POMONA VALLEY HOSPITAL MEDICAL CENTER

CANCER PROGRAM

ANNUAL REPORT 2022

POMONA VALLEY HOSPITAL
MEDICAL CENTER

THE ROBERT & BEVERLY LEWIS FAMILY
CANCER CARE CENTER

2022 Cancer Committee

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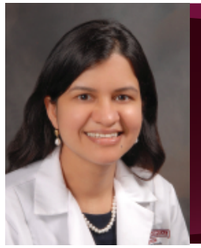


Cancer Committee Report

Preeti Chaudhary, MD, Chair

In the past year, amidst the challenges posed by the pandemic, The Cancer Program at Pomona Valley Hospital Medical Center (PVHMC) remained steadfast in its mission to deliver comprehensive cancer care. The dedicated teams in Medical Oncology, Radiation Oncology, Gynecological Oncology, and Breast Cancer Imaging (Breast Health Center) collaborated seamlessly within The Robert & Beverly Lewis Family Cancer Care Center, ensuring well-coordinated care.

Acknowledging the vulnerability of our patient population during these trying times, our physicians and support staff not only maintained their commitment but also demonstrated resilience in recovering from the impact of the pandemic. I extend my gratitude to them for their unwavering dedication.

Medical Oncology

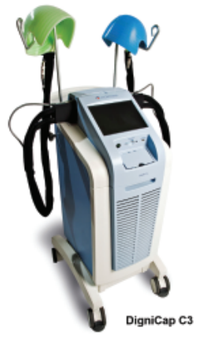
Our Oncology practice embraces a coordinated model that places paramount importance on personalized care for our patients. We achieved this through meticulous identification of predictive markers, guiding treatment decisions and contributing to enhanced outcomes. Leveraging personalized precision oncology, we adeptly align the most suitable drug with each patient.

Swarna S. Chanduri, MD, Behnam Ebrahimi, MD and Preeti Chaudhary, MD

Our success is cultivated through collaborative efforts with a multi-disciplinary team of experts, engaging in shared decision-making, and adhering to evidence-based guidelines. We facilitate access to clinical research trials, an integral part of our continuous improvement strategy. Regular pre-treatment and tumor board meetings, attended by key stakeholders such as nurses, navigators, and physicians, are pivotal in crafting integrated, personalized care plans for individuals.

In 2022, our facility witnessed remarkable productivity, providing exceptional care to more than 17,000 patients. Notably, 6,000 individuals received specialized chemo/i mmunotherapy treatments. Embracing a holistic approach, our practice goes beyond medical considerations, attending to the familial, social, and spiritual needs of our patients.

Our practice is equipped with access to National Comprehensive Cancer Network regimens (NCCN) and protocols, as well as Companion & Complementary diagnostics, ensuring the highest standards of care. The integration of an oncology electronic medical record system (Patient Portal) enhances communication among physicians and their multi-disciplinary teams, fostering patient engagement and ensuring continuity of care.



DigniCap C3

In our commitment to enhancing patient experiences, we provide iPads/ screens for entertainment and privacy during treatments. Additionally, we offer FDA-cleared DigniCap Delta services to minimize hair loss during chemotherapy, contributing to the improved well-being and quality of life for our patients.

While acknowledging the limitations in curing all patients with cancer, our aspiration is to provide healing to as many as possible. Our dedicated team of patient navigators, oncology nurses, social worker, non-clinical staff, genetic counselor and nutritionist supports patients at every step of their cancer treatment journey. Unwavering commitment to quality patient care is the cornerstone of our mission, driving everything we do.

Breast Health Center

The primary goal of the Breast Health Program at PVHMC is to deliver the highest quality care to our patients. We exclusively offer digital breast tomosynthesis mammography at our Pomona, Claremont, Chino Hills and La Verne sites. Digital breast tomosynthesis is a 3-dimensional mammogram, which allows the radiologist to examine the breast tissue in fine detail, 1 mm at a time. The technology has been shown in multiple studies to significantly increase the cancer detection rate and reduce recall rates relative to standard digital mammography.

The hospital was also the first in the region to offer the SmartCurve™ breast stabilization system, which is clinically proven to deliver a more comfortable mammogram without compromising image quality, workflow or dose. This latest innovation is part of the Hospital's ongoing commitment to superior breast cancer detection and has the potential to increase screening volume and compliance for the countless women who have reported avoiding regular mammograms due in large part to the fear of discomfort associated with breast compression.

The Breast Health Program at PVHMC has full American College of Radiology accreditation in mammography, stereotactic breast biopsy, breast ultrasound, and ultrasound-guided biopsy, demonstrating that our facility has achieved high practice standards in image quality, personnel qualifications, facility equipment, quality control procedures, and quality assurance programs.

We are a major partner with local community health clinics to provide screening and diagnostic mammography services for medically underserved patients over age 40, in conjunction with the state funded "Every Woman Counts" program.

The Breast Health Program at PVHMC also provides diagnostic breast imaging services to underinsured and uninsured patients under the age of 40, and men of any age, made possible by a community grant from the Los Angeles County Affiliate of Susan G. Komen.

