### Virtua Fox Chase Cancer Program 2009 Annual Report Message from the Medical Directors

The Virtua Fox Chase Cancer Program (VFCCP) has recently changed its logo but the program continues to serve Burlington, Camden and Gloucester counties and their surrounding communities in central and southern New Jersey. It proudly integrates the hospitals of Virtua in Mt. Holly, Marlton, Voorhees and Berlin with the outpatient facilities in those communities, as well as, Camden and the soon to be opened Washington Township center with the joint cancer program partnered by Virtua and Fox Chase Cancer Center (FCCC) of Philadelphia.

Prevention and screening services are available through Virtua's primary care network and Virtua's New Jersey sponsored Cancer Education and Early Detection (CEED) program in Burlington and Camden counties. Virtua offers a wide array of surgical oncology expertise in colorectal surgery, breast cancer surgery, urologic surgery, gynecologic surgery, otolaryngotic surgery and brain and spine surgery. Interventional radiology facilities are available at all hospital sites. Radiation oncology facilities and medical oncology practices are also available throughout our service areas. Many of our physicians have been selected as "Top Docs" in their fields of specialty and presently 14 have been appointed to the Fox Chase Virtua Health Adjunct faculty panel after meeting strict criteria established by FCCC. The cancer program continues to excel in clinical research participation via National Cancer Institute sponsored Clinical Trials Groups, as well as, FCCC sponsored Fox Chase Extramural Research (FER) studies. The program has continued to meet or exceed goals in quality assurance and audits by local regional, national and accrediting agencies.

In 2009, VFCCP continued to achieve and surpass its goals and objectives including:

- Virtua's Breast Care Program is now one of three Breast Care Centers in New Jersey to achieve accreditation by the National Accreditation Program for Breast Centers
- Expansion of Breast Care and Breast Cancer Navigation services
- Initiation of Thoracic and Colorectal Navigation services
- Expansion of Virtua Genetics Risk Assessment Program to include Colorectal risk as well as Breast, Uterine and Ovarian risk
- Expansion of Virtua Fox Chase joint ventures including Radiation Oncology facilities to be opened at the new Washington Township outpatient site and Gynecologic Oncology expanded services at Virtua Voorhees and Virtua Memorial hospitals
- Ongoing collaborative development with the Surgery Program of Excellence of Virtua approved Oncologic Surgery physician panels in Breast, Colorectal and Thoracic surgery
- Redefined the Fox Chase/ Virtua Physician Adjunct Faculty appointment criteria to meet a minimum annual score by attendance at cancer conferences, committee memberships, presentations, oncology research accrual, and other program related participation.

The 2009 Annual Report describes additional details of our Cancer Program and Cancer Registry statistics. This year's Site Study focuses on Breast Cancer. Drs. Diane Gillum and

Eric Miller have spearheaded an excellent review of this disease, focusing on breast care, treatment and outcomes comparing our data and results to national benchmarks.

As we look forward to another exciting year in 2010 with new programs and plans, we wish to thank all the participants of the Cancer Program and Fox Chase Cancer Center for their commitment to excellence in cancer care for all the communities we serve.

Sincerely,

Alan S. Weinstein, MD, FACP Medical Director Oncology Program of Excellence Virtua Memorial Hospital

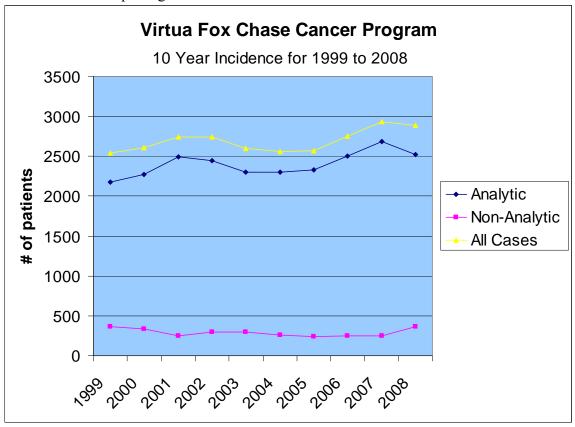
Ashok Bapat, MD Medical Director Oncology Program of Excellence Virtua West Jersey Hospitals

