



2016 Message from the Medical Director

Virtua is a multi-hospital healthcare system with facilities in Mt. Holly, Marlton, Voorhees, Berlin, Washington Township and Moorestown. Virtua serves Burlington, Camden and Gloucester counties and their surrounding communities in central and southern New Jersey.

Virtua's Cancer Program is accredited by both the American College of Surgeons Commission on Cancer and by the National Accreditation Program for Breast Centers. Accreditation by both of these organizations provides many notable benefits that enhance our quality of care by providing our patients with a full range of diagnostic, treatment and supportive services including community based resources. To maintain accreditation facilities must undergo a rigorous evaluation and review of its performance and compliance with standards established by each of these organizations.

Virtua offers a wide array of surgical oncology expertise in colorectal surgery, breast cancer surgery, urologic surgery, gynecologic surgery, thoracic, otolaryngotic surgery, neuro and spine surgery. Radiation oncology facilities, interventional radiology along with medical oncology and surgical oncology practices are available throughout our service areas.

Highlights of our key accomplishments for 2016 are as follows:

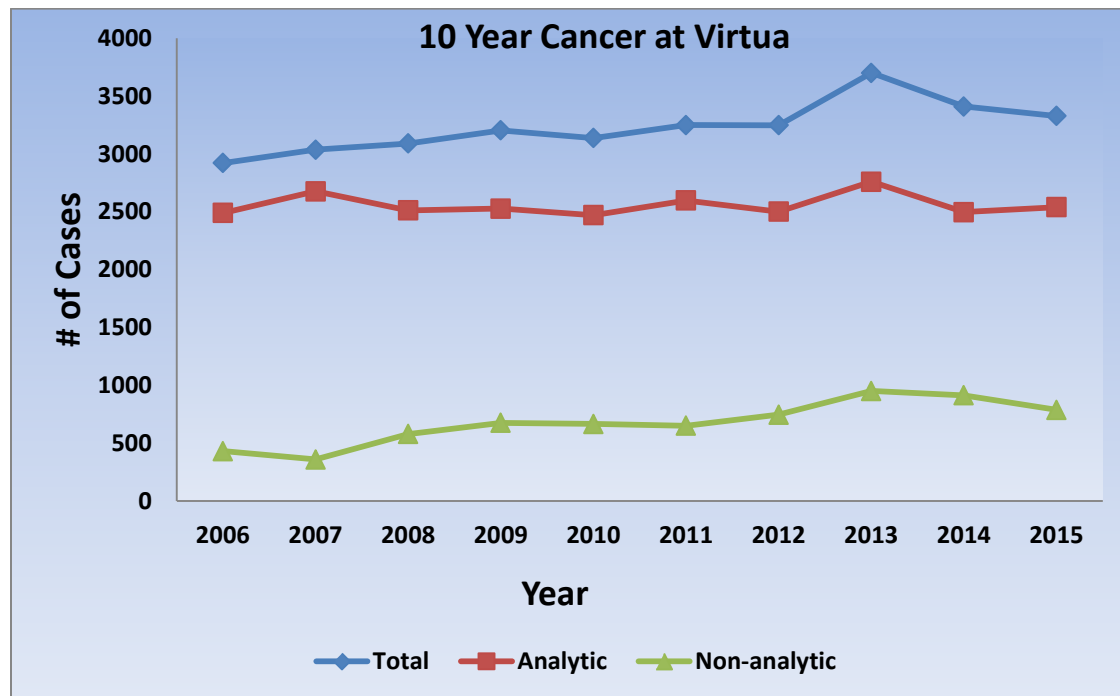
- Virtua and Penn Medicine have continued to strengthen their partnership alliance. This partnership provides Virtua's cancer specialists an opportunity to collaborate with Penn Medicine's physicians to provide best practice in cancer care and treatment close to home. Our patients have access to the latest in advanced treatments and clinical trials, as well as quick and easy access to second opinions from Penn Medicine.
- In 2016, the alliance with Penn Medicine expanded to include neuroscience, breast reconstruction and gynecologic oncology:
 - Penn's neurosurgical and spine specialists are experts in diagnosing and treating complex neurological disorders. Penn neurosurgeons now see patients and perform surgery at Virtua Memorial Hospital.
 - Penn plastic reconstructive micro surgeons perform breast and advanced oncologic reconstruction using the most advanced muscle preserving techniques.
 - Penn gynecologic surgical oncologists now see patients and perform surgery at Virtua Memorial Hospital.
- Implemented Stereotactic Radiosurgery (SRS) technology at Memorial Radiation Oncology. SRS is a non-surgical procedure for inoperable brain tumors that delivers precisely-targeted radiation at much higher doses, in only a single or few treatments, in order to preserve healthy tissue and maximize quality of life.
- Continued to work closely with Samaritan Healthcare and Hospice expanding supportive services including the following: new inpatient hospice, survivorship, and palliative care programs.
- Expanded the implementation of survivorship care plans including the psychosocial distress screening tool utilizing Carevive Systems analytical tool. Virtua clinicians can now provide our patients with a comprehensive, individualized treatment plan of care based upon standard guidelines and best practices.

