



## Cancer Annual Report 2012

## **MESSAGE FROM MILLS-PENINSULA CEO**

**Robert Merwin**

The Dorothy E. Schneider Cancer Center continues to be one of the most vital health and treatment resources Mills-Peninsula provides for our community. As a key component of our 10-year strategic plan, the Center is always focused on continuous quality improvement and resource investment.

As you will read in this year's report, in 2012 Mills-Peninsula introduced the most advanced radiation oncology technology in the Center with the purchase of the Varian TrueBeam STx multifunctional linear accelerator. This technology gives our excellent physicians and staff the tools to conduct radiosurgery, greatly improving the precision of radiation and reducing treatment times.

We are on track in 2013 to provide a new PET/CT scanner that will even further advance our ability to use the TrueBeam to its fullest potential. The introduction of these two advanced technologies puts the Schneider Cancer Center at the forefront of treatment capabilities.

Since we opened the Center in 2000, this same focus on advancing quality and technology has been the cornerstone of our commitment. Equally important is the deep dedication of Cancer Center staff and physicians to treat the whole person, with respect and attention to the emotional as well as physical aspects of the life-changing experience of cancer.

Our report focus this year is on the Cancer Center's breast cancer program. As you will see, Mills-Peninsula not only continues its excellent record of early detection, but also of helping patients navigate through the treatment journey.

Mills-Peninsula's overarching goal remains the same: to provide world-class care close to home for patients and families in our community with any kind of cancer.

I am very proud of the talent of the physicians and staff in our cancer programs. The true value of working together as a team is clearly demonstrated in this report. I hope you will enjoy reading it.

## **MESSAGE FROM MEDICAL DIRECTOR CHAIRMAN OF CANCER COMMITTEE**

**Brian H. Henderson, M.D.**

The Dorothy E. Schneider Cancer Center opened in 2000, focusing on treatment of the most common cancers. In 2011, we diagnosed and treated 874 patients. The mission of the cancer program is to provide professional excellence in meeting the physical, psychosocial and emotional needs of our cancer patients and their families. Our vision over the years is to build on a strong foundation of interdisciplinary cancer management and expand services to meet the ever changing care challenges of our community.

The goals for the cancer program for 2013 are:

- Commission PET/CT in the Cancer Center by the end of the second quarter 2013
- Implement a GI navigator program by the end of the first quarter 2013
- Develop a cancer data management program by the end of the first quarter 2013
- Provide a cancer symposium for community physicians by the end of the second quarter 2013
- Implement a high risk breast cancer clinic by Jan. 31, 2013

- Implement a GYN navigator program by the end of the fourth quarter 2013
- Establish a process to increase physician awareness of available clinical trials by the end of 2013
- Accrue 2 percent of appropriate patients onto clinical trials by the end of the fourth quarter 2013

## **CANCER COMMITTEE**

The Mills-Peninsula Health Services Cancer Committee is a professional staff committee that meets every other month to plan, assess and implement all cancer-related programs and activities. These programs include specialty clinics, navigator programs, genetic counseling, rehabilitation services, research, education, wellness, prevention and survivorship. The committee, chaired by the medical director of the cancer program, is responsible for continuous quality management of the Mills-Peninsula Health Services cancer program. Membership is interdisciplinary and includes community members. The goals of the committee are:

- To develop goals and objectives aimed at providing interdisciplinary, evidence-based patient care to all patients receiving treatment
- To deliver the best possible patient care using state-of-the-art technology and specially-trained staff
- To improve patient survival and outcomes to enhance the quality of life for all cancer patients regardless of diagnosis

## **CANCER COMMITTEE RESPONSIBILITIES**

- To establish the cancer conferences frequency, format and multidisciplinary attendance requirements on an annual basis
- To ensure the required number of cases are discussed at the cancer conference on an annual basis and that at least 75 percent of the cases discussed are presented prospectively
- To monitor and evaluate the cancer conference frequency, multidisciplinary attendance, total case presentation and prospective care presentation on an annual basis
- To have oversight in providing optimal patient care to cancer patients, including quality palliative care, end of life care, research and continuum of care services
- To develop and present educational classes in cancer diagnosis, treatment, prevention, awareness, outcome and cost control for physicians, hospital staff and the community
- To establish and implement a plan to evaluate the quality of cancer registry data and activities on an annual basis. The plan includes procedures to monitor case finding, accuracy of data collection, abstracting timeliness, follow-up and data reporting
- To analyze patient outcomes and disseminate the results of the analysis
- To ensure the American College of Surgeons (ACoS) requirements for accreditation of the cancer program are met

## QUALITY IMPROVEMENTS & PHYSICIAN LIAISON REPORT

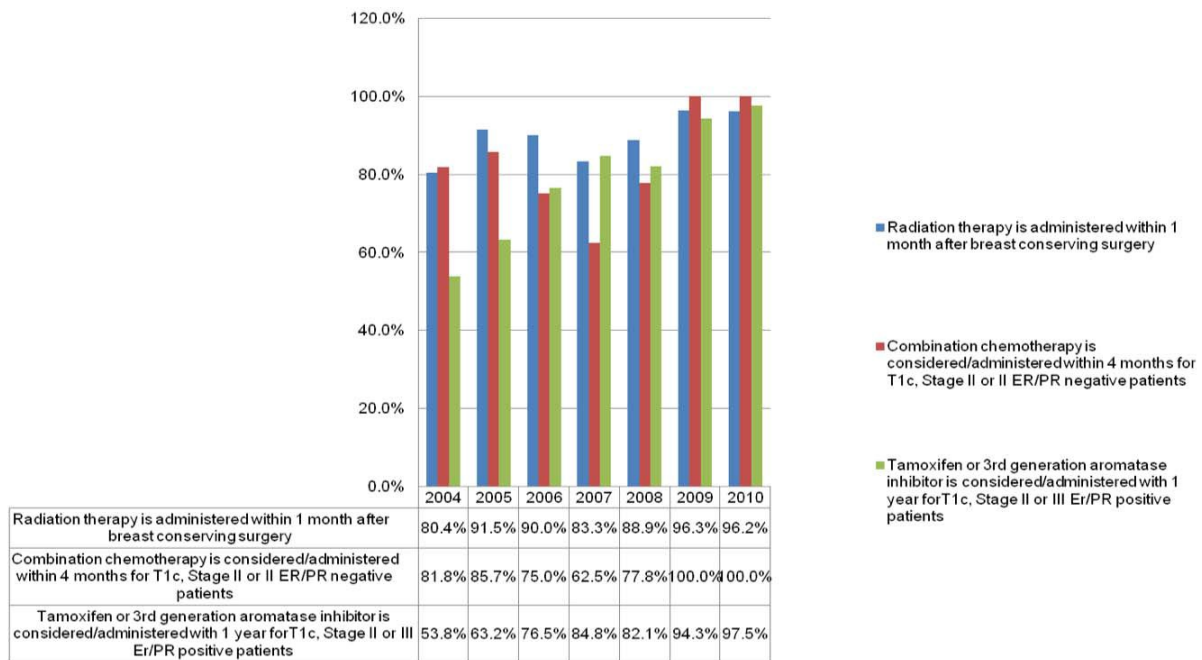
Kimberly Moore Dalal, M.D., FACS

The cancer committee conducts several quality improvement (QI) reviews in an effort to ensure a high quality standard of care is provided to our cancer patients each year. Multiple departments including Cancer Registry, Cancer Navigator, Outpatient Infusion, 4-East Oncology Unit, Pharmacy and Radiation Oncology contribute to QI activities each year. QI indicators are selected based on compliance with national standards of care including National Comprehensive Cancer Network (NCCN) guidelines and Commission on Cancer (CoC). Some of the QI activities were selected from the Press Ganey scores. The QI activities also provide an opportunity to improve upon or enhance quality care and outcomes.

### Quality Improvement Measures

Mills-Peninsula continues to participate in the Cancer Program Practice Profile Reports (*CP<sup>3</sup>R*) for Breast Cancer. This program estimates performance rates for Dorothy E. Schneider's cancer program based on the proportion of breast patients treated according to recognized standards of care by year of diagnosis. These proportions are computed based on data directly reported from our cancer registry to the National Cancer Data Base (NCDB). For each indicator the target is 100 percent.

