



Sutter Health Cancer Services and Programs

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Cancer services and programs



Michael J. Cassidy, MD
Chair, Cancer Program Group

Dear Colleagues:

The members of the Sutter Oncology Division, whose programs have been approved by the American College of Surgeons (ACoS), are pleased to present our 2006 Annual Report. This report features a statistical overview of the Sutter Health 2006 Cancer Registry data, summarizing the over 9,000 new cases of cancer seen in 2006 at our nine American College of Surgeons accredited institutions. Our cancer registries are responsible for collecting comprehensive data on all these patients, providing demographic, diagnostic, treatment, and long-term follow-up information. The most common cancers are detailed in particular and their prevalence compared with trends seen across California and nationally.



Ian Leverton, MD
Vice President,
Clinical Integration

Each year our report provides a detailed study of one of the five most common malignancies seen within our system. This year, we highlight Breast Cancer, the most common malignancy reported in U.S. females (other than skin cancer). We review over 27,000 cases accrued over a fifteen year period (1992-2006), emphasizing demographics, treatment modalities, and survival data. Our thanks go to Dr. Lisa Bailey, Medical Director of the Carol Ann Read Breast Health Center and Eric Gold, Oncology Analyst, for their review and analysis of these data.

We continue our cooperative efforts in other areas including prostate cancer, breast cancer and palliative care, amongst others, with multidisciplinary teams of representatives of our various hospitals, working together to establish and review quality indicators and share best practices to improve the quality of care throughout our system.

Detailed as well in our report are the many activities and accomplishments of our individual member institutions. We are proud of the fine efforts made by so many members of our hospitals to develop systems of comprehensive care, allowing the overwhelming majority of our patients to be treated in their local community.

This comprehensive report is a combined effort of many individuals at each of our nine ACoS-accredited centers who deserve our thanks for their dedication, not only for this report, but also for the many activities they participate in and programs they provide to benefit patients throughout our health system.

Michael J. Cassidy, MD
Chair, Cancer Program Group

Ian Leverton, MD
Vice President, Clinical Integration

Sutter Health Cancer Program Facilities

Many dedicated individuals make this report, and the programs and services described in it, possible. Their contributions are gratefully acknowledged.

ABSMC-Alta Bates

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CPMC

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EMC

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Bryan Daylor, Vice President, Ancillary and
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Margaret Courtney-Wildman, Tumor Registrar

MGH

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MMC

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MPHS

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ABSMC - Summit

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SMCS

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Data analyses contributed by Eric Gold, Oncology
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The Sutter Health Cancer Programs offer a complete array of services for cancer patients, including screening, diagnosis, treatment, education and support. These services include advanced treatments such as bone marrow transplants, specialized treatments such as cryosurgery, and complementary medicine approaches such as interactive guided imagery.

Services are available in nine geographic locations throughout the Sacramento/Sierra Region, the Central Valley and the San Francisco Bay Area. See page 3 for a complete listing of services offered at each organization.

SUTTER HEALTH CANCER PROGRAMS ARE AVAILABLE AT:

Alta Bates Summit Medical Center – Alta Bates (ABSMC)

2450 Ashby Avenue
Berkeley, CA 94705
510-204-2793

California Pacific Medical Center (CPMC)

2333 Buchanan Street
P.O. Box 7999
San Francisco, CA 94115
415-600-2080

Eden Medical Center (EMC)

20103 Lake Chabot Road
Castro Valley, CA 94546
510-537-1234

Marin General Hospital (MGH)

250 Bon Air Road
Greenbrae, CA 94904
415-925-7000

Memorial Medical Center (MMC)

1700 Coffee Road
Modesto, CA 95355
209-526-4500

Mills-Peninsula Health Services (MPHS)

Dorothy E. Schneider Cancer Center
100 South San Mateo Dr.
San Mateo, CA 94401
650-696-4509

Sutter Medical Center, Sacramento (SMCS)

2800 L Street
Sacramento, CA 95816
916-454-6500

Sutter Roseville Medical Center (SRMC)

One Medical Plaza
Roseville, CA 95661
916-781-1617

Sutter Solano Medical Center (SSMC)

100 Hospital Drive
Vallejo, CA 94589
707-554-4444

Introduction

Cancer Support Services

This table displays the broad range of services available from the Sutter Health ACoS Cancer Programs. For specific facility locations and contact information, see page 2. Although this table is reflective of actual services physically at the locations, we understand that many of you offer these services through referrals within your region and other Sutter Affiliates.

SERVICES	ABSMC	CPMC	EMC	MGH	MMC	MPHS	SMCS	SRMC	SSMC	PAMF
American College of Surgeons Accredited Cancer Center	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Bone Marrow Transplants	Y						Y			
Brachytherapy	Y	Y		Y	Y	Y	Y	Y	Y	
Cancer Surgery	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cancer Clinical Trials & Prevention Trials	Y	Y		Y	Y	Y	Y	Y	Y	Y
Cancer Education Programs	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Cancer Support Groups	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Community Screenings for Cancer	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Indoor Pool for Patient/Rehab		Y				Y		Y		
Core Needle Biopsy - Ultrasound	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Core Needle Biopsy - Stereotactic	Y	Y	Y	Y		Y	Y	Y		
Stereotactic Radiosurgery & Radiotherapy on Site	Y	Y	Y	Y			Y			
Cryosurgery	Y	Y	Y		Y	Y	Y		Y	
Gamma Knife on Site		Y					Y			
Infusion Therapy	Y	Y	Y	Y		Y	Y	Y	Y	Y
Interventional Radiology	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Liver Transplant for Hepatoma		Y								
Mammography	Y	Y	Y	Y		Y	Y	Y	Y	Y
Minimally Invasive Surgery	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Pediatric Cancer Care and Surgery	Y	Y					Y			
PET – Positron Emission Tomography on Site	Y	Y	Y	Y	Y	Y	Y	Y		Y
Image-Guided Prostate Radiation Therapy	Y	Y	Y	Y	Y		Y	Y	Y	
Radiation Oncology Services	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Radiofrequency Ablation on Site	Y	Y				Y	Y			
IMRT	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SPECT	Y	Y	Y	Y			Y	Y		
Tumor Board	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Tumor Registry (in-house)	Y	Y	Y	Y	Y	Y	Y	Y	Y	

OUTPATIENT SERVICES	ABSMC	CPMC	EMC	MGH	MMC	MPHS	SMCS	SRMC	SSMC	PAMF
Valet Parking	Y	Y		Y		Y	Y	Y		
Comprehensive Breast Center	Y	Y	Y	Y		Y	Y	Y	Y	
Cancer Treatment Center	Y		Y	Y	Y	Y	Y	Y	Y	Y
Chemotherapy Treatment	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Home Care & Hospice	Y	Y	Y	Y	Y	Y	Y	Y		
Nutrition Services	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Pain Management	Y	Y	Y	Y			Y	Y	Y	
Complementary Medicine Program	Y	Y		Y	Y	Y	Y	Y		

ABSMC Alta Bates Summit Medical Center

Charles C. Jenkins, MD, FACS
Chairman, ABSMC Cancer Committee

In 2006 the Cancer Program of Alta Bates Summit Medical Center continued as one of the largest Cancer Programs in the Sutter system serving the communities of Alameda County and beyond. The momentous change during this year was a newly constituted Cancer Committee which represented all campuses of ABSMC and began meeting monthly in January. As a consequence of merging, ACOS Survey schedules by the previously separate cancer programs had to be reworked into a single ACOS Survey for the merged Program. This is now scheduled for the Spring, 2008.

Once the new Cancer Committee began meeting, attention turned to developing a strategy for blending the Summit and Alta Bates cancer activities into a single system. The vision included development of a "virtual cancer center"-- that is, a method of identifying, orienting and following cancer patients throughout ABSMC -- and major tumor site programs with physician participation that reached across campuses. Also recommended was development of a Cancer Genetics Risk Assessment Program, palliative/pain management programs, and a system of patient advocacy through nurse navigators.

Throughout this period of change, all campuses continued to deliver high quality care through its weekly multidisciplinary tumor boards. This included general and breast tumor boards at Alta Bates and Summit Campuses, and a breast tumor board at Herrick Campus. In addition, a multidisciplinary group began meeting in 2006 to discuss development of a cross-campus prostate cancer program, and a cross-campus physician advisory committee met periodically to plan services for the new Carol Ann Read Breast Health Center (CARBHC) at Summit Campus. The CARBHC features completely digital mammography equipment, dedicated breast imaging radiologists, and computer-assisted detection systems -- all set within a beautifully designed center. The CARBHC will be the first comprehensive breast center in the East Bay.

The Radiation Oncology Departments of Summit and Herrick Campuses remained busy as well. Radiation Oncology at Summit Campus purchased a TomoTherapy Highly Integrated Adaptive Radiotherapy (HI-ART) system. This combines an advanced form of Intensity Modulated Radiation Therapy (IMRT), the accuracy of CT scanning technology and advanced tools for planning and delivering radiation therapy in one machine. This system is currently being installed and will treat its first patient in 2007. Also at the Summit Campus, the California Endocurietherapy (CET) Cancer Center, specializing in HDR brachytherapy, continued to draw patients for localized prostate, breast, gynecologic, head and neck, lung, and gastrointestinal cancers for treatment. At the Comprehensive Cancer Center, Radiation Oncology committed to a purchase and installation of a Varian SRS/SBRT system including cone beam CT and a respiratory gating system. Also a BrainLab iPlan planning system for the SRS/SRT and a 3-millimeter leaf micro Multileaf Collimator for finer accuracy of the SRS plans are scheduled. Installation of this equipment is set for 2007.

During this time, communities continued to be served by the campuses' many outreach activities. Some highlights of the Markstein Cancer Educational and Prevention Center on the Summit Campus was facilitating a writing program that engaged cancer survivors into the healing nature of writing. This program was repeated throughout the year. In support of Breast Cancer Awareness, the Comprehensive Cancer Center on the Herrick Campus hosted a free presentation by Dr. Susan Love, author of Dr. Susan Love's Breast Book, and free DVDs of the presentation were made available to all patients and physicians. The Cancer Center also partnered with the Markstein Center in conducting free quarterly Prostate Cancer Screening Clinics. Both offered workshops and classes -- complementary therapy included guided imagery, yoga, and massage, and others included lymphedema, nutrition, and support for partners and spouses of women with cancer.

CPMC California Pacific Medical Center

Kathleen Grant, MD
Chief, Division of Hematology and Medical Oncology

In 2006 California Pacific Medical Center (CPMC) continued its growth as one of the largest cancer programs in the Sutter system. The program had 2,194 accessioned cases of which 1,916 were analytic cases. The most frequent diagnoses were breast (397), prostate (229), non-small cell lung (144), liver (128), colon (121), pancreatic (121) and cutaneous melanoma (98). The 278 nonanalytic cases frequently represented more advanced cancers transferred to CPMC for specialized care.

SPECIALTY SERVICES

Our Interventional Endoscopy Service has been instrumental in providing advanced diagnostic tools, treatments and surgical options for cancer patients. Highlights include Endoscopic ultrasound (EUS) guided gene therapy for pancreatic cancer (Oncovex); Endoscopic mucosectomy (EMR) and submucosal dissection (ESD) for GI cancers; and Endobronchial ultrasound (EBUS) for staging and diagnosing lung cancers.

The NeuroOncology/Neurosurgery program continues to provide state of the art treatment including intra-operative brain mapping surgery for patients with brain tumors. Analogously, their research lab is focused on finding the molecular and genetic causes of brain tumors.

The growth of CPMC's subspecialty tumor boards continues. There are now multi-disciplinary boards for gastrointestinal, head and neck, urologic, neuro-oncology, gynecologic, breast and thoracic cancers.

The clinical research program at CPMC continues to thrive via participation in NCI as well as industry sponsored trials involving cutting edge treatments and novel drug therapies. We are currently collaborating with the University of New Mexico on a trial for patients with advanced hepatocellular carcinoma, and continue to treat patients with metastatic melanoma with biochemotherapy and experimental targeted and immunotherapies.

NEW TECHNOLOGY & EQUIPMENT

Technical advances in the last year include conversion of the CPMC Breast Health Center to a completely digital mammography center, now considered to be one of the largest all digital breast centers in the United States. Radiology also completed numerous equipment projects including the installation of a 64 slice PET/CT scanner; relocation and renovation of the Nuclear Medicine department; and new direct radiography (DR) and digital fluoroscopy rooms. Quality improvement activities included implementing a voice recognition system for PACS which reduced the turn around time from a mean of 28 hours to 2. PACS is also upgraded routinely to ensure HIPAA compliance and user satisfaction.

Advances in Radiation Oncology include respiratory gating treatment and image guided radiotherapy (IGRT) which allows for enhanced accuracy of radiation delivery. These treatment modalities allow for tighter planning margins, resulting in less normal tissues treated and less treatment related morbidity.

COMMUNITY COLLABORATION

CPMC continues to participate in numerous community sponsored events in addition to programs that are supported by the Community Health Program Department. A partial list includes:

- African American Breast Health Program
- Chinatown Annual Health Fair
- Race for the Cure
- Great American Smoke Out
- American Cancer Society's Relay for Life

BRYAN HEMMING CANCER CARE CENTER

Through a charitable donation, CPMC is in the process of planning a comprehensive cancer care center. The focus will be on centralizing services for patients by increasing accessibility to supportive care resources; providing patient navigation; incorporating a survivorship program, and initiating physician-led disease specific programs.

EMC Eden Medical Center

Ravi Arora, MD

Medical Oncology Chair, Cancer Committee

In 2006, Eden Medical Center (EMC) & San Leandro Campus (SLH), provided a comprehensive, multidisciplinary cancer care to its 444 newly diagnosed analytic cases. The majority of them were Breast (107), Brain (22), Lung (64), and Colorectal cases (50).

All goals enunciated for 2006 were accomplished in a timely manner.

- One of the major tasks was the merger of San Leandro Campus and Eden Medical Center under one Tumor Registry, thus increasing its analytic case count.
- Monitoring of diagnostic workups for lung cancer cases, treatment and follow-up, with emphasis on diagnostic work-up.
- Presenting more urology cases at the Cancer Conferences, and site-specific presentations on quarterly basis.
- Per ACOS recommendations, all Stage III colon cancer cases were offered Adjunctive Chemotherapy.
- Two Annual Hospital Studies were completed:
 - A)- Lung cancer study, with emphasis on standard diagnostic work-ups.
 - B)- Brain cancer study on Glioblastoma Multiforme (GBM) looked at comparative survival data for 2004 & 2005, concluding the average life expectancy between 6-14 months, to be consistent with the National Data Base.

Eden's Cancer Conferences presented a total of 186 analytic cases, covering major sites; those were 25 Neuroscience cases, 91 cases at EMC, and 70 cases at SLH. These presentations were considerably enhanced with the introduction of the new PACS Imaging System.

Cancer Committee Section in Medical Staff By-laws was amended to reflect ACOS recommendations resulting from the 2005 Survey, in relation to the Cancer Committee composition and its functions.

Community Education included Great American Smoke out, smoking cessation classes with monthly support groups, Health Talks on Stress Management and Nutrition, Look Good, Feel Better sponsored by the American Cancer Society. Healthy Minds and Bodies Fair, Run to the Lake Expo, Castro Valley Fall Festival, Employer Health Fair, Breast Cancer Symposium, and Prostate Cancer Educational Talk.

Clinical Trials were discussed during Cancer Conference presentations, and reported to the Cancer Committee on quarterly basis.

2006 cancer cases were completed and submitted to the Region on time, with an accuracy rate of 98-100%. Similarly, Follow-up rates were maintained at 98-99% for Standards 3.4 & 3.5.

Oncology Nursing Education has been maintained through attending seminars and Bay Area Tumor Institute sponsored programs.

For more comprehensive information, visit our website at <http://www.edenmedcenter.org>

MGH Marin General Hospital

Lloyd Miyawaki, MD, MPH

Medical Director, Marin Cancer Institute Chair, Cancer Committee

The Marin Cancer Institute (MCI) provides comprehensive cancer care through the integration of innovative multidisciplinary programs, state-of-the-art technology, holistic complementary care, patient and family support services, and community health education and promotion.

MCI Renovation and Enhancements

The Cancer Center underwent continued renovation and enhancement with remodeling of the Cancer Resource Center and installation of a new CT simulator and HDR brachytherapy unit. Construction was initiated to install new state-of-the-art linear accelerators.

MCI Website

A comprehensive new website was developed to provide patients with the latest information about their diagnosis and treatment options as well as our innovative programs and care team.

Cancer Survivorship Program

A major focus for the year was the development of a Cancer Survivorship Program. Cindi Cantril, R.N., M.P.H. and Bobbie Head, M.D., Ph.D. attended a N.I.H. sponsored Cancer Survivorship summit and training program. Under their leadership, we plan research to better assess and address the needs of cancer survivors. First year program accomplishments include the development of our first annual women's retreat for cancer survivors, "Mending Under the Moon", a community presentation by breast cancer survivor and Iditarod racer DeeDee Jonrowe, enhancement of our holistic complementary care services with the Therapeutic Lifestyle Change (TLC) program, and an international presentation of our Healing with Horses research.

Breast Health Program

Every breast cancer patient continued to receive personalized comprehensive care through a nurse navigator, a multidisciplinary case review at our weekly Breast Cancer Tumor Board, and an extensive array of patient support services. We launched a MammoSite treatment program and participated in NSABP B-39, a national clinical trial investigating partial breast radiation therapy.

Genitourinary Oncology/Prostate Cancer Program

Patient education and support remained a focus through our unique multidisciplinary patient conferences and the development of a comprehensive prostate cancer patient education handbook. We promoted seamless quality care through our weekly GU Oncology Tumor Board, as well as a Prostate Cancer Educational Symposium for primary care providers.

Gastrointestinal Oncology Program

The multidisciplinary GI Oncology program continued to grow with further development of consensus treatment guidelines and an expansion of the GI Oncology Tumor Board.

Palliative Care Program

In 2006, the inpatient palliative care program served 597 patients, improving their pain management and end-of-life care.

Community Service

We sponsored a wide range of community health education and promotion events including nutrition courses, low cost mammograms, and a free skin cancer screening, which screened 166 people and referred 26 suspicious lesions for further evaluation.

MCI Goals for 2007

- Complete remodel of the Cancer Center and Radiation Oncology Department
- Continue installation of new linear accelerators, including Varian Trilogy System with IMRT [Intensity Modulated Radiation Therapy], IGRT [Image Guided Radiation Therapy], and SRS/SRT [Stereotactic Radiosurgery and Radiotherapy] capabilities
- Initiate MRI guided breast biopsy program
- Produce Cancer Survivorship Symposium for oncology staff and primary care providers
- Initiate survivorship research to assess post-treatment needs for breast and prostate cancer patients
- Produce Lymphedema Symposium for oncology staff and patients
- Develop inpatient Hospice program
- Launch prostate cancer database to prospectively collect clinical, treatment, follow-up, and quality of life data

MMC Memorial Medical Center

David Shiba, MD, PhD
Medical Director, Cancer Services
Chair, Cancer Committee

In 2006, MMC's American College of Surgeons accredited Community Hospital Comprehensive Cancer Program was awarded a 3 year accreditation with 7 commendations and continues to provide state-of-the art cancer care for patients in Stanislaus and surrounding counties

Quality Improvement Activities

Patient satisfaction and pain management continue to be a major focus of our program and both continue > 90%.

Nationally recognized speakers brought the latest in cancer care to our professional community.

Our 23rd Annual Cancer Symposium focused on gynecologic oncology including brachytherapy, treatment of cervical and ovarian cancers, cervical cancer vaccine, and cancer genetic counseling.

Quality of TNM staging focused on educating the entire medical staff on accurate staging.

Clinical research through our ECOG affiliation with Stanford and the Cancer Trials.

Support Unit (CTSU) provides opportunities for the latest treatments for our patients with 2.7% of newly diagnosed patients being treated on protocols in 2006.

The first Clinical Trials Recognition and Awareness Reception was held to honor clinical trials participants and increase community awareness with Dr. Craig Nichols joining us and sharing the Lance Armstrong story.

Our Cancer Registry had an analytic case load of 893 with an accuracy rate of 99.6% and a follow-up rate of > 93%. The Registry began abstracting for Sutter Tracy and Sutter Los Banos Hospitals.

New Program Services, Technology, and Equipment

Complementary therapy continues to expand having again been chosen for the MMC Foundation's fund-raising campaign for 2007. The community-based introductory complementary therapy series "The Healing Journey", art therapy, "Writing Through Cancer", and inpatient

music and touch therapy continued to improve the lives of increasing numbers of cancer survivors. The Triumph Fitness Program including a Walking Club and Cycling Team was added and we will be adding Sounds of the Heart.

A pain and palliative care consultative service was begun with the addition of a Nurse Practitioner to coordinate and develop the service.

A new dual energy linear accelerator and a large bore CT scanner was installed in April 2007. The seven story patient care tower opened August 2007 allowing expansion of many services to our cancer patients.

Community Collaboration and Benefit:

The monthly television program "The Cancer Report" is into its 5th season focusing on cancer-related topics, survivors, and caregivers and was awarded the Caring Through Communications award by the ACS and is recognized nationally through working with the ACS and Lance Armstrong Foundation.

Our staff continues to be actively involved with various cancer-related organizations including the ACS, Community Hospice, Make-A-Wish Foundation, Leukemia and Lymphoma Society, and Lance Armstrong Foundation.

We continue to provide community educational forums on colon, prostate, and breast cancers and patient, caregiver, and family support groups. We participate in health fairs, prostate screening, and celebrating survivorship with events like Daffodil Delight and an "Evening of Hope" fashion show featuring breast cancer survivors. We continued sponsorship of ROCK (Recreational Opportunities for Cancer Kids). Our website: <http://www.memorialmedicalcenter.org/cancer>.

MPHS Mills-Peninsula Health Services

Brian Henderson, M.D.
Medical Director, Cancer Program

Andrea Metkus, M.D.
Medical Director, Breast Cancer Services

Opening a new Women's Center was Mills-Peninsula's crowning achievement in 2006. Yet, as this remarkable new resource opened its doors, there were other significant accomplishments, including implementation of a multi-disciplinary breast cancer treatment planning program, strengthened physician involvement in cancer program oversight and intensified recruitment into the I-ELCAP lung cancer study.

The Women's Center

Mills-Peninsula's new \$10 million Women's Center opened to physician and community acclaim in May 2006. Located within Mills Health Center in San Mateo, an entire floor of the center expands on expert services that had been offered in a freestanding breast center since 1995.

First in the region to provide full-field digital mammography, the center also offers the latest technology for breast ultrasound, stereotactic biopsy, genetic counseling and the area's most advanced breast MRI program.

The value of these state-of-the-art tools is revealed in data showing that nearly 80 percent of cancers detected in screening mammograms are at Stage 0 or Stage I, with a rate of 25 percent ductal carcinoma in situ (DCIS). These strong results combined with a consumer friendly environment are accomplishing the overall goal – winning women's trust and willingness to comply with recommendations for this potentially lifesaving test. From May to December 2006, the Center provided 13,099 mammograms.

Breast Cancer Treatment Planning Program

The new multi-disciplinary breast cancer treatment planning program creates a seamless connection between the Women's Center and Dorothy E. Schneider Cancer Center. Newly diagnosed women are scheduled into the cancer center for a single appointment that brings together all the necessary specialists in one visit – surgeon, medical oncologist, radiation oncologist and plastic surgeon, as appropriate. A clinical nurse specialist guides the patient through the process. Since opening in July, 2006, the program has helped 160 women.

Early Lung Cancer Action Project (I-ELCAP)

Mills-Peninsula doubled the number of participants in 2006 to the international Early Lung Cancer Action Project (I-ELCAP). The study seeks to determine whether Low Dose Helical Chest CT will prove an effective screening tool for early lung cancer. As a result of findings thus far, Mills-Peninsula now offers the screening as a self-pay option for certain patients who are most likely to benefit.

Strengthened physician oversight

As part of an ongoing effort to strengthen collaboration and quality improvement, Mills-Peninsula restructured cancer program oversight to more closely involve community physicians. The new part-time medical director positions oversee overall quality, breast cancer services, surgery and thoracic oncology.

Other quality enhancements

- Introduced "SIR-spheres" – microspheres are small beads of glass that have been embedded with Yttrium-90, a radiation source, and are infused through a catheter into the hepatic artery to treat cancers of the liver. This outpatient procedure teams the cancer program with interventional radiology.
- Implemented a spiritual care program for cancer inpatients. Organized by Mills-Peninsula's chaplain, it includes three months training for volunteers from the lay and clergy communities.
- Sponsored an educational cancer conference for physicians with about 100 attendees.

SMCS Sutter Medical Center, Sacramento

Gregory M. Graves, MD
Medical Director

Throughout 2007, Sutter Medical Center, Sacramento (SMCS) continued to focus on quality of care in the prevention, diagnosis and treatment of cancer.

To provide a healthier environment for our patients, visitors and employees, SMCS became a Tobacco/Smoke Free campus as of October 1, 2007. Patients who smoke, or live with smokers, receive bedside counseling and smoking cessation information. SMCS provides a low-cost Smoking Cessation program for patients, employees and community members; in 2007, our program was the #1 referral program of local governmental and cancer-related agencies, including the American Lung Association and American Cancer Society.

SMCS continued to expand its Cancer Genetic Risk program; in 2007, the program more than doubled the number of cancer patients and family members served from the previous year. Over 250 individuals received genetic counseling in 2007, and roughly 40% of these patients or family members then decided to undergo genetic testing for breast or colon cancer.

More and more men with prostate cancer continued to choose the daVinci® robotic prostatectomy as a treatment option. Since January 2005, SMCS has performed over 100 radical prostatectomies using the daVinci® system, and all expected improvements in patient outcomes continue to be observed: shorter hospital stays, fewer complications, and decreases in post-operative pain and narcotic usage. In addition, the use of the daVinci® robotic system expanded into gynecologic oncology surgeries.

Other areas of technological advancement in treating cancer included the Percutaneous Radio Frequency Ablation program for lung tumors and the drug-eluting bead program for liver cancer. These new treatments have demonstrated shorter lengths of stay and fewer complications and side effects.

The Palliative Care program, started at SMCS as a pilot in 2005, is now coordinating services with the Palliative Care programs at Sutter Roseville Medical Center and Sutter Auburn Faith Hospital. This collaborative approach will provide more resources across the Sacramento Sierra region, as well as standardize the collection of data for patient and nursing satisfaction, symptom management, and hospital resource utilization for end-of-life patients.

In 2007, SMCS completed its first year of data collection for the Oncology Clinical Quality Dashboard. The dashboard is made up of 50 cancer quality indicators with national benchmarks for comparison. As expected, SMCS met or exceeded national benchmarks in a majority of areas; those areas that demonstrated below-predicted performance were brought back to the appropriate medical staff committee for discussion and implementation of best practice guidelines.

Sutter Cancer Center's Research Program completed its 25th year of enrolling patients on National Cancer Institute and pharmaceutical-sponsored clinical trials. Since its inception, over 1,700 patients and volunteers have been enrolled on cancer treatment and cancer prevention trials.

In 2007, Vincent Caggiano, M.D., and other researchers from the California Cancer Registry evaluated data from women diagnosed with triple-negative breast cancer between 1999 and 2003. They found that this form of cancer, associated with poorer survival, is more likely to affect younger, non-Hispanic black and Hispanic women in areas of lower socioeconomic status. These findings were published in several journals, including *Cancer* [Cancer 2007;109:1721-8]

SRMC Sutter Roseville Medical Center

*Seth A. Rosenthal, M.D., F.A.C.R.
Cancer Committee Member;
Medical Director, Roseville Radiation Oncology Center
Co-Director, Sutter Roseville Prostate Seed Implant Program*

The Sutter Cancer Center, Roseville continued a tradition of providing state of the art, multidisciplinary cancer care in a modern facility convenient to the residents in the rapidly growing Placer County area, as well to a referral population from surrounding areas. Our Cancer Registry reported 1140 patients seen at our facility, 754 of which were analytic patients. Our most frequent diagnoses were Breast-151, Lung Cancer – 128, Colorectal 87, Prostate-62, Bladder, 44, Bone Marrow-38 and Pancreas -27.

Our Cancer Committee Goals for 2006 included Implementation of a Breast Conference, Measuring Symptom Management At End of Life, Reduction in Catheter Related Blood Stream Infections, Coordinating Chemotherapy Orders between physician offices, clinics and in-patients. In addition, we implemented a genetic services counseling program for at risk patients. Each of these goals was met and had a positive impact on the collaborative and interdisciplinary cancer patient care program at our institution.

The Breast Conference prospectively reviewed ninety-eight patients and facilitated the treatment plan and timeline of treatment for those reviewed patients. Symptom management at end of life demonstrated a reduction in pain and air hunger for our patients. Catheter Related Blood Stream Infections were reduced for a total of eleven patients in 2005 to zero incidence in 2006. Chemotherapy order sheets were developed by a collaborative group from our infusion center, physician office and in-patient staff to improve accuracy, ease of physician use and increase patient safety. Finally, over ninety patients with high risk of developing future cancers were evaluated and counseled in our High Risk Clinic.

Many programs within our cancer center provide state-of-the-art care and supportive care for our patients. Our Breast Health Center has a complete range of diagnostic interventions, a breast nurse navigator, support groups, education and counseling and post-treatment support. The addition of the on-site genetic counseling has expanded the range of services breast cancer patients. In addition, we added bone density testing as a diagnostic modality to support women's health. The Breast Health Center of Sutter Cancer Center, Roseville participated with the Breast Navigator's group throughout Sutter Health to provide an Patient Education Binder for newly diagnosed Breast Cancer Patients.

