

CREATING A HEALTHIER HAWAI'I

2015 ANNUAL CANCER REPORT

A Message from our Cancer Leadership Team:

The mission of Hawai'i Pacific Health is to create a healthier Hawai'i. For our patients with cancer, this mission is realized by our dedication to providing excellent cancer care at all four of our medical centers – Kapi'olani, Pali Momi, Straub and Wilcox. Each medical center continues to maintain the American College of Surgeons' Commission on Cancer (CoC) accreditation. CoC accreditation indicates to the community that our integrated multidisciplinary cancer care team provides patient-centered care with access to all essential services. For patients and their families, accreditation serves as a measure of quality cancer care and a commitment by Hawai'i Pacific Health.

In addition to our four CoC accredited sites, Hawai'i Pacific Health is now home to not one, but two accredited breast programs. We are pleased to share that in 2015, Kapi'olani Medical Center for Women & Children, home of the state's first comprehensive Breast Center, achieved full accreditation by the National Accreditation Program for Breast Centers (NAPBC) and was designated a Center of Excellence by the American College of Radiology for breast imaging. Kapi'olani joined the Pali Momi Women's Center in achieving this accomplishment. According to the American Cancer Society, breast cancer continues to be the leading type of cancer in Hawai'i. Because of this, increasing access to specialized breast cancer care across O'ahu and the neighbor islands is a priority for Hawai'i Pacific Health.

A healthier Hawai'i begins with cancer prevention and screening. As a health care system, we are partnering with primary care physicians, health plans and the community to provide state-of-the-art screening and diagnostic services.

Hawai'i Pacific Health continues to be an active Hawai'i Cancer Consortium member working with the National Cancer Institute-designated University of Hawai'i Cancer Center. This partnership provides patients with increased access to clinical trials focusing on the cancers that significantly impact the people of Hawai'i.

On behalf of the physicians, nurses, staff and others who care for our patients, we are pleased to present the Cancer Program's 2015 Annual Report to the Community. Our report highlights just a few of the many tremendous efforts of our team. Sincerely,

Jeffrey Killeen, MD

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Jeffrey Cronk, MD

Cancer Committee Chair, Wilcox Medical Center

Owen Chan, MD

Cancer Committee Chair, Pali Momi Medical Center

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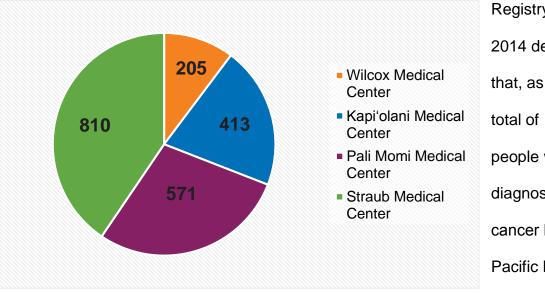
Cancer Committee Chair, Straub Medical Center

Department Chief, Medical Oncology

Our Cancer Care in Your Community:

- Kapi'olani Medical Center for Women & Children: CoC Community Cancer Program,
 National Accreditation Program for Breast Centers, Kapi'olani Women's Center,
 HighRisk Breast Program, Pediatric Cancer Care Program, Certified Stem Cell
 Collection Center
- Pali Momi Medical Center: CoC Community Cancer Program, National Accreditation
 Program for Breast Centers
- Straub Medical Center: CoC Comprehensive Community Cancer Program
- Wilcox Medical Center: Community Cancer Program, High Risk Breast Program
- Maui Traveling MD

Cancer Registry Report (2014 Data)



Registry data from
2014 demonstrates
that, as a system, a
total of 1,999
people were
diagnosed with
cancer by Hawai'i
Pacific Health. As

shown below, breast cancer was the most commonly diagnosed type of cancer across the system. Despite this commonality, each of the four medical centers has a unique and diverse population base, which is reflected in the differences in the top five

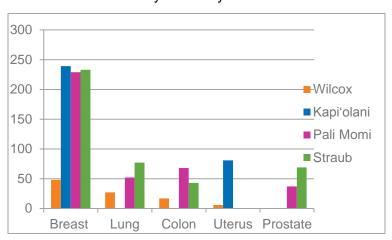
analytical case volumes (or most commonly seen cancer types) seen at each cancer center.

