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VA Palo Alto Health Care System

2014 VAPAHCS

Cancer Program Annual Report

With 2013 data

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Cancer Program-111 ONC, 3801 Miranda Avenue, Palo Alto, CA 94304-1207
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Comprehensive Community Cancer Program of

VA Palo Alto Health Care System

Palo Alto, CA

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Daniel P. McKellar, MD, FACS
Chair, Commission on Cancer American College of Surgeons

Linda W. Ferris, PhD
Chair, Accreditation Committee Commission on Cancer

American College of Surgeons
Inspiring Quality:
Highest Standards, Better Outcomes

A MULTIDISCIPLINARY PROGRAM OF THE AMERICAN COLLEGE OF SURGEONS

Table of Contents

Multidisciplinary Cancer Care Committee Membership 2013-2014

PHYSICIAN MEMBERS

- Committee Chairman: Harlan Pinto, MD
- Cancer Liaison Physician: John Leppert, MD
- Dermatology: Susan Swetter, MD
- General Surgery: Sherry Wren, MD
- Hepatology: Ramsey Cheung, MD
- Medical Oncology: Millie Das, MD; Allyson Spence, MD
- Medical Hematology: Beth A. Martin, MD
- Pathology: Robert Rouse, MD
- Radiology Service: Payam Massaband, MD
- Women Veterans: Samina Iqbal, MD;

ALLIED HEALTH MEMBERS

- American Cancer Society: Edmundo Nevel
- Cancer Program: Carole Fong, BSN, RN; Maria Tham
- Cancer Registry: Hiep Doan, CTR
- ENT: Ella Benadam-Lenrow, RN
- General Surgery: Lynne Dempsey, RN, CNS; Nina Bellatorre, RN, CNS
- Hematology: Mary L. Thomas, RN, CNS, AOCN
- Medical Onc: InPatient: Connie Yabes-Sabolboro, RN, CNS, AOCN
- Medical Onc: Out Patient: Peter di Donato, PA
- Pain Management: Janette Elliott, RN, CNS, AOCN
- Pharmacy: Raj Joshi, PharmD; Kyong Kang
- Psychology Service: Stacy Dodd, Ph.D
- Quality Management: Margaret Lawrence, RN
- Social Work Services: Karen Chwick, LSCW
- Women Veterans: Linda Kleinsasser, RN-BC

Mission Statement

The mission of the Multidisciplinary Cancer Program is to decrease the morbidity and mortality of patients with cancer and improve the quality of patient care by:

- Early diagnosis
- Pretreatment evaluation
- Physician staging
- Nutritional assessment
- Optimal treatment and palliation
- Psychosocial support
- Rehabilitation
- Pastoral care
- Hospice care for terminally ill patients
- Long-term surveillance for recurrent and multiple primary cancers

Research in cancer prevention, cancer biology, and cancer treatment
The Cancer Program, through the Cancer Care Committee, will demonstrate efficiency in terms of quality and outcome of all oncology services provided to the cancer patient. This will be achieved through establishing annual goals and objectives for the clinical, educational, and programmatic activities relating to cancer and the cancer patient.

Chairperson's Summary

I am pleased to present the VAPAHCS Multidisciplinary Cancer Care Program's Annual Report for 2014. This Annual Report provides a comprehensive and detailed overview of the cancer related services and activities available to cancer patients in the VA Palo Alto Health Care System. Overall, we are proud to acknowledge everyone's commitment to our patients, and beginning with the Cancer Registry statistics for 2013, the 2014 Annual Report is an impressive survey and summary of our dedication to quality care through the American College of Surgeon's Commission on Cancer approvals process. The cancer program personnel at the VA Palo Alto Health Care System facilities have done an amazing job in working together across many disciplines to provide patient centered multidisciplinary cancer care.

The cancer program statistics from 2013 show that cancer registry caseload totaled 885 new cases. The number of analytic cases (those both diagnosed and treated here) reached 725 new cases. Prostate cancer is still the most common cancer totaling 165 new cases in 2013. This is an 8% increase from 2012 (152 cases). New skin cancer cases increased 7% from 99 new cases in 2012 to 106 new cases in 2013.

Cancer Program highlights in 2014 included the successful onsite Survey by the American Colleges of Surgeons, Cancer on Commission (CoC) on 11/25/2013. In January 2014, CoC confirmed that Cancer Program had successfully achieved the accreditation award for another 3 years. This Award was given with Commendations at the GOLD level, with 7 commendations, out of 8 commendations possible with no deficiencies found. The surveyor praised the work carried out by the Cancer Program. Cancer Survivors Day on August 11, 2014 was again very successful; it was attended by 131 cancer survivors. In accordance with the theme of "Laughter is the best Medicine," the crowd was thoroughly tickled by Michael Mancini, a recipient of the "World's Funniest Cop" title for three years in a row by former NBC Tonight Show host Jay Leno! The goal of this Cancer Survivors Day was to reinforce the belief that even in extreme situations, laughter can help one's mood and morale, and this was certainly achieved.

Our efforts to provide state of the art care including screening, diagnosis, treatment, survivorship and palliative care ensures that veterans with cancer get the best care available. The staff here at the VA Palo Alto Health Care System is to be congratulated on another outstanding year.

Harlan A. Pinto, MD
Chief, Medical Oncology Section
Chair, Cancer Care Committee

Report from the Cancer Liaison Physician

The Cancer Committee at the Palo Alto Veterans Health Care System (VAPAHCS) is a group of individuals dedicated to the entire spectrum of care for veteran patients with cancer. It is a multidisciplinary group with physician representation including members from but not limited to medical oncology, surgical oncology, radiation oncology, pathology, radiology, hospice, dermatology, gastroenterology, and pain services. In addition, there is broad non-physician representation that includes representatives from nursing, social services, pastoral care, the cancer registry, psychology, quality management, the Chief of Staff's office, and a representative from the American Cancer Society. Many other representatives from the hospital give time and effort to insure the care of the patients. Please refer to the entire cancer committee membership list for a total listing. The entire cancer committee meets quarterly - with monthly administrative meetings by an executive committee.

As the Cancer Liaison Physician, I have the opportunity to serve as a clinical champion of efforts to improve the cancer care for Veterans at the VAPAHCS. This work is often "behind the scenes" and the many people who contribute to this effort often go unrecognized. I would like to take this opportunity to thank everyone on behalf of the Committee for his or her efforts.

John Leppert, MD
Cancer Liaison Physician

Acknowledgements

This 2014 Cancer Program annual report with 2013 Tumor Registry Data and other components activities was prepared to reflect our 2013-2014 efforts to enhance the quality of the VAPAHCS Cancer Program and, thereby the quality of care for the cancer patients.

It is my pleasure to report in the most recent American College of Surgeons (ACoS) - Commission on Cancer (CoC) Cancer Program survey on 11/25/2013, we received the accreditation award for 3 years with commendation at the Gold level with 7 commendations, out of 8 commendations possible. The surveyor was extremely complimentary of the program and did not find any deficiencies. Our thanks go to our cancer program staff and Cancer Care Committee for their dedication and hard work to make the survey successfully. The staff at VA Palo Alto Cancer Program will continue to diligently monitor all aspects of the standard requirements for the CoC-accredited programs to ensure compliance with the Cancer Program Standard of ACoS-CoC.

We held our 5th Biennial Cancer Survivors Day on August 11, 2014. The theme of this event was "Laughter is the Best Medicine" and it was a huge success. We would like to acknowledge our appreciation and thanks to the members of the Multidisciplinary Cancer Care Committee, the clinical staff, the patients, the volunteer service and American Cancer Society representatives and all those who have contributed to the success of this event.

Carole Fong, BSN, RN
Cancer Program Coordinator

TUMOR REGISTRY REPORT - 2013 DATA

The Tumor Registry at VA Palo Alto Health Care System (VAPAHCS) is a data system designed for the collection, management, analysis and follow up of data on patients with a diagnosis of reportable neoplasm. It is one of the required components of National Cancer Strategy under VHA Directive 2003-2004 Policies and American College of Surgeons (ACoS) accredited cancer program. Data collection abstracted for each case comprises information on demography, diagnostic procedures, stage of neoplasm, first course treatment, subsequent treatments, and lifetime annual follow-up.

The data captured and submitted in accordance with the guidelines and procedures are set forth by the ACoS's Commission on Cancer, the State of California, the SEER (Surveillance, Epidemiology and End Results) of the National Cancer Institute, and the VA Central Cancer Registry (VACCR). Tumor registry data is vital for programmatic and administrative planning and a valuable resource for research investigations.

The VAPAHCS is accredited by the Commission on Cancer (CoC) as a Teaching Hospital Cancer Program. Its Cancer Program compliance with the CoC standards is committed to providing the best in cancer diagnosis and treatment. The VAPAHCS's Cancer Program has been currently awarded three years with Commendation for the survey performance of November 25th, 2013. Next survey will be due in November 2016.

The Reference Date of VAPAHCS is January 1, 1977. It refers to the date that all reportable cases were included in the Tumor Registry. Since 1977, there have been 22,171 cases entered into the database. In 2013, there were 885 new cases entered into the tumor registry, 725 analytic cases diagnosed and/or treated here, and 160 non-analytic cases seen here (initially diagnosed and treated somewhere else, presented due to recurrence or progressive diseases).

Lifetime follow-up of patients included in the database supports clinical follow-up & surveillance of additional primaries. Follow-up data includes neoplasm status (free or residual/progressive disease), recurrences, subsequent treatment, and vital status. The Tumor Registry maintains a follow-up of total patients (4246 cases) diagnosed within last five years (2009-2014) with the successful rate is 98%, higher than the required (90%).

Completed data of 2013 cases with accuracy is ready to be submitted on time and to meet the quality criteria as specified in the Call for Data by the National Cancer Data Base in January 2015.

We strive to provide the highest quality database. We endeavor to achieve this through uniformity of data collection, annually physician review of 10% of our new cases, software edit checks, and accurate and timely follow-up information on our patients. Our ultimate goal is to contribute to the prevention and cure of cancer.

Data search and cancer-related information is available. For further information in regards to the data, the registry personnel may be reached at (650) 493-5000 Ext. 63223.

Hiep Doan, CTR
Tumor Registry

2013 VAPAHCS CANCER FREQUENCY BY COUNTY

Analytic and Non-Analytic

Total cancer cases = 885*

Total # of patients =853

* includes patients with multiple cancer types

FROM CALIFORNIA

ALAMEDA	82
AMADOR	1
BUTTE	4
CALAVERAS	14
CONTRA COSTA	16
DEL NORTE	1
EL DORADO	1
FRESNO	29
HUMBOLDT	3
KINGS	4
LAKE	3
LASSEN	1
LOS ANGELES	2
MADERA	7
MARIN	1
MARIPOSA	5
MENDOCINO	1
MERCED	14
MONTEREY	58
NAPA	2
NEVADA	2
PLACER	3
PLUMAS	1
RIVERSIDE	2
SACRAMENTO	3
SAN BENITO	5
SAN DIEGO	2
SAN FRANCISCO	4
SAN JOAQUIN	86
SAN LUIS OBISPO	2
SAN MATEO	60
SANTA CLARA	223
SANTA CRUZ	52
SHASTA	2
SISKIYOU	2
SOLANO	4
SONOMA	3
STANISLAUS	85
TEHAMA	1
TRINITY	1
TULARE	11

From Outside California

Arizona	8
Colorado	1
Florida	1
Hawaii	1
Idaho	1
Missouri	1
Nevada	12
New Mexico	2
Oregon	3
Texas	2
Washington	2
NOT LISTED	17
TOTAL (outside California	**51**

TUOLUMNE	29
YUBA	1
TOTAL (California)	**833**

2013 VAPAHCS Cancer Frequency by Primary Site

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	Primary Site		Analytic	Non Analytic	Male	Female	0	I	II	III	IV	NA	UNK / UNS
C00-C14: LIP, ORAL CAVITY & PHARYNX		40	**31**	**9**	**40**	**0**	**0**	**5**	**2**	**2**	**23**	**0**	**8**
C00.0-C00.4	LIP-ALL		3	0	3	0	0	1	1	0	1	0	0
C01.9	TONGUE BASE		5	0	5	0	0		1	1	3	0	0
C02.9	TONGUE NOS		1	1	2	0	0	1	0	0	0	0	1
C03.0	GUM, UPPER		1	0	1	0	0	0	0	0	1	0	0
C04.0	MOUTH FLOOR, ANTERIOR		0	1	1	0	0	0	0	0	0	0	1
C05.1	PALATE, SOFT NOS		1	0	1	0	0	0	0	0	1	0	0
C06.2-C06.9	MOUTH-ALL		4	1	5	0	0	2	0	0	3	0	0
C09.0-C09.9	TONSIL NOS		9	5	14	0	0	1	0	0	8	0	5
C10.0-C10.9	OROPHARYNX-ALL		3	1	4	0	0	0	0	0	3	0	1
C12.9	PYRIFORM SINUS		1	0	1	0	0	0	0	1	0	0	0
C13.0-C13.9	HYPOPHARYNX		3	0	3	0	0	0	0	0	3	0	0
C15-C26: DIGESTIVE ORGANS		163	137	26	159	4	2	34	21	31	39	1	35
C15.0-C15.9	ESOPHAGUS-ALL		15	6	21	0	1	1	0	4	9	0	6
C16.0-C16.9	STOMACH-ALL		15	2	16	1	0	1	4	3	6	0	3

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	Primary Site		Analytic	Non Analytic	Male	Female	0	I	II	III	IV	NA	UNK / UNS
C17.0-C17.9	SMALL INTESTINE-ALL		2	1	2	1	0	1	0	1	0	0	1
C18.0-C18.9	COLON-ALL		26	9	35	0	0	5	6	6	4	0	14
C19.9	RECTOSIGMOID JUNCTIO		1	0	1	0	0	0	1	0	0	0	0
C20.9	RECTUM NOS		14	2	16	0	1	8	2	2	0	0	3
C21.0	ANUS NOS		0	1	1	0	0	0	0	0	0	0	1
C22.0-C22.1	LIVER/INTRAHEPATIC		40	1	40	1	0	15	4	11	9	0	2
C23.9	GALLBLADDER		1	0	1	0	0	0	0	0	1	0	0
C24.0	BILE DUCT, EXTRAHEPA		3	0	3	0	0	0	1	2	0	0	0
C24.1	AMPULLA OF VATER		2	0	2	0	0	0	1	0	1	0	0
C24.9	BILIARY TRACT NOS		1	0	1	0	0	0	0	0	0	1	0
C25.0-C25.9	PANCREAS-ALL		17	4	20	1	0	3	2	2	9	0	5
C30-C39: RESPIRATORY/THORACIC		153	129	24	153	0	1	31	19	22	54	2	24
C30.0	NASAL CAVITY		2	0	2	0	0	0	1	0	1	0	0
C31.8	SINUS, ACCESSORY OVE		1	0	1	0	0	0	0	0	0	1	0
C32.0-C32.0	LARYNX-ALL		11	4	15	0	1	0	2	2	6	0	4
C34.0 - C34.9	LUNG-ALL		111	20	131	0	0	30	16	18	47	0	20
C37.9	THYMUS		1	0	1	0	0	0	0	0	0	1	0
C38.4	PLEURA		3	0	3	0	0	1	0	2	0	0	0

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	Primary Site		Analytic	Non Analytic	Male	Female	0	I	II	III	IV	NA	UNK / UNS
C40.0-C41.4 BONES		4	4	0	4	0	0	0	1	0	1	1	1
C40.0	BONES, UPPER LIMB		2	0	2	0	0	0	1	0	0	1	0
C41.2	BONES, VERTEBRAL		1	0	1	0	0	0	0	0	1	0	0
C41.4	BONES, PELVIS, SACRUM		1	0	1	0	0	0	0	0	0	0	1
C42: HEMATOPOIETIC AND RETICULOENDOTHELIAL		46	38	8	45	1	0	0	0	0	1	45	0
C42.0-C42.1	BLOOD/BONE MARROW		38	8	45	1	0	0	0	0	1	45	0
C44: SKIN		106	98	8	106	0	40	33	10	6	6	2	9
C44.0-C44.9	SKIN-ALL		98	8	106	0	40	33	10	6	6	2	9
C47.1 PERIPHERAL NERVES		1	0	1	1	0	0	0	0	0	0	0	1
C47.1	NERVES, UPPER LIMB		0	1	1	0	0	0	0	0	0	0	1
C48.2 PERITONEUM		1	1	0	1	0	0	0	0	0	0	0	1
C48.2	PERITONEUM NOS		1	0	1	0	0	0	0	0	0	0	1

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	Primary Site		Analytic	Non Analytic	Male	Female	0	I	II	III	IV	NA	UNK / UNS
C49.0-C49.9 CONNECTIVE/SOFT TISSUES		9	8	1	9	0	0	1	3	3	1	0	1
C49.0-C49.9	SOFT TISSUES-ALL		8	1	9	0	0	1	3	3	1	0	1
C50 BREAST		13	8	5	1	12	1	3	4	0	0	0	5
C50.0-C50-9	BREAST-ALL		8	5	1	12	1	3	4	0	0	0	5
C51-C58 FEMALE GENITAL ORGANS		7	2	5	0	7	0	2	0	0	0	0	5
C51.9	VULVA NOS		0	2	0	2	0	0	0	0	0	0	2
C53.0-C53.9	CERVIX, ENDOCERVIX		0	2	0	2	0	0	0	0	0	0	2
C54.1	ENDOMETRIUM		2	1	0	3	0	2	0	0	0	0	1
C60-C63 MALE GENITAL ORGANS		170	133	37	170	0	1	34	67	8	22	0	38
C60.1-C60-9	PENIS		1	1	2	0	1	0	0	0	0	0	1
C61.9	PROSTATE		129	36	165	0	0	31	67	8	22	0	37
C62.1-C62.9	TESTIS-ALL		3	0	3	0	0	3	0	0	0	0	0

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	Primary Site		Analytic	Non Analytic	Male	Female	0	I	II	III	IV	NA	UNK / UNS
C64-C68 URINARY TRACT		108	91	17	105	3	31	33	7	5	9	5	18
C64.9	KIDNEY		34	4	36	2	0	22	1	3	5	2	5
C65.0-C65.9	RENAL PELVIS		3	2	5	0	2	0	0	1	0	0	2
C66.9	URETER		4	1	4	1	2	0	0	0	2	0	1
C67.0-C67.9	BLADDER-ALL		47	10	57	0	27	11	6	1	2	0	10
C68.9	URINARY SYSTEM NOS		3	0	3	0	0	0	0	0	0	3	0
C69-C72: EYE/BRAIN/OTHERS		15	12	3	15	0	0	0	0	0	0	12	3
C69.6	EYE, ORBIT NOS		1	1	2	0	0	0	0	0	0	1	1
C70.0	MENINGES, CEREBRAL		2	0	2	0	0	0	0	0	0	2	0
C71.1-C71.9	BRAIN-ALL		7	2	9	0	0	0	0	0	0	7	2
C72.1	SPINAL CORD,CRANAL NERVES		2	0	2	0	0	0	0	0	0	2	0
C73-C75: THYROID/OTHER ENDOCRINE		10	7	3	8	2	0	4	0	1	1	1	3
C73.9	THYROID GLAND		6	1	6	1	I	4	0	1	1	0	1
C75.1	PITUITARY		1	2	2	1	0	0	0	0	0	1	2

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	Primary Site		Analytic	Non Analytic	Male	Female	0	I	II	III	IV	NA	UNK / UNS
C76:OTHER/ILL DEFINED SITES		1	0	1	1	0	0	0	0	0	0	1	0
C76.0	HEAD,FACE,NECK NOS		0	1	1	0	0	0	0	0	0	1	0
C77: LYMPH NODES		28	18	11	29	0	0	3	4	2	9	0	10
C77.0-C77.9	LYMPH NODES-ALL		17	11	28	0	0	3	4	2	9	0	10
C80: UNKNOWN PRIMARY		10	9	1	10	0	0	0	0	0	1	0	9
C80.9	UNKNOWN PRIMARY		9	1	10	0	0	0	0	0	1	0	9
	Totals	**885**	**725**	**160**	**856**	**29**	**76**	**183**	**138**	**80**	**167**	**70**	**171**

ALL CANCER TYPES (2013) – NUMBER OF CASES PER CANCER TYPE (ALPHABETICAL ORDER)

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	Primary Site		Analytic	Non Analytic	Male	Female	0	I	II	III	IV	NA	UNK
C24.1	AMPULLA OF VATER	2	2	0	2	0	0	0	1	0	1	0	0
C21.0	ANUS NOS	1	0	1	1	0	0	0	0	0	0	0	1
C24.0	BILE DUCT, EXTRAHEPATIC	3	3	0	3	0	0	0	1	2	0	0	0
C24.9	BILIARY TRACT NOS	1	1	0	1	0	0	0	0	0	0	1	0
C67.0 - C67.9	BLADDER-ALL	57	47	10	57	0	27	11	6	1	2	0	10
C42.0 - C42.1	BLOOD/BONE MARROW	46	38	8	45	1	0	0	0	0	1	45	0
C41.4	BONES, PELVIS, SACRUM	1	1	0	1	0	0	0	0	0	0	0	1
C40.0	BONES, UPPER LIMB	2	2	0	2	0	0	0	1	0	0	1	0
C41.2	BONES, VERTEBRAL	1	1	0	1	0	0	0	0	0	1	0	0
C71.1 - C71.9	BRAIN-ALL	9	7	2	9	0	0	0	0	0	0	7	2
C50.0 -C50-9	BREAST-ALL	13	8	5	1	12	1	3	4	0	0	0	5
C53.0 - C53.9	CERVIX, ENDOCERVIX	2	0	2	0	2	0	0	0	0	0	0	2
C18.0 - C18.9	COLON-ALL	35	26	9	35	0	0	5	6	6	4	0	14
C54.1	ENDOMETRIUM	3	2	1	0	3	0	2	0	0	0	0	1
C15.0 - C15.9	ESOPHAGUS-ALL	21	15	6	21	0	1	1	0	4	9	0	6
C69.6	EYE, ORBIT NOS	2	1	1	2	0	0	0	0	0	0	1	1
C23.9	GALLBLADDER	1	1	0	1	0	0	0	0	0	1	0	0

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	Primary Site		Analytic	Non Analytic	Male	Female	0	I	II	III	IV	NA	UNK
C03.0	GUM, UPPER	1	1	0	1	0	0	0	0	0	1	0	0
C76.0	HEAD,FACE, NECK NOS	1	0	1	1	0	0	0	0	0	0	1	0
C13.0 - C13.9	HYPOPHARYNX	3	3	0	3	0	0	0	0	0	3	0	0
C64.9	KIDNEY	38	34	4	36	2	0	22	1	3	5	2	5
C32.0 - C32.0	LARYNX-ALL	15	11	4	15	0	1	0	2	2	6	0	4
C00.0 - C00.4	LIP-ALL	3	3	0	3	0	0	1	1	0	1	0	0
C22.0 - C22.1	LIVER/INTRA HEPATIC	41	40	1	40	1	0	15	4	11	9	0	2
C34.0 - C34.9	LUNG-ALL	131	111	20	131	0	0	30	16	18	47	0	20
C77.0 - C77.9	LYMPH NODES-ALL	28	17	11	28	0	0	3	4	2	9	0	10
C70.0	MENINGES, CEREBRAL	2	2	0	2	0	0	0	0	0	0	2	0
C04.0	MOUTH FLOOR, ANTERIOR	1	0	1	1	0	0	0	0	0	0	0	1
C06.2 - C06.9	MOUTH-ALL	5	4	1	5	0	0	2	0	0	3	0	0
C30.0	NASAL CAVITY	2	2	0	2	0	0	0	1	0	1	0	0
C47.1	NERVES, UPPER LIMB	1	0	1	1	0	0	0	0	0	0	0	1
C10.0 - C10.9	OROPHARYNX-ALL	4	3	1	4	0	0	0	0	0	3	0	1
C05.1	PALATE, SOFT NOS	1	1	0	1	0	0	0	0	0	1	0	0
C25.0 - C25.9	PANCREAS-ALL	21	17	4	20	1	0	3	2	2	9	0	5
C60.1 -C60-9	PENIS	2	1	1	2	0	1	0	0	0	0	0	1
C48.2	PERITONEUM NOS	1	1	0	1	0	0	0	0	0	0	0	1

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	Primary Site		Analytic	Non Analytic	Male	Female	0	I	II	III	IV	NA	UNK
C75.1	PITUITARY	3	1	2	2	1	0	0	0	0	0	1	2
C38.4	PLEURA, NOS	3	3	0	3	0	0	1	0	2	0	0	0
C61.9	PROSTATE	165	129	36	165	0	0	31	67	8	22	0	37
C12.9	PYRIFORM SINUS	1	1	0	1	0	0	0	0	1	0	0	0
C19.9	RECTOSIGMOID JUNCTION	1	1	0	1	0	0	0	1	0	0	0	0
C20.9	RECTUM NOS	16	14	2	16	0	1	8	2	2	0	0	3
C65.0 - C65.9	RENAL PELVIS	5	3	2	5	0	2	0	0	1	0	0	2
C31.8	SINUS, ACCESSORY	1	1	0	1	0	0	0	0	0	0	1	0
C44.0 - C44.9	SKIN-ALL	106	98	8	106	0	40	33	10	6	6	2	9
C17.0 - C17.9	SMALL INTESTINE-ALL	3	2	1	2	1	0	1	0	1	0	0	1
C49.0 - C49.9	SOFT TISSUES-ALL	9	8	1	9	0	0	1	3	3	1	0	1
C72.1	SPINAL CORD,CRANAL NERVES	2	2	0	2	0	0	0	0	0	0	2	0
C16.0 - C16.9	STOMACH-ALL	17	15	2	16	1	0	1	4	3	6	0	3
C62.1 - C62.9	TESTIS-ALL	3	3	0	3	0	0	3	0	0	0	0	0
C37.9	THYMUS	1	1	0	1	0	0	0	0	0	0	1	0
C73.9	THYROID GLAND	7	6	1	6	1	I	4	0	1	1	0	1
C01.9	TONGUE BASE	5	5	0	5	0	0		1	1	3	0	0
C02.9	TONGUE NOS	2	1	1	2	0	0	1	0	0	0	0	1
C09.0 - C09.9	TONSIL NOS	14	9	5	14	0	0	1	0	0	8	0	5
C80.9	UNKNOWN PRIMARY	10	9	1	10	0	0	0	0	0	1	0	9
C66.9	URETER	5	4	1	4	1	2	0	0	0	2	0	1

