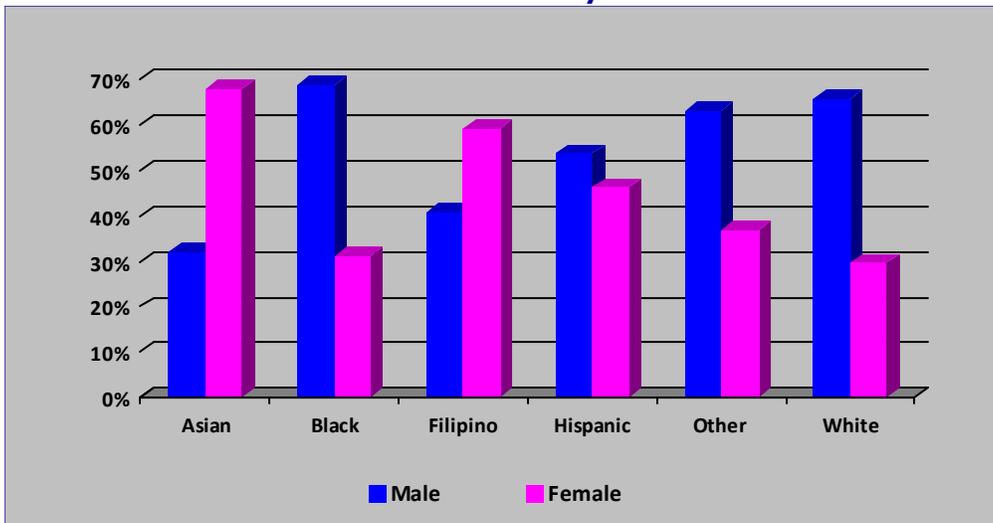
The chart at right is a comparison of NMCS D cancer patients by race to cancer patients at all reporting California hospitals as well as all reporting hospital nationally.

NMCS D has a higher percent of API patients than is seen state-wide and nationally. This is most likely due to the demographics of the military community. It should be noted that percentage for California and the U.S are from the last complete year (2010).

Patient Races Percentage Comparison



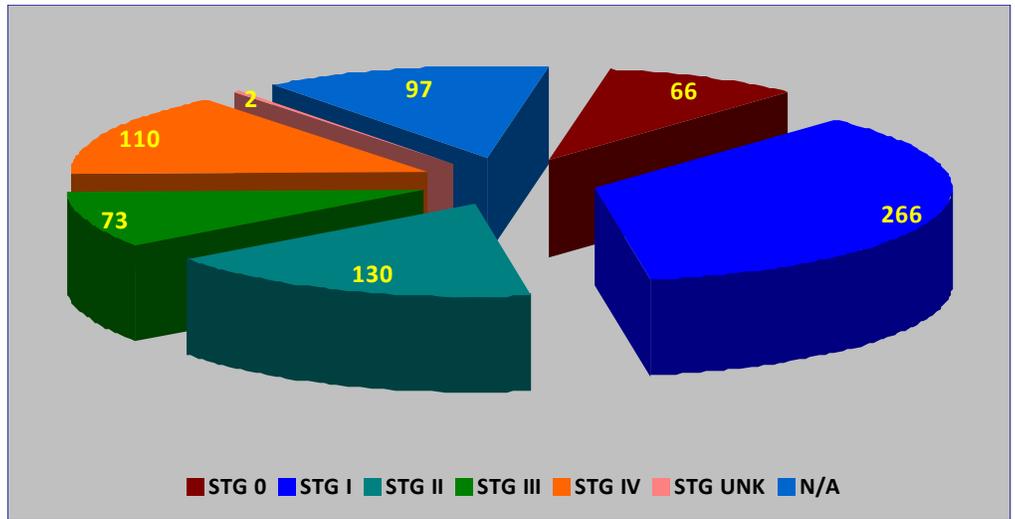
Cancer Patient Breakdown by Race and Gender



