



CANCER PROGRAM ANNUAL REPORT 2014

The success of the Cancer Program at Naval Medical Center San Diego (NMCS D) 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.

NMCS D 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.

NMCS D successfully completed the triennial Commission on Cancer, Cancer Program Survey on Aug. 7, 2013 and is once again fully accredited, receiving all eight possible commendations, and earning our 4th consecutive Outstanding Achievement Award. NMCS D 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 current Commander CAPT Acosta as well as our recent former Commander Rear Adm. Gillingham, Deputy Commander CAPT Mulligan, 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 one of a very small number of centers to be a 4 time winner of the Commission on Cancer’s Outstanding Achievement Award. Most recently, in the summer of 2013 we were surveyed by the Commission on Cancer, achieving 8 of 8 commendations, resulting in our 4th 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



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 NMCS D. 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 health-care 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 ob request for staff, residents and interns.

Oncology Advisory Group 2013 – 2014



Lt. Cmdr. (Dr.) H. Tracy	Chair/Hematology Oncology
Dr. P. Gable	CLP/ Hematology Oncology
Cmdr. (Dr.) L. Rivera	Surgical Oncology
Cmdr. (Dr.) T. Oseni	Surgical Oncology
Capt. B. Nelson, Dental Corps	Pathology
Cmdr. (Dr.) R. Takesuye	Radiation Oncology
Dr. C. Goepfert	Diagnostic Radiology/Breast Health
Cmdr. (Dr.) C. Norris	Palliative Care/Tumor Board Coordinator/ Hematology Oncology
J. Tszchanz, RN, ONP	Outpatient Oncology Nursing
S. Gharabaghli, RN	Quality Control
H. Ciaralli, CTR	Cancer Program Administrator/Cancer Registry
B. Taylor	Clinical Research Data Manager
M. Dispenzieri, LCSW	Outreach Coordinator
B. Manschot. LCSW	Psychosocial Services Coordinator

Cancer Screening Programs—HEDIS Initiatives

We continue to work hard at improving 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. Naval Branch Health Clinic Chula Vista, Naval Branch Health Clinic Kearny Mesa 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 mammograms 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 more than 3,650 women. More than 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. More than 8,800 patients have completed their colorectal cancer screening.

A Health Fair was held here at the hospital on Oct. 23, 2013 in recognition of National Breast Cancer Awareness and in several of the Branch clinics, resulting in an additional 17 mammograms being completed.

A banner was initiated in the Pharmacy waiting area on the TV monitors at the hospital highlighting Mammo While You Wait.

The MRS computerized system was reprogrammed and we piloted sending 100 patients a letter concerning their being overdue for mammography. This resulted in a 25% response rate and completion of overdue mammograms. We plan to send out additional letters using this system as the pilot was successful.

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.

Studies of Quality and Quality Improvement initiatives

Studies of Quality:

As an Academic Comprehensive Cancer Program, NMCS D is required to undertake at least two studies on the quality of cancer care and outcomes at the facility.

Annually the QI Coordinator under direction of the Cancer Committee develops, analyzes, and documents the required studies that measure the quality of care and outcomes for patients with cancer. Quality improvement is multidisciplinary. The study focuses on areas with *problematic quality* related issues relevant to our cancer population.

In 2014 The Oncology Advisory Group oversaw the following studies;

- #1. We conducted a retrospective review of 5 years of colorectal cancer diagnosis with identification by age and race and Active Duty or dependents for each stage also chart reviews for patients ages 50 and younger. This review was a poster presentation at the CPI Fair held 24 APR 2014.
- #2. We conducted a review of patients who received breast conserving therapy, who were offered and completed adjuvant therapy and the numbers by race to determine if there is a racial disparity and if there is -to what degree? This review was shown in a Poster at the CPI Fair held 24 APR 2014.
- #3. We completed a ten year review (2003-2013) to determine which patients with ovarian cancer received genetic counseling to establish a baseline. The review showed that just 28% of applicable patients either received or offered genetic counseling as documented in AHLTA.

Quality Improvements:

As an Academic Comprehensive Cancer Program, NMCS D is required to initiate at least two quality improvements related to cancer care and outcomes at the facility.

Annually, two patient care improvements are required. One improvement should be based on the results of a completed study that measures cancer patient quality care and outcomes and one improvement can be identified from another source or from a completed study.

In 2014 the Oncology Advisory Group;

Established **a pilot program for intraperitoneal chemotherapy** for patients who meet criteria and who have been diagnosed with Stage 3 or Stage 4 ovarian cancer.

Established a tracking mechanism to ensure that all patients with ovarian cancer should receive genetic counseling, as a result of the Quality study showing room for improvement in this area.

Clinical Trials

Type of Trial	Location	Number
2013		
Treatment Trials	Referred	9
Quality of Life Trials	Onsite	108
Total		117
Annual Analytic Caseload		657
Percent		18%
2014*		
Treatment Trials	Referred	11
Quality of Life Trials	Onsite	114
Total		125
Annual Analytic Caseload		527
Percent		24%

Clinical research advances 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: CALGB/Alliance E1Z11 A Cohort Study to evaluate Genetic Predictors of Aromatase Inhibitor Musculoskeletal symptoms (AIMSS). NMCS D 2014.0053

BREAST: NSABP B-51 A Randomized Phase III clinical trial evaluating Post-Mastectomy Chest wall and Regional Nodal XRT and Post-Lumpectomy Regional Nodal XRT in patients with Positive Axillary Nodes before Neoadjuvant Chemotherapy who convert to Pathologically Negative Axillary Nodes after Neoadjuvant Chemotherapy. (Pending IRB approval)

BREAST: Alliance/ACOSOG Z11102 Impact of Breast Conservation Surgery on Surgical Outcomes and Cosmesis in Patients with Multiple Ipsilateral Breast Cancer (MIBC). (No patients enrolled)

COLORECTAL: 80702: (D) A Phase III Trial of 6 VS 12 Treatments of Adjuvant FOLFOX Plus CELECOXIB or PLACEBO Patients with Resected Stage III Colon Cancer.

PROSTATE/GENITOURINARY: 90203(D) Phase III Neo-Adjuvant Docetaxel Androgen Deprivation Prior To Radical Prostatectomy Vs Radical Prostatectomy in High Risk Prostate Ca Patients (No patients enrolled)

PROSTATE: 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.

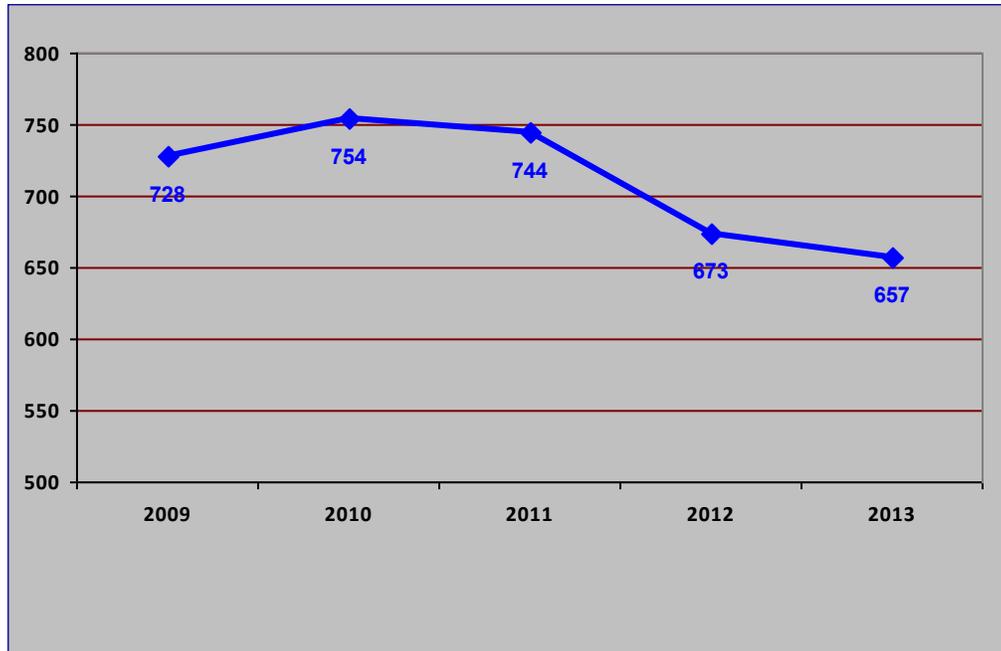
PROSTATE: CPDR A comprehensive research program to study prostate cancer and prostate disease in the tri-service military healthcare system.