We are dedicated to ensure that every woman in our community has timely access to our high quality breast care, helping women overcome barriers such as access to care, a lack of understanding or fear of the care process, fear of a positive diagnosis, financial barriers to treatment, and a myriad of additional psychosocial, emotional, and family concerns in the event of a positive diagnosis.

Radiation Oncology

2022 patient numbers remained stable with over 500 referrals however due to the changes in fractionation patterns our total number of treatments delivered decreased. This is largely due to employment of a shortened course of 5 fractions known as Stereotactic Body Radiation Therapy (SBRT). This treatment

pattern has shown improved outcomes for certain diagnoses. The top primary cancer diagnoses for our patient population are:

- Breast Cancer
- Prostate Cancer
- GYN (cervical & uterine) Cancer
- Lung Cancer

The two modes of radiation medicine we offer are:

- Teletherapy – Linear accelerator based treatments or external beam treatment
  - o Accuray TomoTherapy HiArt Unit
  - o Varian Trilogy with Rapid Arc & Cone Beam CT Unit
  - o External Beam Treatment Options
    - – Photons (x-rays)
    - – Electrons
    - – Intra-fraction tracking with VisionRT
    - – 3D Conformal
    - – IMRT with IGRT
    - – SBRT with IGRT
    - – Respiratory gating & Deep Inspiration Breath Hold
- Brachytherapy – Radioactive material based treatments
  - o HDR
    - – APBI for Select Early Stage Breast Cancer
    - – Interstitial Implants for GYN Cancers
    - – Intracavitary Implants for GYN Cancers
  - o Radioactive Iodine Ablations for Thyroid Cancer and Hyperthyroidism
  - o Radioactive Applications for Various Other Conditions

We look forward to providing our community with leading edge and high quality radiation medicine for decades to come by our board certified expert physicians, medical radiation physicists, dosimetrists, therapists, nurses and an outstanding clerical team.

Lung Cancer Program

The Lung Cancer Program (LCP) at PVHMC was founded in January 2008. The LCP comprises a team of primary care physicians, radiologists, cardiothoracic surgeons, pulmonologists, medical oncologists, radiation oncologists, pathologists and a clinical trials coordinator. We have a dedicated Lung Cancer Nurse Practitioner to assist patients through their treatment journey, while providing education and support.

Our primary goal is to promote early diagnosis and to eliminate treatment delays by expediting patients through the health care process once a suspicious radiologic screening abnormality is identified. We work to replace late stage cancer diagnoses with earlier diagnoses, and thereby improve treatment outcomes.

To promote diagnosing lung cancer at the earliest of stages, PVHMC offers the public low cost and low dose CT Chest Screening. While not appropriate for everyone, current publications suggest that CT screening could reduce lung cancer mortality by 20% in heavy smokers through early detection of this lethal disease. We also provide smoking cessation literature.

GYN Oncology

In 2020 we welcomed a new GYN Oncologists, Raffi Chalian, M.D., to our community after Gynecologic Oncology Associates (GOA), a group of five board certified gynecologic oncologists out of Newport Beach left our community. We appreciate Dr. Chalian's excitement and commitment to not only assist our patients and community but allow our patients to receive their treatments in our infusion center. This is a great benefit and convenience to everyone allowing patients to stay locally for their entire treatment course. PVHMC can now serve women with gynecologic cancers right here. Our patients receive the most up to date in gynecologic cancer treatments. This includes minimally invasive laparoscopic or robotic surgery, ultra-precise radiation therapy utilizing TomoTherapy and Trilogy, both of which deliver IMRT treatments with IGRT and high dose rate brachytherapy which places the radiation directly at the site of the cancer, where the cancer was or where the cancer may recur in the pelvis..

Palliative Care

Palliative care is specialized medical care for people with serious illness. This type of care is focused on providing patients with relief from symptoms (pain, shortness of breath, nausea, anxiety, fatigue, depression) and addressing the stress of a serious illness. The goal is to improve the quality of life for both the patient and the family. Palliative care is provided by a team of specially-trained doctors, nurses, chaplains, social workers and other specialists who work with the patient's other doctors to provide an extra layer of support. The palliative care team discusses goals of care, treatment options, pain and symptom management, and advance care planning.

Palliative care can be provided at any age and at any stage in a serious illness. It can also be provided together with other medical treatments.

PVHMC's Palliative Care service has been certified by The Joint Commission since 2014. The Palliative Care service works collaboratively with Oncology services to providing a holistic approach to our patients and families. This partnership is committed achieving best practice in all aspects of care.

Clinical Trials

Clinical trials have been offered since 1995 under the leadership of Y. S. Ram Rao, MD, Director of Radiation Oncology and the Cancer Program. We have enrolled over 782 patients into Non-NCI and NCI sponsored co-operative group clinical trials since 1995.

The Cancer Care Center continues to participate and actively enroll cancer patients onto clinical trials through the National Cancer Institute (NCI), other Cooperative Groups such as NRG, and occasionally Pharmaceutical Company sponsored clinical trials.

Each study design is created to focus on answering various scientific questions that will assist in discovering enhanced ways to prevent, diagnose and/or treat various cancers. All clinical trials are fully conducted in compliance with the FDA guidelines including but not limited to, "Good Clinical Practice" guidelines (GCP).