### Cancer Program Practice Profile Report (CP3R)



## **CANCER CONFERENCE (TUMOR BOARD) COORDINATOR**

**Stephen A. Weller, M.D.**

A tumor board is a multispecialty group of health care providers who meet to review and discuss diagnostic information and medical treatment options for patients with cancer. The boards include:

- Medical oncologists
- Radiation oncologists
- Pathologists
- Radiologists
- Gynecologic oncologists
- Surgeons
- The patient's primary care provider or specialist
- Nurse navigators/clinical nurse specialists

The goal for the tumor board is to provide multidisciplinary recommendations for patients, with an emphasis on new developments in treatment and participation in clinical trials. Tumor boards also provide a forum to educate physicians, nurses and other health care providers and to share relevant research findings.

Our tumor boards give people with cancer access to high-level, collaborative cancer care that is integrated and coordinated with their primary care.

The current tumor boards are:

- General
- Breast
- Genitourinary (GU)
- Cutaneous
- Gastrointestinal (GI) (added in 2012)

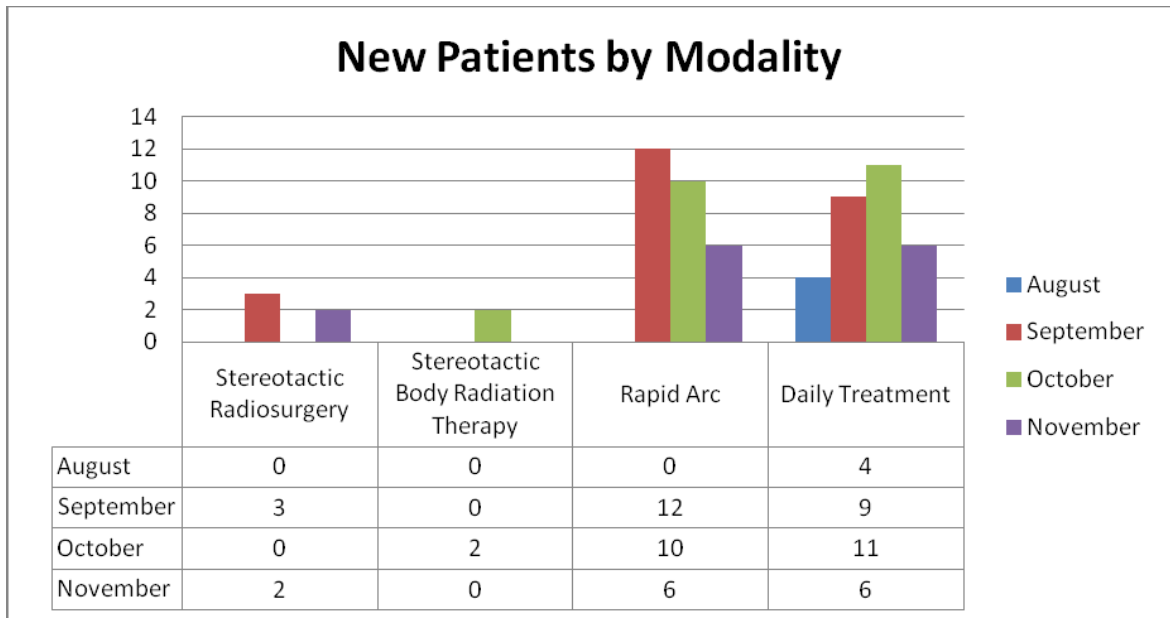
**PROGRAMMATIC ACHIEVEMENTS**

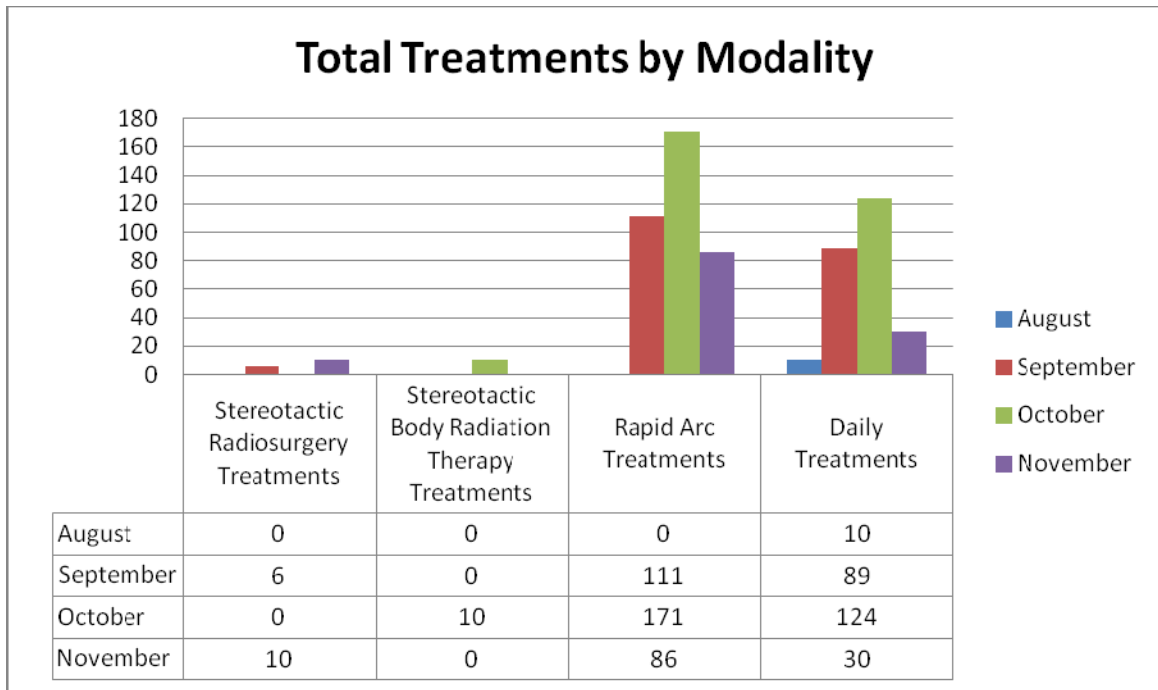
**Sheila R. Littrell, R.N., Director, Cancer Center**

- NEW TECHNOLOGY**

An anonymous donor grant helped fund the purchase of a *TrueBeam STx* multifunctional linear accelerator for the Dorothy E. Schneider Cancer Center. The TrueBeam STx will allow Cancer Center clinicians to perform radiosurgery procedures with exceptional ease and speed, with most treatments lasting only a few minutes a day. The machine rotates around the patient to deliver a prescribed radiation dose from nearly any angle. It combines imaging, beam delivery and sophisticated Rapid Arc technology to accurately and precisely target tumors. Real-time imaging tools allow clinicians to see the tumor they are about to treat and respiratory gating enables clinicians to synchronize beam delivery with patient respiration. This machine can be used for many forms of advanced treatment techniques for both brain and body tumors, including image-guided radiotherapy (IGRT), intensity-modulated radiotherapy (IMRT) and radio stereotactic surgery. Because of this, patients can receive the radiotherapy treatment that is best suited for their specific clinical circumstances.