HODGKIN'S LYMPHOMA: CALGB 50801 A phase II trial of response-adapted therapy base on PET for bulky Stage I and Stage II Classical Hodgkin Lymphoma (HL) (Pending IRB approval).

CHRONIC LYMPHOCYtic LEUKEMIA: CALGB/ALLICANCE A041202 - A Randomized Phase III study of Bendamustine Plus Rituximab vs. Ibrutinib Plus Rituximab vs. Ibrutinib alone in untreated older patients >=65 years of age with Chronic Lymphocytic Leukemia (CLL) (Pending IRB approval).

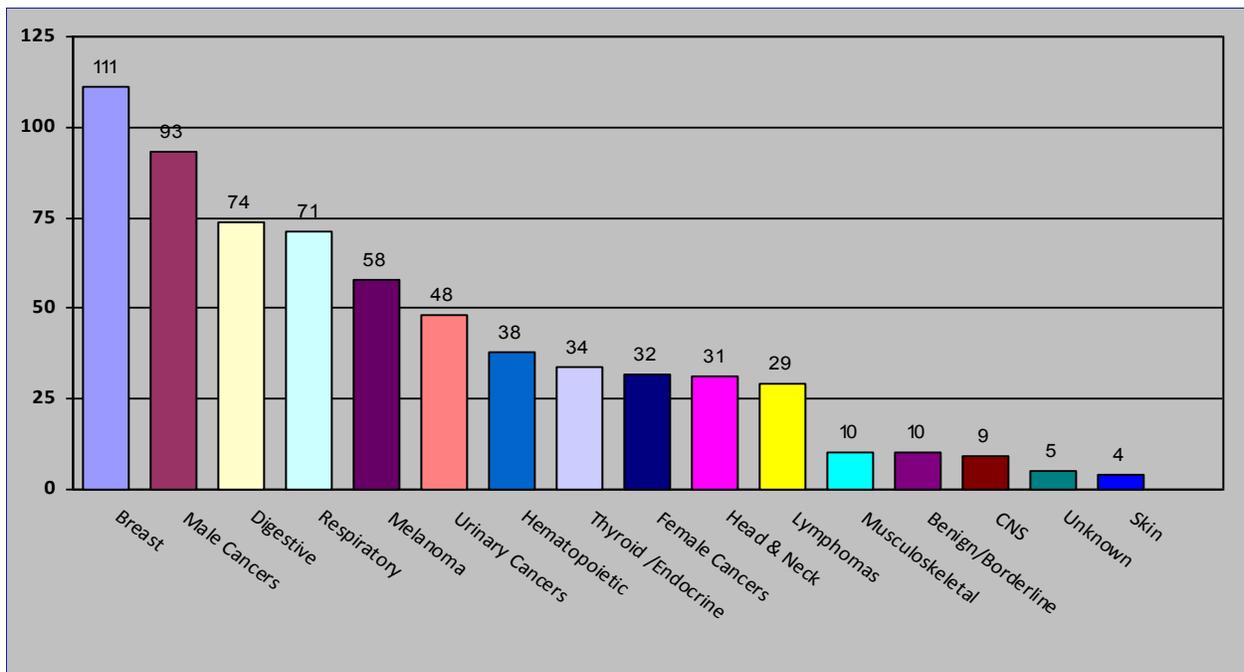
NMCS D Cancer Incidence 2013

In 2013* there were 657 cases of newly diagnosed and or treated incidences of cancer at Naval Medical Center, San Diego accessioned into the Automated Central Tumor Registry (ACTUR) database. This is a 10% decrease in the number of identified cancer cases compared to 2012. The five year incidence rate is illustrated below.



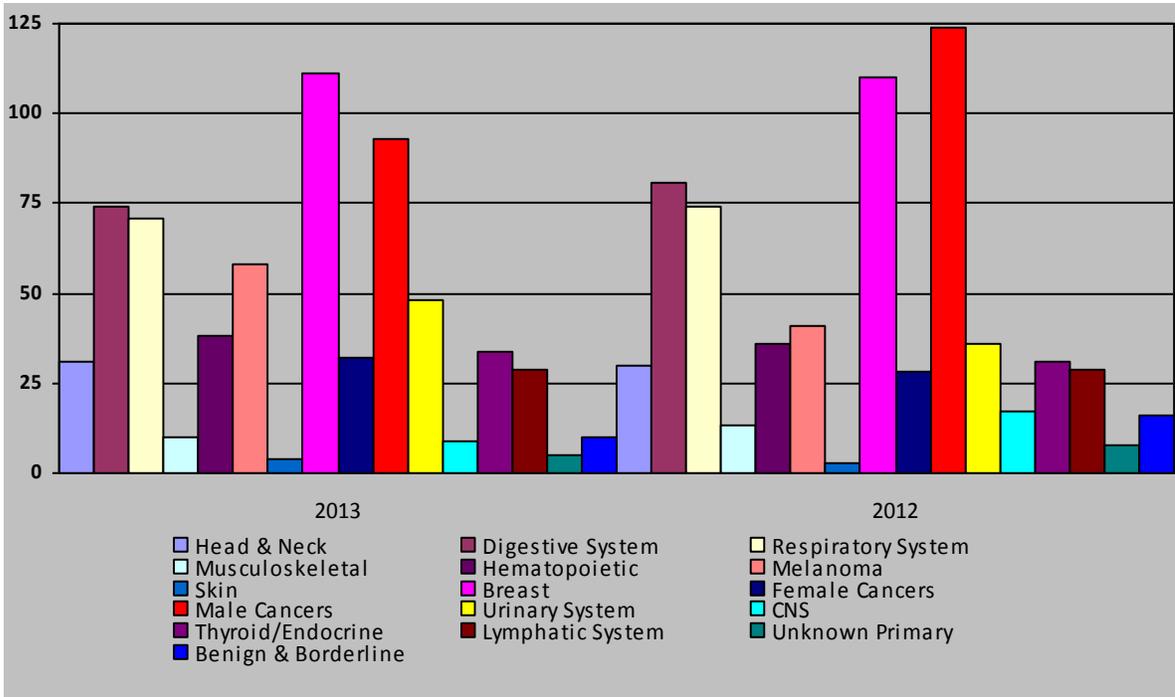
NOTE: *2013 is the last complete year of cancer data available at time of publication of this report.

Incidence by System 2013



A review of cancers by system shows that breast cancer was the most prevalent, followed by male cancers (including prostate), digestive system, respiratory system and melanoma. The chart shows the new cancers identified at NMCS D by system.