# Virtua Fox Chase Cancer Program Cancer Registry Report

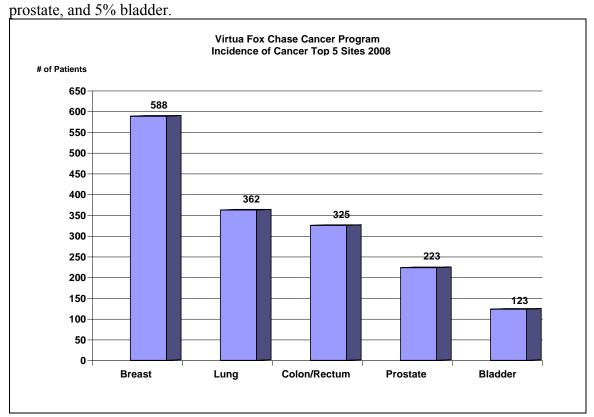
The Cancer Registry is the component of the cancer program that is responsible for the accurate, timely collection of cancer patient data which is used for the evaluation of patient outcomes. Additionally, the Cancer Registry coordinates many of the activities of the Virtua Fox Chase Cancer Program (VFCCP)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

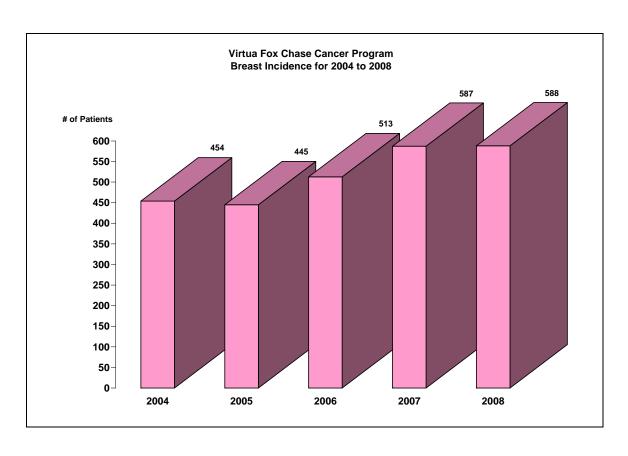
The Cancer Registry is a primary source of data included in the Virtua Oncology Dash Board which benchmarks Virtua's clinical outcomes against national standards. This year Virtua's Oncology Quality Dashboard included clinical quality measures endorsed by the National Quality Forum (NQF), American College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

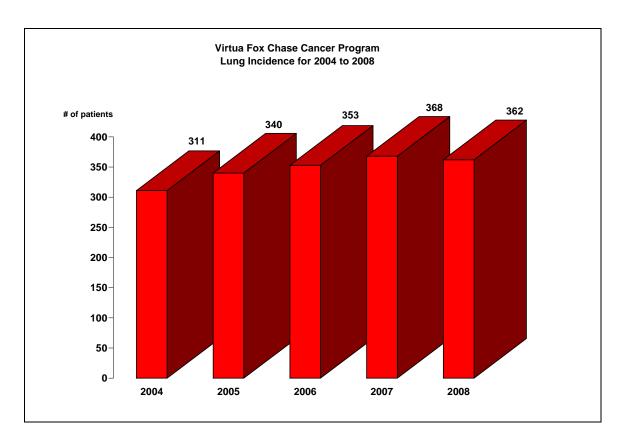
During 2008, the Virtua Cancer Registry collected data on 2,518 analytic and 360 non-analytic cases. Breast, prostate, lung, colorectal and bladder remain the most frequently seen sites at Virtua comprising 58% of the cases accessioned into our database.