TrueBeam™ Radiation Treatment Summary  
Aug. 1 - Nov. 30, 2012



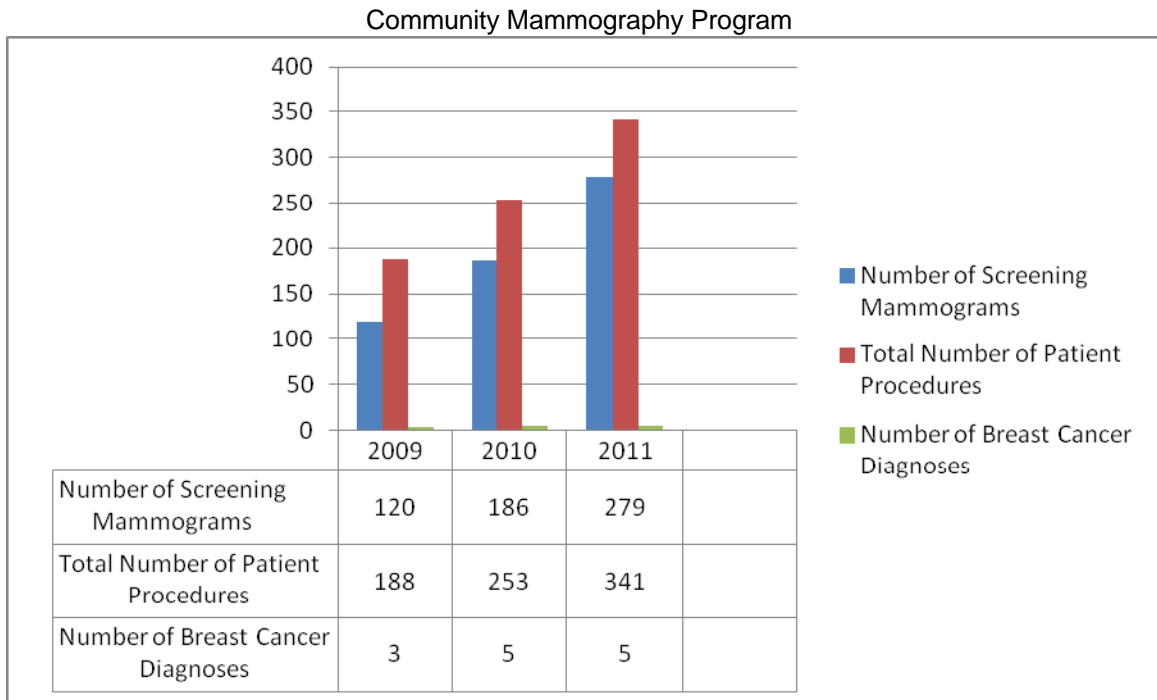


- We are accredited with commendations by the American College of Surgeons as a Community Hospital Comprehensive Cancer Program, the highest community program distinction.
- Press Ganey Customer Service mean scores for 2011 per quarter for the Infusion Center are 96.2 (1<sup>st</sup> Q); 94.8 (2<sup>nd</sup> Q); 96.4 (3<sup>rd</sup> Q); 97.2 (4<sup>th</sup> Q) and for Radiation Oncology are 94.2 (1<sup>st</sup> Q); 93.9 (2<sup>nd</sup> Q); 94.6 (3<sup>rd</sup> Q); and 92.1 (4<sup>th</sup> Q).
- **CLINICAL ACHIEVEMENTS**  
The cancer nursing team made the decision to require all cancer nurses to be chemotherapy certified and recertified through the Oncology Nursing Society in order to have a standardized training program.

Service improvements include the addition of medical directors for palliative care, as well as expanded clinical research opportunities and the addition of an effective data tracking system. A master's prepared research coordinator was hired to lead the research efforts.

- **COMMUNITY OUTREACH - Community Program**  
**Jennifer Vickerman, R.N., M.S., Clinical Nurse Specialist**  
The Breast Center has a long tradition of offering free mammography services to women who otherwise do not have access to breast imaging services. In partnership with the African American Community Health Advisory Committee (AACHAC), the Breast Center began working with local churches in the African American community to encourage women to be proactive regarding their breast health. For those women who did not have resources to obtain the recommended screening mammogram, the Breast Center offered free mammography services on Sundays. The AACHAC provided outreach to other underserved populations, and free screening mammography services were expanded and offered throughout the week. As more women were screened, the need to offer diagnostic imaging services to follow up on abnormal screening findings was crucial to caring for these underserved populations. Thanks to generous donations from the Safeway Foundation and the Mills-Peninsula Hospital Foundation,

the Breast Center is now able to offer free screening and diagnostic breast imaging services to women who are uninsured or underinsured. Over the past three years, 585 screening mammograms have been performed resulting in 13 breast cancer diagnoses.



**CANCER PROGRAM SERVICES**

Developing a top-notch program to prevent, diagnose and treat cancer is closely tied to Mills-Peninsula Health Service’s vision for a healthy community. Mills-Peninsula’s Dorothy E. Schneider Cancer Center offers advanced medicine and technology, led by an expert team of medical professionals in a beautiful environment filled with waterfalls, sunlight and art. Our Cancer Care program is accomplished on many levels:

**Breast Cancer Program:** recognized as among the Bay Area’s highest-quality diagnosis and treatment resources. Sixty-five percent of women diagnosed with breast cancer at Mills-Peninsula are at stage 0 or 1, when cancer is the most curable. Each new breast cancer case is reviewed by a multidisciplinary team to ensure the most effective treatment plan is recommended. This coordinated treatment planning program is now also being considered for other cancers. We have the Peninsula’s most comprehensive program for lymphedema, a potentially debilitating lifelong side effect experienced by some cancer survivors.

**Genetic Counseling:** Our genetic counselors provide counseling for a variety of hereditary cancer syndromes. Identified patients meet with a genetic counselor to discuss his or her personal and family



history of cancer. The genetic counselors typically see patients for one visit with a follow-up visit to discuss genetic testing results, if necessary. The counselor constructs a family “pedigree” similar to a family tree, and each patient’s history is evaluated using nationally determined risk criteria. If there is a suspicion of an inherited familial risk (usually a gene mutation), appropriate genetic testing will be recommended. Recommendations are made in conjunction with the patient’s physician team for screening and risk reduction to manage the identified inherited risk.

**Radiation Oncology Services:** Mills-Peninsula was the first Bay Area community hospital to introduce new radiation technologies that reduce side effects and treatment time. When treating cancer with high-intensity radiation, the challenge is to destroy the body’s cancerous cells without harming healthy tissue. Mills-Peninsula provides radiation treatment for more people than any other facility in San Mateo County. A dedicated CT scanner and 3-D imaging are used to target specific tumors, minimizing the exposure of healthy tissue. This technology allows the linear accelerator to conform the beam of radiation to the cancer site. Treatment modalities offered at Mills-Peninsula include:

- Low-dose brachytherapy for prostate cancer
- High-dose brachytherapy for early stage breast cancer
- Intensity Modulated radiation Therapy (IMRT)
- Image Guided Radiation Therapy (IGRT)
- Stereotactic Radiosurgery (SRS)
- Stereotactic Body Radiation Therapy (SBRT)

**Infusion Services:** The Cancer Center provides comfortable patient care areas where people can receive intravenous medications, transfusions and specialized procedures. Our staff members provide expert care in specialized areas including:

- Peripherally inserted central catheter (PICC) line placement
- Chemotherapy and immunotherapy administration
- Phlebotomy and transfusions

In addition to cancer treatment, the center offers many other infusion services such as antibiotics, blood transfusions and arthritis medications. Each station is equipped with a television, computer hook-up and a calming view of the outdoor plaza and waterfall.

**Oncology Nurse Navigators/Clinical Nurse Specialists:** Dealing with all the new emotions and decisions surrounding the diagnosis of cancer can be overwhelming. To help patients through this process, our nurse navigators/clinical nurse specialists:

- Educate patients and families about their disease treatment, management strategies and available clinic and community resources
- Help patients make informed decisions about their care

- Facilitate recovery and rehabilitation
- Provide emotional support

Nurse navigators/clinical nurse specialists know that our patients' health and peace of mind are integral to their treatment. The nurse navigator/clinical nurse specialists provide patients and families with information about our support services, such as clinical social workers, dietitians and community resources. Research has shown that having a nurse navigator/clinical nurse specialist during treatment allows patients to better focus on healing. They are empowered knowing that an advocate is on their side.

In addition to support through treatment, patients are supported through their transition from active treatment to a new level of care. This support and coordination with physicians and community resources helps many transition to a "new normal" with respect to work and family life, and even continues through the long-term transition of care to end of life and hospice. Whatever the goals of care may be, the patient and family are matched up to the resources that best meet their needs so they can be active participants in their ongoing care.

**Oncology Clinical Research:** Mills-Peninsula participates in clinical trial research with the National Cancer Institute and pharmaceutical companies. This allows our patients to enroll in a variety of prevention, screening and treatment studies leading to the most current treatment options.