- Expanded community outreach efforts to reach the underserved population who are at high risk to develop breast, gynecologic, skin, colon, and or prostate cancer(s). Provided cancer screenings, as well as prevention education to the underserved population in Spanish and English.
- Expanded Oncology Support Services to include:
 - Nutritional counseling provided (on site) for radiation oncology patients pre, during, and post treatment especially for head, neck, and GI cancers
 - Launched “Virtua Boutique” powered by Sun Med, providing bras and compression garments to our patients on-site
 - Expanded Nurse Navigation and Genetic Counseling staff
 - Increased access and provided smoking cessation programs with certified staff
 - Integrative therapies such as: acupuncture and massage
- Finalized the design of a building project plan for a new Memorial Cancer Center to be located in Moorestown, the targeted completion date is early 2018.

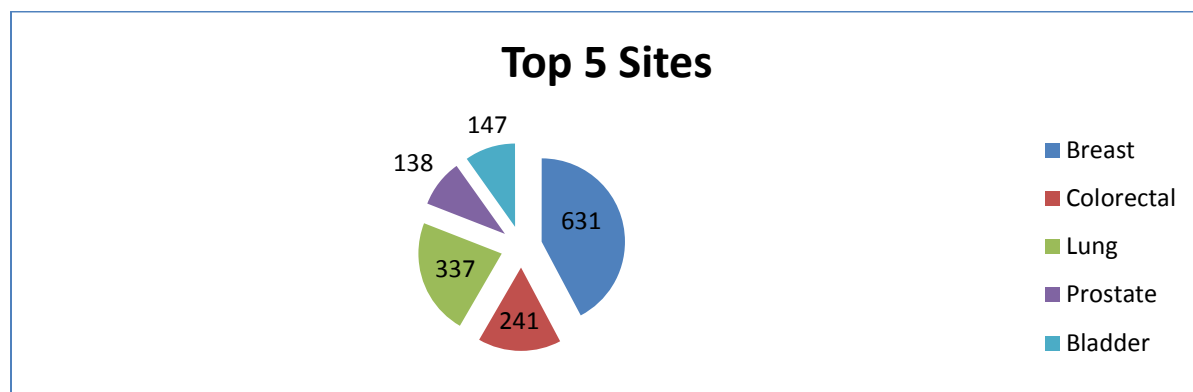
In May of 2016 Dr. Seth Berk was appointed the Penn Medicine Virtua Cancer Program Director. Dr. Berk graduated from Haverford College in 1990. He attained his medical degree from The Columbia University College of Physicians and Surgeons in 1994 and then completed his internship and residency in Internal Medicine at The Columbia University Medical Center in 1997. He completed a fellowship in Hematology and Oncology at the University of Chicago in 2000 and then joined Hematology Oncology Associates SJ shortly thereafter. As a member of the Virtua community, Dr. Berk has served for 16 years on the Internal Medicine Quality and Safety Committee and is currently its co-chair. He is section head of Hematology and Oncology at Virtua Memorial Hospital, Assistant Chief of Internal Medicine and a member of the Virtua Physician Partners Board of Managers. Dr. Berk along with the entire Virtua Cancer Program physicians and staff look forward to 2017, as we continue to strengthen our oncology program working with our partners of Penn Medicine in Philadelphia, Samaritan Healthcare and Hospice and the American Cancer Society.