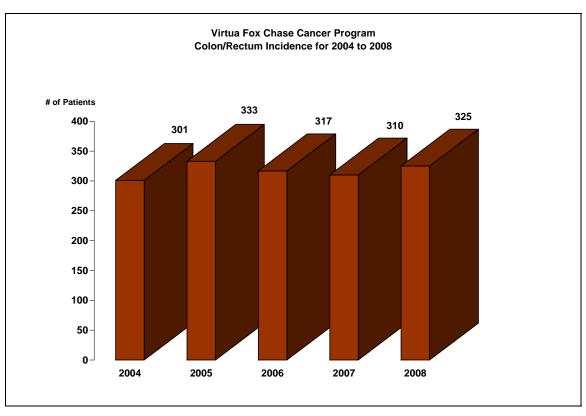


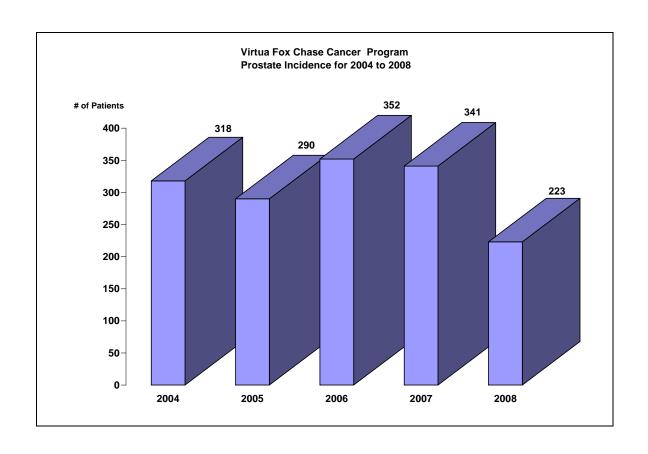
The individual breakdowns are as follows: 20% breast, 13% lung, 11% colorectal, 7%

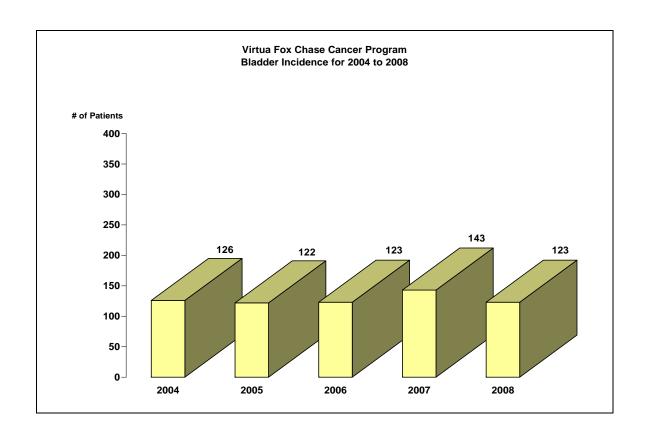












The Cancer Registry is staffed by two team leaders and five certified cancer registrars at two locations, Virtua Memorial in Mount Holly and Virtua Voorhees in Gibbsboro. All of the cancer registrars are certified by the National Cancer Registrars Association (NCRA) and are active members of NCRA as well as the Oncology Registrar Association (ORANJ) of New Jersey. The entire staff has maintained professional competencies by attending multiple training sessions sponsored by NCRA and ORANJ.

Medical oncologists, radiation oncologists, surgeons and pathologists perform rigorous quality assurance activities throughout the year reviewing cases accessioned in the Cancer Registry for accuracy, completeness and timeliness.

Weekly Cancer Conferences are held at the Virtua Memorial and Virtua Voorhees campuses. Cases are discussed in a multi-disciplinary format with the majority presented for consensus treatment decisions. Guest speakers from Fox Chase Cancer Center as well as other renowned oncologists participate in cancer conferences on both campuses. Site specific breast, thyroid, urology, and gynecologic oncology cancer conferences are held at Virtua as well.

The Cancer Registry responds to hundreds of data requests annually, supporting physicians, hospital administration and other components of the Virtua Fox Chase Oncology Program including clinical research, the nurse navigation program and the high risk programs.

# Fox Chase Virtua Health Cancer Program

**Endocrine** 

Thyroid	65	14	51	0	41	4	7	2	0	11
Other Endocrine	8	3	5	0	0		0	0	8	0
Lymphoma										
Hodgkin	12	6	6	0	2	7	1	2	0	0
Non-Hodgkin	93	37	56	0	29	16	22	24	0	2
Mulitiple Myeloma	11	7	4	0	0	0	0	0	11	0
Leukemia	37	19	18	0	0	0	0	0	37	0
Mesothelioma	17	13	4	0	2	2	2	6	3	2
Other/Unknown/Uncertain										
Malig	96	41	55	0	0	0	0	0	96	0
	2518	1019	1499	216	648	514	322	383	233	202
*Analytic: Newly dx and/or 1st treated at this institution										
**AJCC: American Joint Committee on Cancer										