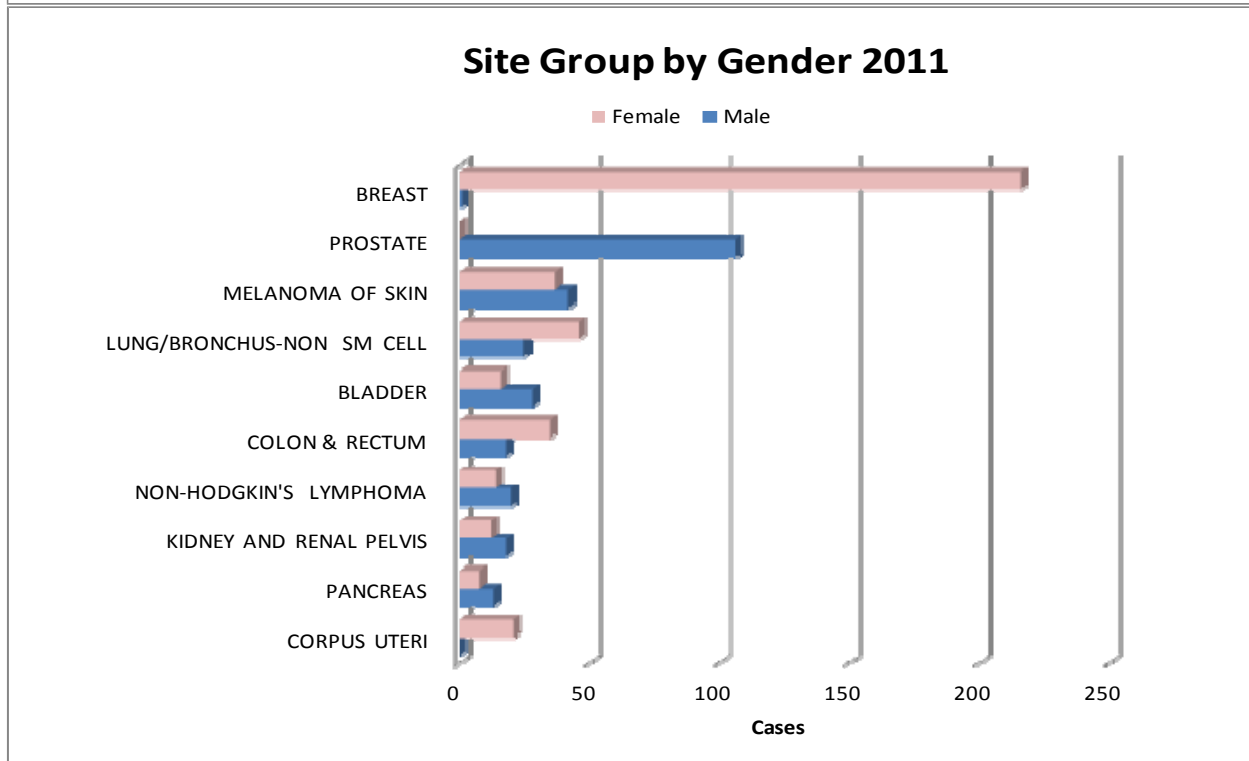
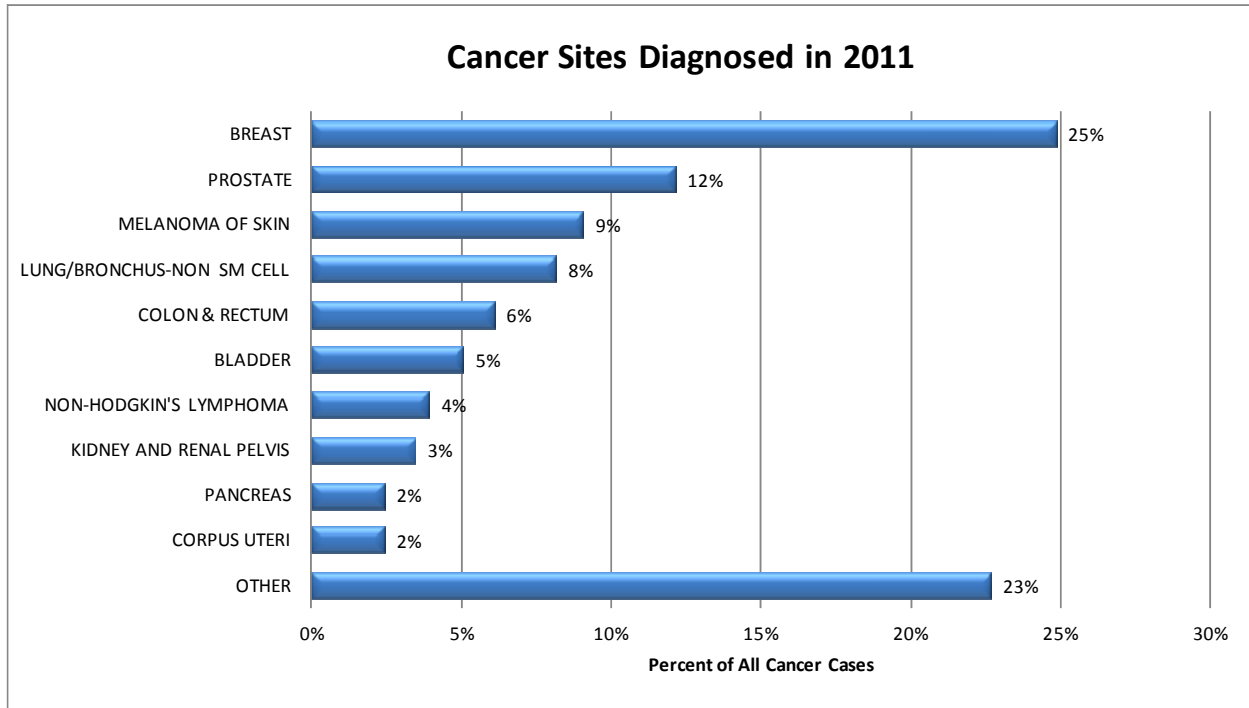
Clinical trials are research studies that use human volunteers in an attempt to better diagnose, treat and prevent diseases. These trials are efficient ways for health professionals to decide how to safely and effectively treat diseases such as cancer. Trials are broken up into four phases:

- **Phase I:** Conduct studies to decide if the new treatment is safe
- **Phase II:** Conduct studies to determine if the new treatment works
- **Phase III:** Test the new treatment against current standard treatment
- **Phase IV:** Determine if there are better ways to use certain treatments

This year the cancer program reorganized the research program to better align with our goal of improving our research program and to ensure compliance with good clinical practice guidelines and FDA regulations. To that end, Mills-Peninsula hired a dedicated cancer research nurse, began the process of standardizing procedures and set up the Collaborative Institutional Training Initiative (CITI) to train research physicians and staff.

## Top Cancer Sites Diagnosed in 2011

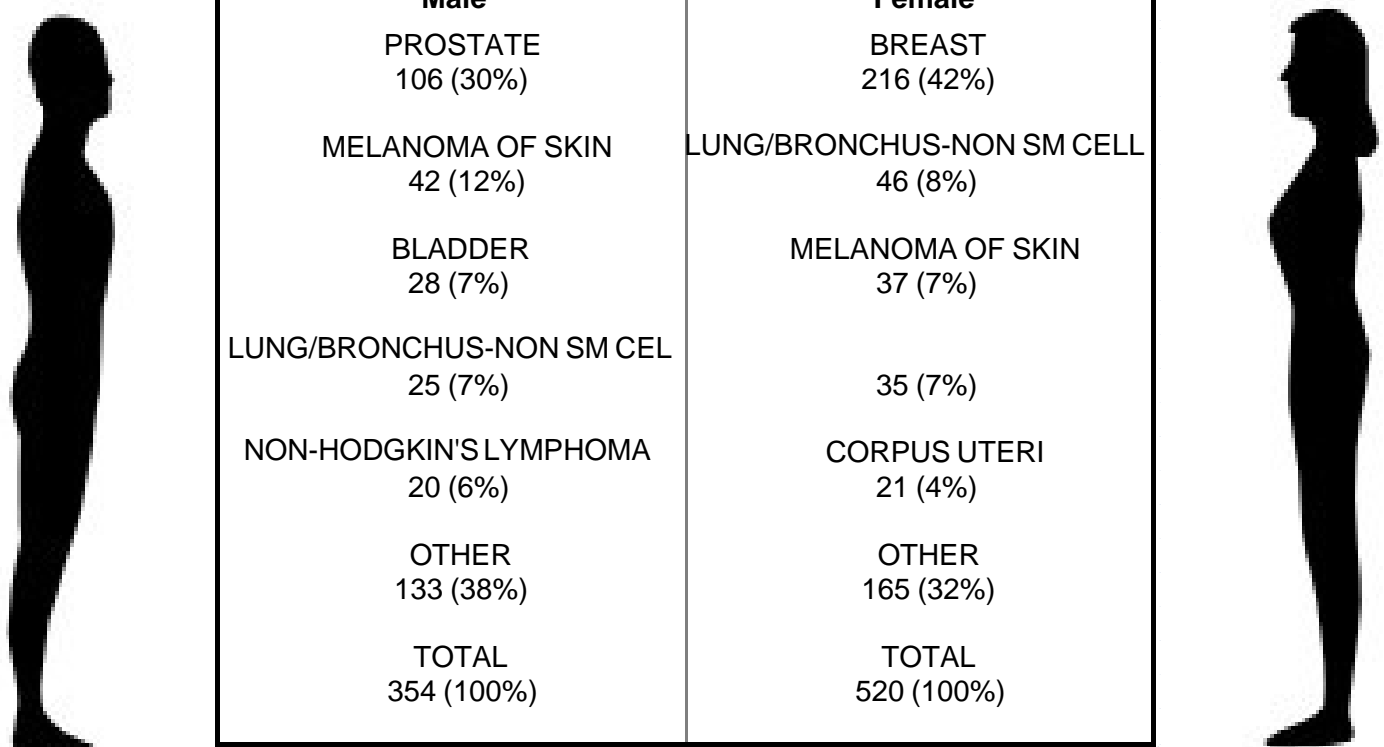
At Mills-Peninsula, breast cancer accounted for 25 percent of all newly diagnosed cancer in 2011, and has been the most commonly diagnosed cancer for the past several years. Our top 10 cancer sites make up 77 percent of the cases diagnosed at Mills-Peninsula Health Services. The 23 percent listed as “Other” comprise the remaining diagnoses.