System Comparison 2012 – 2013

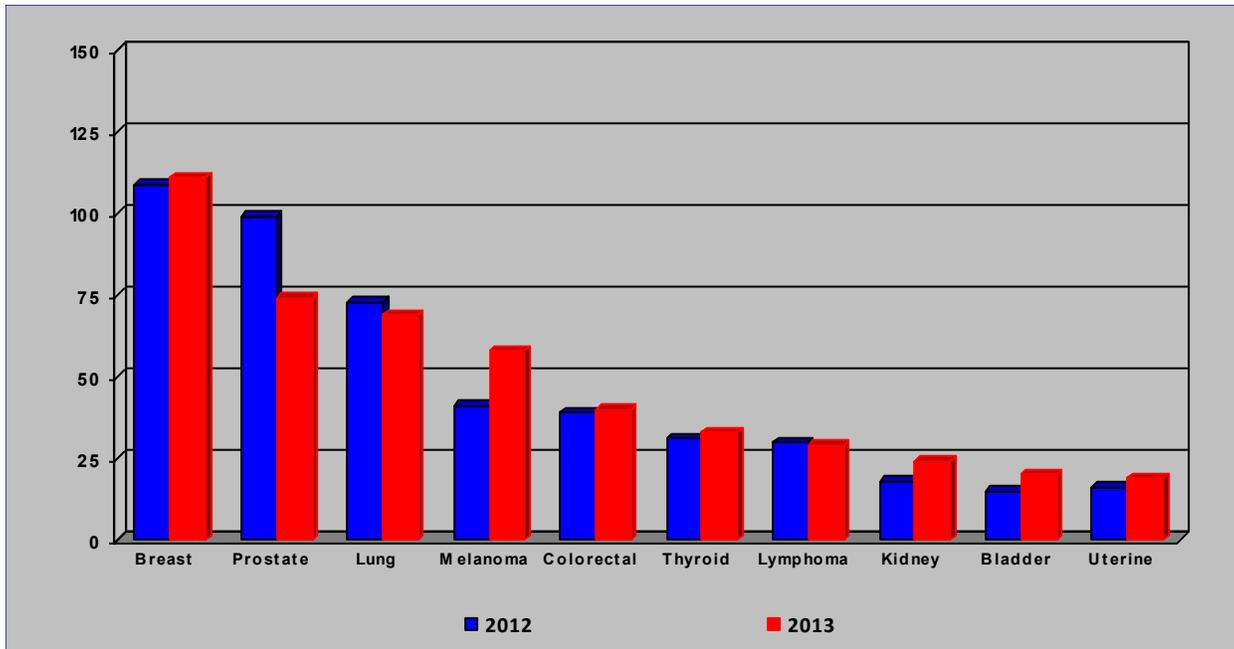


The chart to the left compares the system incidence of 2012 to 2013. The five most prevalent cancers show little variance in number year to year. In 2013 NMCSD saw an increase in Melanoma and Urinary system cancers. On the flip side, respiratory system cancers and male cancer decreased compared to 2012.

Site	2013	2012	Change	+	-
Breast	111	110	+1		
Prostate	74	99	-25		25%
Bronchus & Lung	69	73	-4		5%
Melanoma	58	41	+17	41%	
Colorectal	40	39	+1	3%	
Thyroid	33	31	+2	6%	
Lymphoma NOS	29	29			
Kidneys	24	18	+6	33%	
Bladder	20	16	+4	25%	
Corpus Uteri	19	16	+3	19%	

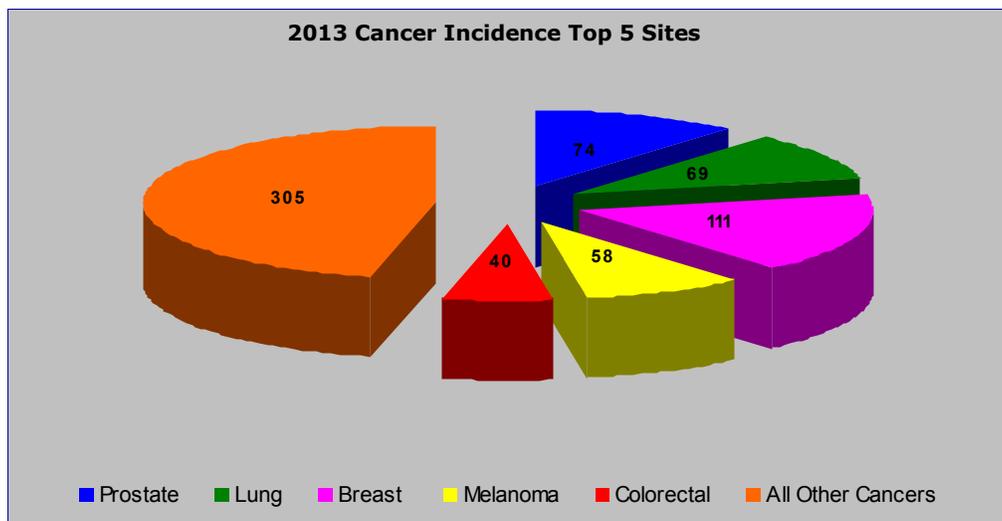
2013 saw an increase in the number of melanomas (41%) as well as kidney and bladder cancer cases (33%). There were however a fairly significant decreases in the number of reportable prostate and testicular cancer cases. The table at right illustrates the top 10 sites of 2013 in comparison to the totals in 2012.

Top Ten Sites Comparison 2012 – 2013

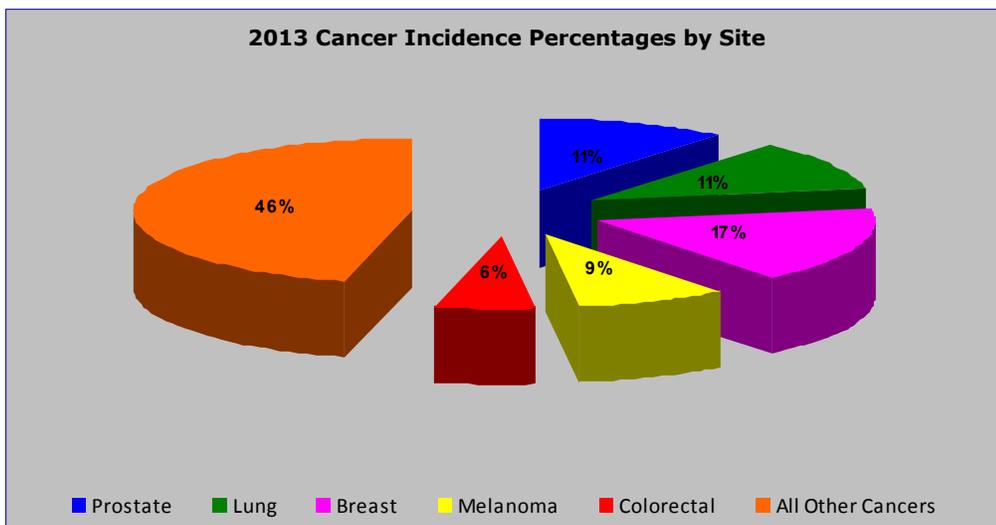


The chart at left further illustrates the cancer incidence for 2013 vs. 2012.