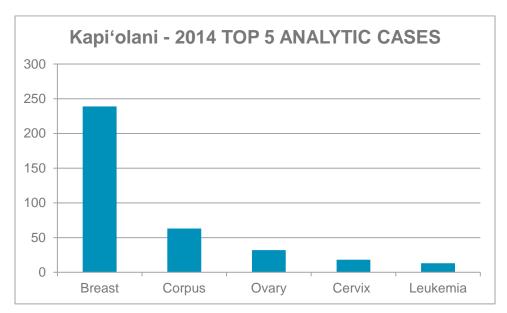
Cancer Volume by Location

Cancer types at each medical center within the Hawai'i Pacific Health system vary based on

patient populations and the location of the facility. In this section, the top five analytical cases for each medical center are reviewed.

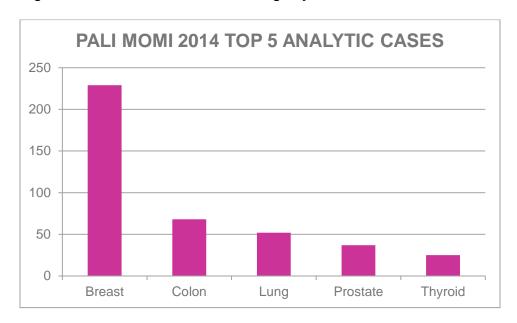
These are reflective of the five most common cancer types seen at each medical center and do not reflect all cancer case volume and cancer case types at each location.



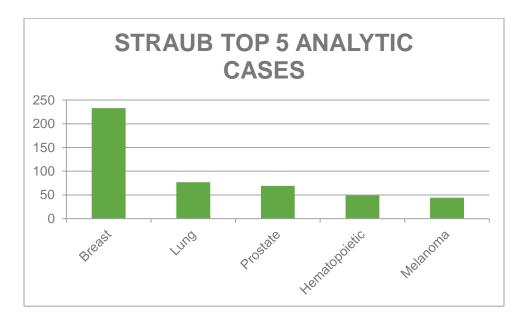


Kapi'olani Medical Center for Women & Children (KMCWC) is home to the state's only pediatric cancer program and women's cancer center. The above chart reflects the top five cancer case types diagnosed at Kapi'olani and highlights the focused patient population. The overwhelming cancer type seen is breast, followed by uterine, ovarian,

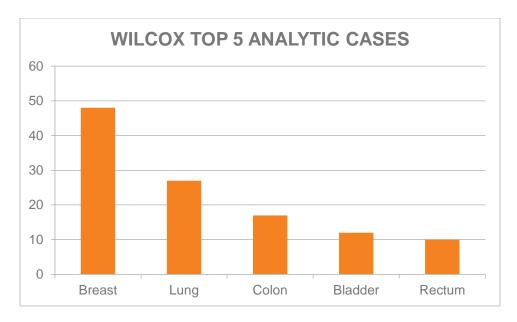
and cervical. Additionally, all pediatric cases, regardless of cancer type, are counted together. Source: 2014 Cancer Registry Data



Pali Momi Medical Center (PMMC) is the only CoC-accredited community medical center serving Central and West Oʻahu that provides adult cancer care. The above chart reflects the top five cancer case types diagnosed at Pali Momi. Source: 2014 Cancer Registry Data



Straub Medical Center (SMC) in Honolulu provides care for the largest volume of cancer patients of all the medical centers within the Hawai'i Pacific Health system. The above chart reflects the top five cancer case types diagnosed at Straub. The multispecialty nature of Straub Medical Center is demonstrated in the diverse tumor types diagnosed and treated. Source: 2014 Cancer Registry Date



Wilcox Medical Center (WMC) cares for the largest volume of adult cancer patients on Kaua'i. This allows patients to treat their cancer at home instead of traveling to O'ahu or the U.S. mainland for treatment. The above chart reflects the top five cancer case types diagnosed at Wilcox. Source: 2014 Cancer Registry Data

Caring for Our Population

Caring for Women: High Risk Breast Program (KMCWC - Commission on Cancer Standard 4.2)

Hawai'i Pacific Health is home to the only high risk breast program in the state.

