Humankindness Holds the Power to Heal

The University of Arizona Cancer Center at Dignity Health St. Joseph’s Hospital and Medical Center is pleased to present our first annual report. We are proud to show you what we have accomplished during 2016.

THE AFFILIATION
To further its mission of preventing and curing cancer throughout Arizona, The University of Arizona Cancer Center desired to expand to metropolitan Phoenix where approximately two-thirds of Arizona’s residents live. Concurrently, Dignity Health St. Joseph’s Hospital and Medical Center was planning to expand oncology services. Dignity Health St. Joseph’s was well positioned to complement the strengths of the Cancer Center and accelerate development of a competitively differentiated and growing oncology enterprise. As a result, we are now expanding services and facilities to more efficiently and precisely prevent, treat, and study cancer.

PHYSICIAN RECRUITMENT
An important component of the affiliation is the physician and scientist recruitment plan. We are in the third year of a 10-year physician recruitment effort with the goal of having a total of 74 cancer and cancer-related physician specialists by year 10. To date, we have hired 14 physicians and our robust recruitment efforts continue.

This annual report details some of the comprehensive, integrated, and convenient cancer care services created for our patients, spanning diagnosis, treatment, survivorship, and clinical trials. Our medical, surgical, and radiation oncologists are disease-site cancer specialists supported by experienced clinical teams who provide a wide range of diagnostic, therapeutic, clinical trial, financial, advocacy, education, and psychosocial care for our patients and their families.

VISION OF THE UNIVERSITY OF ARIZONA CANCER CENTER AT ST. JOSEPH’S

Develop the preeminent oncology program in metropolitan Phoenix by leveraging the collective strengths of both organizations to establish a competitively differentiated premier center for ambulatory and inpatient oncology with an emphasis on collaborative, research-driven, multidisciplinary, translational, high quality, patient-centric care.
CLINICAL TRIALS
The University of Arizona Cancer Center staff in Tucson has worked diligently with the St. Joseph’s research department to develop The University of Arizona Cancer Center at St Joseph’s Clinical Trial Office. Together, they devised procedures and processes to facilitate the approval and implementation of clinical trials. During 2016, 15 trials opened and 20 more are in various stages of approval. The importance of bringing clinical trials to metropolitan Phoenix is clearly visible and clinical trial staff members are valued members of our integrated disease-site teams.

LUNG CANCER CENTER OF EXCELLENCE
In early 2017, The Bonnie J. Addario Lung Cancer Foundation (ALCF) named Dignity Health St. Joseph’s Hospital and Medical Center, through the combined efforts of Norton Thoracic Institute and The University of Arizona Cancer Center at St. Joseph’s, as a Community Hospital Lung Cancer Center of Excellence. For more information about ALCF, visit lungcancerfoundation.org.

HELLO HUMANKINDNESS
Every member of our team knows that a diagnosis of cancer changes a patient’s life forever. We are committed to comprehensive cancer care by focusing on state-of-the-art cancer treatment and valuable patient experiences, reinforced by high patient satisfaction scores. Our efforts are supported by the citizens of Arizona, motivating all of us to do more and do better each day. We sincerely thank you for supporting our efforts and appreciate any and all feedback.

Marcia Gruber-Page, MSN, MS, RN
Vice President, Oncology Services
The University of Arizona Cancer Center at Dignity Health
St. Joseph’s Hospital and Medical Center

William G. Cance, MD
Finley & Florence Brown Professor of Cancer Research
Deputy Director
The University of Arizona Cancer Center at Dignity Health
St. Joseph’s Hospital and Medical Center
Professor, Interdisciplinary Oncology and Surgery
The University of Arizona College of Medicine, Phoenix
OUR HERITAGE

We are one of only 47 National Cancer Institute (NCI)-designated Comprehensive Cancer Centers in the nation. NCI-Designated Cancer Centers are known for:

- **Comprehensive Cancer Care**: NCI-Designated Cancer Centers are recognized for their scientific and clinical excellence. Their focus is on providing extraordinary patient care as well as basic, clinical, and translational research, prevention, education, outreach, and training.

- **Research, Treatment and Educational Programs**: These centers have undergone extensive peer review, met rigorous national standards, and made significant contributions to reducing the cancer burden overall.

- **Longer Survival Rates for Cancer Patients**: Studies have linked survival rates to place of service, with a mortality risk reduction and a significant survival benefit being associated with treatment at an NCI-Designated Cancer Center.