2013 Cancer Incidence Top 5 Sites

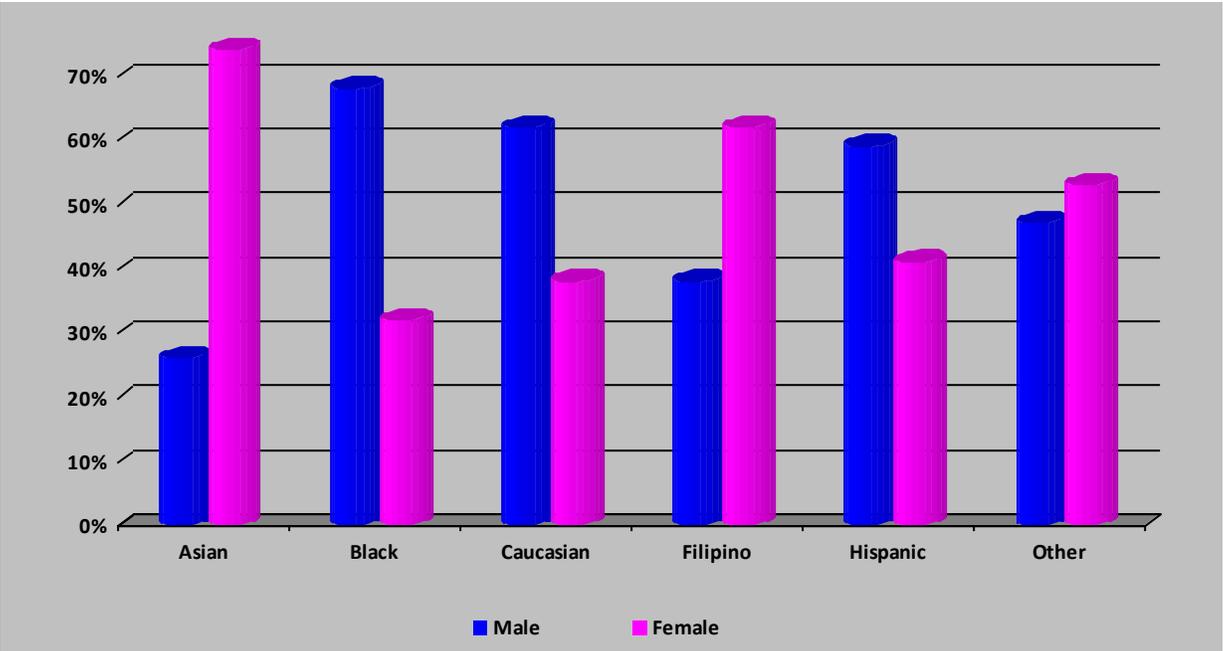
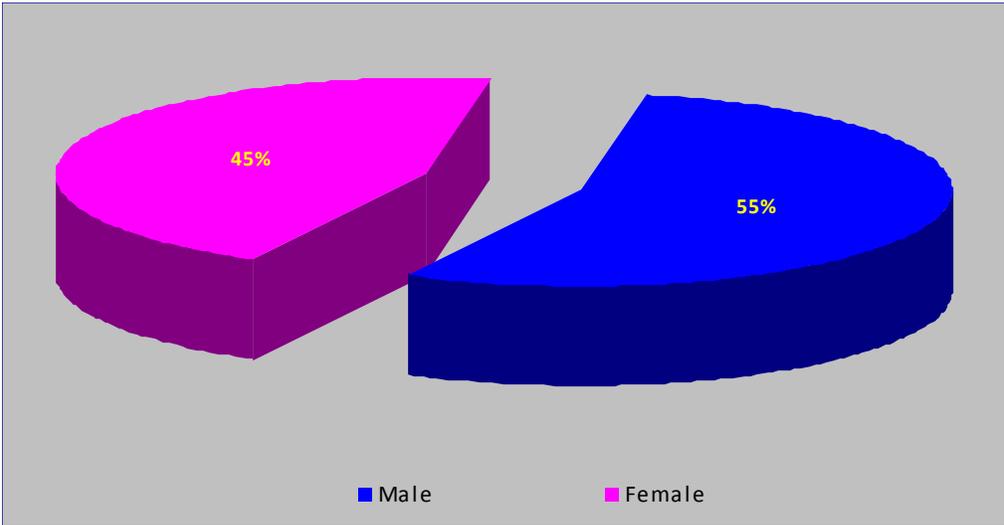


2013 Cancer Incidence Percentages by Site

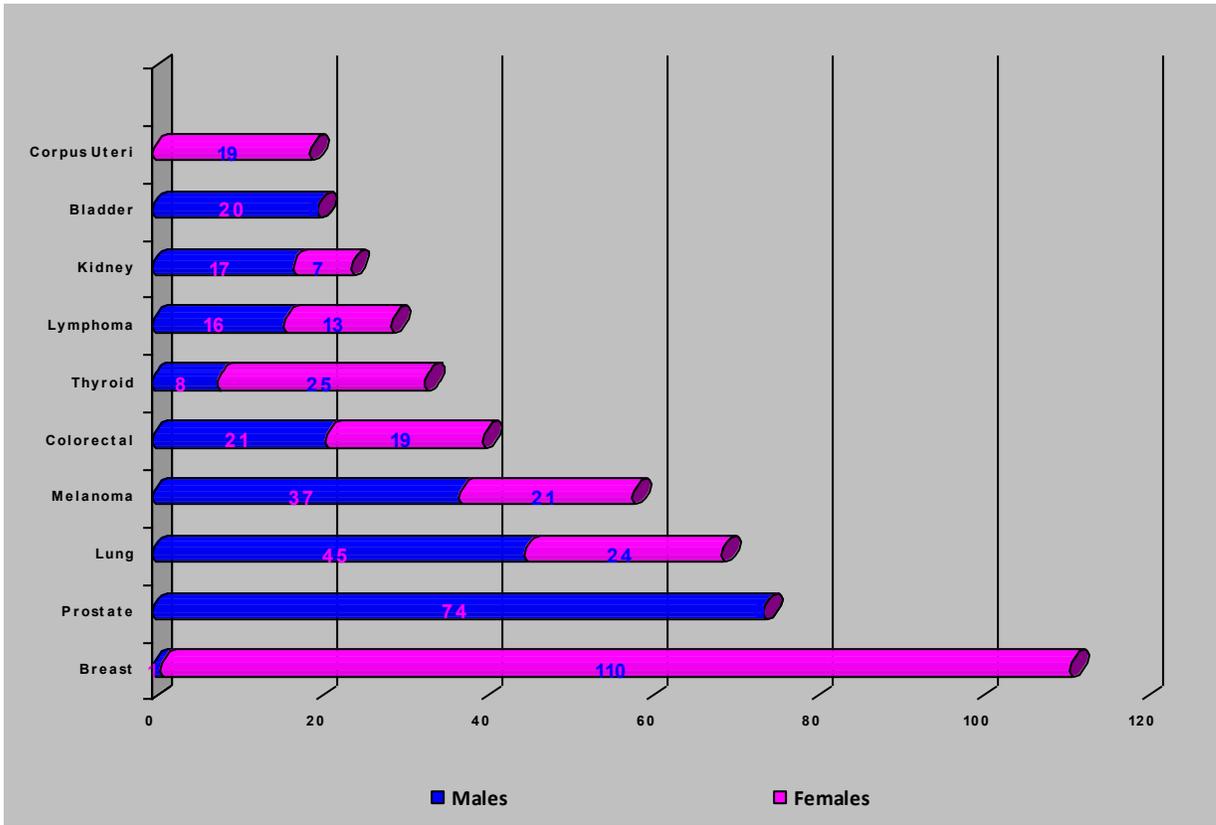


In 2013 the Male to Female patient ratio was 364:293. Males made up 55% of our patient load compared to females at 45%. This is fairly consistent with historical trends both at NMCS D and nationally.