Prostate Cancer treatment is a focus at Sutter Cancer Center, Roseville. Our Prostate Seed Implantation Program provides service for a wide geographic area in the greater Sacramento area. This program has treated over 300 patients since opening in 1999. In addition to brachytherapy, radical prostatectomy and Intensity Modulated Radiation Therapy are available at our medical center. Systemic therapy and supportive care are also available in conjunction with medical oncology for patients with advanced or metastatic prostate cancer. There is an active clinical research effort underway at our institution, with active accrual to the broad portfolio of clinical trials which are open at our institution.

The Colorectal Surgery program has expanded, with increasing use of preoperative ultrasound staging. Interdisciplinary, combined modality treatment is routinely utilized for high risk and locally advanced cases. The team of surgeons, gastroenterologists, medical and radiation oncologists work together to ensure rapid and efficient evaluation and treatment for newly diagnosed patients.

Radiation Oncology is an active service at our institution. 450 new patients per year are seen. On site simulation and treatment planning, and treatment, including IMRT, is available.

Clinical Research is an important part of our mission as a cancer center. 33 patients were entered onto trials in 2006. The majority of patients entered are prostate patients, but breast, lung, colorectal, and lymphoma patients are also enrolled.

At the heart of cancer care at our medical center is a weekly interdisciplinary consultative tumor board. 140 cases were discussed in 2006. Issues related to screening, diagnosis, staging, treatment, symptom management, and follow up are discussed. The tumor boards are well attended not only by cancer specialists, but by primary care physicians as well. The tumor board serves a working conference, with over 80% of the cases being presented prospectively. The tumor board provides an expeditious means to discuss patient care issues at our institution, and also serves as a vehicle to educate the medical and nursing staff regarding new developments in oncology.

Our cancer program is well supported by active and well-equipped pathology, nuclear medicine, and diagnostic radiology departments. They provide excellent clinical service, including subspecialty expertise, and provided depth and coverage at our tumor boards.

SSMC Sutter Solano Medical Center

James R. Krasno, M.D.
Chair, Cancer Committee

In its second year of operation, Sutter Solano Cancer Center (SSCC) built on the successes of year one by continuing to offer patients a unique combination of state-of-the-art treatment and compassionate care. Skilled practitioners provide a wide range of cancer treatment and support services—including medical oncology, radiation therapy, community education and a resource library—in one convenient place.

In 2006, SSCC accessioned 447 cancer cases, 374 of which were analytic. The top five diagnoses were breast cancer (78), prostate cancer (55), lung cancer (51), colorectal cancer (35) and Hodgkin's and Non-Hodgkin's lymphoma (24). Nearly half of patients' cancers were in the early stages.

Achievements

SSCC received a three-year accreditation from the Commission on Cancer of the American College of Surgeons in spring 2007, with seven commendations. This prestigious endorsement is bestowed on one in four hospitals, and it's especially commendable that a new cancer center achieved it so soon.

New Treatment Options

Two treatment modalities designed to better target radiation to tumors recently debuted at SSCC. Intensity-modulated radiation therapy (IMRT), or "dose painting," can result in higher cure rates, fewer side effects and the lower likelihood of long-term problems. Respiratory gating, which monitors patients' breathing patterns so tumor motion can be accounted for during radiation treatments, decreases collateral damage and preserves normal tissue.

For breast cancer patients, the radiation oncology staff continued to use forward planning and "field-in-field" techniques to optimize radiation dose distribution, resulting in less normal tissue toxicities and overall better tolerance. For prostate cancer patients, gold fiducial seeds continued to be placed in the prostate prior to external beam radiation treatment, so the target volume was accurately located on a daily basis with anatomy-matching

software prior to treatment; this results in safer and more accurate delivery of higher-radiation doses. SSCC also utilized the Picture Archival and Communications System (PACS), a digital imaging system, to ensure diagnostic images are available during consultation, treatment and Tumor Board presentations.

New Programs/Services

Two new programs began at SSCC over the past year: genetic testing, which may identify individuals at risk of developing cancer, and expanded hospital infusion services, now located onsite. In addition, clinical trials, in collaboration with the Sutter Health Western Division Cancer Research Group, are getting started to support research endeavors and offer patients a higher level of care.

Commitment to the Community

Community involvement continued to be a major focus, with SSCC's largest event, the American Cancer Society (ACS) Relay for Life Survivor Tent, attracting more than 200 cancer survivors and caregivers. The ACS gave an award to SSCC for one of the event's features: "The Doctor Is In," a booth staffed by a medical oncologist who answered attendees' questions.

To promote continued cancer education and screening, SSCC sponsored two screening events, one for skin cancer and the other for prostate cancer. In addition, activities focused on breast and lung cancer awareness are currently being planned, and SSCC will continue to enhance its clinical, programmatic, and community outreach endeavors. More information about SSCC is available at www.suttersolano.org/cancer.

Focus on Breast Cancer

Lisa Bailey, M.D., Medical Director, Carol Ann Read Breast Health Center, Alta Bates Summit Medical Center
Eric Gold, Oncology Analyst/Programmer, Alta Bates Summit Medical Center

See page two for abbreviations for Sutter Health institutions.

OVERVIEW

Breast cancer is the most common non-skin cancer reported in U.S. females, with an estimated 182,460 new cases of invasive cancer expected in 2008, representing 26% of all new invasive cancer diagnoses in women. There will be an estimated 40,480 deaths due to this disease in the same year, accounting for 15% of all female cancer-related deaths. In California, 21,160 cases of breast cancer are expected in 2008, with 21,030 in females, and 130 in males.

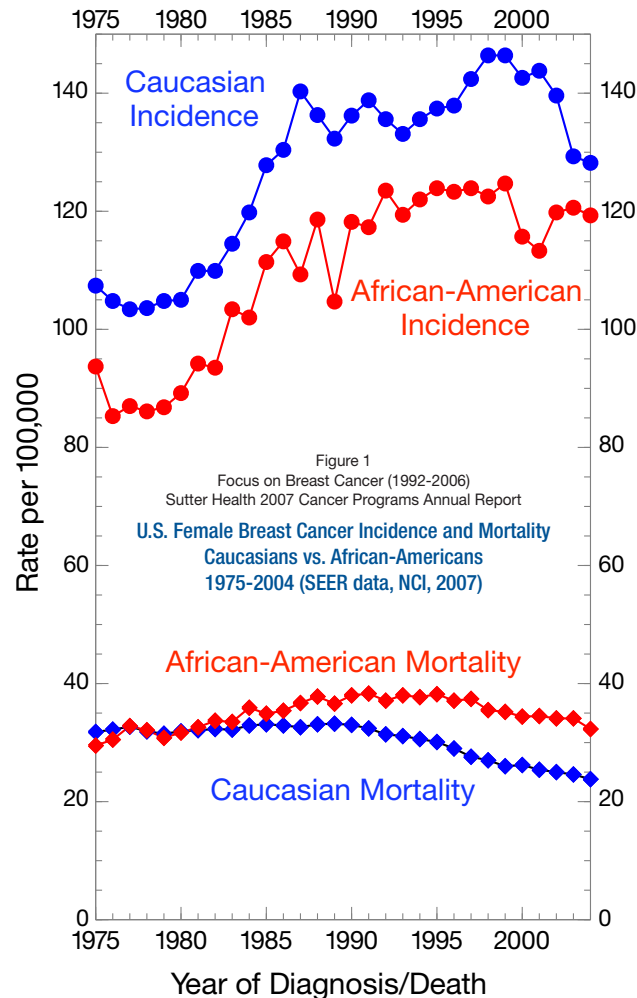


Figure 1
Focus on Breast Cancer (1992-2006)
Sutter Health 2007 Cancer Programs Annual Report
U.S. Female Breast Cancer Incidence and Mortality
Caucasians vs. African-Americans
1975-2004 (SEER data, NCI, 2007)

After a steady increase for more than two decades, female breast cancer incidence rates decreased by 3.5% per year from 2001-2004 (Figure 1). While a number of ideas have been put forward to explain this decreased incidence, no clear explanation has emerged. We hope that this study may contribute to understanding this phenomenon.

In addition to invasive breast cancer, 67,770 new cases of in situ breast cancer are expected to occur among women in 2008, approximately 85% of which will be ductal carcinoma in situ (DCIS). Since the late 1990s in situ breast cancer incidence rates have stabilized, which may reflect the recent decrease in mammography utilization.¹

Breast cancer ranks second only to lung cancer as a cause of cancer death in women. Death rates from breast cancer have steadily decreased in women since 1990 (Figure 1), with larger decreases in women younger than 50 (a decrease of 3.3% per year) than in those 50 and older (2.0% per year). The decrease in breast cancer death rates represents progress in both earlier detection and improved treatment.²

STUDY OF SUTTER HEALTH ANALYTIC CASES FROM 1992-2006

During the 15-year time span of this study, over 27,000 women were diagnosed with and/or received their first course of treatment for breast cancer at the eight American College of Surgeons accredited Sutter Health institutions. The analytic cases used in this study were restricted to breast cancers stageable under AJCC staging methodology. A total of 27,274 breast cases were examined, representing 22,461 invasive cancers (82%) and 4,813 non-invasive (18%) cancers.

To assess changing patterns over time, we divided our 15-year time span into three 5-year intervals: Interval 1 – 1992-1996 (7,870 cases), Interval 2 – 1997-2001 (10,005 cases), Interval 3 – 2002-2006 (9,399 cases).

¹ Ries LAG, Melbert D, Krapcho M, Stinchcomb DG, Howlader N, Horner MJ, Mariotto A, Miller BA, Feuer EJ, Altekruse SF, Lewis DR, Clegg L, Eisner MP, Reichman M, Edwards BK (eds). SEER Cancer Statistics Review, 1975-2005, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2005/, based on November 2007 SEER data submission, posted to the SEER web site, 2008

² California Cancer Facts and Figures, 2008, American Cancer Society and California Cancer Registry.

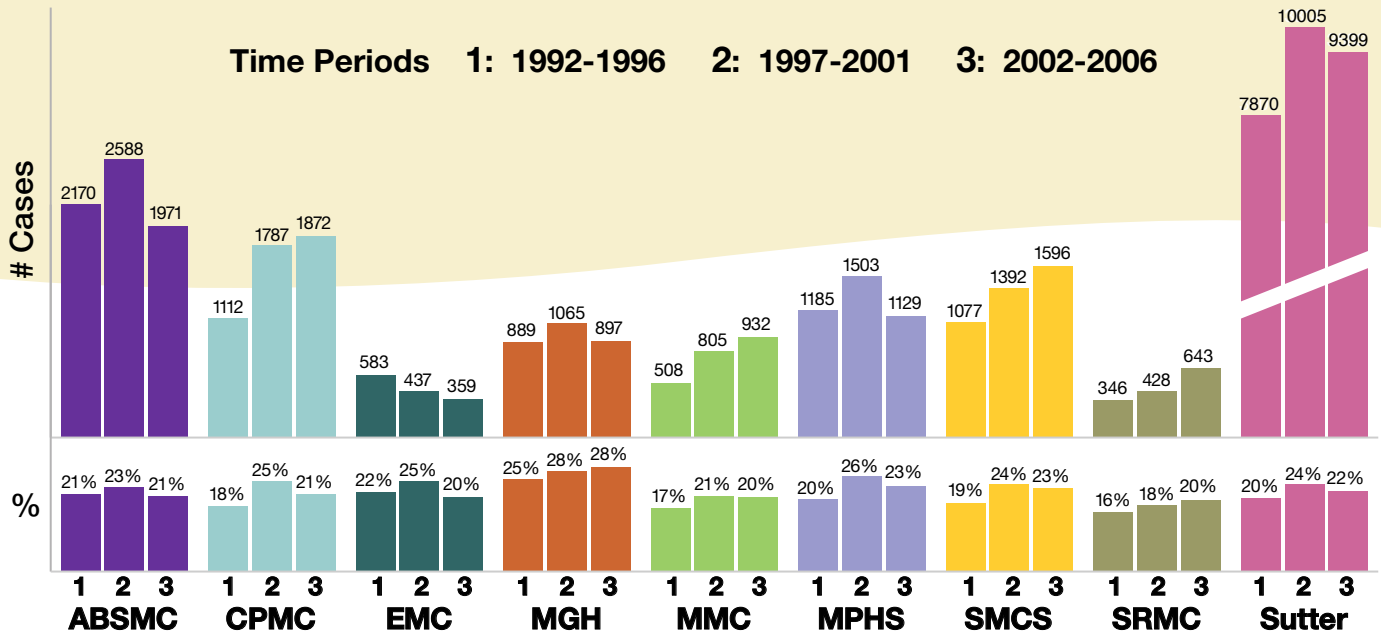


Figure 2
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

Number of Analytic Breast Cancer Cases and
Breast Cancer as Percent of Total Registry Cases
1992-1996 vs. 1997-2001 vs. 2002-2006

NUMBER OF ANALYTIC CASES AND PERCENT OF TOTAL REGISTRY CASES

Figure 2 shows both the actual number of breast cancer cases seen at each of the Sutter institutions and the relative incidence, broken down by 5-year time period. The overall number of breast cancer cases generally reflected the size of the underlying oncology population at each of these institutions. During the entire 1992-2006 time span of this study, breast cancer accounted for 18% (SRMC) to 27% (MGH) of all of analytic cancer cases seen (Figure 2, bottom bars).

The relative number of breast cancer cases seen throughout the Sutter system increased during the second five years of the study and then decreased over the last five-year period analyzed (1992-1996, 20%; 1997-2001, 24%; 2002-2006, 22%), mirroring trends seen nationally. While this pattern was not seen at MGH or SRMC, it is important to note that the number of breast cancer cases accessioned by hospital cancer registries may not reflect the actual prevalence of breast cancer in the communities served by each hospital. This is because each of the Sutter hospitals has a different set of contractual agreements in place

with health plans in their individual communities, as well as different arrangements for the delivery of specific treatment services, which can strongly affect whether or not certain breast cancer cases are accessioned by hospital-based cancer registries.

Figure 3 (next page) shows that with the exception of EMC, Sutter hospitals experienced a steady increase in the proportion of in situ breast cancers relative to invasive cancers (15%g17%g20%). The significance of this is under study, but may reflect successful efforts to promote early detection practices such as regular annual mammographic screening.

AGE AT DIAGNOSIS

As seen in Figure 4 (next page), the age distribution of breast cancer patients shows trends that are similar to those seen in the general cancer patient population at each hospital (see "Age Distribution by Gender" in 2006 Statistical Overview). While for Sutter overall, incidence peaked in the 50-59 age range for both invasive and in situ cancers, EMC, MMC, and SRMC showed highest incidence in age groups above 60 years of age.

Figure 3
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

Proportion of Invasive vs. Non-Invasive (In situ) Breast Cancers 1992-1996 vs. 1997-2001 vs. 2002-2006

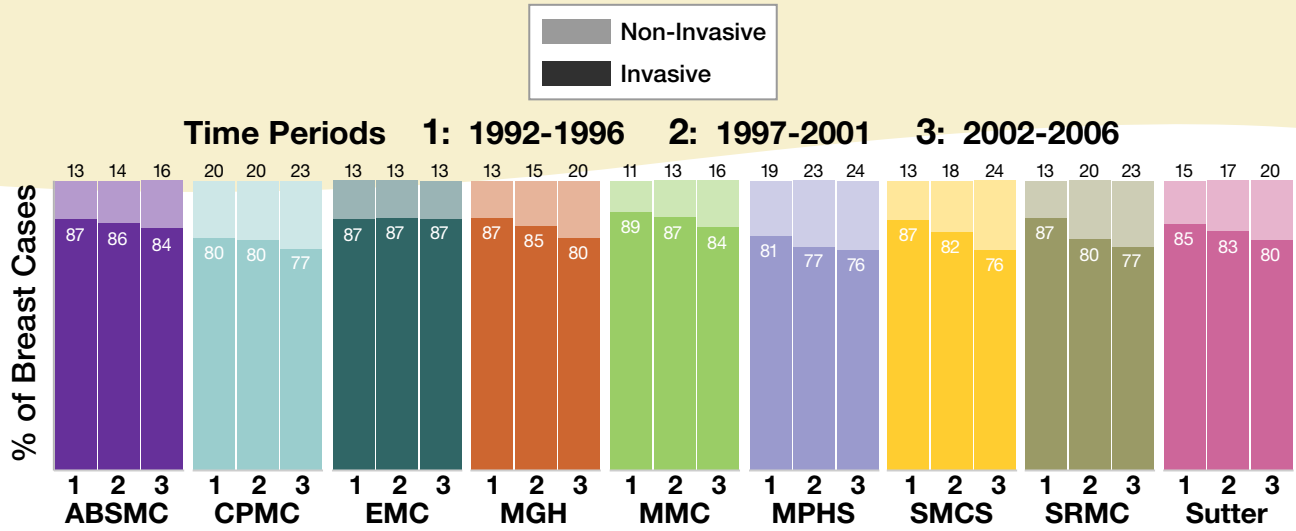
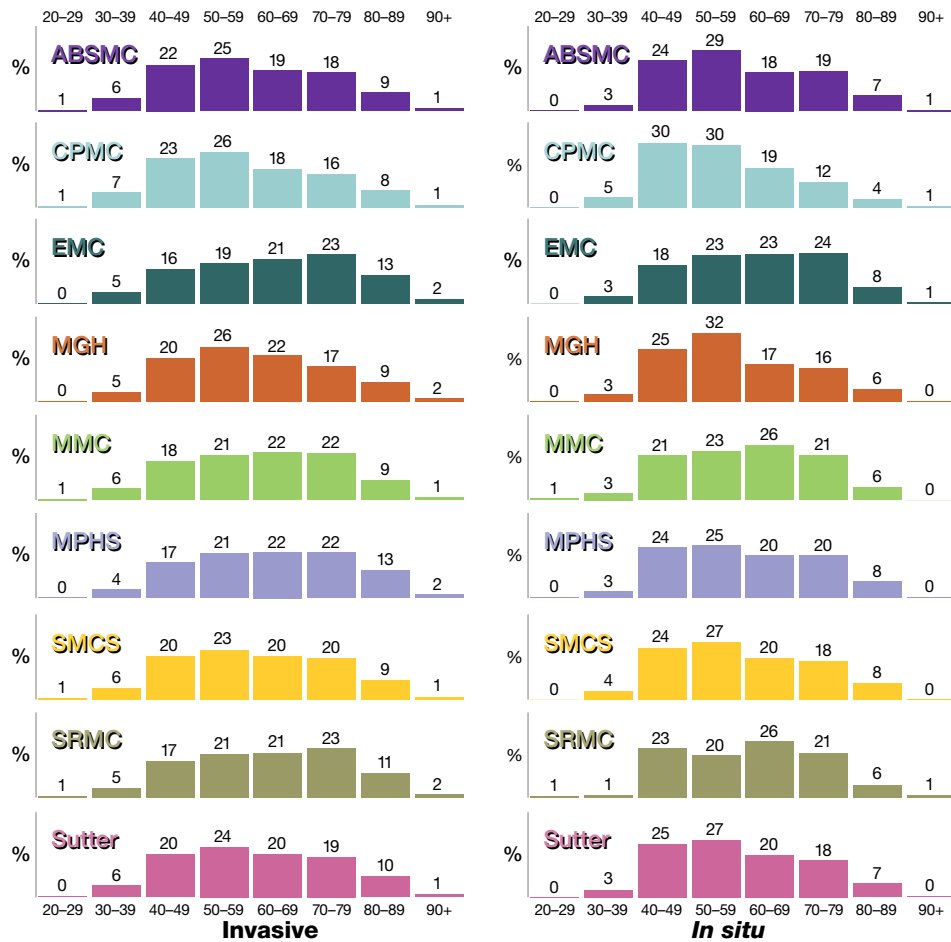


Figure 4
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

Age Distribution Invasive vs. In Situ Breast Cancers 1992-2006



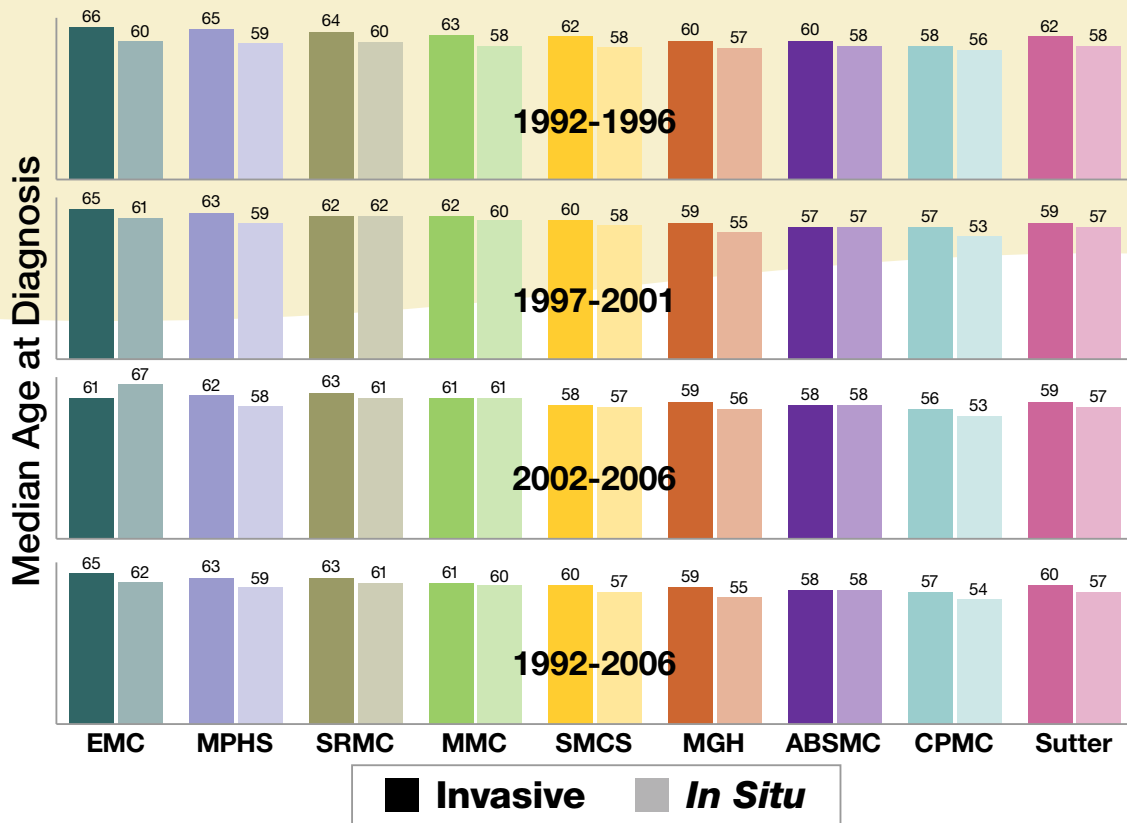


Figure 5
 Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report
 Median Age at Diagnosis By Time Period
 Invasive vs. In Situ
 1992-1996 vs. 1997-2001 vs. 2002-2006

The trends described above are reflected in the overall median age at diagnosis, with CPMC, ABSMC and MGH showing the youngest median age (57, 58, and 59, respectively) and EMC showing the oldest (65). **Figure 5** shows that women with in situ cancers were consistently diagnosed at an earlier age than women with invasive cancers (age 57 vs. age 60, overall). Among women with invasive cancers there was a trend towards younger age at diagnosis for women diagnosed in the last ten years (median age = 62 for the 1992-1996 period vs. median age = 59 during the 1997-2001 and 2002-2006 time periods).

RACE/ETHNICITY

The racial/ethnic variations noted for each Sutter institution reflect the diversity of the communities served. Sutter Health serves a broad population base throughout Northern California. While the majority of women diagnosed with breast cancer in the Sutter Health system are Caucasian (78% overall), **Figure 6** (next page) shows that there is significant variation in the ethnic mix of patients served among the different hospitals. The breast cancer population served by ABSMC is the most racially diverse in Sutter Health, with relatively large proportions of African-American and Asian/Pacific patients (20% and 11%, respectively) and a relatively small percentage of Caucasians (65%). Almost 70% of African-American women with new cases of breast cancer in the Sutter Health system are seen at ABSMC. Also of note is the relatively large percentage of Asian/Pacific women seen at CPMC (21%). MMC and EMC serve slightly more Hispanic patients than the other Sutter hospitals. These trends are identical to those seen in the general cancer patient population at each hospital and again reflect the underlying demographics of the area each hospital serves.

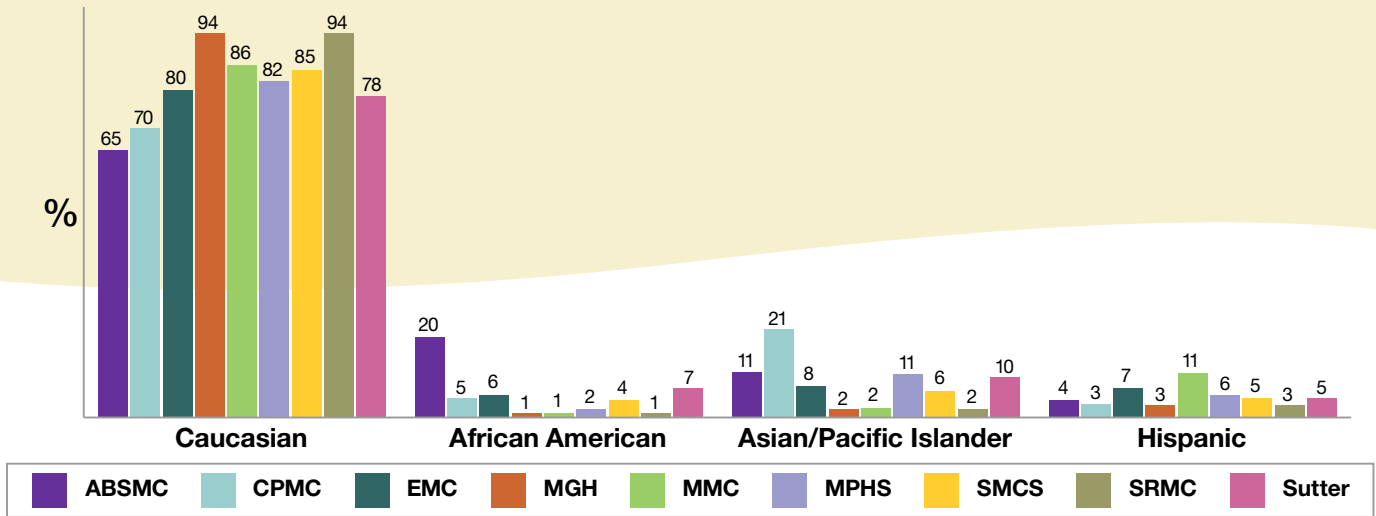


Figure 6
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

Race/Ethnicity
1992-2006

TNM STAGE AT DIAGNOSIS

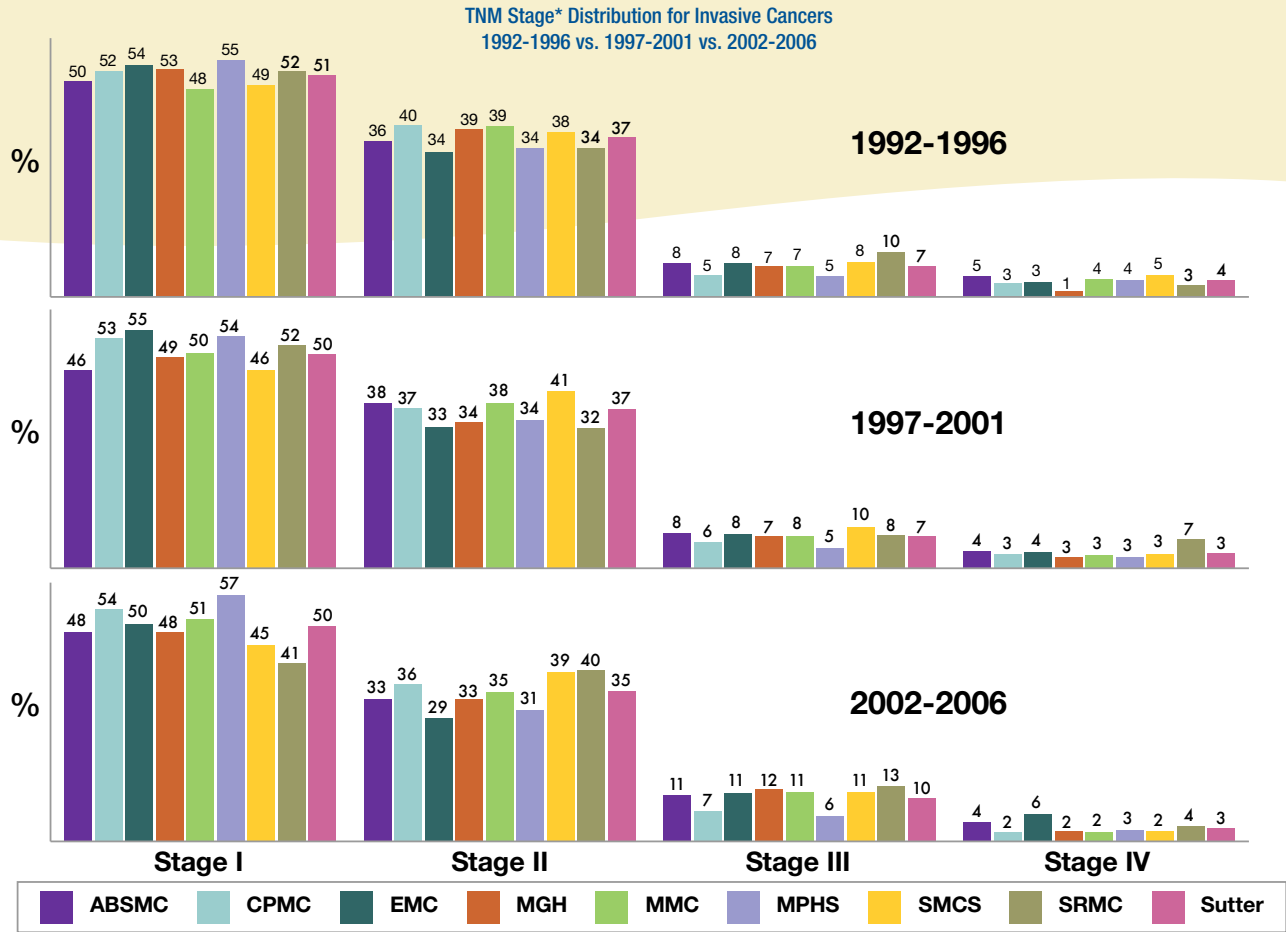
The standard staging system for cancer is the American Joint Committee on Cancer (AJCC) “TNM” system, evaluating the extent of the Tumor, the status of the lymph Nodes, and the presence of Metastases. The stage of the cancer at diagnosis is significant in determining the local and distant recurrence risk as well as the long-term prognosis for the patient, and therefore plays a major role in determining the recommended treatment.