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Introducing the Cancer Specialists of The University of Arizona Cancer Center at St. Joseph’s

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Deputy Director and Endocrine Surgery

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Jasmine Huang, MD
Thoracic Surgery

Michael Smith, MD
Thoracic Surgery

Jue Wang, MD, FACP
Genitourinary Medical Oncology

John Farley, MD, COL(ret), FACOG, FACS
Gynecologic Oncology

Debra Wong, MD
Gynecologic Oncology, Melanoma

Albert G. Wendt, MD
Breast Medical Oncology

Lora Hebert, MD, FACS
Breast Surgery

Tim Schaub, MD
Plastic and Reconstructive Surgery

Mital Patel, MD
Gastrointestinal Medical Oncology

Ronald Gagliano, MD, FACS, FASCRS
Colorectal Surgery

David Row, MD, FACS, FASCRS
Colorectal Surgery

Nathalie Zeitouni, MD
Dermatology and Mohs Surgery

Subhakar Mutyala, MD, MPH
Radiation Oncology

Celine Ord, MD
Radiation Oncology

Nitika Thawani, MD
Radiation Oncology

Shyamal Patel, MD
Radiation Oncology

Santiago Cornejo, MD
Interventional Radiology

Kerry Tobias, DO
Supportive Care and Survivorship

Anantharam Kalya, MD
Cardiology Oncology

Kimberly Brussow, MS, CGC
Genetic Counselor
Clinical Trials

The University of Arizona is unique in that it is the only designated Comprehensive Cancer Center by the National Cancer Institute headquartered in Arizona. Conducting clinical trials is a requirement of this designation and fulfills an important part of the Cancer Center’s mission – to prevent and cure cancer.

Currently, the Cancer Center offers Phase I, Phase II, and Phase III clinical trials covering cancer prevention and the following tumor types:

- Ovarian
- Endometrial
- Cervical
- Bladder
- Head and neck
- Lung
- Breast
- Hepatocellular carcinoma
- Advanced solid tumor cancers

In 2017, the Cancer Center will be opening new clinical trials covering the following tumor types:

- Breast
- Cervical
- Endometrial
- Ovarian
- Lung
- Malignant bowel obstruction
- Head and Neck, including nasopharyngeal and salivary gland
- Pancreatic cancer
- Peritoneal
- Precision medicine
- Prostate
- Renal cell carcinoma
- Urothelial
- Skin, including cutaneous squamous cell, as well as basal cell

Additional clinical trials will continue to be identified and opened for patients with many different kinds of cancers, including Phase 0 and Phase I clinical trials, new immunotherapy options, and exciting opportunities for precision medicine and tumor profiling.
Multidisciplinary Tumor Board

Tumor boards allow a number of doctors who are experts in different specialties to review and discuss the medical condition, treatment options, and individual needs of all new patients. Participants may include: medical, surgical, and radiation oncologists, pharmacists; radiologists; supportive care services such as social workers; nutritionists; or genetic counselors.

Patient cases presented at a tumor board may be reviewed for many reasons, including:

- Treatment recommendations
- Difficult management issues
- Discussion of National Comprehensive Cancer Network (NCCN) treatment guidelines
- Cases of cancer occurring in unusual sites or with unusual presentations
- Clinical trial opportunities
- Other disease(s) affecting patient management

At The University of Arizona Cancer Center at St. Joseph’s, several disease-site tumor boards are held, including: breast, gastroenterology, genitourinary, gynecological, hepatobiliary, head and neck, and lung cancers.

CANCER CENTER TUMOR BOARD
CASE VOLUME 2016

<table>
<thead>
<tr>
<th>SITE</th>
<th>CASES**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal*</td>
<td>199</td>
</tr>
<tr>
<td>Breast</td>
<td>50</td>
</tr>
<tr>
<td>Head and Neck</td>
<td>30</td>
</tr>
<tr>
<td>Hepatobiliary/Pancreatic</td>
<td>45</td>
</tr>
<tr>
<td>Gynecologic</td>
<td>351</td>
</tr>
<tr>
<td>Thoracic</td>
<td>384</td>
</tr>
</tbody>
</table>

*Abdominal includes genitourinary and gastrointestinal cases
**Number of cases is a combination of patients treated at the Cancer Center and St. Joseph’s Hospital and Medical Center.

“TODAY WE GOT THE NEWS THAT THE LUNG TUMOR VISIBLY SHRANK AFTER TREATMENT! THANK YOU DOCTORS, NURSES, AND SCIENTISTS!!!”

Cancer Center Patient
Beating Cancer with a Collaborative Team of Surgeons and the Extraordinary Will to Live

After losing weight and undergoing traditional chemotherapy and radiation treatment, physicians at The University of Arizona Cancer Center at St. Joseph’s told Roxanne Camp that her stage 3 cervical cancer required a rare and high-risk procedure, called pelvic exenteration. Roxanne’s procedure would involve the removal of the organs in her pelvic cavity, including the colon, rectum, bladder, ovaries, uterus, cervix, and vagina. The procedure would leave her with a 33 percent chance of survival.

Even though this radical surgery would lead her to life with permanent urostomy and colostomy bags, external pouches that collect fecal matter and urine due to the removal of organs that the body normally uses to eliminate waste.

The complex procedure required a team of specialists working side by side—collaboration that is the hallmark of The University of Arizona Cancer Center at St. Joseph’s. Colorectal surgeon Ronald Gagliano, MD, FACS, FACRS, and urologist Ali Borhan, MD, worked alongside two gynecologic oncologists to perform Roxanne’s 10-hour surgery which was followed by a two-week stay at St. Joseph’s.