Cancer Registry

The Cancer Registry is responsible for the accurate, timely collection of cancer patient data which is used for the evaluation of patient outcomes. The Cancer Registry coordinates many of the Penn Medicine Virtua Cancer Program activities related to our participation in the American College of Surgeon's (ACoS) Commission on Cancer (CoC) accredited program and the National Accreditation Program for Breast Centers (NAPBC). The CoC establishes standards to ensure high quality, multi-disciplinary and comprehensive cancer care delivery in hospitals throughout the United States granting accreditation to only those facilities that have voluntarily committed to provide the best in cancer diagnosis and treatment and are able to comply with rigorous standards.



During 2015, the Cancer Registry collected data on 2,539 analytic and 788 non-analytic cases. Breast, prostate, lung, colorectal, and bladder are the most frequently seen sites at Virtua comprising 58% of the analytic cases accessioned into our database. The individual breakdowns are as follows: 25% breast, 13% lung, 9% colorectal, 5% prostate, and 6% bladder.



The Cancer Registry responds to hundreds of data requests annually, supporting physicians, hospital administration, clinical research, the nurse navigation program and the Cancer Genetics program.

The Cancer Registry is a primary source of data included in the Virtua Oncology Dash Board which benchmarks Virtua's clinical outcomes against national standards. This year Virtua's Oncology Quality Dashboard included clinical quality measures endorsed by the National Quality Forum (NQF), American College of Surgeons (ACoS) and the National Cancer Comprehensive Network (NCCN); the National Accreditation Program for Breast Centers (NAPBC) and the Oncology Roundtable.

Performance Measures

The Virtua Cancer Program's accreditation with the Commission on Cancer (CoC) American College of Surgeons requires our cancer program to submit data annually to the National Cancer Data Base (NCDB). The NCDB is a nationwide oncology outcomes database used as a clinical surveillance system to monitor changes and variations in patterns of cancer care and patient outcomes. Data submitted to NCDB serves as a useful benchmark for patient care and continuous quality improvement. This data is analyzed and then utilized to identify potential gaps in cancer care in an effort to improve quality of care. The CoC requires accredited cancer programs to treat cancer patients according to nationally accepted accountability measures indicated by the CoC reporting quality tool. Accountability measures promote improvements in care delivery and are the highest standard for measurement. Results of our performance measures for 2015 are as follows:

Adjuvant chemotherapy is considered or administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer.

Virtua Results: 92% CoC Benchmark: 90%

At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer.

Virtua Results: 86% CoC Benchmark: 85%

Tamoxifen or third generation aromatase inhibitor is considered or administered within 1 year or 365 days of diagnosis with AJCC T1c or Stage IB-III hormone receptor positive breast cancer.

Virtua Results: 92% CoC Benchmark: 90%

Radiation is administered within 1 year (365 days) of diagnosis for women under the age of 70 receiving breast conservation surgery for breast cancer.