Phase III and some Phase II Clinical Trials are made available to the community providing patients with easy access to the latest cancer research regimes. At any given time, there are more than a dozen clinical trials open to patients with various types and stages of cancer.

There are six types of cancer related clinical trials:

- **Treatment trials** test new treatments (like a new cancer drug, new approaches to surgery or radiation therapy, new combinations of treatments, or new methods such as gene therapy).
- **Prevention trials** test new approaches, such as medicines, vitamins, minerals, or other supplements that doctors believe may lower the risk of a certain type of cancer. These trials look for the best way to prevent cancer in people who have never had cancer or to prevent cancer from coming back or a new cancer occurring in people who have already had cancer.
- **Quality of Life / Weight Management trials** (also called supportive care trials) explore ways to improve and implement a patient-centered approach to improvements comfort, in quality of life, safety, and costs for cancer patients.
- **Pain relief (palliative care) and pain progression** (comparing relief after radiation and re-irradiation, comparing overall pain progression for symptoms of bone metastases).
- **Observational trials** utilizing screening tools such as Multiomics Blood Tests with the main goal is to learn things that will help patients in the future.
- **Quality Improving trials** explore ways to improve and implement a patient-centered approach to improvements in quality, safety, and cost.

All potential study patients are presented with the most recent version of the IRB Approved Consent Document for each specific trial. All consent documents contain the "Experimental Subject's Bill of Rights" (California law under Health & Safety Code Section 24172) and a Health Insurance Portability and Accountability Act Authorization to Use or Disclose (Release) Identifiable Health Information for Research. The Department of Health and Human Services (HHS) issued the Standards for Privacy of Individually Identifiable Health Information (the Privacy Rule) under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to provide the first comprehensive Federal protection for the privacy of personal health information.

Potential study patients undergo the consenting process to its entirety before initiating any study related procedures or assessments. All potential study patients are reminded that their study participation is completely voluntary and they have the right to refuse study participation without any bias from our medical and ancillary staff.

Customer Satisfaction

Customer Satisfaction is always a top priority. Most of our patients are surveyed regarding the service and their satisfaction. The surveys allow us timely feedback about our patients' experience. We also offer "Feedback Forms" throughout the Center that allows patients an immediate opportunity to express appreciation or concerns. All complements, suggestions and concerns are forwarded to the appropriate manager and department for recognition or follow-up as appropriate.

Cancer Registry

The Cancer Registry at PVHMC has collected cancer data for analysis, research and mandatory reporting to the California Cancer Registry since 1985. The Cancer Registry also contributes data to the American College of Surgeons (ACS), Commission on Cancer, and National Cancer Data

Base (NCDB) annually. The NCDB contains data from American College of Surgeons approved hospitals nationally. The physicians at PVHMC utilize benchmark reports from the NCDB to measure and evaluate patient care, treatment and survival of our cancer patients. Our computerized database contains over 33,000 cancer patients.

In 2022 the Cancer Registry accessioned a total of 760 cancer cases. There were 723 analytic or new cases and 37 non-analytic or previously diagnosed and treated cases. We also perform lifetime annual follow-up on all analytic patients in our database as a requirement of the American College of Surgeons approved Cancer Programs.

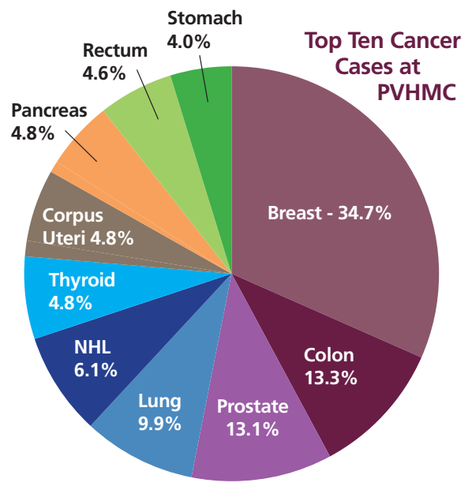
The top ten sites comprise a total of 525 cases or 72.61% of the total cancer cases seen at PVHMC for 2022. The top 10 cancers are: Breast (182 cases or 34.7%), Colon (70 cases or 13.3%), Prostate (69 cases or 13.1%), Non-Small Cell Lung (52 cases or 9.9%), NH Lymphoma (32 cases or 6.1%), Thyroid (25 cases or 4.8%), Corpus Uteri (25 cases or 4.8%), Pancreas (25 cases or 4.8%), Rectum (24 cases or 4.6%), Stomach (21 cases or 4.0%), and Other Cancers (198 cases or 27.39%).

Support Programs

Due to the Pandemic, many of our support and wellness groups were put on hold for everyone's safety and protection. We have slowly reinstated some of our groups, some in person and some virtual. We also started a couple new ones. Our social worker and navigators are a great resource for our patients during this difficult time. They connect and support our patients through regular phone calls and virtual face-to-face meetings..

Fundraising

In 2022, the Foundation raised $47,000 for the Cancer Center. This total included funding for the Breast Health Fund, Living Well After Cancer, The Robert and Beverly Lewis Family Cancer Care Center Endowment, and unrestricted gifts to the cancer program. Of the $47,000, $14,000 came from the LA County Sheriff's Department's Pink Patch Project. At the end of 2022, The Robert and Beverly Lewis Family Cancer Center Permanent Endowment was valued at $5,087,362 and the unrestricted Cancer Fund was valued at $1,503,895.