“Every patient and every cancer is unique,” says Dr. Gagliano. “We take everything into consideration, from cultural background to family dynamics, to meet the patient where they are and to support the patient the best we can.”

The support Camp received at the Cancer Center helped her overcome the many challenges she has experienced since her radical surgery. After her procedure, Roxanne was told she would not be able to work because of her ostomies, however, AT Still University heard of her advocacy in the community. She now works on a part-time basis teaching fledgling physicians about the daily life of an ostomy patient. Roxanne believes that anyone with an ostomy can overcome their difficulties and live a full life.

Many people with ostomy bags tell no one as though it were a dark secret. Roxanne will have none of that.

“A lot of people will call me and I will visit them at the hospital if they’ve recently had an ostomy,” says Roxanne. “I try to encourage people not to be embarrassed. The more you talk about it, the more you can accept it. If you don’t talk about it, you’ll just be really lonely.”

With her gentle smile and her clear voice, Roxanne now works with the United Ostomy Associations of America (UOAA), an association of affiliated, non-profit, support groups dedicated to improving quality of life for people who have ostomies.

“This is a life-changing experience, but it’s only what you make of it and that’s why I’m trying to help people with ostomies,” says Roxanne.
“I had the best team supporting me. They were honest; they didn’t hold anything back. But, at the same time, they treated me like a person – not just another patient. They saved my life.”
Treating Prostate Cancer: A Closer Look at High-Dose-Rate (HDR) Brachytherapy

Current standard of care treatment options for prostate cancer can include surgery (radical prostatectomy), external radiation, and brachytherapy (internal radiation). Brachytherapy, which can be used to treat many different types of cancer, is divided into low-dose-rate (LDR) and high-dose-rate (HDR) brachytherapy. LDR brachytherapy typically consists of permanent, radioactive seeds that are implanted into the tumor and deliver a “low dose” of radiation over days to months. HDR brachytherapy involves the temporary insertion of small tubes or catheters into the tumor and the subsequent delivery of a “high dose” radiation over minutes.

With HDR prostate brachytherapy, small plastic tubes or catheters are inserted with ultrasound guidance into the prostate. A planning CT scan is then performed after which a radiation treatment plan is developed based on the positioning of the catheters with a goal of increasing the dose to the prostate cancer while minimizing dose to the surrounding healthy tissues. These catheters are then connected to a robotic device that allows radiation to be delivered directly into the target area. The actual treatment takes approximately 20 minutes; afterward, the catheters are removed leaving the patient with nothing inside and no radioactivity. After a brief recovery period, the patient can be safely discharged the same day.

PRECISION MEDICINE
The presumed benefit with HDR brachytherapy over LDR brachytherapy lies in the radiation oncologist knowing exactly how much dose is going to the prostate, the bladder, the rectum, and the urethra before it is delivered. This knowledge in turn allows for catheter repositioning and treatment plan changes prior to actually delivering radiation in order to ensure optimal treatment.

The rationale behind using brachytherapy is predominantly based on a few principles. Randomized studies have shown that prostate cancer responds to radiation dose – the higher the dose, the greater the opportunity to control the cancer. In addition, by radiating from “inside out,” the dose to surrounding tissues can be minimized in comparison to external or “outside in” radiation which involves external beams of radiation penetrating normal tissue before reaching their target. Also, radiobiologic studies of prostate cancer suggest that it may respond better to larger, less frequent doses of radiation in comparison to smaller, more frequent doses of radiation.

According to the National Cancer Institute, precision medicine is defined as a form of medicine that uses information about a person’s genes, proteins, and environment to prevent, diagnose, and treat disease. In Cancer, precision medicine uses specific information about a person’s tumor to help diagnose, plan treatment, find out how well treatment is working, or make a prognosis.

HDR brachytherapy is an excellent treatment option as monotherapy (without external beam radiation) for early stage prostate cancers. HDR brachytherapy monotherapy typically involves performing two procedures spaced one to two weeks apart. This type of therapy leads to prostate cancer cure rates above 95 percent at 10 years.
For more advanced cases of prostate cancer, HDR brachytherapy is used in combination with external beam radiation. In this scenario, one HDR procedure is performed before or after five weeks of daily external radiation. This is in contrast to the conventionally utilized nine-week daily radiation course. The addition of brachytherapy to external beam radiation significantly improves prostate cancer control rates in later stage prostate cancer when compared to external radiation alone. The short-term toxicities of this treatment are well-tolerated and long-term side effects occur in less than 5 percent of patients. Additionally, the precision of HDR brachytherapy allows it to be used in the treatment of recurrent prostate cancers that have come back after initial treatment with surgery or radiation.