Virtua Results: 91% CoC Benchmark: 90%

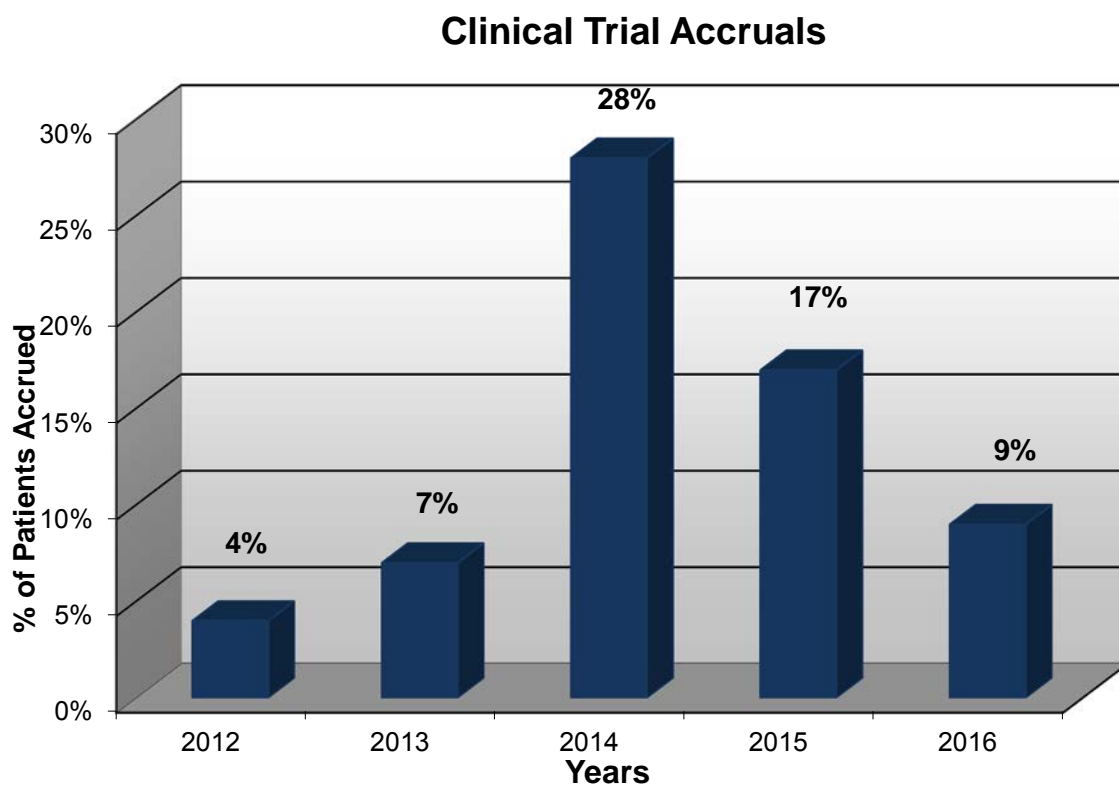
Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1cN0 or Stage IB-III hormone receptor negative breast cancer.

Virtua Results: 100% CoC Benchmark: 90%

Clinical Research

The Virtua Cancer Program is one of a select group of community-based hospitals in New Jersey and Pennsylvania whose cancer programs are affiliated with Penn Medicine in Philadelphia. This partnership and affiliation allows Virtua patients to have access to the latest advances in cancer care, treatment and research. The Penn Medicine Virtua Cancer Program is staffed by Clinical Research Coordinators who work closely with our physician clinical investigators to ensure new clinical trials with the latest treatment options are available for our patients in our community. A Scientific Review Committee comprised of oncology principal investigators meet monthly to discuss, identify, and recommend “new” clinical trials that are appropriate for our patient population and are then forwarded to the Institutional Review Board (IRB) for approval.

Currently, there are 37 Oncology clinical trials open through the Penn Medicine Virtua Cancer Program.



* 2016 represents data through 11/1/16

◆ The Penn Medicine Virtua Cancer Program participates in multiple national cooperative groups. Through our affiliation with Penn Medicine, Virtua is an affiliate member of ECOG-ACRIN and NRG. In addition to numerous clinical trials sponsored by these groups, our patients also have access to trials sponsored by other groups including SWOG and Alliance. All of these groups are part of the NCI National Clinical Trials Network.