GROUP SITE		TOTAL CASES	CLASS OF CASE		SEX		AJCC STAGE						
ICD-9	**Primary Site**		**Analytic**	**Non Analytic**	**Male**	**Female**	**0**	**I**	**II**	**III**	**IV**	**NA**	**UNK**
C68.9	URINARY SYSTEM NOS	3	3	0	3	0	0	0	0	0	0	3	0
C51.9	VULVA NOS	2	0	2	0	2	0	0	0	0	0	0	2
	TOTAL	885	**725**	**160**	**856**	**29**	**76**	**183**	**138**	**80**	**167**	**70**	**171**

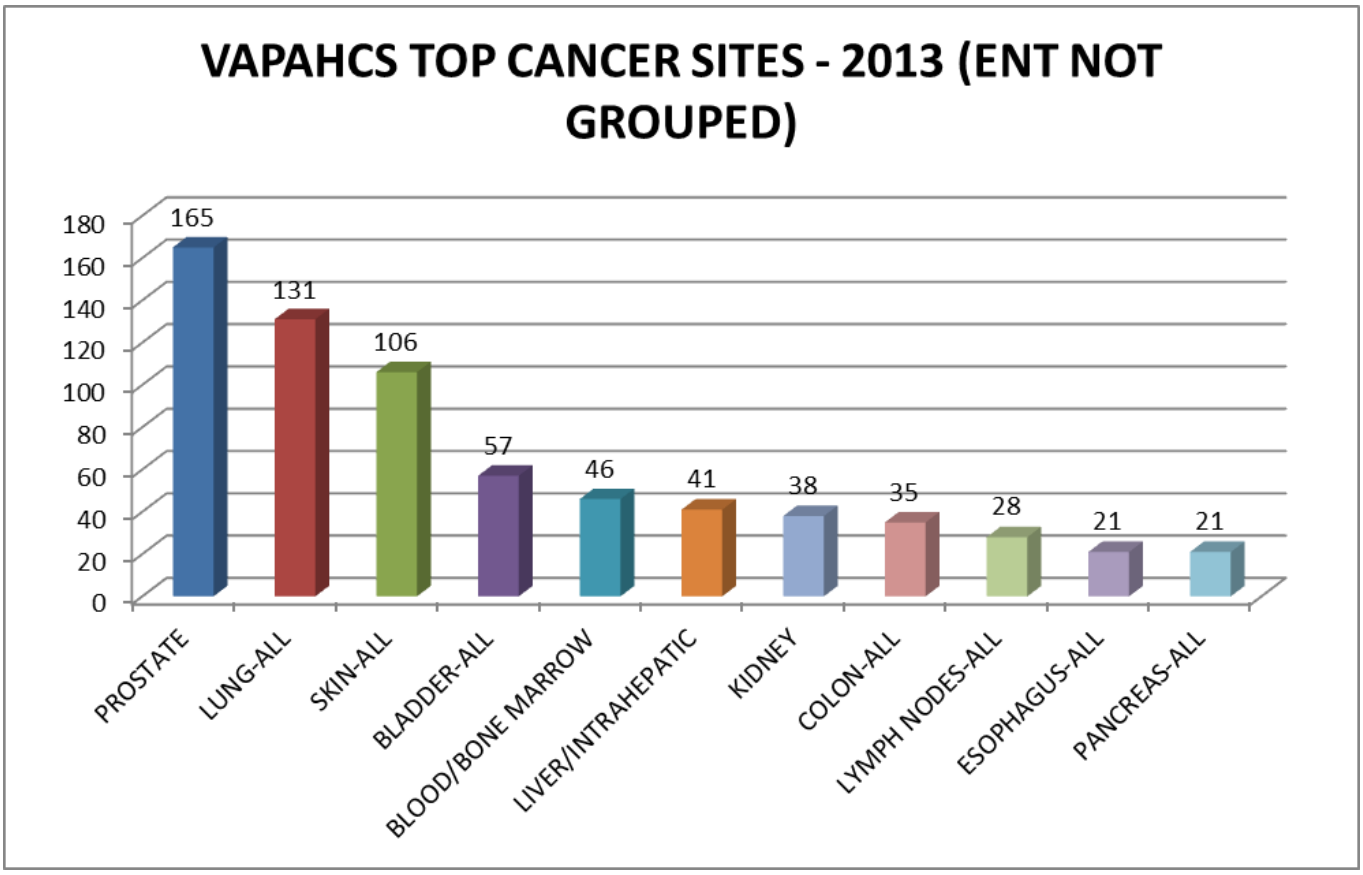
2013 VAPAHCS TOP TEN CANCER SITES

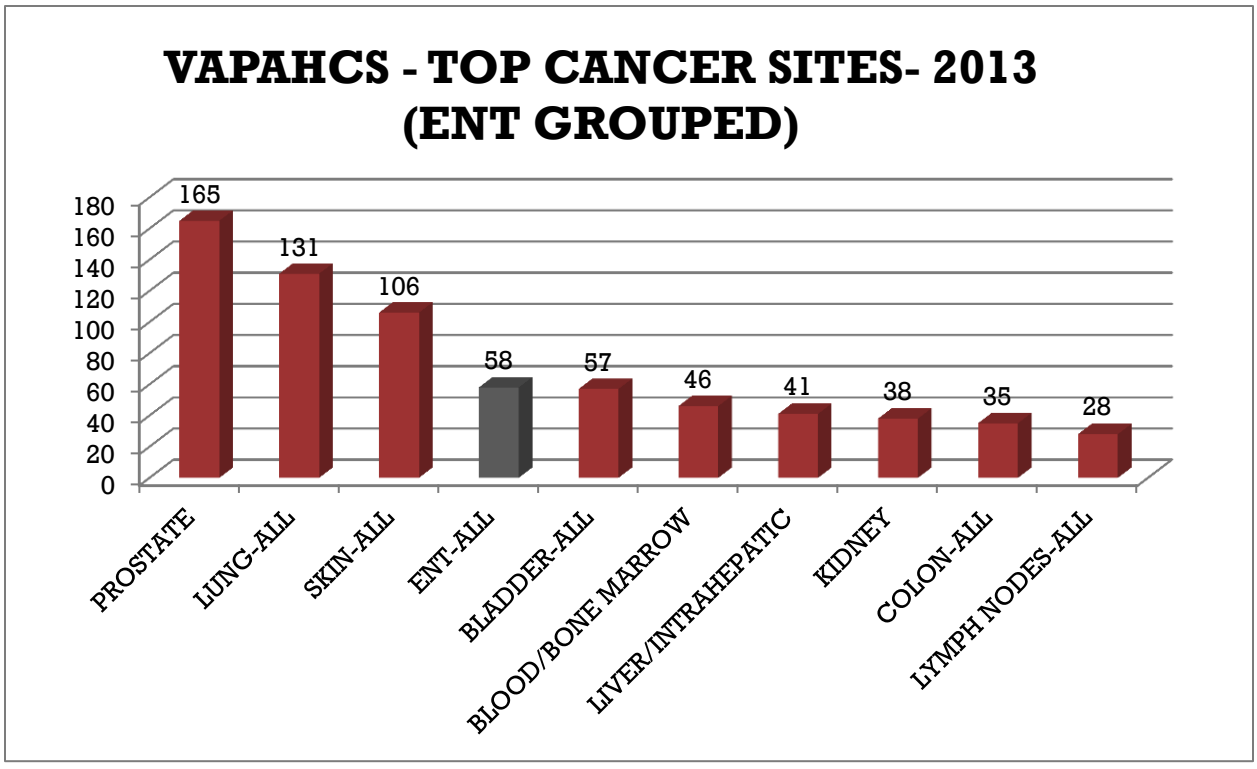
RANK	ICD-9	PRIMARY SITE	TOTALS	PERCENT	ANALYTIC	NON ANALYTIC	MALE	FEMALE	0	I	II	III	IV	NA	UNK/UNS
1	C61.9	PROSTATE	165	19%	129	36	165	0	0	31	67	8	22	0	37
2	C34.0 - C34.9	LUNG-ALL	131	15%	111	20	131	0	0	30	16	18	47	0	20
3	C44.0 - C44.9	SKIN-ALL	106	12%	98	8	106	0	40	33	10	6	6	2	9
4	C67.0 - C67.9	BLADDER-ALL	57	6%	47	10	57	0	27	11	6	1	2	0	10
5	C42.0 - C42.1	BLOOD/ BONE MARROW	46	5%	38	8	45	1	0	0	0	0	1	45	0
6	C22.0 - C22.1	LIVER/INTRAHEPATIC	41	5%	40	1	40	1	0	15	4	11	9	0	2
7	C64.9	KIDNEY	38	4%	34	4	36	2	0	22	1	3	5	2	5
8	C18.0 - C18.9	COLON-ALL	35	4%	26	9	35	0	0	5	6	6	4	0	14
9	C77.0 - C77.9	LYMPH NODES-ALL	28	3%	17	11	28	0	0	3	4	2	9	0	10
10	C15.0 - C15.9	ESOPHAGUS-ALL	21	2%	15	6	21	0	1	1	0	4	9	0	6
10	C25.0 - C25.9	PANCREAS-ALL	21	2%	17	4	20	1	0	3	2	2	9	0	5
TOTAL OF TOP TEN SITES (ENT NOT GROUPED)			689	78%	**572**	**117**	**684**	**5**	**68**	**154**	**116**	**61**	**123**	**49**	**118**

2013 VAPAHCS TOP TEN CANCER SITES (ENT GROUPED)

If all Head and Neck cancer cases were grouped together, this group would be among the top 5 Cancer types

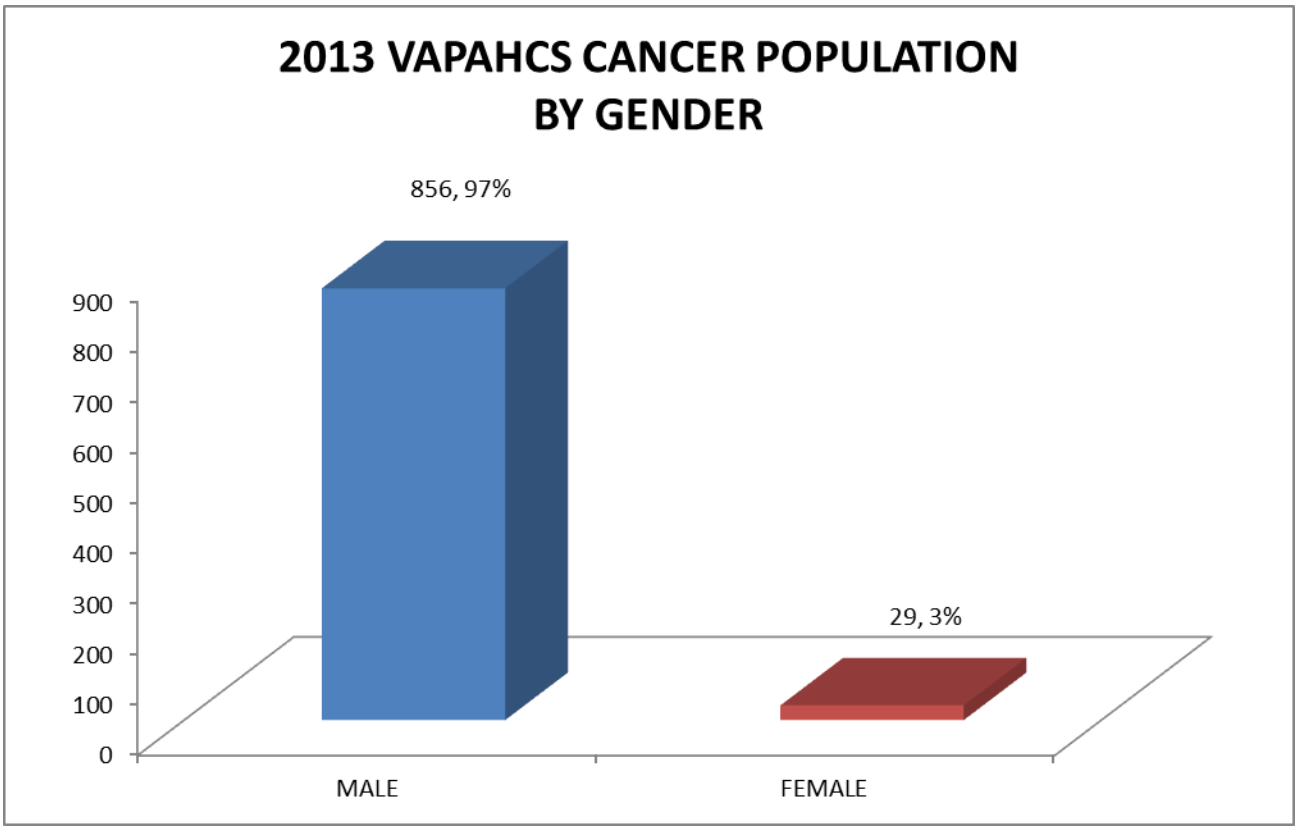
Rank	ICD-9	PRIMARY SITE	TOTALS	%	ANALYTIC	NON ANALYTIC	MALE	FEMALE	0	I	II	III	IV	NA	UNK/UNS
1	C61.9	PROSTATE	165	19%	129	36	165	0	0	31	67	8	22	0	37
2	C00	LUNG-ALL	131	15%	111	20	131	0	0	30	16	18	47	0	20
3	C44.0-C44.9	SKIN-ALL	106	12%	98	8	106	0	40	33	10	6	6	2	9
4	C00.0-C13.0;C30.0-C32.0	ENT-ALL	58	7%	45	13	58	0	1	5	5	4	30	1	12
5	C67.0-C67.9	BLADDER-ALL	57	6%	47	10	57	0	27	11	6	1	2	0	10
6	C42.0-C42.1	BLOOD/BONE MARROW	46	5%	38	8	45	1	0	0	0	0	1	45	0
7	C22.0-C22.1	LIVER/INTRAHEPATIC	41	5%	40	1	40	1	0	15	4	11	9	0	2
8	C64.9	KIDNEY	38	4%	34	4	36	2	0	22	1	3	5	2	5
9	C18.0-C18.9	COLON-ALL	35	4%	26	9	35	0	0	5	6	6	4	0	14
10	C77.0-C77.9	LYMPH NODES-ALL	28	3%	17	11	28	0	0	3	4	2	9	0	10
TOTAL OF TOP TEN SITES (ENT GROUPED)			**705**	**80%**	**585**	**120**	**701**	**4**	**68**	**155**	**119**	**59**	**135**	**50**	**119**


VAPAHCS TOP CANCER SITES - 2013 (ENT NOT GROUPED)
180
160
140
120
100
80
60
40
20
0
165
131
106
57
46
41
38
35
28
21
21
PROSTATE
LUNG-ALL
SKIN-ALL
BLADDER-ALL
BLOOD/BONE MARROW
LIVER/INTRAHEPATIC
KIDNEY
COLON-ALL
LYMPH NODES-ALL
ESOPHAGUS-ALL
PANCREAS-ALL


VAPAHCS - TOP CANCER SITES- 2013 (ENT GROUPED)
180
160
140
120
100
80
60
40
20
0
165
131
106
58
57
46
41
38
35
28
PROSTATE
LUNG-ALL
SKIN-ALL
ENT-ALL
BLADDER-ALL
BLOOD/BONE MARROW
LIVER/INTRAHEPATIC
KIDNEY
COLON-ALL
LYMPH NODES-ALL

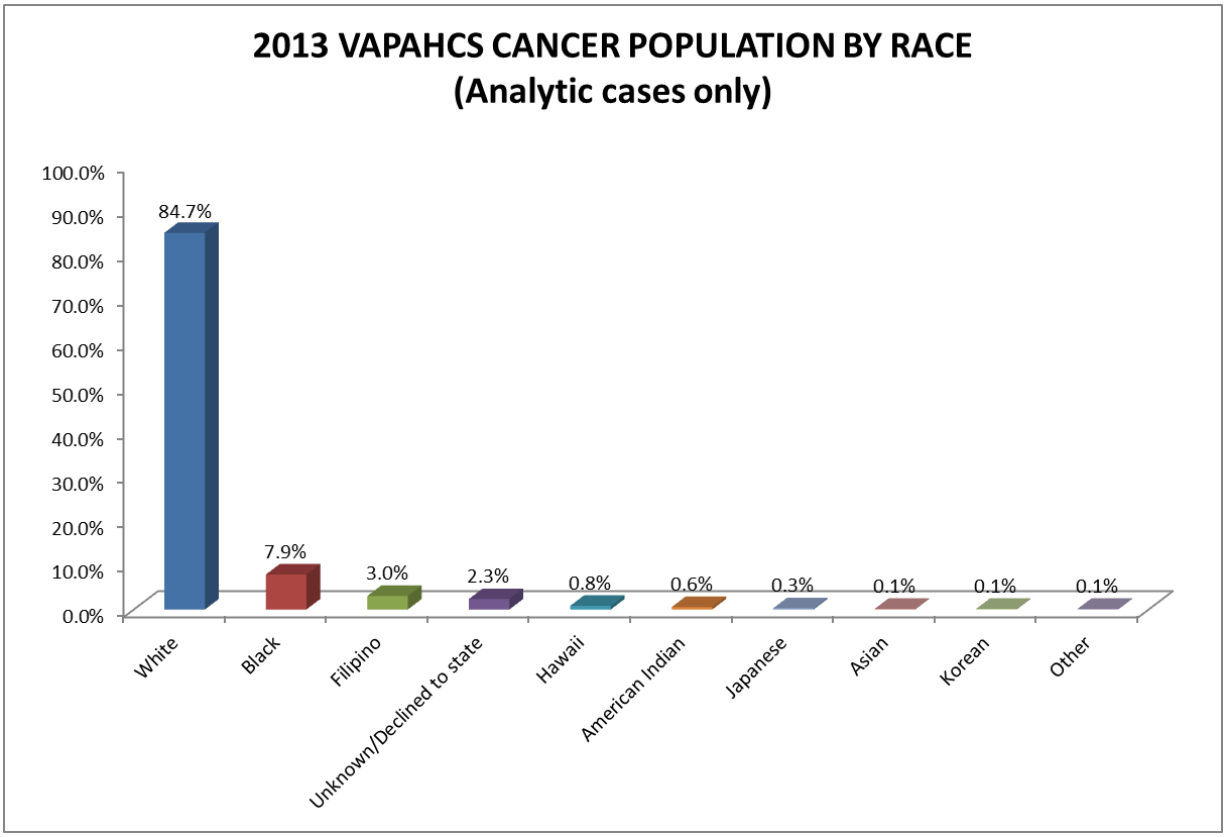
2013 VAPAHCS CANCER POPULATION BY GENDER

SITE GROUP	TOTAL CASES	MALE	FEMALE	MALE	FEMALE
ALL SITES	885	856	29	97%	3%



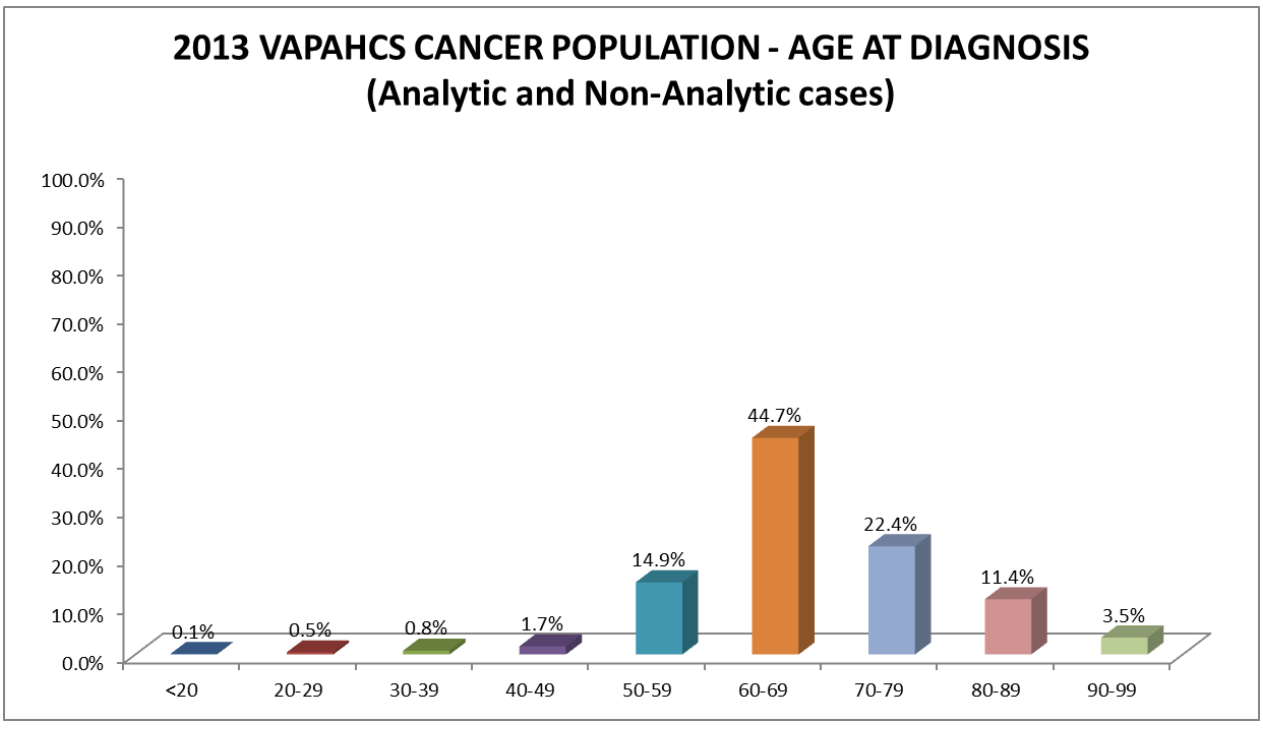
2013 VAPAHCS CANCER POPULATION BY RACE – ANALYTIC CASES ONLY (725)

RACE	%	#
White	84.7%	614
Black	7.9%	57
Filipino	3.0%	22
Unknown/Declined to state	2.3%	17
Hawaii	0.8%	6
American Indian	0.6%	4
Japanese	0.3%	2
Asian	0.1%	1
Korean	0.1%	1
Other	0.1%	1
TOTAL	**100.0%**	**725**



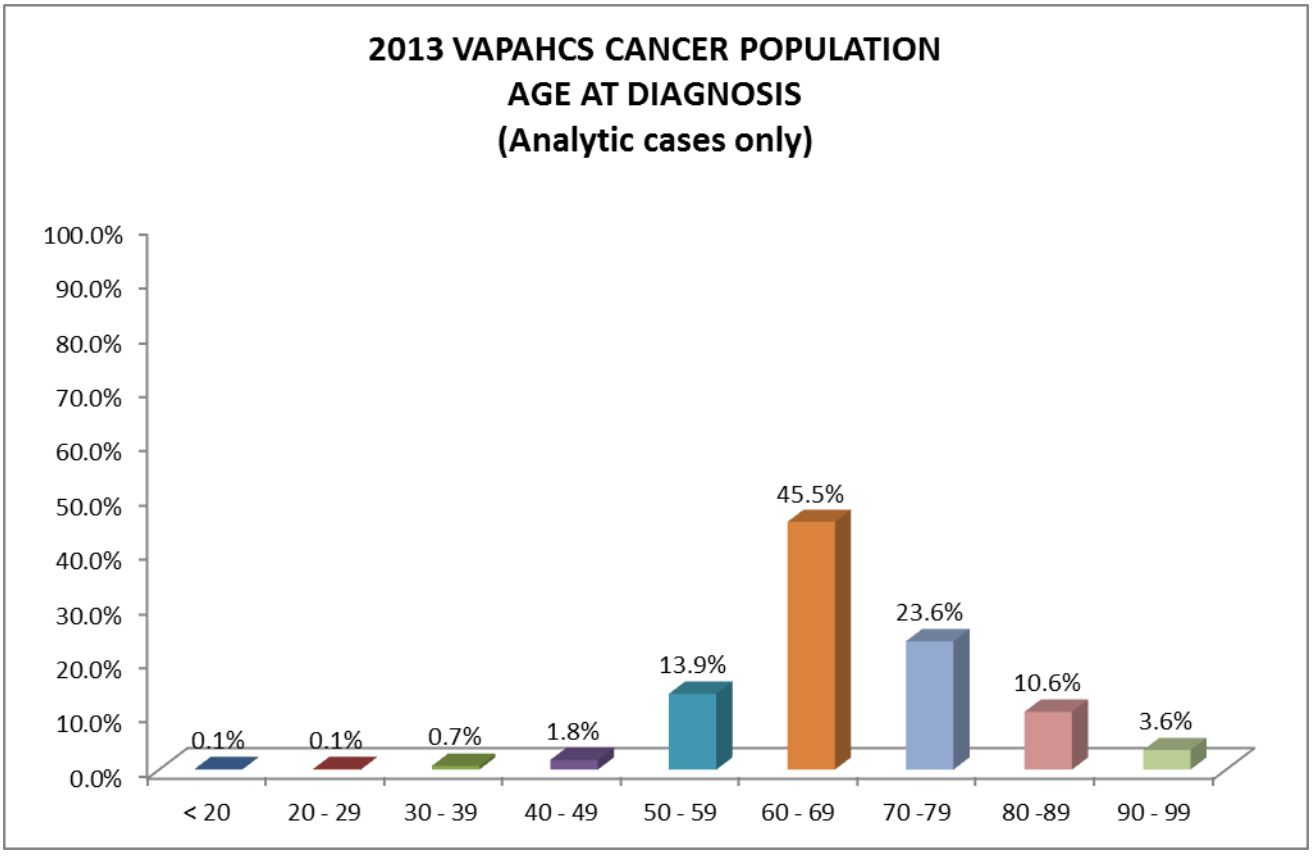
2013 VAPAHCS CANCER POPULATION – AGE AT DIAGNOSIS (Analytic and Non-Analytic)