HDR brachytherapy represents a safe and sophisticated treatment for prostate cancer with a long track record of success. The University of Arizona Cancer Center at St. Joseph’s is proud to offer this treatment option to its patients.
Head and Neck Oncology Program

The Head and Neck Oncology Program at The University of Arizona Cancer Center at St. Joseph’s manages and coordinates the care of patients with cancers of the head and neck. Clinical services are provided by a team of experts including medical oncology, radiation oncology, supportive care professionals, and physical medicine and rehabilitation. The program works closely with referring head and neck surgeons based in the community. The multidisciplinary care team also includes speech pathologists, dieticians, social workers, and nurse navigators.

In conjunction with expert radiologists and pathologists, treatment recommendations are often formulated in a multidisciplinary head and neck tumor board through the evaluation of imaging and biopsy data. The treatment plan recommendations are explained allowing for questions and suggestions to meet the needs and lifestyle of each individual patient.

The clinical team actively participates in national efforts to develop and implement novel immunotherapy approaches for patients with cancers of the head and neck. This level of expertise in precision medicine means treatment plans are developed based on the specific molecular changes of each patient’s tumor. Options may include innovative therapeutic clinical trials that allow early access to new therapies for patients of the Cancer Center.

Radiation oncology options available at our Cancer Center include Intensity Modulated Radiation Therapy (IMRT), Image-Guided Radiation Therapy (IGRT), High Dose Rate (HDR) and Low Dose Rate (LDR) brachytherapy, VMAT and stereotactic body radiotherapy (LINAC-based as well as CyberKnife). Reirradiation for head and neck cancer has now been shown to be a successful salvage strategy for recurrent and residual cancers. Through the use of experts in brachytherapy and stereotactic radiation, along with the entire spectrum of technology, the Cancer Center offers curative treatments for difficult conditions. A rigorous evaluation of imaging and pathology, as well as a review of current evidence and available clinical trials during a head and neck tumor board conference is used to create an individual care plan for each patient.

Caring for head and neck cancer patients within a comprehensive Cancer Center allows various disciplines of clinicians to follow patients from diagnosis, through treatment, and into survivorship, coordinating the latest standard of care treatment options – all in one location.
**Gastrointestinal Oncology Program**

The Gastrointestinal Oncology Program at The University of Arizona Cancer Center at St. Joseph's offers a full range of clinical services for the treatment of patients with cancers of the gastrointestinal tract. The care of every patient is coordinated by a team of experts with specialty training in surgical oncology, radiation oncology, and medical oncology – a group whose clinical expertise and research interests are focused on the treatment of cancers of the gastrointestinal tract. This team is fully supported by professionals in radiology, gastroenterology, pathology, genetics, patient advocacy, nutrition, social work, and supportive care.

**UPDATED TREATMENT OPTIONS**

Treatments offered to patients at the Cancer Center are dramatically different as compared to cancer care a decade ago. Using precision medicine, Cancer Center patients have available to them novel cancer treatments that target the genetic and molecular changes in a tumor, while immunotherapy helps the patients’ own immune system attack their cancer. Apart from this, using minimally invasive approaches through cutting edge technology (robotic-assisted surgery, advanced laparoscopy, and trans-anal minimally invasive surgery) in the surgical management of cancers of the gastrointestinal tract has resulted in improved patient outcomes with regard to hospital length of stay, postoperative pain control, and smaller incisions without compromising quality and oncologic outcomes.

In the field of radiation oncology, besides state-of-the-art image-guided radiation therapy with precise delivery to radiation targets, the Cancer Center offers specialized treatment using HDR brachytherapy for esophagus, anal, and rectal cancers, and cholangiocarcinoma for recurrent and palliative options. In fact, the Cancer Center offers the whole spectrum of advanced techniques with both Linac-based SBRT with TruebeamR and Cyberknife R for liver and pancreatic cancers.

**DISEASE-SPECIFIC CARE PLAN**

Each patients’ final care plan is carefully formulated after rigorous evaluation of imaging and pathology, and review of current evidence and available clinical trials during a multidisciplinary gastrointestinal tumor board conference.

**CLINICAL TRIALS**

Key breakthroughs in cancer care are possible only through clinical trials and research. The Cancer Center currently has a portfolio of trials to evaluate the newest research concepts in cancer medicine, including cancers of the gastrointestinal tract.

The goal of the Gastrointestinal Oncology Program at the Cancer Center is to provide patients with precision-medicine patient care plans and state-of-the-art treatment therapies, as well as access to a wide range of clinical trials – from cancer prevention to novel treatments – for the best possible outcomes.
The Supportive Care and Survivorship Program at The University of Arizona Cancer Center at St. Joseph’s provides care to enhance one’s quality of life throughout all stages of treatment and recovery. The supportive care team provides expert pain and symptom management and maximizes each patient’s function by providing treatments for their symptoms. The types of therapies used are based on each patient’s individual needs as they go through their cancer journey.

A PROGRAM AS UNIQUE AS ITS PATIENTS
We recognize that a cancer “survivor” is anyone who has been diagnosed with cancer, who is living with cancer, or does not have evidence of disease. Through an approach that looks at all facets of care, the Supportive Care and Survivorship Program provides a caring environment that addresses each patient’s changing needs and supports patients throughout their cancer treatment and beyond. In addition, the program provides cancer rehabilitation, cardiovascular assessment, and pain management.