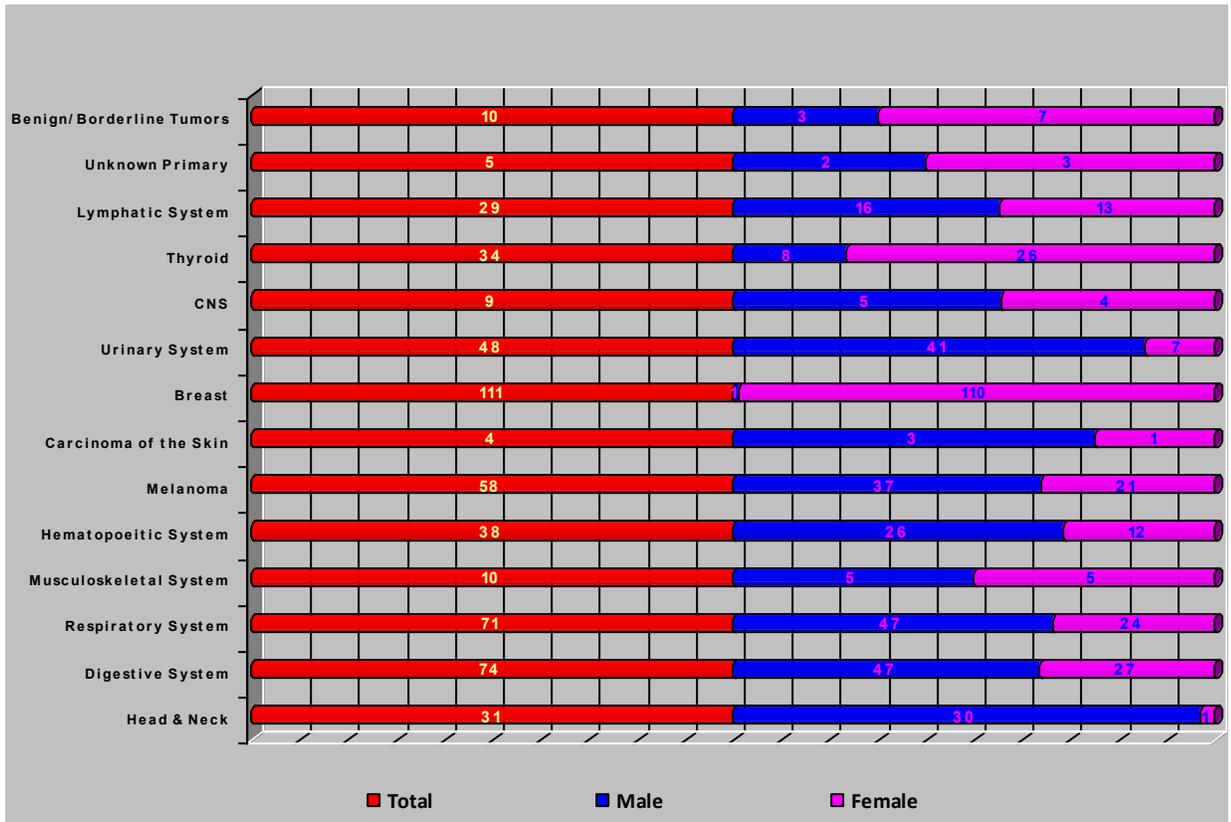
2013 Cancer Incidence Male to Female Ratio



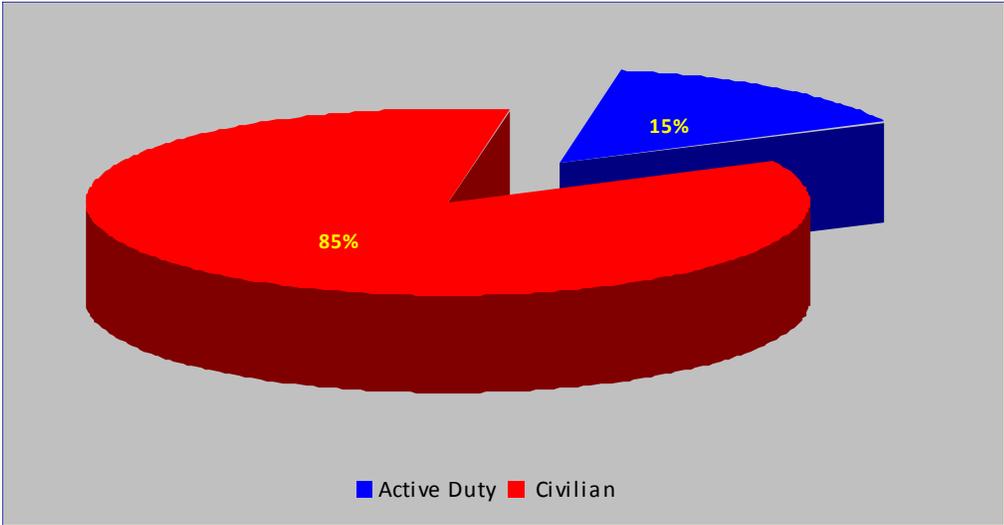
Top Ten Sites by Gender



2013 Primary Site Group Distribution by Gender



Active Duty Service Member Breakdown

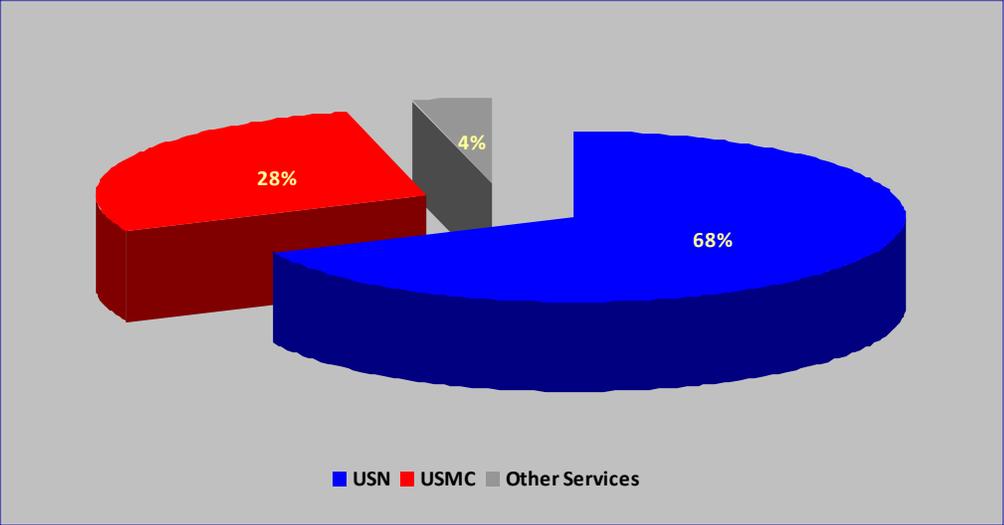


Active duty service members made up 15% of our cancer patients in 2013.