The majority of invasive breast cancer cases seen within the Sutter Health system are diagnosed at Stage I (50.3% overall), varying from 47% (SMCS and SRMC) to 55% (MPHS) of the total invasive breast cancer cases. For these patients, the size of the tumor is 2 cm or less, and the lymph nodes are negative for metastatic disease. The prognosis for Stage I cancer is much better than for later stage cancer, with smaller tumors and negative lymph nodes signifying earlier disease. The next most common stage at diagnosis is Stage II (36% overall), which includes patients with tumors up to 2 cm in diameter with positive lymph nodes, tumors between 2 and 5 cm with or without positive lymph nodes, and tumors greater 5 cm with negative lymph nodes.

While **Figure 7** (next page), suggests that for invasive cancers there were no significant difference in trends for stage at diagnosis over the three time intervals studied, **Figure 3** indicates a steady relative increase in Stage 0 cancers over the last 15 years.

Although there is no clear definition of “early” versus “late” stage breast cancer, there seems a natural division between the smaller tumors with negative lymph nodes (Stage I) and the later stage cancers (Stages II, III, & IV), with regard to both treatment recommendations and prognosis for survival. **Figure 8** (next page) illustrates variability in distribution of “early” vs. “late” stage breast cancers among the Sutter hospitals. The majority of the hospitals show a higher percentage of Stage I cases relative to later stages (50% vs. 48% overall), with the exception of ABSMC, SMCS, and SRMC.

Figure 7
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report



* This graph uses Mixed TNM stage. Where pathological staging is present, it is used. If no pathological staging is present, then clinical staging is used. Using this methodology about 2% of the cases were “unstaged” overall.

Figure 8
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

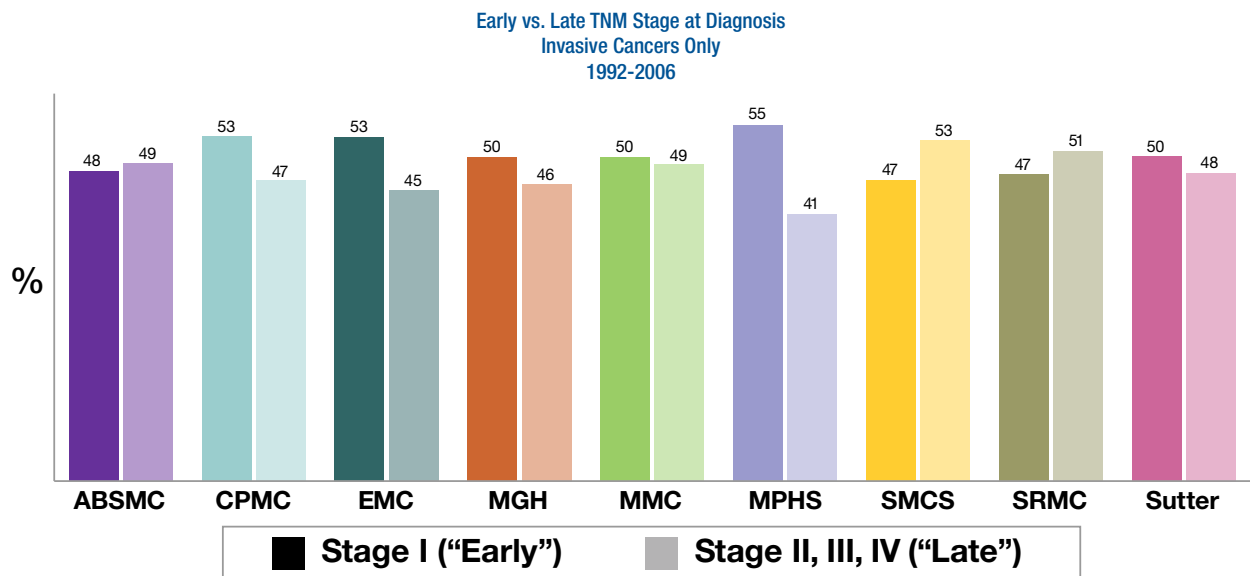
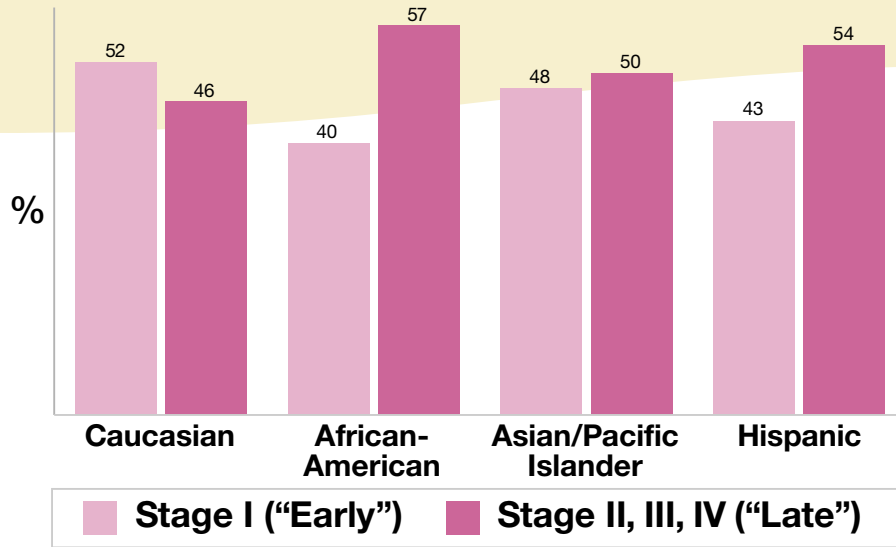


Figure 9
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

Early vs. Late TNM Stage at Diagnosis
By Race/Ethnicity, Invasive Cancers Only
1992-2006

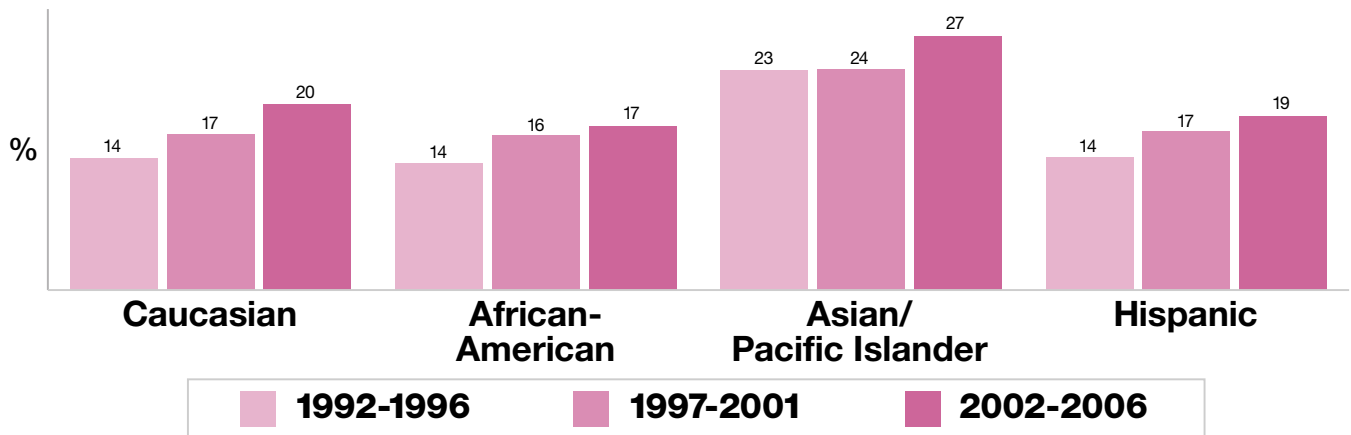


As has been seen in many other studies, although breast cancer incidence is higher among Caucasian women, they are more likely to be diagnosed at an earlier stage than women of other ethnic backgrounds. **Figure 9** shows that Caucasian women had a higher percentage of Stage I diagnoses than later stages, while African-American, Asian/Pacific Islander, and Hispanic women had a higher percentage of later stage diagnoses than Stage I disease. This is most clearly evident among African-American women in the Sutter system where 57% of invasive breast cancers were diagnosed at Stages II, III, or IV.

These differential patterns of TNM stage by race/ethnicity are also evident when comparing the proportion of in situ cancer vs. invasive cancers. While **Figure 10** shows the general increase in the relative numbers of in situ cancers over the 1992-2006 period in all racial groups, African-American women lag behind over the last five years of the study.

Figure 10
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

Percent In-Situ Cancer at Diagnosis
By Race/Ethnicity
1992-1996 vs. 1997-2001 vs. 2002-2006



HISTOLOGIC TYPE

The majority of the new breast cancer cases seen over the last 15 years within the Sutter Health system are infiltrating ductal carcinomas (69%) followed by ductal carcinoma in situ (14%) and invasive lobular carcinoma (7%). This trend mirrors that seen in the Bay Area and nationally. Only minor variability among the Sutter hospitals was observed with respect to histologic type.

Figure 11
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

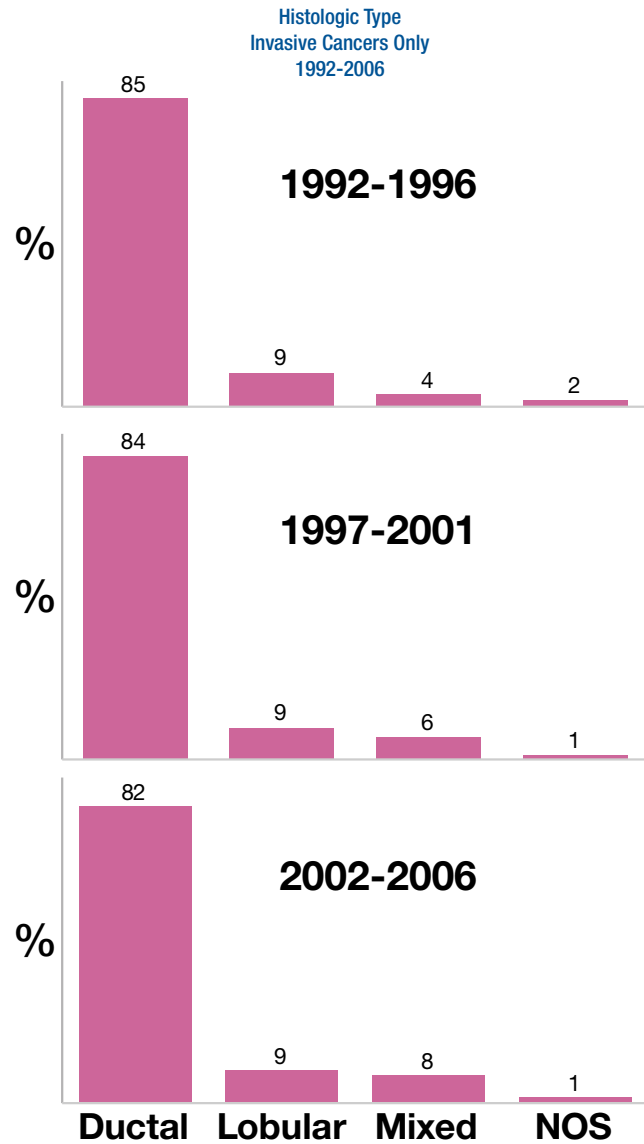


Figure 11 suggests an increase in more recent years of mixed ductal/lobular histology and a concomitant decrease in ductal carcinomas. This is possibly related to the introduction in the early 2000's of the E-cadherin stain in pathology, which helps distinguish ductal vs. lobular histology.

HISTOLOGIC GRADE

One determinant in the prognosis of an invasive breast cancer is its histologic grade at diagnosis. The Scarff-Bloom-Richardson grading system is the standard system used by pathologists to determine the histologic grade of a breast cancer, and includes Grades I, II, and III, the higher grades signifying more aggressive cancers with a poorer prognosis.

Figure 12 illustrates this fact, showing a decrease in 15-year observed survival in Sutter women with higher grade disease, especially those with Grade III.

Figure 12
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

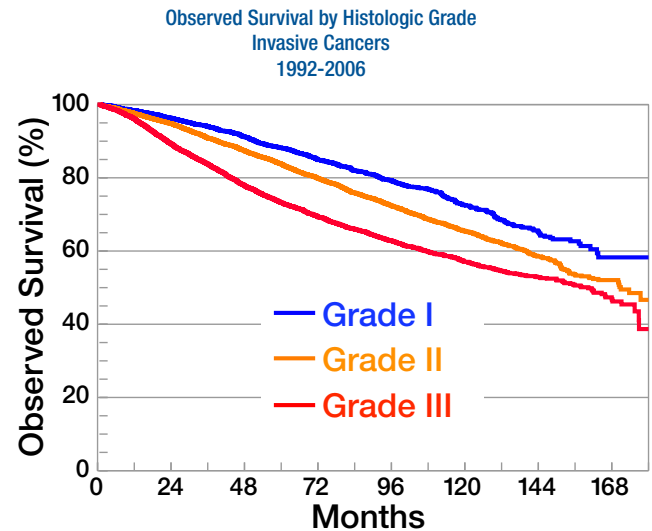
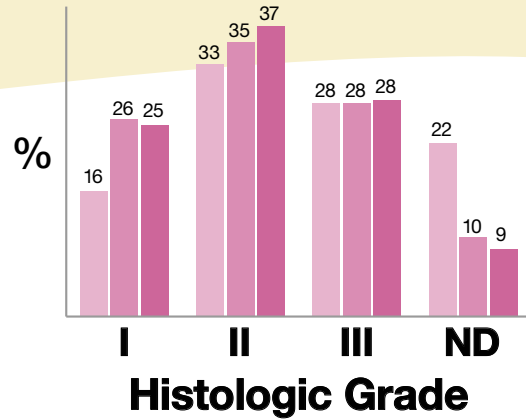


Figure 13
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

**Histologic Grade Distribution
Invasive Cancers
1992-1996 vs. 1997-2001 vs. 2002-2006**

Figure 13 summarizes changes in grade distribution over our three time intervals. The most striking change is the overall reduction in cases where grade was not reported at the time of diagnosis (22% down to 9%). This likely reflects the fact that in recent years pathologic standards have been established, resulting in more routine reporting of histologic grade. Because such a relatively large percentage of cases lacked grade information, we explored inter-hospital variability by looking only at those cases where histologic grade was reported.



ND = Not Determined

Figure 14 shows that histologic grade distribution is quite variable among our hospitals with little change over time periods. Of note is the relatively high proportion of Grade II tumors at EMC and Grade III tumors at SRMC.

Figure 14
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

**Histologic Grade by Hospital
1992-1996 vs. 1997-2001 vs. 2002-2006**

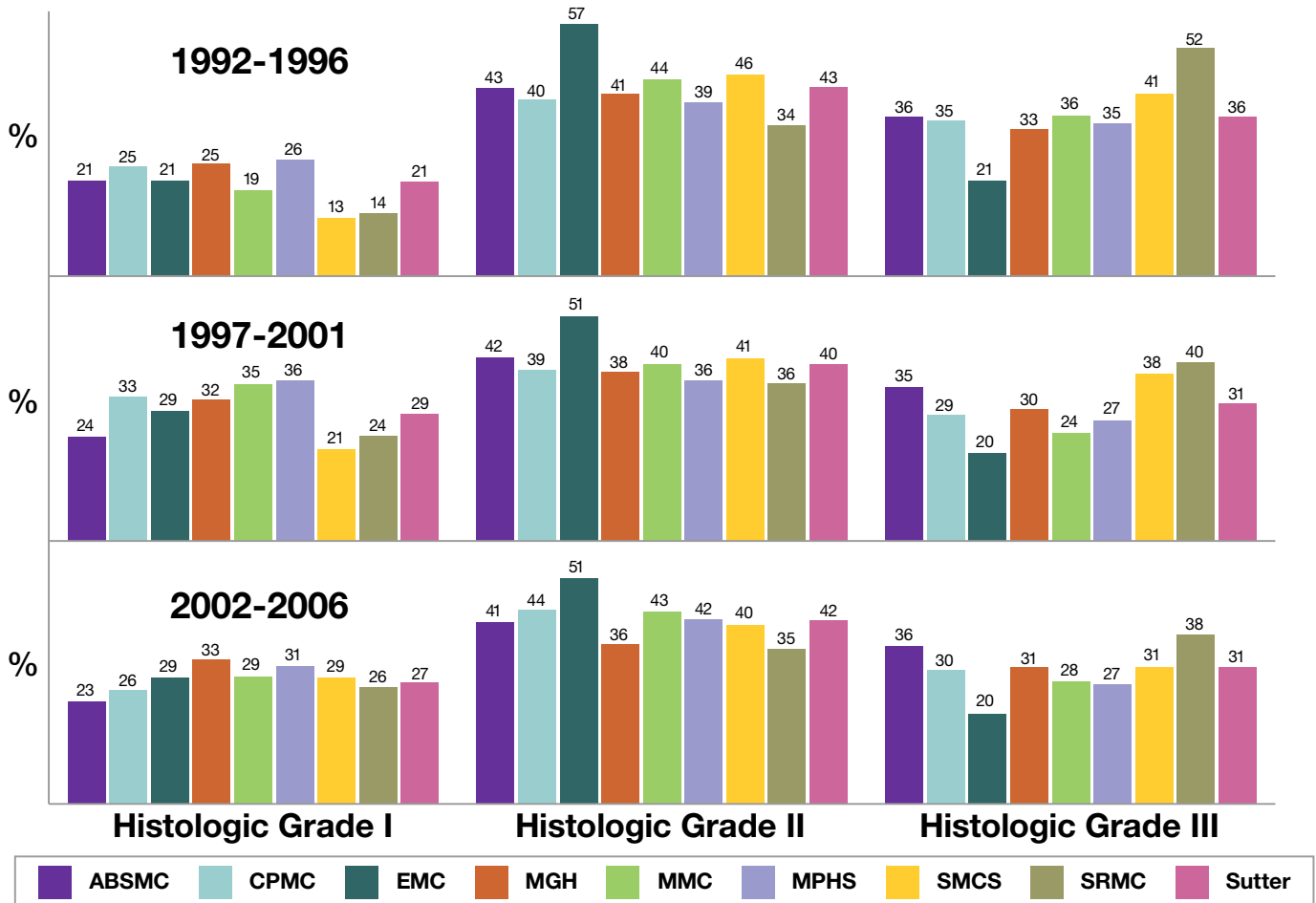
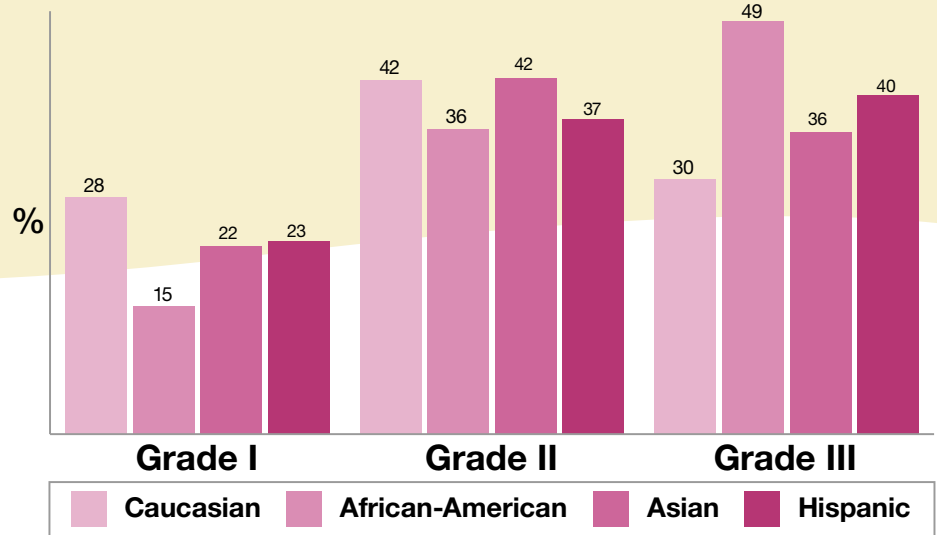


Figure 15
Focus on Breast Cancer (1992-2006)
Sutter Health 2007 Cancer Programs Annual Report
Histologic Grade by Race/Ethnicity
1992-2006



Differences in grade distribution based on race/ethnicity are shown in **Figure 15**. Almost half of the African-American women seen in the Sutter system present with Grade III breast cancer at diagnosis. Both Hispanic and Asian women also show a trend for higher grade breast tumors when compared to Caucasian women.

HORMONE RECEPTOR STATUS

In order to examine trends in hormone receptor status, we classified women into two groups: those who had either estrogen or progesterone positive tumors (ER+ or PR+), vs. those whose tumors were negative for both estrogen and progesterone receptors (ER- & PR-). Hormone receptor negativity in invasive breast cancer patients is generally correlated with poorer prognosis, and this was clearly evident among Sutter women. **Figure 16** shows that across all TNM stages women who were ER- & PR- had lower five-year observed survival rates than those who were ER+ or PR+.

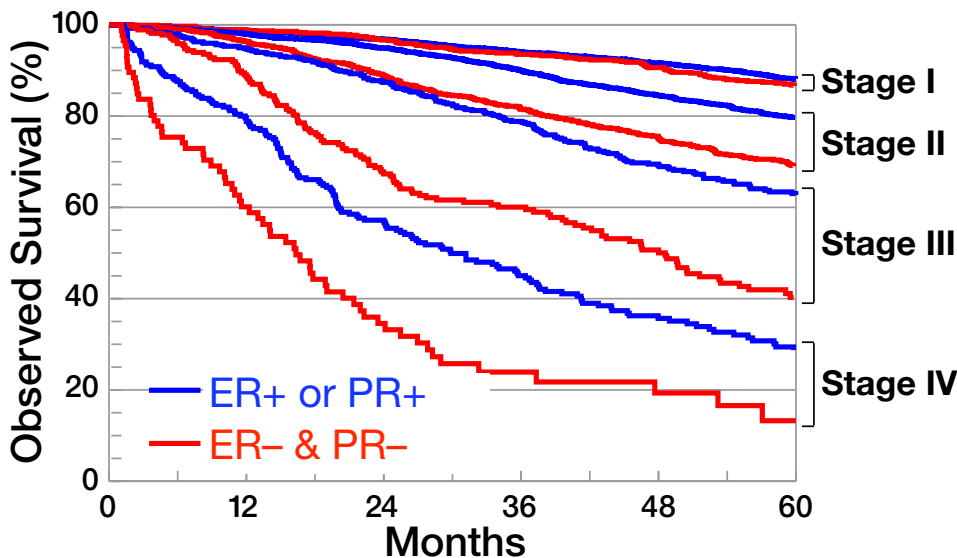


Figure 16
Focus on Breast Cancer (1992-2006)
Sutter Health 2007 Cancer Programs Annual Report
Observed Survival by Hormone Receptor Status
Invasive Cancers
1992-2006

Figure 17
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

Hormone Receptor Status by Hospital
Invasive Cancers
1992-2006

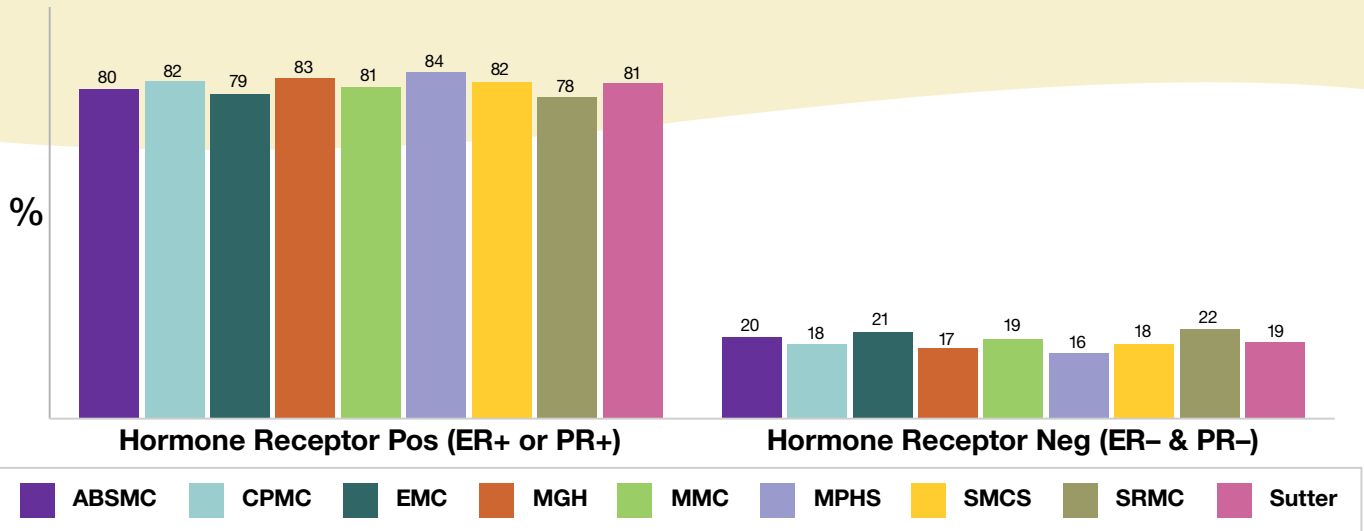


Figure 17 reveals some minor variability among the Sutter Health hospitals in the rate of hormone receptor positive tumors (78%- 84%), vs. hormone receptor negative tumors (16%-22%). SRMC women had the largest proportion of ER- & PR- tumors (22%), and MPHS had the smallest (16%).

The distribution of hormone receptor status based on race/ethnicity are shown in Figure 18. All ethnicities had ER-/PR- tumors but African-American women had the largest proportion of these poor-prognosis tumor types.

Figure 18
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

Hormone Receptor Status by Race/Ethnicity
Invasive Cancers
1992-2006

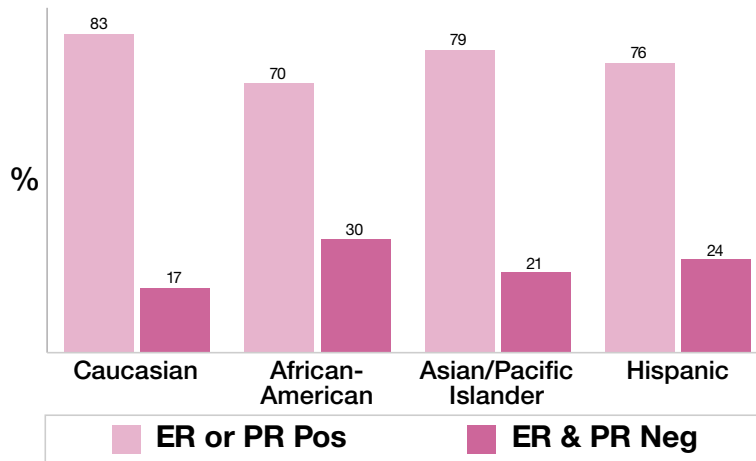
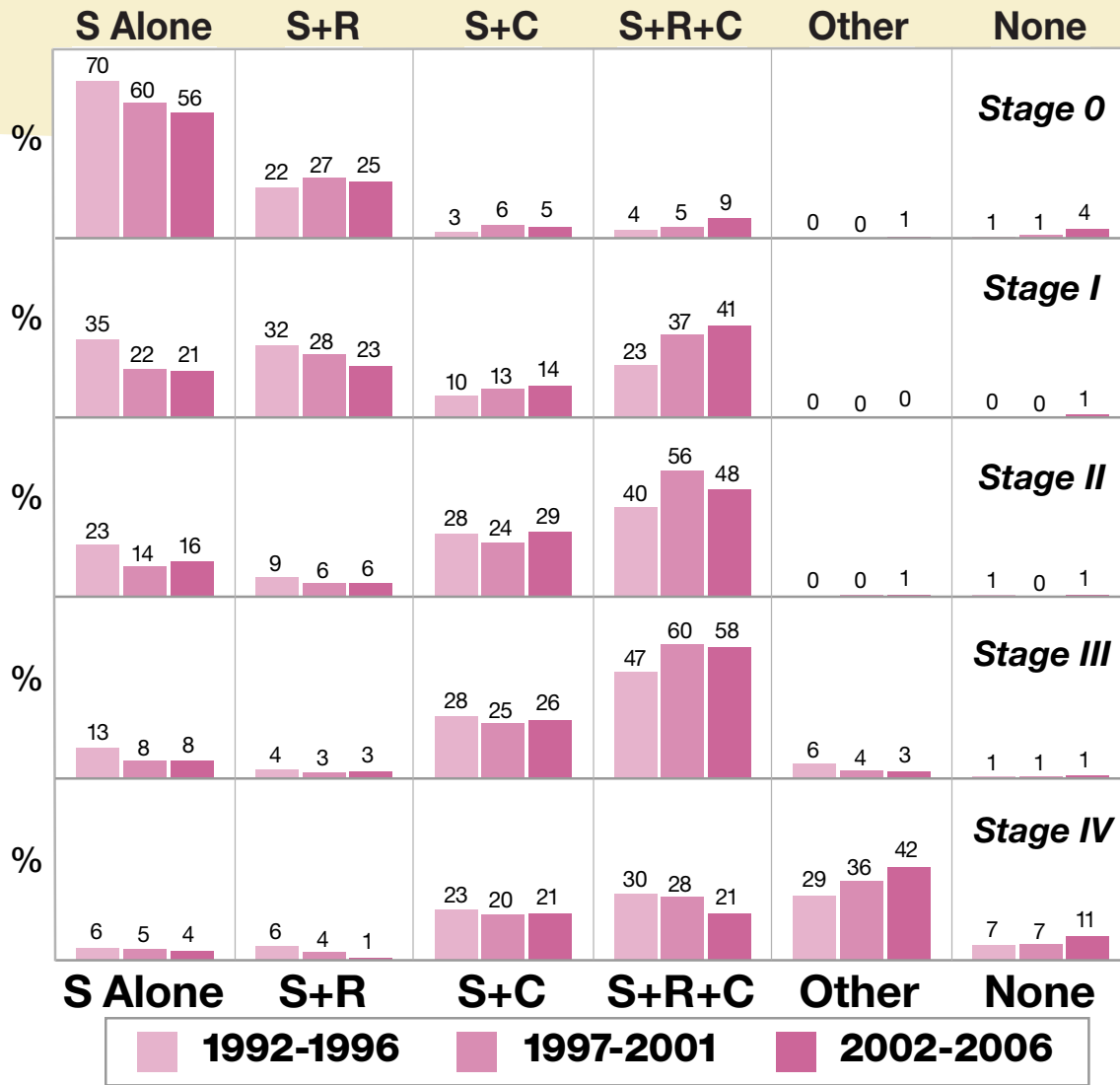


Figure 19
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report
Treatment Modality by TNM Stage
1992-1996 vs. 1997-2001 vs. 2002-2006



S = Surgery; R = Radiation; C = Chemotherapy (includes Hormonal and Immunotherapy);
Other = Radiation and/or Chemotherapy alone; None = No Cancer-Directed Treatment

TREATMENT MODALITIES

The treatment of breast cancer within the Sutter system has changed over time, as illustrated in Figure 19. In general, for all stages of breast cancer, there are fewer patients being treated with surgery alone, and more patients being treated with multi-modality therapies. This is most notably seen in patients with Stage I and II disease. More patients are now treated with breast conservation and radiation therapy. Also, the use of systemic adjuvant hormone therapy or chemotherapy to reduce the incidence of recurrence and/or new cancers is more prevalent as outcome data has shown these modalities to be successful.