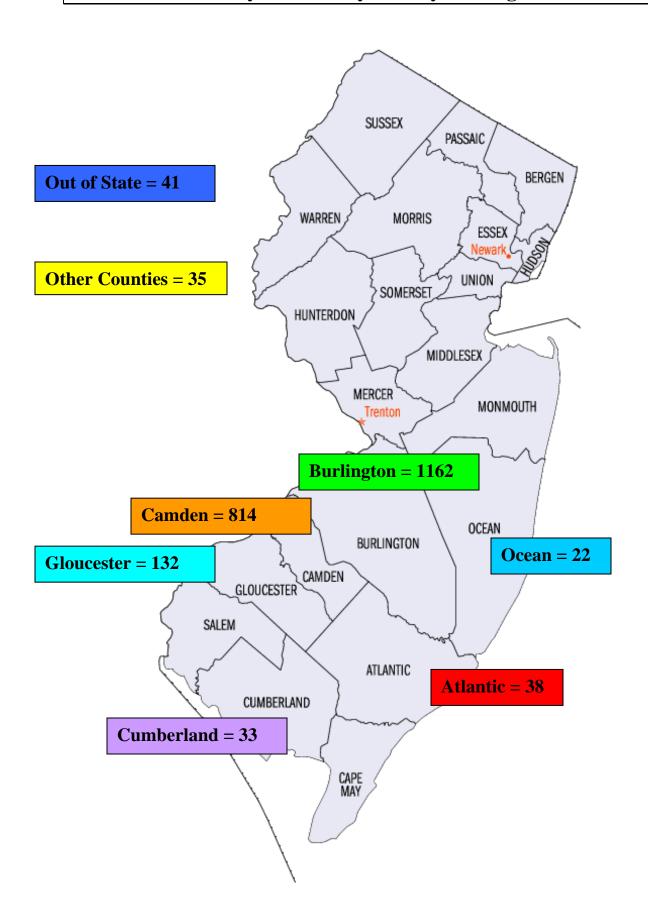
# Fox Chase Virtua Health Cancer Program Analytic\* Case Load Comparison 2003 2004 2005 2006

	2003	2004	2005	2006	2007	2008
TOTAL:	2304	2302	2331	2498	2668	2518
Oral Cavity & Pharynx	32	30	34	26	33	19
Digestive						
Esophagus	20	13	23	15	26	23
Stomach	31	24	19	37	28	35
Small Intestine	13	11	10	10	14	16
Colorectal	275	301	333	317	310	325
Anus, Anal Canal	6	9	6	6	11	13
Liver/Biliary	21	19	25	24	33	29
Gallbladder	8	6	7	12	11	5
Pancreas	37	52	50	39	65	49
Retro & Peritoneum	6	8	4	5	3	8
Other Digestive	7	1	1	1	2	2
Respiratory						
Larynx	13	7	12	26	23	18
Heart, Medias & Pleura	0	0	1	0	2	1
Lung/Bronchus	312	311	340	354	368	362
Other Respiratory	4	4	0	0	3	0
Bones & Joints	4	2	1	2	0	1
Soft Tissue	17	11	13	15	17	10
Skin						
Melanoma	25	29	27	18	29	18
Other Skin	7	4	6	7	8	8
Breast	434	454	445	513	587	588
Female Genital						
Cervix	27	17	16	16	24	14
Corpus	70	79	82	96	93	90
Ovary	37	33	50	50	41	45
Vagina	2	1	4	2	3	0
Vulva	5	8	7	20	12	9
Other Female Genital	2	1	3	2	2	4
Male Genital						
Prostate	367	318	290	353	341	223
Testis	11	12	10	11	14	15
Penis	0	1	0	2	1	2
Other Male Genital	0	0	0	1	0	0
Urinary						
Bladder	107	126	122	122	143	123
Kidney/Renal Pelvis	47	61	60	63	68	88
Ureter	2	5	3	7	5	3
Other Urinary Organs	1	1	3	3	2	3
Central Nervous System	12	20	18	30	24	30
Endocrine						
Thyroid	105	90	84	70	87	65