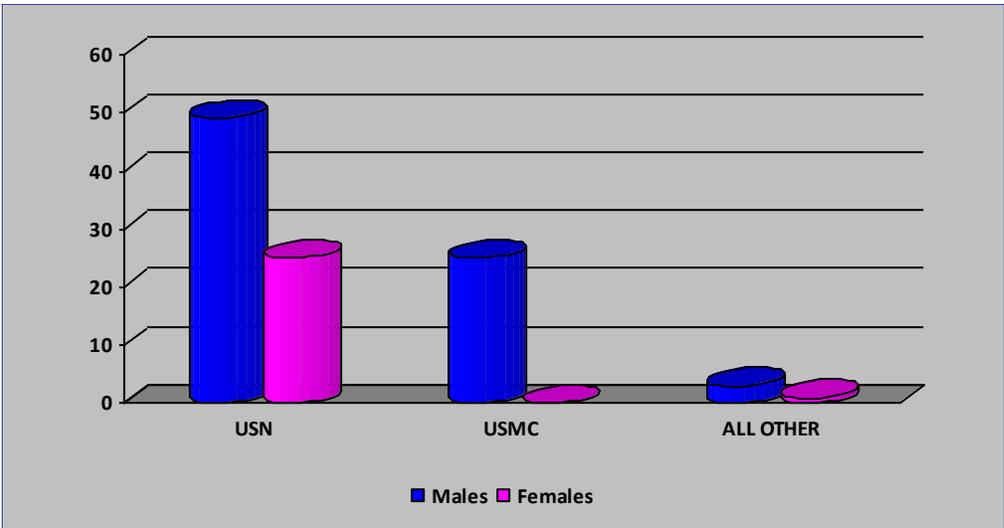
Of those, 68% were active duty Sailors. Active duty Marines account for 27%. All other branches make up the final 4%.

The chart at left illustrates the breakdown of our active patients by branch of service in 2013.

Active Duty by Branch of Service



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.

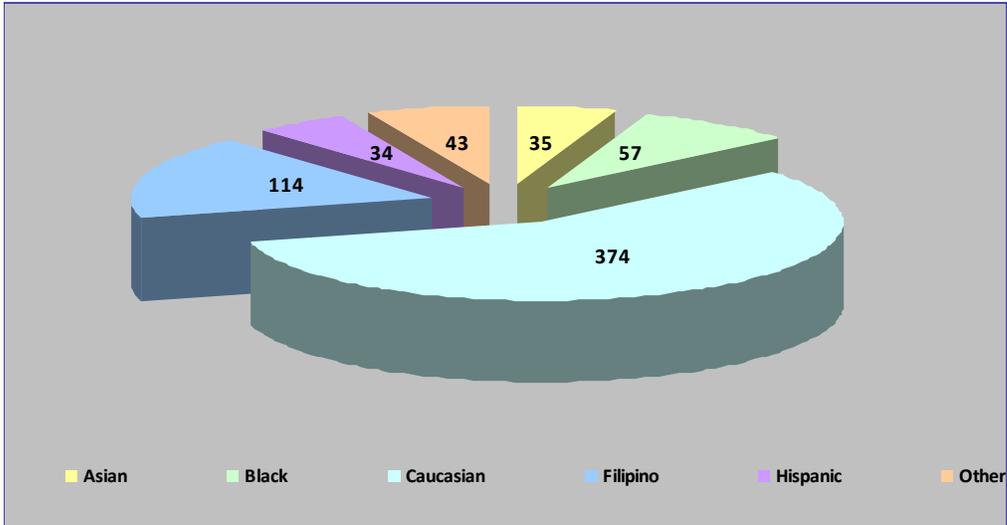
2013 Primary Site Table

	All	Male	Female	0	I	II	III	IV	UNK	N/A
	657	364	293	62	228	124	83	78	13	69
HEAD & NECK										
Lip/Oral Cavity	2	2	0	0	0	0	0	1	0	1
Tongue	9	8	1	0	1	0	1	7	0	0
Tonsil	5	5	0	0	0	1	1	4	0	0
Oropharynx	3	3	0	0	0	0	0	2	0	1
Nasopharynx	3	3	2	0	0	0	2	1	0	0
Hypopharynx	3	3	0	0		2	1	0	0	0
Larynx	7	7	0	0	3	2	1	1	0	0
Salivary Glands	2	2	0	0	2	0	0	0	0	0
DIGESTIVE SYSTEM										
Esophagus	7	7	0	0	1	3	1	2	0	0
Stomach	6	5	1	0	1	1	2	2	0	0
Small Intestine	1	1	0	0	0	0	1	0	0	0
Colon	24	13	11	2	5	4	9	4	0	0
Appendix	2	2	0	0	0	1	0	1	0	0
Rectum	16	8	8	2	5	3	4	1	1	0
Anus & Anal Canal	3	2	1	0	0	2	1	0	0	0
Liver	4	2	2	0	0	1	1	1	0	1
Extrahepatic Bile Ducts	1	1	0	0	0	1	0	0	0	0
Ampulla of Vater	1	1	0	0	0	1	0	0	0	0
Pancreas	9	5	4	0	2	1	0	6	0	0
RESPIRATORY SYSTEM										
Bronchus & Lung	69	45	24	0	35	3	9	20	1	1
Pleura	2	2	0	0	0	0	1	1	0	0
MUSCULOSKELETAL SYSTEM										
Bone	2	0	2	0	1	0	0	0	1	0
Connective & Soft Tissue	8	5	3	0	6	0	2	0	0	0
HEMATOPOIETIC SYSTEM										
Leukemia	27	19	8	0	0	0	0	0	0	27
Multiple Myeloma	5	3	2	0	0	0	0	0	0	5
Other Blood & Bone Marrow	6	4	2	0	0	0	0	0	0	6
MELANOMA										
Melanoma	58	37	21	13	34	1	7	2	1	0

2013 Primary Site Table

	All	Male	Female	0	I	II	III	IV	UNK	N/A
SKIN										
Other Skin Carcinoma	4	3	1	0	2	0	1	0	0	0
BREAST										
Breast	111	1	110	30	41	31	8	0	1	0
FEMALE GENITAL SYSTEM										
Vulva	1	0	1	0	1	0	0	0	0	0
Cervix Uteri	2	0	2	0	2	0	0	0	0	0
Corpus Uteri	19	0	19	0	13	0	3	2	1	0
Ovary	8	0	8	0	2	1	4	1	0	0
Fallopian Tube	2	0	2	0	0	0	1	0	1	0
MALE GENITAL SYSTEM										
Penis	1	1	0	0	0	1	0	0	0	0
Prostate	74	74	0	0	14	45	6	8	1	0
Testis	18	18	0	0	11	5	1	0	1	0
URINARY SYSTEM										
Kidney	24	17	7	0	13	3	4	3	0	1
Renal Pelvis & Ureter	3	3	0	2	0	0	0	1	0	0
Bladder	20	20	0	12	4	3	0	1	0	0
Other Urinary Cancer	1	1	0	1	0	0	0	0	0	0
CENTRAL NERVOUS SYSTEM										
Brain	9	6	3	0	0	0	0	0	1	8
Other CNS	1	0	1	0	0	0	0	0	0	1
THYROID & ENDOCRINE GLANDS										
Thyroid	31	8	25	0	24	4	5	0	0	0
Other Endocrine Gland Cancers	1	0	1	0	0	0	0	0	0	1
LYMPHATIC SYSTEM										
Hodgkin Disease	8	3	5	0	1	2	3	2	0	0
Non-Hodgkin Lymphoma	21	13	8	0	4	5	4	4	4	0
UNKNOWN PRIMARY										
Unknown Primary	5	2	3	0	0	0	0	0	0	5
BENIGN/BORDERLINE										
Benign/Borderline	10	3	7	0	0	0	0	0	0	10