◆ The Virtua Cancer Program is participating in two research studies that are assessing the basic biology of tumors. In addition, 42 patients have had an opportunity to participate in screening trials through the Virtua Medical Group.

Oncology Support Services

Virtua Breast Program



The Breast Care Program is designed to meet the needs of patients throughout the entire continuum of breast care. This program was established to support our growing Women's Health program at Virtua, for patients seeking breast care at our institutions, and to provide greater access and enhanced services to patients in our community. We offer a full range of comprehensive clinical services from prevention and screening, up through and including cancer diagnosis, multi-modality therapy, and supportive services. Virtua's Breast Care Program strives to provide innovative, integrated, high quality oncology care. Virtua strongly believes in a multidisciplinary team approach to breast cancer care which includes the following: patients and their family, physicians, nurse navigators, genetic counselors, clinical social workers, and support from health care professionals who specialize in all aspects of breast care. Virtua's Breast Care Program was re-accredited for the next three years from the National Accreditation Program for Breast Centers, passing on all 27 standards in September 2015. Dr. William Holaday serves as chair for the Breast Program Leadership Steering Committee which monitors breast program quality, measures outcomes, sets standards of care system-wide and addresses all aspects of breast care. This multidisciplinary committee meets 6 times a year.

The Penn Medicine Virtua Cancer Program provides care to approximately 625 newly diagnosed cancer patients annually. Breast care is provided at two of our facilities: Virtua Voorhees and Virtua Memorial. The oncology program at both, Voorhees and Memorial have "state of the art" radiation oncology facilities along with all other oncology support programmatic services. Washington Township also has a "state of the art" Radiation Oncology center with access to all of the other oncology support services, as well. The Penn Medicine Virtua Breast Reconstruction Program is located at Virtua Moorestown Health and Wellness Center and Virtua Memorial and will also expand to Voorhees in January of 2017.

The goals of the Breast Navigation Program are to improve patient access, support patients and physicians in order to achieve optimal clinical outcomes through a coordinated approach, enhanced communication, and improved patient satisfaction. The Nurse Navigation Program allows for more efficient use of a physician's time so that he or she can focus on the medical management of the patient.

The breast nurse navigators are oncology nurses with additional training in breast health and cancer care. Nurse navigators are available for newly diagnosed patients to assist with education, support and access to resources. Patient education and community outreach are important components of the Breast Care Program. Many breast cancer educational programs, including lymphedema education and screening are provided at no additional cost to our patients.

Other Oncology Nurse Navigation Services

Virtua's Nurse Navigation program has been recognized as best practice from Association of Community Cancer Centers. Nurse navigators are also available to patients for the following cancer disease sites: lung, prostate, colorectal, gynecological and head and neck cancers. Nurse navigators are readily available for newly diagnosed patients to assist with education, support, timely access and coordination of care. To date, all the nurse navigation services have patient satisfaction scores of 100%.

Oncology Social Work

The Penn Medicine Virtua Cancer Program provides a full range of clinical oncology social work services to meet the psychosocial needs of cancer patients and their families. The oncology social workers provide psychosocial counseling and emotional support to patients and their families through individual, family, and couples counseling. Clinical oncology social workers also support patients' psychosocial needs by providing appropriate referrals to numerous community resources including outpatient therapists who specialize in ongoing treatment of chronic illnesses and grief and loss. Additional services include the following: psychosocial distress screening to identify and examine psychological, behavioral, and social problems which may interfere with a patient's ability to participate in their health care. This evaluation is utilized to provide patients with resources and/or referrals to address their psychosocial needs. The clinical social work team facilitates several oncology support groups. Cancer survivorship needs can be addressed through both individualized counseling or via a Cancer Survivors Support group. As appropriate, patients can also be directed to a wide array of both Virtua and community resources. Virtua Oncology Social Workers also host and supervise Rutgers-Master's in Social Work (MSW) students for 1-2 semesters at Virtua. The MSW graduate students also assist in providing emotional and psychosocial support to our oncology patients under the direction of our licensed clinical social workers.