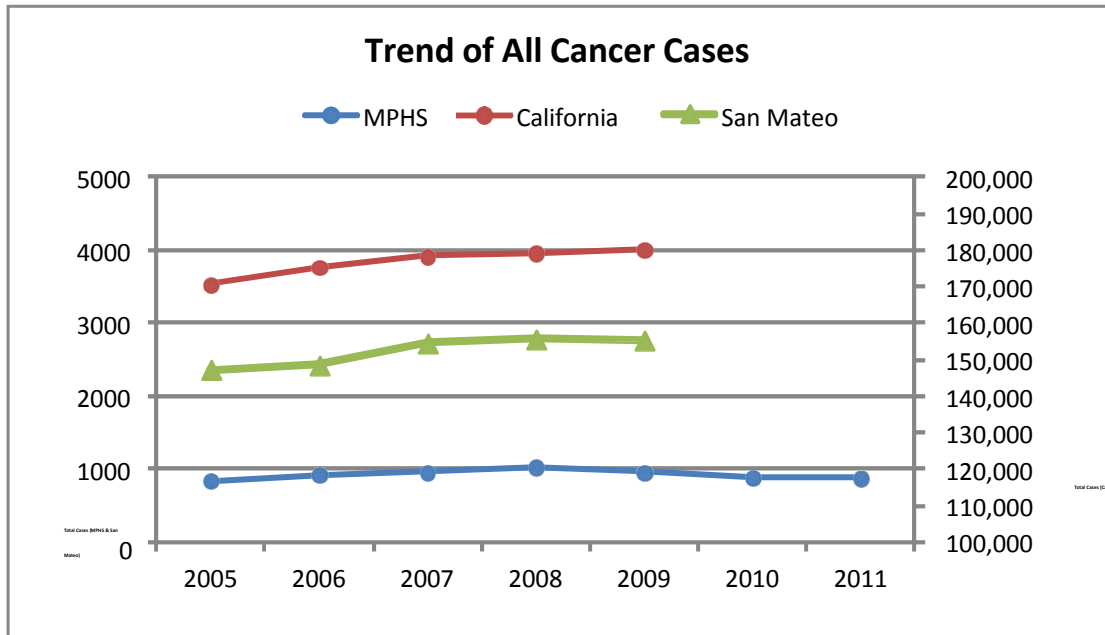
## Leading Cancer Sites at Mills-Peninsula

For the past 10 years, breast has been the top cancer site for women seen at Mills-Peninsula, making up 42 percent of female cases in 2011.

Nationally, about one in eight women will develop breast cancer during their lifetime. Approximately 2.5 million women diagnosed with breast cancer are alive in the United States today. Breast cancer is the second leading cause of cancer death in women, exceeded only by lung cancer. The National Cancer Institute projects that 23 out of 100,000 women per year will die of breast cancer.

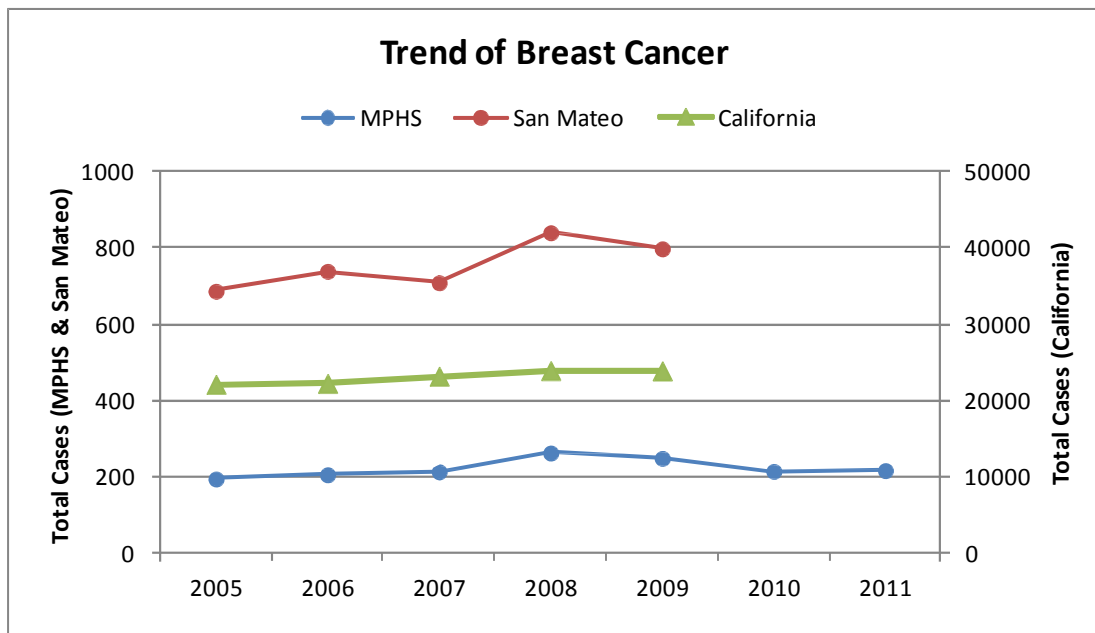


Male	Female
PROSTATE 106 (30%)	BREAST 216 (42%)
MELANOMA OF SKIN 42 (12%)	LUNG/BRONCHUS-NON SM CELL 46 (8%)
BLADDER 28 (7%)	MELANOMA OF SKIN 37 (7%)
LUNG/BRONCHUS-NON SM CEL 25 (7%)	35 (7%)
NON-HODGKIN'S LYMPHOMA 20 (6%)	CORPUS UTERI 21 (4%)
OTHER 133 (38%)	OTHER 165 (32%)
TOTAL 354 (100%)	TOTAL 520 (100%)



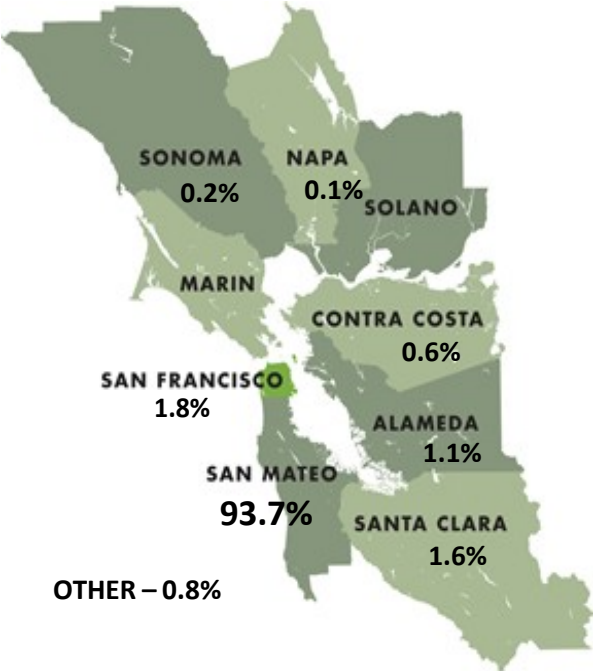
The trend in the number of new cancer cases slightly increased from 2005 to 2009 in both California and San Mateo County.