It is important to note that these data may be incomplete with respect to adjuvant chemotherapy or radiation therapy, as patients may come to one institution for surgery but go to a different institution closer to their home for additional therapies, making complete treatment data sometimes difficult to capture.

Figure 20
 Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report
Surgery Type by TNM Stage
 1992-1996 vs. 1997-2001 vs. 2002-2006

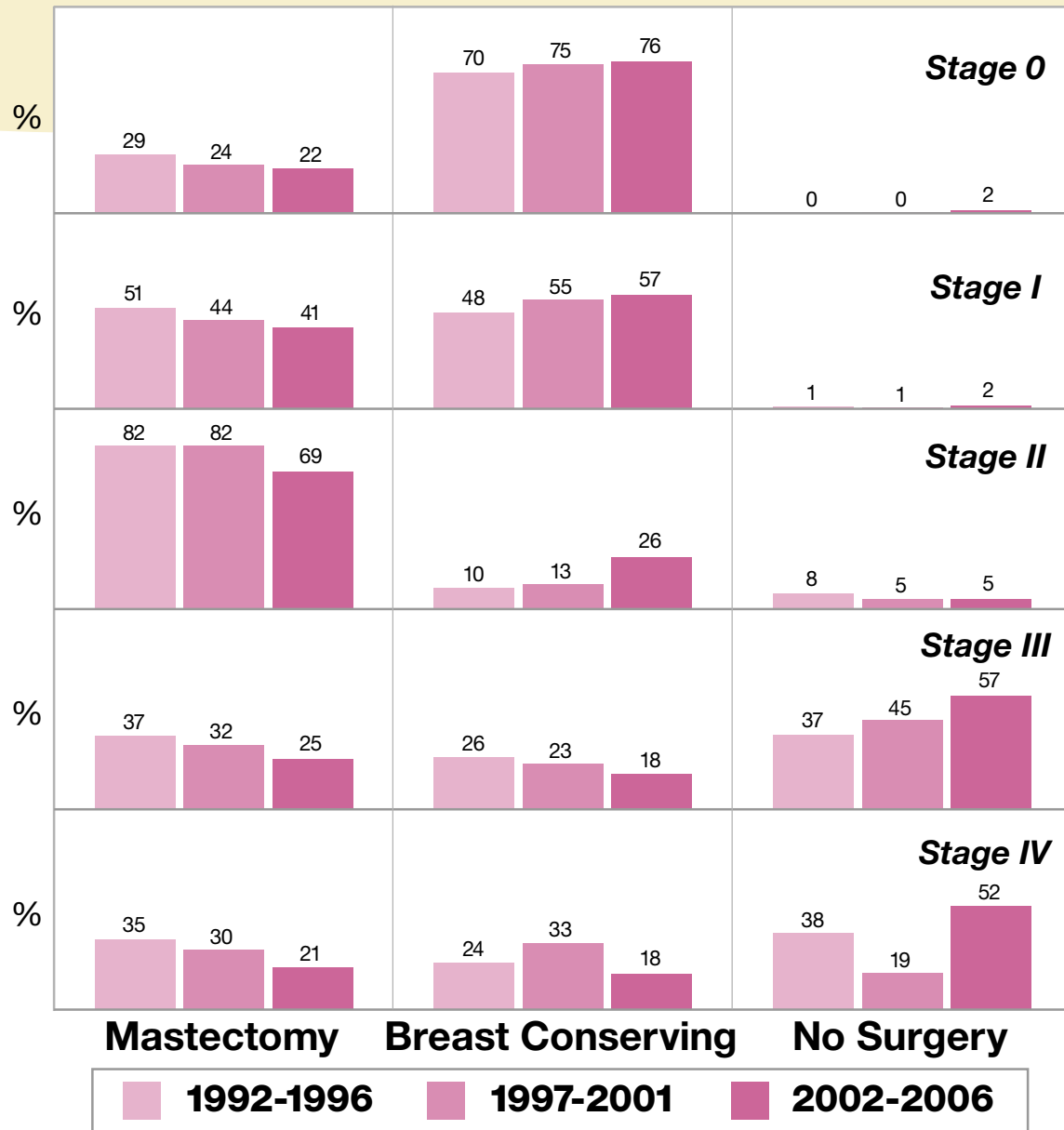


Figure 20 demonstrates a consistent trend over the last 15 years towards the use of breast conserving surgery rather than mastectomy in stage 0, 1, and 2 patients whose treatment included surgery.

Figure 21
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

Surgery Type by Hospital
1992-1996 vs. 1997-2001 vs. 2002-2006

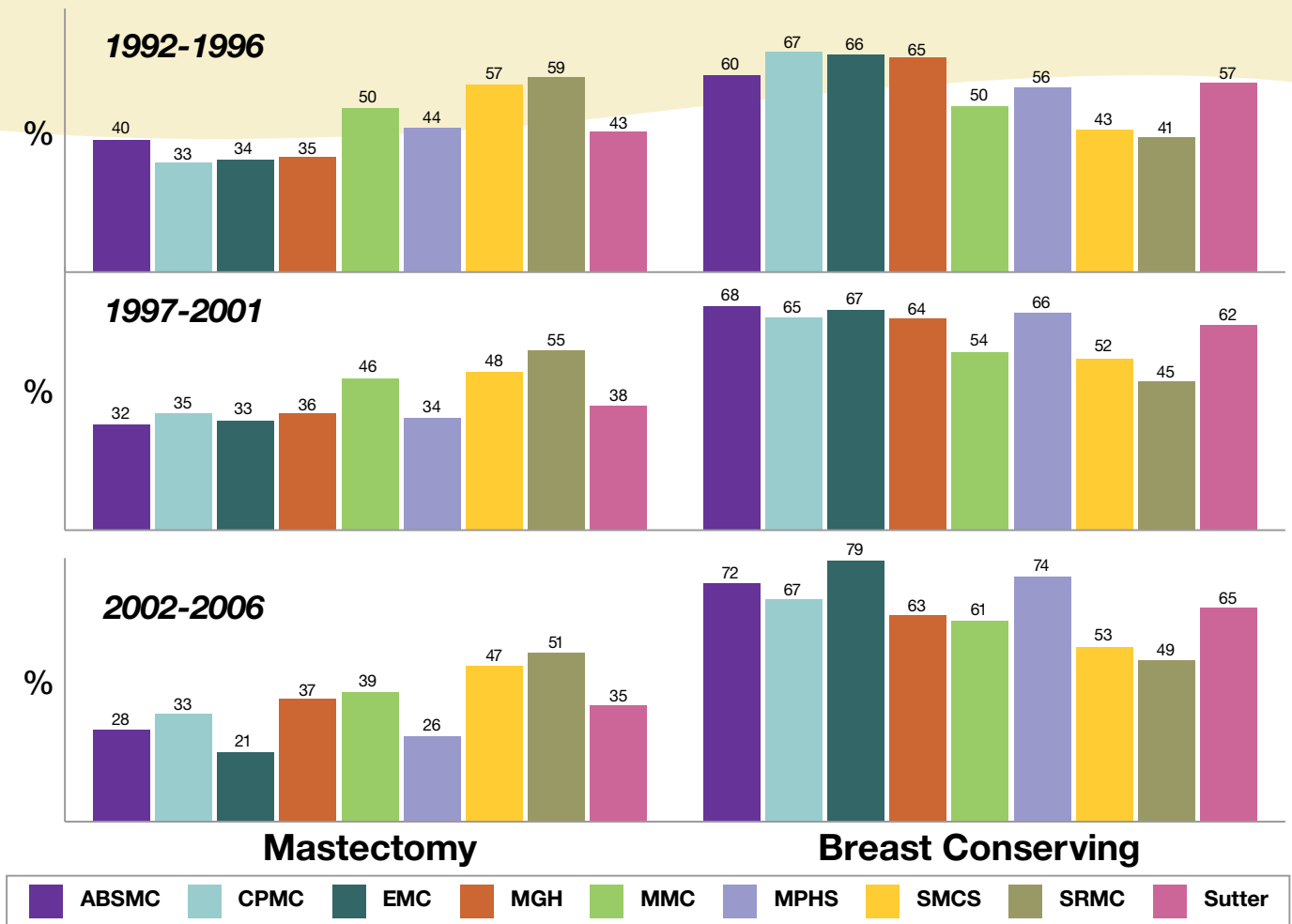
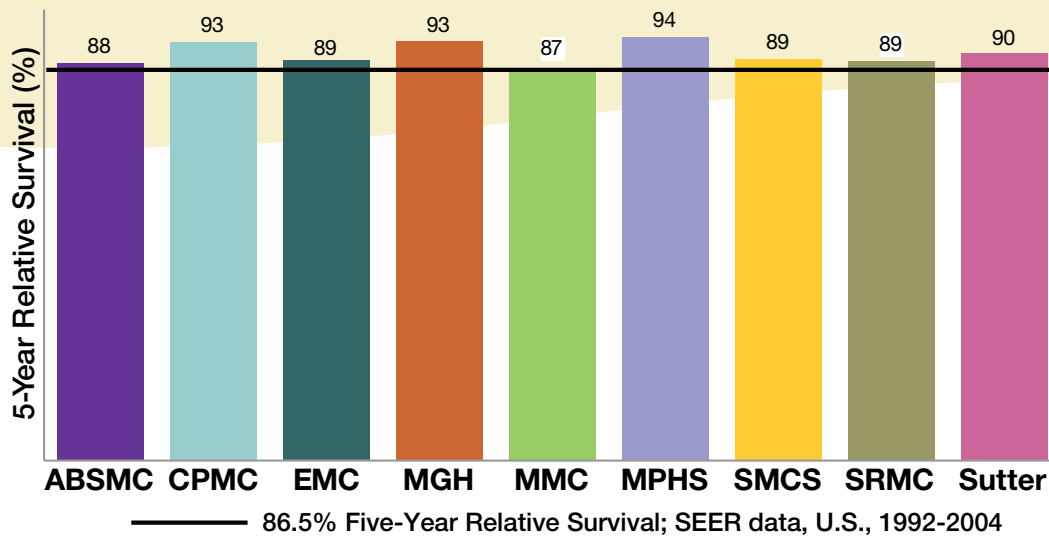


Figure 21 shows the variability over time intervals among Sutter institutions in the type of surgical treatment received by those women with invasive cancers whose treatment included surgery. Overall, the percentage of women receiving breast-conserving surgery rose from 57% (1992-1996) to 62% (1997-2001) to 65% 2002-2006). This trend towards decreased use of mastectomy may in part reflect efforts begun in 1996 on a systemwide basis to monitor and improve quality of care for breast cancer patients (the Sutter Health Breast Cancer Initiative). However, while SRMC, SMCS and MMC show improvement in breast conservation rates over the time intervals compared, Figure 21 suggests that mastectomy rates at these institutions are relatively higher than those seen at the other Sutter hospitals. This may possibly be explained by the fact that the areas served by these hospitals tend to have a relatively large rural component in their patient population. Since breast conservation surgery requires adjuvant radiation therapy, the difficulty in getting to a radiation therapy facility may influence these patients to choose mastectomy.

Figure 22
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

5-Year Relative Survival, Invasive Cancers
Sutter Hospitals vs. United States SEER: 1992-2004

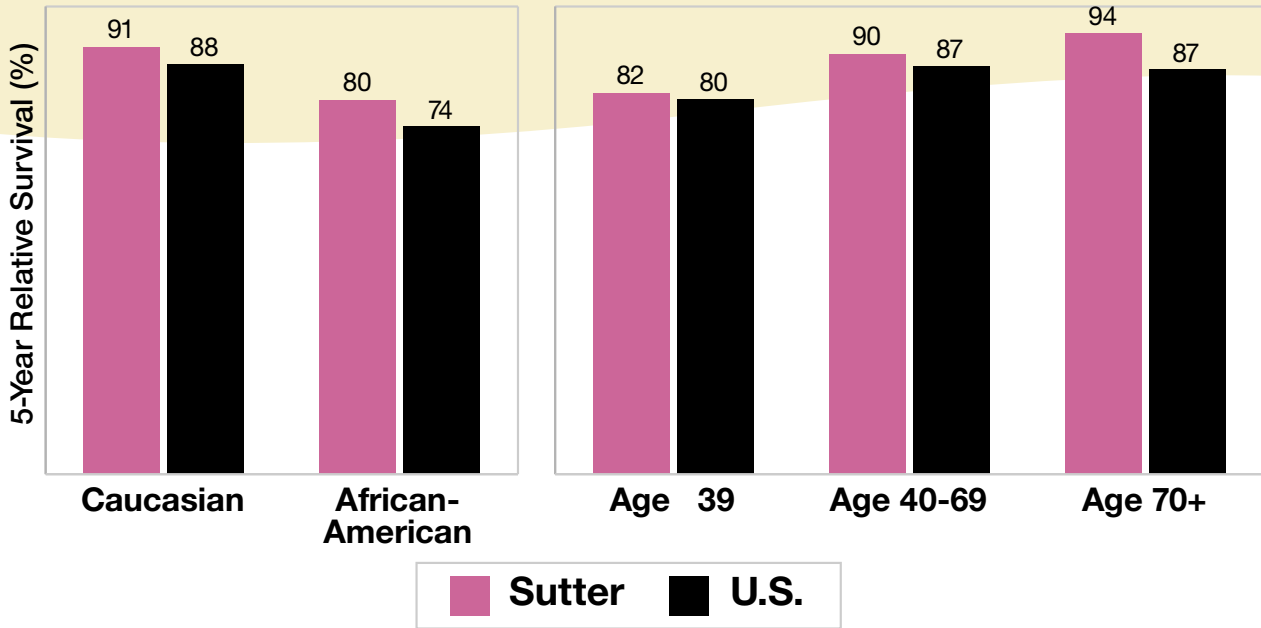


FIVE-YEAR RELATIVE SURVIVAL

In order to facilitate valid comparison of Sutter Health survival data to national trends, we analyzed relative survival rates³ in a subset of cases comparable to the most currently available data from SEER (1992–2004, n=435,618). **Figure 22** shows that overall five-year relative survival rates are comparable to estimates reported by SEER for the entire U.S. (90% for Sutter vs. 87% for U.S.). Rates at individual Sutter institutions range from 87% (MMC), 88% (ABSMC), and 89% (EMC, SMCS, SRMC), to 93% (CPMC, MGH) and 94% (MPHS). The variability among hospitals may be attributed to the varying combinations of prognostic factors prevalent in the underlying patient populations, including age structure, race distribution, stage at diagnosis, tumor grade, and hormone receptor status

³ Relative survival data must be interpreted with caution. The relative survival rate facilitates comparison of survival data from different groups of patients by taking into consideration the likelihood that patients in a given age group will die from causes unrelated to their cancer. Relative survival adjusts the actual observed survival rates of a given patient population for the population’s age and gender structure relative to a “standard” U.S. population. This adjustment doesn’t take into account factors such as race and socioeconomic status, which are known to affect survival rates for persons with colorectal cancer. Also, the U.S. five-year relative survival value used in this report for comparison purposes is based upon SEER data obtained from population-based cancer registries covering only about 10% of the U.S. population. To the extent that the patients seen at Sutter Health facilities during the 1996-2003 period differ from the U.S. subpopulation utilized for the SEER statistics, comparisons must be made with caution. Finally, comparisons among Sutter Health facilities with respect to survival rates must take into account the demographic variability seen across Sutter Health institutions.

Figure 23
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report
5-Year Relative Survival by Race and Age, Invasive Cancers
Sutter Hospitals vs. United States SEER: 1992-2004



Survival trends based on race and age are shown in **Figure 23**, and again Sutter Health compares favorably with national trends. African-American women with breast cancer in the Sutter Health system show lower five-year relative survival rates than their Caucasian counterparts, a trend also seen across the U.S. This is thought to be at least partially related to a number of poor-prognosis factors seen among African-American women, including late TNM stage (**Figure 9**), high tumor grade (**Figure 15**), and ER-/PR- hormone receptor status (**Figure 18**).

Figure 23 also shows that five-year survival for women diagnosed before the age of 40 is lower than that seen in women 40 and older. This is not directly due to the woman’s age, but the fact that younger women with a new diagnosis of breast cancer generally present at a higher stage (**Figure 24**), have higher grade disease (**Figure 25, next page**), and are more likely to have hormone receptor negative tumors (**Figure 26, next page**) than older women, thus reducing expected survival.

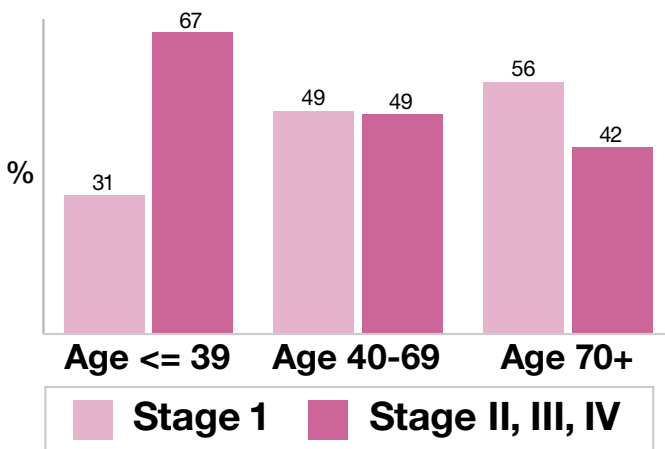


Figure 24
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report
TNM Stage Distribution by Age Group
Invasive Cancers
Sutter Hospitals: 1992-2004

Figure 25
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

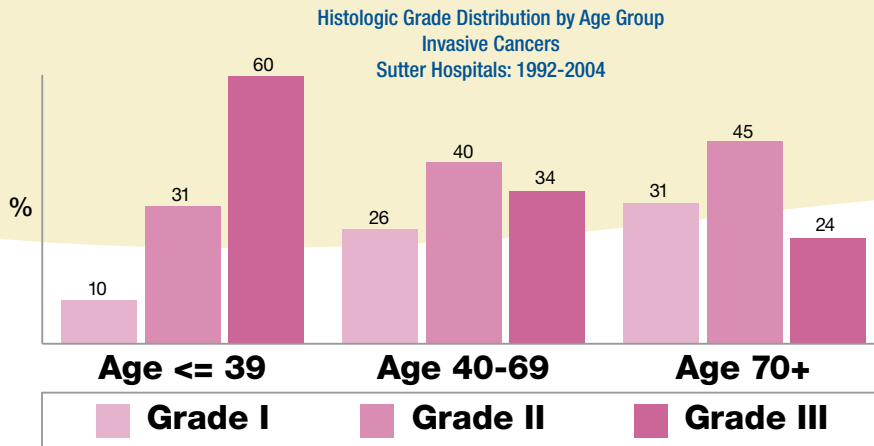


Figure 26
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

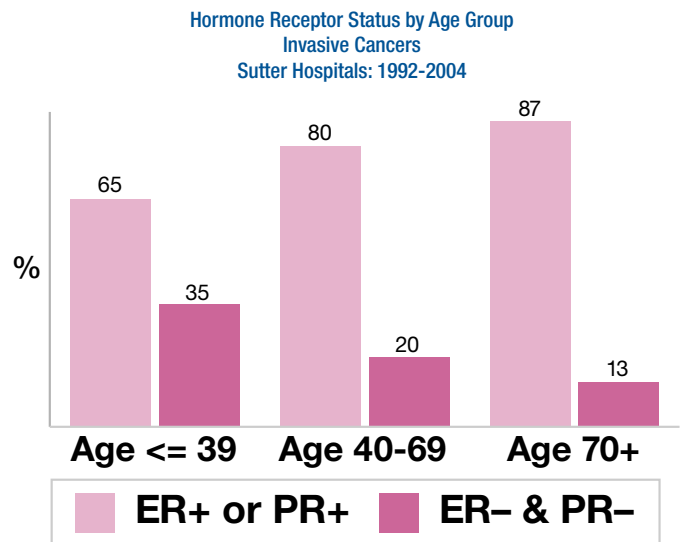


Figure 27
Focus on Breast Cancer (1992-2006), Sutter Health 2007 Cancer Programs Annual Report

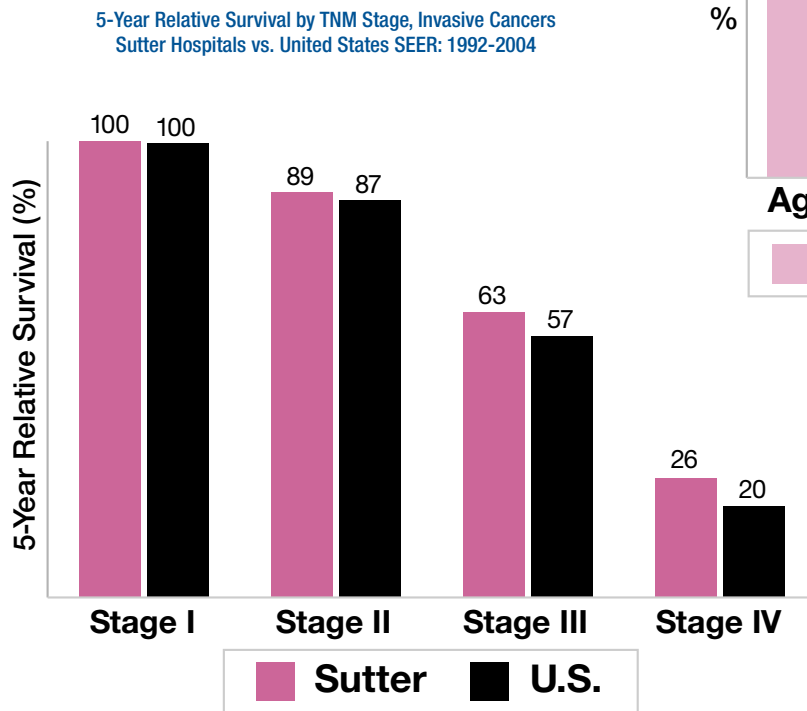


Figure 27 (next page) shows the relationship between TNM stage and five-year relative survival. For both Sutter and the U.S. sample, women whose breast cancers were diagnosed at an earlier stage had better survival than women diagnosed at a later stage. Five-year relative survival rates seen in Sutter Health patients are comparable or better than U.S. results at all stages of invasive breast cancer.

CONCLUSION

Breast cancer is the most common cancer for women, and the second leading cause of cancer deaths among women. We were able to study over 22,000 women with invasive breast cancer and almost 5,000 women with in-situ breast cancer over a 15-year period, utilizing cancer registry data provided by the eight American College of Surgeons accredited hospitals within the Sutter Health system.

Women within the Sutter system tend to be slightly younger at diagnosis than those seen nationally (U.S. median age = 61 vs. 59 for Sutter, 2000-2004), a trend most evident in recent years. Race/ethnicity distribution follows trends seen within the general Sutter cancer patient population and reflects the racial diversity of the population served at each Sutter institution.

The majority of Sutter patients with breast cancer are diagnosed at an early stage, resulting in an improved prognosis. As is seen nationally, African-American women tend to have more advanced stage, higher grade tumors, and hormone receptor negative tumors, all factors correlated with lower survival. All of these factors contribute to lower survival rates compared to Caucasian women. The same three poor-prognosis factors are seen in women diagnosed with breast cancer at a younger age (age < 40) and as a result this group shows decreased survival compared with women diagnosed at over age 40. Our study also confirms that there is decreased survival with increasing tumor grade in breast cancer.

The trend in the three time periods shows that the incidence of invasive breast cancer decreased, while the incidence of in situ breast cancer increased in each time period. The incidence of breast cancer reported nationally includes invasive breast cancers only. Our study suggests that perhaps one reason for the national trend of decreased invasive breast cancer incidence is that at the same

time, there was an increase in the in situ breast cancers diagnosed. This would most likely be due to improved breast cancer screening, with some women's breast cancer diagnosed as in situ, before it became an invasive cancer. Supporting this theory also is that the average age of diagnosis of in situ breast cancer is 3 years earlier than the average diagnosis of invasive breast cancer in our study. When we evaluate in situ breast cancer, there was an increase in every ethnic group over the three time periods, but much less of an increase for African-American women.

In about 9% of the recent breast cancer cases examined, the histological grade was not determined, suggesting an area for further investigation and improvement. However, there was a significant decrease in the percentage of non-graded tumors over the three time periods, presumably an improvement related to the wide spread use of the synoptic pathology report.

Examination of treatment modality data reveals trends in recent years towards more multi-modality treatment. There has also been a trend over the three time periods for increasing use of breast conservation surgery rather than mastectomy. Our data on adjuvant treatments after surgery may not be complete as patients may go to an institution closer to home for chemotherapy or radiation therapy, therefore making the collection of that data more difficult for our tumor registries.

Analysis of five-year relative survival over all Sutter Health breast cancer patients and broken down by race, age, and stage, reveals rates at or above those seen nationally. This holds true for survival overall, by stage, and within ethnic and age groups as well.

Registries

Sutter Cancer Program

*Stephen Bishop - Cancer Data Services Coordinator
Alta Bates Summit Medical Center*

Cancer Registry Data Collection And Analysis

The cancer registries of the Sutter Cancer Program provide data management services to comply with mandatory state cancer reporting regulations, as well as the data needs of clinicians, administrators, and other qualified users across the Sutter network. In addition, Sutter cancer registries also provide data to national-level cancer surveillance organizations for incidence measurement and epidemiological studies. The Sutter Cancer Registries have collected data for a total of 217,319 cases, with 10,837 new cases entered for the calendar year 2006, the last complete year of data collection.

The local registry databases contain demographic and clinical information from diagnosis through treatment, as well as annual lifetime follow-up data. The follow-up process, in addition to providing critical information about disease status and treatment outcomes, also performs a valuable service for physicians and patients by reminding them that regular reassessment of the disease is vital for early detection of recurrences or subsequent primaries. As of the end of 2006, the Sutter Cancer Registries are actively following 84,536 living patients.

Data collected by each hospital are shared and aggregated for reports, studies, and cancer statistics for the Sutter Cancer Program as a whole. The ability to look at our combined Sutter Health data provides a unique opportunity to evaluate care across our network. At present, system-wide studies and quality assurance projects are accomplished through data exports and manual aggregation and statistical analysis of the data. Through comparison with regional and national statistics, the combined data enables Sutter clinicians to more

effectively monitor trends in the incidence, staging, treatment, outcome and survival of cancer patients treated within our network.

In addition to their routine cancer registry responsibilities, Sutter Cancer Registrars are often asked or volunteer to coordinate or participate in other Cancer Program activities outside of the Cancer Registry. At any of the nine ACOS accredited facilities in the Sutter Cancer Program, the Cancer Registrar may coordinate or supervise Cancer Screening Programs, Cancer Support Services, Continuing Medical Education (CME) for Oncology, Cancer Research, or Volunteers and Auxillary Staff Members. Sutter Cancer Registrars are often members of other standing medical staff or hospital committees, especially Quality Improvement Committees, which often use Registry data for clinical indicators and quality improvement measures. Cancer Registrars often participate in or coordinate American Cancer Society (ACS) activities, community health fairs and public education activities such as Breast Cancer Awareness Month events in October and Prostate Cancer Awareness Month events in November.