New Cancer Cases 2022

POMONA VALLEY HOSPITAL MEDIAL CENTER

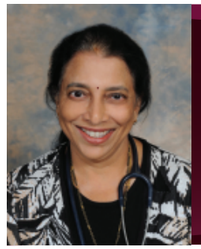
SITE GROUP	Total Cases	Class A	Class N/A	Sex M	Sex F	Other	Stages 0	I	II	III	IV	Unk	N/A*	Missing
Oral Cavity/Pharynx	**7**	**7**	**0**	**4**	**3**	**0**	**0**	**2**	**1**	**0**	**4**	**0**	**0**	**0**
TONGUE	3	3	0	1	2	0	0	1	0	0	2	0	0	0
SALIVARY GLANDS, MAJOR	1	1	0	1	0	0	0	1	0	0	0	0	0	0
TONSIL	1	1	0	1	0	0	0	0	0	0	1	0	0	0
OROPHARYNX	1	1	0	1	0	0	0	0	1	0	0	0	0	0
OROPHARYNX	1	1	0	1	0	0	0	0	1	0	0	0	0	0
Digestive System	**180**	**176**	**4**	**100**	**80**	**0**	**11**	**46**	**24**	**35**	**44**	**13**	**7**	**0**
ESOPHAGUS	8	8	0	6	2	0	0	1	0	0	4	3	0	0
STOMACH	21	21	0	10	11	0	0	6	2	0	11	2	0	0
SMALL INTESTINE	5	5	0	3	2	0	0	1	1	0	2	1	0	0
COLON	72	70	2	40	32	0	8	13	16	21	11	3	0	0
RECTUM & RECTOSIGMOID	25	24	1	12	13	0	2	10	0	7	4	2	0	0
ANUS,ANAL CANAL,ANORECTUM	5	4	1	2	3	0	1	2	1	1	0	0	0	0
LIVER	7	7	0	6	1	0	0	2	0	3	0	0	2	0
GALLBLADDER	2	2	0	2	0	0	0	0	1	0	1	0	0	0
BILE DUCTS	6	6	0	2	4	0	0	2	0	0	1	1	2	0
PANCREAS	25	25	0	16	9	0	0	9	3	3	10	0	0	0
PERITONEUM,OMENTUM,MESENT	1	1	0	0	1	0	0	0	0	0	0	1	0	0
PERITONEUM,OMENTUM,MESENT	3	3	0	1	2	0	0	0	0	0	0	0	3	0
Respiratory & Intrathoracic System	**64**	**62**	**2**	**35**	**29**	**0**	**0**	**11**	**3**	**16**	**32**	**0**	**2**	**0**
NASAL CAVITY,SINUS,EAR	1	1	0	1	0	0	0	0	0	1	0	0	0	0
LARYNX	1	1	0	1	0	0	0	0	0	1	0	0	0	0
LUNG/BRONCHUS-SMALL CELL	6	6	0	4	2	0	0	0	0	1	5	0	0	0
LUNG/BRONCHUS-NON SM CELL	54	52	2	29	25	0	0	11	3	13	26	0	1	0
PLEURA	2	2	0	0	2	0	0	0	0	0	1	0	1	0
Hematopoietic	**27**	**25**	**2**	**17**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**0**
HEMERETIC	12	12	0	6	6	0	0	0	0	0	0	0	12	0
MYELOMA	3	3	0	3	0	0	0	0	2	0	0	1	0	0
OTHER HEMATOPOIETIC	1	1	0	1	0	0	0	0	0	0	0	0	1	0
Soft Tissue	**5**	**5**	**0**	**3**	**2**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**3**	**0**
Skin	**20**	**20**	**0**	**11**	**9**	**0**	**6**	**6**	**2**	**2**	**2**	**1**	**1**	**0**
MELANOMA OF SKIN	19	19	0	10	9	0	6	6	2	2	2	1	0	0
KAPOSIS SARCOMA	1	1	0	1	0	0	0	0	0	0	0	0	1	0
Breast	**191**	**182**	**9**	**4**	**187**	**0**	**27**	**103**	**33**	**11**	**9**	**7**	**1**	**0**
Female Genital	**54**	**51**	**3**	**0**	**54**	**0**	**0**	**23**	**6**	**8**	**13**	**4**	**0**	**0**
CERVIX UTERI	9	8	1	0	9	0	0	2	3	1	2	1	0	0
CORPUS UTERI	27	25	2	0	27	0	0	14	2	5	4	2	0	0
UTERUS NOS	3	3	0	0	3	0	0	2	0	0	1	0	0	0
OVARY	14	14	0	0	14	0	0	4	1	2	6	1	0	0
OTHER FEMALE GENITAL	1	1	0	0	1	0	0	1	0	0	0	0	0	0
Male Genital	**90**	**76**	**14**	**90**	**0**	**0**	**0**	**15**	**32**	**23**	**17**	**3**	**0**	**0**
PROSTATE	83	69	14	83	0	0	0	13	29	21	17	3	0	0
TESTIS	6	6	0	6	0	0	0	2	2	2	0	0	0	0
PENIS	1	1	0	1	0	0	0	0	1	0	0	0	0	0
Urinary Tract	34	33	1	24	10	0	8	10	7	3	3	2	1	0
BLADDER	17	17	0	13	4	0	7	3	5	0	1	1	0	0
KIDNEY AND RENAL PELVIS	16	15	1	10	6	0	0	7	2	3	2	1	1	0
URETER	1	1	0	1	0	0	1	0	0	0	0	0	0	0
Ophthalmic	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
Brain and other Nervous System	**19**	**18**	**1**	**7**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**0**
BRAIN**	11	10	1	6	5	0	0	0	0	0	0	0	11	0
OTHER NERVOUS SYSTEM	8	8	0	1	7	0	0	0	0	0	0	0	8	0
Thyroid and Other Endocrine	**31**	**30**	**1**	**5**	**26**	**0**	**0**	**20**	**4**	**2**	**0**	**1**	**4**	**0**
THYROID	26	25	1	3	23	0	0	20	4	1	0	1	0	0
OTHER ENDOCRINE	5	5	0	2	3	0	0	0	0	1	0	0	4	0
Hodgkin/Non-Hodgkin Lymphoma	**37**	**36**	**1**	**15**	**22**	**0**	**0**	**11**	**6**	**9**	**10**	**0**	**1**	**0**
HODGKIN'S DISEASE	4	4	0	2	2	0	0	1	1	0	2	0	0	0
NON-HODGKIN'S LYMPHOMA	33	32	1	13	20	0	0	10	5	9	8	0	1	0
Unknown or Ill-Defined	**11**	**10**	**1**	**8**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**
TOTALS	**760**	**723**	**37**	**316**	**444**	**0**	**52**	**247**	**120**	**111**	**134**	**18*****	**64**	**0**