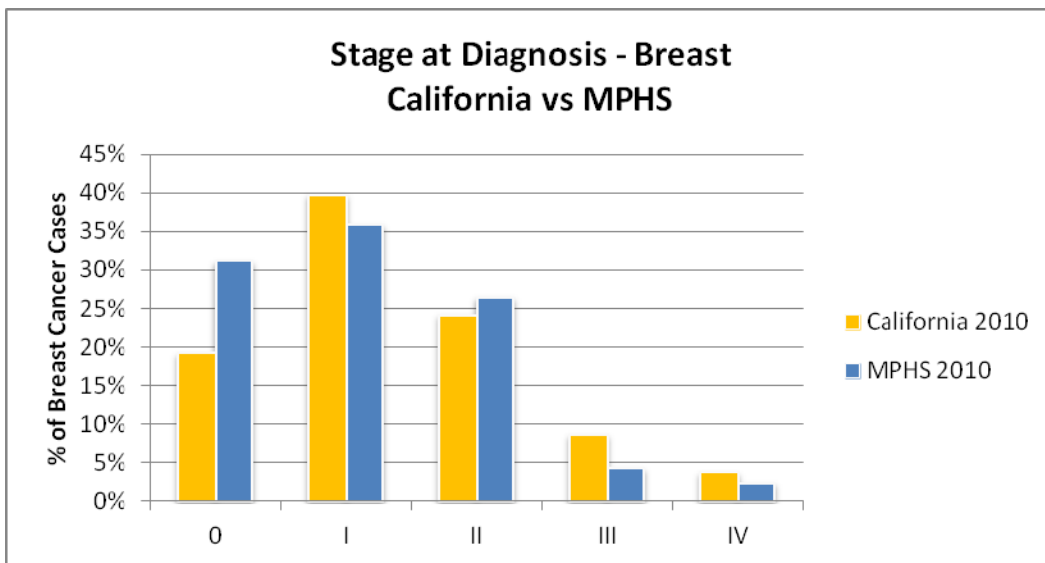
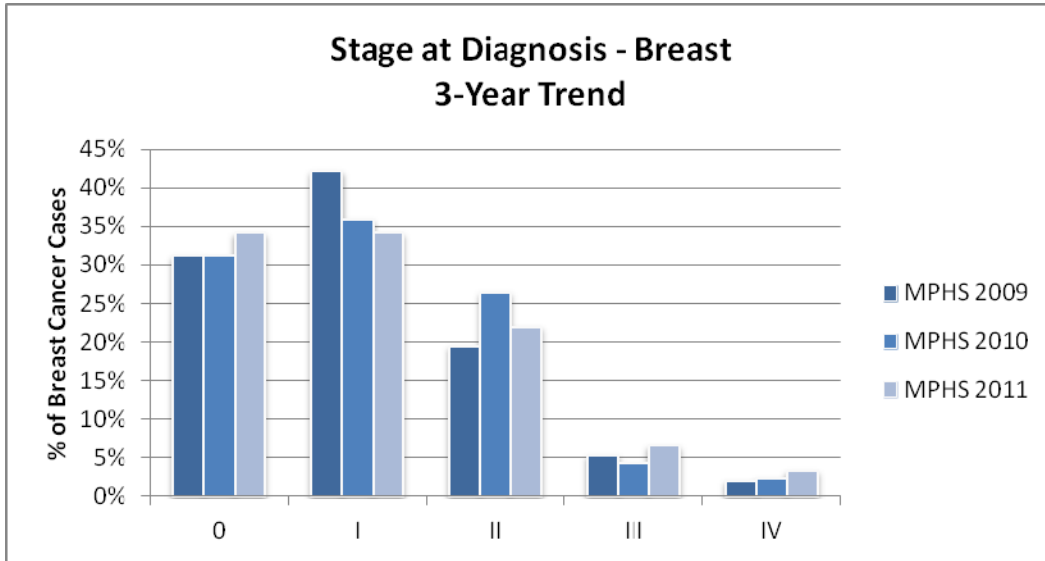
A similar increasing trend is observed at Mills-Peninsula up to 2008, and the figure starts declining year by year.



New breast cancer cases at Mills-Peninsula increased from 2008 to 2009, mirroring the increase in San Mateo County. The figure remains flat in 2010 to 2011, though slightly higher than that in 2005 to 2007. An increasing trend is also observed in California data.

Cancer continues to be one of the leading causes of death in San Mateo County and in California. In 2011, 874 new cancer cases were seen at Mills-Peninsula, of which 94 percent reside in San Mateo County. Mills-Peninsula serves about 25 percent of cancer patients in San Mateo County.





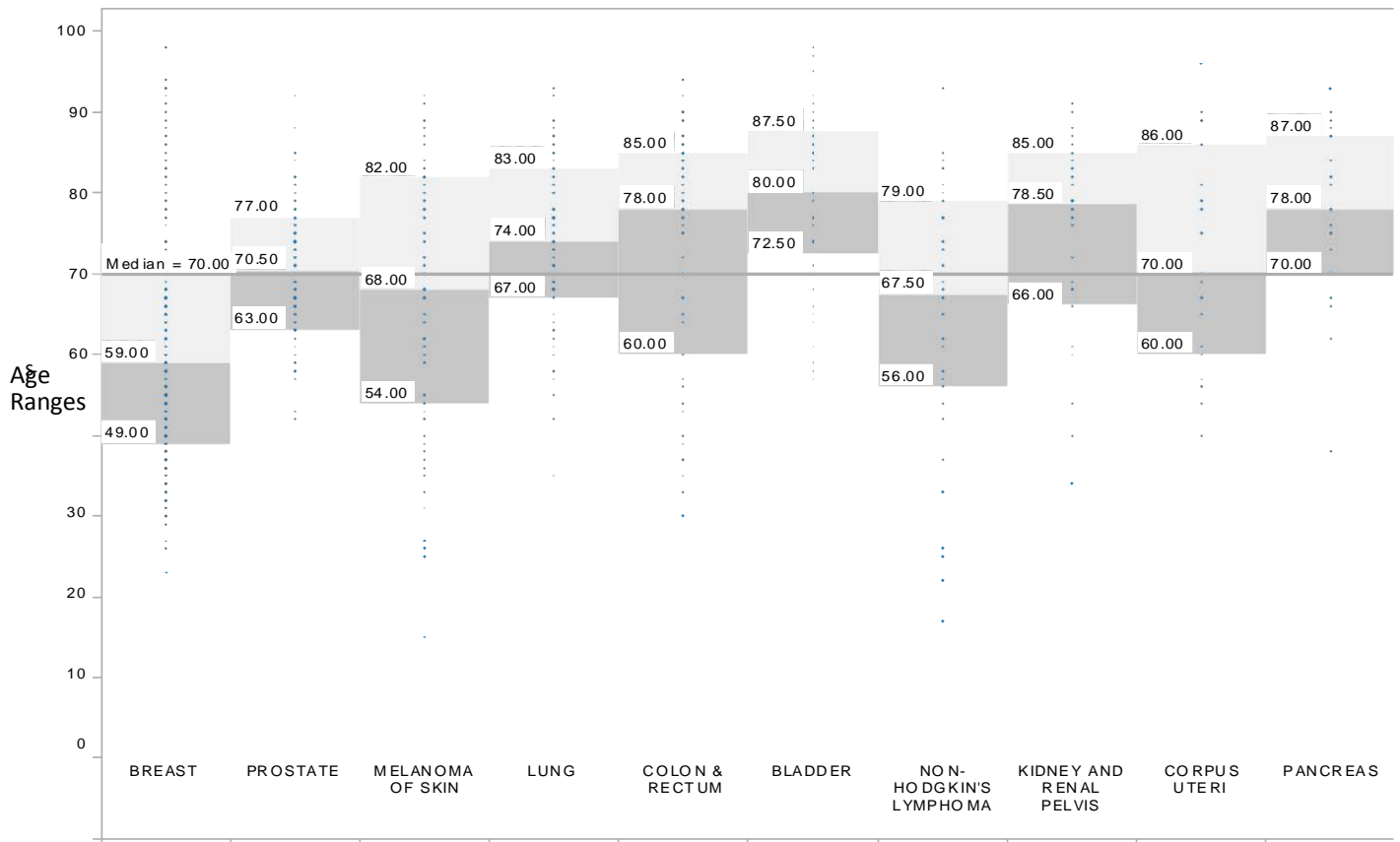
## Stage at Diagnosis for Breast Cancer

A similar pattern is observed in both California and at Mills-Peninsula. A higher percentage of cases is diagnosed in stage 0 at Mills-Peninsula in 2010.