Each Cancer Program facility is accredited by the American College of Surgeons and is regularly re-surveyed to assure continuous compliance with its accreditation standards. In most cases, Sutter Cancer Registrars serve as the ACOS Certification Coordinators at their facilities, devoting many hours outside of their data management responsibilities to insure that their cancer programs meet or exceed all ACOS Cancer Program standards for their respective categories of approval. In 2007 the Cancer Programs of California Pacific Medical Center, Mills-Peninsula Medical Center,

Registries

Sutter Cancer Program

Sutter Roseville Medical Center, and Sutter Solano Medical Center were surveyed by the ACOS and all were granted 3-year approvals.

The following table briefly summarizes the volume of activity of each registry for calendar year 2006:

Table 1
2006 Sutter Health Analytic Cancer Cases

Sutter Cancer Registry Statistics

	ABSMC	CPMC	EMC	MGH	MHA	MPHS	SMCS	SRMC	SSMC*
Reference Date	01/01/85	01/01/93	01/01/98	01/01/83	01/01/90	01/01/95	01/01/92	01/01/90	01/01/02
Total Cases in Database	48,857	43,398	10,855	22,598	25,290	26,837	21,544	12,621	5,319
Total Cases in 2006	2,083	2,213	525	699	892	1,085	1,745	1,148	447
Total Active Follow-Up	17,289	21,322	1,704	7,562	16,652	5,337	8,991	4,219	1,460
Follow-up Success %	87%	90%	96%	95%	91%	90%	92%	91.9%	99%
Tumor Board Case Presentations	470	330	189	589	211	310	280	166	62
■ General Tumor Board	200	62	161	207	211	95	103	140	62
■ Breast Tumor Board	270	45	3	182	0	156	86	26	0
■ Other Special Tumor Boards	0	223	25	200	0	59	91	0	0
Total Data Requests	31	39	25	13	8	6	7	10	5

Sutter Health

2006 Cancer Registry Data

Eric Gold, Oncology Analyst/Programmer, Alta Bates Summit Medical Center
 See page two for abbreviations for Sutter Health institutions.

This overview presents an analysis of 9,097 new cases of cancer¹ diagnosed and/or treated at the nine American College of Surgeons accredited Sutter Health institutions during 2006. This represents an 11% increase in system-wide volume over last year's totals.²

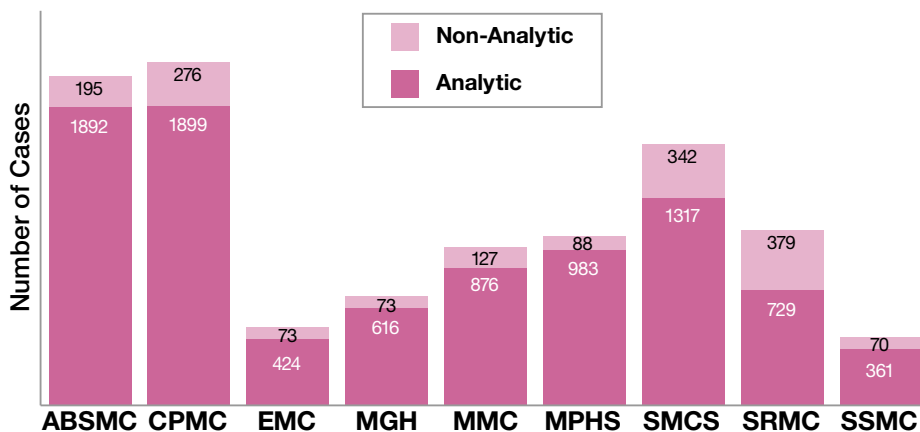
PATIENT VOLUME BY CLASS OF CASE (Figure 1)

Figure 1 shows the variability in the total number of cancer cases reported in 2006 at each of the nine Sutter Health hospitals. Year 2006 overall case volume ranged from 431 at SSMC to 2,175 at CPMC for a total of 10,720 cases system-wide. Eighty-five percent of these cases (9,097) were newly diagnosed and/or received the first course of treatment at one of the nine Sutter centers. These are designated as "analytic" cases and all further analyses are restricted to these data.

AGE AT DIAGNOSIS

Overall – Generally similar patterns were seen at all institutions, with the number of cancer patients peaking in the 60-79 age range. Two-thirds of cancer patients were diagnosed in the 50-79 age range and 84% were age 50 or over at the time of diagnosis. The median age at diagnosis was 65 years overall and ranged from 62 (ABSMC) to 70 (MPHS). ABSMC, SMCS, and CPMC had the youngest cancer patient populations and MPHS and EMC had the oldest. These trends reflect differences in both the underlying demographics of the communities served and the relative incidence of the most prevalent cancers seen at each institution. The male cancer patient population is slightly older than the female cancer patient population (median age 67 vs. 63). These data are consistent with those seen over the last ten years in the Sutter Health cancer patient population.

Figure 1
 2006 Sutter Health Analytic Cancer Cases
 Patient Volume by Class of Case



¹ In order to be consistent with previous Sutter Health Cancer Programs Annual Reports, which included only malignant neoplasms, this analysis does not include benign neoplasms of the brain and central nervous system, which are reportable in the state of California beginning with cases diagnosed 01/01/2001 and later. However, these cases have been included in the primary site tables for each facility at the end of this report.

² A significant part of this increase is attributable to the merger of Eden Medical Center (EMC) with San Leandro Hospital. It is also important to note that hospital cancer registry data reflect patients diagnosed and treated in the hospital, unlike population-based cancer registry data such as those reported by the California Cancer Registry and at the SEER registry of the National Cancer Institute, which represent all patients diagnosed in a defined population.

Overview

2006 Cancer Registry Data

AGE DISTRIBUTION BY GENDER (Figure 2)

Males – The nine hospitals show modest differences. The greatest number of cases fell into either the 60-69 age group (ABSMC, CPMC, MGH, SMCS, SSMC) or into the 70-79 age group (EMC, MMC, MPHS, SRMC), resulting in an overall parity for these two age groups (27% and 26% overall, respectively). Overall, 53% of the males were diagnosed in the 60-79 age range.

Females - Overall females show a flatter and somewhat more varied distribution than males. Age distribution peaked in the 50-59 range for females at ABSMC, CPMC, MGH and SMCS, in the 60-69 range at SSMC, in the 70-79 range for women at MMC, MPHS and SRMC, and in the 80-89 range for EMC. Overall, only 39% of the females were diagnosed in the 60-79 age range, contrasted with 53% in males. These gender differences probably reflect differences in the age at diagnosis for the two most dominant gender-specific cancers: prostate and breast cancer (see Figure 5). Within each gender, prostate and breast cancer account for 26% and 40%, respectively, of all newly-diagnosed cases. The median age at diagnosis for prostate cancer was 67 vs. 58 for female breast cancer.

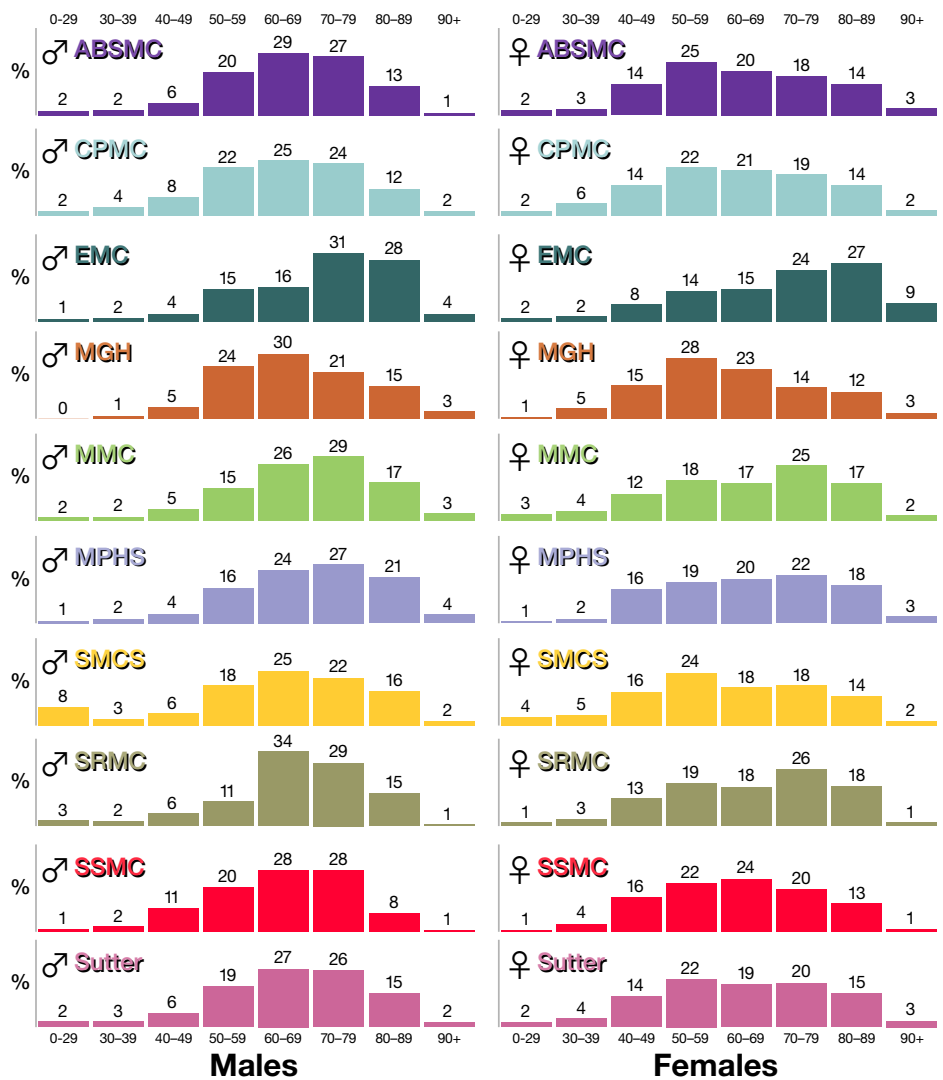


Figure 2
2006 Sutter Health Analytic Cancer Cases
Age Distribution by Gender

Sutter Health

2006 Cancer Registry Data

GENDER RATIO (Figure 3)

As seen in past years in the Sutter Health system, the female cancer patient population is significantly larger than the male population. Females account for 57% and males account for 43% of the newly diagnosed cancers seen in 2006. This trend was observed at all institutions except MPHS where gender ratios were nearly equal. The largest disparity in gender ratio was at SMCS, MGH, and EMC while gender proportions were most similar at MPHS, CPMC, and SSMC. These differences are mostly a reflection of the relative incidence of male-specific cancers (mostly prostate) and female-specific cancers (mostly breast, uterus, and ovary). For example, SMCS and EMC have the highest incidence of breast, uterine, and ovarian

cancers relative to prostate cancer, while MPHS and SSMC have the lowest incidence of breast, uterine, and ovarian cancers relative to prostate cancer.

It is important to note that the female-to-male ratio in population-based registries such as the California Cancer Registry is 1:1, whereas our Sutter hospital-based registries record a preponderance of female patients. These differences are due to hospital referral patterns and the inherent nature of these two different types of cancer registries.

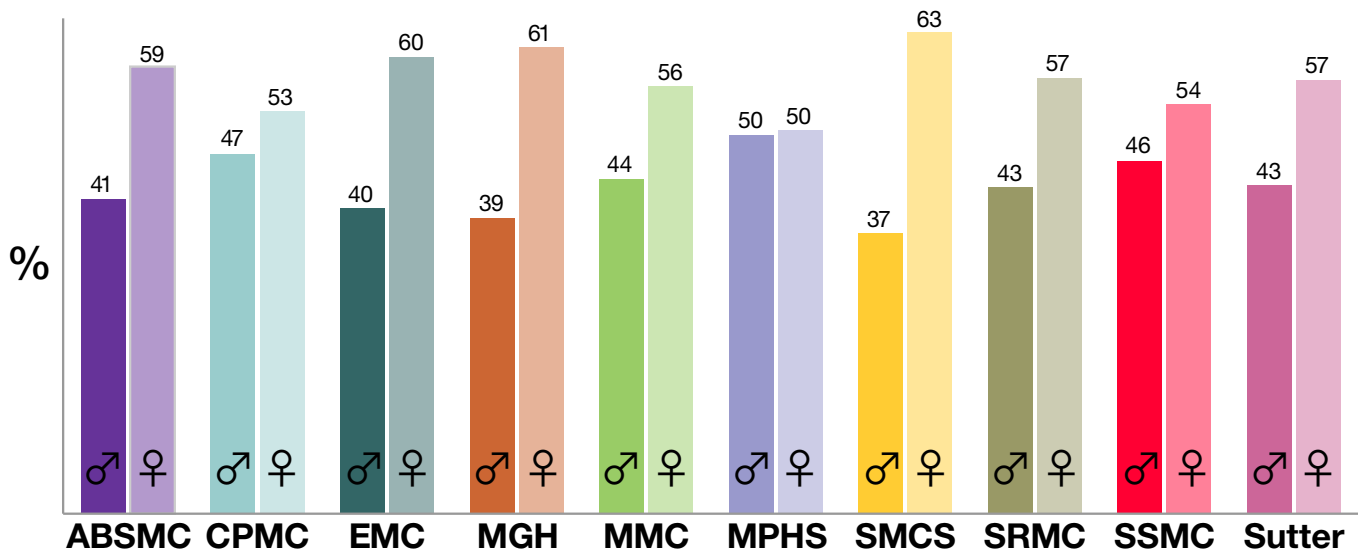


Figure 3
2006 Sutter Health Analytic Cancer Cases

Gender Ratio

Overview

2006 Cancer Registry Data

RACE/ETHNICITY (Figure 4)

The distribution of patients by race/ethnic group reflects the diversity seen in the communities served by each institution. The ABSMC and SSMC cancer patient populations are the most ethnically diverse with the fewest Caucasians (55% and 56%, respectively) and large African-American (22% and 17%, respectively) and Asian³ (17% and 18%, respectively) components. ABSMC alone accounts for nearly 60% of the entire Sutter Health African-American cancer patient population. CPMC also has a relatively diverse patient population with the largest Asian

component (21%). CPMC and ABSMC together account for 65% of the Asian Sutter Health population. A relatively large Hispanic component is seen at MMC (14%). The cancer patient populations at SRMC and MGH are the least ethnically diverse (95% and 92% Caucasian, respectively).

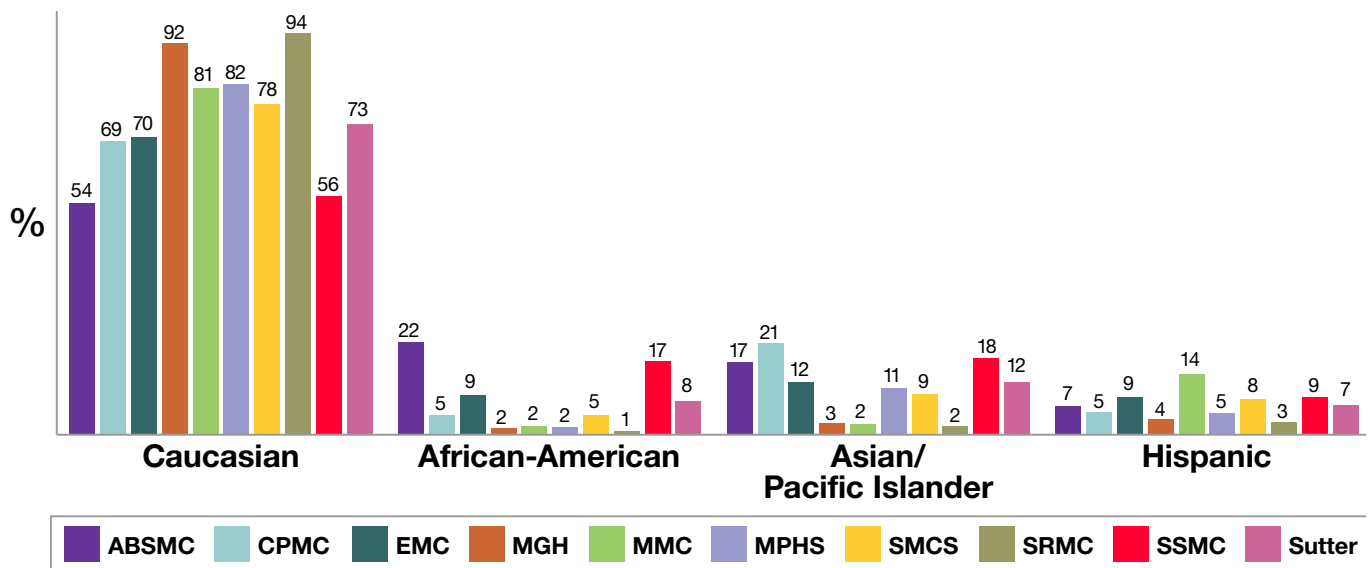
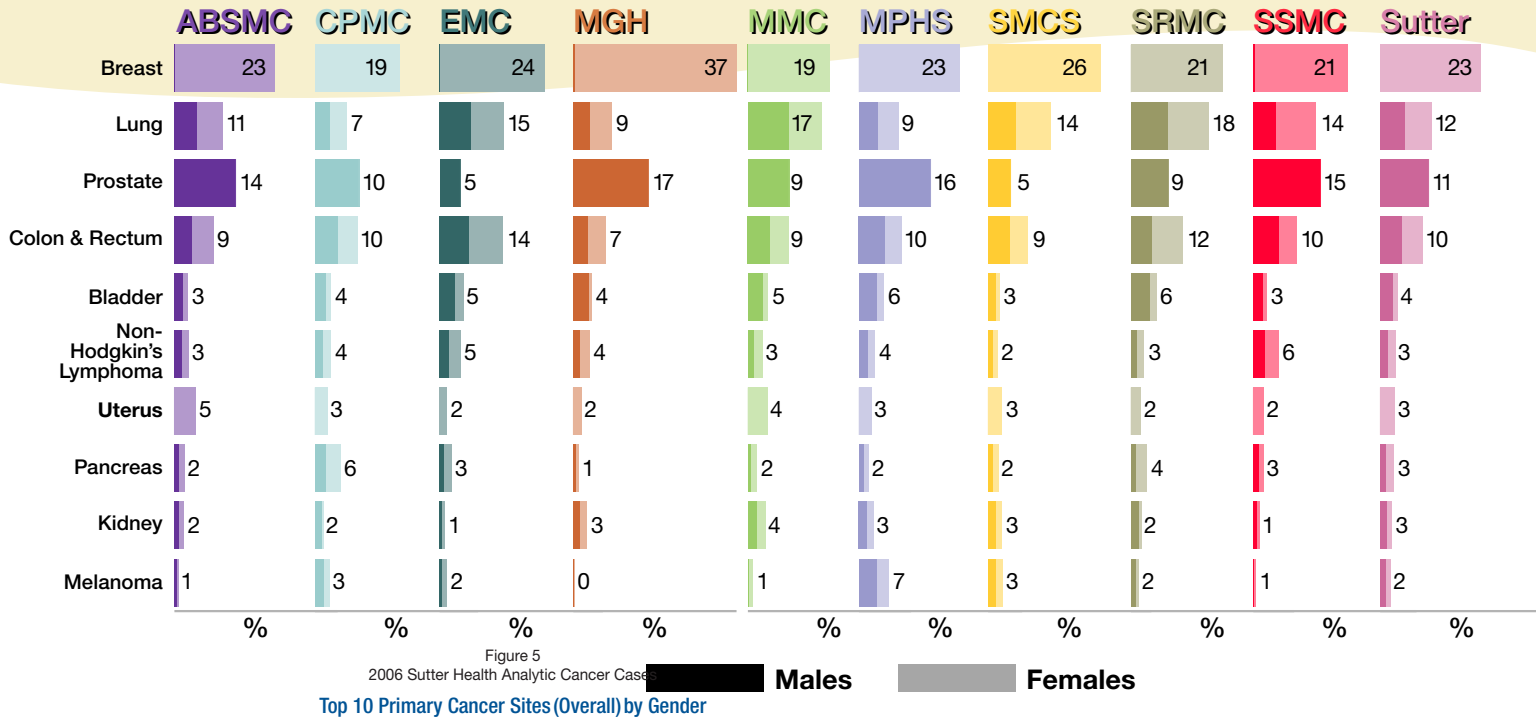


Figure 4
2006 Sutter Health Analytic Cancer Cases
Race/Ethnicity

³ Asian includes Asian and Pacific Islander.

Sutter Health

2006 Cancer Registry Data



TOP 10 PRIMARY CANCER SITES (Figure 5)

The distribution of the most prevalent cancers seen in the Sutter Health system has changed very little over the past ten years. The top five cancer sites account for almost 60% and the top ten cancer sites encompass almost 75% of the newly-diagnosed cancers seen in the Sutter Health system. Female breast cancer accounts for over one-fifth of all new cancers seen in the Sutter Health System (23%). Lung (12%), prostate (11%), colorectal (10%), and bladder (4%) account for 36% of cancers newly diagnosed in 2006:

- **Breast Cancer:** Highest relative incidence seen at MGH (37%), and the lowest at CPMC and MMC (19%)
- **Lung Cancer:** Highest relative incidence at SRMC (18%), and the lowest at CPMC (7%)
- **Prostate Cancer:** There are many possible factors that affect the relative incidence of prostate cancer at community hospitals. The relatively high incidence seen at MGH (17%) may be due to the fact that it has a relatively older underlying patient population and also socioeconomic factors leading to higher PSA screening penetrance and thus higher detection/overdetection of Marin County men with prostate cancer. EMC and SMCS had the lowest incidence (5%) and in this case it is likely result of community referral patterns. Many of the prostate cancer cases are diagnosed in physician offices and referred for treatment at a large independent radiation oncology practice in the community. Appropriately, the SMCS cancer registry does not record these patients and the result is an under-representation of prostate cancer in their database.
- **Colorectal Cancer:** Highest relative incidence at EMC (14%), and the lowest at MGH (7%)
- **Bladder Cancer:** Highest relative incidence MPHS and SRMC (6%)
- **Non-Hodgkin's Lymphoma:** Highest relative incidence at SSMC (6%) and the lowest at SMCS (2%)
- **Uterine Cancer:** Highest relative incidence at ABSMC (5%)
- **Pancreatic Cancer:** Highest relative incidence at MMC (4%) and lowest at EMC and SSMC (1%)
- **Renal Cancer:** Highest relative incidence at MMC (4%)
- **Melanoma of the Skin:** Highest relative incidence at MPHS (7%) and lowest relative incidence at MGH (<1%)

Overview

2006 Cancer Registry Data

RELATIVE INCIDENCE OF MAJOR INVASIVE CANCERS — COMPARISON WITH STATE AND NATIONAL ESTIMATES⁴ (See Figure 6, next page)

OVERALL SUTTER HEALTH COMPARED WITH CALIFORNIA AND THE UNITED STATES:

Oral, Lung, Colon & Rectum, Urinary, Leukemia/Lymphomas, Uterus and Ovary	— Sutter Health was generally similar to statewide and national estimates.
Female Breast	— Slightly higher than seen in California and the U.S. (35% vs. 33% and 31%)
Prostate	— Lower than seen in California and the U.S. (26% vs. 32% and 33%)

INDIVIDUAL SUTTER HEALTH INSTITUTIONS COMPARED WITH CALIFORNIA AND THE UNITED STATES:

Oral	— No significant deviations for males or females from patterns seen with California and the U.S.
Lung	— Relatively high rates in MMC (22%), SRMC (20%), EMC (19%), and SMCS (18%) males compared with California and the U.S. (13%) — Relatively low rate in CPMC males compared with California and the U.S. (8% vs. 13%) — Relatively high rates in SRMC and SSMC females compared with California and the U.S. (18% vs. 12%) — Relatively low rate in CPMC females compared with California and the U.S. (8% vs. 12%).
Pancreas	— Relatively high rate in CPMC males compared with California and the U.S. (6% vs. 2%) — Relatively high rate in CPMC females compared with California and the U.S. (7% vs. 3% and 2%)
Colorectal	— Relatively high rate in EMC males compared with California and the U.S. (17% vs. 11% & 10%) — Relatively high rates in EMC and SRMC females compared with California and the U.S. (13% vs. 10% and 11%) — Relatively low rates in MGH and SMCS females compared with California and the U.S. (7% vs. 10% and 11%)
Urinary	— Relatively high rate in SRMC males compared with California and the U.S. (15% vs. 10%) — Relatively high rate in MPHS females compared with California and the U.S. (7% vs. 4% & 5%) — Relatively low rate in SSMC males compared with California and the U.S. (7% vs. 10%)
Leukemia/ Lymphomas	— Relatively high rates in CPMC and SMCS males compared with California and the U.S. (11% vs. 8% & 7%). — Relatively low rate in EMC males compared with California and the U.S. (1% vs. 8% & 7%)
Uterus	— Relatively high rates at ABSMC and MMC compared with California and the U.S. (9% vs. 6%) — Relatively low rate at EMC compared with California and the U.S. (3% vs. 6%)
Ovary	— Relatively high rates at MMC and SRMC compared with California and the U.S. (5% vs. 3%) — Relatively low rate at EMC compared with California and the U.S. (1% vs. 3%)
Female Breast	— MGH had a very high rate compared with California and the U.S. Percentages ranged from 55% at MGH down to 30% at MMC (vs. 33% for California and 31% for the U.S.). This high value for MGH represents the highest percentage of breast cancer cases among females reported over the last 12 years of combined Sutter health system reporting. It demonstrates the large impact that factors in a hospital's community, other than true underlying cancer incidence, can have on annual case volume. This apparent surge in breast cases is very likely attributable to two factors: 2006 was the first full year that digital mammography was employed at MGH, and was also the first year that three breast surgeons were active at that facility
Prostate	— The most variable of any of the major sites examined. Percentages ranged from 45% at MGH down to 12% at EMC (vs. 32% and 33% for California and the U.S.)

⁴ Both state and national estimates are derived from NCI SEER data published by the American Cancer Society.