Lymphoma: Table includes lymphoma cases coded to lymphatic and extranodal sites.

* Not Applicable: Benign tumors, hematopoietic malignancies and tumors and histopathology in a particular primary site not included in AJCC TNM staging scheme.

** Benign tumors: collection and reporting has been a requirement of the American College of Surgeons and/or the State of California.

*** Unknown stage: ACoS, CoC allow 10% or less of the analytic case load to be unstaged. Starting 1/1/2006, analyatic Class 0 cases (diagnosed at our hospital but received all 1st course of treatment elsewhere) are no longer required to be TNM staged. The table reflects a total of 32 cases, minus 14 non-analytic cases, divided by 723 analytical cases = 2.4% unstaged cases (less than 10%).



Breast Cancer Update

Swarna S. Chanduri, MD, Chair

Breast cancer is the most commonly diagnosed malignancy and the second leading cause of cancer death among women in the USA. Breast cancer accounts for 265,000 new cases each year and is responsible for over 40,000 deaths. Breast cancer mortality rates have been decreasing since the 1970s.

This decrease in mortality is likely due to improved personalized treatment approach for breast cancer. Nationwide multimodality treatment approaches are implemented to improve awareness, screening and adopting new-targeted treatments for early and metastatic cancers to achieve this goal. This approach has increased the 5-year survival rate to nearly 80% demonstrating that early detection and personalized treatment saves lives.

At PVHMC Cancer Care Center, our team works to achieve this goal and succeed in providing personalized care to our breast cancer patients. The management of breast cancer requires the expertise of several disciplines, here at PVHMC Cancer Care Center, we discuss all patients, including all newly diagnosed breast cancer patients in our weekly pretreatment conference, as well at our general cancer conference. These conferences are attended by a team of multidisciplinary group of physicians, which include radiation oncologists, medical oncologists, surgeons, radiologists and pathologists, along with support staff, including palliative care specialists, social worker and genetic counselor when indicated.

We have nurse navigators, clinical trial coordinator and a social worker to help patients and physicians in coordinating the care. Our breast nurse navigator follows most of these patients from initial abnormal mammograms and guides them to acquire necessary treatment.

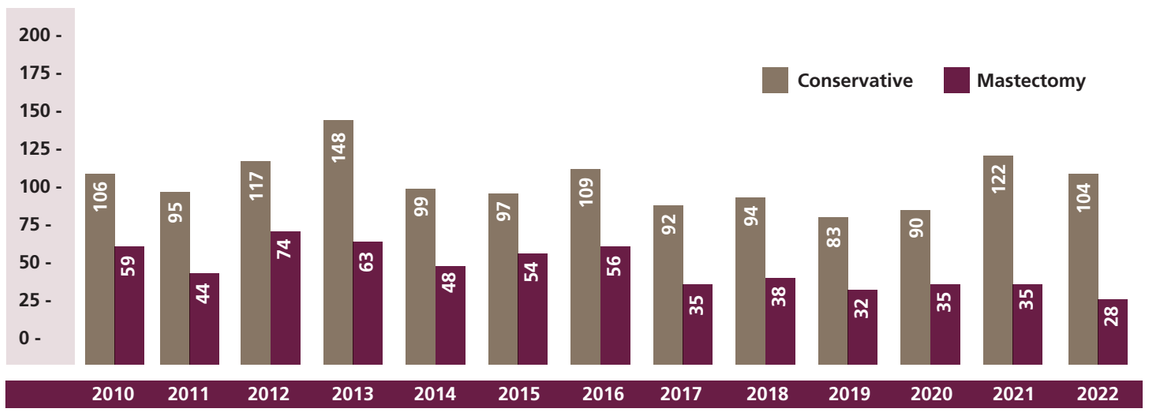
Patients with early breast cancer are evaluated with further tumor genetic testing where indicated. This approach has shown to decrease unnecessary chemotherapy where it is not indicated. We try to adhere to NCCN clinical guidelines for treatment. However, guidelines cannot replace good clinical judgment.