This unique program provides an opportunity for women with risk factors to be closely monitored. The program includes comprehensive cancer risk assessments, access to

age-appropriate screening strategies (mammography, ultrasound, breast MRI, close surveillance, genetic testing and counseling) and other risk management strategies. Women with the following risk factors are eligible for the program:

- A first-degree relative (mother, father, daughter, sister) with breast cancer.
- Multiple second-degree relatives (first cousin, aunt, uncle, grandparents) with breast cancer.
- Any family history with ovarian cancer.
- Previous biopsy showing signs of abnormal cells.

The High Risk Breast Program is currently available at the Kapi'olani Women's Center and Wilcox Medical Center. From January 2015 to September 2015, the High Risk Breast Program cared for 981 patients. Plans to expand the High Risk Breast Program to the Pali Momi Women's Center in 2016 are underway.

Caring for Men: Prostate Cancer Diagnosis (SMC Commission on Cancer standard 4.6)

Prostate cancer was the third most commonly diagnosed cancer at Straub Medical Center in 2014. Providers wanted to evaluate the care they delivered and matched the recommendations of the National Cancer Comprehensive Network (NCCN). A study revealed that Straub Medical Center successfully followed the NCCN guidelines when diagnosing prostate cancer. Elements of the prostate cancer diagnosis include prostate-specific antigen (PSA), digital rectal exam (DRE), core biopsy and Gleason grading. Study findings revealed that all patients had their PSA evaluated and 90 percent of men received a DRE. Those who did not have a DRE were offered the procedure, but had refused. Additionally, Gleason grading was completed every time.

For identified patients, appropriate staging and treatment plans were followed per NCCN guidelines.

Caring for Our Children:

In 2015, the Pediatric Hematology/Oncology Program had 78 open cooperative protocols with the Children's Oncology Group (COG), Neuroblastoma and Medulloblastoma Translational Research Consortium (NMTRC), Center for International Blood and Marrow Transplant Research (CIBMTR) and others, which included treatment, supportive care, cancer control and long-term follow-up studies. Of the eligible patients, 41 were enrolled in COG studies, three in NMTRC studies, and two in CIBMTR studies, for a total of 46 enrollments. The highest enrollment by disease continues to be for acute lymphocytic leukemia (ALL).

The Hematopoietic Progenitor Cell Transplant (HPCT) Program collects related allogeneic bone marrow as well as autologous and related allogeneic peripheral blood stem cell (PBSC) collections to transplant in pediatric patients at KMCWC, in addition to maintaining its status as a National Marrow Donor Program (NMDP) Transplant and Collection Center. Approval as an NMDP Apheresis Center was received in 2015. A total of five bone marrow collections and 12 PBSC collections were done on behalf of the NMDP. Additionally, two autologous PBSC collections were performed for local patient transplant. However, only one oncologic transplant was performed during the year.

Quality measures for the program in 2015 included, but were not limited to:

- Monitoring central line-associated blood stream infections (CLABSI) for acute myelogenous leukemia (AML) patients with extended inpatient admissions while awaiting count recovery.
- Review of Annual HPCT Program Quality Dashboard with indicators across the bone marrow/PBSC collection and HPCT programs, including laboratory indicators.
- Initiating daily chlorhexidine baths three days prior to bone marrow collection, which eliminated positive bone marrow product cultures upon instituting.

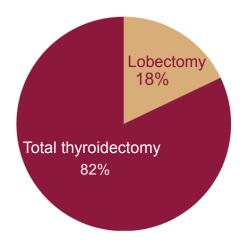
Tracking/trending of these measures will continue in 2016.