Sutter Health

2006 Cancer Registry Data

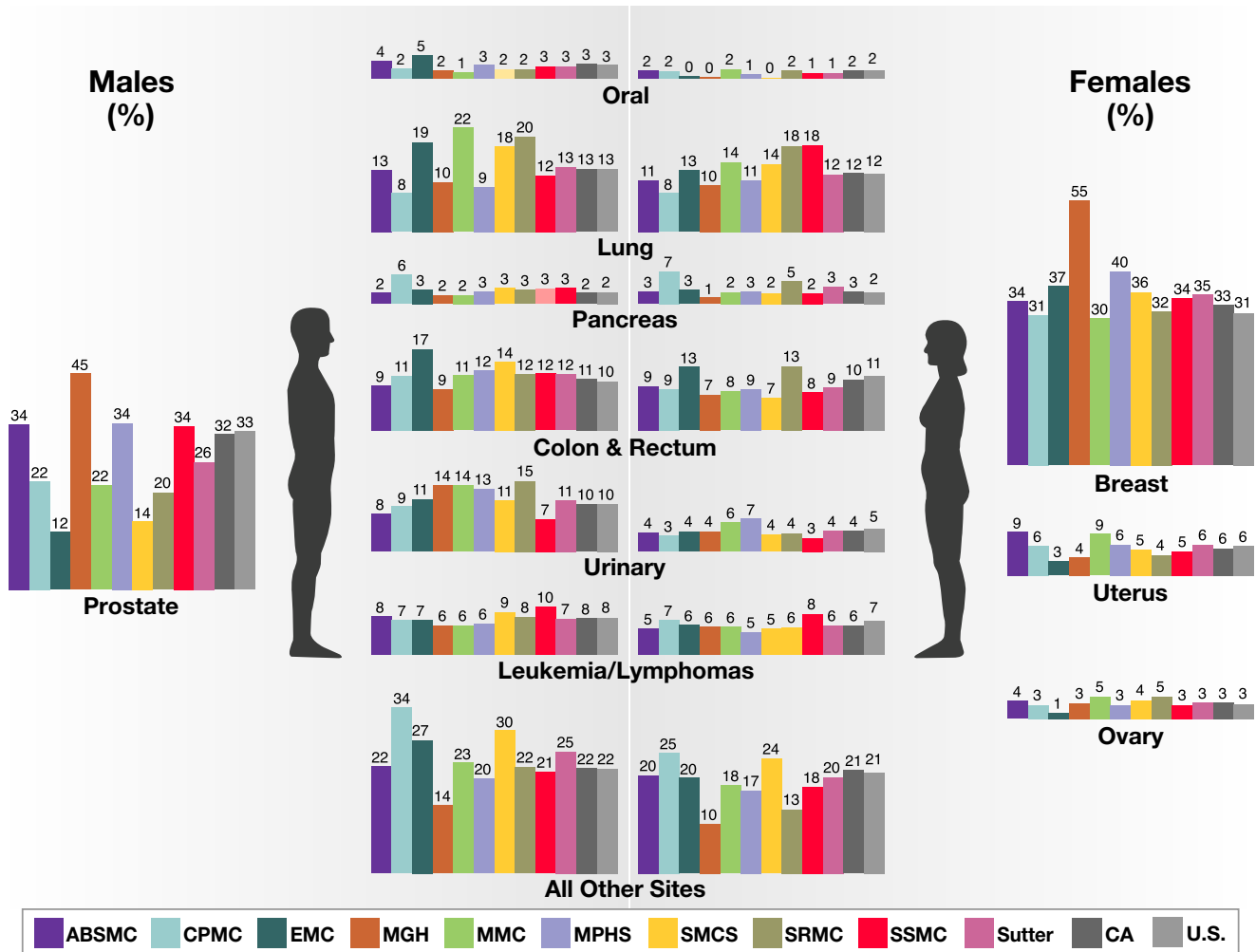


Figure 6
 2006 Sutter Health Analytic Cancer Cases
 Relative Incidence of Major Invasive Cancers — Comparison with State and National Estimates

Overview

2006 Cancer Registry Data

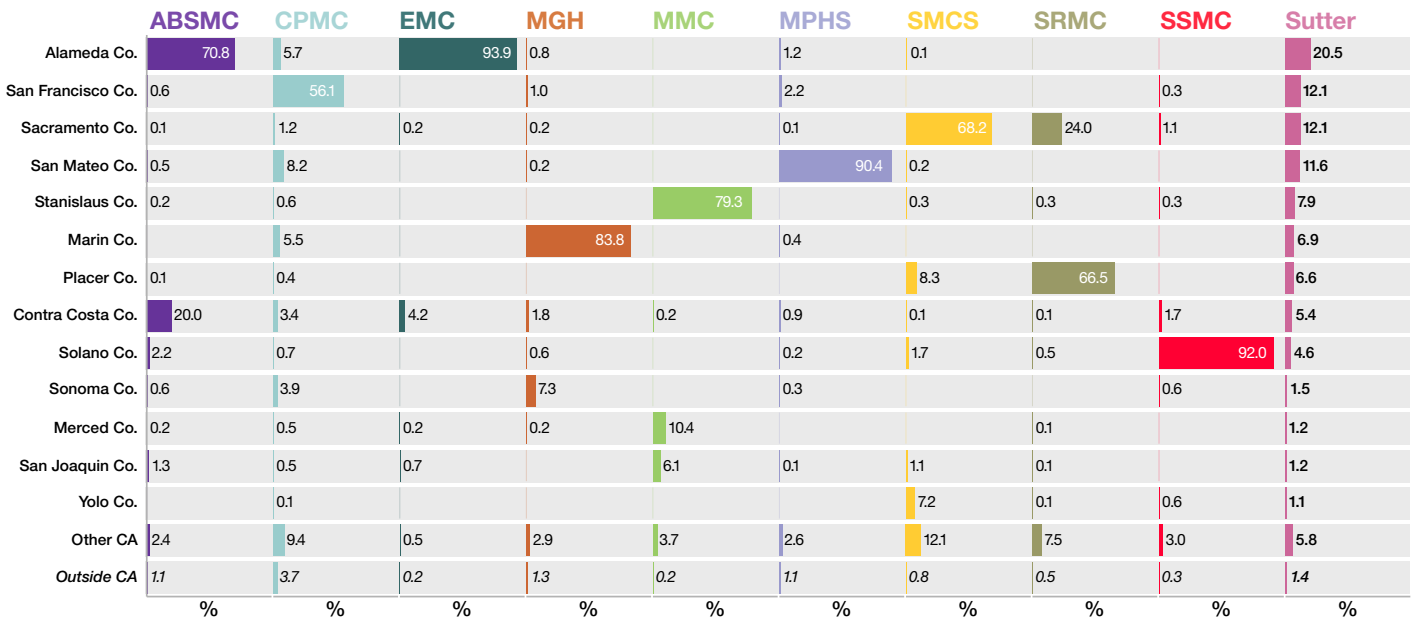


Figure 7
2006 Sutter Health Analytic Cancer Cases
Geographic Distribution by California County

GEOGRAPHIC DISTRIBUTION (FIGURES 7-17)

Figure 7 displays the distribution of cases by California county. In 2006 approximately one in five cases were diagnosed in Alameda County. 8,959 (98.5%) of the cases were diagnosed in California, 127 (1.4%) were diagnosed in the United States, outside California, and 11 (0.1%) were diagnosed outside of the United States. New cancer cases originated in 29 different states and in nine countries outside the U.S. including Brazil, Canada, England, France, Germany, Guam, Mexico, Thailand, and the Virgin Islands. The geographic distribution of cases by California county can be summarized as follows:

ABSMC – 71% Alameda County, 20% Contra Costa County

CPMC – 56% San Francisco County, 8% San Mateo County, 6% Alameda County, and 6% Marin County

EMC – 94% Alameda County, 4% Contra Costa County

MGH – 84% Marin County, 7% Sonoma County

MMC – 79% Stanislaus County, 10% Merced County, and 6% San Joaquin Country

MPHS – 90% San Mateo County

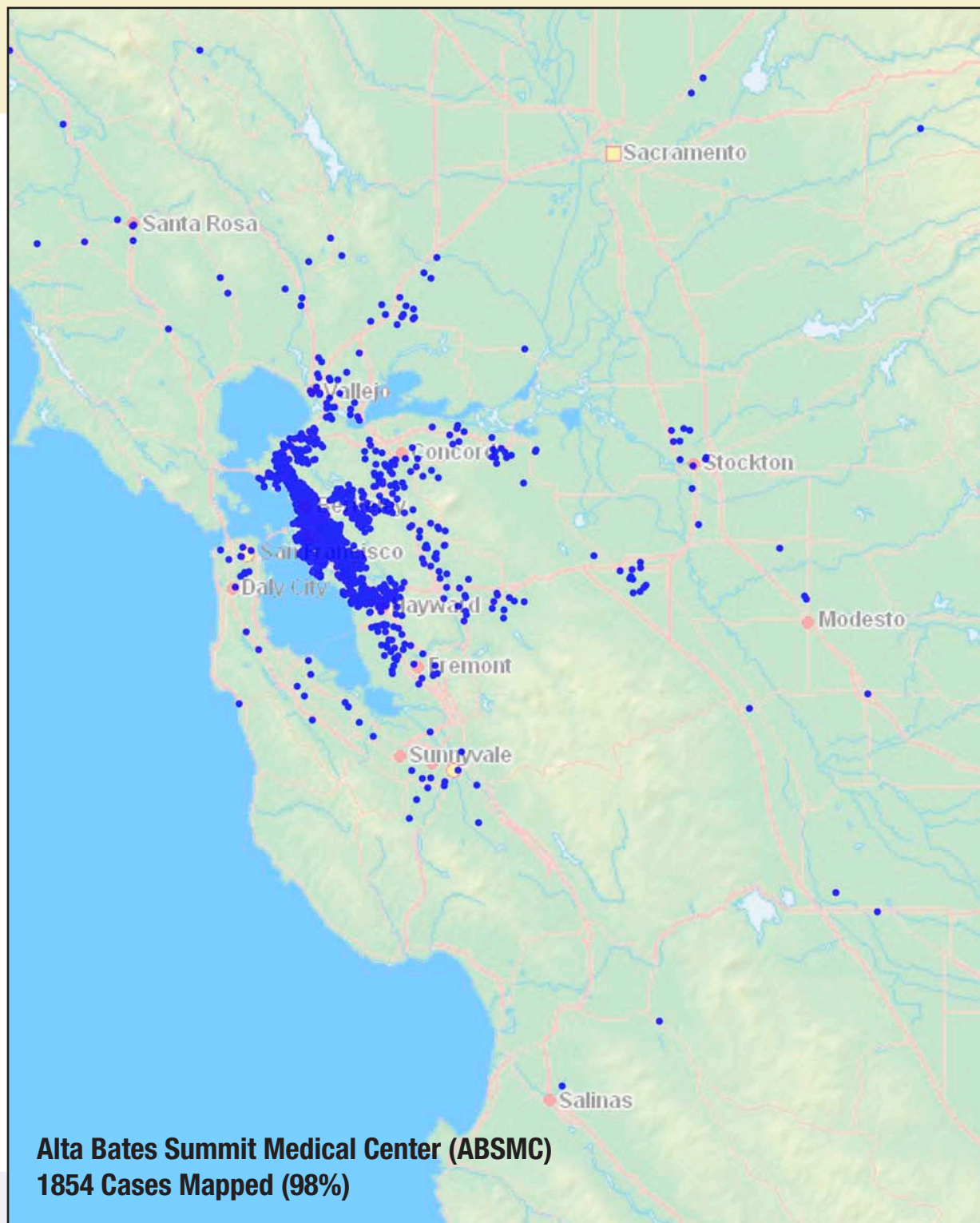
SMCS – 68% Sacramento County, 8% Placer County, 7% Yolo County

SRMC – 67% Placer County, 24% Sacramento County

SSMC – 92% Solano County

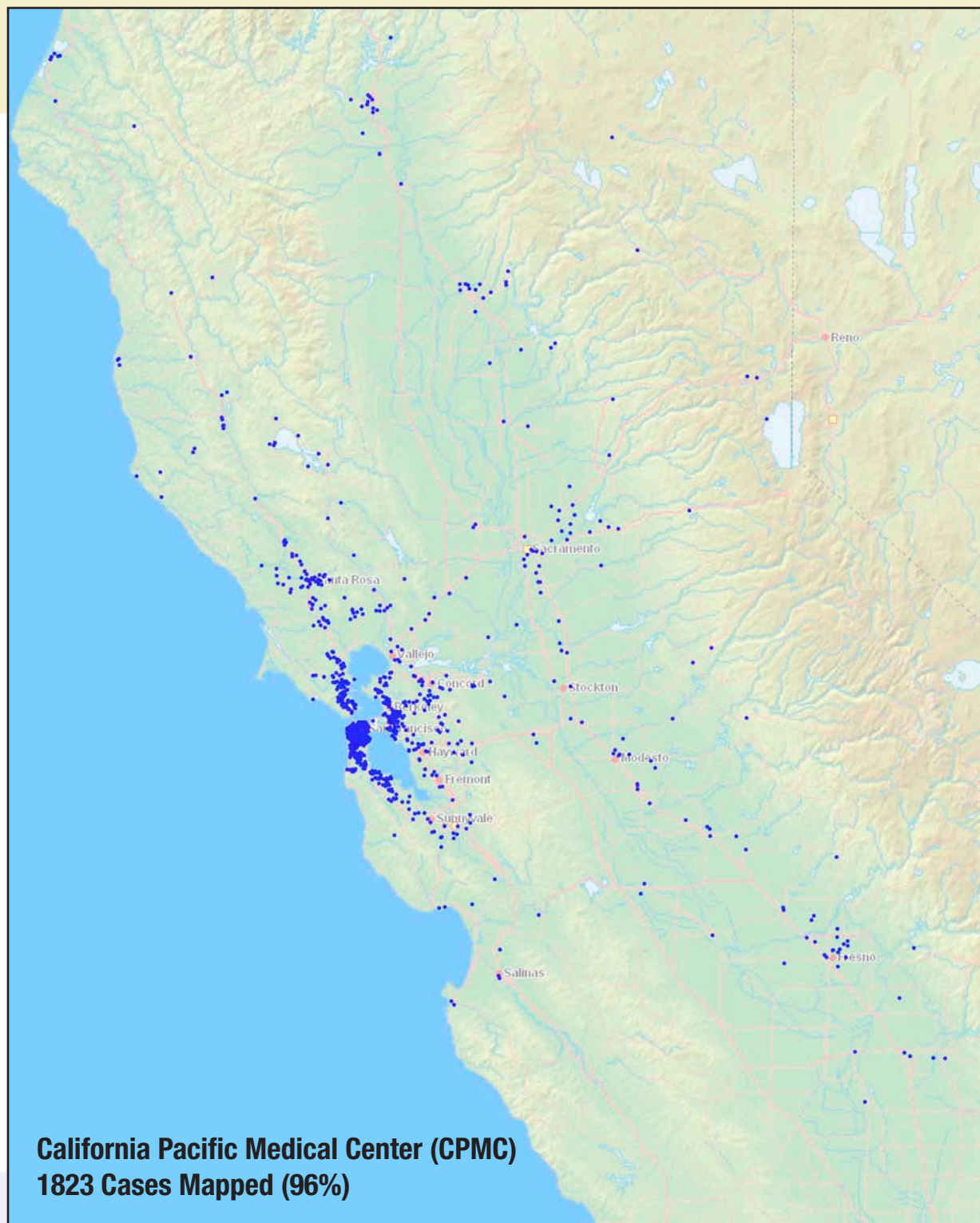
ABSMC **geographic** Mapping

Figure 9
Geographic Mapping of Residence at Time of Diagnosis
2006 Sutter Health Analytic Cancer Cases



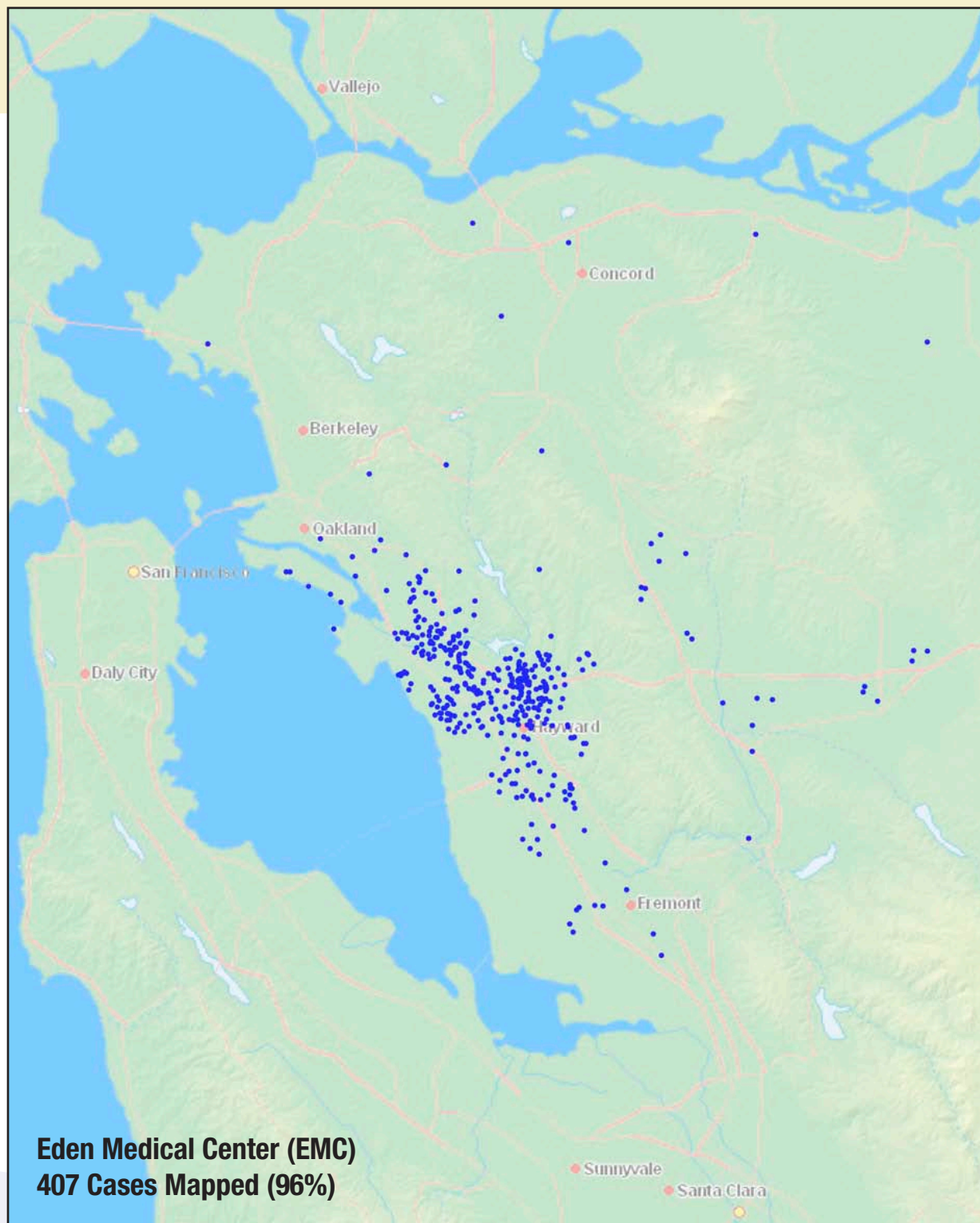
CPMC **Mapping** Geographic

Figure 10
Geographic Mapping of Residence at Time of Diagnosis
2006 Sutter Health Analytic Cancer Cases



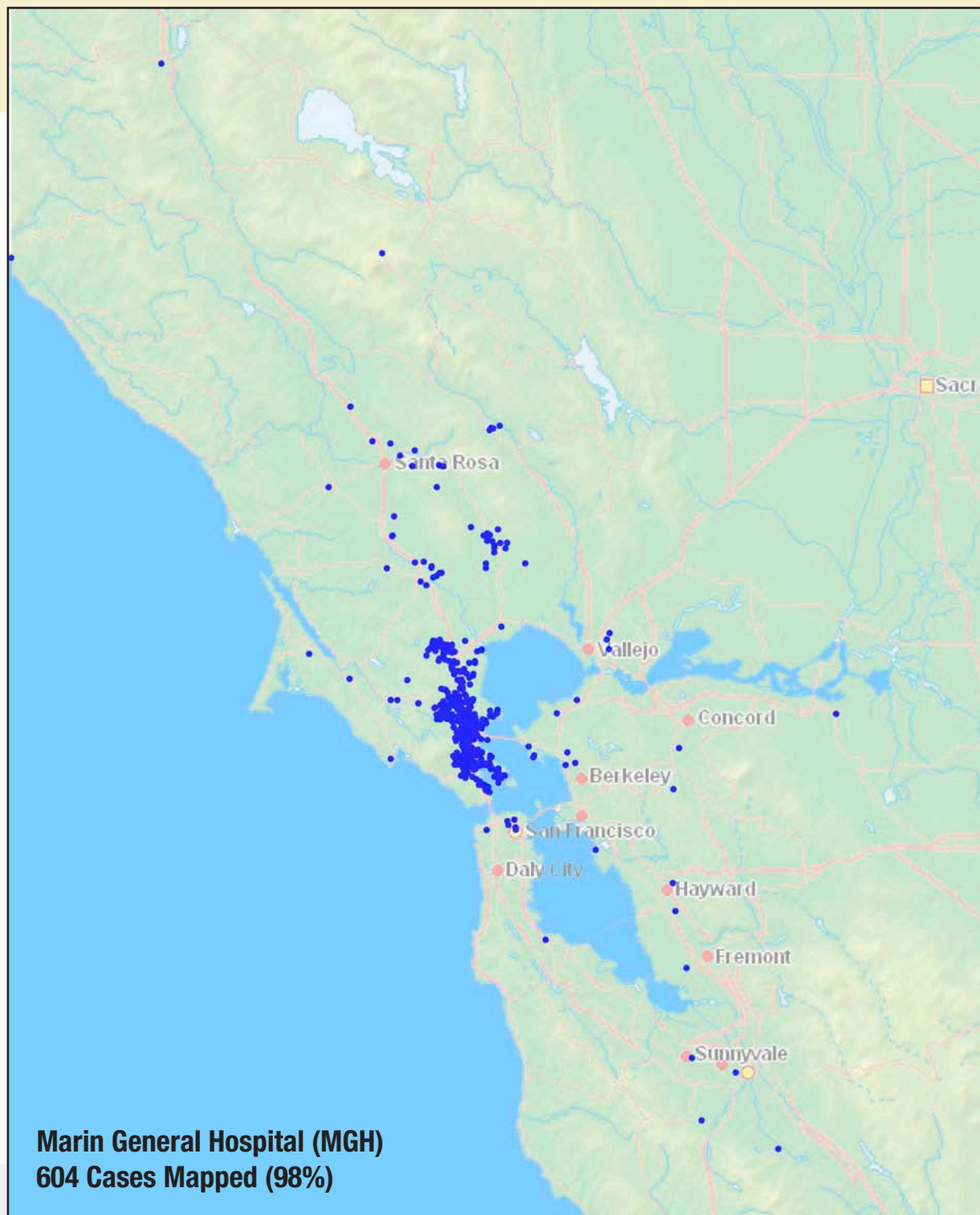
EMC geographic Mapping

Figure 11
Geographic Mapping of Residence at Time of Diagnosis
2006 Sutter Health Analytic Cancer Cases



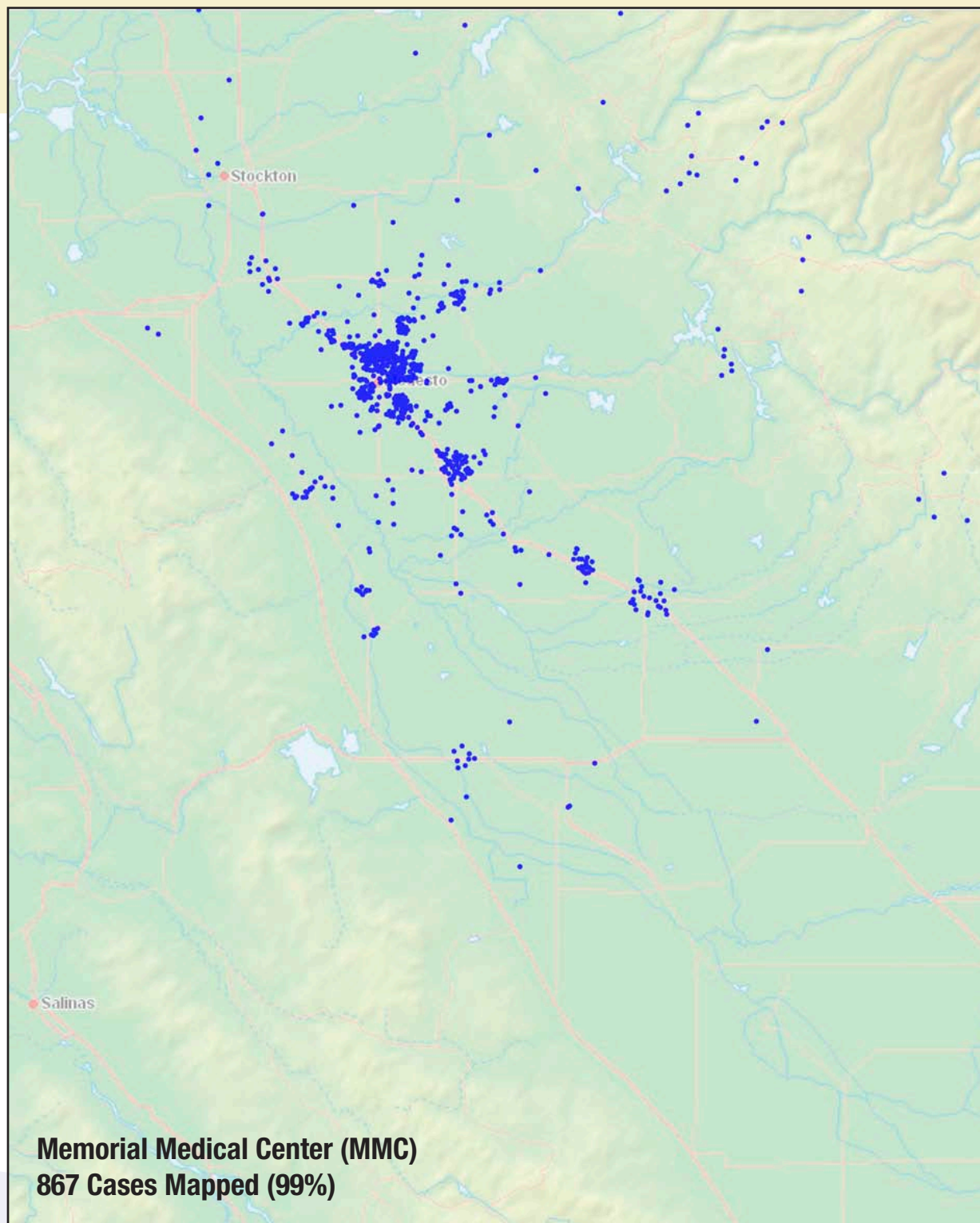
MGH **Mapping** geographic

Figure 12
Geographic Mapping of Residence at Time of Diagnosis
2006 Sutter Health Analytic Cancer Cases



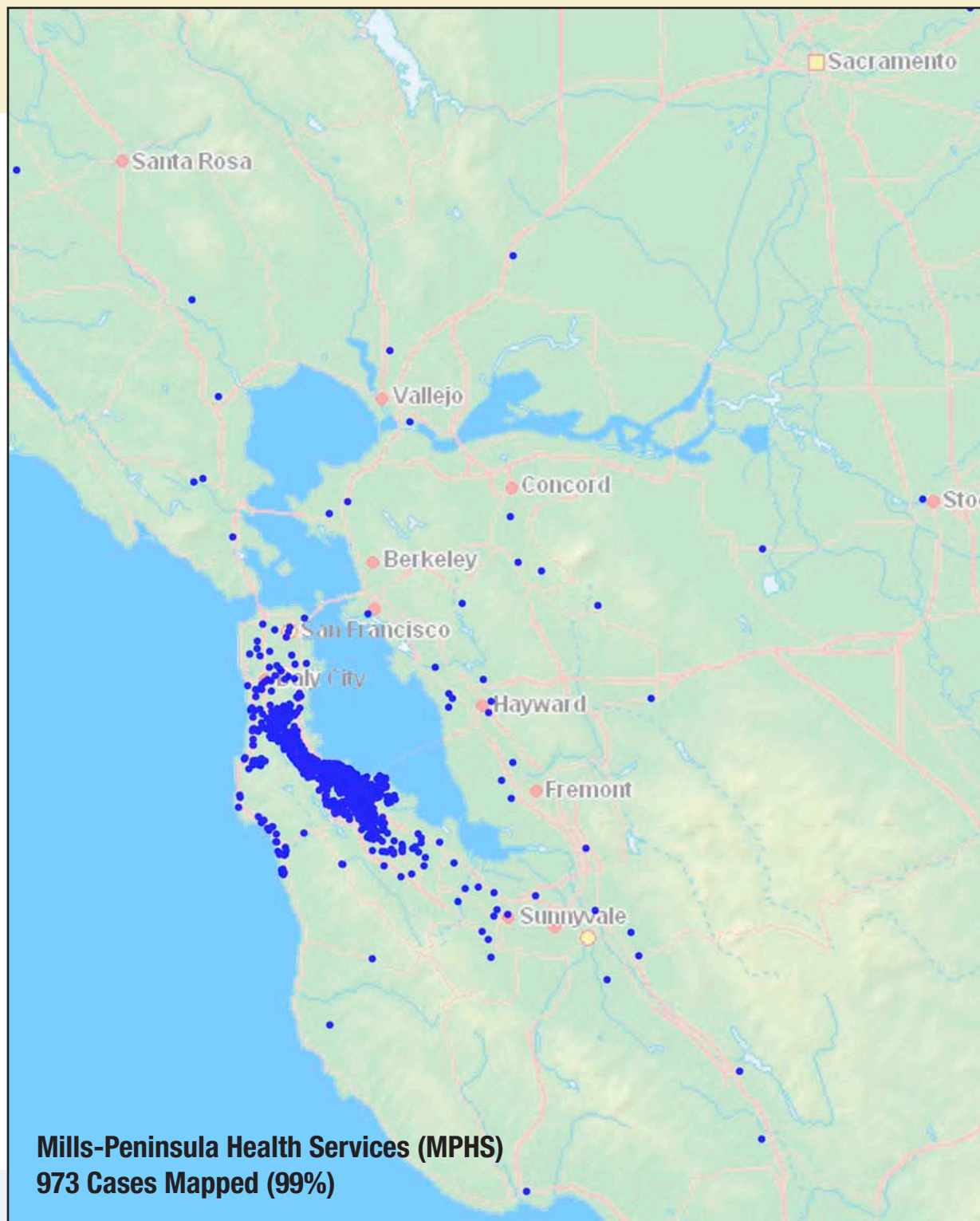
MMC **geographic** Mapping

Figure 13
Geographic Mapping of Residence at Time of Diagnosis
2006 Sutter Health Analytic Cancer Cases



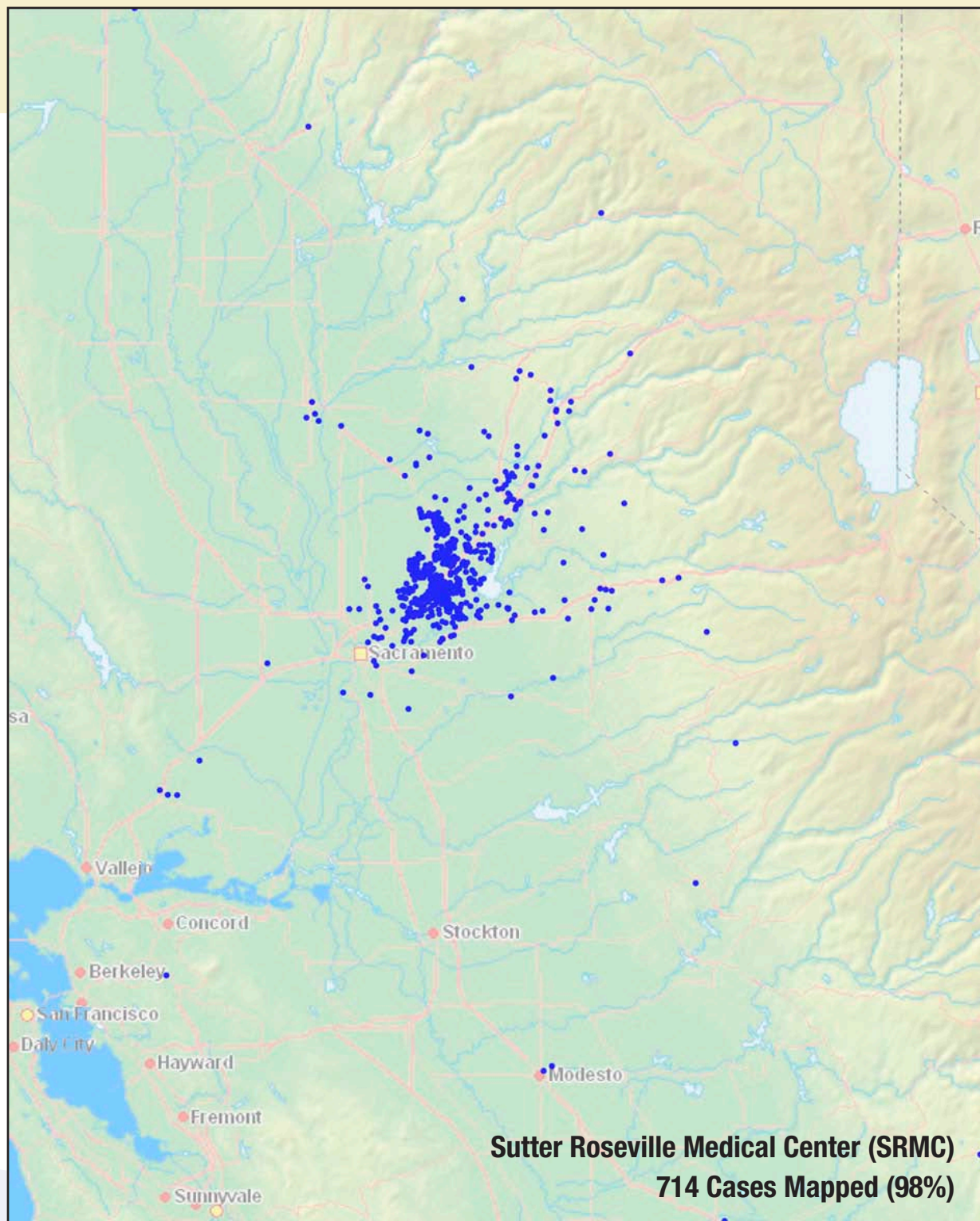
MPHS **Mapping** Geographic

Figure 14
Geographic Mapping of Residence at Time of Diagnosis
2006 Sutter Health Analytic Cancer Cases