Palliative Care and Survivorship Services

Virtua offers palliative care services through its LifeCare program. Partnering with Samaritan Healthcare and Hospice, Dr. Stephen Goldfine and his team provide these services that are available to Virtua patients. These clinics are offered at both Memorial and Voorhees. The LifeCare Program can help restore quality of life complementing a patient's medical treatment plan through providing pain management, symptom management, and guidance with complex treatment choices.

Existing survivorship programs include Look Good Feel Better sponsored by the American Cancer Society, massage therapy, Virtua Physical Therapy and Rehabilitative Services as well as cancer fitness classes. Virtua Centers for HealthFitness and researchers at the University of Pennsylvania have teamed up to bring *Strength after Breast Cancer* to breast cancer survivors and Moving on: Next Steps Cancer Fitness for all patients. Registered Dietitians are available to provide oncology nutrition counseling. Our Chaplain is available to provide spiritual support and encouragement.

Cancer Genetic Program

Virtua's Cancer Genetic Program began in 2003 with a focus on hereditary breast and ovarian cancer syndromes and in 2009 expanded to include Gastrointestinal and other adult cancer genetic syndromes. The volume of patients seeking genetic counseling continues to grow and we expect to continue to expand our program with the clinical resources and clinical education provided through Penn Medicine.

Breast and Ovarian Cancer

Genetic tests are available for hereditary breast and ovarian cancers. Among them are the most common hereditary Breast cancer syndromes involving the BRCA1 and BRCA2 genes. When genetic testing is completed and an alteration is found in one of the identified genes, an individual's risk for developing certain types of cancer is significantly increased. In the case of a BRCA alteration, there is an increased risk for developing Breast and/or Ovarian cancer for women. For men, there is an increased risk for Breast and Prostate cancer. In addition, men and women who have already been diagnosed with these cancers are at increased risk for developing a second cancer.

Colorectal Cancer

Genetic tests are available for hereditary colon cancer. Common hereditary cancer syndromes include Familial Adenomatous Polyposis (FAP) and Lynch Syndrome. FAP is an inherited condition that may cause an individual to have hundreds of Colon polyps and significantly increases the risk for colon cancer. Lynch syndrome increases the risks for various cancers including colon and uterine cancers. At Virtua, all colorectal and uterine cancers are screened for Lynch Syndrome. The aim of tumor screening is to identify patients who are at risk for having Lynch Syndrome to reduce the morbidity and mortality due to Lynch-related cancers in our patients and their family members.

The Team Approach

The Cancer Genetics program at Virtua is unique in that it consists of a multidisciplinary team of oncology and genetics experts including medical oncologists, board-certified licensed genetic counselors, and master's prepared licensed clinical social workers. The team discusses genetics cases and reviews current literature during monthly team meetings and the cancer genetics staff participates in weekly cancer case conferences at Virtua.

Clinical experts at the Virtua Cancer Genetics Program help guide patients through the cancer risk counseling process to identify their risk for cancer. The counselors help patients who are uncertain about their family's medical history or have concerns about other cancers by obtaining medical records and pathology reports from the various healthcare centers at which their family members have been treated. Other benefits of the program include:

- Receiving individualized and comprehensive counseling from cancer genetics experts including medical oncologists trained in cancer genetics, board-certified licensed genetic counselors and social workers
- Discovering an individual's increased risk for cancer
- Learning about the benefits, risks and limitations of genetic testing as well as the inheritance pattern and impact on family members
- Undergoing genetic testing, if appropriate
- Learning ways to decrease risk for developing cancer and early detection strategies for high risk individuals (screening or medical and surgical approaches)

Community Outreach and Education

Virtua’s Community Outreach Program works closely with cancer advocacy organizations and community partners to improve and enhance cancer education, prevention and supportive services throughout the region. The cancer program continually reviews cancer incidence and prevalence within the region and develops resources and services to augment existing programs while identifying the future direction for cancer education and prevention efforts. Resources and services are designed across the continuum of care, from prevention to risk reduction and support. This report will detail all of the community and education activities held throughout this year.