Thyroid Cancer Diagnosis (PMMC Commission on Cancer standard 4.6)

Thyroid cancer is among the top 5 most commonly diagnosed cancers at Pali Momi Medical Center and prevalence of Thyroid cancer is growing in the state of Hawaii. Because of this, a study to evaluate the use of radioactive iodine treatment after thyroidectomy on patients with low-risk thyroid cancer was performed. NCCN guidelines do not recommend radioactive iodine ablation, or use of iodine to remove the cancer, for these low-risk patients due to the associated risks involved. The study assessed all thyroid cancers diagnosed from 2012 to 2014, determined the stage at diagnosis and focused analysis on stage 1 disease.

During the time period evaluated, at Pali Momi Medical Center, 79% of thyroid cancer patients had Stage 1 disease while 3 percent had Stage 2, 13 percent stage three, and 5 percent stage 4. Nearly four out of five patients were diagnosed with stage I thyroid cancer. Of those with stage I cancer, 82 percent receive a total thyroidectomy following diagnosis. A **thyroidectomy** is an operation that involves the surgical removal

of all or part of the thyroid gland. The remaining 18 percent of patients received a lobectomy. This operation involves removing the half of the thyroid gland that has the nodule.



Patients who have had a total thyroidectomy can also continue on to also have radiation. This is determined by factors including the size of the original tumor, degree of invasion to surrounding area, and age at diagnosis. Following a Thyroidectomy, 46 percent of patient continued on to radiation. While only 1 out of 12 patients who had a lobectomy received radiation. Of those who have had a total thyroidectomy, the average age of those who received radiation was 37.5 years old and the average age of those who did not receive radiation was 50.5 years old. Early diagnosis is expected with Thyroid cancer, and per guidelines, for a thyroid cancer to be considered above stage 1, a patient must be diagnosed with thyroid cancer must be 45 years or older. The majority of patients who received radiation were female (88 percent). On average, the tumor size of those who received radiation was 1.5 cm versus 0.85 cm for those who did not receive radiation. At Pali Momi, administration of radioactive iodine is consistent with NCCN guidelines.

Care Across the Continuum

Palliative Care (WMC - Commission on Cancer Standard 4.7)

Researchers worldwide take the Eastern Cooperative Oncology Group (ECOG)

Performance Status into consideration when planning clinical trials to study a new treatment method. This numbering scale, which was first published in 1982, allows doctors to define the population of patients to be studied in a trial so that it can be uniformly reproduced among physicians who enroll patients. It is also a way for physicians to track changes in a patient's level of functioning as a result of treatment.

Performance status scores, or ECOG scores, are widely used in oncological practice to predict response to treatment as well as determine their quality of life and patient survival time. We have evaluated patients from when their ECOG score changed from a grade 3 to the time of death.

ECOG scores are defined as:

Grade 0 – Fully active, able to carry out all pre-disease activities without restriction.

Grade 1 – Restricted in physically strenuous activity but ambulatory and able to carry out work of light nature, e.g., light housework, office work.

Grade 2 – Ambulatory and capable of all self-care but unable to work at activities; up and about more than 50 percent of waking hours.

Grade 3 – Capable of only limited self-care; confined to bed or chair more than 50 percent of waking hours.

Grade 4 – Completely disabled; cannot carry on any self-care; totally confined to bed and chair.

Grade 5 - Death.

At Wilcox Medical Center, a quality study to evaluate the effectiveness of ECOG studies in identifying additional patient needs was performed. For this study, 10 patients were evaluated and diagnosis included multiple myeloma (3), breast cancer (2), lung cancer (2), Ewing's sarcoma (1), pancreatic cancer (1), and head and neck cancer (1). A total of three women and seven men were included with ages ranging from 24 to 75. Patients survived ranging from 9 to 57 days and the median range was 24 days. The average length of time people lived from the time their ECOG score changed to a grade 3 to the time of death was 38.8 days.

This study allowed physicians and staff to be more sensitive to the needs of patients who have advanced to a grade 3 ECOG score. Some of the issues that may need closer evaluation at the change of ECOG score include pain and symptom management, culturally sensitive practices, advance care planning and ethical decision-

making.

At Wilcox Medical Center, there is a trained palliative care team lead by Dr. Amy Corliss.