I reviewed our Hospital's 3-year breast cancer data collected by cancer registry (2020 and 2021, 2022). The incidence of breast cancer across all stages has more or less remained the same. There were 182 new cases of breast cancer diagnosed at PVHMC in 2022, 185 cases in 2021 and 184 in 2020.

Our data was compared to NCDB data regarding age at diagnosis, stage at diagnosis, and various treatments given and 5-year survival for last 3 years. (2020, 2021, 2022) and presented in the graphs and tables given below. Our surgical treatment data shows more conservative surgery then mastectomy. Bilateral mastectomy was offered to women with hereditary breast cancer syndrome, where indicated.

Breast Cancer - PVHMC Surgical Treatment - 2010-2022

Table 1



Breast Cancer - NCDB vs PVHMC - Stage at Diagnosis

Table 2

	NCDB		PVHMC					
Stage at Diagnosis	**NCDB 2021**	**% of total NCDB**	**PVHMC 2020**	**% of total PVHMC**	**PVHMC 2021**	**% of total PVHMC**	**PVHMC 2022**	**% of total PVHMC**
0	42,623	16%	25	14%	21	11%	27	15%
I	150,304	57%	98	53%	108	58%	103	57%
II	30,131	11%	32	17%	29	16%	31	17%
III	14,927	6%	13	7%	12	7%	11	6%
IV	11,416	4%	10	5%	7	4%	8	4%
Unknown	9,228	3%	2	1%	6	3%	1	1%
Not applicable	6,125	2%	4	2%	2	1%	1	1%
Total	**264,754**	**100%**	**184**	**100%**	**185**	**100%**	**182**	**100%**

Breast Cancer - NCDB vs PVHMC - Age at Diagnosis

Table 3

	NCDB		PVHMC					
Age Group	**NCDB 2021**	**% of total NCDB**	**PVHMC 2020**	**% of total PVHMC**	**PVHMC 2021**	**% of total PVHMC**	**PVHMC 2022**	**% of total PVHMC**
Under 20	18	0%						
20-29	1361	1%	3	2%	1	1%	4	2%
30-39	10,112	4%	8	4%	10	5%	13	7%
40-49	37,129	14%	31	17%	25	14%	32	18%
50-59	56,731	21%	52	28%	39	21%	32	18%
60-69	75,801	29%	51	28%	61	33%	48	26%
70-79	60,583	23%	29	16%	26	14%	30	17%
80-89	20,084	8%	6	3%	18	10%	18	10%
90+	2,935	1%	4	2%	5	3%	5	3%
Unk								
Total	**264,754**	**100%**	**184**	**100%**	**185**	**100%**	**182**	**10**

In 2022 we had 28 patients treated with mastectomy and 104 patients with breast conservative treatment. Our hospital's breast cancer data collected by our cancer registry for the last 3 years from 2020-2022 is reported in the graphs and tables. The data depicts the surgical management (conservative versus mastectomy), stage at diagnosis as well as age at diagnosis. (Tables 1, 2 and 3)

Breast cancer remains a disease of older women and 73% women treated at our center were above the age of 50 (Table 3). Table 4 depicts treatment modalities used in the management of breast cancer at PVHMC. The total number of patients who did not receive 1st course of treatment at our center was previously reported to be 8% in 2020 and 4% in 2021, with a 3% nationwide in 2021, our numbers were noted to be 6% in 2022.

Also we had consistent trend for patients treated with combination surgery, radiation and hormonal therapy only by 30% compared, which has remained largely consistent for the last 2 years, and exceeding national wide average of 28% in 2021. This I attribute to adopting genomic studies like Oncotype Dx in predicting chemotherapy benefit and avoiding unnecessary chemotherapy in patients who may not benefit from it.

Our 5-year survival data for breast cancer patients across all age groups is depicted in table 5. (Diagnosed 2011-2016). Our 5-year overall survival data for all stages is 82.1%. Various factors may be responsible for these results such as patient refusal to undergo treatment, racial disparities, socioeconomic status of patients, etc.

Both younger (<35 years) and older (>70 years) age at diagnosis is associated with a worse prognosis. Over 30% patients treated at PVHMC fall in this category and may account for our slightly inferior 5-year survival rates. Also survival data is dependent on the tumor characteristics. ER positive tumors have a better overall survival of 83.2% as depicted in Table 6. ER negative patients have overall survival of 76.0%. All of the triple negative patients have 66.6% survival, and the worst survival rate as depicted in Table 8. Patients with triple positive and ER positive PR positive patients have a better survival rate of 75.9%.