AGE AT DX	%	#
<20	0.1%	1
20-29	0.5%	4
30-39	0.8%	7
40-49	1.7%	15
50-59	14.9%	132
60-69	44.7%	396
70-79	22.4%	198
80-89	11.4%	101
90-99	3.5%	31
	100.0%	885



2013 VAPAHCS CANCER POPULATION – AGE AT DIAGNOSIS (Analytic Only)

AGE AT DX RANGE	%	#
< 20	0.1%	1
20 - 29	0.1%	1
30 - 39	0.7%	5
40 - 49	1.8%	13
50 - 59	13.9%	101
60 - 69	45.5%	330
70 - 79	23.6%	171
80 - 89	10.6%	77
90 - 99	3.6%	26
	100.0%	725

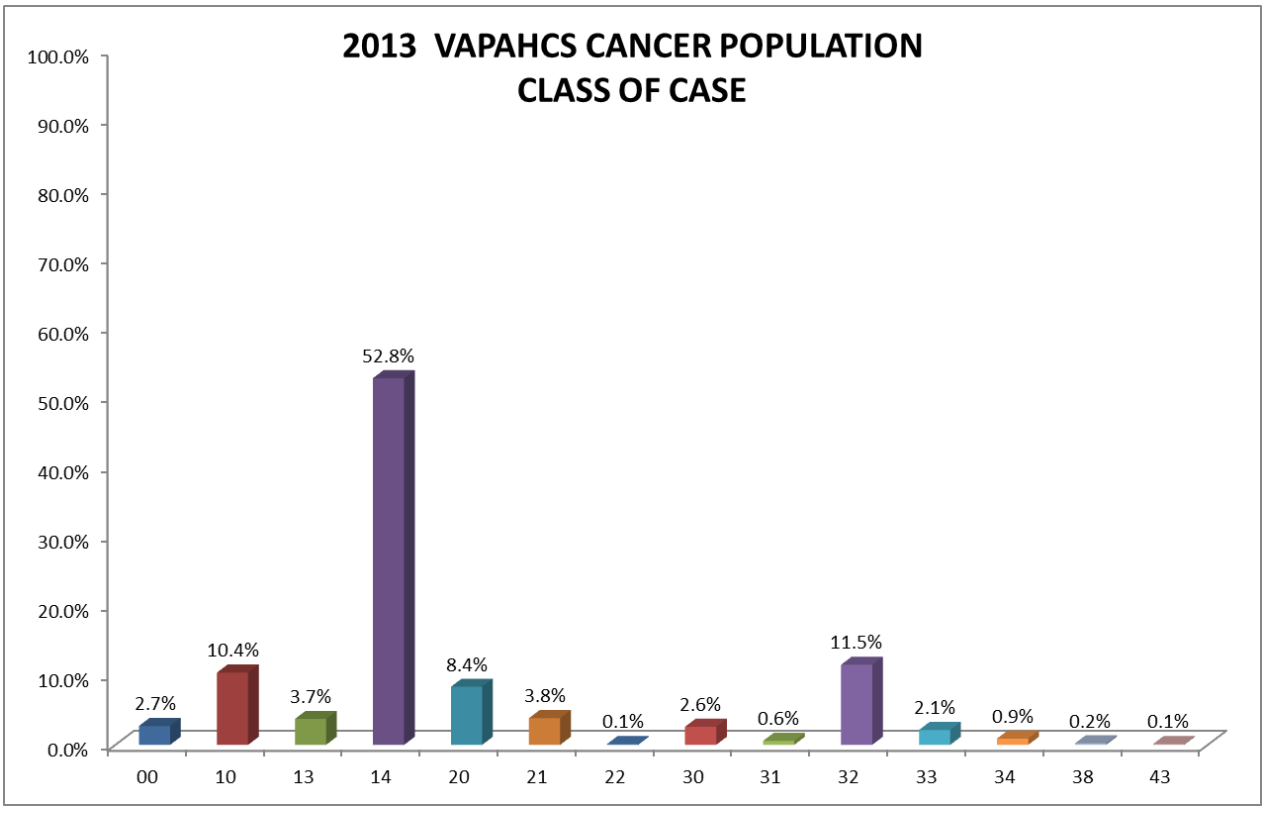


2013 VAPAHCS CANCER POPULATION – CLASS OF CASE

CLASS OF CASE - 2011		
TOTAL CASES		**885**
ANALYTIC CASES		
Class 00: Initial diagnosis at the reporting facility AND all treatment or a decision not to treat was done elsewhere	24	
Class 10: Initial diagnosis at the reporting facility or in a staff physician's office AND part or all of first course treatment or a decision not to treat was at the reporting facility, NOS	92	
Class 13: Initial diagnosis at the reporting facility AND part of first course treatment was done at the reporting facility	33	
Class 14: Initial diagnosis at the reporting facility AND all first course treatment or a decision not to treat was done at the reporting facility	467	
Class 20: Initial diagnosis elsewhere AND all or part of first course treatment was done at the reporting facility, NOS	74	
Class 21: Initial diagnosis elsewhere AND part of first course treatment was done at the reporting facility	34	
Class 22: Initial diagnosis elsewhere AND all first course treatment or a decision not to treat was done at the reporting facility	1	
TOTAL ANALYTIC CASES		725
NON-ANALYTIC		
Class 30: Initial diagnosis and all first course treatment elsewhere AND reporting facility participated in diagnostic workup (for example, consult only, staging workup after initial diagnosis elsewhere)	23	
Class 31: Initial diagnosis and all first course treatment provided elsewhere AND reporting facility provided in-transit care	5	
Class 32: Diagnosis AND all first course treatment provided elsewhere AND patient presents at reporting facility with disease recurrence or persistence	102	
Class 33: Diagnosis AND all first course treatment provided elsewhere AND patient presents at reporting facility with disease history only	19	
Class 34: Type of case not required by CoC to be accessioned AND initial diagnosis AND part or all of first course treatment by reporting facility	8	
Class 38: Initial diagnosis established by autopsy at the reporting facility, cancer not suspected prior to death	2	
Class 43: Pathology or other lab specimens only	1	
TOTAL NON-ANALYTIC CASES		160

2013 VAPAHCS CANCER POPULATION CLASS OF CASE (COC)

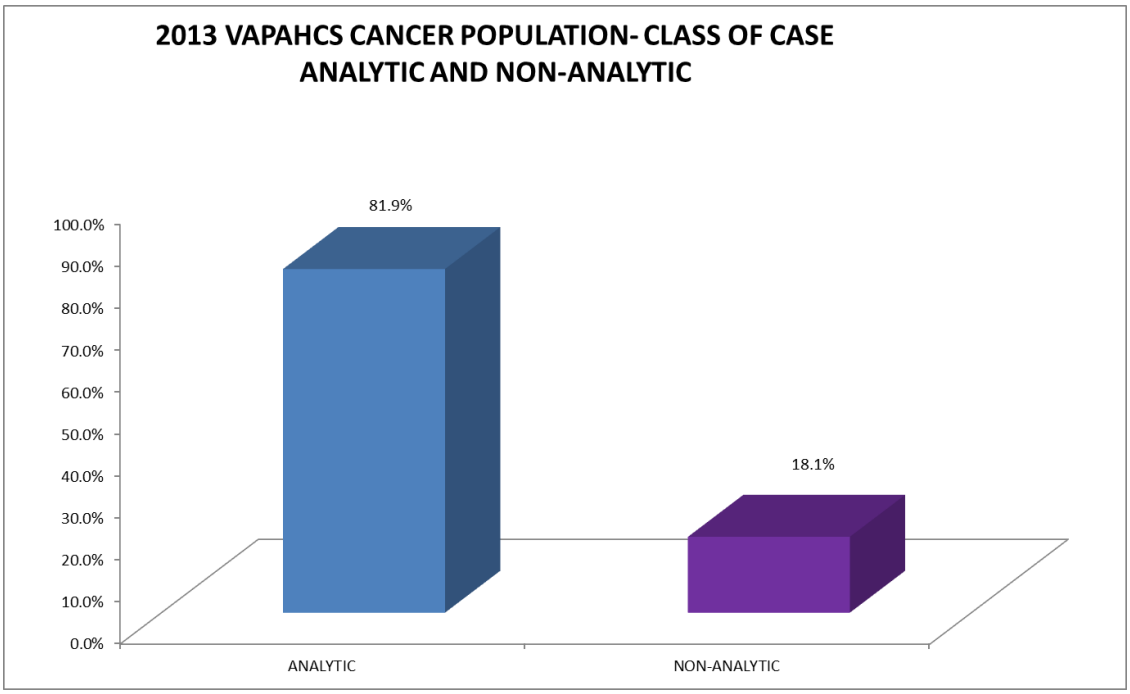
CLASS OF CLASS	%	#	CLASS CATEGORY
00	2.7%	24	ANALYTIC
10	10.4%	92	ANALYTIC
13	3.7%	33	ANALYTIC
14	52.8%	467	ANALYTIC
20	8.4%	74	ANALYTIC
21	3.8%	34	ANALYTIC
22	0.1%	1	ANALYTIC
30	2.6%	23	NON-ANALYTIC
31	0.6%	5	NON-ANALYTIC
32	11.5%	102	NON-ANALYTIC
33	2.1%	19	NON-ANALYTIC
34	0.9%	8	NON-ANALYTIC
38	0.2%	2	NON-ANALYTIC
43	0.1%	1	NON-ANALYTIC
	100.0%	885	



2013 VAPAHCS CANCER POPULATION- CLASS OF CASE

Analytic and Non-Analytic

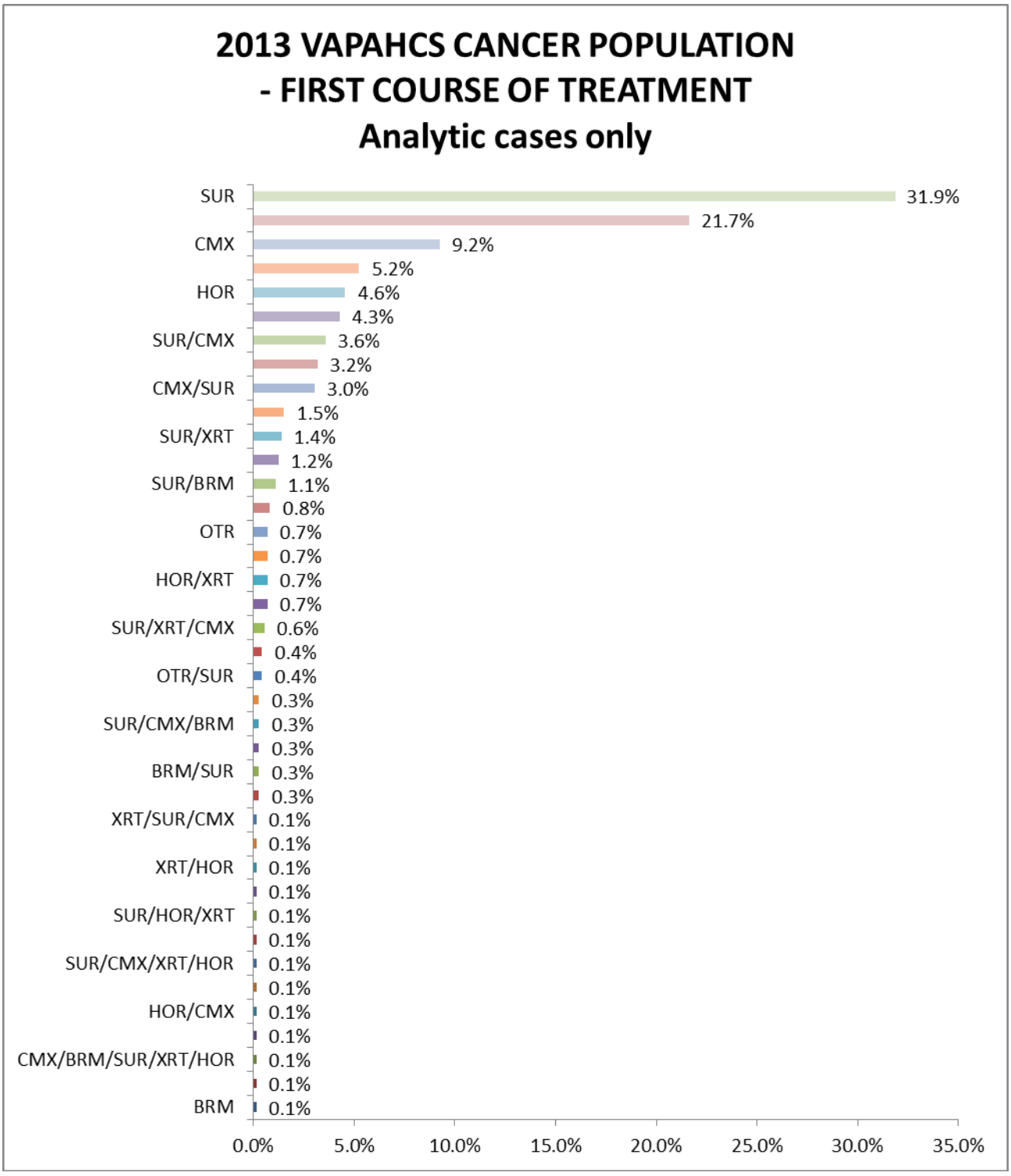
CLASS CATEGORY	%	#
ANALYTIC	81.9%	725
NON-ANALYTIC	18.1%	160
	100.0%	885



FIRST COURSE OF TREATMENT	%	#
BRM	0.1%	1
BRM/CMX/SUR	0.1%	1
CMX/BRM/SUR/XRT/HOR	0.1%	1
CMX/SUR/HOR	0.1%	1
HOR/CMX	0.1%	1
OTR/CMX	0.1%	1
SUR/CMX/XRT/HOR	0.1%	1
SUR/HOR	0.1%	1
SUR/HOR/XRT	0.1%	1
XRT/CMX/HOR	0.1%	1
XRT/HOR	0.1%	1
XRT/SUR	0.1%	1
XRT/SUR/CMX	0.1%	1
BRM/CMX	0.3%	2
BRM/SUR	0.3%	2
CMX/HOR/XRT	0.3%	2
SUR/CMX/BRM	0.3%	2
SUR/XRT/HOR	0.3%	2
OTR/SUR	0.4%	3
XRT/CMX/SUR	0.4%	3
SUR/XRT/CMX	0.6%	4
CMX/HOR	0.7%	5
HOR/XRT	0.7%	5
NONE	0.7%	5
OTR	0.7%	5
CMX/XRT/SUR	0.8%	6
SUR/BRM	1.1%	8
SUR/CMX/XRT	1.2%	9
SUR/XRT	1.4%	10
CMX/SUR/BRM	1.5%	11
CMX/SUR	3.0%	22
XRT/CMX	3.2%	23
SUR/CMX	3.6%	26
XRT	4.3%	31
HOR	4.6%	33
CMX/XRT	5.2%	38
CMX	9.2%	67
NTX	21.7%	157
SUR	31.9%	231
	100.0%	725

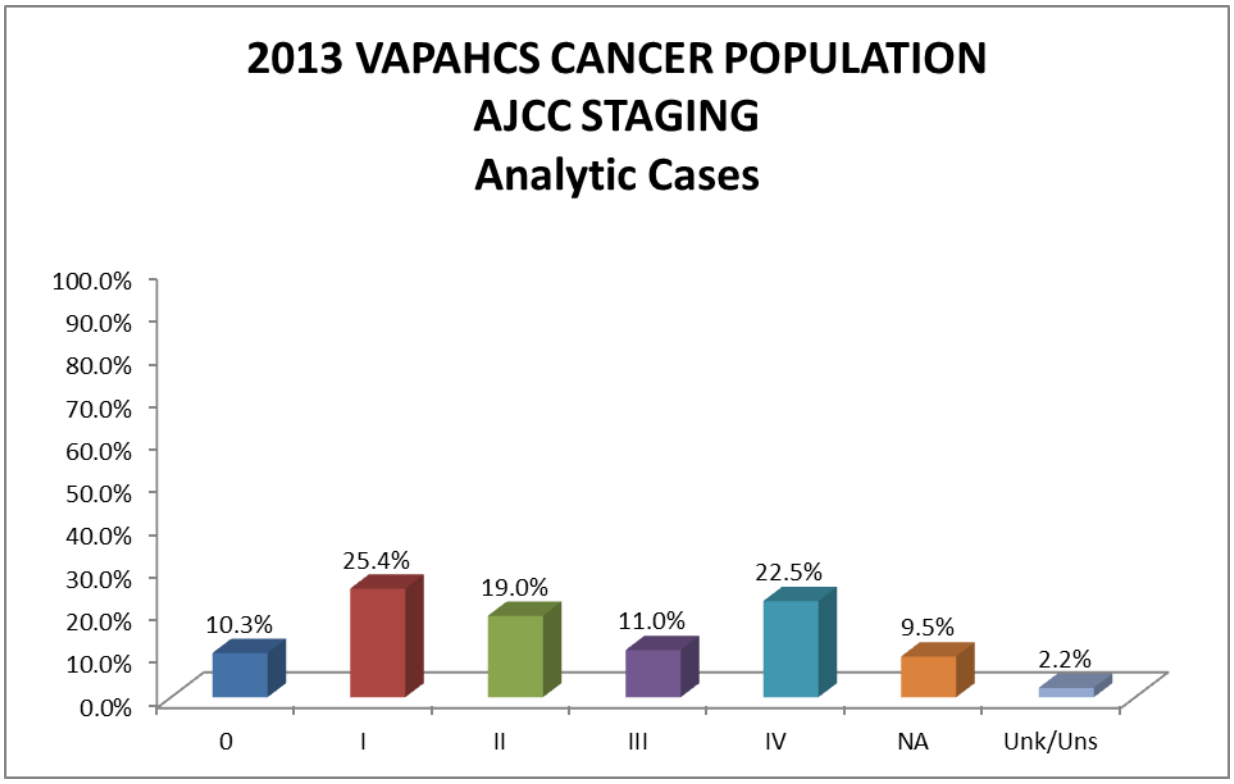
2013 VAPAHCS CANCER POPULATION

First course of treatment (analytic cases only)


2013 VAPAHCS CANCER POPULATION
- FIRST COURSE OF TREATMENT
Analytic cases only
SUR 31.9%
21.7%
CMX 9.2%
5.2%
HOR 4.6%
4.3%
SUR/CMX 3.6%
3.2%
CMX/SUR 3.0%
1.5%
SUR/XRT 1.4%
1.2%
SUR/BRM 1.1%
0.8%
OTR 0.7%
0.7%
HOR/XRT 0.7%
0.7%
SUR/XRT/CMX 0.6%
0.4%
OTR/SUR 0.4%
0.3%
SUR/CMX/BRM 0.3%
0.3%
BRM/SUR 0.3%
0.3%
XRT/SUR/CMX 0.1%
0.1%
XRT/HOR 0.1%
0.1%
SUR/HOR/XRT 0.1%
0.1%
SUR/CMX/XRT/HOR 0.1%
0.1%
HOR/CMX 0.1%
0.1%
CMX/BRM/SUR/XRT/HOR 0.1%
0.1%
BRM 0.1%
0.0% 5.0% 10.0% 15.0% 20.0% 25.0% 30.0% 35.0%

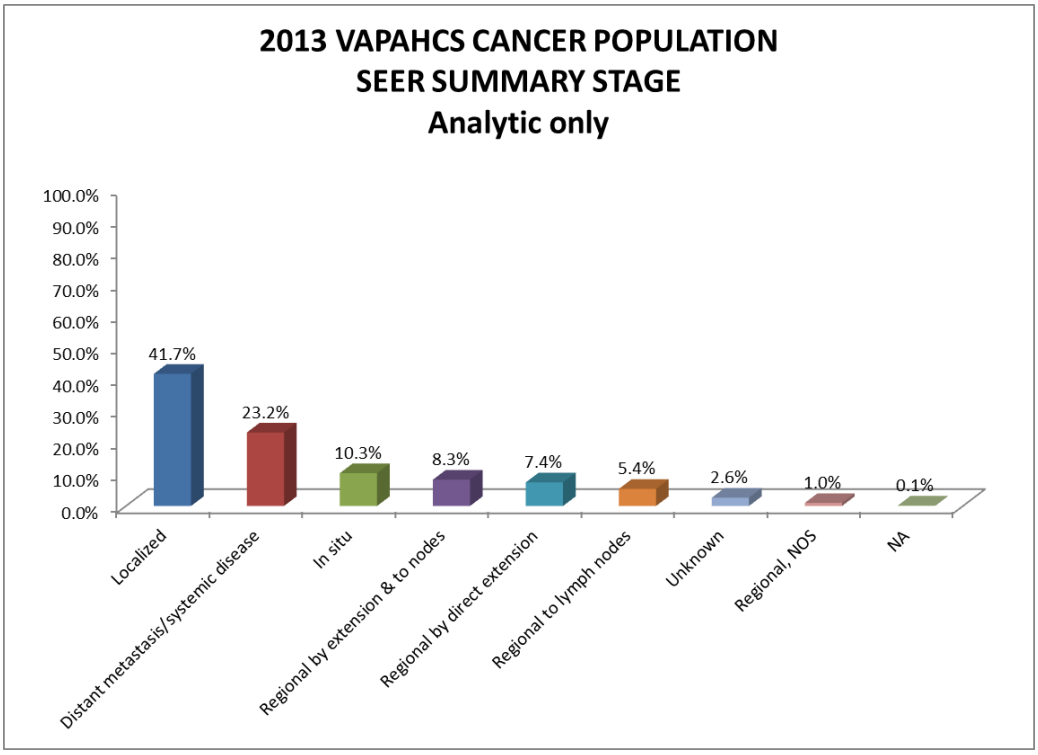
2011 VAPAHCS CANCER POPULATION – AJCC Stage (725 Analytic cases only)

STAGE AJCC	%	#
0	10.3%	75
I	25.4%	184
II	19.0%	138
III	11.0%	80
IV	22.5%	163
NA	9.5%	69
Unk/Uns	2.2%	16
	100.0%	725



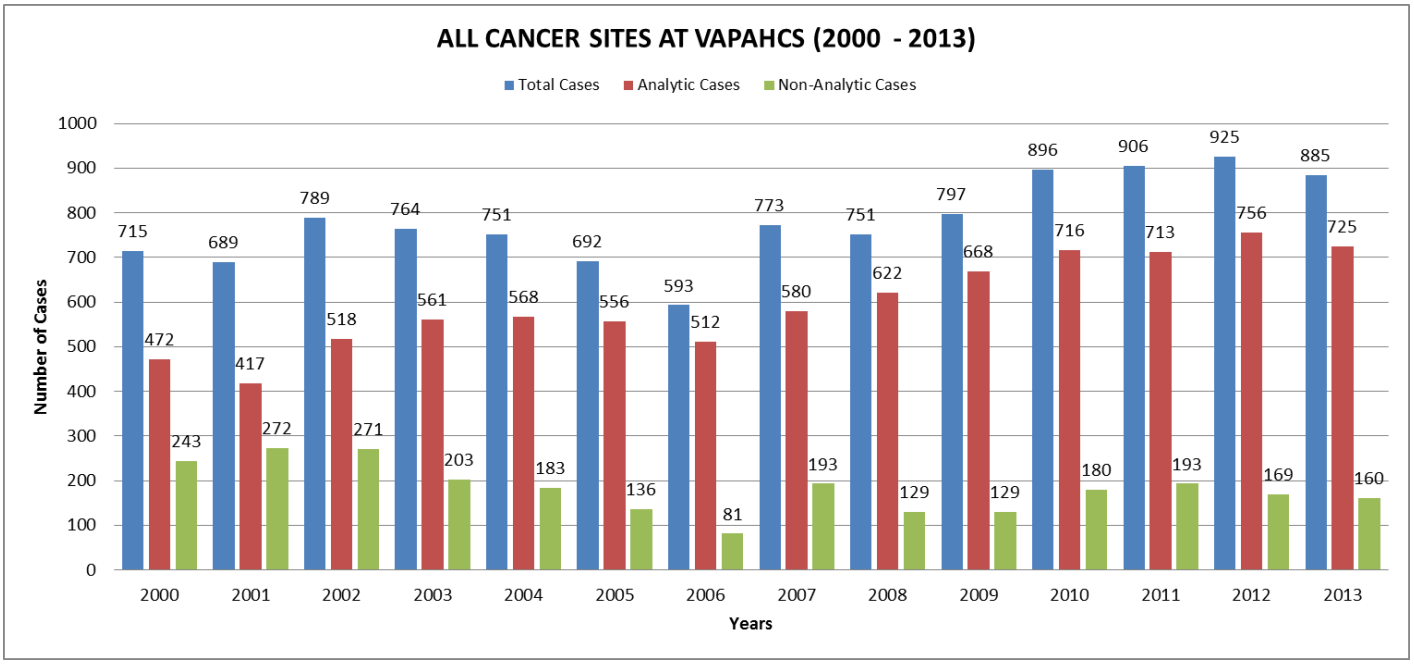
2013 VAPAHCS CANCER POPULATION – SEER Summary Stage (725 Analytic cases only)

STAGE SEER	#	#
Localized	41.7%	302
Distant metastasis/systemic disease	23.2%	168
In situ	10.3%	75
Regional by extension & to nodes	8.3%	60
Regional by direct extension	7.4%	54
Regional to lymph nodes	5.4%	39
Unknown	2.6%	19
Regional, NOS	1.0%	7
NA	0.1%	1
	100.0%	725