Just as importantly, if a patient chooses to stop or delay treatment, the Supportive Care and Survivorship Program will continue to support them. In short, the supportive care continues as long as each patient desires it.
COMPREHENSIVE ASSESSMENT AND TREATMENT

Many patients recover fully from their disease and treatment, but others experience early, long-term, or late consequences that can impact the quality and duration of their lives.

Fatigue, appetite and weight issues, anxiety, depression, and sexuality are the concerns most often reported. Cardiac and respiratory symptoms, hormonal changes, lymphedema, skin changes, nutritional problems, and a variety of other symptoms are also reported during treatment.

The Supportive Care and Survivorship Program educates and guides patients throughout their treatment, recovery, and beyond. The team first performs a comprehensive assessment of each patient and next creates a personalized plan based on each patient’s individual symptoms and needs.

Physical, occupational, speech/swallow, and lymphedema therapies are available to each patient. Additional services include: cardiovascular assessment, nutrition education, psychosocial assessment and counseling, symptom management including pain management, rehabilitation, and support groups, such as our Lifestyle Management After Cancer Program.

MY PAIN WAS CONTROLLED AND THEY MADE EVERYTHING EASIER.”

Linda W.

CANCER REHABILITATION

Approximately 75 percent of cancer survivors have at least one physical problem that affects their quality of life. Rehabilitation can help with physical problems plus help overcome limitations caused by cancer and cancer treatment—including fatigue, sleep issues, and pain. Occupational and physical therapy are available to improve both the function, mobility, and strength of cancer patients. Rehabilitation can also increase each patient’s ability to care for themselves and reduce the support needed from caregivers.

CARDIO-ONCOLOGY

Unfortunately, some cancer treatments increase the risk of heart failure, hypertension, heart rhythm abnormalities, and heart attack. The cardio-oncology clinic provides a comprehensive evaluation of cancer survivors who have heart disease, or who have the risk factors for developing heart problems. Specialized laboratory testing and sophisticated strain echocardiographic imaging help identify or predict heart disease before the damage occurs.

The Supportive Care and Survivorship Program strives to maximize survival and quality of life for each patient’s unique needs.

Learn more about this program online at dignityhealth.org/UACC by selecting the Supportive Care and Survivorship page.
Support Group

LIFESTYLE MANAGEMENT PROGRAM
Participants in the Lifestyle Management Program discover important ways to “re-set” after cancer treatment with guidance from experts in the areas of social work, nutrition, and physical and occupational therapy. As a group, every member has the opportunity to focus on life and health after cancer. Participants are encouraged to actively participate in the psychosocial, rehabilitation, and nutrition experiences that are the core of this program.

This program is free for patients of the Cancer Center who are completely finished with their chemotherapy, immunotherapy, biotherapy, radiation treatments, and/or have recovered from surgery.

“A VERY GOOD EXPERIENCE. EVERYONE MADE ME FEEL LIKE THEY CARED.”

Anonymous Patient
Community Involvement

Being involved in the community through education and advocacy is an important aspect of the Dignity Health mission. In 2016, alongside the American Cancer Society and other community partners, The University of Arizona Cancer Center at St. Joseph’s offered information about cancer awareness, prevention, and support to the community.

AMERICAN CANCER SOCIETY – LOOK GOOD FEEL BETTER
The Look Good Feel Better workshop is a two-hour, hands-on group workshop for women suffering from cancer. Each patient receives a free makeup kit, donated by the cosmetic industry, to use as a tool to learn techniques throughout the program. Workshops typically include six to 10 patients with several licensed beauty professionals who voluntarily conduct the workshop.

D-BACKS RACE AGAINST CANCER & WELLNESS ZONE
Over 5,000 runners and walkers participated in the 2016 D-backs Race Against Cancer. As formal host of the “Wellness Zone,” the Cancer Center, along with eight community partners, joined forces to provide information about cancer prevention and community services. 2016 partners included: American Cancer Society, AshLine-Smokers Quit Line, Be the Match, Colon Cancer Alliance, Leukemia Lymphoma Society, Susan G. Komen for the Cure, Arizona Liver Foundation, and American Lung Association.

AMERICAN CANCER SOCIETY – MAKING STRIDES AGAINST BREAST CANCER
Over 12,000 walkers participated in this year’s Making Strides Against Breast Cancer. As the start and finish line sponsor team, the Cancer Center helped raise awareness and funds for breast cancer research and support programs.

COLON CANCER ALLIANCE UNDY RUN/WALK SERIES
The Cancer Center was the Race Bib Sponsor for this year’s Undy Team and helped raise awareness and funds for the fight against colon cancer.