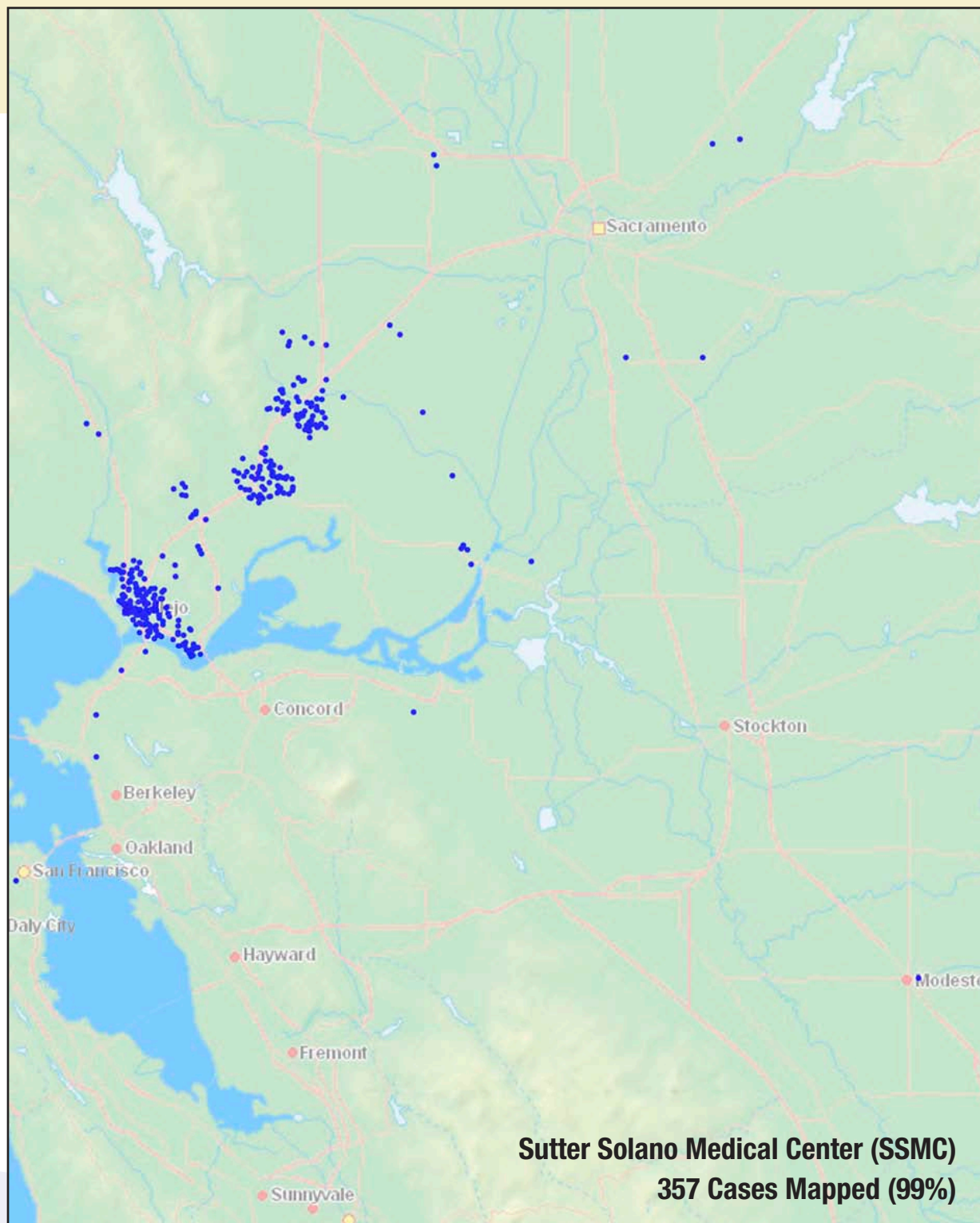
SRMC **geographic** Mapping

Figure 16
Geographic Mapping of Residence at Time of Diagnosis
2006 Sutter Health Analytic Cancer Cases



SSMC **Mapping** Geographic

Figure 17
Geographic Mapping of Residence at Time of Diagnosis
2006 Sutter Health Analytic Cancer Cases



Alta Bates Summit Medical Center *primary site tables*

ABSMC 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
All Sites	2112	100.0%	1916	196	898	1214	129	422	497	253	349	266
Lip	0	0.0%		0	0	0	0	0	0	0	0	0
Tongue	17	0.8%	13	4	13	4	0	5	2	2	4	0
Salivary Glands	2	0.1%	2	0	1	1	0	1	0	0	1	0
Gum	3	0.1%	3	0	1	2	0	0	0	0	3	0
Floor of Mouth	0	0.0%	0	0	0	0	0	0	0	0	0	0
Mouth, Other & NOS	5	0.2%	4	1	2	3	0	0	2	1	1	0
Tonsil	8	0.4%	8	0	5	3	0	1	4	1	2	0
Oropharynx	2	0.1%	2	0	1	1	0	0	0	0	2	0
Nasopharynx	12	0.6%	10	2	9	3	0	0	3	3	3	1
Hypopharynx	3	0.1%	3	0	1	2	0	2	0	1	0	0
Pharynx & Ill-defined	1	0.0%	1	0	1	0	0	0	0	0	0	1
Esophagus	14	0.7%	11	3	10	4	1	0	0	3	5	2
Stomach	47	2.2%	44	3	26	21	0	8	5	4	22	5
Small Intestine	7	0.3%	6	1	2	5	0	0	0	0	2	4
Colon	133	6.3%	126	7	56	77	7	23	29	38	23	6
Rectum & Rectosigmoid	46	2.2%	43	3	26	20	3	12	7	7	9	5
Anus,Anal Canal,Anorectum	7	0.3%	7	0	1	6	0	3	1	1	1	1
Liver	30	1.4%	29	1	20	10	0	10	7	3	8	1
Gallbladder	2	0.1%	2	0	1	1	0	0	1	0	1	0
Bile Ducts	10	0.5%	10	0	4	6	0	1	4	1	2	2
Pancreas	47	2.2%	43	4	20	27	0	2	6	2	28	5
Retroperitoneum	3	0.1%	2	1	1	2	0	1	0	1	0	0
Peritoneum,Omentum,Mesen	1	0.0%	1	0	0	1	0	0	0	0	0	1
Other Digestive	3	0.1%	3	0	1	2	0	0	0	0	0	3
Nasal Cavity,Sinus,Ear	2	0.1%	1	1	2	0	0	0	0	0	1	0
Larynx	13	0.6%	13	0	11	2	0	2	6	2	3	0
Lung/Bronchus-Small Cell	21	1.0%	18	3	8	13	0	0	0	6	12	0
Lung/Bronchus-Large Cell	201	9.5%	189	12	99	102	0	37	8	39	98	7
Pleura	6	0.3%	5	1	4	2	0	0	1	3	1	0
Other Respiratory & Thoracic	2	0.1%	2	0	2	0	0	0	1	0	0	1
Leukemia	55	2.6%	48	7	28	27	0	0	0	0	0	48
Myeloma	36	1.7%	29	7	21	15	0	0	0	0	0	29
Other Hematopoietic	24	1.1%	21	3	13	11	0	0	0	0	0	21
Bone	3	0.1%	1	2	1	2	0	0	0	0	1	0
Soft Tissue	15	0.7%	12	3	7	8	0	0	3	1	5	3
Melanoma of Skin	27	1.3%	18	9	18	9	2	7	5	2	1	1
Kaposi Sarcoma	2	0.1%	1	1	2	0	0	0	0	0	0	1
Other Skin Ca	6	0.3%	6	0	3	3	0	0	0	4	0	2
Breast	456	21.6%	431	25	4	452	83	155	113	42	25	13
Cervix, In Situ	1	0.0%	1	0	0	1	1	0	0	0	0	0
Cervix Uteri	49	2.3%	45	4	0	49	0	15	10	9	11	0
Corpus Uteri	103	4.9%	89	14	0	103	0	44	18	15	5	7
Uterus NOS	3	0.1%	3	0	0	3	0	0	1	2	0	0
Ovary	43	2.0%	39	4	0	43	0	3	2	25	6	3
Vagina	8	0.4%	8	0	0	8	1	0	6	1	0	0
Vulva	8	0.4%	7	1	0	8	5	0	0	1	0	1
Other Female Genital	2	0.1%	1	1	0	2	0	1	0	0	0	0
Prostate	313	14.8%	264	49	313	0	0	2	222	12	21	7
Testis	13	0.6%	13	0	13	0	0	12	0	0	0	1
Penis	1	0.0%	1	0	1	0	0	1	0	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	62	2.9%	58	4	40	22	26	19	8	1	3	1
Kidney & Renal Pelvis	44	2.1%	39	5	24	20	0	18	2	3	12	4
Ureter	3	0.1%	3	0	2	1	0	1	1	0	1	0
Other Urinary	0	0.0%	0	0	0	0	0	0	0	0	0	0
Eye	3	0.1%	2	1	1	2	0	0	0	0	0	2
Brain	32	1.5%	32	0	16	16	0	0	0	0	0	32
Other Nervous System	14	0.7%	14	0	2	12	0	0	0	0	0	14
Thyroid	35	1.7%	33	2	5	30	0	15	4	7	5	2
Other Endocrine	5	0.2%	4	1	2	3	0	0	0	0	0	4
Hodgkin's Disease	10	0.5%	8	2	4	6	0	1	6	1	0	0
Non-Hodgkin's Lymphoma	63	3.0%	60	3	35	28	0	20	9	9	21	1
Unknown or Ill-defined	25	1.2%	24	1	15	10	0	0	0	0	0	24

* Includes analytic cases only

Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: A = analytic; N/A = non-analytic; M = male; F = female.

California Pacific Medical Center primary site tables

CPMC 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
All Sites	2210	100.0%	1932	278	1091	1119	191	511	512	223	217	278
Lip	3	0.1%	3	0	0	3	0	3	0	0	0	0
Tongue	13	0.6%	9	4	11	2	0	3	1	2	3	0
Salivary Glands	8	0.4%	6	2	4	4	0	4	1	0	1	0
Gum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Floor of Mouth	1	0.0%	1	0	1	0	0	0	1	0	0	0
Mouth, Other & NOS	0	0.0%	0	0	0	0	0	0	0	0	0	0
Tonsil	3	0.1%	2	1	2	1	0	0	1	0	1	0
Oropharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Nasopharynx	10	0.5%	7	3	7	3	0	0	3	1	3	0
Hypopharynx	2	0.1%	2	0	2	0	0	0	1	0	1	0
Pharynx & Ill-defined	1	0.0%	0	1	1	0	0	0	0	0	0	0
Esophagus	42	1.9%	35	7	30	12	2	10	7	6	6	4
Stomach	44	2.0%	41	3	30	14	7	8	3	4	9	10
Small Intestine	10	0.5%	9	1	6	4	1	0	3	1	1	3
Colon	121	5.5%	114	7	61	60	8	43	24	15	17	7
Rectum & Rectosigmoid	75	3.4%	68	7	48	27	5	16	19	16	6	6
Anus,Anal Canal,Anorectum	22	1.0%	19	3	17	5	12	1	4	1	1	0
Liver	134	6.1%	126	8	101	33	0	42	39	25	15	5
Gallbladder	7	0.3%	7	0	2	5	0	2	3	1	1	0
Bile Ducts	27	1.2%	26	1	14	13	0	4	12	3	4	3
Pancreas	121	5.5%	112	9	57	64	1	9	41	19	31	11
Retroperitoneum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Peritoneum,Omentum,Mesen	12	0.5%	11	1	0	12	0	0	0	0	0	11
Other Digestive	1	0.0%	1	0	0	1	0	0	0	0	0	1
Nasal Cavity,Sinus,Ear	4	0.2%	3	1	4	0	0	0	1	0	1	1
Larynx	10	0.5%	8	2	8	2	0	3	0	1	3	1
Lung/Bronchus-Small Cell	18	0.8%	17	1	9	9	0	0	0	9	7	1
Lung/Bronchus-Large Cell	144	6.5%	122	22	73	71	0	26	14	32	38	12
Pleura	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Respiratory & Thoracic	1	0.0%	0	1	0	1	0	0	0	0	0	0
Leukemia	50	2.3%	36	14	28	22	0	0	0	0	0	36
Myeloma	24	1.1%	19	5	15	9	0	0	0	0	0	19
Other Hematopoietic	16	0.7%	14	2	11	5	0	0	0	0	0	14
Bone	3	0.1%	3	0	2	1	0	2	1	0	0	0
Soft Tissue	16	0.7%	16	0	5	11	0	2	7	2	1	4
Melanoma of Skin	98	4.4%	63	35	68	30	20	17	8	5	4	9
Kaposi Sarcoma	8	0.4%	5	3	7	1	0	0	0	0	0	5
Other Skin Ca	4	0.2%	3	1	2	2	0	0	0	0	0	3
Breast	398	18.0%	367	31	2	396	91	141	101	26	6	2
Cervix, In Situ	1	0.0%	1	0	0	1	1	0	0	0	0	0
Cervix Uteri	16	0.7%	14	2	0	16	0	10	2	2	0	0
Corpus Uteri	53	2.4%	52	1	0	53	0	27	6	12	2	5
Uterus NOS	4	0.2%	2	2	0	4	0	0	0	0	1	1
Ovary	31	1.4%	28	3	0	31	0	7	3	10	6	2
Vagina	2	0.1%	2	0	0	2	0	0	0	1	0	1
Vulva	6	0.3%	5	1	0	6	3	2	0	0	0	0
Other Female Genital	3	0.1%	3	0	0	3	0	0	0	2	0	1
Prostate	229	10.4%	190	39	229	0	0	0	173	7	10	0
Testis	6	0.3%	6	0	6	0	0	5	0	1	0	0
Penis	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	73	3.3%	68	5	52	21	40	13	10	1	3	1
Kidney & Renal Pelvis	53	2.4%	36	17	42	11	0	19	2	5	7	3
Ureter	4	0.2%	3	1	3	1	0	1	0	2	0	0
Other Urinary	1	0.0%	1	0	0	1	0	0	0	0	1	0
Eye	81	3.7%	72	9	38	43	0	54	1	3	0	14
Brain	33	1.5%	31	2	21	12	0	0	0	0	0	31
Other Nervous System	15	0.7%	12	3	3	12	0	0	0	0	0	12
Thyroid	15	0.7%	15	0	4	11	0	11	0	3	1	0
Other Endocrine	8	0.4%	8	0	4	4	0	0	0	0	0	8
Hodgkin's Disease	21	1.0%	20	1	7	14	0	3	11	1	2	3
Non-Hodgkin's Lymphoma	80	3.6%	68	12	42	38	0	23	9	4	24	8
Unknown or Ill-defined	24	1.1%	20	4	12	12	0	0	0	0	0	20

* Includes analytic cases only

Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: A = analytic; N/A = non-analytic; M = male; F = female.

Eden Medical Center primary site tables

EMC 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
All Sites	519	100.0%	443	76	221	298	20	115	80	64	65	99
Lip	3	0.6%	3	0	2	1	0	1	1	1	0	0
Tongue	2	0.4%	2	0	2	0	0	0	0	1	1	0
Salivary Glands	1	0.2%	1	0	1	0	0	0	0	1	0	0
Gum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Floor of Mouth	0	0.0%	0	0	0	0	0	0	0	0	0	0
Mouth, Other & NOS	0	0.0%	0	0	0	0	0	0	0	0	0	0
Tonsil	0	0.0%	0	0	0	0	0	0	0	0	0	0
Oropharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Nasopharynx	2	0.4%	1	1	2	0	0	0	0	1	0	0
Hypopharynx	2	0.4%	2	0	2	0	0	0	1	1	0	0
Pharynx & Ill-defined	0	0.0%	0	0	0	0	0	0	0	0	0	0
Esophagus	2	0.4%	2	0	1	1	0	1	0	1	0	0
Stomach	8	1.5%	8	0	4	4	0	1	1	2	0	4
Small Intestine	4	0.8%	3	1	1	3	0	0	0	1	1	1
Colon	50	9.6%	44	6	23	27	0	12	11	12	7	2
Rectum & Rectosigmoid	19	3.7%	17	2	8	11	1	3	4	4	2	3
Anus,Anal Canal,Anorectum	1	0.2%	1	0	0	1	0	0	1	0	0	0
Liver	5	1.0%	4	1	4	1	0	1	0	1	1	1
Gallbladder	1	0.2%	1	0	0	1	0	0	0	0	1	0
Bile Ducts	3	0.6%	2	1	2	1	0	1	0	0	1	0
Pancreas	14	2.7%	12	2	6	8	0	3	1	0	5	3
Retroperitoneum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Peritoneum,Omentum,Mesen	2	0.4%	2	0	0	2	0	0	0	0	0	2
Other Digestive	1	0.2%	1	0	1	0	0	0	0	0	0	1
Nasal Cavity,Sinus,Ear	0	0.0%	0	0	0	0	0	0	0	0	0	0
Larynx	1	0.2%	1	0	1	0	0	0	1	0	0	0
Lung/Bronchus-Small Cell	7	1.3%	6	1	5	2	0	2	0	2	2	0
Lung/Bronchus-Large Cell	64	12.3%	56	8	30	34	0	8	3	14	24	7
Pleura	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Respiratory & Thoracic	0	0.0%	0	0	0	0	0	0	0	0	0	0
Leukemia	4	0.8%	4	0	1	3	0	0	0	0	0	4
Myeloma	10	1.9%	6	4	6	4	0	0	0	0	0	6
Other Hematopoietic	4	0.8%	4	0	4	0	0	0	0	0	0	4
Bone	2	0.4%	2	0	2	0	0	2	0	0	0	0
Soft Tissue	3	0.6%	2	1	2	1	0	0	1	0	0	1
Melanoma of Skin	10	1.9%	7	3	5	5	1	2	1	1	1	1
Kaposi Sarcoma	1	0.2%	0	1	1	0	0	0	0	0	0	0
Other Skin Ca	2	0.4%	1	1	0	2	0	0	0	0	0	1
Breast	107	20.6%	101	6	1	106	11	48	25	11	4	2
Cervix, In Situ	0	0.0%	0	0	0	0	0	0	0	0	0	0
Cervix Uteri	5	1.0%	5	0	0	5	0	2	1	1	1	0
Corpus Uteri	7	1.3%	7	0	0	7	0	2	3	1	1	0
Uterus NOS	0	0.0%	0	0	0	0	0	0	0	0	0	0
Ovary	7	1.3%	3	4	0	7	0	1	0	0	2	0
Vagina	1	0.2%	1	0	0	1	0	1	0	0	0	0
Vulva	1	0.2%	1	0	0	1	0	0	1	0	0	0
Other Female Genital	1	0.2%	1	0	0	1	0	1	0	0	0	0
Prostate	26	5.0%	20	6	26	0	0	1	12	0	6	1
Testis	3	0.6%	3	0	3	0	0	2	0	1	0	0
Penis	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	30	5.8%	23	7	22	8	7	7	7	1	0	1
Kidney & Renal Pelvis	6	1.2%	5	1	4	2	0	3	1	0	1	0
Ureter	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Urinary	0	0.0%	0	0	0	0	0	0	0	0	0	0
Eye	1	0.2%	1	0	1	0	0	0	0	0	0	1
Brain	22	4.2%	18	4	13	9	0	0	0	0	0	18
Other Nervous System	14	2.7%	13	1	4	10	0	0	0	0	0	13
Thyroid	6	1.2%	4	2	1	5	0	2	1	0	0	1
Other Endocrine	5	1.0%	3	2	5	0	0	0	0	0	0	3
Hodgkin's Disease	4	0.8%	3	1	3	1	0	1	2	0	0	0
Non-Hodgkin's Lymphoma	27	5.2%	20	7	12	15	0	7	1	6	4	2
Unknown or Ill-defined	18	3.5%	16	2	10	8	0	0	0	0	0	16

* Includes analytic cases only

Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: A = analytic; N/A = non-analytic; M = male; F = female.

Marin General Hospital primary site tables

MGH 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
All Sites	692	100.0%	619	73	284	408	76	138	179	85	87	54
Lip	0	0.0%	0	0	0	0	0	0	0	0	0	0
Tongue	4	0.6%	2	2	3	1	0	0	0	1	1	0
Salivary Glands	1	0.1%	1	0	1	0	0	0	0	0	1	0
Gum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Floor of Mouth	0	0.0%	0	0	0	0	0	0	0	0	0	0
Mouth, Other & NOS	0	0.0%	0	0	0	0	0	0	0	0	0	0
Tonsil	1	0.1%	1	0	1	0	0	0	0	0	1	0
Oropharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Nasopharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Hypopharynx	1	0.1%	1	0	1	0	0	0	0	1	0	0
Pharynx & Ill-defined	0	0.0%	0	0	0	0	0	0	0	0	0	0
Esophagus	6	0.9%	6	0	5	1	0	0	3	0	2	1
Stomach	5	0.7%	4	1	3	2	0	0	0	1	2	1
Small Intestine	0	0.0%	0	0	0	0	0	0	0	0	0	0
Colon	30	4.3%	29	1	16	14	1	8	5	7	8	0
Rectum & Rectosigmoid	17	2.5%	17	0	6	11	2	3	6	3	2	1
Anus,Anal Canal,Anorectum	3	0.4%	3	0	1	2	0	0	2	0	1	0
Liver	4	0.6%	4	0	3	1	0	1	1	1	1	0
Gallbladder	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bile Ducts	2	0.3%	2	0	1	1	0	0	0	0	2	0
Pancreas	8	1.2%	8	0	4	4	0	0	1	1	4	2
Retroperitoneum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Peritoneum,Omentum,Mesen	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Digestive	0	0.0%	0	0	0	0	0	0	0	0	0	0
Nasal Cavity,Sinus,Ear	0	0.0%	0	0	0	0	0	0	0	0	0	0
Larynx	3	0.4%	3	0	1	2	0	1	1	1	0	0
Lung/Bronchus-Small Cell	6	0.9%	6	0	2	4	0	0	0	2	4	0
Lung/Bronchus-Large Cell	53	7.7%	48	5	23	30	0	9	1	11	25	2
Pleura	3	0.4%	3	0	3	0	0	1	1	0	1	0
Other Respiratory & Thoracic	0	0.0%	0	0	0	0	0	0	0	0	0	0
Leukemia	12	1.7%	8	4	8	4	0	0	0	0	0	8
Myeloma	5	0.7%	4	1	3	2	0	0	0	0	0	4
Other Hematopoietic	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bone	0	0.0%	0	0	0	0	0	0	0	0	0	0
Soft Tissue	6	0.9%	4	2	2	4	0	2	1	1	0	0
Melanoma of Skin	10	1.4%	2	8	4	6	1	0	0	0	1	0
Kaposi Sarcoma	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Skin Ca	2	0.3%	1	1	1	1	0	0	0	1	0	0
Breast	237	34.2%	228	9	3	234	54	84	53	25	5	7
Cervix, In Situ	0	0.0%	0	0	0	0	0	0	0	0	0	0
Cervix Uteri	2	0.3%	2	0	0	2	0	1	1	0	0	0
Corpus Uteri	14	2.0%	12	2	0	14	0	7	1	2	1	1
Uterus NOS	0	0.0%	0	0	0	0	0	0	0	0	0	0
Ovary	14	2.0%	11	3	0	14	0	3	1	5	1	1
Vagina	1	0.1%	1	0	0	1	1	0	0	0	0	0
Vulva	4	0.6%	4	0	0	4	3	0	1	0	0	0
Other Female Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Prostate	118	17.1%	105	13	118	0	0	1	89	10	5	0
Testis	1	0.1%	1	0	1	0	0	0	1	0	0	0
Penis	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	35	5.1%	26	9	29	6	11	3	6	2	4	0
Kidney & Renal Pelvis	23	3.3%	19	4	14	9	1	7	1	3	6	1
Ureter	3	0.4%	3	0	2	1	2	0	1	0	0	0
Other Urinary	0	0.0%	0	0	0	0	0	0	0	0	0	0
Eye	0	0.0%	0	0	0	0	0	0	0	0	0	0
Brain	8	1.2%	8	0	3	5	0	0	0	0	0	8
Other Nervous System	2	0.3%	2	0	1	1	0	0	0	0	0	2
Thyroid	5	0.7%	5	0	0	5	0	2	1	0	0	2
Other Endocrine	2	0.3%	2	0	0	2	0	0	0	0	0	2
Hodgkin's Disease	1	0.1%	1	0	0	1	0	0	0	0	1	0
Non-Hodgkin's Lymphoma	29	4.2%	23	6	14	15	0	5	1	7	8	2
Unknown or Ill-defined	11	1.6%	9	2	7	4	0	0	0	0	0	9

* Includes analytic cases only

Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: **A** = analytic; **N/A** = non-analytic; **M** = male; **F** = female.

Memorial Medical Center primary site tables

MMC 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
All Sites	1024	100.0%	893	131	455	569	65	228	194	155	148	103
Lip	0	0.0%	0	0	0	0	0	0	0	0	0	0
Tongue	3	0.3%	3	0	2	1	0	2	0	0	1	0
Salivary Glands	4	0.4%	4	0	0	4	0	1	0	1	2	0
Gum	1	0.1%	0	1	1	0	0	0	0	0	0	0
Floor of Mouth	0	0.0%	0	0	0	0	0	0	0	0	0	0
Mouth, Other & NOS	1	0.1%	1	0	0	1	0	0	0	0	1	0
Tonsil	3	0.3%	3	0	3	0	0	0	0	1	2	0
Oropharynx	1	0.1%	1	0	0	1	0	0	0	1	0	0
Nasopharynx	1	0.1%	1	0	0	1	0	0	1	0	0	0
Hypopharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Pharynx & Ill-defined	0	0.0%	0	0	0	0	0	0	0	0	0	0
Esophagus	13	1.3%	11	2	9	4	1	2	0	1	7	0
Stomach	12	1.2%	11	1	10	2	1	4	0	1	5	0
Small Intestine	0	0.0%	0	0	0	0	0	0	0	0	0	0
Colon	63	6.2%	58	5	33	30	4	15	20	14	5	0
Rectum & Rectosigmoid	25	2.4%	22	3	14	11	1	5	8	6	2	0
Anus,Anal Canal,Anorectum	10	1.0%	9	1	5	5	1	2	1	4	1	0
Liver	10	1.0%	9	1	5	5	0	1	2	4	2	0
Gallbladder	8	0.8%	8	0	1	7	0	5	0	0	3	0
Bile Ducts	5	0.5%	5	0	4	1	0	3	0	0	1	1
Pancreas	22	2.1%	18	4	7	15	0	2	3	1	11	1
Retroperitoneum	1	0.1%	1	0	1	0	0	0	0	1	0	0
Peritoneum,Omentum,Mesen	3	0.3%	3	0	0	3	0	0	0	0	0	3
Other Digestive	1	0.1%	1	0	0	1	0	0	0	0	0	1
Nasal Cavity,Sinus,Ear	2	0.2%	2	0	1	1	0	0	0	0	2	0
Larynx	14	1.4%	12	2	10	4	0	5	4	1	2	0
Lung/Bronchus-Small Cell	28	2.7%	26	2	12	16	0	3	2	7	13	1
Lung/Bronchus-Large Cell	135	13.2%	121	14	80	55	0	35	7	33	44	2
Pleura	2	0.2%	1	1	1	1	0	0	1	0	0	0
Other Respiratory & Thoracic	0	0.0%	0	0	0	0	0	0	0	0	0	0
Leukemia	11	1.1%	9	2	6	5	0	0	0	0	0	9
Myeloma	12	1.2%	7	5	6	6	0	0	0	0	0	7
Other Hematopoietic	23	2.2%	11	12	12	11	0	0	0	0	0	11
Bone	0	0.0%	0	0	0	0	0	0	0	0	0	0
Soft Tissue	1	0.1%	1	0	0	1	0	0	0	0	0	1
Melanoma of Skin	14	1.4%	9	5	5	9	4	1	0	1	3	0
Kaposi Sarcoma	1	0.1%	1	0	1	0	0	0	0	0	0	1
Other Skin Ca	4	0.4%	2	2	0	4	0	1	1	0	0	0
Breast	177	17.3%	163	14	3	174	23	64	52	19	4	1
Cervix, In Situ	2	0.2%	2	0	0	2	2	0	0	0	0	0
Cervix Uteri	10	1.0%	8	2	0	10	1	2	1	3	1	0
Corpus Uteri	41	4.0%	39	2	0	41	1	21	2	12	1	2
Uterus NOS	0	0.0%	0	0	0	0	0	0	0	0	0	0
Ovary	31	3.0%	26	5	0	31	0	1	0	11	9	5
Vagina	1	0.1%	1	0	0	1	1	0	0	0	0	0
Vulva	9	0.9%	7	2	0	9	2	3	1	1	0	0
Other Female Genital	2	0.2%	2	0	0	2	0	0	0	2	0	0
Prostate	106	10.4%	82	24	106	0	0	4	62	10	4	2
Testis	5	0.5%	5	0	5	0	0	1	0	4	0	0
Penis	1	0.1%	1	0	1	0	0	1	0	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	47	4.6%	40	7	38	9	23	5	8	1	3	0
Kidney & Renal Pelvis	38	3.7%	35	3	22	16	0	21	2	4	7	1
Ureter	4	0.4%	4	0	2	2	0	1	2	1	0	0
Other Urinary	0	0.0%	0	0	0	0	0	0	0	0	0	0
Eye	1	0.1%	1	0	1	0	0	0	0	0	0	1
Brain	13	1.3%	12	1	5	8	0	0	0	0	0	12
Other Nervous System	14	1.4%	13	1	5	9	0	0	0	0	0	13
Thyroid	14	1.4%	13	1	5	9	0	8	1	2	2	0
Other Endocrine	5	0.5%	5	0	2	3	0	0	0	0	0	5
Hodgkin's Disease	11	1.1%	11	0	4	7	0	1	6	1	3	0
Non-Hodgkin's Lymphoma	34	3.3%	29	5	16	18	0	8	7	7	7	0
Unknown or Ill-defined	24	2.3%	23	1	11	13	0	0	0	0	0	23

* Includes analytic cases only

Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: A = analytic; N/A = non-analytic; M = male; F = female.