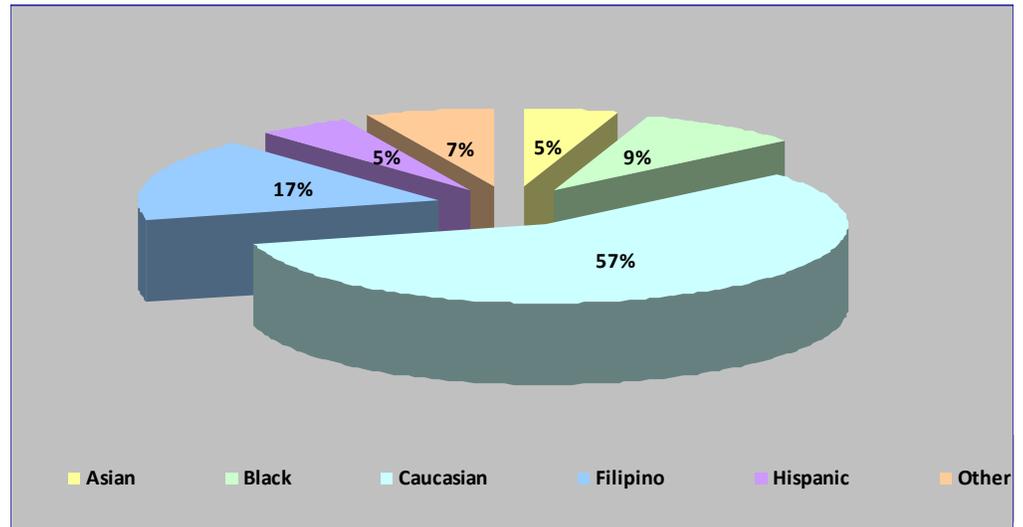
Cancer Patient Breakdown by Race



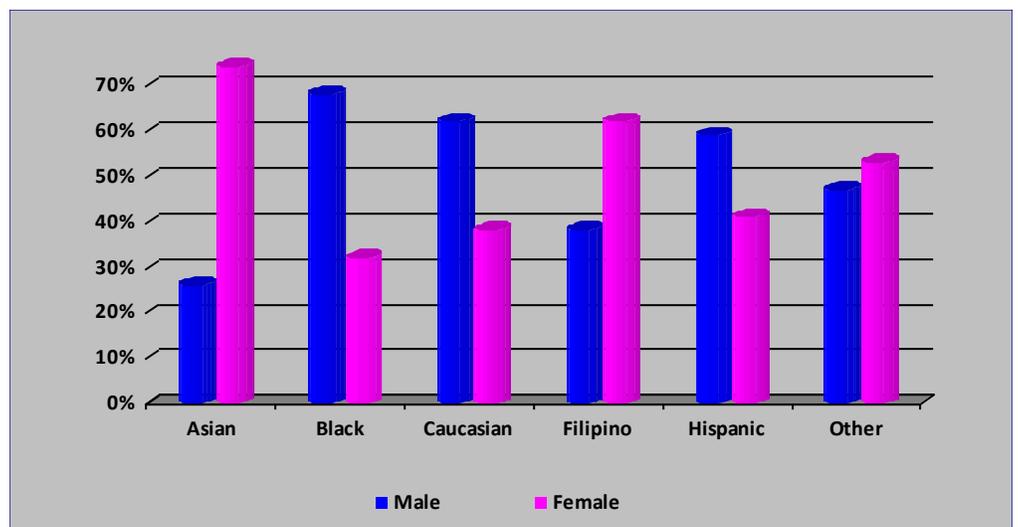
The breakdown of cancer patients is illustrated in this pie chart. Caucasians make up the major of our cancers, followed by Filipinos. This breakdown is the historic trend at NMCS D.

Totals are shown in the chart at left, while percentages are shown below.

Patient Races Percentage Comparison



Cancer Patient Breakdown by Race and Gender

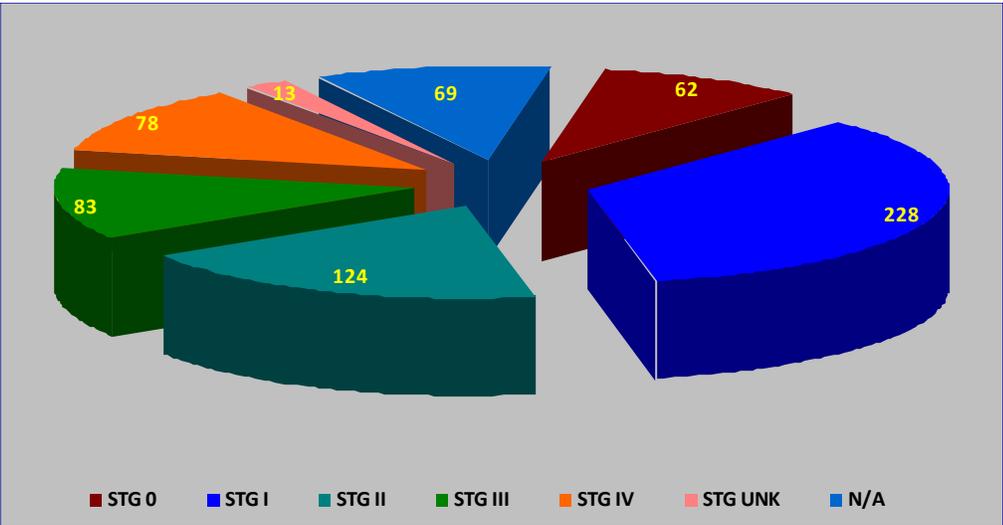


At right is a breakdown of 2013 cancer patients by race and gender. Note that the percentages of Asian and Filipino women are higher than males, whereas males cancer patients rates are higher for all other races .