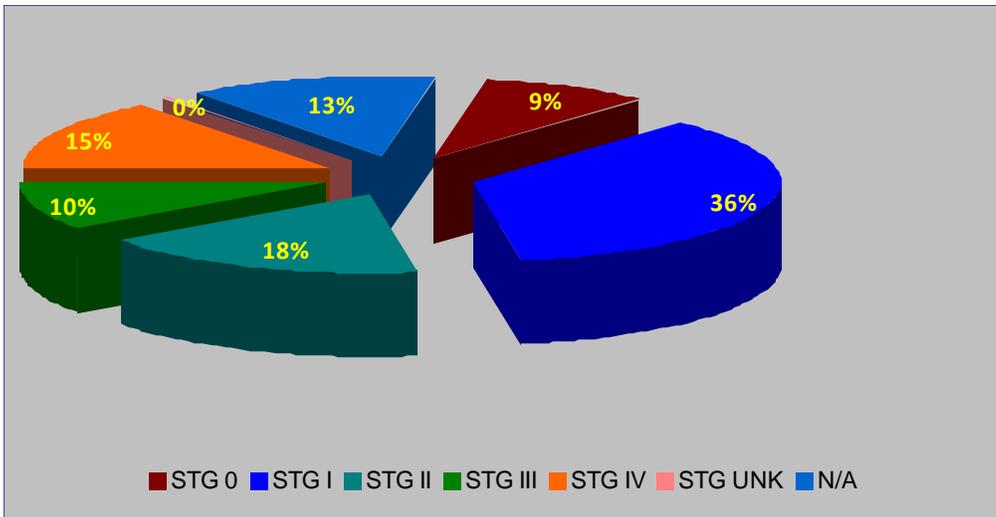
At left is a breakdown of 2011 cancer patients by race and gender. Note that the percentage of Asian women is higher than males, whereas males cancer patients rates are higher for all other races.

2011 Cancer Cases by Stage of Disease

Stage of disease at diagnosis is an important prognostic indicator. The majority of cancer patients were diagnosed with Stage I disease in 2011 and about 63% of all cancer patients were diagnosed with early stage disease. The pie chart at left and the one below illustrate stage of disease by number and percentage respectively.

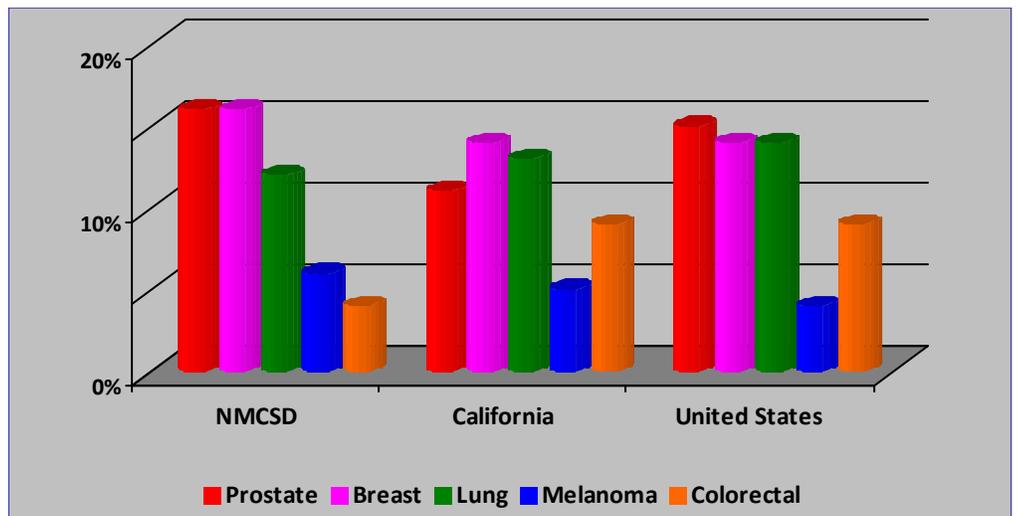


2011 Stage of Disease Ratios

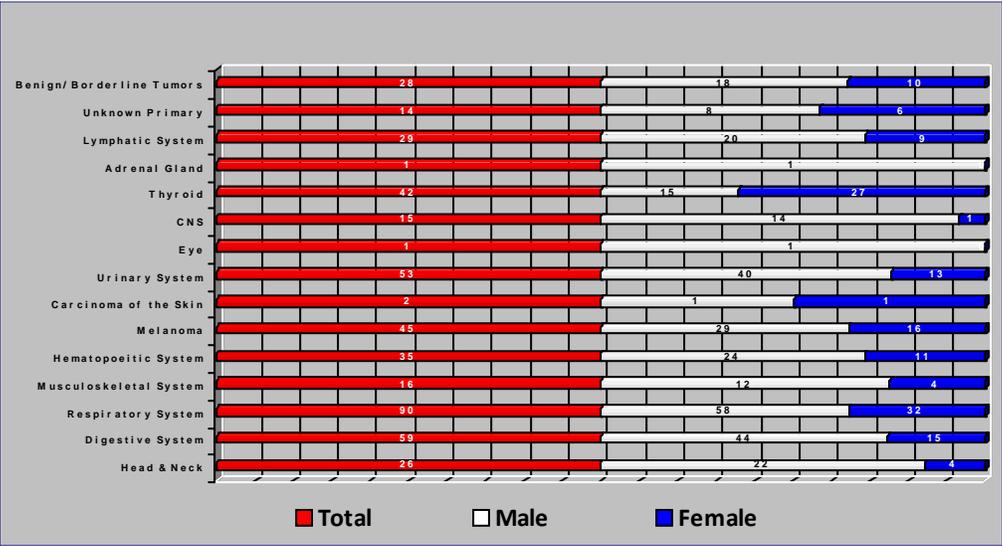


2011 Incidence Comparison of Select Cancers

A site comparison between NMCS D and projected cancers in California and Nation-wide shows very little variation. NMCS D does have a higher incidence of prostate and breast cancer in comparison to state and national figures as illustrated by the following chart. NMCS D also had a significantly lower percentage of colorectal cancer.