Oncology Lectures given in the community

Many of our oncology physicians, nurses, therapists, educators and executives are active members of the Virtua Speakers Bureau. These experts travel throughout our surrounding counties speaking on cancer related topics for lay and professional audiences. Lectures are given free of charge as a community service.

Our oncology clinical experts have been interviewed and featured in many Virtua publications and local newspapers, magazines and television programs discussing many aspects of oncology care from prevention to survivorship. The Penn Medicine Virtua Cancer Program has been featured in 3 issues of Healthy Events and 1 issue of Life Line.

Outreach Health and Wellness Events

Participation in health fairs provide an opportunity to reach out to people and the community about their health and well-being. By bringing health professionals and lay people together, a health fair educates people about health, behavior modification, prevention and available resources. Our participation in health fairs includes exhibits, mini-workshops, demonstrations and cancer screenings.

Display and Health Fairs	Encounters
16	4,000

**Encounters are the total number of people that the employee comes in contact with at a health fair/event*

Grant Funded Programs

The New Jersey Cancer Education and Early Detection Program (NJCEED) is sponsored by the New Jersey Department of Health and Senior Services. NJCEED provides grants to facilitate comprehensive cancer screening, education and outreach services for the following: breast, cervical, prostate, and colorectal cancers for uninsured or underserved populations. Services are provided by Virtua affiliated physicians to residents of Camden and Burlington Counties. This year’s New Jersey CEED grant totaled \$ 443,505 and was awarded to Virtua as a regional grant for both Camden and Burlington County.

Camden County screenings	Totals Screened
Women	80
Men	1
Burlington County screenings	
Women	197
Men	11

**Screenings through 11/1/16*

Susan G Komen for the Cure Central & South Jersey Affiliate awarded the Breast Care Program \$44,500.00 to provide bilingual outreach to increase screening compliance and provide education among NJCEED patients in Gloucester County whose primary language is not English.

Advocacy and Community Events

Penn Medicine and Virtua Cancer Program employees actively participate in community awareness and cancer advocacy fund raising events independent of their employee responsibilities. This year, teams of employees, physician and patients walked, raced, rowed and raised funds to support cancer research and cancer care in our community.

Virtua Cancer Service Teams participated in the following events in 2016:

- Susan G. Komen Breast Cancer Foundation's *Race for the Cure* in NJ.
- American Cancer Society's *Making Strides Against Breast Cancer* walk
- American Cancer Society's "*Relay for Life*" events
- Annual Cancer Survivor's Day Celebration at the Marlton "*Relay for Life*" event

Camp Oasis:

The Penn Medicine Virtua Cancer Program hosts Camp Oasis, a day-long camping trip for children and teens who have a parent diagnosed with cancer. Camp Oasis provides over 50 kids with a stress-free day of fun and an opportunity to share the day with other children who face similar problems and fears. The camp offers a variety of activities, including swimming, face-painting, crafts, games, a barbecue lunch of hot dogs and hamburgers, plus free transportation to the camp in a limo or limo bus from multiple pick up locations. There is no cost to participate. Volunteers include nurses, social workers, and multiple health care employees.