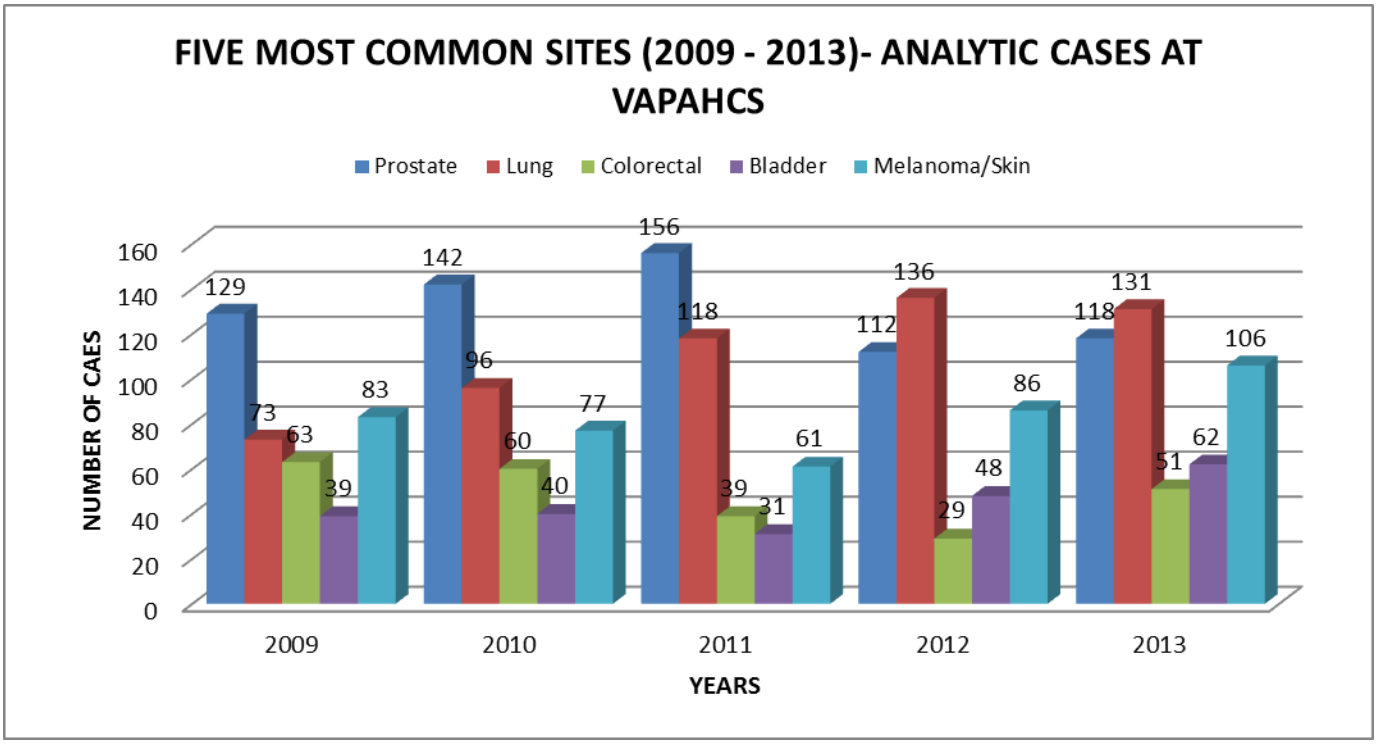
VAPAHCS ALL CANCER SITES – 2000 - 2013

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total Cases	715	689	789	764	751	692	593	773	751	797	896	906	925	885
Analytic Cases	472	417	518	561	568	556	512	580	622	668	716	713	756	725
Non-Analytic Cases	243	272	271	203	183	136	81	193	129	129	180	193	169	160



2013 VAPAHCS FIVE MOST COMMON CANCER SITES

	2009	2010	2011	2012	2013
Prostate	129	142	156	112	118
Lung	73	96	118	136	131
Colorectal	63	60	39	29	51
Bladder	39	40	31	48	62
Melanoma/Skin	83	77	61	86	106

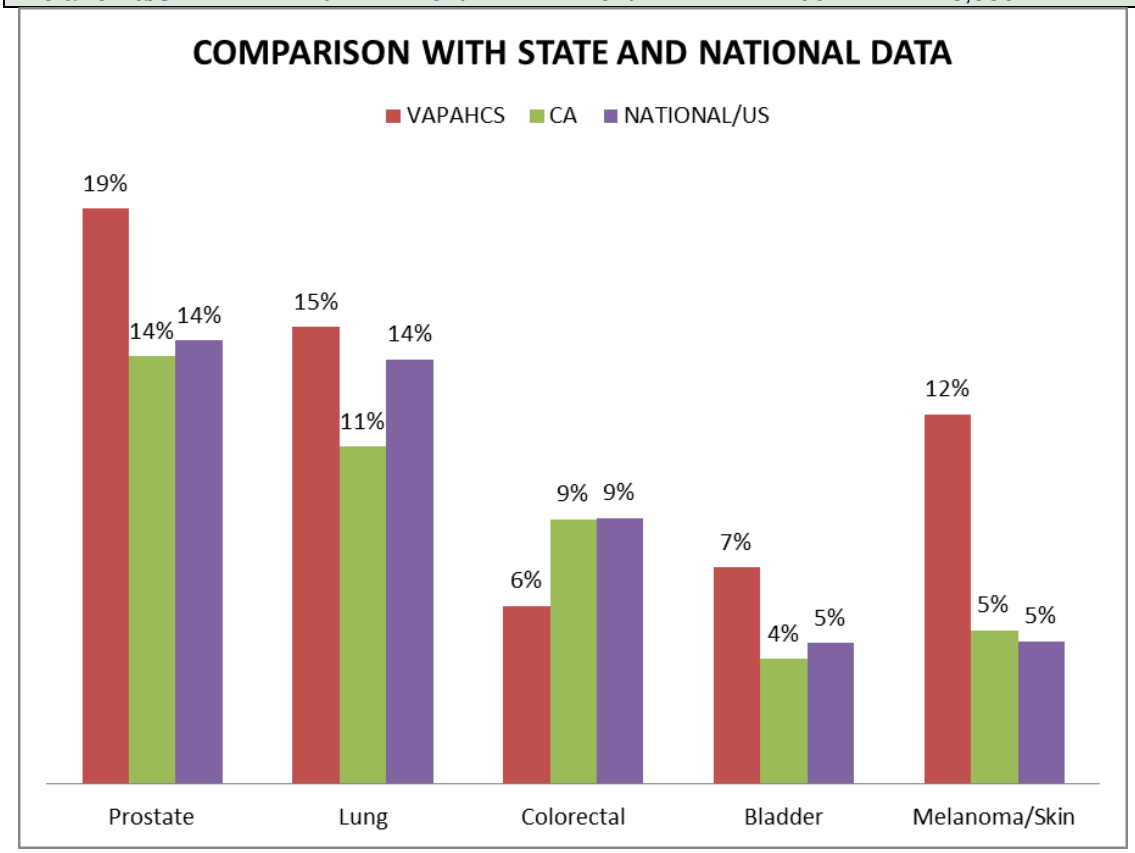


Comparing frequency data of five most common cancer sites at VAPAHCS, Prostate and Lung cancers were consistently the highest (and increasing) over the period shown.

COMPARISON -2013 VAPAHCS FIVE MOST COMMON SITES WITH STATE AND NATIONAL DATA

*Source: American Cancer Society, Cancer Facts and Figures 2013

	VAPAHCS	CA	NATIONAL/US	VAPAHCS 2013 ALL NEW ACTUAL CASES	CALIFORNIA EXPECTED NEW CASES	NATIONAL US EXPECTED NEW CASES
Prostate	19%	14%	14%	165	23,740	238,590
Lung	15%	11%	14%	131	18,720	228,190
Colorectal	6%	9%	9%	51	14,690	142,820
Bladder	7%	4%	5%	62	6,920	75,570
Melanoma/Skin	12%	5%	5%	106	8,530	76,690



Comparing with National and State estimates, in 2013, VAPAHCS had higher new cases in Prostate cancer than state and national number. This is most likely due to the fact that the VAPAHCS patient population is 97% male. Lung, Bladder and Melanoma/skin cancer were higher while Colorectal was lower. The lower number for colorectal cancer is attributable to the fact that VAPAHCS has one of the highest colorectal cancer screenings in the nation

Maria Tham
Cancer Program, VAPAHCS

* See pg 71 for more details on Cancer Prevention Performance Measures at VAPAHCS

CLINICAL PATIENT SERVICES

AMERICAN CANCER SOCIETY – PARTNERSHIP REPORT

Referrals to ACS January – December 2013

Patients by Channel		
800-227-2345	1.	
Local Office	1.	
Patient Referral Form	75.	
Service	**# of Patients**	**# Provided**
Road to Recovery	2	90
SR Met w/Resource Referral	2	3
Support Group	1	1
Transportation –All Other	17	1,117
Transportation – All Types Requested*	56	Not Available

*(this may include questions about what transportation resources are available in the hometown of the patients)

Highlights

In 2013, the American Cancer Society (ACS) and the American College of Surgeons both celebrated their 100-year anniversaries of being established and of working collaboratively to improve the quality of cancer care in the United States. This is why we at the Society are happy to partner with the VA Palo Alto Healthcare System since they are a CoC-accredited program and they are a valuable resource for veterans and their families.

Part of this collaboration includes connecting cancer patients with local and national resources such as transportation, lodging, support groups, wellness programs and other services available from the Society, local and national organizations, & local hospitals. We are proud to say that our "Cancer Resource Connection" database is available free of charge on our website Cancer.org and that it contains thousands of local and national resources. We also make ourselves available to the public through this website and our National Cancer Information Center at 1-800.227.2345.

Edmundo Nevel
Account Representative, Hospital Systems

Behavioral Medicine/Psychology

Behavioral Medicine, a sub-discipline of the Psychology service, provides a variety of clinical services to patients with hematologic and oncologic conditions and their families. Services include initial assessment and on-going follow-up in the outpatient Hematology and Oncology clinics and in the Ambulatory Infusion Center, bedside consults and follow-up in inpatient medicine/surgery wards and ICU, and appointments in the outpatient Behavioral Medicine clinic. Empirically supported interventions target anxiety and depression, management of treatment side effects (e.g. sleep problems, nausea, pain), family issues and caregiver stress, adherence to medical recommendations, tobacco/alcohol/drug cessation, and coping with end of life and grief. Behavioral Medicine also provides referrals to appropriate social and mental health services within the Palo Alto VA, at other VA sites and within the communities in which veterans live. Behavioral Medicine collaborates closely with the treating medical team and other health care providers/services, such as the chaplain service, social work, and hospice.

Behavioral Medicine has been working to implement and provide distress screening to all patients diagnosed with cancer. Of the 698 hematology and oncology patient contacts by Behavioral Medicine in 2013, 116 included a formal distress screening measure. In addition, Behavioral Medicine has collaborated with providers of other disciplines on provision of a telemedicine psychoeducation group for hematology and oncology patients. Behavioral Medicine is collaborating with the interdisciplinary team to meet the impending Commission on Cancer standards for psychosocial screening of all new cancer patients. Behavioral Medicine is collaborating with the interdisciplinary team to meet the impending Commission on Cancer standards for psychosocial screening of all new cancer patients.

Stacy Dodd, Ph.D.
Staff Psychologist
Behavioral Medicine

Dental Service Cancer Care
Cancer Prevention and Patient Education

As a part of all clinical dental exams, patients are screened for tobacco and alcohol use. Each patient seen is given a head and neck screening exam for detection of head and neck CA and other abnormalities. Biopsies are performed as indicated and if the biopsy is abnormal, referrals are made to the appropriate surgical service. Patients who use tobacco products are counseled and are offered referral to the smoking cessation programs our Medical Center offers.

Clinical Care and Support of Medical Services

The Dental Service continues to be involved in the care of patients who have or have had head and neck Cancer. Once the diagnosis of head and neck cancer is obtained, the Dental Service provides dental care in support of the patient's cancer treatment here at the Medical center. This care includes pretreatment oral care to reduce the risk and severity of oral complications of cancer treatment, oral care during cancer treatment and necessary follow-up oral care once treatment of head and neck cancer is completed.

The Dental service takes an active role to assure that all patients scheduled to receive radiation therapy for head and neck cancer have a complete dental exam and necessary dental treatment prior to starting radiation therapy. The Dental Service receives frequent referrals from Oncology and ENT for supportive dental care, which allows for an excellent multidisciplinary approach to patient management and coordination of care.

The Dental Service also provides pretreatment oral care and necessary oral care during treatment to patients receiving chemotherapy or preparing for bone marrow transplantation. The focus of treatment for these patients is elimination of oral infection or potential infections of dental origin, which could complicate and prolong the course of their medical treatment.

Tabulation of activity

- In 2013, there were **40** patients in the database with a diagnosis of Head & Neck Cancer who needed to be considered for a dental referral.
- The Dental Service saw **26** Head & Neck Cancer patients in 2013 that either are currently under active care or have completed dental evaluations and/or dental care.
- **14** patients had a diagnosis of head & neck CA and no consult was sent to the Dental Service. In each of these cases, prior dental screening was not an issue because their radiation therapy was unlikely to involve the oral cavity (maxilla and mandible), these patients were edentulous with no dental issues, no radiation was planned or the patient was under the care of a private dentist or dental care at another VA facility.

Mark Diehl, DMD
Assistant Chief, Dental Service

Dermatology Service

The Dermatology Service has a longstanding commitment to providing state-of-the art care for patients diagnosed with all types of skin cancer (basal cell carcinoma, squamous cell carcinoma, melanoma, Merkel cell carcinoma, and cutaneous lymphoma) and continues to advocate skin cancer prevention and early diagnosis. The VAPAHCS Derm/Melanoma Clinic is perhaps the only dedicated VA dermatology clinic among VAMCs nationwide to provide specialty care for veterans diagnosed with melanoma and atypical nevi. VA Dermatology coordinates the care of melanoma patients with VA Surgical and Medical Oncology Services, as well as Stanford Radiation Oncology, for patients who require radiation therapy. The Dermatology Service works closely with the Stanford Multidisciplinary Cutaneous Lymphoma Clinic and VAPAHCS medical oncologists to provide appropriate management for individuals diagnosed with cutaneous lymphoma. Dermatology is collaborating with VA Head and Neck Surgeons to expand the interdisciplinary care of patients with Merkel cell carcinoma, which is increasing in incidence in our elderly veteran population, as well as that of patients with high-risk non-melanoma skin cancers, including advanced basal cell and squamous cell carcinomas. VA Dermatology is co-leading the establishment of a multidisciplinary Non-melanoma Skin Cancer Working Group and Tumor Board that combines both VA and Stanford clinical and research efforts to provide the best screening, surveillance and treatment for high-risk groups, such as transplant patients or those with CLL.

Clinical research in the field of melanoma has resulted in 13 publications (involving Dr. Susan Swetter) within the last year related to the epidemiology, prognostication, and disease outcomes for melanoma in both older and younger populations, the most compelling of which showed a 55% survival disadvantage for young men (15-39 years) with cutaneous melanoma compared with young women, after adjusting for tumor thickness, stage, histologic subtype, anatomic location, other cancer, and presence and extent of metastasis (*JAMA Dermatology 2013*). A VA-related manuscript was published by Dr. Swetter and VA dermatopathologist, Dr. Barbara Egbert in *JAMA Dermatology* in 2014, detailing the relatively frequent occurrence of blue nevi in older individuals and lack of concomitant melanoma in the majority of patients, suggesting later-onset of these acquired benign melanocytic neoplasms compared with common nevi.

Various studies are in progress related to our interdisciplinary (Dermatology/Pathology/Surgery/ENT/Oncology) VAPAHCS/Stanford research study utilizing existing medical records and archived tissue from melanocytic and other skin tumors for histologic, molecular, and immunohistochemical markers relevant to the pathogenesis and prognosis of melanoma and non-melanoma skin cancers.

Dr. Swetter continues her work as the national Dermatologist Liaison for the ECOG-ACRIN Melanoma Committee and Co-Director of the Melanoma Prevention Working Group, a unique intergroup collaboration that has provided a national forum for interdisciplinary research among academic oncologists, surgeons, and epidemiologists dedicated to melanoma prevention. Dr. Swetter served as the VAPAHCS Principal Investigator for the **VA CSP#562 Keratinocyte Carcinoma Chemoprevention Trial**, with target accrual of 100 patients achieved in 2011 and study completion in July 2013. Passive patient follow-up was completed in July

2014, and ongoing data analysis of the nationwide multi-center trial is in progress, with 2 papers published related to variability and quantification of actinic keratosis count thus far. Funding opportunities through HSR&D and CSP are being explored by Dr. Swetter and Dr. Steven Asch (Center for Innovation to Implementation) for a project to assess feasibility of VA Palo Alto primary care provider education and screening for early melanoma detection.

Susan M. Swetter, MD
Assistant Chief, Dermatology Service, VAPAHCS
Director, VAPAHCS Dermatology/Melanoma Clinic
Professor of Dermatology, Stanford University Medical Center/VAPAHCS

General Surgery-Oncology

The General Surgery-Oncology clinic receives referrals for patients at various stages of their cancer. Approximately 30% of the patients have just received the diagnosis of cancer and need planning and coordination of an extensive pre-operative and metastatic work-up. Much time is spent on patient and family education and support. The other 70% of the patients are seen in follow-up after the primary therapy has been completed. This treatment often is a combined modality approach consisting of chemotherapy, radiation therapy, and surgical resection. The majority of patients has a diagnosis of colorectal cancer, gastric cancer, and pancreatic cancer, but also includes endocrine and neuro-endocrine tumors, GISTs and sarcomas. Hepatocellular carcinoma & biliary malignancies are evaluated in our Hepato-biliary clinic. Breast cancer treatment is in the Breast Clinic. Malignant melanoma referrals usually are seen in Plastic Surgery Clinic and referred to us for sentinel lymph node biopsy if necessary. Thoracic Clinic now is the primary surgical service dealing with esophageal cancer.

We work closely with Medical Oncology Service to provide a smooth transition to and from their primary auspices if the patient requires active chemotherapy treatment or placement on multi-center clinical trials. We again have an Oncologist full-time in our clinic, which greatly facilitates consultations between Medical and Surgical Oncology and often saves the patient from making two separate appointments. The clinic personnel include 5 General Surgeons, 2 General Surgery Clinical Nurse Specialists, an oncologist, and a rotating team of General Surgery residents, interns, and medical students. A social worker and chaplain are available for consultation.

The General Surgery Clinical Nurse Specialist maintains a database of approximately 150 active cancer patients. The information on the database includes primary procedure, pathologic stage, and recent developments. It is very helpful as a quick reference for what has occurred with patients long-term and provides data for research activities. We continue to monitor all CEA levels done at our facility in order to case-find patients with undiagnosed malignancies or recurrences.

Lynne Dempsey RN, MS, ACNS-BC
General Surgery Clinical Nurse Specialist

Genitourinary Oncology

Palo Alto is the primary referral clinic for veterans from Fresno, Reno, Stockton, Modesto and Sonora with genitourinary cancer. In 2013, approximately 275 cancer operations were performed at the VA facility. As one of a few VA centers with a robotic surgery program, Palo Alto also serves as a regional referral center for complex minimally-invasive and robotic-assisted surgery. The Urology Division of the Palo Alto VA aims to provide latest in specialized care for our cancer patients and strives to provide all patients with individualized, and compassionate care.

The Urologic Oncology Clinic is a weekly clinic based at Palo Alto Division designed to care for Veterans with complex cancers. In order to ensure optimal care for each patient, this multidisciplinary clinic is staffed by two urologists, a medical oncologist, a radiation oncologist, two nurse practitioners, and Urology residents. Every week, an average of 40 new and established cancer patients are seen in the GU Oncology clinic at the PA facility.

Genitourinary cancer patients are also seen at Livermore and Monterey and in other urology clinics at the Palo Alto facility. A system of referrals, consultations and exchange of patient information is in existence between all these facilities.

The Genitourinary Tumor Board is held on the third Tuesday of every month and coordinated by Ms. Maria Tham, the Cancer Program Tumor Board Coordinator. It is attended by radiologists, pathologists, medical oncologists, radiation oncologists, and urologists, as well as medical students and residents. This conference serves as both a management and indications conference as well as a platform for teaching and education.

The Genitourinary Pathology Conference is held weekly. The pathology of surgical specimens and biopsies generated the previous week are reviewed and discussed with a faculty member from the Department of Pathology, and a treatment plan is formulated.

The Genitourinary Radiology Conference is held weekly. Imaging studies from Urology patients and consults are reviewed with the panel of urologists and radiologists to assist in creating a streamlined treatment plan.

The Prostate Cancer Support Group is held on the third Tuesday of every month from 11:30 AM to 1:00 PM. Patients are mailed information and an invitation to attend. Each session has a speaker (including urologists and medical oncologists) to facilitate the meeting

John Leppert, M.D.
Assistant Professor of Urology
Director of Urologic Oncology

Hematology Service

The Hematology Service provides comprehensive care for patients with hematologic malignancies, including myeloma, acute and chronic leukemia. Individuals with clonal myeloproliferative and lymphoproliferative disorders, and with myelodysplastic syndromes are also followed and rendered cared by this service.

Clinical Activity

Patients with the above disorders are typically seen in the Hematology Clinic, Palo Alto Division (PAD). Some patients with stable conditions are seen in the Livermore Division or the Monterey Clinic. The physician staff is composed of VA attending hematologists as well as Stanford-based hematologists (in rotation), and volunteer faculty physicians; the majority of these physicians attend a clinic on average of two clinics/month. However, patients are followed by the same attending physician to provide continuity of care. In addition, two fellows attend weekly clinics at PAD, in addition to an oncology nurse practitioner (PAD) a nurse practitioner (Livermore), and hematology clinical nurse specialist (PAD).

In 2012, the Hematology Service developed the Telehealth Program where patients with more stable disorders are seen in the outlying clinics. Currently, the Telehealth clinic convenes weekly in Modesto Clinics. Here, the patient is seen in person by a nurse practitioner who conducts the physical assessment; the attending physician "sees" the patient by virtual means. These clinics are very popular with the patients who reside at considerable distance to Palo Alto; nine patient appointment slots are available each week via this program.

In addition, the advanced practice registered nurses may follow patients who are receiving oral chemotherapy and monitor hematologic response/toxicity to therapy and adjust medication dosage as needed.

The Ambulatory Infusion Center provides excellent care to those hematology patients requiring transfusion support, chemotherapy, bisphosphonate infusions, parenteral iron, IVIG, or hydration. Vascular access care and therapeutic phlebotomies are also performed by the nursing staff in the AIC. Patients staying on the rehab/CLC unit will receive their infusion treatment in the AIC. Patients may receive therapeutic phlebotomies, hydration or transfusion support at the Livermore Division on a limited basis.

Patients requiring admission to the hospital are admitted to the Medicine Service, but are closely followed by the Hematology fellow and attending physician on service, and also by the Hematology clinical nurse specialist as warranted. Frequently, these patients are admitted to the rehab/community living center (CLC) unit, particularly in those situations where the patient lives too far to receive infusional therapy on an out-patient basis. This is particularly advantageous for those patients whose condition may require closer monitoring than is possible in the ambulatory care setting, yet does not warrant a prolonged admission to Acute Medicine.

Many of these patients are seriously ill and need frequent follow-up and management. The Hematology Nurse Practitioner and Clinical Nurse Specialist frequently see patients in the Ambulatory Care setting, primarily in the Ambulatory Infusion Center throughout the week. Patients are seen as urgently and frequently as their condition warrants, reducing the need for hospitalization in many instances, or limiting need for evaluation in the emergency department.

Multi-Disciplinary Approaches to Patient Care:
The Hematology Service strives to provide individualized attention to patients and families, which primarily results from continuity of care. Attending physicians and Nurse Practitioners see the same patients over time so that a therapeutic relationship can develop; a second-year fellow (with six-month rotations) is afforded the same opportunity. Many patients are routinely seen by the Hematology Clinical Nurse Specialist and psychology staff from Behavioral Medicine. Other services are employed as appropriate, including, Social Work, Home Care, Hospice/Palliative Care, Pain Management, and Radiation Oncology. The Hematology CNS or Nurse Practitioner serves as the contact person for patients and families as questions arise/problems develop while the patient is at home.

Education Activities
Patients with unusual hematological malignancies, or who have problems that exemplify useful learning opportunities for internists and oncologists, are presented as appropriate at the VA Tumor Board. Fellows and an attending Hematologist typically present these cases. Fellows and Attending's also participate in hematology educational venues at Stanford.

Nursing in-services are provided as need arises or per staff request regarding specific disease states, transfusions, chemotherapy administration, experimental treatment protocols, and vascular access management.

The Hematology Fellows, CNS, and several Hematology Attendings all attended the annual meeting of the American Society of Hematology. The Hematology Clinical Nurse Specialist attended the annual meeting of the Oncology Nursing Society, and is involved in the Nursing Committee and the Symptom Management and Outcomes Committee of the Eastern Cooperative Oncology Group and as such, attends these semi-annual meetings. The CNS is also on the Board of Directors for the Association of VA Hematology Oncology and was actively involved in planning the annual conference that convened in September 2014. This conference was attended by the Oncology Social worker as well as the Tumor Registrars within VAPAHCS.

Mary Thomas, RN, MS, AOCN
Hematology Clinical Nurse Specialist

Hospice Care Center and Palliative Care Services

Inpatient Programs

The Hospice and Palliative Care Center, located on ward 4A, provides Veteran-centric palliative and end of life care. Disciplines represented on the team include medicine, nursing, social work, chaplaincy, psychology, occupational therapy, music therapy, massage therapy, and recreational therapy.

Referrals come from all areas in the acute hospital, including the ICU, IICU, med/surgical units and ER, as well as VA Menlo Park Division, Livermore division, community hospices, local hospitals, private community physicians and oncology clinics. Most patients admitted to our unit die on the unit, and the majority of patients live less than one month – the average length of stay is approximately 25 days.

Families receive bereavement support for a period of one year after death, which include an initial letter with a grief booklet, periodic phone calls, bi-monthly bereavement support groups, semi-annual memorial ceremonies, a holiday grief support group, a year anniversary card, and referral to community resources if needed. Ongoing work is being done to improve outreach within the VA system and in the community (e.g. partnering with those who participate in the "We Honor Veterans" program). Ms. Sheila Kennedy is the program's social worker, serving as the main point of contact for referrals to our inpatient unit for veterans, whether enrolled into our system or not, from community hospice agencies or hospitals. She is critical in facilitating admission to our unit and has been utilized by community case managers at local hospitals to help with transitioning to hospice care for those patients who are appropriate.

Our palliative care program also operates a 5-bed hospice unit in Building 360, under the direction of Dr. Barbara Egan. This unit tends to take Veterans with less acute medical needs and somewhat longer life expectancies.