MEET THE EXPERTS SERIES
Meet the Experts is designed to be a forum for anyone to ask questions of our cancer experts in a less formal and less “clinical” setting. The series was launched in 2016 with the Breast Oncology Team. Meet the Breast Cancer Experts was the first in the series and also Dignity Health Arizona’s first Facebook Live event. Experts answered real-time questions about breast cancer, genetics, and treatment for both onsite and online audiences. Coping with Cancer during the Holidays was the second Meet the Expert event. Both events were well received by the live and online audiences.

COLON CANCER ALLIANCE – MCRC SYMPOSIUM
Mital Patel, MD, presented at this metastatic colorectal cancer symposium to approximately 150 attendees.

LET YOUR HUMANKINDNESS GROW – NO-SHAVE FOR MEN’S CANCER AWARENESS
The Cancer Center raised money and awareness for men’s cancer programs by encouraging men not to shave during the month of November. The month-long event finished with a Shave-Off. Arizona D-backs President and CEO Derrick Hall and former D-back star Luis Gonzalez participated in this second annual event.
Ensuring Quality Cancer Care

The University of Arizona Cancer Center at St. Joseph’s is committed to providing the highest level of quality care to our patients. The six aims of quality include care that is: safe, effective, patient-centered, efficient, accessible, and equitable.

Since the affiliation with The University of Arizona, our quality and performance efforts have focused on expanding and enhancing cancer services at St. Joseph’s Hospital and Medical Center. This unique affiliation uses the strengths of both organizations to transform cancer care, providing the following services to our community:

- Research-driven treatment, with access to the latest clinical trials
- Personalized care delivered by a multidisciplinary team of disease-site experts
- Collaboration with other oncologists and physicians to provide second opinions

In 2016, efforts focused on expanding treatment and prevention approaches including adding surgical expertise for breast, colorectal, and endocrine cancers, providing new immunotherapy treatments, initiating a “Fast Track” colorectal cancer screening option, offering state-of-the-art brachytherapy radiation treatment for patients with prostate, skin, and breast cancers, and stereotactic body radiation treatments for lung, liver, and head and neck cancers. Additional focus was placed on growing our disease-site expertise to offer specialized treatment plans specific to our patients’ individual needs.

Quality care is driven by an integrated care management approach in which medical, clinical, and support services staff provide the patient and their family advocates with resources to promote hope, comfort, and obtain optimum quality of life.

ASTHO Breast Cancer Learning Community and Quality Improvement Learning Collaborative Project

Breast cancer remains a significant public health challenge, as it is the most commonly diagnosed cancer among women living in the U.S. Even with breast cancer deaths declining over the last twenty years, breast cancer remains the second leading cause of cancer deaths among women.

As a non-profit organization with a mission to serve the needs of our community, The University of Arizona Cancer Center at St. Joseph’s was proud to partner with the Arizona Department of Health Services on a grant project to improve patient outcomes and reduce health disparities among minority women in Arizona. With funding provided by the Association of State and Territorial Health Officials (ASTHO), the Cancer Center participated as a treatment facility to improve the quality of care for women with the greatest need.

Differences in access to care and the type of treatment received persist among medically underserved populations of women. National studies show disparities exist at each phase in the complex breast cancer continuum of care. The grant project has facilitated an opportunity to collaborate with stakeholders in the state of Arizona to discuss challenges to access, while improving outcomes related to: breast cancer screening, follow-up to abnormal results, and timely treatment.

NURSING ROLE AT A GLANCE

- Specialty nursing care throughout the health care continuum
- Provide evidence-based care
- Educators and resources to help with decision making in cancer care
- Coordination of comprehensive care with focus on multidisciplinary care
- Ensures needs of cancer care are met for patient, families, caregivers, and survivors
- Coordinates multidisciplinary care:
  - Communication with patients, families, caregivers, and cancer care team
  - Teams up with many cancer care specialists for smooth patient care
Patient-Centered Nursing Program

The culture of nursing at The University of Arizona Cancer Center at St. Joseph’s is anchored by compassionate, high-quality, patient-centered care for best outcomes.

Patients receive individualized nursing support throughout their cancer journey from diagnosis to cure and, as needed, survivorship, palliative care, and hospice care. The role of nursing at the Cancer Center includes caregiver, navigator, care coordinator, educator, and decision making advocate to ensure timely access to quality cancer care.

SPECIALIZED NURSING EXPERTISE

The Cancer Center employs professional registered nurses (RNs) with expertise in various areas of cancer care:
- Nurse navigators
- Infusion nurses
- Endoscopy/interventional radiology
- Radiation oncology
- Clinical educator
- Director of nursing
- Vice president, oncology services

CANCER CARE EDUCATION AND CERTIFICATIONS

Nurses at the Cancer Center obtain specialized Oncology Certified Nurse (OCN®) certifications through the Oncology Nursing Society (ONS):
- Nurses meet high standard requirements for knowledge and experience in cancer care
- Certification provides nurses with expert knowledge, experience, and competency
- Certification benefits patients, families, and the multidisciplinary team

Chemotherapy Certification
- Infusion nurses have successfully completed the ONS Chemotherapy Biotherapy Certificate Course and hold an ONS Provider Card
- Preceptor nurses mentor new infusion employees to ensure competency in chemotherapy administration

Clinical Educator
- Provides education to ensure a high standard of nursing care is maintained with a focus on evidence-based research
Pharmacy Program

The Pharmacy Program at The University of Arizona Cancer Center at St. Joseph’s is responsible for overseeing all medication use and medication safety.