Other Endocrine	5	3	9	7	1 2	8
	3	3	3	,		0
Lymphoma						
Hodgkin	11	4	21	11	13	12
Non-Hodgkin	85	80	77	82	92	93
Multiple Myeloma	22	22	16	21	24	11
Leukemia	31	33	25	29	19	37
Mesothelioma	13	13	7	6	10	17
Other/Unknown/Uncertain						
Malig	70	78	67	67	76	96
	2304	2302	2331	2498	2669	2518

<sup>\*</sup> Analytic: Newly dx and/or 1st treated at this institution

# Fox Chase Virtua Health Cancer Program 2008 Analytic Cases By County At Diagnosis

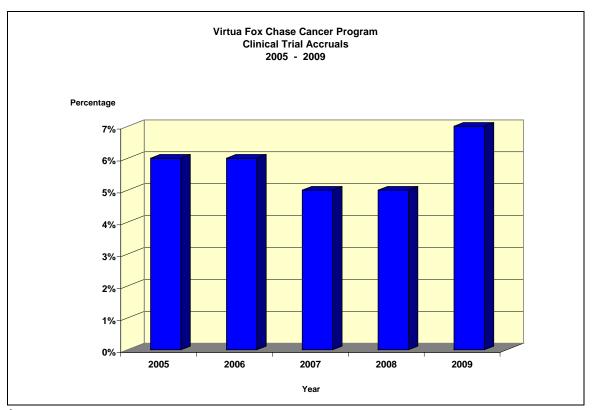


# Virtua Fox Chase Cancer Program 2009 Annual Report Clinical Research Report

The Virtua Fox Chase Cancer Program has a robust clinical research program, participating in national cooperative group trials as well as pharmaceutical trials through Fox Chase Cancer Center. We are one of a select group of community-based hospitals in New Jersey and Pennsylvania whose cancer programs are affiliated with Fox Chase Cancer Center in Philadelphia. Virtua was chosen to be part of this network of community cancer programs by consistently demonstrating outstanding cancer-care standards and supporting an infrastructure offering clinical trials. This affiliation allows Virtua patients to have access to the latest advances in cancer care, treatment and research.

Virtua's research staff works closely with our physician clinical investigators to ensure new clinical trials with the latest treatment options are available for our patients. A Research Review Committee comprised of our principal investigators meets bi-monthly to discuss and recommend new trials to the Institutional Review Board (IRB) for approval.

Currently, there are 75 oncology clinical trials open at the Virtua Fox Chase Cancer Program.



<sup>\* 2009</sup> represents data through 12/10/09

♦ In 2009 7% of Virtua Fox Chase cancer patients (defined by new analytic cases) were accrued to clinical trials.

- ♦ The Virtua Fox Chase Cancer Program participates in multiple national cooperative groups including: Eastern Cooperative Oncology Group (ECOG), South West Oncology Group (SWOG), Radiation Therapy Oncology Group (RTOG), and American College of Surgeons Oncology Group (ACOSOG), Clinical Trials Support Unit (CTSU), and Gynecology Oncology Group (GOG).
- ♦ Information is available for patients and staff about Virtua's offered oncology clinical trials on the Virtua web site (www.virtua.org) and on New Jersey Cancer Trial Connect (www.njctc.org).

#### **Prevention Trials**

- ♦ The High Risk Assessment Program is designed to help women learn about their risk factors associated with breast and ovarian cancer. In collaboration with Fox Chase Cancer Center, eligible individuals receive the opportunity to participate in a variety of studies such as new screening methods, genetic testing for research purposes and cancer prevention trials. 104 participants have been accrued through the High Risk Assessment Program in 2009.
- ♦ In 2009 97 patients enrolled in a colon cancer staging and prognosis protocol.

To learn more about clinical trials or find out about open prevention and treatment studies available at the Virtua Fox Chase Cancer Program, call 1-888-Virtua-3 or visit Virtua website www.virtua.org

### **Breast Care Program**

# Advancing oncology care through education and coordination of care

The Breast Care Program is specifically designed to meet the needs of patients through the



entire continuum of breast care. We offer a full range of comprehensive clinical services from prevention and screening, through cancer diagnosis, multimodality therapy, and supportive services. Under the direction of Dr Eric J. Miller and Dr. Diane R. Gillum, Virtua's Breast Care Program strives to provide innovative, integrated and high quality oncology care. Virtua strongly believes in a multidisciplinary team approach to breast cancer care that includes the patients and their family, physicians, nurse navigators, support from licensed

clinical oncology social workers, genetic counselors and health care professionals who specialize in all aspects of breast care.