Consultation Teams

Our palliative care program operates 2 consultation teams, one in acute care and one within our Community Living Centers (CLCs). The acute care team provides consultation on all acute wards at Palo Alto Division and is a major source of referrals to our Hospice and Palliative Care Center on 4A. Our CLC team is at the Menlo Park Division and provides consultations at both Menlo Park and Livermore Divisions. This consultation team has also made major contributions to quality improvement efforts within our CLCs, which over the past year have focused on improving pain management and addressing goals of care on admission to our CLCs. Dr. Egan from this consultation team also participated in a process improvement effort this past year to improve care of patients with lung cancer.

Outpatient Clinic

The Palliative Medicine Clinic continues to meet once a week for half a day. In addition to managing patients' pain and symptoms, this clinic makes referrals to both inpatient and home hospices.

Home Care

Extended Care Service also oversees and coordinates the provision of home care services, including home hospice, for VA Palo Alto HCS clinics. Home hospice care is provided both through Medicare and VA payment.

Role of Hospice and Palliative Care Program in Oncologic Care

While our Hospice and Palliative Care Program provides care for Veterans with a wide range of illnesses, a cancer diagnosis is the most common diagnosis on admission to our hospice program and for referral to home hospice care. This is also the most common diagnosis for palliative care consultations in acute care. Extended Care Service also provides support for oncology patients with skilled nursing needs through its short-stay CLC programs on ward 4C and 331B, most commonly for patients receiving chemotherapy or radiotherapy, who are too frail or debilitated to receive therapy as outpatients.

Leadership

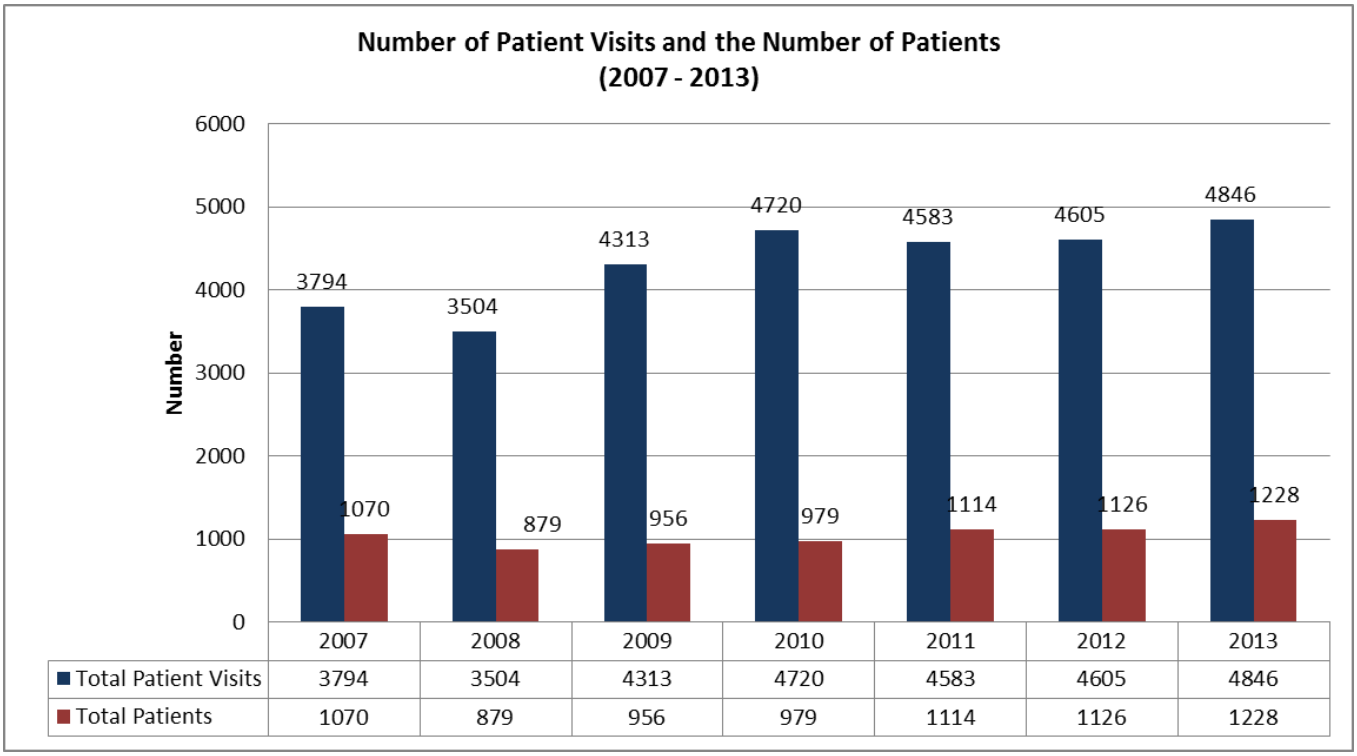
Dr. James Hallenbeck, Associate Chief of Staff for Extended Care, serves as Director of Palliative Care Services. VJ Periyakoil, MD is the Associate Director of Palliative Care Services and the Director of the Palliative Medicine Clinic. Dr. Periyakoil is also the director of the Stanford University/VAPAHCS Palliative Care Inter-professional Fellowship Program. Her research areas include effects of psycho-social distress (PTSD, grief and depression) on the illness trajectories and service utilization of patients with serious life limiting illnesses, and inter-professional education in palliative care and geriatrics. Dr. Periyakoil uses her e-Learning expertise to promote education and training for older adults and all patients with serious illnesses living in rural and highly rural areas through the THRIVE-Online initiative.

Barbara Egan, MD
Hospice and Palliative Care Service

Medical Oncology – Outpatient

The Medical Oncology clinic is supported by oncologists, pharmacists, a medical social worker, a psychologist, a chaplain, a nurse case manager, and a research nurse. Other members readily available by consult include the Pain Service clinical nurse specialist, dietitian, public health nurse, Hematology/Oncology clinical nurse specialist, and the hospice/ palliative care team.

Medical Oncology sees outpatients in clinic twice a week, with three attending oncologists and 3 to 4 oncology fellows, seeing approximately 60-80 patients each week. The clinic is also assisted by 2 voluntary attending faculties. There were 1,228 patients and 4,846 patient visits in 2013.



	2007	2008	2009	2010	2011	2012	2013
Total Patient Visits	3794	3504	4313	4720	4583	4605	4846
Total Patients	1070	879	956	979	1114	1126	1228

* Source: PCE Encounter Summary Report by Year, Oncology Stop code 316, VA Vista Database

The Oncology Ambulatory Care Program is supported by the Ambulatory Infusion Center (AIC). The AIC is open 5 days a week to provide chemotherapy, hydration, antibiotic and blood component therapy, patient education and support for procedures such as bone marrow biopsies. Six RNs are certified to administer chemotherapy. They change PICC line dressings, flush central lines and assess intravenous sites. Most infusions are done during clinic days.

Peter Di Donato, PA
Medical Oncology - Outpatient

Medical Oncology – Inpatient Care

Unit 2A (Medical-Oncology-Telemetry), a 31 bed unit in the Specialties and Hospital-Based Services (acute inpatient), is a medical oncology functional equivalent unit, with ten rooms (9 private rooms with one double room) designated for oncology/hematology Veteran patients. Oncology/hematology Veterans receive inpatient chemotherapy/biotherapy treatments, as well as supportive treatments on Unit 2A. In addition, Unit 2A collaborates with the Ambulatory Infusion Center coordinates discontinuation of outpatient chemotherapy administered through infusion pumps during off hours and weekends. The Intermediate ICU (IICU) also provides chemotherapy/biotherapy treatments for those Veterans who are not stable enough to be transferred to Unit 2A to receive treatment. Both 2A & IICU also administer chemotherapy/biotherapy for non-oncology indications. 2A chemotherapy trained RNs may administer chemotherapy/biotherapy on other inpatient units when it is not possible for veteran to be transferred to 2A for cancer therapy.

Acute inpatient cancer care is delivered collaboratively, at a minimum, by medical oncology and/or hematology, nursing, case management, social work, and the medicine team. In the inpatient area, the medicine team is the primary care provider, and medical oncology or hematology are consultative teams.

The inpatient oncology clinical nurse specialist facilitates inpatient cancer care, from coordinating admission, to complex patient/family education, nursing care, symptom management, communication of care, and discharge planning, as well as planning for future therapy.

In 2013, there were 78 chemotherapy treatment episodes in the inpatient area (2A & IICU) with forty different treatment regimens administered, ranging from simple administration to complex ones for twenty-three different cancer diagnoses. The table below summarizes the treatment episodes in the inpatient areas.

Diagnosis	**Number of treatment episodes**	Inpatient **Treatment regimen**	**Tx Location other than 2A**
Acute myelogenous leukemia (AML)	I II I I I	• Cytarabine + Daunorubicin (5+2) – consolidation 1 • HDAC (High dose Cytarabine) consolidation 2 • Mod MEC [(no Mitoxanthrone; Etoposide (P.O.) + Cytarabine (SQ)] + Hydroxyurea • HDAC (consolidation) • Azacitidine	 IICU IICU

Diagnosis	Number of treatment episodes	Inpatient **Treatment regimen**	Tx Location other than 2A
Adenoid cystic carcinoma (posterior cricoid/paraesophagus	I	• Carboplatin/5-fluorouracil	
Anal cancer	I	• Cisplatin + 5-Fluorouracil	
Cardiac transplant	I	• Rituximab	IICU
Chronic Lymphocytic Leukemia	I	• Weekly Rituximab	
Chronic myelomonocytic leukemia (CMML)		• Azacitidine	
Cholangiocarcinoma	I	• Cisplatin/Gemcitabine	
Multiple myeloma (MM)	I I I	• DCEP (dexamethasone, cyclophosphamide, etoposide, cisplatin) • EPOCH • Bortezomib + Dexamethasone + Revlimid (VDR)	
Esophageal CA	I	• Paclitaxel/Carboplatin	
Laryngeal CA	I	• Paclitaxel/Carboplatin	
Gastroesophageal Junction (GEJ) Squamous Cell Carcinoma (SCC)	I	• Capecitabine	
Burkitt's lymphoma	II	• Rituximab	
Diffused large B cell lymphoma (DLBCL)	I I I III I III I	• DA R + EPOCH • R + EPOCH • Modified R +CHOP cycle #1 (no doxorubicin & cyclophosphamide) • R + CHOP • CHOP • RICE	

Diagnosis	Number of treatment episodes	Inpatient **Treatment regimen**	Tx Location other than 2A
		• R + Bendamustine	
Follicular lymphoma	II	• R + Bendamustine (Bendamustine ordered separately after further dx test and was counted as one episode)	
Follicular lymphoma "transformed to a more aggressive lymphoma"	I	• CEP (Cyclophosphamide, etoposide, Prednisone)	
Low grade B cell lymphoma	I	• Weekly rituximab	
Mantle cell lymphoma (MCL)	IIIII II	• R + Hyper CVAD (Rituximab*Hyper CVAD* (delayed due to neutropenia; received Rituximab 1 week ahead of Hyper CVAD; counted as two episodes as they are two separate admissions) • R + CHOP alternating with R +DHAP	
Ovarian cancer	III I III	• IV Paclitaxel/IP Cisplatin/IP Paclitaxel (cycle #2 day 1+2 & day 8 were two separate admissions and were counted as two episodes) • IV Paclitaxel (weekly x3 weeks)/IP Cisplatin • IV Docetaxel + Cisplatin IP (q 3 weeks)	
SCLC (Small Cell Lung CA)	II II	• Carboplatin/Etoposide • Cisplatin/Etoposide	
Pancreatic cancer	IIIII-IIII	• FOLFIrinOx	
Sinonasal cancer	IIII	• TPF (Docetaxel, cisplatin, 5-fluorouracil	
Sarcoma	I III	• Ifosfamide/Mesna + Epirubicin • Ifosfamide/Mesna	

Diagnosis	Number of treatment episodes	Inpatient **Treatment regimen**	Tx Location other than 2A
	IIIII	• Ifosfamide/Mesna + Doxorubicin	
Testicular cancer	IIII I	• Cispltan/Etoposide • VIP (Etoposide, Ifosfamide, Cisplatin)	
23 cancer diagnoses	78 treatment episodes	40 treatment regimens	

Connie Yabes-Sabolboro, RN, MSN, AOCNS
Medical Oncology – Inpatient

Nuclear Medicine

The Nuclear Medicine Service uses radioactive tracers with single photon emission-computed tomography (SPECT) and positron emission-computed tomography/computerized tomography (PET/CT) for evaluation of patients with known or suspected malignancy. Imaging is used for diagnosis, staging, treatment evaluation, and surveillance.

Major equipment includes a PET/64-slice CT camera (Discovery STE, General Electric), and three dual-head SPECT (single photon emission computed tomography) cameras (Infinia, General Electric). The SPECT cameras are also capable of low-resolution CT imaging for improved diagnostic accuracy. There is a cyclotron and radiochemistry facility on-site to produce radioactive tracers.

The Nuclear Medicine Service performs PET/CT scans for veteran patients referred from VA Central California, as well as patients who receive their care at Palo Alto. Over 1,500 exams are performed annually. Most patients are referred for evaluation of known or suspected malignancy. The most common cancer diagnoses are lung, colon and rectum, esophagus, melanoma, lymphoma, and breast.

Other diagnostic examinations include bone scans, octreotide scans (neuroendocrine tumors), radioiodine scans (thyroid cancer) and radionuclide ventriculography (assessment of left ventricular function in patients receiving cardiotoxic agents).

Digital images are available for viewing by health care providers throughout the health care system using a picture archive and communication system (PACS), which also creates a permanent repository for all imaging studies.

The Nuclear Medicine Service also uses unsealed radioactive materials for cancer therapy. Therapeutic procedures include high-dose radioiodine treatment for thyroid cancer metastases, and samarium treatment for palliation of painful skeletal metastases.

The Nuclear Medicine Service collaborates with other clinical departments to support cancer research projects.

The Nuclear Medicine Service trains residents in Nuclear Medicine and Diagnostic Radiology as part of a joint training program with Stanford University. One resident rotates through the department each month.

George Segall, MD
Chief, Nuclear Medicine Service

Otolaryngology (ENT) Service

The Otolaryngology (ENT) service offers comprehensive management of tumors of the head and neck region, which includes detection, surgical treatment of benign and malignant tumors, and post-treatment surveillance. The ENT service works closely with Radiology, Pathology, Oncology, Radiation Therapy, Dental, Audiology/Speech Pathology, Restoration/Reconstruction clinic and many other services as needed. If necessary, facial reconstruction surgery is also available and is offered to patients by the ENT service. Some examples of tumors seen by the ENT service include pharynx (throat), larynx (voice box), sinus, nose and nasopharynx, mouth and tongue, salivary glands such as the parotid, and endocrine glands such as the thyroid and parathyroid. In addition to face-to-face visits, ENT service now offers Telehealth visits for consultations and follow-ups including post-operatively, for patients from New Mexico and Fresno VAHCS.

A multidisciplinary Head and Neck Cancer Conference meet every Thursday at Stanford to bring together the expertise of surgeons, radiotherapists, and medical oncologists to recommend optimal treatment plans.

Ella Benadam-Lenrow, RN,
ENT Clinic Nurse Coordinator

Pain Management

The pain management clinic at the VAPAHCS meets three times weekly. Clinic staff consists of Anesthesia Pain Medicine, Behavioral Medicine, and Nursing disciplines. This year we added a Pain Medicine MD 1 day a week. Computerized consult requests and 24 hour paging provide access to the pain service for both inpatient and outpatient cancer patients. Consults for cancer pain management remain the priority and patients with cancer pain are overbooked into the clinic as need be and hospitalized patients are typically seen the day the consult is received. Interventional procedures (e.g. nerve blocks, long-term intraspinal infusions) are available via the pain service, peri-operative epidural management and regional nerve blocks are available via the regional anesthesiology service, and vertebroplasty is available via interventional radiology. Interactions with oncology, hospice, and palliative care take place on an as needed basis. Patient care conferences with the interdisciplinary team are scheduled as needed. Consistent communication concerning suggested interventions to the referring clinician is routine. Coordination of care between services is the norm. Just-in-time education is done on pain management issues as needed (e.g. management of continuous intrathecal infusions on hospice).

Janette Elliott, RN, MSN, AOCN
Pain Management Clinical Nurse Specialist

Pathology and Laboratory Service

All tissue and cytology specimens for the VAPAHCS are processed and interpreted the Palo Alto Division. The entire report of pathological findings is available in the DHCP patient database for easy access by physicians and other health care providers. For all surgical pathology cases resulting in a diagnosis of cancer, an e-mail "critical pathologic value alert" is sent to the attending physician. New cancer diagnoses are communicated verbally to a member of the health care team. The electronic "critical cancer alerts" provide attending physicians with the pathological TNM staging for complete cancer resections. Pathologic TNM staging is also provided for all cancers newly diagnosed at autopsy. In 2013, we processed over nine thousand surgical pathology specimens, of which twelve percent were diagnosed as containing cancer.

Starting January 1, 2004, the pathology reports on all required cancer resection and biopsy specimens have followed the published CAP protocols. We have formalized this now by creating a template for presentation of the required information. This protocol data is included in our standard pathology report.

All cancer cases are confirmed by a second staff pathologist. A critical alert is sent to the submitting physician for all cases with a diagnosis of cancer. New cancer diagnoses are communicated verbally to a member of the health care team and documented in the report.

Before transfer to the hospital computer system, the pathology reports are generated in a database constructed in FileMaker Pro. The reports are retained in archival FileMaker Pro databases where they are available to qualified practitioners and research for free text searches. Such searches do not depend on coding of diagnoses, which is subject to errors. This searching ability is a valuable tool for patient care, record quality analysis and research.

Our database now contains over 165,000 surgical pathology reports dating from 5/91 to the present. All can be accessed for free text searches. Over the last few years we have performed searches for a number of services for cancer-related studies.

We have weekly or bi-weekly meetings with the following services to review positive biopsies and excisions: Urology, and Dermatology. In addition all autopsies are reviewed at a weekly conference with the Radiology Department and any interested clinicians.

Robert V Rouse, MD
Service Chief
Pathology and Laboratory Medicine Service

Pulmonary Medicine (Thoracic Oncology)

Physicians and Staff in the Pulmonary / Critical Care and Sleep Medicine section are actively involved in the diagnosis, staging and management of lung cancer. Diagnostic services include flexible fiberoptic bronchoscopy, transbronchial biopsy, thoracentesis, pleural biopsies, pulmonary function testing and cardio-pulmonary exercise testing. We perform advanced interventional pulmonary procedures like Electromagnetic Navigational (EMN) guidance bronchoscopy and Endobronchial Ultrasound (EBUS) guided biopsies. The service also offers therapeutic bronchoscopies for airway recanalization with argon plasma coagulation, laser, electrocautery, cryotherapy and stent placement. Therapeutic pleural procedures (thoracentesis, pigtail catheter, and tunneled pleural catheter placement) are available.

The Lung Nodule Team (comprised of Pulmonary Attending, Pulmonary and Critical Care Fellow, and an RNP or RN) meets on a daily basis to review all the Lung Nodule and Out-patient referrals. After performing a detailed review of their medical record and pertinent radiographic imaging studies, recommendations for management of the patient are provided. For high risk patients and those with lung nodule(s) 8 mm and above (in size), the division coordinates all medical care by ordering diagnostic imaging, arranging for lung biopsies and facilitating consult visits with Pulmonary and other specialties such as IR, Thoracic Surgery, Oncology, etc. The staff also coordinates accommodation, travel-related issues and keeps the veterans informed at every step of their management. The team also evaluates all other lung nodules that are less than 8 mm in size and provides appropriate recommendations to the primary care providers. Historically, about twenty percent of Lung Nodule referrals have been diagnosed with lung cancer.

In 2013, the Pulmonary and Critical Care service performed one hundred Bronchoscopy procedures (83 diagnostic and 17 therapeutic) in the pulmonary division, operating room, and in the Medical Surgical Intensive Care Unit. Over 28 cases were diagnosed with lung cancer and were referred to Thoracic surgery and/or Oncology related services for treatment and further management. We also performed 13 pleural procedures (thoracentesis and Pleurx/pigtail catheter placement).

Pulmonary faculty, fellows, and staff participate in a bi-weekly Multi-disciplinary Thoracic Cancer Conference and Lung Nodule Forum that is attended by Oncology, Thoracic Surgery, Radiology, Nuclear Medicine, Pathology and Radiation Oncology. We are actively involved in the Cancer Collaborative Program, which monitors, plans, organizes and implements comprehensive cancer care tools and services to better improve our ongoing management of cancer patients at the VA Palo Alto Health Care System.

Ware Kuschner, MD
Harman S. Paintal, MD
Miriam Katie Lloyd, RN
Division of Pulmonary/ Critical Care Medicine

Radiation Therapy Facilities at Stanford Cancer Center

The Department of Radiation Oncology moved into the Stanford Clinical Cancer Center on March 1, 2004. The Radiation Oncology Clinic, where new and follow-up patients are seen, is located in "Clinic D" on the first floor. Radiation Therapy procedures and treatments are performed in a 50,000 square feet space on the ground floor.

The Radiation Oncology Department offers extensive medical expertise for the evaluation, planning and administration of radiation treatments for Veterans referred here. Stanford Radiation Oncology faculty are board certified or eligible seasoned experts, all recognized internationally for their specific subspecialties and contributions to the treatment of Hodgkin's disease, non-Hodgkin's lymphoma, sarcoma, prostate, lung, breast, brain, gastrointestinal, head and neck, mycosis fungoidis, gynecological, genitourinary and pediatric cancers. Our faculty members attend the VA Palo Alto Health Care System's monthly general tumor boards, weekly pulmonary and GU tumor boards and quarterly Cancer Care and Health Physics committees. They are also available for telephone consultation regarding management for patients who have not been seen by us along with providing on-call consultation twenty-four hours a day, seven days a week.

Our radiation therapists are certified by both national and state agencies. Our physicists, as well as the dosimetrists, are board eligible and/or certified. Other staff includes registered nurses, social workers and support staff. Each patient is managed by a medical team consist of a member of the faculty, a resident, therapists, a dosimetrist and a registered nurse. Digital treatment field images are reviewed by the faculty and residents each day. In addition, patients who started a new course of radiation treatments are presented at chart rounds on Wednesdays to ensure optimum quality of patient care.

On September 16, 2010, Stanford Clinical Cancer Center became the first treatment center on the West Coast and the fifth in the world to offer cancer patients the TrueBeam system, a medical linear accelerator that represents an exponential leap forward in the speed, power and precision of radiation therapy. The TrueBeam linear accelerator is capable of delivering radiation at a faster dose rate than most conventional linear accelerators. This advance translates into shorter treatment times for patients. The new machine's radiation delivery precision is controlled to within less than a millimeter, as its advanced imaging checks accuracy every 10 milliseconds, continually monitoring more than 100,000 data points. TrueBeam's 4D imaging system captures views in 60 percent less time than in previous machines and reduces overall X-ray exposure for that imaging by one-quarter. The increased speed means less blurring in each image, which helps to more clearly define the edges of a tumor.

The TrueBeam system is especially good for tumors deep in the body because it adjusts for movements in tumors, which are nudged in various directions with each breath. In a technique called respiratory gating, the TrueBeam's sends out radiation only when the tumor is within the beam's line of delivery. The platform couch, which holds the patient, also adjusts with the same sub-millimeter accuracy. In combination with the TrueBeam's rapid, multi-dimensional imaging, the effect is a much higher degree of protection for healthy tissue adjacent to the cancer. In

October 2013, the system was upgraded to version 2.0, which provides advanced imaging techniques, such as intra-fraction tumor localization. A robotic treatment couch was also installed, which allows 6 degrees of freedom of motion that enables the alignment and treatment of the patient with sub-millimeter accuracy.

In addition to Truebeam, our state of the art treatment equipment includes five medical linear accelerators with identical photon and electron energies. Each linear accelerator has a 120-leaf multi-leaf collimator, two sets of independent jaws and dynamic wedge capabilities along with an electronic portal imager capable of acquiring real time images as treatments are being delivered. Our treatment field verifications are digital instead of film. Five out of our six linear accelerators have an imaged-guided radiation therapy systems optimized for both conventional and stereotactic approaches to treat cancer. This includes "Stereoscopic X-Ray Guidance" capability, which allows radiation oncologists to be able to more accurately ensure that target volume is treated to the planned dose of radiation. Images are acquired in the treatment room and based on this corrections are made, if required, to bring the target volume to the desired location prior to starting that day's treatment. The stereoscopic images have to be fused and registered with the pretreatment digitally reconstructed radiographs and the required shifts calculated using customized software.

Superficial x-ray treatments are provided on the Oldelft Therapix unit.

Two Cyberknifesystems- robotic arm mounted linear accelerators are available for frameless stereotactic radiotherapy treatments, both for intracranial and extracranial treatments. One Cyberknife unit is in the Blake Wilbur building and the 2nd Cyberknife unit is located in our department in the Cancer Center.

For treatment planning, there are 3 dedicated units for performing isocenter localization as well as block and field verifications. Two of these units are dedicated PET CT Simulators, and one is our Acuity system. In addition, the Acuity simulator is installed in a shielded vault to facilitate High Dose Rate (HDR) remote brachytherapy treatments without having to move the patient between simulation and treatment.

The radiation oncology department utilizes ARIA, a comprehensive information/treatment record and verification and image management system that aggregates patient data into a single, organized, oncology-specific electronic medical chart. We are currently at version 11, and are planning to upgrade to version 13 in 2014.

Radiation therapy treatment modalities:

- Stereotactic Ablative radiotherapy (SABR)
- 4D image-guided radiation therapy (IGRT)
- Volumetric modulated arc therapy (VMAT)
- Dynamic conformal arc radiation therapy (DCART)
- Frameless cranial stereotactic radiotherapy
- Total Body Irradiation
- Total lymphoid irradiation

- Total skin electron therapy
- Intraoperative radiation therapy (IORT)
- High dose rate (HDR) brachytherapy treatment in a dedicated shielded vault
- Low dose rate (LDR) brachytherapy treatment
- Intensity modulated radiotherapy (IMRT)
- Prostate permanent seed implant and temporary implant
- Respiratory gated radiation therapy
- Radioimmunotherapy

3D Volumetric modulated arc therapy- RapidArc - is a volumetric arc therapy that delivers a precisely sculpted 3D dose distribution with a single 360-degree rotation of the linear accelerator gantry. It is made possible by a treatment planning algorithm that simultaneously changes three parameters during treatment: rotation speed of the gantry; shape of the treatment aperture using the movement of multi-leaf collimator leaves and delivery dose rate.