The program includes a team of highly-trained pharmacists and pharmacy technicians. Clinical pharmacists attend tumor board conferences offering pharmaceutical expertise as part of disease-specific treatment plan coordination.

The location of the program onsite at the Cancer Center allows close coordination with physicians and nurses to ensure:
- Medications are correct for specific types of cancer
- Doses are correct
- Medication is given properly
- Patients are educated about their medications

To assist patients with filling prescriptions received during their clinic visit, a retail pharmacy is located on the second floor of the Cancer Center. The pharmacy is contracted with most pharmaceutical health plans.

The goal of all pharmacy staff is to make sure patients receive high quality, safe, and effective pharmaceutical care.
Cancer Registry

The cancer registry is an information system designed for the collection, management, and analysis of data about people who have been diagnosed with cancer. All patients receiving care at The University of Arizona Cancer Center at St. Joseph are entered into the cancer registry database.

Treatment details are collected from all stages of each patient’s cancer journey, from the time they are diagnosed through the remainder of their lifetime. Complete information on disease status, recurrence, and subsequent treatment is collected. Collection sites include the hospital setting, as well as supportive care clinics and physician offices, ensuring that a complete picture of each patient’s disease is captured.

Local, state, and national cancer agencies use registry data in defined areas to improve cancer prevention and screening, research, and survival, all to advance cancer treatments. The University of Arizona Cancer Center at St. Joseph’s submits data collected to the State Cancer Registry.

The combined cancer registry of The University of Arizona Cancer Center at St. Joseph’s and St. Joseph’s Hospital and Medical Center has complete information since 2001, and also contains historical registry data dating all the way back to 1984.

Registry Data Distribution Tables

(Based on cancer center registry data – 08/2015 to 05/2016)

**CANCER TYPES COMMONLY TREATED**

- Gynecologic: 32%
- Breast: 26%
- Lung: 12%
- Gastrointestinal: 10%
- Genitourinary: 10%
- Other: 10%
- Head and Neck: 4%

**DISTRIBUTION BY STAGE: ALL DISEASE SITES**

- Stage 0: 4%
- Stage I: 26%
- Stage II: 19%
- Stage III: 16%
- Stage IV: 21%
- Unknown: 13%

*Stage at diagnosis, includes non-analytic and analytic cases.

*Cancer Center patient population and case mix are expected to evolve increasing all disease-specific cancer types as the center continues to establish itself within the marketplace.
Roger Maxwell (right) organizes the Run FORE Cancer with the help of his son-in-law and daughter, Jeff and Jennifer Crane—along with their children, Addison, Ryan and Julia—to raise money for cancer care at St. Joseph’s while honoring his wife, Kathy, who passed away from a rare form of the disease in 2012.
Volunteers Lend a Helping Hand

At The University of Arizona Cancer Center at St. Joseph’s, volunteers play a very important part in the healing ministry of Dignity Health by assisting staff and providing a personal touch to patients. Approximately 25 volunteers have provided over 3,300 hours of service since the Cancer Center opened in August of 2015.

THE FUTURE OF CANCER CARE DEPENDS ON DONORS!
St. Joseph’s Foundation was founded in 1981 to continue the philanthropic legacy of the Sisters of Mercy when they first established St. Joseph’s Hospital nearly 122 years ago. The foundation’s core purpose is to raise funds to support high quality patient care, medical education, and research at the hospital, assuring patients quality care is available when they need it, along with kindness, compassion, and respect.

With the opening of the new cancer center in 2015, Dignity Health St. Joseph’s affirmed its commitment to transforming cancer care for Arizonans—offering the pinnacle of care in the most peaceful, comforting environment possible, in one convenient, centralized location.

St. Joseph’s Foundation is seeking community support to ensure the center remains at the forefront of cancer care. Donors are invited to partner with the Cancer Center on this healing venture. Every gift increases the odds that more patients will defeat this disease and live longer, healthier, and happier lives.

Your gift to support cancer care at St. Joseph’s makes it possible for more patients to conquer cancer. To learn more and to make a lifesaving donation, visit SupportStJosephs.org/CancerCare.

WHERE DONORS CAN MAKE A DIFFERENCE
- Program Support—Enabling cancer programs to evolve and expand to meet patient need, providing resources for recovery and survivorship
- Equipment and Technology—Ensuring the center is equipped with cutting-edge technology to diagnose cancer as early as possible and treat it more effectively
- Leadership Endowment—Allowing the cancer center to attract and retain top oncology experts with experience treating all kinds of cancer

EVENTS SUPPORTING CANCER CARE AT ST. JOSEPH’S
Run FORE Cancer—Silverado Golf Course, Scottsdale

Commemorating the life of Kathy Maxwell (who passed away in 2012 from cancer), this event takes runners on a 4.2K and 8.2K sprint on the rolling hills of a beautiful golf course.