In 2011, an even higher proportion of cases is diagnosed at stage 0 than in 2010, accompanied by a drop in stage I and II diagnoses.

## Age Distribution Among Cancer Patients at MPHS, 2011

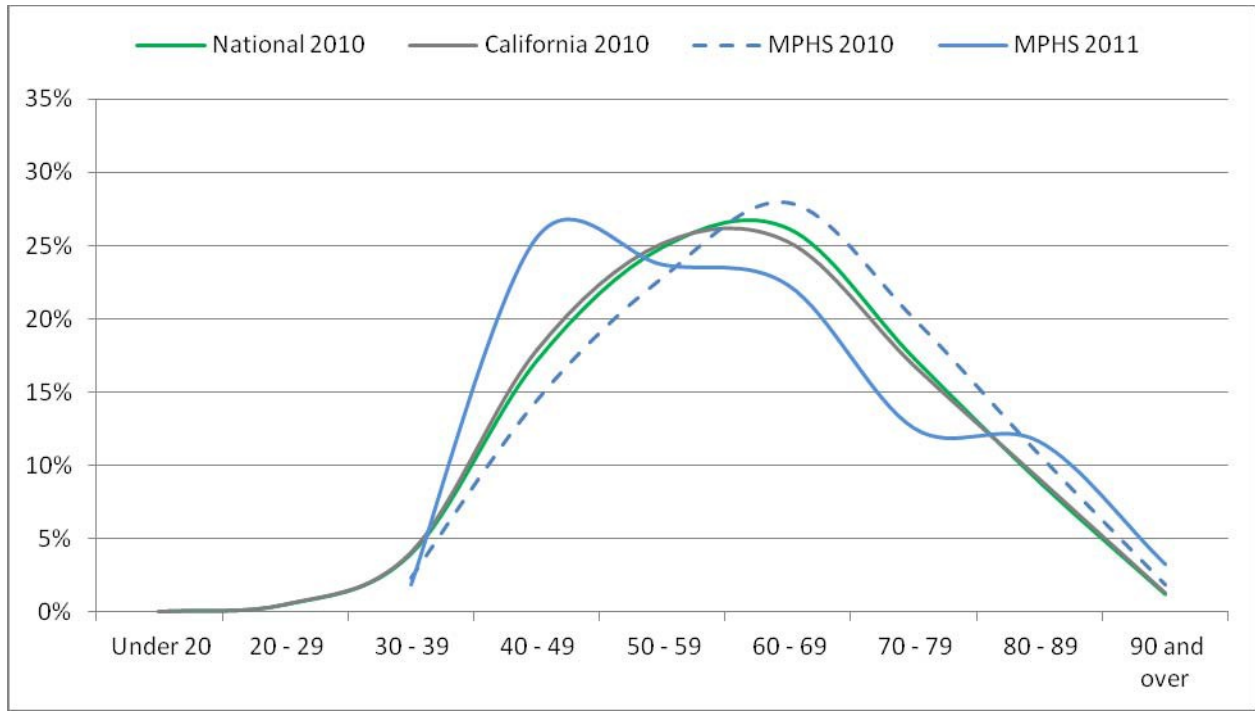
Among the top 10 sites diagnosed at Mills-Peninsula, breast cancer has the youngest population, with half of those diagnosed with breast cancer below age 59 compared to 70 for all other cancers.





## Age Distribution of Breast Cancer Cases

The age at diagnosis for breast cancer in 2011 at Mills-Peninsula shifts toward a younger age range, from a median of 60-69 in 2010 to the 40-49 age group in 2011. This is also younger than the age range in California and in the United States with a median in the 60-69 age group.

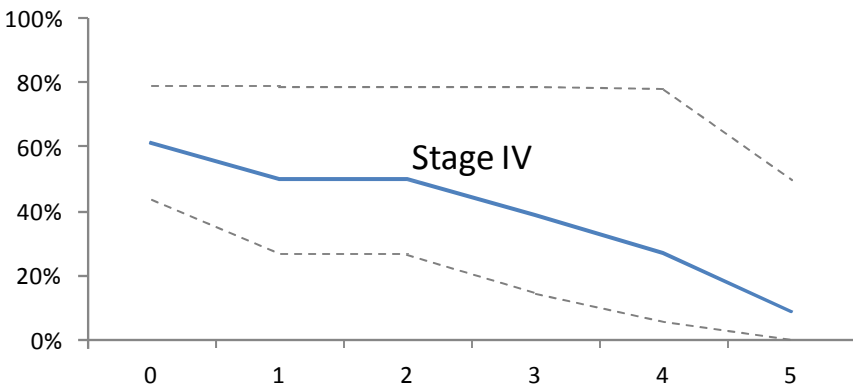
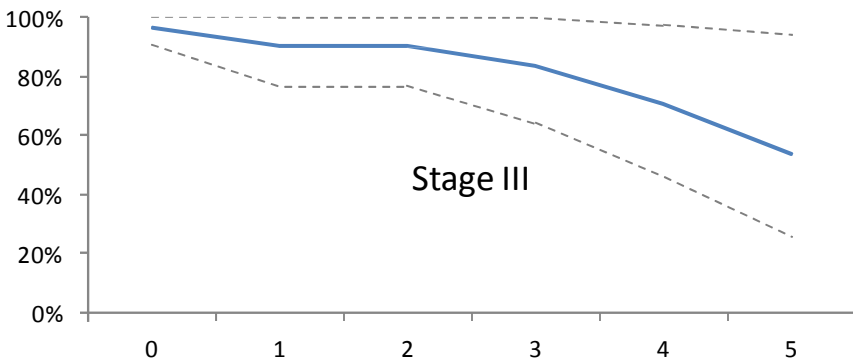
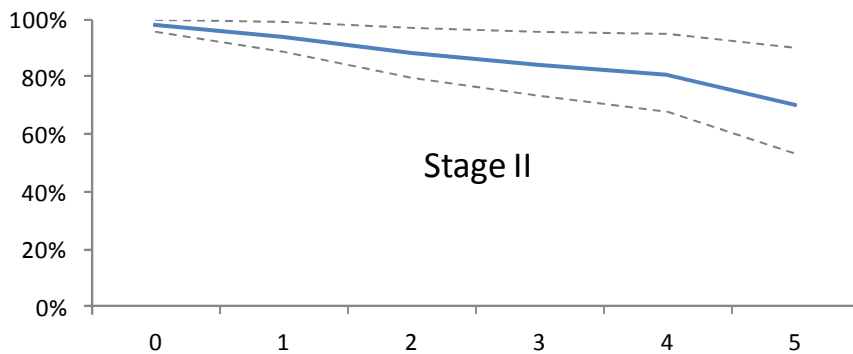
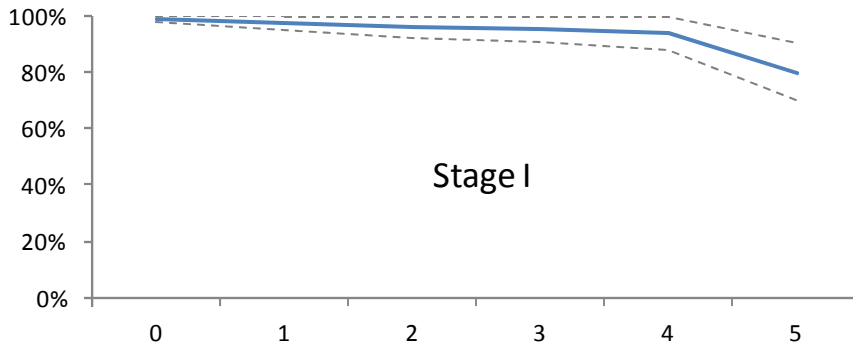


## Breast Cancer Five-Year Survival Rates

The five-year survival rates indicate the likelihood of a patient surviving cancer from one to five years after diagnosis. The rates here represent those diagnosed with breast cancer between 2003 and 2005 and their five-year survival rates. Mills-Peninsula survival rates are comparable to other California hospitals.

In California, 92 percent of those diagnosed with stage I breast cancer are still alive five years later, while the rates for stage II, III and IV are 85 percent, 66 percent and 21 percent respectively. There is a significant drop in survival rates for those diagnosed at stage IV.