Palliative care nurses in the Infusion Center and palliative care services in the community also provide symptom management across the continuum. The palliative care professionals can

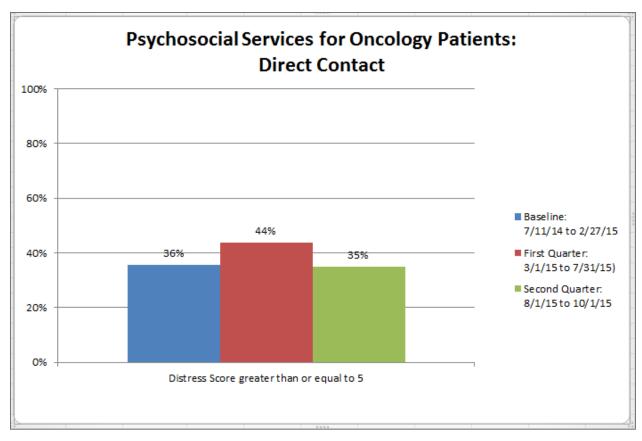
assist patients and their families with supportive care services, advance care planning, end-of-life discussions and hospice services.

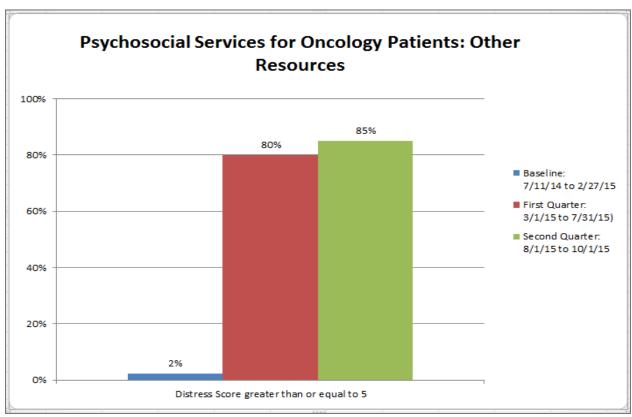
Dr. Corliss provided information to patients during January 2015's Walk Around the Block with a Doc that included a presentation to over 60 attendees around the importance of advance care planning. Following this event, a hands-on workshop was provided in March that led to the completion of 20 advanced directives and 2 POLST forms.

Improving Patient Access to Psychosocial Services

(KMCWC - Commission on Cancer Standard 4.8)

A quality improvement project at Kapi'olani Medical Center for Women & Children was aimed at improving psychosocial services for patients with cancer. Clinicians from the Kapi'olani Behavioral Health Service (KBHS) collaborated with the Women's Center physicians and patient navigator to enhance direct contact with patients by providing additional resources for distressed patients. These no-cost services included on-site introductions to behavioral health services and clinicians, the provision of educational handouts, self-help coping interventions, and access to peer and professional support through a newly formed Breast Cancer Support Group. As shown below, traditional behavioral health services provided by KBHS remained consistent throughout the study period. However, with the start of the program in 2015, the use of additional psychosocial resources by patients increased dramatically from 2 percent to 85 percent.