D-BACKS RACE AGAINST CANCER & WELLNESS ZONE
Over 5,000 runners and walkers participated in the 2016 D-backs Race Against Cancer. As formal host of the “Wellness Zone,” the Cancer Center, along with eight community partners, joined forces to provide information about cancer prevention and community services.
The University of Arizona Cancer Center at Dignity Health St. Joseph’s Hospital and Medical Center combines knowledge, experience, and advanced technology with expert dedicated staff to provide exceptional, compassionate, individualized care for patients and their loved ones. The Cancer Center’s focus is patient-centered multi-disciplinary care, evidenced-based diagnosis and treatment, and clinical and translational research.

**CANCERS TREATED:**

**Breast**
- Ductal
  - Ductal Carcinoma In Situ (DCIS)
- Lobular
- Invasive or Infiltrating
- Inflammatory
- Paget’s Disease of the Nipple
- Breast Cancer Risk Assessment for:
  - Atypical Hyperplasia
  - Genetic Mutations
  - Prior Exposure to Therapeutic Radiation

**Endocrine**
- Thyroid
- Adrenal
- Neuroendocrine
- Parathyroid
- Pancreas
- Pituitary

**Gastrointestinal**
- Appendicular/Appendix
- Esophageal
- Gastric/Stomach
- Small Bowel
- Colon/Large Bowel
- Rectal
- Anal
  - Perianal Skin Cancer or Dysplasia
- GIST (GI Stromal Tumor)

**Genitourinary**
- Prostate
- Bladder

**Skin/Cutaneous**
- Basal Cell Carcinoma
- Squamous Cell Carcinoma
- Melanoma
- Merkel Cell Carcinoma
- Dermatofibrosarcoma Protuberans (DFSP)
- Sebaceous Cell Carcinoma
- Other Rare Skin Tumors

**Thoracic**
- Lung
- Thymus
- Mesothelioma

**SERVICES:**

**Diagnostic Imaging**
- X-ray, Fluoroscopy
- Bone Densitometry
- Mammography
  - Screening and Diagnostic
  - 3D Tomosynthesis, MRI
- Ultrasound
- Computed Tomography (CT)
- MRI
  - Breast MRI, MR Guided Biopsy
  - Prostate Spectroscopy
- Screening
  - Breast Cancer (mammography)
  - Lung Cancer Screening (low dose CT)
  - CT Colonography
  - Cirrhosis Hepatocellular Carcinoma Screening (MRI, CT)
- Nuclear Medicine, PET/CT
Endoscopy
Screening, diagnostic and therapeutic procedures including:
• Colonoscopy
• Flexible Sigmoidoscopy
• Esophagoscopy
• Gastroscopy
• Anoscopy
• Endoscopic Rectal Ultrasound

Genetic Counseling

Infusion Services
• Chemotherapy
• Biotherapy
• Immunotherapy
• Clinical Trials/Phase I, II, and III
• Hydration and Electrolyte Replacement
• Symptom Management (e.g., anti-emetics and pain medication)
• Central and Peripheral IV Line Management
• Blood and Blood By-product Administration
• IV Pump Initiation and Disconnection
• Therapeutic Phlebotomy

Interventional Radiology (IR)
• Image-guided Biopsy
• Peripheral/Renal Angiography
• Paracentesis, Thoracentesis
• Malignant Fluid Collections
  • PleurX Catheters
• Venous Access (ports, tunneled central lines, PICC lines)
• IVC Filter Placement
• Placement of Percutaneous Enteral Feeding Tubes
• Management of Urinary Obstructions
  • Nephrostomy Placement/Exchange
  • Nephroureteral Catheter Placement

Radiation Medicine
• Brachytherapy
  • Low Dose Rate (LDR)
    • Head and Neck
  • High Dose Rate (HDR)
    • Prostate
    • Cervix
    • Uterine
    • Breast
    • Lung
    • Sarcoma
  • Head and Neck
  • Esophagus
  • Rectal
  • Biliary
  • Skin
• External Beam
  • Image-guided Radiotherapy (IGRT)
  • Intensity-modulated Radiation Therapy (IMRT)
  • Stereotactic Radiosurgery (SRS)
    • Gamma Knife
    • TrueBeam
  • Stereotactic Body Radiation Therapy (SBRT)
    • CyberKnife
    • TrueBeam
• Unsealed Sources
  • Radioactive Iodine (RAI) for Thyroid Cancer
  • Radium 223 (Ra-223) for Bone Metastasis
  • Yttrium-90 (Y-90) for Lymphoma
• Re-irradiation for Recurrent Tumors
• Total Skin Radiation
• Total Body Irradiation
• Total Lymphoid Irradiation