Accomplishments for the Virtua Breast Care Program in 2009 were:

- Virtua's Breast Care Program is now one of only105 Breast Care Centers in the United States and 3 in New Jersey to achieve accreditation by the National Accreditation Program for Breast Centers
- Diane Gillum, MD achieved Mastery of Breast Surgery, one of a few hundred surgeons in the United States to achieve this certification
- Charles Butler, MD and Diane Gillum, MD achieved Ultrasound Certification
- Diane Gillum, MD received Virtua Physician Recognition award for her role in developing the Breast Care Program at Virtua.
- Barbara Francks, RN, BSN and Jamie Hemple, RN, BSN achieved certification as Certified Breast Care Nurses through the Oncology Nurse Society.
- Expansion of the Breast Care Navigation and genetic counseling services
- Addition of digital mammography in Memorial
- Addition of SAVI brachtherapy in Memorial

The Breast Care Program was developed from a long-standing commitment to women's health and oncology care. The program was established to support our growing Women's Health Program of Excellence, for patients seeking breast care at our institutions, and to provide greater access and enhanced services to patients in our community.

The goals of the program are to support physicians in achieving optimal clinical outcomes, enhance communication between the various disciplines and referring physicians, and improve patient satisfaction. It allows for more efficient use of physician time spent with patients, decreases the time office staff spends making appointments for anxious patients, and ensures timely delivery of services. To date, over 1900 patients have been navigated through Access Navigation. Access Navigation assists patients in obtaining prompt appointments with a breast surgeon for evaluation. Over 700 patients have been enrolled in the Nurse Navigation Program. The nurse navigators are oncology nurses with additional training in breast health and breast cancer care. These breast care nurse navigators are available to

newly diagnosed patients to assist with education, support and access to resources. This program has received excellent feedback from patients, their family members, and referring physicians with overall patient satisfaction scores of 100%.

Patient education and community outreach are important components of the Breast Care Program. Funding from Susan G. Komen Foundation supports the program's educational materials and supports breast cancer awareness lectures and educational workshops free of charge to our community and patients.

# Virtua Fox Chase Cancer Program's Cancer Genetics Report

While 90 percent of cancer cases occur due to lifestyle, environmental or aging factors, five to 10 percent of cancers are passed down from generation to generation. If you or your family members have been diagnosed with colon, breast, ovarian or uterine cancer, you could be at increased risk for developing those cancers. In 2003, through our partnership with Fox Chase Cancer Center, we developed our Cancer Genetics Program. The program began with a focus on hereditary breast and ovarian cancer syndromes and in 2009 expanded into gastrointestinal and other adult cancer genetic syndromes. The volume of patients that has been in our program has increased year after year.

	2003	2004	2005	2006	2007	2008	2009
TOTAL NEW	12	16	58	28	67	175	255*
VISITS							

<sup>\*</sup> Visits 1/1/09-12/10/09

#### **Breast and ovarian cancer**

Genetic tests are available for hereditary breast cancer. 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. For women, there is an increased risk for developing breast and/or ovarian cancer. 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 Lynch Syndrome and FAP. Lynch Syndrome (or HNPCC) is an inherited condition that increases your chances for colon, uterine and other cancers. FAP (familial adenomatous polyposis) is an inherited condition that may cause an individual to have hundreds of colon polyps and significantly increases the risk for colon cancer. Testing is also available for other gastrointestinal hereditary cancer syndromes.

#### 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, an advanced practice nurse in genetics (only one of 33 in the country), a board certified genetic counselor, and master's prepared licensed clinical social workers. The team discusses genetics cases and review current literature during monthly pedigree reviews.