NCDB vs PVHMC Treatment

Table 4

Stage at Diagnosis	**NCDB 2021**	**%**	**PVHMC 2020**	**%**	**PVHMC 2021**	**%**	**PVHMC 2022**	**%**
No 1st course Treatment	8,007	3%	14*	8%	6*	4%	11	6%
Surgery Only	34,385	13%	25	15%	35	20%	33	19%
Radiation Only	330	0%						
Hormones Only	5,112	2%	2	1%			2	1%
Hormones and Other							1	1%
Chemotherapy Only	2,380	1%	3	2%	2	1%	3	2%
Immunotherapy Only								
Chemotherapy and Immunotherapy	2,507	1%	3	2%	3	2%	5	3%
Chemotherapy and Hormones	2,852	1%	1	1%	2	1%	1	1%
Chemotherapy, Hormones and Immunotherapy	255	0%					1	1%
Radiation and Hormones	506	0%						
Radiation, Hormones, Immunotherapy								
Radiation and Chemotherapy	342	0%			1	1%		
Radiation, Chemotherapy and Immunotherapy					1	1%	1	1%
Radiation, Chemotherapy and Hormones					1	1%	1	1%
Surgery and Immunotherapy	197	0%						
Surgery and Radiation	15,773	6%	18	11%	11	6%	7	4%
Surgery and Chemotherapy	8,067	3%	6	4%	6	4%	16	9%
Surgery and Hormones	44,318	17%	13	8%	10	6%	7	4%
Surgery, Hormones and Immunotherapy							1	1%
Surgery, Radiation and Hormones	74,333	28%	29	17%	55	32%	52	30%
Surgery, Chemotherapy and Immunotherapy	5,858	2%	6	4%	9	5%	12	7%
Surgery, Chemotherapy and Radiation	9,709	4%	19	11%	8	5%	9	5%
Surgery, Chemotherapy and Hormones	5,664	2%	2	1%	3	2%	2	1%
Surgery, Chemotherapy, Hormones and Immunotherapy			1	1%	4	2%	1	1%
Surgery, Chemotherapy, Radiation, Hormones and Immunotherapy	18,054	7%	8	5%	1	1%	1	1%
Surgery, Radiation, Chemotherapy and Immunotherapy			7	4%	6	4%	4	2%
Surgery, Radiation, Chemotherapy and Hormones			12	7%	9	5%	4	2%
Surgery, Radiation, Hormones and Immunotherapy								
Other specified Treatment	25,752	10%						
Active Surveillance	353	0%						
Total	**264,754**	**100%**	**169****	**100%**	**173****	**100%**	**175****	**100%**

*Reflects cases diagnosed @ PVHMC, but patient has not sought any further treatment due to personal, spiritual or other reasons (including treatment recommended but patient refused or unknown, patient expired or went into Hospice). This is based on exhaustive research to physicians offices and other facilities.

**Reflects updated totals, from previous year and/or excludes Analytic Class of Case 0 cases (diagnosed here, and treated elsewhere).

PVHMC Five-Year Survival Table for Breast Cancer Cases

Table 5

Diagnosed 2011 - 2016 Comprehensive Community Cancer Program - PVHMC

Stage	**Cases**	**At Diagnosis**	**1 year**	**2 Years**	**3 years**	**4 years**	**5 years**
0	227	100	99.6	98.7	97.8	95.1	93.7
I	468	100	97.6	94.6	91.7	88.5	87.0
II	328	100	97.9	92.2	86.9	82.5	78.4
III	131	100	94.8	86.6	74.6	67.9	62.4
IV	39	100	49.3	43.9	38.4	29.8	26.9
Overall	**1193**	**100%**	**96.9%**	**93.1%**	**88.2%**	**84.5%**	**82.1%**

PVHMC Five-Year Survival Table for Breast Cancer Triple neg. Cases

Table 6

Diagnosed 2011 - 2016 Comprehensive Community Cancer Program - PVHMC

Stage	Cases	At Diagnosis	1 year	2 Years	3 years	4 years	5 years
0	0	-	-	-	-	-	-
I	19	100	94.7	94.7	84.2	79.0	73.7
II	19	100	89.5	89.5	89.5	79.0	79.0
III	9	100	66.7	44.4	33.3	33.3	33.3
IV	4	100	50.0	50.0	50.0	50.0	50.0
Overall	**51**	**100%**	**84.3%**	**80.4%**	**74.5%**	**68.6%**	**66.6%**

PVHMC Five-Year Survival Table for Breast Cancer ER/PR + Cases

Table 7

Diagnosed 2011 - 2016 Comprehensive Community Cancer Program - PVHMC

Stage	Cases	At Diagnosis	1 year	2 Years	3 years	4 years	5 years
0	154	100	100.0	100.0	100.0	98.7	97.4
I	365	100	98.9	95.9	93.4	90.6	90.0
II	193	100	99.5	94.3	84.9	81.3	77.6
III	82	100	96.3	92.7	81.7	76.8	73.1
IV	17	100	70.6	58.8	47.1	35.3	29.4
Overall	**811**	**100%**	**98.4%**	**95.2%**	**90.5%**	**87.3%**	**85.4%**