Additional Programs and Activities of Distinction for Oncology Patients:

The Penn Medicine Virtua Cancer Program collaborates with many organizations in our community while trying to meet the needs of all community members. We actively participate in cancer-related coalitions on many levels to help meet some of these community needs. Examples include the following: American Cancer Society (ACS), the Susan G Komen Breast Cancer Foundation Central & South Jersey Affiliate, Burlington County Department of Health, Camden County Department of Health, South Jersey Cancer Coalition, South Jersey Breast Cancer Coalition, ACS Nutrition Task Team, Camden and Burlington Counties Chronic Disease Coalition, NJ State CEED Coalition, New Jersey Cancer Control Task Force, and the Camden and Burlington County CAT Coalition.

Radiation Oncology

The Penn Medicine Virtua Radiation Oncology Program has three treatment centers in three counties across South Jersey: Memorial Hospital in Burlington County, Virtua Voorhees in Camden County, and at Virtua's Health & Wellness Center in Gloucester County. The Radiation Oncology program is accredited through the American College of Radiology (ACR) who accredits and recognizes programs for delivering high quality Radiation Oncology care. One of the key values to providing best practice patient care at the Penn Medicine Radiation Oncology treatment centers is a well-trained, engaged, collaborative multidisciplinary team. Each radiation oncology physician and clinical team member across the system participates in weekly patient case rounds with Penn Medicine, in order to evaluate the best treatment options for the patient. The three Radiation Oncology departments also routinely conduct multidisciplinary *New Patient Rounds* to identify and address any barriers to patient treatment. Radiation Oncology new Patient Rounds are attended by the below clinical staff:

Radiation Oncology	Supportive Services
<ul style="list-style-type: none">• <i>Radiation Oncologists</i>	<ul style="list-style-type: none">• <i>Social Work</i>
<ul style="list-style-type: none">• <i>Physicists</i>	<ul style="list-style-type: none">• <i>Nurse Navigators</i>
<ul style="list-style-type: none">• <i>Dosimetrist</i>	<ul style="list-style-type: none">• <i>Genetic Counselors</i>
<ul style="list-style-type: none">• <i>Radiation Therapists</i>	<ul style="list-style-type: none">• <i>Research Coordinators</i>
<ul style="list-style-type: none">• <i>Oncology Nurses</i>	<ul style="list-style-type: none">• <i>Dietitian</i>

Each Penn Medicine Virtua Radiation Oncology site is equipped with the most advanced treatment technology that allows for the precise targeting of cancer cells, and limits unnecessary dose to nearby tissue and organs so that side effects are prevented or minimized. Image Guided Radiation Therapy (IGRT) is used to localize the tumor and ensure accuracy before the delivery of the treatment. Treatment modalities available across the system are as follows:

Memorial Hospital-Mount Holly, NJ

- Intensity Modulated Radiation Therapy (IMRT)
- Three Dimensional Conformal Radiation Therapy (3D)
- Low Dose Rate (LDR) Brachytherapy for Prostate Cancer
- High Dose Rate (HDR) Brachytherapy for Gynecological Cancers
- 4-D CT Simulation capabilities
- Stereotactic Body Radiation Therapy (SBRT)
- Stereotactic Radiosurgery (SRS)
- Xofigo-used in the treatment of castration-resistant prostate cancer
- Prone Breast Technique

Virtua Voorhees- Voorhees, NJ

- Intensity Modulated Radiation Therapy (IMRT)
- Three Dimensional Conformal Radiation Therapy (3D)
- High Dose Rate (HDR) Brachytherapy for Gynecological Cancers
- 4-D CT Simulation
- Stereotactic Body Radiation Therapy (SBRT)
- Xofigo-used in the treatment of castration-resistant prostate cancer
- Prone Breast Technique

Health & Wellness Center- Washington Township, NJ

- Intensity Modulated Radiation Therapy (IMRT)
- Three Dimensional Conformal Radiation Therapy (3D)
- 4-D CT Simulation
- Stereotactic Body Radiation Therapy (SBRT)
- Stereotactic Radiosurgery (SRS)
- Prone Breast Technique