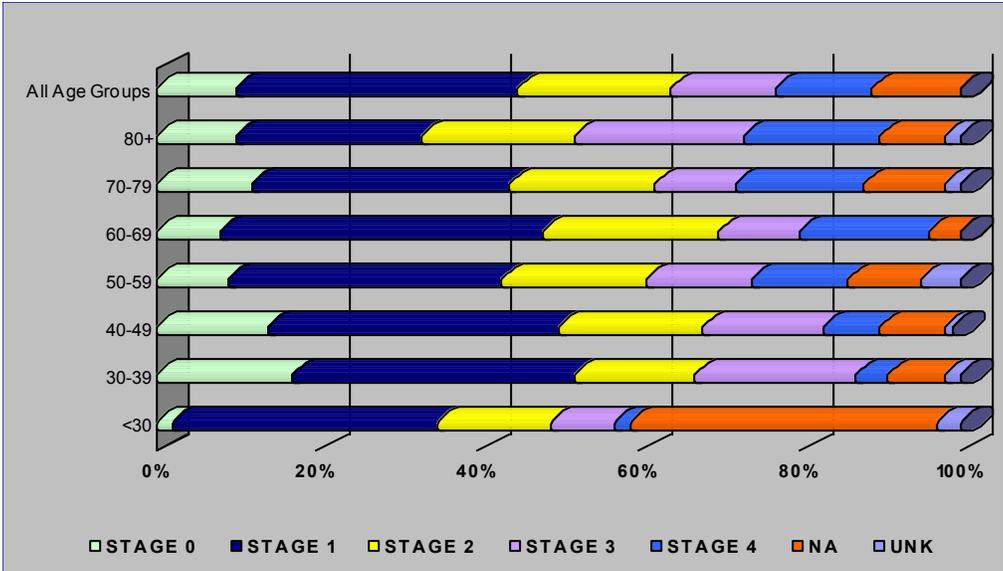
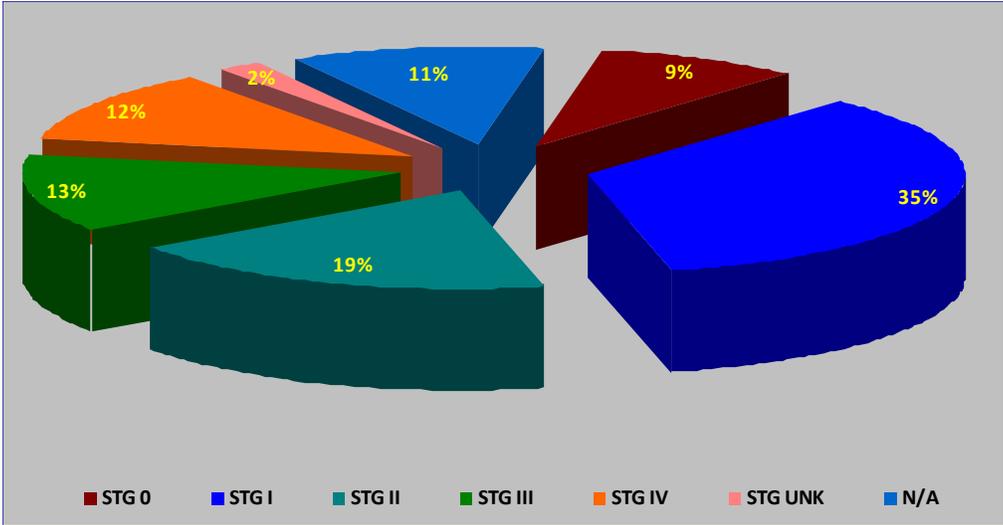
2013 Cancer Cases by Stage of Disease

Stage of disease at diagnosis is an important prognostic indicator. The majority of cancer patients were diagnosed with Stage I disease in 2013 and about 59% 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 respectfully.

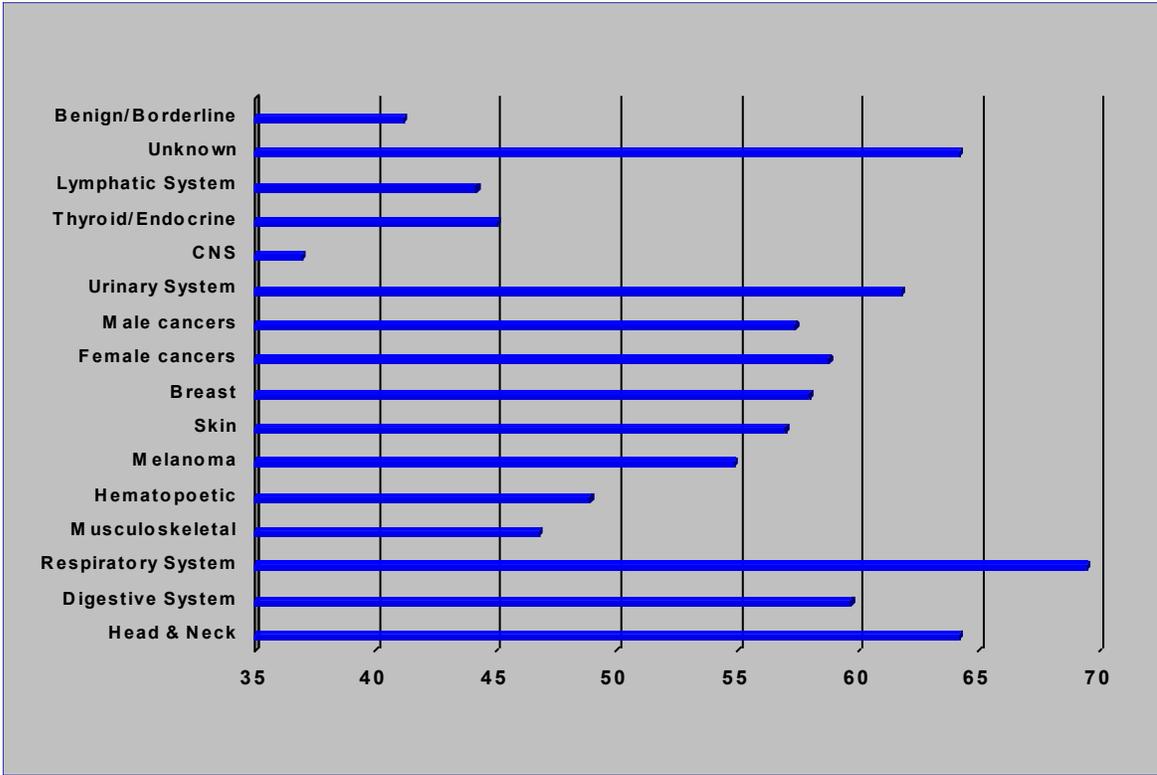
The bottom chart illustrates stage of disease at diagnosis by age group.



2013 Stage of Disease Ratios



Median Age at Diagnosis by Site



Median age at diagnosis is illustrated here. Respiratory system cancers had the highest median age at diagnosis of 69.5, while CNS tumors median age at diagnosis of 37. The median age of all cancer patients in 2013 was 57.2.

2013 Age Distribution at Diagnosis by Site

	TOTALS							PERCENTAGES						
	<30	30-39	40-49	50-59	60-69	70-79	80+	<30	30-39	40-49	50-59	60-69	70-79	80+
HEAD & NECK	1	1	2	5	7	13	2	3%	3%	6%	16%	23%	42%	6%
DIGESTIVE SYSTEM	2	6	7	21	20	8	10	3%	8%	9%	28%	27%	11%	14%
RESPIRATORY SYSTEM	0	2	1	4	27	27	10	0%	3%	1%	6%	38%	38%	14%
MUSCULOSKELETAL SYSTEM	3	1	2	2	1	0	1	30%	10%	20%	20%	10%	0%	10%
HEMATOPOIETIC SYSTEM	12	1	2	7	5	10	1	32%	3%	5%	18%	13%	26%	3%
MELANOMA	8	8	7	6	15	8	6	14%	14%	12%	10%	26%	14%	10%
SKIN	0	0	2	0	1	0	1	0%	0%	50%	0%	25%	0%	25%
BREAST	0	8	23	29	33	11	7	0%	7%	21%	26%	30%	10%	6%
FEMALE CANCER	1	2	1	11	10	7	0	3%	6%	3%	34%	31%	22%	0%
MALE CANCER	12	5	7	12	38	14	5	13%	5%	8%	13%	41%	15%	5%
URINARY SYSTEM	2	3	6	4	14	15	4	4%	6%	13%	8%	29%	31%	8%
CENTRAL NERVOUS SYSTEM	5	1	0	1	1	0	1	56%	11%	0%	11%	11%	0%	11%
THYROID/ENDOCRINE GLANDS	5	8	7	7	7	0	0	15%	24%	21%	21%	21%	0%	0%
LYMPHATIC SYSTEM	9	6	2	4	3	3	2	31%	21%	7%	14%	10%	10%	7%
UNKNOWN PRIMARY	0	0	2	0	1	0	2	0%	0%	40%	0%	20%	0%	40%
BENIGN/BORDERLINE	3	2	1	3	1	0	0	30%	20%	10%	30%	10%	0%	0%
ALL SITES	63	54	72	116	184	116	52	10%	8%	11%	18%	28%	18%	8%