Volumetric modulated arc therapy (VMAT) differs from existing techniques like helical IMRT or intensity-modulated arc therapy (IMAT) because it delivers dose to the whole volume, rather than slice by slice. And the treatment planning algorithm ensures the treatment precision, helping to spare normal healthy tissue.

Cranial stereotactic radiotherapy, which is carried out in collaboration with faculty from the Department of Neurosurgery, is a technique for treating arteriovenous malformations (AVMs) of the brain, other benign growths, certain brain and skullbase tumors as well as metastatic deposits in the brain. Frameless stereotactic radiotherapy treatments for are administered on the CyberKnife robotic system. The entire course consists of one to five fractions.

Stereotactic ablative radiation therapy (SABR) treatments for lung, prostate, liver, pancreas and other body sites are administered primarily on Truebeam, Trilogy and on occasions the CyberKnife. The entire course of treatment consists of one to five fractions.

Intraoperative radiotherapy (IORT) is a unique treatment that allows us to deliver a large dose of radiation to the tumor bed, in the operating room, after tumor removal with adjacent normal tissues moved out of the way or shield. This is another unique feature that is only available in few large academic practices. It is available in two of the operating rooms at Stanford. In order for VA patients to receive this therapy, the surgery must be performed at Stanford.

High dose rate brachytherapy (HDR) treatment provides intense, highly localized doses of radiation quickly and without radiation exposure to hospital staff. This is a one half-day procedure and can be done on an out-patient basis. It is used in treatment of a variety of sites including prostate cancer, endobronchial metastases, esophageal, rectal, prostate, uterine and cervical cancers.

Low dose rate brachytherapy (LDR) treatment uses low dose rate radiation isotopes to treat malignancies or benign conditions, by means of radioactive sources placed close to or into the

tumor or treatment site. This is a 2-3 days in-patient procedure. It is used in treatment of variety sites including head and neck, breast, uterine and cervical cancers.

Intensity modulated radiotherapy (IMRT) is able to modulate the intensity of a number of beams while the multileaf collimator (MLC) leaves move at constant velocity to their appropriate positions to achieve a conformal dose to the tumor while sparing more normal tissues. This enables dose escalation with the potential for improved local tumor control and less complications.

Prostate permanent seed implant for early stage prostate cancer, in a single outpatient procedure, provides survival and cancer control equivalent to radical prostatectomy. Comparable treatment with external beam radiotherapy would require 7 weeks of daily treatment.

Radioimmunotherapy program with ongoing clinical protocols is available for the treatment of a variety of cancers with radiolabeled monoclonal antibodies.

Patients also have access to voluntary participation in numerous national (ECOG, RTOG, GOG, POG) and in house clinical trials subject to appropriate protocol review at the PAVAH.

3D Computerized Radiation Therapy Treatment Planning System:

The Eclipse treatment planning system utilizes CT, MRI and PET imaging information by direct input, and correctly accounts for patient anatomy and inhomogeneities in three dimensions for radiation dose planning. Respiratory gated 4D scans can also be downloaded into this system for radiation dose planning of tumor sites that may move during respiration in order to reduce the amount of radiation to normal tissues and structures. The Eclipse treatment planning system is also capable to plan for Volumetric modulated arc therapy.

Physics Quality Assurance Program

The Radiation Oncology physics division provides a comprehensive quality assurance program for both patient treatments and medical equipment. Medical linear accelerators are fully calibrated annually for mechanical accuracy and radiation output by, or under direct supervision of, a board-certified physicist. High dose rate brachytherapy sources are calibrated upon arrival and checked monthly. Low dose rate source calibration policies vary according to type. Ir-192 sources are checked by measuring of 10% of incoming sources. Low dose rate but long half-life Cs-137 sources are checked against a specially-calibrated standard source and occasional review by a third party. Low-energy Iodine-125 seeds are supplied in a sterile format, having been checked and certified by the provider assays to verify manufacturer's calibration. Instruments used for measuring machine output are calibrated periodically by comparison with instruments calibrated by recognized standards laboratories. Instruments to measure brachytherapy sources are calibrated by an accredited laboratory for the specific source design to be used.

Measurement instruments are maintained by physics staff. Accelerator safety systems, mechanical systems performance and imagers are checked monthly for quality by a physicist.

Radiation output for each beam energy is calibrated monthly by a physicist and re-checked daily by radiation therapy staff. Also checked on a daily basis by radiation therapy staff supervised by a designated physicist are the symmetry and uniformity of treatment fields for each beam energy. Staff is trained to notify the supervising physicist of any deviation beyond pre-set values that are entered by the physicist in a computer-based monitoring system that captures the daily measurements into a database. In response to a physician's written statement of treatment intent, dosimetrists or staff physicists generate manual or computer-based patient treatment plans that are approved by the attending physician, then independently calculated by a staff physicist as a check of calculation accuracy prior to first treatment. Computer planning systems and revisions thereof are commissioned by physics staff prior to clinical use. The treatment record of each patient undergoing multi-fraction treatment is checked weekly by a physicist for compliance with the documented physician-approved treatment plan.

All brachytherapy treatment plans are independently checked signed off by a physicist. After every temporary placement of sealed-source radionuclides, the patient and room are surveyed following removal of the sources to verify that none was inadvertently left behind. Patients with permanent implants are surveyed with a radiation detector to verify compliance with all applicable regulations and policies prior to release. All sealed sources used for temporary placement are tracked and logged in and out of storage.

Michelle Kenyon, Director, Radiation Oncology Services
Department of Radiation Oncology
Stanford Clinical Cancer Center

Radiation Referral Summary 2013 @VAPAHCS

Treatment Location	Total	%
Stanford University Hospital	315	72.4%
St. Theresa Comprehensive Cancer Center	21	4.8%
CHOMP	19	4.4%
Stanford Emanuel Turlock	16	3.7%
O'Connor	14	3.2%
Prigge/Modesto	12	2.8%
Washington Fremont	12	2.8%
Salinas Radiation Oncology	5	1.1%
East Bay Radiation	4	0.9%
Sonora Cancer Center	4	0.9%
Santa Cruz Radiiation Oncology	3	0.7%
Fresno Cancer Cte	2	0.5%
Mills Peninsula Hospital	2	0.5%
Alta Bates Summit Medical Center	1	0.2%
Dr.M. Dowlatshahi.Radiation Oncology	1	0.2%
John Muir Medical Center Concord	1	0.2%
Monterey Radiation Oncology	1	0.2%
St. Joseph, Phoenix AZ	1	0.2%
Valley Medical Oncology Consultants	1	0.2%
	435	100.0%

VAPAHCS does not provide on-site radiation treatment. Patients who require radiation treatment are provided timely access to a full range of radiation therapy services on a referral basis to other agencies with radiation therapy capabilities. For patients who live far away from Palo Alto, they have a choice of receiving treatment at a facility that is closer to their dwelling. All radiation oncology referral facilities are accredited by recognized authority.

Radiation Referral Summary 2013 @VAPAHCS (By Cancer Type)

Cancer Site/Dx	Total	%
Lung	97	22.3%
prostate	89	20.5%
ENT	50	11.5%
Esophagus	21	4.8%
Brain	16	3.7%
Skin	14	3.2%
Multiple Myeloma	13	3.0%
Colon	11	2.5%
Rectal	11	2.5%
Lymphoma	10	2.3%
melanoma	7	1.6%
renal	7	1.6%
tonsil	7	1.6%
Breast	6	1.4%
gastric	6	1.4%
unknown primary	6	1.4%
Bladder	5	1.1%
GE Junction	5	1.1%
Merkel	5	1.1%
Hip	3	0.7%
Pancreas	3	0.7%
Ampullary	2	0.5%
Endometrium	2	0.5%
Liver	2	0.5%
Mycosis Fungoides	2	0.5%
sacral cordoma	2	0.5%
sarcoma	2	0.5%
tongue	2	0.5%
abdominal rhabdomyosarcoma	1	0.2%
Anal	1	0.2%
angiosarcoma	1	0.2%
astrocytoma	1	0.2%
bronchial	1	0.2%
Chordoma	1	0.2%
CLL	1	0.2%
colorectal	1	0.2%
CTCL	1	0.2%
ENT and Lung	1	0.2%
Ethmoid	1	0.2%
Eyelid	1	0.2%
Frontal/Parietal	1	0.2%
Groin	1	0.2%
Head and Neck	1	0.2%
leptomeningeal carcinomatosis	1	0.2%
Leukemia	1	0.2%
lip	1	0.2%
Neuroendocrine	1	0.2%
ovarian	1	0.2%
Pain met	1	0.2%
Pelvic	1	0.2%
Rectosigmoid	1	0.2%
Rib	1	0.2%
Skull	1	0.2%
Thigh	1	0.2%
Thorax	1	0.2%
Thyroid	1	0.2%
Ureteral	1	0.2%
	435	100.0%

Maria Tham
Cancer Program, VAPAHCS

Radiology Service

At VAPAHCS, the Radiology Service provides a full range of diagnostic and therapeutic imaging-guided examinations and procedures for patients with known malignancies as well as those at risk for developing malignancies. For many patients, top-flight imaging studies are essential for diagnosis, staging, treatment planning, and surveillance of their disease processes. Similarly, thoughtfully planned and carefully executed imaging-guided interventions can play key roles in the management of individuals who are battling cancer.

Radiologists at VAPAHCS are a key part of the cancer care team, providing essential expertise in all subspecialty areas of radiology. Patients are served at the main campus in Palo Alto as well as community-based outpatient clinics (CBOCs). State-of-the-art care is provided in CT (computed tomography), MRI, (magnetic resonance imaging), ultrasound, vascular imaging, interventional radiology, and general radiography, and all of these modalities are combined to deliver optimal support for each cancer patient. The most common types of cancer referred for imaging evaluation at our institution include those related to the lung, colon and rectum, liver, esophagus, lymph nodes, kidneys, skin (especially melanoma), and prostate.

In the VAPAHCS community, Radiology images are acquired using modern digital equipment. This provides substantial benefits in terms of throughput, reduction of radiation exposure and diagnostic quality. Our digital images are rapidly made available for clinicians to review throughout the institution utilizing an electronic “picture archiving and communication” (PACS) system, IntelliSpace. Additionally, it facilitates the presentation and discussion of patients’ imaging examinations during the many interdisciplinary tumor boards and clinical conferences in which Radiology Service participates. The rapid production of written reports is made possible with PowerScribe, our digital voice recognition dictation system.

This year will see continued improvement in the comprehensive breast clinic with the inauguration of Veteran centered in-house mammography. This is the first step in the eventual addition of comprehensive breast imaging and intervention offered within the health care system. We plan to offer screening mammography with tomosynthesis, also known as 3D mammography. We will ultimately offer any combination of screening and diagnostic mammography, ultrasound, MRI and intervention.

We have a top of the line 3Tesla MRI machine and two top of the line CT scanners. We are in the process of adding a third MRI machine to our campus. We have installed specialized hardware on the CT scanners to allow us to further decrease radiation dose for diagnostic imaging. These devices provide advanced capabilities for multi-phase imaging and high-resolution diagnosis, and provide us with the ability to perform new types of examinations that are not possible with older, less capable devices.

Interventional radiologists provide invasive diagnostic and therapeutic procedures for cancer patients. Their services range from biopsies to placement of long-term venous access devices, diagnostic high-resolution digital subtraction angiography, stent placement to treat obstructed organs, chemoembolization, transjugular intrahepatic portosystemic shunt procedures (TIPSS),

and radiofrequency ablations, among other procedures. The interventional radiology suite takes advantage of a biplane angiography suite, a CT/Angiography unit, and new tumor ablation devices. We are in the process of inaugurating a cancer radioembolization program.

Radiology participates in several active research programs that address many aspects of cancer diagnosis and cancer treatment. Ongoing work relates to abdominal imaging, thoracic imaging, neurological imaging, imaging of the head and neck, and musculoskeletal issues, to name a few. We are pleased to have strong collaborative relationships with many clinical colleagues in these endeavors.

In addition to these essential clinical and investigative roles, Radiology Service is an integral component in the education of VA colleagues as well as medical students, residents and fellows from Stanford University, all of whom are enhancing their abilities to care for patients with cancer. Teaching activities are conducted throughout each day, in venues including reading sessions for clinical examinations, clinical consultations, multiple tumor board conferences, and interdisciplinary clinical conferences. We are happy to share with others the imaging expertise that is essential for physicians to treat patients with cancer.

We in Radiology eagerly play key roles in the care of cancer patients, in research into ways to treat and prevent cancer, and in the education of individuals learning to treat patients with cancer. We are honored to serve in these ways and to support our Veterans who have cancer.

Payam Massaband, MD
Acting Chief, Radiology Service

Patient and Family Support

Audiology/Speech Pathology Service

Audiology/Speech Pathology Service (ASPS) continues to support early detection of cancer and to provide services to patients with cancer who have communication and swallowing problems. In fiscal year 2014, Speech Pathology saw at least 100 unique patients with head and neck cancer (many with high intensity of services) and expanded services for those patients.

Some of the patients with head and neck cancer live out of the area, but received surgery at VAPAHCS. Speech Pathology provided acute post-laryngectomy care for those patients until they returned to their home VA, including on-call weekend care for necessary supplies and final training before discharge.

In the prior fiscal year, Speech Pathology began providing some services for patients with laryngectomy at the Livermore Division. Those services were primarily for tracheostoma care. This year, tracheoesophageal voice prosthesis changes were also initiated at Livermore Division and electrolarynx training was started at San Jose Clinic. This allowed patients with laryngectomy to receive more convenient care.

This year, Speech Pathology began issuing a new artificial larynx for patients who do not have a tracheoesophageal puncture for a voice prosthesis. The new device is based on a diaphragm placed at the tracheostoma and activated by the patient's exhaled air. While it requires placement of a tube in the mouth to transfer the sound, it sounds more natural than electrolarynges and gives patients with laryngectomy another option for communication. ASPS is stocking all sites with demonstration models so that patients can trial the option.

Speech Pathologists received relevant training for this population. Example coursework included "Head and Neck Cancer: Early Detection," multiple courses on tracheoesophageal voice restoration, and informal training and proctoring for new clinicians.

Every effort is made to assure the highest quality of service and supplies are available to cancer patients with communication and swallowing problems. Training is provided for staff to extend the services to the CBOCs to improve access for the patients as well.

Arlene Kasprisin, Ph.D.
Chief, Audiology/Speech Pathology Service

Cancer Prevention Performance Measures

EOY cancer performance scores for FY14:

Breast Cancer Screen (p3)	83%- denominator of 600
Cervical Cancer Screen (p41)	93%- denominator of 944
Colorectal Cancer screen (p61h)	83%- denominator of 3639

Tobacco composite is 98% in patients seen in outpatient clinics. This includes advised to quit (smg8) , cessation meds offered (smg10) and Cessation program offered (smg 9) . We have done well with counseling a high percentage of tobacco users that were in the sample of records that were audited. The sampling is random, based on patients having a clinic appointment within 12 months in GMC, Pulmonary, Cardiac, Endocrine, Women's Health, and other medical or mental health clinics where primary care management occurs. There has not been a change in the sampling methodology for several years. Data collection for inpatient Tobacco use screening (SUB Composite) is now being collected.

The Women Health Program (WH) continues to be proactive in educating and reminding patients to have mammograms and PAP smears. Patients that do not have screening either refuse or are a "no show" for those appointments. The Women's Screening Program has continued to implement continuous quality improvement activities.

Quality improvement activities include:

- Simplification of the mammogram ordering process
- Continued collaboration with the Health Administration Service
- Close collaboration with mammography vendor sites
- Site visits by Linda Kleinsasser, WVPM, to mammography vendors to improve scheduling process
- Ongoing collaboration with Stanford Mammography on process improvement
- Patient reminders for overdue mammograms
- Collaboration with CBOC liaisons and PACT for process improvement
- Regular visits to CBOCs by WHC staff to provide women's health issues education
- Provider encouragement to close clinical reminders on cervical cancer and breast cancer screening
- WH staff to review all EPRP data and to provide feedback to PCPs
- Mental Health Providers (MH) identifying those patients who only wish to have MH care provided by VAPAHCS and who seek WH care elsewhere.

Colorectal cancer screening is done either by FIT Testing, colonoscopy every 10 years or a sigmoidoscopy every 5 years. Most of the patients screened have had a colonoscopy. Palo Alto HCS continues to have a high rate of colorectal cancer screenings compared to national rate of 81 %.

Margaret Lawrence, RN
Quality Safety and Value

Prostate Cancer Support Group

Our Prostate Cancer Support Group has been a great resource for our patients since 1999. We are very proud of our achievements with this group and we have done a lot since we first started. As part of our goal to seek ways to better benefit the group and continuously improve, we decided to open this group to other cancer survivors.

The Prostate Cancer Support Group meeting is in the Library Conference Room located in Palo Alto Division, Building 101, Room A2-120 from 11:30 am to 1:00 PM every month on the third Tuesday of the month. All veterans and the public (with their spouses and families) are welcome to the meeting. Light refreshment is served at each meeting. Staff at the Cancer Program provides the administrative assistance. Each month a speaker from the facility or the community is invited to the meeting to provide interesting and relevant medical and educational presentation to the group.

The following were the presentations/Discussions/Activities for the Cancer Support Group during 2013:

January 15, 2013	EFT (Emotional Freedom Technique); Veterans Stress Project	Marika Berman, MS
February 19, 2013	Nutrition, Healthy Eating and Cancer	Evelyn Shinoda, RD
March 19, 2013	New weapons to treat prostate cancer: abiraterone, enzalutamide, cabozantanib, and others	William Novotny, MD
April 16, 2013	Intimacy and Sexuality after Prostate Cancer	Stacy Dodd, Ph.D
May 21, 2013	Your Gleason Score, how you get it and what it means.	Dean Fong MD.
June 18, 2013	American Cancer Society-Programs and Resources for YOU	Cheryl Sinclair - American Cancer Society
July 16, 2013	Prostate Cancer and the Role of Radiology	Bao Do, MD
August 20, 2013	The Aging Eye	Cathy Glynn-Milley, RN
September 17, 2013	Open Round Table Forum	Lonnie Howard
October 15, 2013	Prostate Cancer Treatment: Patient-Centered Decisions	John Leppert, MD
November 19, 2013	Immunotherapy	Russell Pachynski, MD
December 17, 2013	Round table discussion of prostate cancer with a Urologist: Focus on changing attitudes regarding PSA testing , especially in older men.	James Masterson, MD

Lonnie Howard
Maria Tham
Prostate Cancer Support Group Coordinators

Chaplain Service

As part of the Oncology Care Team, it is the on-going assignment of the Chaplain to be a spiritual presence and resource that provides for the religious/spiritual/pastoral cares and concerns of all. Dr. Virginia Jackson, Chief of Chaplain Service, supports and ministers to Oncology patients in Oncology and Surgical Oncology Clinics, the Ambulatory Infusion Center and throughout the hospital on a consulting basis and as needed. Ministry is provided in-person and via telephone or V-Tel to in-patients and out-patients of diverse religious traditions as well as to those with no religious preference or belief.

Services provided by the Chaplain to the Oncology Care Team are:

- Chaplain support is available for Oncology/Surgery and Hospice team meetings and Tumor Board Conferences
- Twenty-four hour coverage is available for inpatients by Chaplain Service (On-Call after 4:00 PM)
- Telephone contact with patients and family members when appropriate (i.e. by referral)
- Ethical decision-making consultations as needed
- Charting patient visitations as a part of the interdisciplinary team responsibilities.
- Consultations with staff, patients and families in the Ambulatory Infusion Center
- Pastoral care and counseling visits that provide sensitized compassion, spiritual support, a caring presence and encouragement through prayer, laying-on-of-hands, and ministry of the Sacraments when appropriate.
- Available for walk-in pastoral counseling in the office

Some additional services we provide are Pre and post-surgery Support, Crisis Intervention, Bereavement Planning, Spirituality Groups and pastoral care and counseling via Telechaplaincy, Support Group for Women Veterans, Spiritual Formation, Rooms for Meditation and Prayer.

The Chaplain plays an active part in the Bi-Annual Cancer Survivor Day Event.

There is an ever increasing awareness and attention being given to the benefits derived from combining medicine with spiritual care for patients. VA Chaplains provide spiritual care and counseling for patients and families who request it. We offer a calm, safe and non-judgmental, non-anxious presence, especially regarding end-of-life issues, bereavement and grief counseling. We officiate at funerals and memorial services, on and off-site. It is an awesome privilege to be able to bring quality care and comfort to the veterans who suffer with cancer and their families by being present to meet their spiritual needs. We are grateful for the opportunity to enter into the journey of with our nation's veterans, who have borne the burden of our freedom and deserve the very best care we can give them.

The Reverend Dr. Virginia Jackson, D. Min., M.Div., BCC
Chief of Chaplain Services VAPAHCS

Community Health Services

The Community Health Nurse Coordinators are an integral component of the interdisciplinary team and provide a service that contributes significantly to the continuity of care of the veteran patient population. The CHNCs coordinate with the patient care coordinators and providers for timely inpatient discharges and support of outpatient services by rapidly accessing an array of quality home care and home hospice services over a wide geographic area. This coordination facilitates the collaboration of the community agency providers with VA providers to manage patient's symptoms in the home setting and seek early intervention to prevent lengthy hospitalizations, decrease emergency room visits, and improve quality of life.

The home health/hospice care provided varies with the individual needs of the patient from post-surgical interventions, pain management, symptom management, medication management, home safety evaluations, home IV therapy, to comprehensive home hospice care. Community-based home health/hospice referrals are made only to agencies that are currently state licensed, JCAHO accredited and/or Medicare certified while home IV referrals are made only to JCAHO accredited agencies. Some of the home infusion agencies are also contracted as Medicare D (pharmacy) providers. The payment sources can be varied but primarily are Medicare and VA Purchased Care.

The CHNCs provide for home health and hospice services that contribute significantly to the quality of care to patients with cancer in the home setting.

Nutrition And Food Service

Registered Dietitians
Department of Veterans Affairs
Leading the way to better health

Eating well during cancer therapy will help recovery and improve outcomes. Unfortunately, the treatments used to fight cancer and even the cancer itself can make eating very difficult.

A dietitian can address nutritional concerns early to help patients and caregivers prepare for eating challenges. Nutritional screening and assessment allows for identification of cancer patients who are malnourished or who are at risk for becoming malnourished. Inpatient dietitians and diet technicians individualize a patient's diet with their special needs in mind. A dietitian is available to outpatients and their caregivers upon request.

Educational resources, including videos and cookbooks, are available in the patient waiting areas, the libraries and upon request, to help patients and families cope with common eating problems such as: loss of appetite, nausea, vomiting, diarrhea, taste changes, chewing and swallowing problems, dehydration and weight loss. The ongoing monitoring and intervention by a dietitian is also important to help patients maintain overall nutrition status and overcome eating problems throughout cancer therapy.

The link between nutrition and cancer prevention is recognized. The message that healthy food choices may reduce the risk of some types of cancer is discussed with patients in outpatient Nutrition Clinics and nutrition and cancer prevention handouts are available to patients in other clinics.

Evelyn Shinoda, MS RD
Nutrition and Food Service

Physical Medicine and Rehabilitation

The Physical Medicine and Rehabilitation Service (PM&RS) provides support to the VAPAHCS Cancer Program primarily through its multidisciplinary approach to patient care:

The PM&RS physiatrist provides consultation as needed to address any rehabilitation needs of the oncology patient, such as recommendations for further rehab care and therapy post discharge.

Physical Therapy and Occupational Therapy receive referrals from the Pain Management Program, PM&R Service, Hospice, Medical Oncology Clinic and Inpatient Services to administer treatment as indicated for Oncology patients.

PM&RS has allocated a half-FTEE Occupational Therapy staff to join the team on the Hospice Program.

Occupational Therapy is essential in assessing ADL's, functional mobility, energy conservation, and pain management; as well as provide home evaluations, assessments for adaptive and durable medical equipment, grief counseling and family training.

Interventions provided to clients by Physical Therapy include: therapeutic exercise, functional and mobility training, manual therapy techniques, application and training in the use of assistive, adaptive, orthotic, protective, supportive and prosthetic devices; airway clearance techniques, wound management; electrotherapeutic, physical agents and mechanical modalities; and family training.

Jeffrey Teraoka, MD
Chief, PM&RS

Recreation Therapy Service

Recreation Therapy Service has 56 staff including recreation, music, art, and dance therapists and recreation therapy assistants who provide innovative treatment modalities to Veterans diagnosed with various forms of cancer. The goals of these therapeutic interventions are to improve functional level and achieve optimal wellness through a comprehensive continuum of quality care.

The Veterans seen in the Recreation Therapy Fitness and Wellness Clinic, located at MPD and PAD, with a primary diagnosis of cancer receive a range of treatments, including exercise instruction/therapy addressing de-conditioning, as well as general strength and endurance. In addition, pain management, relaxation, and stress management are derived benefits. Wellness programs include, but are not limited to, aquatic therapy, individualized exercise programs, cardio/universal weight equipment instruction, and facilitated exercise classes (aquatic and land based). Programs are based on a continuum of care through completion of an assessment, development of treatment programs with a wellness education emphasis, 1:1 therapeutic intervention, and transitioning Veterans into self-directed fitness participation if clinically appropriate.

Depending on a Veteran's level of functioning and individual interests, recreation/creative arts therapists offer the following: a variety of modalities that address his/her cognitive, social, emotional, physical, and spiritual needs through the provision of 1:1 or group treatment programs; bedside activities; sensory stimulation (auditory, visual, tactile); animal-assisted therapy visits; and music therapy. Moreover, during the Veteran's stay, Recreation Therapy Service focuses on the importance of creating a home-like environment in order to facilitate patients feeling as comfortable as possible. On the Hospice Unit, RT's can create a bedside program using an iPad that brings the past, present, and future to those unable to get out of bed. Therapists can reminisce, engage, and excite, as well as addressing the Veteran's cognitive, social, emotional, and spiritual needs.