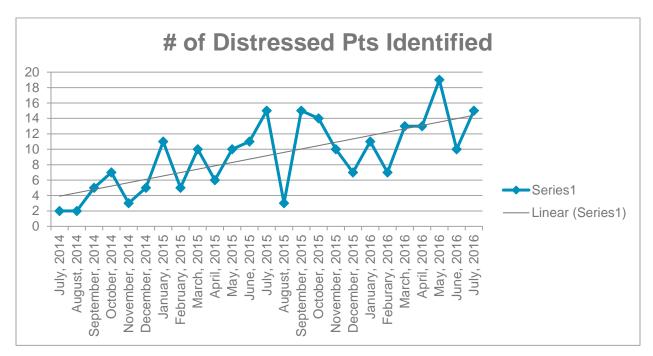


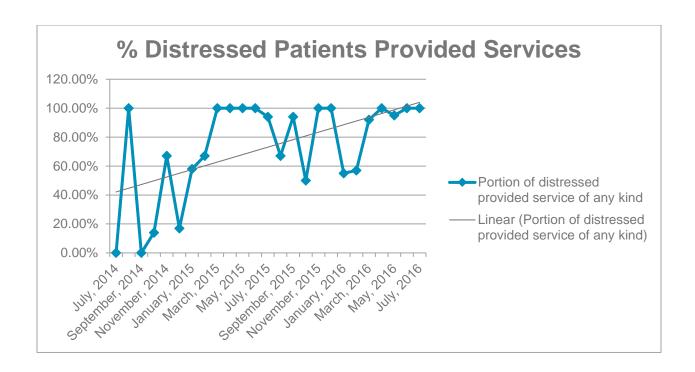


Other forms of support that patients may be utilizing that are not included in the data include:

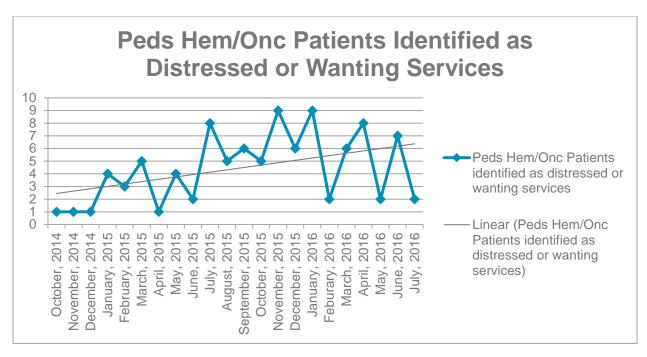
- Outside support groups
- Other providers
- Chaplain contact
- LCSW services/resources
- Breast Cancer Support Group (started October 2015)

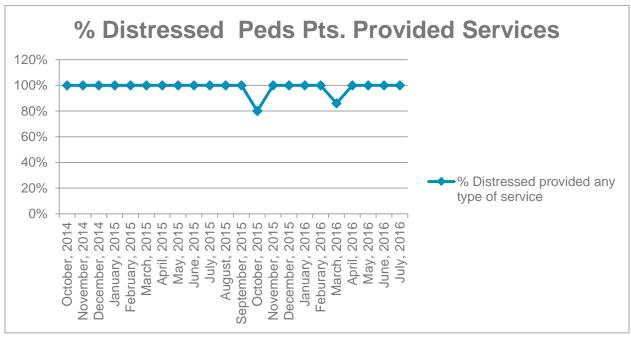
Although a cancer diagnosis can be stressful for anyone, some patients may be at higher risk for experiencing distress during their care. Providing patients who are experiencing distress with support and resources is critically important. Use of a distress screening tool helped the team identify these patients. As shown in the following graph, the number of distressed patients identified has increased substantially since July 2014.





Providing these distressed patients with resources was a high priority of the quality study. As shown, continuous improvement in providing distressed patients with resources has occurred. Additionally, in the pediatric population, Kapi'olani Medical Center for Women & Children, both distress and services provided were measured. Although data revealed a growing number of patients were identified as distressed and wanting services, these services were consistently offered and provided by the care team to meet the needs of patients.





THE FUTURE OF CANCER CARE AT HAWAI'I PACIFIC HEALTH

At Hawai'i Pacific Health, we're proud of what we've accomplished to date, but pursuing excellence means constantly pushing for further improvement. We embrace that challenge, and we're prepared to meet it. Over the next year and beyond, Hawai'i Pacific Health is committed to continuing to identify the evolving health care needs of its patients; fostering strong relation- ships with referring physicians and communities; further developing integrated service programs; and continually investing in skilled staff and state-of-the-art screening, and treatment technology.

In addition to investing in cancer care resources, Hawai'i Pacific Health continues to strengthen its partnerships and outreach here in Hawai'i, as well as, the national cancer community. This means we continue to strengthen ties to experts in cancer care throughout the nation to continually bring back the best in cancer care. While Hawai'i Pacific Health continues to make advancements in cancer care through research, technology and partnerships, we are also equally committed to our patients' needs. Hawai'i Pacific Health is honored to care for the families of Hawai'i and looks forward to continuing to bring exceptional cancer care to every patient, every time.