2011 Primary Site Group Distribution by Gender

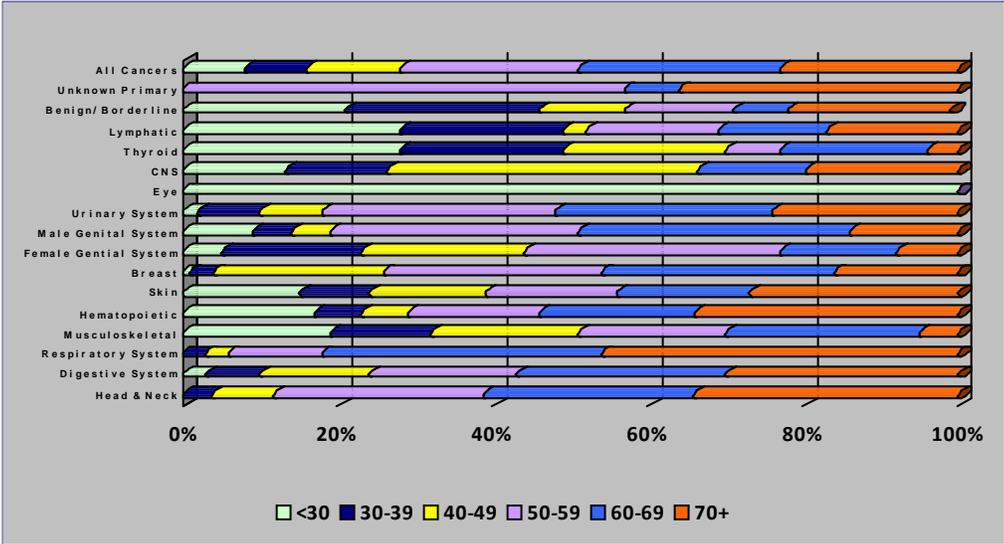


The chart at left breaks down primary site by gender. It should be noted that gender specific cancers i.e. Genital cancers are excluded.

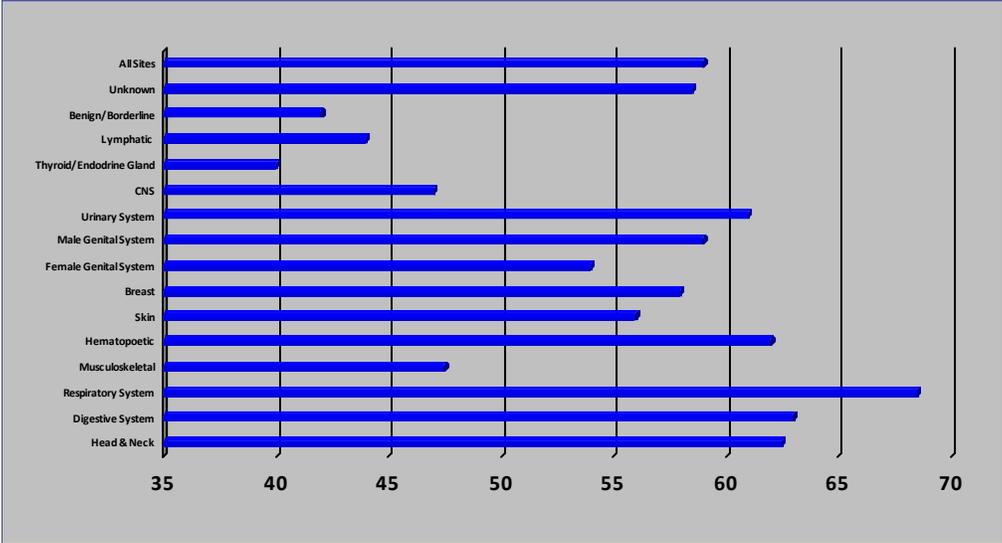
2011 Age Distribution at Diagnosis by Site

The chart at left illustrates the age at diagnosis ranges of our cancer patients by system. Age parameters are:

- <30
- 30—39
- 40—49
- 40—59
- 60—69
- 70 +



Median Age at Diagnosis by Site



Median age at diagnosis is illustrated here. Respiratory system cancers had the highest median age at 68.5, while Thyroid/Endocrine Gland cancers had the lowest median age of 40. The median age of all cancer patients in 2011 was 59.