Shawna Hill, CTRS in the Spinal Cord Injury Homecare Program and certified yoga instructor, utilizes adaptive yoga on a one-to-one basis with Veteran's who have a pre- and post-cancer diagnosis. Some issues targeted via yoga are decreasing pain, anxiety, elevating mood, and overall wellbeing while receiving treatment. Shawna also provides resources for adaptive yoga exercises, restorative poses, relaxation, and breathing techniques for Veterans to use at home.

Our art therapists use creative expression through art as a way to empower Veterans to overcome cancer emotionally. The Welcome Center offers an Open Art Studio, which provides a forum for Veterans to use art in a safe environment to explore, express and connect with an artist community.

Music therapy interventions utilized with Veterans who have cancer include songwriting, improvisation, guided imagery with music, lyric analysis, singing, instrument playing and relaxation techniques. Guitar lessons and group play are being offered at the Welcome Center. Current music therapy on the hospice unit addresses the following 5 needs/areas:

- Social - isolation, loneliness, boredom; music therapy can help Veterans who are withdrawn become more engaged with others.
- Emotional - depression, anxiety, anger, fear, frustration; music therapy can give Veterans a safe, constructive outlet for emotions.
- Cognitive - neurological impairments, disorientation, confusion; music therapy can help orient a Veteran to the present time/place, and can also aid in reminiscence and memory.
- Physical - pain, shortness of breath; music therapy can address pain through focusing the mind on a musical activity, therefore reducing the amount of attention given to the pain.
- Spiritual - lack of spiritual connection, need for spiritually based rituals; music therapy can provide a spiritual connection through the singing of spiritual songs/hymns.

Within the VAPAHCS, some Veterans are faced with cancer while actively engaged in other VA programs. On such occasions, the program's Recreation/Creative Arts Therapist will adjust treatment approaches. Whatever involvement the Veteran has through the Recreation/Creative Arts Therapy component of that program, it will speak to concerns posed by their cancer, as well as continuing to recognize individual pre-existing treatment goal(s) as participants in that program. When partnering in treatment work the Recreation/Creative Arts Therapist, the focus is to provide service within Veterans' existing milieu or program structure while actively recognizing their cancer experience, thus honoring all facets of their current life in treatment. We strive to provide new opportunities to serve Veteran's fighting and recovering from cancer. There are future plans to reach out further to this Veteran group by incorporating canine interventions and providing leisure education to the Veterans and their caregivers.

In conclusion, Recreation Therapy Service strives to provide the highest quality of care in assisting Veterans and their families to acquire skills and resources to better cope with the cancer diagnosis and treatment.

Caroline Wyman, CTRS
Chief, Recreation Therapy Service

Smoking Tobacco Use Cessation Support Service

March 1993, a Smoking Cessation Task Force was initiated by the Director, Palo Alto VA Health Care System, through Quality Management. The Chairman of the Task Force appointed a Smoke Free Coordinator/Lead Smoking Cessation Clinician. The goal was to improve the state of smoking cessation treatment throughout the medical center; thus a Smoking Cessation Policy was developed and implemented. Since 1993, the Task Force has provided patients and staff with educational materials and has developed smoking and tobacco use cessation treatment programs.

Smoking Policy
The Smoking Policy, detailing where smokers may smoke on VA property, is set by the Clinical Executive Board and the Partnership Council. Recommendations for new policies come from VA Central Office, VA staff, and the Smoking and Tobacco Use Cessation Lead Clinician. Since October 1st 1998, the Palo Alto VA Health Care System has adopted a policy of a generally smoke-free campus with the exception of specially designated smoking areas. There are 3 areas with such designation at the Palo Alto Division, 5 at the Menlo Park Division and 3 at the Livermore Division, in addition to smoking allowed in most parking lots at all facilities.

Smoking Cessation Treatment
VAPAHCS offers several smoking cessation treatment options. Tobacco cessation medications are available on the Formulary (including nicotine replacement, bupropion and varenicline). Primary Care Providers are able to order these medications and carry out smoking cessation on their own or refer their patients to one of our smoking cessation programs. Varenicline is used very cautiously and is reserved for smokers unable to quit with nicotine replacement or bupropion. Smoking Cessation Clinics are established at three facilities of the Palo Alto Health Care System: Palo Alto, San Jose, and Stockton. Clinics permit patient self-referral. All clinics accept referrals by electronic consult.

Palo Alto Division: (Covers both Palo Alto and Menlo Park outpatients): Call (650) 493-5000. After the computer voice answers the phone, press the number 1, then 1 again, and then extension 67004. Talk to or leave a message for Dr. Jessica Lohnberg, requesting an appointment. Providers may send electronic consults to Smoking Cessation (PAD). New patients meet most Wednesdays at 10:30am in MB3, Suite 350-Behavioral Medicine Clinic. Follow-up sessions are Wednesdays 9:00 to 10:30am in the same location. Call Dr. Lohnberg, with any questions.

For Women Only: Call (650) 493-5000. After the computer voice answers the phone, press the number 1, then 1 again, and then extension 66986. Talk to or leave a message for Dr. Beth Manning, requesting any desired additional information (appointment not necessary). Dr. Manning facilitates a drop-in Smoking Cessation group the 4th Tuesday of every month 1:00-2:00pm in the Women's Resource Center, Bldg. 5, Floor 3, Rm. A352 Palo Alto Campus. No consult necessary.

San Jose Clinic: Patients may call Dr. Gary Miles at (408) 363-3000. After the computer voice answers the phone, press the number 1, then press the number 4, and then extension 73037. Talk to or leave a message for Dr. Miles, requesting an appointment. Dr. Miles meets new patients for smoking cessation on Fridays at 2:00pm. Follow-up sessions are Fridays at 3:00pm. Providers may send an electronic consult to Smoking Cessation (SJC).

Stockton Clinic: Patients may call Dr. Hilary Keegan at (209) 946-3407. Talk to or leave a message for Dr. Keegan, requesting an appointment. Dr. Keegan meets new patients for smoking cessation on Thursdays at 11:00am. Follow-up sessions are Thursdays at 10:00am. Providers may send electronic consults to Smoking Cessation (STC).

Telequit: Patients who either live far from one of the three Smoking Cessation Outpatient Clinics mentioned above or are otherwise unable to come to the clinic or those who simply prefer phone-based services can be treated through Telequit, our phone-based program. Patients may call TeleQuit directly at **1-650-493-5000.** After the computer voice answers the phone, press the number 1, then press the number 1 again, and then extension **60557**. Coordinators are available to take calls Monday-Friday, 8:00 AM - 4:30 PM. Veterans and VA employees may call after 4:30 PM and leave a message or visit http://www.paloalto.va.gov/services/telequit.asp. Providers may also send electronic consults to Telequit. Please verify that the patient's phone number is updated in CPRS prior to sending the consult. Nicotine replacement, bupropion, and varenicline are available and prescribed by Telequit staff.

Employee Smoking Cessation Treatment: Employees who are interested in quitting smoking can access services through Telequit and the smoking clinicians named above. As of September 2010, it has become VHA policy to provide free over-the-counter formulations of nicotine replacement therapy to employees who are seeking assistance with quitting tobacco.

Additional Non-VA-based Telephone Resources for Smoking Cessation: Smoking Quitline 1-855-QUIT-VET (1-855-784-8838) is a toll free telephone smoking cessation quitline specifically for veterans that offers LIVE personalized counseling, follow-up calls and help developing a quit plan from trained counselors. This service is available Monday through Friday from 5:00 am to 7:00 pm PT, but any caller who calls outside that time has the option to leave a voicemail for later contact; California Smokers' Helpline (1-800-NO-BUTTS [1-800-662-8887], www.nobutts.org).

Online Smoking Cessation Resources Specific to Veterans:
http://www.publichealth.va.gov/smoking/quit_smoking.asp for links to SmokeFreeVet (smoking cessation assistance via text) and Stay Quit Coach (mobile app for maintaining smoking cessation).

Text-based Smoking Cessation Resources Specific to Veterans: SmokefreeVET is a free text messaging program to provide daily support, advice, and encouragement to you when you quit smoking. Messages are delivered directly to your cell phone by text message. The program

begins up to 2 weeks before your quit date and continues for 6 weeks afterwards. You can sign up for the program in English by texting the word **VET** to **47848** from your mobile phone or by visiting smokefree.gov/VET. For Spanish, text **VETesp** to **47848** or visit smokefree.gov/VETespanol.

Health Education

The Smoking Cessation Task Force uses opportunities such as the Great American Smokeout, Health Fairs, and other events through the Health Promotion Disease Prevention Committee as opportunities to provide information to patients and staff on the risks of smoking/tobacco use and benefits of quitting.

Veronica Reis, Ph.D
VAPAHCS Health Behavior Coordinator

Smoking Cessation – Telequit

The VA's TeleQuit Smoking Cessation Program is telephone based smoking cessation program .Telephone-based care means no in-person clinic visits to arrange for patients. TeleQuit provides medication management and counseling services to all veterans and VA employees. The counseling is provided by California Smokers Helpline and Nevada Tobacco Users Helpline.

Our program receives the referrals from 4 facilities in VISN 21, which are Palo Alto, Northern Ca, San Francisco and Sierra Nevada VA HCS. Providers from these VA facilities place a consult for the TeleQuit Program on CPRS and we accept them on the following day and inform the provider via CPRS note attached to the TQ consult that we'll contact the patient they are referring. Our TeleQuit coordinator calls the patient and if she/he still interested enrolling in the TeleQuit program and enroll them. The TQC takes a detailed smoking history including history of chest pain, heart attack, eating disorder, seizure disorder to exclude any contraindication for smoking cessation medication. Veteran is also asked about the preferred smoking cessation medication. The TQC sends this information to the TeleQuit nurse practitioner (NP). The NP then evaluates the medical information, reviews the patient's chart on CPRS, prescribes smoking cessation medication (if appropriate), and arranges for the medication to be sent to the patient. We offer nicotine patch, gum, lozenge, bupropion and Varenicline. During the enrollment veterans are being asked whether they are interested having the counseling service from CSH. If the veteran is interested, he/she is connected to CSH via 3 way phone call. The smoking cessation counseling is provided by CSH per their protocol and they also send some brochures with helpful information for smoking cessation. TQC also mails the enrollment packet to the enrolled veterans, which contain a welcome letter with our contact information, medication refill instruction, medication flyer with side effect of smoking cessation medication and when to contact Telephone Care Program and a brochure of Telephone Care Program.

TQC makes a follow-up phone call to all veterans regardless of their enrollment status (TQC contacts all veterans who were referred to the TeleQuit at 6 month) at 6 month to determine, if he/she is a current smoker, to offer treatment options for quitting. We also contact to enrolled veterans at the end of the first month to see how they are doing and if they need any refill on their smoking cessation medication.

Since its launch in 2007, TeleQuit has managed the smoking cessation care of over 6, 500 veterans throughout VISN 21.

Our 6 month abstinence rate is 25%.

For more information regarding TeleQuit Program, please visit
http://www.paloalto.va.gov/telequit.asp or call us 1-800-455-0057 ext. 60557(Palo Alto).

TeleQuit Team

Our program Director is Dr. Ware Kuschner at the Department of Pulmonary and CCM at VAPAHCS and program manager is Sebnem Guvenc-Tuncturk.

Our program nurse is Liz Benishin,RNP .She evaluates the medical information, reviews the patient's medical history , prescribes smoking cessation medication (if appropriate), and arranges for the medication to be sent to the patient. She also follows up with patients who needs refill of the smoking cessation medication.

There are 5 TeleQuit coordinators in the program who contact to veteran for enrollment, take detailed smoking history and send this information to the TeleQuit nurse practitioner (NP) .They also inform referring providers via updated clinical notes on CPRS.

Telequit has a toll free phone number available to veterans. **1-800-455-0057 ext. 60557(Palo Alto).**

The VA TeleQuit coordinator is available to take these calls Monday-Friday, 8:00 AM - 4:30 PM. Veterans may leave a message on the voice mail. A TeleQuit coordinator will return the call as soon as possible.

Sebnem Guvenc-Tuncturk.
Program Manager

Dr. Ware Kuschner
Program Director

Social Work Service

Social Work Service is an integral part of the VA PAHCS Oncology team. Social Work Service will provide services and support to oncology patients in the outpatient clinic (including Ambulatory Infusion Center); this includes Oncology Clinic, ENT Clinic, General Surgery Oncology Clinic and Urology Clinic as well as Hematology Clinic; the social worker will continue to follow these patients during admissions to PAD. In addition, the social worker will continue to coordinate with veterans and their families during IICU and MSICU admissions

The following is a list of some of the services offered:

Orientation: Social Work provides new Oncology Clinic patients with an orientation to the Oncology Clinic and the VA. All veterans new to the Oncology Clinic meet with the Oncology Social Worker; the New Patient Packet is reviewed at that time. The social worker is responsible for updating and distributing the New Patient Packet. The oncology social worker meets with all new Oncology Clinic patients.

Assessments: The social worker will meet with all new oncology clinic patients to complete an initial psychosocial assessment, which includes an evaluation of coping skills, support systems and financial needs. Veterans are given concrete information about the cancer program as well as emotional support and psychotherapeutic intervention when needed.

Concrete Needs: Social Work will assist veterans and families with applying for benefits, accessing community and VA resources for financial assistance, transportation, housing, at home assistance, food bank referrals, food stamps, Hometel and Fisher House referrals; VA waivers, and many other VA related forms that veterans must complete. Social Work will expedite the process of filing for Agent Orange claims (schedule the initial appointment and refer veteran to Veterans Service Office to file the Agent Orange Claim).

Social Work will also refer veterans to the American Cancer Society, the Leukemia Lymphoma Society and Cancer Care (transportation reimbursement, financial assistance, co-pay assistance). Social Work coordinates referrals to various community agencies (transportation, food, housing, and assistance).

Counseling: Social Work will assist veterans and families with coping with a cancer diagnosis and treatment. As part of this, Social Work will assist veterans with the Advance Directive, POLST and end of life discussions and planning.

Social Work now incorporates group psychotherapy (Cancer Forum) as part of the Oncology Team approach to cancer care. This group meets weekly and includes veterans and families; it serves as a method of delivering ongoing education and support as well as psychotherapeutic intervention to our veterans. This group meets weekly.

Education: The Social Worker will provide education and information about cultural, familial and interpersonal issues that can impact styles of coping with cancer and treatment implications. Social Work will provide cancer literature provided by the American Cancer Society, Leukemia Lymphoma Society, National Cancer Institute and LiveStrong Foundation.

Community Resources: Social Work will provide information about community resources ranging from the American Cancer Society to Food Banks. The Social Worker will actively develop good relationships with the various community agencies that can assist our veterans.

The Social worker has referred more than 105 veterans to the American Cancer Society; in addition, referrals are made to Cancer Care and Leukemia/Lymphoma Society.

The Social Worker provides resources and information by providing literature from the National Cancer Institute, American Cancer Society, Patient Resource Center, LLS and VA related resources (Agent Orange, Gulf War, Iodized Radiation, etc.).

Collaboration: The Social Worker will collaborate with Stanford Cancer Center to coordinate radiation schedules for our veterans. The coordination includes the Oncology Clinic, Hometel, Fisher House sub-acute unit inpatient programs, as well as Medical Respite/Little Orchard Shelter. Coordination of radiation treatment is an integral part of the social work function. In addition, the Social Worker will work closely with the veteran's oncologist, ambulatory infusion team, behavioral medicine, chaplain services and families to provide the highest quality of care to our veterans.

Multi-Disciplinary Support: The Social Worker has instituted an ongoing support group for Ambulatory Infusion Center nursing staff. This group meets monthly. The focus is to provide support to AIC staff as they deal with seriously ill and dying veterans.

Commission on Cancer: The Social Worker is responsible for developing and implementing the Commission on Cancer standard: Patient Navigation. The social worker has identified the following areas of navigation: Homelessness, Psychosocial Issues, Transportation and Housing, and Military Service Connected Disabilities (as to pertaining to cancer).

The social worker is coordinating with Behavioral Medicine in re: Psychosocial Distress Commission on Cancer Standard.

Patient Advocacy: The social worker also serves as an advocate for the veterans coordinating with inpatient medical teams, ER team, community hospitals and hospices.

Telemedicine: The social worker is the principal Navigator of the Oncology Telemedicine Education Group - Navigating Cancer Treatment with Knowledge. This is a multi-disciplinary group: Oncology Psychologist, Oncology Pharmacist, Oncology Ambulatory Infusion Centers RNs

(CNS-Oncology), Oncology Dietician, Oncology Nurse/Cancer Survivorship Clinic and the Oncology Social Worker.

The Telemedicine Group meets at 1100 hours on Mondays connecting with the Fremont, Modesto, San Jose, Sonora and Stockton CBOCs.

On Wednesdays at 1300 hours, the group connects with Fremont, Modesto and Monterey CBOCs.

In addition, the Social Worker, Oncology Fellow and Attending Oncologist participate in Oncology Telemedicine appointments on Wednesdays at the following CBOCs:

Monterey @ 0900 hours
Fremont @ 1000 hours
Livermore @ 1100 hours
Modesto @ 1300 hours
Sonora @ 1400 hours

An abstract of the Telemedicine work titled "Evaluation of patient satisfaction and travel benefits of an innovative teleoncology clinic" was submitted to the ASCO meeting held in June 2014. See link for more information.

http://meetinglibrary.asco.org/content/129352-144

Homeless Veterans: The social worker coordinates cancer treatment for homeless veterans (part of the Navigation Process); the homeless veteran population frequently present with complicated medical problems (in addition to cancer) as well as complex psychosocial problems.

Transplant Coordinator: The social worker serves as the Transplant Coordinator for BMT. The social worker coordinates with the oncology team and assembles the transplant packet; prepares the packet for VACO Transplant Office and submits the packet electronically.

Oncology Huddle: The social worker has instituted a daily "Huddle" prior to each Oncology Clinic. The Huddle serves as a way to education our Oncology providers, develop team building and to emphasize the importance of VA Core Values (INTEGRITY COMMITMENT ADVOCACY RESPECT EXCELLENCE).

Oncology 101: The social worker (and Oncology Nurse Specialist) have developed an educational course: Oncology Clinic 101; this forum is an informal education orientation "class" for the Oncology Fellows and new Oncology Team members. The purpose is education about Oncology Clinic, the AIC, the Oncology Team members and the Department of Veterans Affairs.

Additional Social Work Functions:
The social worker participates in the Inter Disciplinary Ambulatory Infusion Center meetings. The social worker also is a member of the Leukemia Lymphoma Society Patient Services Committee, which is a community-wide group that discusses various cancer services available in Silicon Valley.

Karen L. Chwick, LCSW, OSW-C
Oncology Social Worker
VA Palo Alto Health Care System

Women Veterans

VAPAHCS served 5103 women in FY 2013. . Women Veterans at VAPAHCS are increasing at all sites of care. The growth is expected to continue and even increase over the coming years

The increase seen at VAPAHCS is consistent with the national statistics. Women Veterans using VHA services have increased significantly in the past decade, doubling between FY00 to FY2010, from 159,630 to 292,921, an approximate 83% increase. Women now comprise 6% of VA healthcare users, but are closer to 10% of VAPAHCS users. This increase is seen due to the increase of women serving in active duty roles. Women now comprise approximately 18% of all active duty military and 14.5% of all National Guard and Reserves.

VAPAHCS serves women Veterans of all age groups. The number of women Veteran users at VAPAHCS varies substantially by age group. The largest group is the middle age group (45-64 years). However, we do care for a large number of elderly women (75+ years), and a substantial number of women in the reproductive years (<35 years). The number of elderly women is declining, whereas the number of young women is increasing. Among women <35 years old, the rate of growth has been the highest, suggesting that there will be an increasing need for expertise to meet the health needs of women in the reproductive years. Nearly half of women veteran's users hold a service-connected disability status. VAPAHCS is committed to and equipped to serve the healthcare needs of women Veterans of all age groups from the young returnees of war to the older women Veterans—the largest subpopulation of female VA health care users.

Women's Health Program
VAPAHCS has made it a priority to ensure that all women Veterans receive equitable, high quality, and comprehensive health care services and to decrease fragmentation in delivery of healthcare to women Veterans. VAPAHCS understands the importance of planning and meeting the needs of all women Veterans as their numbers continue to increase, especially if market penetration increases among those women Veterans who currently do not use VA services. In recognition all of the services provided by the WH program, it was given the award of Excellence in Clinical Care in 2008.

VAPAHCS is transforming health care delivery to women by delivering Comprehensive **Primary Care** by proficient and interested primary care providers at all sites of care including all of our CBOCs. These designated WH providers are interested and proficient to meet the gender-specific needs of women Veterans in a private and safe environment with dignity, and respect. Comprehensive Primary Care means provision of complete primary care from one primary care provider at one site to include:

- Care for acute and chronic illness
- Gender specific primary care
- Preventive Services
- Mental Health Services
- Coordination of care

Women's Health Center

The Women's Health Center at the Palo Alto campus is a comprehensive clinical center providing a wide variety of services since 1992 and was established as part of a national initiative to improve services for women Veterans. The WHC is a model 3 clinic, which not only provides comprehensive primary care but also delivers an array of additional services to meet the needs of the women Veterans .

The Women's Health Center is open five days a week and provides the following services:

1. Primary Care including preventive health screening
2. Mental health services including psychology and psychiatry
3. Reproductive health care, including gynecological care, infertility evaluation and genetic testing
4. Care coordination for obstetrical care
5. Comprehensive Breast Care Clinic, (breast surgeons/oncology)
6. Comprehensive OIF/OEF/OND clinic
7. Women's Pain Clinic
8. Women's Rheumatology Clinic
9. Pelvic Floor Rehabilitation Clinic
10. Women's Cardiology Clinic
11. Women's Heart Health Clinic
12. Spirituality groups
13. Women's Wellness Group
14. Mental Health Groups
15. Social Work Services
16. Nutrition Advise
17. Pharmacy care
18. Women's Tele-Health services
19. Psychology CVT services

Maternity care is not available within the VAPAHCS but a comprehensive process ensures that all women Veterans receive OB care close to their residence through a fee care process.

Patient education is key, and the WHC strives to educate its patients on topics such as:

1. Incontinence
2. Family planning
3. Menopause management
4. Weight management
5. Smoking cessation
6. Counseling on medical, spiritual, social, and wellness issues.

Women's Health Education and Research Programs:

WE TEACH WHAT WE DO AND WE DO WHAT WE TEACH; WE STUDY WHAT WE DO AND WE DO WHAT WE STUDY.

In addition to clinical services, the WHP strives to provide the best educational experience for the future generation of clinicians not only in women's health but also in understanding the unique needs of women Veterans. Training in women's health is provided to medical and RNP students as well as psychology interns and medical residents. The award winning research program at VAPAHCS is one of the leading programs in the nation that carries out research in the area of women Veterans. Recently, sensitivity training about women Veterans was provided to staff at different sites and clinics by Linda Kleinsasser, WVPM.

Women's Mental Health Programs:

VAPAHCS has two outstanding women Veterans mental programs

1. Women's Counseling Center
2. Women's In-Patient Trauma Recovery Program

Gender Specific Care:

Breast and cervical cancer screening is performed according to VA guidelines. VAPAHCS provides mammography services through fee care arrangements. Several mammography sites have been chosen strategically which ensures that these services are available within 50 miles of a patient's residence as suggested in policy 1330.01. All mammogram results from fee-based sites are mailed to patients, and patients with abnormal results are contacted in person for follow up. Abnormal results are tracked closely.

Cervical cancer screening is performed as part of the comprehensive primary care by designated WH providers including the CBOCs. Some patients continue to come to the WHC to obtain their gender specific care. All women are notified of Pap smear results by letter and abnormal results are given to the patient by phone. Follow-ups of abnormal pap smears, complicated GYN issues and IFC referrals are done in a timely manner through our gynecologist.

In addition to the routine breast cancer screening efforts described above, we have recently expanded our screening, preventive and diagnostic efforts. We are educating primary care providers on use of a clinical breast cancer risk model to assist with identification of women at significantly elevated risk of breast cancer. These women are then to be referred to breast oncology clinic for counseling on breast cancer risk reduction strategies, including use of a selective estrogen receptor modulator or aromatase inhibitor for chemoprevention. In women with more than twice the average lifetime risk of breast cancer, magnetic resonance imaging (MRI) and twice-yearly clinical breast exam are offered for intensive screening, according to national guidelines.

Within our comprehensive breast clinic, women and men are evaluated for likelihood of a hereditary breast or ovarian cancer syndrome, and are offered genetic counseling and testing

as indicated thus decreasing the need to refer identified mutation carriers to tertiary care cancer genetics clinics for consultation regarding management of cancer risk.

Among other recent breast cancer initiatives, we have improved our diagnostic capabilities. An ultrasound machine is now available in our breast clinic, enabling "real-time" biopsy of suspicious lesions; this decreases the wait time for a diagnosis, and in doing so, reduces patient anxiety. We are continuing to work on bringing mammography to the VA for better coordination and quality control. Phase one will start in 2015 with screening mammography. We have expanded our breast cancer care team to encompass all specialties needed for optimal delivery of our care. Our team includes breast surgeon, dedicated oncologist, psychologist, physical therapist who has expertise in lymphedema treatment, social worker, and nutritionist. Our breast cancer care team meets regularly to devise multidisciplinary treatment plans for newly diagnosed patients; this communication enhances quality of care and expedites initiation of appropriate breast cancer therapy. Additionally, our breast cancer specialists coordinate their weekly clinic on the same day, to reduce travel time for patients and increase their ability to attend all recommended cancer-related appointments.

Our Women's Health Team actively promotes breast cancer and cervical cancer awareness through educational booths held at breast cancer walks, health fairs, and community outreach events.

In addition, our breast surgeon, Dr. Ly, is a member of the VA Breast Cancer Clinical Task Force – a team chartered to devise guidelines and recommendations for breast cancer care to ensure the care delivered to our veterans would meet or exceed the accepted national standards.

Compliance and Satisfaction:

Patient satisfaction continues to be very high for services offered to women Veterans. Privacy and safety are key for women veterans and all efforts are made at VAPAHCS to ensure that all veterans including women veterans receive care in a safe and private environment and with dignity.