Breast 5-Year Survival Rates  
MPHS  
Diagnosed in 2003-2005

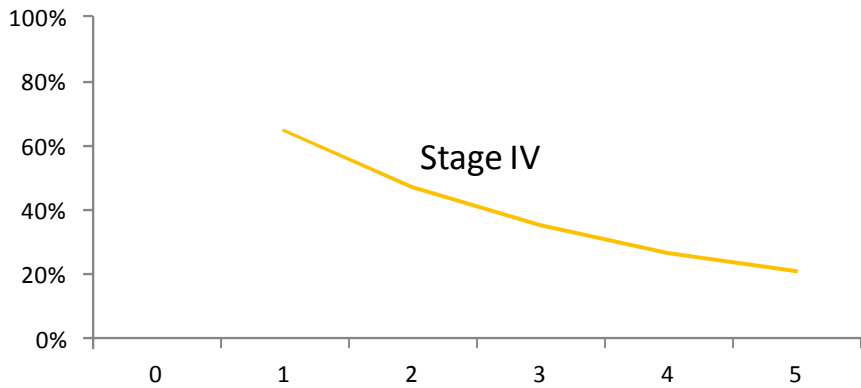
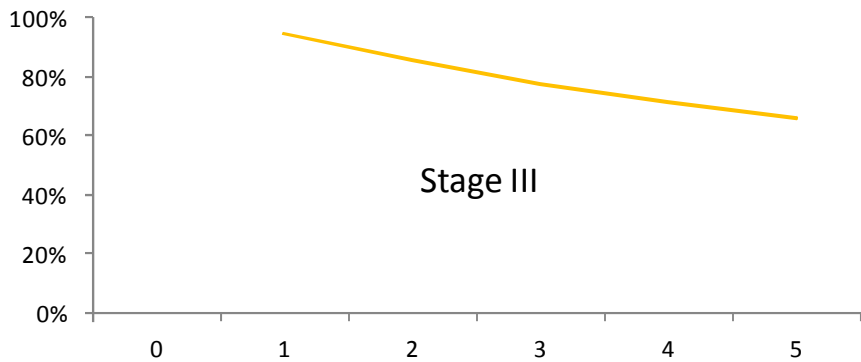
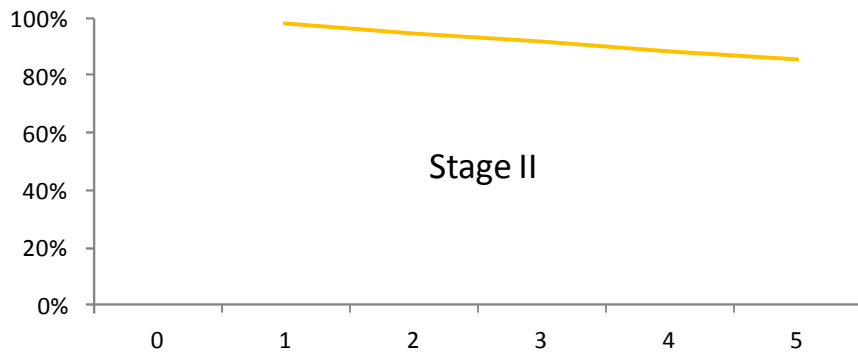
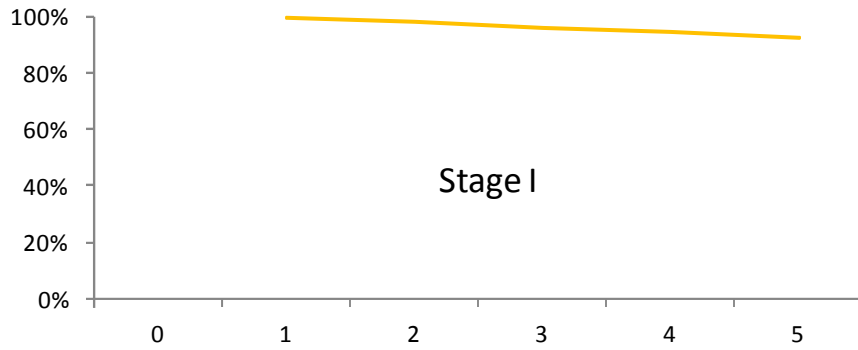


Years After Diagnosis

— MPHS      - - - 95% CI Upper Limit      - - - 95% CI Lower Limit

Due to the small sample size of breast cancer patients at Mills-Peninsula, there is a degree of uncertainty in concluding statistical significance when comparing performance with other California hospitals. The dotted grey lines represent the boundaries of uncertainties in Mills-Peninsula data (blue line). The true survival rate of Mills-Peninsula patients may be anywhere between the lower limit and the upper limit. The chance of the actual Mills-Peninsula survival rate lying outside of these limits is 5 percent.

Breast 5-Year Survival Rates  
California  
Diagnosed in 2003-2005



Years After Diagnosis

— California

## Survival Rates of Breast Cases Diganosed in 2003-2005

		Mills-Peninsula Health Services												California
Stage at Diagnosis	Interval	Alive at Interval Start	Died During Interval	Withdrawn During Interval	Exposed to Risk	% Dying During Interval	% Surviving	Cumulative Survival Rate	% Surviving Upper Limit	Cumulative Survival Rate (UL)	% Surviving Lower Limit	Cumulative Survival Rate (LL)	Cumulative Survival Rate	
Stage I	Less than 1 Year	281	3	0	281	0.01	0.99	0.99	1.00	1.00	0.98	0.98		
	1 to <2 Years	278	5	1	277.5	0.02	0.98	0.97	1.00	1.00	0.97	0.94	0.99	
	2 to <3 Years	272	3	0	272	0.01	0.99	0.96	1.00	1.00	0.98	0.92	0.98	
	3 to <4 Years	269	2	1	268.5	0.01	0.99	0.95	1.00	1.00	0.98	0.91	0.96	
	4 to <5 Years	266	4	4	264	0.02	0.98	0.94	1.00	1.00	0.97	0.88	0.94	
	Over 5 years	258	21	237	139.5	0.15	0.85	0.80	0.90	0.90	0.79	0.70	0.92	
Stage II	Less than 1 Year	145	3	0	145	0.02	0.98	0.98	1.00	1.00	0.96	0.96	0.00	
	1 to <2 Years	142	6	0	142	0.04	0.96	0.94	0.99	0.99	0.93	0.89	0.98	
	2 to <3 Years	136	8	1	135.5	0.06	0.94	0.88	0.98	0.97	0.90	0.80	0.95	
	3 to <4 Years	127	6	0	127	0.05	0.95	0.84	0.99	0.96	0.92	0.73	0.92	
	4 to <5 Years	121	5	2	120	0.04	0.96	0.81	0.99	0.95	0.92	0.68	0.88	
	Over 5 years	114	8	106	61	0.13	0.87	0.70	0.95	0.90	0.79	0.53	0.85	
Stage III	Less than 1 Year	31	1	0	31	0.03	0.97	0.97	1.00	1.00	0.91	0.91	0.00	
	1 to <2 Years	30	2	0	30	0.07	0.93	0.90	1.00	1.00	0.85	0.77	0.94	
	2 to <3 Years	28	0	0	28	-	1.00	0.90	1.00	1.00	1.00	0.77	0.85	
	3 to <4 Years	28	2	0	28	0.07	0.93	0.84	1.00	1.00	0.84	0.64	0.78	
	4 to <5 Years	26	4	0	26	0.15	0.85	0.71	0.97	0.97	0.72	0.46	0.71	
	Over 5 years	22	3	19	12.5	0.24	0.76	0.54	0.97	0.94	0.55	0.26	0.66	
Stage IV	Less than 1 Year	18	7	0	18	0.39	0.61	0.61	0.79	0.79	0.44	0.44	0.00	
	1 to <2 Years	11	2	0	11	0.18	0.82	0.50	1.00	0.79	0.61	0.27	0.65	
	2 to <3 Years	9	0	0	9	-	1.00	0.50	1.00	0.79	1.00	0.27	0.47	
	3 to <4 Years	9	2	0	9	0.22	0.78	0.39	1.00	0.79	0.54	0.14	0.35	
	4 to <5 Years	7	2	1	6.5	0.31	0.69	0.27	0.99	0.78	0.40	0.06	0.27	
	Over 5 years	4	2	2	3	0.67	0.33	0.09	0.64	0.50	0.03	0.00	0.21	