PVHMC Five-Year Survival Table for Breast Cancer Triple + Cases

Table 8

Diagnosed 2011 - 2016 Comprehensive Community Cancer Program - PVHMC

Stage	Cases	At Diagnosis	1 year	2 Years	3 years	4 years	5 years
0	1	100	100.0	100.0	100.0	100.0	100.0
I	5	100	100.0	100.0	100.0	100.0	80.0
II	17	100	100.0	94.1	94.1	82.4	82.4
III	5	100	100.0	100.0	80.0	80.0	60.0
IV	1	100	100.0	100.0	0.0	0.0	0.0
Overall	**29**	**100%**	**100.0%**	**96.6%**	**89.7%**	**82.8%**	**75.9%**

PVHMC Five-Year Survival Table for Breast Cancer ER + Cases

Table 9

Diagnosed 2011 - 2016 Comprehensive Community Cancer Program - PVHMC

Stage	Cases	At Diagnosis	1 year	2 Years	3 years	4 years	5 years
0	180	100	100.0	99.4	99.4	97.8	96.1
I	410	100	98.8	95.8	93.4	90.4	89.9
II	245	100	99.6	93.9	84.4	80.2	75.2
III	103	100	97.1	89.3	77.7	71.8	67.9
IV	26	100	57.7	50.0	77.7	71.8	26.9
Overall	**964**	**100%**	**97.9%**	**94.1%**	**89.1%**	**85.6%**	**83.2%**

PVHMC Five-Year Survival Table for Breast Cancer ER neg Cases

Table 10

Diagnosed 2011 - 2016 Comprehensive Community Cancer Program - PVHMC

Stage	Cases	At Diagnosis	1 year	2 Years	3 years	4 years	5 years
0	15	100	100.0	100.0	100.0	100.0	100.0
I	46	100	95.7	93.5	89.1	87.0	84.8
II	75	100	93.3	90.7	87.9	79.8	77.1
III	26	100	88.5	80.8	69.2	61.5	57.7
IV	11	100	42.9	42.9	42.9	42.9	42.9
Overall	**173**	**100%**	**90.7%**	**87.8%**	**83.7%**	**78.4%**	**76.0%**

We tailor individualized plans for neoadjuvant and adjuvant therapy for patients diagnosed with breast cancer. Each year we have newer medications available for breast cancer patients of all stages and we offer them, as they are available to improve their care. We also provide them with referrals to tertiary centers to give them opportunities to participate in clinical trials not open at our center.

Overall, each day as a team we strive to provide superior care to our patients to overcome racial disparities and equal access to care and adopt various approaches to address obstacles to care. Our nurse navigators have helped patients to get access to care by providing information regarding insurance coverage, and

access to PVHMC Foundation assistance. Our Hospital Foundation team raise funds to provide monetary benefits to provide Dignicap to patients who cannot afford it. We also have interpreter services for all patients who cannot speak English. Over 30% of our total patient population are Hispanic and many require interpreter services.

Genetic counseling services

In conjunction with **Keck Graduate Institute** we began offering genetic counseling services in 2020. In 2022 we provided 134 patients with specialized genetic counseling. This service isn't provided at every comprehensive community cancer center. We are pleased to provide this service to our patients.

Definition of Terms

Age of Patient
Recorded in completed years at the time of diagnosis for analytic cases or the age of the patient at the time they were first seen at this hospital for non-analytic patients.

Class of Case
Analytic: Patients with a malignant neoplasm (or benign brain or CNS tumor diagnosed in 2001 or after), newly diagnosed and/or received all or part of their 1st course of treatment at Pomona Valley Hospital Medical Center.

Non-Analytic: Patients who have been previously diagnosed and treated for a malignancy (or benign brain or CNS tumor after 2001) elsewhere who receive treatment at PVHMC for progressive, recurrent or metastatic disease.

Stage Of Disease
Analytic cancer cases at PVHMC are staged according to the American Joint Commission on Cancer (AJCC), 6th Edition Cancer Staging manual as required by the American College of Surgeons, Commission on Cancer.

The AJCC, TNM Classification Systems is based on the premise that cancer of similar types (histology) or site of origin share similar patterns of growth. There are no AJCC TNM Staging Classifications for malignant brain and CNS tumors or hematopoietic diseases. These cases are designated as not applicable (N/A) under stages on the New Cancer Cases 2006 table. This system expresses the anatomic extent of disease based on:

T = tumor size, and/or tumor invasion,

N = node involvement,

M = metastases, spread to distant sites (lung, liver, bone, brain, etc.)

A Stage Group, i.e. I, II, III, IV is assigned after the TNM elements have been determined.

Survival Rate
The proportion of patients surviving a particular interval from the time of diagnosis, expressed in terms of percentage, and then computed.

Treatment
Refers to the first course of planned treatment after initial diagnosis.

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The Robert and Beverly Lewis Family Cancer Care Center is a comprehensive ambulatory oncology facility where a collaborative partnership of health care professionals are dedicated to community-focused cancer education, prevention, screening, diagnosis, treatment, research and recovery. The Center is committed to providing the broadest range of effective cancer care and related services currently available in a community setting.

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