Mills-Peninsula Health Services **primary site tables**

MPHS 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
All Sites	1080	100.0%	991	89	537	543	118	274	284	119	117	79
Lip	0	0.0%	0	0	0	0	0	0	0	0	0	0
Tongue	7	0.6%	7	0	6	1	0	2	2	1	2	0
Salivary Glands	1	0.1%	1	0	0	1	0	0	1	0	0	0
Gum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Floor of Mouth	0	0.0%	0	0	0	0	0	0	0	0	0	0
Mouth, Other & NOS	2	0.2%	2	0	1	1	0	0	0	1	1	0
Tonsil	6	0.6%	6	0	5	1	0	2	1	2	1	0
Oropharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Nasopharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Hypopharynx	1	0.1%	1	0	1	0	0	0	0	0	1	0
Pharynx & Ill-defined	0	0.0%	0	0	0	0	0	0	0	0	0	0
Esophagus	10	0.9%	9	1	7	3	0	2	1	4	2	0
Stomach	13	1.2%	13	0	10	3	0	4	3	1	5	0
Small Intestine	2	0.2%	2	0	2	0	0	0	0	1	1	0
Colon	83	7.7%	74	9	48	35	1	11	27	19	15	1
Rectum & Rectosigmoid	22	2.0%	20	2	15	7	1	8	4	4	1	2
Anus,Anal Canal,Anorectum	1	0.1%	1	0	0	1	0	0	0	1	0	0
Liver	8	0.7%	5	3	7	1	0	2	1	2	0	0
Gallbladder	5	0.5%	5	0	1	4	0	1	3	0	1	0
Bile Ducts	2	0.2%	1	1	0	2	0	0	0	0	1	0
Pancreas	24	2.2%	23	1	13	11	0	3	7	2	10	1
Retroperitoneum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Peritoneum,Omentum,Mesen	2	0.2%	2	0	0	2	0	0	0	0	0	2
Other Digestive	1	0.1%	1	0	1	0	0	0	0	0	0	1
Nasal Cavity,Sinus,Ear	1	0.1%	1	0	1	0	0	0	1	0	0	0
Larynx	3	0.3%	3	0	3	0	0	3	0	0	0	0
Lung/Bronchus-Small Cell	10	0.9%	7	3	2	8	0	1	0	2	4	0
Lung/Bronchus-Large Cell	88	8.1%	81	7	46	42	0	23	8	24	26	0
Pleura	6	0.6%	6	0	3	3	0	3	0	1	2	0
Other Respiratory & Thoracic	2	0.2%	2	0	1	1	0	1	0	0	0	1
Leukemia	15	1.4%	9	6	8	7	0	0	0	0	0	9
Myeloma	11	1.0%	8	3	4	7	0	0	0	0	0	8
Other Hematopoietic	7	0.6%	5	2	2	5	0	0	0	0	0	5
Bone	2	0.2%	2	0	2	0	0	0	0	0	0	2
Soft Tissue	5	0.5%	5	0	3	2	0	2	1	0	0	2
Melanoma of Skin	68	6.3%	67	1	43	25	32	27	3	1	1	3
Kaposi Sarcoma	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Skin Ca	6	0.6%	5	1	4	2	1	1	0	1	0	2
Breast	236	21.9%	225	11	0	236	56	100	52	12	1	4
Cervix, In Situ	0	0.0%	0	0	0	0	0	0	0	0	0	0
Cervix Uteri	2	0.2%	1	1	0	2	0	0	0	1	0	0
Corpus Uteri	27	2.5%	26	1	0	27	0	19	3	3	1	0
Uterus NOS	2	0.2%	1	1	0	2	0	0	0	0	1	0
Ovary	16	1.5%	12	4	0	16	0	1	0	7	4	0
Vagina	0	0.0%	0	0	0	0	0	0	0	0	0	0
Vulva	1	0.1%	1	0	0	1	1	0	0	0	0	0
Other Female Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Prostate	172	15.9%	160	12	172	0	0	2	143	4	11	0
Testis	5	0.5%	5	0	5	0	0	3	1	1	0	0
Penis	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	58	5.4%	55	3	44	14	24	16	11	3	1	0
Kidney & Renal Pelvis	35	3.2%	33	2	20	15	1	18	2	7	5	0
Ureter	3	0.3%	3	0	1	2	1	0	0	1	1	0
Other Urinary	0	0.0%	0	0	0	0	0	0	0	0	0	0
Eye	2	0.2%	2	0	2	0	0	0	0	0	0	2
Brain	14	1.3%	12	2	9	5	0	0	0	0	0	12
Other Nervous System	2	0.2%	2	0	1	1	0	0	0	0	0	2
Thyroid	22	2.0%	21	1	6	16	0	10	1	6	2	2
Other Endocrine	5	0.5%	4	1	1	4	0	0	0	0	0	4
Hodgkin's Disease	4	0.4%	4	0	3	1	0	0	2	2	0	0
Non-Hodgkin's Lymphoma	41	3.8%	36	5	25	16	0	9	6	5	16	0
Unknown or Ill-defined	19	1.8%	14	5	9	10	0	0	0	0	0	14

* Includes analytic cases only

Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: A = analytic; N/A = non-analytic; M = male; F = female.

Sutter Medical Center, Sacramento primary site tables

SMCS 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
All Sites	1753	100.0%	1396	357	680	1073	117	341	254	200	203	281
Lip	0	0.0%	0	0	0	0	0	0	0	0	0	0
Tongue	6	0.3%	3	3	4	2	1	0	0	1	1	0
Salivary Glands	3	0.2%	2	1	2	1	0	1	0	1	0	0
Gum	2	0.1%	1	1	1	1	0	1	0	0	0	0
Floor of Mouth	2	0.1%	1	1	2	0	0	0	1	0	0	0
Mouth, Other & NOS	3	0.2%	2	1	2	1	1	0	1	0	0	0
Tonsil	2	0.1%	2	0	2	0	0	0	0	0	1	1
Oropharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Nasopharynx	3	0.2%	1	2	1	2	0	0	0	1	0	0
Hypopharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Pharynx & Ill-defined	1	0.1%	0	1	0	1	0	0	0	0	0	0
Esophagus	10	0.6%	9	1	7	3	0	2	2	1	4	0
Stomach	25	1.4%	22	3	15	10	0	4	2	6	8	2
Small Intestine	6	0.3%	5	1	3	3	0	1	0	1	2	1
Colon	109	6.2%	80	29	55	54	2	12	19	24	22	1
Rectum & Rectosigmoid	47	2.7%	39	8	29	18	3	12	9	10	4	1
Anus,Anal Canal,Anorectum	4	0.2%	2	2	1	3	0	0	1	1	0	0
Liver	33	1.9%	29	4	19	14	0	5	5	7	4	8
Gallbladder	2	0.1%	2	0	0	2	0	0	0	0	2	0
Bile Ducts	11	0.6%	9	2	5	6	0	2	2	4	3	0
Pancreas	44	2.5%	32	12	20	24	0	2	11	2	15	2
Retroperitoneum	4	0.2%	3	1	3	1	0	1	0	0	0	2
Peritoneum,Omentum,Mesen	2	0.1%	2	0	0	2	0	0	0	0	0	2
Other Digestive	2	0.1%	2	0	0	2	0	0	0	0	0	2
Nasal Cavity,Sinus,Ear	1	0.1%	0	1	1	0	0	0	0	0	0	0
Larynx	3	0.2%	0	3	3	0	0	0	0	0	0	0
Lung/Bronchus-Small Cell	23	1.3%	18	5	8	15	0	2	0	5	11	0
Lung/Bronchus-Large Cell	214	12.2%	170	44	102	112	0	41	9	38	63	19
Pleura	1	0.1%	1	0	1	0	0	0	0	0	1	0
Other Respiratory & Thoracic	0	0.0%	0	0	0	0	0	0	0	0	0	0
Leukemia	68	3.9%	41	27	40	28	0	0	0	0	0	41
Myeloma	22	1.3%	11	11	12	10	0	0	0	0	0	11
Other Hematopoietic	11	0.6%	5	6	6	5	0	0	0	0	0	5
Bone	4	0.2%	2	2	1	3	0	1	1	0	0	0
Soft Tissue	20	1.1%	16	4	11	9	0	1	2	3	0	10
Melanoma of Skin	54	3.1%	44	10	31	23	1	24	10	5	1	3
Kaposi Sarcoma	1	0.1%	0	1	1	0	0	0	0	0	0	0
Other Skin Ca	9	0.5%	6	3	3	6	2	0	0	1	0	3
Breast	379	21.6%	337	42	3	376	76	119	100	31	9	2
Cervix, In Situ	0	0.0%	0	0	0	0	0	0	0	0	0	0
Cervix Uteri	19	1.1%	13	6	0	19	0	6	3	2	1	1
Corpus Uteri	43	2.5%	40	3	0	43	1	16	3	10	5	5
Uterus NOS	3	0.2%	0	3	0	3	0	0	0	0	0	0
Ovary	44	2.5%	36	8	0	44	0	7	3	12	8	6
Vagina	6	0.3%	5	1	0	6	2	2	0	1	0	0
Vulva	7	0.4%	7	0	0	7	5	1	1	0	0	0
Other Female Genital	1	0.1%	1	0	0	1	0	0	0	1	0	0
Prostate	103	5.9%	68	35	103	0	0	1	48	12	6	1
Testis	10	0.6%	8	2	10	0	0	6	1	1	0	0
Penis	1	0.1%	1	0	1	0	0	0	1	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	39	2.2%	34	5	30	9	21	4	3	3	2	1
Kidney & Renal Pelvis	46	2.6%	40	6	27	19	1	23	1	3	10	2
Ureter	4	0.2%	4	0	2	2	1	1	0	1	1	0
Other Urinary	1	0.1%	1	0	1	0	0	1	0	0	0	0
Eye	1	0.1%	1	0	0	1	0	0	0	0	0	1
Brain	88	5.0%	69	19	35	53	0	0	0	0	0	69
Other Nervous System	45	2.6%	38	7	11	34	0	0	0	0	0	38
Thyroid	58	3.3%	50	8	11	47	0	37	2	6	5	0
Other Endocrine	17	1.0%	15	2	8	9	0	0	0	0	0	15
Hodgkin's Disease	11	0.6%	10	1	5	6	0	0	7	1	2	0
Non-Hodgkin's Lymphoma	46	2.6%	30	16	27	19	0	7	6	5	12	0
Unknown or Ill-defined	29	1.7%	26	3	15	14	0	0	0	0	0	26

* Includes analytic cases only

Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: A = analytic; N/A = non-analytic; M = male; F = female.

Sutter Roseville Medical Center **primary site tables**

SRMC 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
All Sites	1140	100.0%	754	386	491	649	59	162	143	94	137	159
Lip	2	0.2%	2	0	2	0	0	2	0	0	0	0
Tongue	4	0.4%	4	0	0	4	0	2	1	0	1	0
Salivary Glands	2	0.2%	1	1	2	0	0	0	1	0	0	0
Gum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Floor of Mouth	0	0.0%	0	0	0	0	0	0	0	0	0	0
Mouth, Other & NOS	2	0.2%	2	0	0	2	1	0	0	0	1	0
Tonsil	5	0.4%	4	1	4	1	0	1	1	0	2	0
Oropharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Nasopharynx	1	0.1%	0	1	1	0	0	0	0	0	0	0
Hypopharynx	1	0.1%	0	1	1	0	0	0	0	0	0	0
Pharynx & Ill-defined	2	0.2%	0	2	1	1	0	0	0	0	0	0
Esophagus	8	0.7%	5	3	6	2	0	0	0	1	3	1
Stomach	11	1.0%	8	3	5	6	0	0	1	0	5	2
Small Intestine	5	0.4%	5	0	5	0	0	0	2	1	2	0
Colon	73	6.4%	56	17	34	39	0	10	13	15	10	8
Rectum & Rectosigmoid	36	3.2%	30	6	13	23	0	11	10	4	3	2
Anus,Anal Canal,Anorectum	3	0.3%	2	1	3	0	0	0	0	0	0	2
Liver	13	1.1%	8	5	11	2	0	3	0	1	3	1
Gallbladder	3	0.3%	3	0	1	2	0	0	0	0	3	0
Bile Ducts	8	0.7%	5	3	4	4	1	1	1	1	0	1
Pancreas	38	3.3%	27	11	15	23	0	4	2	1	18	2
Retroperitoneum	1	0.1%	0	1	1	0	0	0	0	0	0	0
Peritoneum,Omentum,Mesen	1	0.1%	0	1	1	0	0	0	0	0	0	0
Other Digestive	1	0.1%	0	1	0	1	0	0	0	0	0	0
Nasal Cavity,Sinus,Ear	0	0.0%	0	0	0	0	0	0	0	0	0	0
Larynx	3	0.3%	1	2	3	0	0	0	0	0	0	1
Lung/Bronchus-Small Cell	14	1.2%	13	1	6	8	0	0	1	2	10	0
Lung/Bronchus-Large Cell	146	12.8%	115	31	67	79	0	20	6	24	49	16
Pleura	2	0.2%	2	0	1	1	0	0	2	0	0	0
Other Respiratory & Thoracic	0	0.0%	0	0	0	0	0	0	0	0	0	0
Leukemia	42	3.7%	18	24	24	18	0	0	0	0	0	18
Myeloma	18	1.6%	10	8	8	10	0	0	0	0	0	10
Other Hematopoietic	25	2.2%	10	15	16	9	0	0	0	0	0	10
Bone	1	0.1%	0	1	1	0	0	0	0	0	0	0
Soft Tissue	4	0.4%	2	2	4	0	0	0	0	0	0	2
Melanoma of Skin	20	1.8%	12	8	14	6	1	4	1	1	2	3
Kaposi Sarcoma	2	0.2%	0	2	1	1	0	0	0	0	0	0
Other Skin Ca	1	0.1%	1	0	0	1	0	0	0	1	0	0
Breast	251	22.0%	151	100	0	251	31	52	38	20	8	2
Cervix, In Situ	0	0.0%	0	0	0	0	0	0	0	0	0	0
Cervix Uteri	9	0.8%	5	4	0	9	0	2	0	0	1	2
Corpus Uteri	15	1.3%	14	1	0	15	0	7	2	3	0	2
Uterus NOS	5	0.4%	2	3	0	5	0	1	0	0	1	0
Ovary	30	2.6%	19	11	0	30	1	4	1	2	6	5
Vagina	0	0.0%	0	0	0	0	0	0	0	0	0	0
Vulva	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Female Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Prostate	113	9.9%	62	51	113	0	0	1	54	4	1	2
Testis	3	0.3%	2	1	3	0	0	1	0	1	0	0
Penis	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	53	4.6%	43	10	39	14	23	13	0	1	2	4
Kidney & Renal Pelvis	23	2.0%	17	6	17	6	0	8	2	2	2	3
Ureter	1	0.1%	1	0	0	1	1	0	0	0	0	0
Other Urinary	0	0.0%	0	0	0	0	0	0	0	0	0	0
Eye	0	0.0%	0	0	0	0	0	0	0	0	0	0
Brain	20	1.8%	11	9	12	8	0	0	0	0	0	11
Other Nervous System	20	1.8%	18	2	3	17	0	0	0	0	0	18
Thyroid	23	2.0%	17	6	8	15	0	9	2	4	1	1
Other Endocrine	7	0.6%	5	2	4	3	0	0	0	0	0	5
Hodgkin's Disease	7	0.6%	5	2	2	5	0	0	0	2	0	3
Non-Hodgkin's Lymphoma	42	3.7%	22	20	22	20	0	6	2	3	3	8
Unknown or Ill-defined	20	1.8%	14	6	13	7	0	0	0	0	0	14

* Includes analytic cases only

Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: **A** = analytic; **N/A** = non-analytic; **M** = male; **F** = female.

Sutter Solano Medical Center primary site tables

SSMC 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
All Sites	445	100.0%	372	73	215	230	19	77	91	54	77	54
Lip	0	0.0%	0	0	0	0	0	0	0	0	0	0
Tongue	4	0.9%	2	2	3	1	0	0	0	0	2	0
Salivary Glands	1	0.2%	1	0	1	0	0	0	0	0	0	1
Gum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Floor of Mouth	0	0.0%	0	0	0	0	0	0	0	0	0	0
Mouth, Other & NOS	2	0.4%	2	0	1	1	0	0	1	0	1	0
Tonsil	0	0.0%	0	0	0	0	0	0	0	0	0	0
Oropharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Nasopharynx	2	0.4%	1	1	1	1	0	0	0	0	1	0
Hypopharynx	0	0.0%	0	0	0	0	0	0	0	0	0	0
Pharynx & Ill-defined	1	0.2%	0	1	1	0	0	0	0	0	0	0
Esophagus	6	1.3%	4	2	4	2	0	1	0	1	0	2
Stomach	7	1.6%	3	4	3	4	0	1	0	1	1	0
Small Intestine	0	0.0%	0	0	0	0	0	0	0	0	0	0
Colon	32	7.2%	24	8	18	14	1	4	8	6	5	0
Rectum & Rectosigmoid	11	2.5%	11	0	6	5	1	5	3	1	1	0
Anus,Anal Canal,Anorectum	2	0.4%	2	0	1	1	0	0	1	0	1	0
Liver	4	0.9%	3	1	3	1	0	0	0	1	1	1
Gallbladder	1	0.2%	1	0	1	0	0	1	0	0	0	0
Bile Ducts	1	0.2%	1	0	1	0	0	0	0	1	0	0
Pancreas	10	2.2%	9	1	5	5	0	0	2	3	4	0
Retroperitoneum	0	0.0%	0	0	0	0	0	0	0	0	0	0
Peritoneum,Omentum,Mesen	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Digestive	1	0.2%	1	0	1	0	0	0	0	0	0	1
Nasal Cavity,Sinus,Ear	0	0.0%	0	0	0	0	0	0	0	0	0	0
Larynx	4	0.9%	4	0	4	0	0	3	1	0	0	0
Lung/Bronchus-Small Cell	10	2.2%	9	1	2	8	0	1	0	4	4	0
Lung/Bronchus-Large Cell	47	10.6%	42	5	22	25	0	6	4	11	19	2
Pleura	1	0.2%	0	1	0	1	0	0	0	0	0	0
Other Respiratory & Thoracic	0	0.0%	0	0	0	0	0	0	0	0	0	0
Leukemia	14	3.1%	7	7	8	6	0	0	0	0	0	7
Myeloma	8	1.8%	7	1	5	3	0	0	0	0	0	7
Other Hematopoietic	5	1.1%	4	1	4	1	0	0	0	0	0	4
Bone	1	0.2%	0	1	1	0	0	0	0	0	0	0
Soft Tissue	2	0.4%	2	0	2	0	0	0	0	1	1	0
Melanoma of Skin	4	0.9%	2	2	2	2	0	0	0	1	0	1
Kaposi Sarcoma	2	0.4%	2	0	2	0	0	0	0	0	0	2
Other Skin Ca	2	0.4%	2	0	2	0	0	0	1	0	0	1
Breast	81	18.2%	77	4	1	80	14	27	18	12	6	0
Cervix, In Situ	0	0.0%	0	0	0	0	0	0	0	0	0	0
Cervix Uteri	8	1.8%	7	1	0	8	0	3	2	2	0	0
Corpus Uteri	9	2.0%	9	0	0	9	0	6	0	1	2	0
Uterus NOS	0	0.0%	0	0	0	0	0	0	0	0	0	0
Ovary	6	1.3%	5	1	0	6	0	4	0	0	1	0
Vagina	0	0.0%	0	0	0	0	0	0	0	0	0	0
Vulva	1	0.2%	1	0	0	1	0	1	0	0	0	0
Other Female Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Prostate	66	14.8%	55	11	66	0	0	0	45	1	6	3
Testis	2	0.4%	2	0	2	0	0	2	0	0	0	0
Penis	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	13	2.9%	11	2	9	4	3	6	1	0	1	0
Kidney & Renal Pelvis	7	1.6%	5	2	5	2	0	0	0	1	4	0
Ureter	0	0.0%	0	0	0	0	0	0	0	0	0	0
Other Urinary	0	0.0%	0	0	0	0	0	0	0	0	0	0
Eye	0	0.0%	0	0	0	0	0	0	0	0	0	0
Brain	8	1.8%	5	3	0	8	0	0	0	0	0	5
Other Nervous System	7	1.6%	7	0	2	5	0	0	0	0	0	7
Thyroid	9	2.0%	8	1	2	7	0	4	2	2	0	0
Other Endocrine	2	0.4%	2	0	1	1	0	0	0	0	0	2
Hodgkin's Disease	5	1.1%	3	2	2	3	0	0	1	1	1	0
Non-Hodgkin's Lymphoma	25	5.6%	21	4	13	12	0	2	1	3	15	0
Unknown or Ill-defined	11	2.5%	8	3	8	3	0	0	0	0	0	8

* Includes analytic cases only

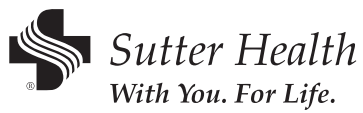
Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: A = analytic; N/A = non-analytic; M = male; F = female.

Sutter Health System **primary site tables**

Sutter Health System 2006 Primary Site Table			Class of Case		Gender		Distribution of Stage at Diagnosis *					
Primary Cancer Site	Cases	%	A	N/A	M	F	0	I	II	III	IV	N/R
<i>All Sites</i>	10975	100.0%	9316	1659	4872	6103	794	2268	2234	1247	1400	1373
Lip	8	0.1%	8	0	4	4	0	6	1	1	0	0
Tongue	60	0.5%	45	15	44	16	1	14	6	8	16	0
Salivary Glands	23	0.2%	19	4	12	11	0	7	3	3	5	1
Gum	6	0.1%	4	2	3	3	0	1	0	0	3	0
Floor of Mouth	3	0.0%	2	1	3	0	0	0	2	0	0	0
Mouth, Other & NOS	15	0.1%	13	2	6	9	2	0	4	2	5	0
Tonsil	28	0.3%	26	2	22	6	0	4	7	4	10	1
Oropharynx	3	0.0%	3	0	1	2	0	0	0	1	2	0
Nasopharynx	31	0.3%	21	10	21	10	0	0	7	6	7	1
Hypopharynx	10	0.1%	9	1	8	2	0	2	2	3	2	0
Pharynx & Ill-defined	6	0.1%	1	5	4	2	0	0	0	0	0	1
Esophagus	111	1.0%	92	19	79	32	4	18	13	18	29	10
Stomach	172	1.6%	154	18	106	66	8	30	15	20	57	24
Small Intestine	34	0.3%	30	4	19	15	1	1	5	5	9	9
Colon	694	6.3%	605	89	344	350	24	138	156	150	112	25
Rectum & Rectosigmoid	298	2.7%	267	31	165	133	17	75	70	55	30	20
Anus, Anal Canal, Anorectum	53	0.5%	46	7	29	24	13	6	11	8	5	3
Liver	241	2.2%	217	24	173	68	0	65	55	45	35	17
Gallbladder	29	0.3%	29	0	7	22	0	9	7	1	12	0
Bile Ducts	69	0.6%	61	8	35	34	1	10	19	10	14	7
Pancreas	328	3.0%	284	44	147	181	1	25	74	31	126	27
Retroperitoneum	9	0.1%	6	3	6	3	0	2	0	2	0	2
Peritoneum, Omentum, Mesen	23	0.2%	21	2	1	22	0	0	0	0	0	21
Other Digestive	11	0.1%	10	1	4	7	0	0	0	0	0	10
Nasal Cavity, Sinus, Ear	10	0.1%	7	3	9	1	0	0	2	0	4	1
Larynx	54	0.5%	45	9	44	10	0	17	13	5	8	2
Lung/Bronchus-Small Cell	137	1.2%	120	17	54	83	0	9	3	39	67	2
Lung/Bronchus-Large Cell	1092	9.9%	944	148	542	550	0	205	60	226	386	67
Pleura	21	0.2%	18	3	13	8	0	4	5	4	5	0
Other Respiratory & Thoracic	5	0.0%	4	1	3	2	0	1	1	0	0	2
Leukemia	271	2.5%	180	91	151	120	0	0	0	0	0	180
Myeloma	146	1.3%	101	45	80	66	0	0	0	0	0	101
Other Hematopoietic	115	1.0%	74	41	68	47	0	0	0	0	0	74
Bone	16	0.1%	10	6	10	6	0	5	2	0	1	2
Soft Tissue	72	0.7%	60	12	36	36	0	7	15	8	7	23
Melanoma of Skin	305	2.8%	224	81	190	115	62	82	28	17	14	21
Kaposi Sarcoma	17	0.2%	9	8	15	2	0	0	0	0	0	9
Other Skin Ca	36	0.3%	27	9	15	21	3	2	2	8	0	12
Breast	2322	21.2%	2080	242	17	2305	439	790	552	198	68	33
Cervix, In Situ	4	0.0%	4	0	0	4	4	0	0	0	0	0
Cervix Uteri	120	1.1%	100	20	0	120	1	41	20	20	15	3
Corpus Uteri	312	2.8%	288	24	0	312	2	149	38	59	18	22
Uterus NOS	17	0.2%	8	9	0	17	0	1	1	2	3	1
Ovary	222	2.0%	179	43	0	222	1	31	10	72	43	22
Vagina	19	0.2%	18	1	0	19	5	3	6	3	0	1
Vulva	37	0.3%	33	4	0	37	19	7	4	2	0	1
Other Female Genital	9	0.1%	8	1	0	9	0	2	0	5	0	1
Prostate	1246	11.4%	1006	240	1246	0	0	12	848	60	70	16
Testis	48	0.4%	45	3	48	0	0	32	3	9	0	1
Penis	3	0.0%	3	0	3	0	0	2	1	0	0	0
Other Male Genital	0	0.0%	0	0	0	0	0	0	0	0	0	0
Bladder	410	3.7%	358	52	303	107	178	86	54	13	19	8
Kidney & Renal Pelvis	275	2.5%	229	46	175	100	3	117	13	28	54	14
Ureter	22	0.2%	21	1	12	10	5	4	4	5	3	0
Other Urinary	2	0.0%	2	0	1	1	0	1	0	0	1	0
Eye	89	0.8%	79	10	43	46	0	54	1	3	0	21
Brain	238	2.2%	198	40	114	124	0	0	0	0	0	198
Other Nervous System	133	1.2%	119	14	32	101	0	0	0	0	0	119
Thyroid	187	1.7%	166	21	42	145	0	98	14	30	16	8
Other Endocrine	56	0.5%	48	8	27	29	0	0	0	0	0	48
Hodgkin's Disease	74	0.7%	65	9	30	44	0	6	35	9	9	6
Non-Hodgkin's Lymphoma	387	3.5%	309	78	206	181	0	87	42	49	110	21
Unknown or Ill-defined	181	1.6%	154	27	100	81	0	0	0	0	0	154

* Includes analytic cases only

Legend: N/R = not recorded Includes analytic cases that could not be staged because no AJCC staging exists for the particular primary site or histologic type. This includes most hematopoietic cancers (leukemia, myeloma, etc.), endocrine cancers, cancers of the brain and nervous system, sarcomas, cancers of the peritoneum, thymoma, and cancers where the primary site is ill-defined or unknown. Abbreviations: A = analytic; N/A = non-analytic; M = male; F = female.



SUTTER HEALTH ACoS CANCER PROGRAMS

Alta Bates Summit Medical Center

California Pacific Medical Center

Eden Medical Center

Marin General Hospital

Memorial Medical Center

Mills-Peninsula Health Services

Sutter Medical Center, Sacramento

Sutter Roseville Medical Center

Sutter Solano Medical Center