Samina Iqbal, MD
Medical Director, Women's Health Program

Linda Kleinsasser, RN-BC
Women Veterans Program Manager

2013 Cancer Conferences

The VAPAHCS Cancer Conference provides clinical information, pathologic staging, and treatment recommendations for the patient's disease. It functions as a multidisciplinary diagnostic and oncologic team for case review. The Cancer Conference Board is comprised of a multidisciplinary group of oncology attending physicians, fellows, residents, physician assistants, nurses, medical students and other specialists from Diagnostic Radiology, Pathology, Radiation Oncology and General Surgery. The format includes a complete presentation of medical history, physical findings, clinical course, radiographic studies and pathological interpretation. The specialists provide multidisciplinary input to resolve complex management problems. They identify patients eligible for chemotherapy protocol or radiation treatment. The conference also provides an education forum for all medical staff. One credit hour of Continuing Medical Education (CME) by the Stanford University School of Medicine is provided for the attendees of the Multidisciplinary CME Tumor Board Conference held on the 4th Monday of every month.

A total of 84 Cancer Conferences were held in 2013. 472 analytic cases were presented. This represents 61% of our annual analytic caseload. Out of the 472 cases, 472 were prospective cases, which equal to 100% of the total analytic cases presented. Average physician attendance was 100%. The standard of American College of Surgeons' Commission on Cancer (CoC) requires at least 10% of the analytic caseload and at least 75% of prospective cases to be presented annually. We met and exceeded the CoC requirements. We also met our physician attendance goal set at 80%.

The following are the schedules for VAPAHCS Cancer Conferences.

Genitourinary (GU) TB Cancer Conference meets on the 3rd Tuesday of the month in the Pathology Conference Room, Building 100, 4th Floor at 4:00 PM.

Liver TB Cancer Conference meets on the 1st Wednesday of the month in the Pathology Conference Room, Building 100, 4th Floor at 8:AM.

Multidisciplinary CME Cancer Conference meets on the 4th Monday of the month in the Auditorium at 12 PM.

Otolaryngology (ENT) Cancer Conference meets every Thursday at Stanford Cancer Center, Clinic B at 10 AM.

Lung TB Cancer Conference meets on the 2nd and 4th Thursday of the month in the DRC Conference Room at 4:00 PM.

Maria Tham
Tumor Board Coordinator

Clinical Research in Oncology

The following is a list of clinical research protocols open at the Veterans Affairs Palo Alto Health Care System. The VAPAHCS participates in the Eastern Cooperative Oncology Group – American College of Radiation Imaging Network (ECOG-ACRIN) as part of the Stanford Main Institution Consortium. The Department of Radiation Oncology at Stanford, which provides consultation and treatment for referred Veterans at VAPAHCS, is also an affiliate member institution of NRG Oncology. In addition, several other clinical trials were available through Nursing Service, Medical Oncology, and Hematology.

Available Clinical trials in 2013-2014

1. E1305: A Phase III Randomized Trial of Chemotherapy with or without Bevacizumab in Patients with Recurrent or Metastatic Head and Neck Cancer

2. E1609: A Phase III Randomized Study of Adjuvant Ipilimumab Anti-CTLA4 Therapy versus High-Dose Interferon α-2b for Resected High-Risk Melanoma

3. E5508: Randomized Phase III Study of Maintenance Therapy with Bevacizumab, Pemetrexed, or a Combination of Bevacizumab and Pemetrexed Following Carboplatin, Paclitaxel and Bevacizumab for Advanced Non-Squamous NSCLC

4. E6508: A Phase II Study of L-BLP25 and Bevacizumab in Unresectable Stage IIIA and IIIB Non-Squamous Non-Small Cell Lung Cancer after Definitive Chemoradiation

5. CALGB-30901: Randomized Phase II Study of Maintenance Pemetrexed Versus Observation for Patients with Malignant Pleural Mesothelioma without Progression After First-Line Chemotherapy

6. E2511: Phase I and Randomized Phase II Double Blind Clinical Trial of Cisplatin and Etoposide in Combination with Veliparib (ABT-888) or Placebo as Frontline Therapy for Extensive Stage Small Cell Lung Cancer

7. Phase II trial of Individualized Lung Tumor Stereotactic Ablative Radiotherapy (SABR)

8. 4D-CT-based Ventilation Imaging for Adaptive Functional Guidance in Radiotherapy

9. RTOG0937: Randomized Phase II Study Comparing Prophylactic Cranial Irradiation Alone To Prophylactic Cranial Irradiation And Consolidative Extra-Cranial Irradiation For Extensive Disease Small Cell Lung Cancer (ED-SCLC)

10. CALGB30610/RTOG0538: Phase III Comparison of Thoracic Radiotherapy Regimens in Patients with Limited Small Cell Lung Cancer Also Receiving Cisplatin and Etoposide

11. RTOG1106: Randomized Phase II Trial of Individualized Adaptive Radiotherapy Using During-Treatment FDG-PET/CT and Modern Technology in Locally Advanced Non-Small Cell Lung Cancer (NSCLC)

12. Imaging and Biomarkers of Hypoxia in Solid Tumors

13. Molecular Analysis for New Biomarkers in Colorectal Cancer

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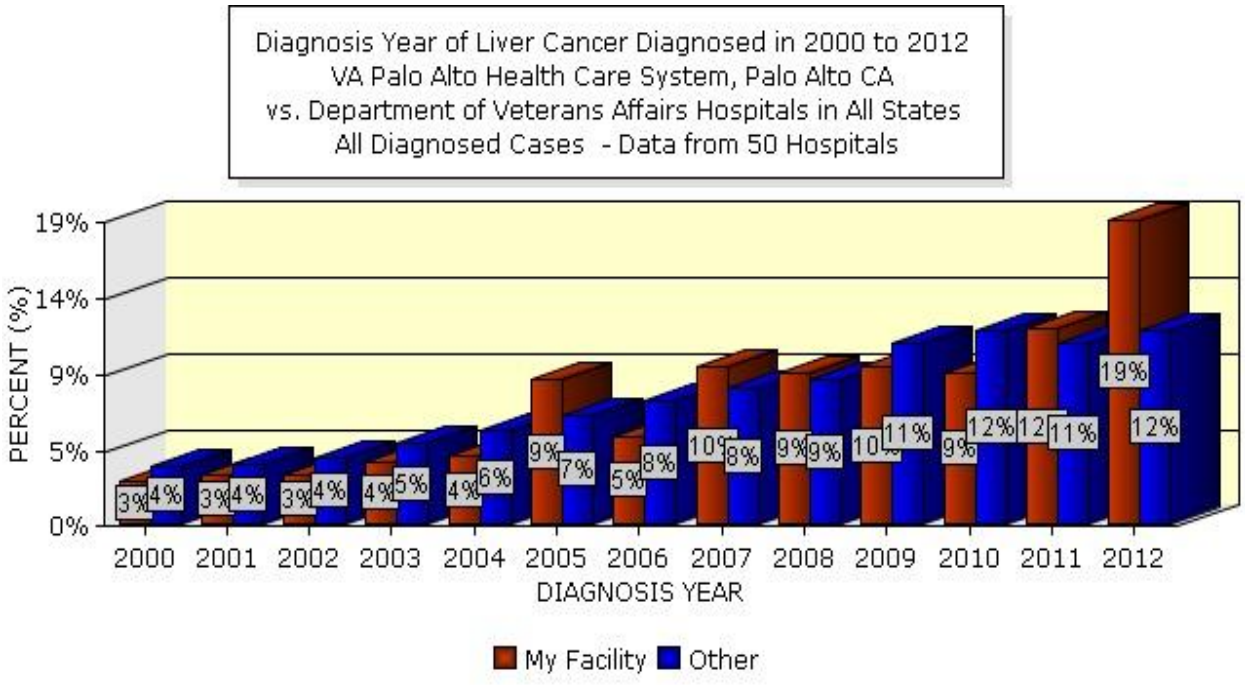
Liver Cancer Patient Care Evaluation Study- 2000 - 2012

This report surveys the Veterans Affairs Palo Alto Health Care System (VAPAHCS) experience with liver cancer from 2000-2012. Liver cancer is the fastest growing cancer in the Veterans Affairs (VA) system and nationwide. *(1)* It is the 6th and 7th most common cancer in men and women, respectively.

The American Cancer Society's estimates for primary liver cancer and intrahepatic bile duct cancer in the United States for 2014 are:

- About 33,190 new cases (24,600 in men and 8,590 in women) will be diagnosed
- About 23,000 people (15,870 men and 7,130 women) will die of these cancers

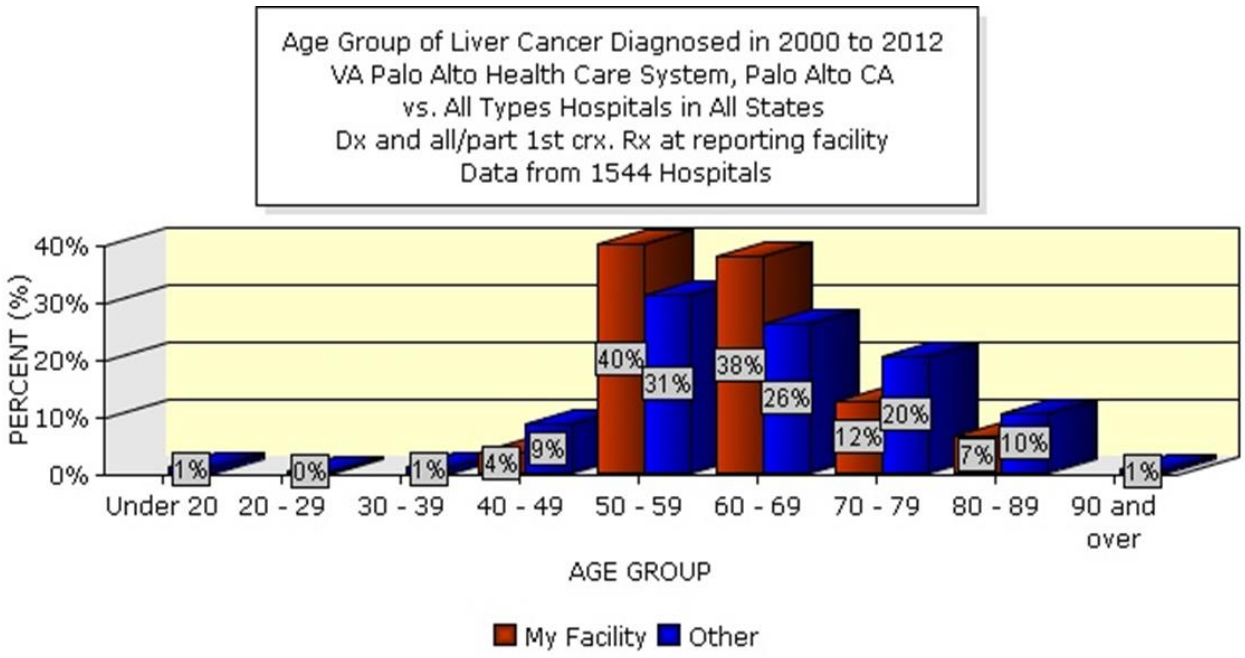
Figure 1.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
My Facility	3%	3%	3%	4%	4%	9%	5%	10%	9%	10%	9%	12%	19%
Other	4%	4%	4%	5%	6%	7%	8%	8%	9%	11%	12%	11%	12%

Liver cancer is seen more often in men than in women. An average man's lifetime risk of getting liver or intrahepatic bile duct cancer is about 1 in 81, while an average woman's risk is about 1 in 196. The average age at diagnosis of liver cancer is 63. *(2)* More than 98% of people diagnosed with liver cancer are 40 years of age or older. (see figure 2)

Figure 2.

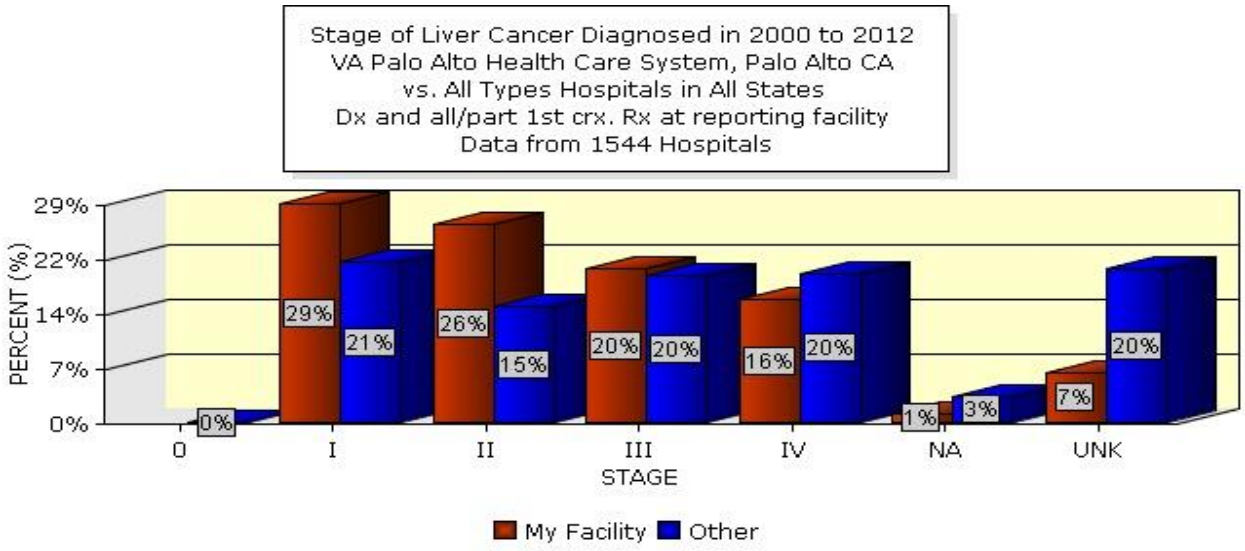


	Under 20	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 - 89	90 and over
My Facility				4%	40%	38%	12%	7%	
Other	1%	0%	1%	9%	31%	26%	20%	10%	1%

Although several risk factors for hepatocellular cancer are known, exactly how these may lead normal liver cells to become cancerous is only partially understood. Liver cancer clearly has many different causes, and there are undoubtedly many different genes involved in its development. It is hoped that a more complete understanding of how liver cancers develop will help doctors find ways to better prevent and treat them.
Certain inherited diseases can cause cirrhosis of the liver, increasing the risk for liver cancer.

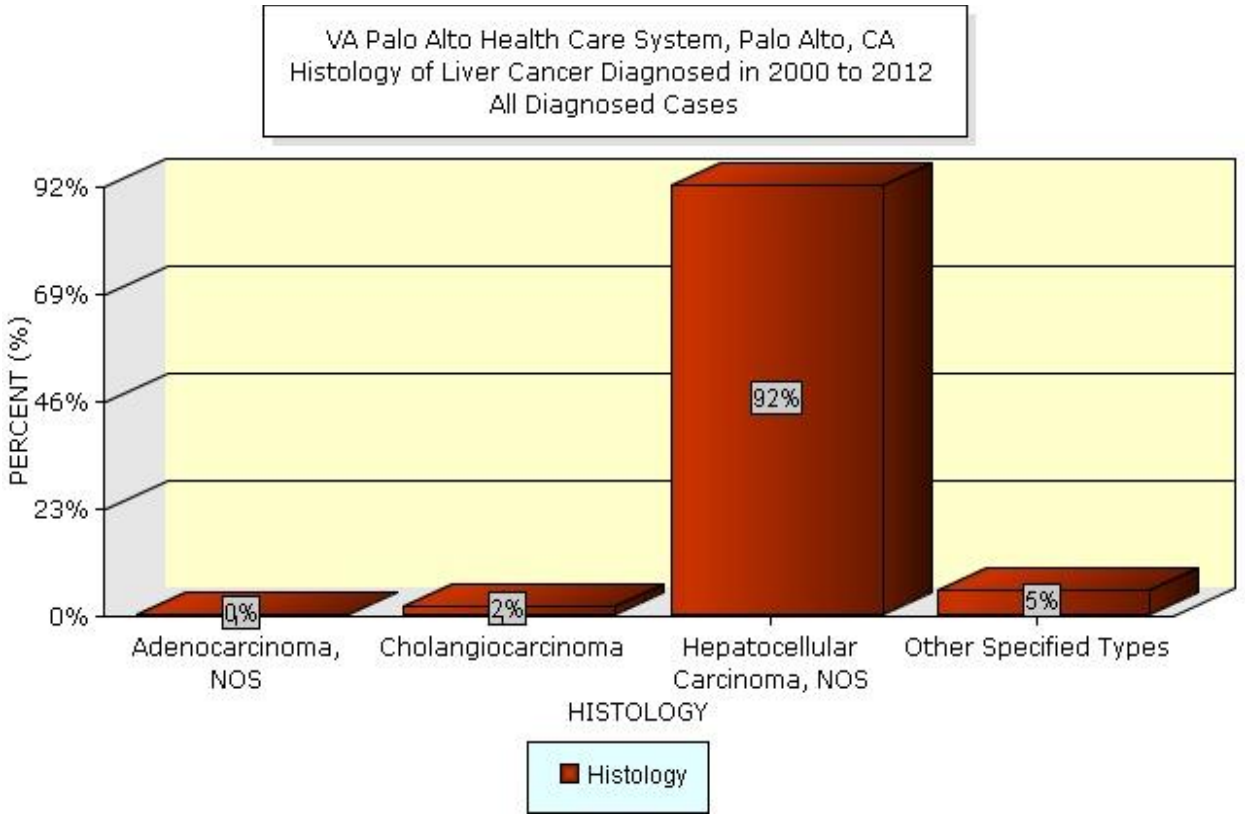
It is often hard to find liver cancer early because signs and symptoms often do not appear until it is in its later stages. Both physical findings and laboratory tests are non-specific. For people at higher risk of Hepatocellular Carcinoma (HCC) due to cirrhosis from any cause professional societies (e.g. American Association for Studies of Liver Diseases) recommend HCC screening every 6 to 12 months with ultrasound exam. However, there are always patients without known history of cirrhosis who presented with newly diagnosed HCC (and cirrhosis). Early detection of HCC is extremely important since, as in the case of many other cancers, early stage or small tumors are more likely to be curable. For example, survival will only improve in patient with early stage HCC within the Milan criteria after orthotopic liver transplant.

Figure 3



	0	I	II	III	IV	NA	UNK
My Facility		29%	26%	20%	16%	1%	7%
Other	0%	21%	15%	20%	20%	3%	20%

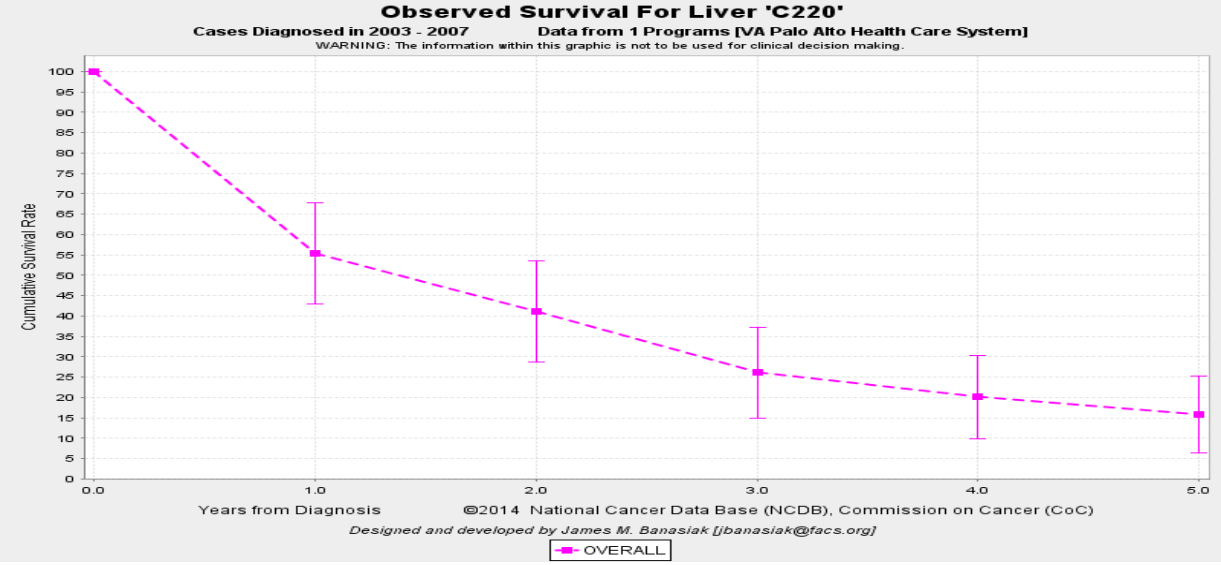
Figure 4



Survival

For all stages combined, the relative 5-year survival rate from liver cancer is about 15%. (**Figure 5).** Part of the reason for this low survival rate is that most patients with liver cancer also have other liver problems such as cirrhosis, which itself can be fatal. In general, survival rates are higher for people who do not have cirrhosis and the cancer is resectable or for those who have cirrhosis and early liver cancer who underwent orthotopic liver transplant. For example, studies have shown that patients with small, resectable tumors who do not have cirrhosis or other serious health problems are likely to do well if their cancers are removed. For those who underwent transplant, the 5 year survival rate in this group should be ~ 70%.

Figure 5



Observed Data Liver 'C220' (C)2014 National Cancer Data Base Generated on Nov-19-2014

Notice: When comparing survival rates between your cancer program and all other CoC-accredited cancer programs: if the confidence intervals of stage-specific or overall survival rates overlap after five years, then there is no statistical difference between survival rate of patients at your facility with that of other CoC-accredited cancer programs

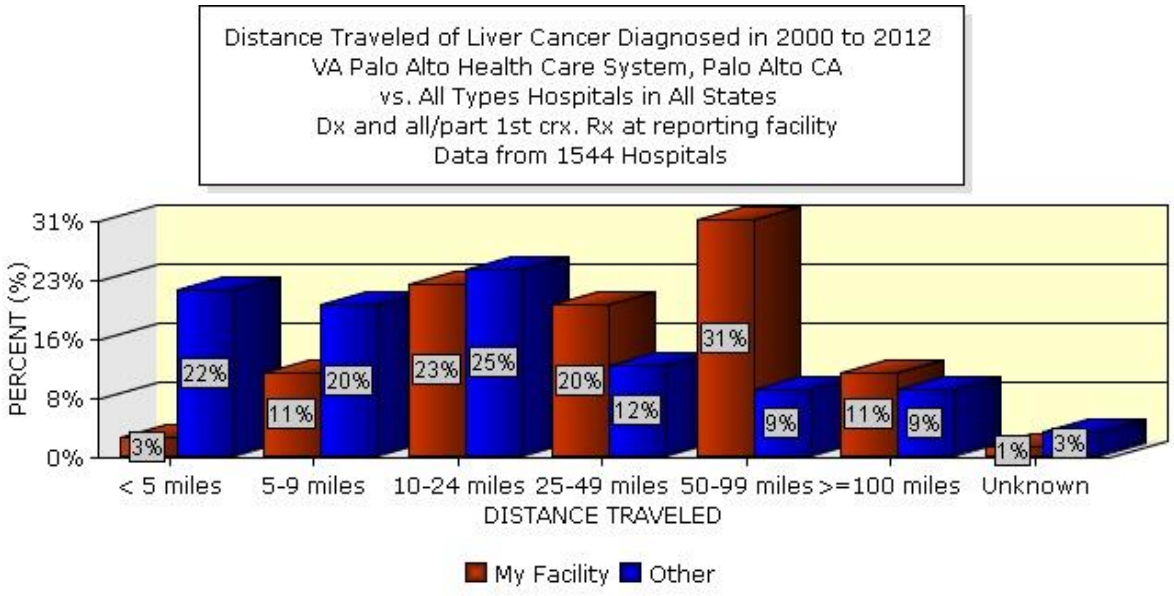
Data Table of Observed Survival for Liver 'C220'

Stage of Disease	ENTER	0.0 yr	1.0 yr	2.0 yr	3.0 yr	4.0 yr	5.0 yr	95% CI
Stage I	12	Insufficient cases to display survival information						
Stage II	20	Insufficient cases to display survival information						
Stage III	18	Insufficient cases to display survival information						
Stage IV	6	Insufficient cases to display survival information						
OVERALL	56	100.0	55.4	41.1	26.1	20.1	15.8	8.4 - 25.2

Liver Cancer Travel Distance

VAPAHCS serves as a regional referral center for the care of Veterans. As with all other cancers, a significant number of patients travel to receive their care at VAPAHCS. The majority of our patients travel 50 miles or greater in order to be seen (**Figure 6**). This is in part due to the procedures that are offered at PAVAHCS that are not available in many other VA facilities. These include surgical treatments, such as transarterial chemoembolization, radiofrequency ablation, hepatectomy and liver transplant evaluation.

Figure 6



	< 5 miles	5-9 miles	10-24 miles	25-49 miles	50-99 miles	>=100 miles	Unknown
My Facility	3%	11%	23%	20%	31%	11%	1%
Other	22%	20%	25%	12%	9%	9%	3%

Summary

Liver cancer is one of the common and fast growing cancer diagnosed and treated cancer tracked by the VAPAHCS tumor registry. The most recent 10 year experience with liver cancer at VAPAHCS demonstrates that the majority of patients are greater than 50 years of age and 92% of histology within the liver cancer is HCC **(Figure 4)**. Stage 1 is the most common stage at presentation **(Figure 3)**, this is also reflected by lower rates of late stage liver cancer diagnosis when compared with national trend. Screening efforts and early detection is critical and represent opportunity for curative treatment of a potentially fatal disease. While the optimal treatment for liver cancer patients is still being developed, this data will allow us to provide our patients with prognostic information that will allow us to individualize the treatment plan considering each patient's disease and treatment preferences.

Ramsey Cheung, MD
Director of Hepatology, VAPAHCS

References:
1. VHA Employee Education System-Template Version-4-2-14,ver 5.1
2. What is liver cancer, ACS,2-20-2014

http://www.paloalto.va.gov/services/oncology.asp

https://www.facebook.com/vapahcs

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