Experts at the Virtua Fox Chase 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:

- Receive individualized and comprehensive counseling from cancer genetics experts including medical oncologists trained in cancer genetics, advanced practice nurses, board-certified genetic counselors and social workers
- Discovering an increased risk for cancer
- Learn about the benefits, risks and limitations of genetic testing
- Undergo genetic testing, if appropriate
- Learn how to decrease risk for developing cancer (screening or medical and surgical approaches)

#### **Clinical trials**

Patients who have a personal or family history of breast or ovarian cancer and are willing to participate in a research study, may be eligible for the Margaret Dyson Family Risk Assessment Program conducted in partnership with the Fox Chase Cancer Center in Philadelphia.

Participant will:

- Help provide insight into hereditary factors, or genes, that influence cancer risk
- Gain access to the latest news and information on cancer genetics

	2005	2006	2007	2008	2009
TOTAL	58	28	60	119	104*
ACCRUED					
TO					
RESEARCH					

<sup>\*</sup>Accrued 1/1/09-12/10/09

#### **Community Outreach**

Our cancer genetics staff is committed to community education of healthcare providers and the lay community. Our experts travel throughout our surrounding communities fulfilling many speaking engagements and one on one interaction. Lectures are given free of charge as a community service. Requests for lectures are made through Virtua's speaker's bureau and through community contacts that the Virtua Fox Chase Cancer Program has made with organizations within Burlington, Camden and Gloucester counties.

One of the largest events we held this year was a Co-Sponsored event with the Samost Jewish Children's and Family Services of Southern New Jersey called "In the Family". This was a screening of a film and expert panel discussion. Experts included Randolph Deger, MD, Priya Gor, MD, Eric Miller, MD, Karen Atkin, LCSW, Janice O'Connell, CGC and Bridget LeGrazie, MSN, RN, APN,c., APNG, AOCN. The documentary explored the feelings that genetic testing can bring about in individuals and families facing the decisions about testing for hereditary breast and ovarian cancer. The film evoked many emotions in the participants that prompted an outpouring of questions for our expert panel. We had 45 attendees.

	Total Lectures 2009	Total Attendance
<b>Total Lectures</b>	6	112
Total Visits To	27	155
Healthcare Providers		

The Cancer Genetics Program has been interviewed and featured in many Virtua Health publications and local newspapers, magazines and television programs discussing the identification and management of high risk individuals. Our genetic counselor had an abstract accepted for poster presentation for the 2009 National Society of Genetic Counselors Conference. The study evaluated the process of tumor screening utilizing MSI and IHC used by genetic counselors to identify patients with Lynch syndrome. It also evaluated the number of institutions who are currently screening tumors on a routine basis and the criteria with which they use to determine eligibility for tumor screening. The Cancer Genetics Program is now an established clinical site for Arcadia University Genetic Counseling students. Two Students have been precepted in 2009.

# Virtua Fox Chase Cancer Program's Education and Community Outreach Report

The Virtua Fox Chase Cancer 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 activities of our oncology program staff and physicians held in 2009.

#### Oncology Lectures given in the community

Many of our oncology physicians and staff are active members of the Virtua speakers bureau. These experts travel throughout our surrounding counties fulfilling many speaking engagements on cancer related topics for lay and professional audiences.

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.

We offer access to a range of speakers (including physicians, nurses, therapists, educators and executives) on a variety of <u>topics</u>. Lectures are given free of charge as a community service. Requests for lectures are made through Virtua's speaker's bureau and through community contacts that the Virtua Fox Chase Cancer Program has made. The Virtua Fox Chase Cancer Program strives to fulfill speaker requests for organizations within Burlington, Camden and Gloucester counties

	Total Lectures 2009	Total Attendance
TOTAL LECTURES	33	1,630

#### Cancer Screenings Events

In addition to the New Jersey Cancer Education and Early Detection Program (NJCEED) screening program, the Virtua Fox Chase Cancer Program offers lectures and free cancer screenings in our community. Physicians volunteer their time offering site-specific cancer screenings. Participants receive education, screening examinations and referrals for follow-up care for suspicious findings. Patients and their primary care physician receive all results and follow-up post screening.

Type of Screening	Attendance
Skin Cancer	23
Screening	
Lung Screening	225
Total Screened	248

#### Outreach Health and Wellness Events

Health fairs give the Virtua Fox Chase Cancer Program the 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 through the Virtua Fox Chase Cancer Program (VFCCP). VFCCP's participation in health fairs can include exhibits, miniworkshops, demonstrations and screenings. Our participation in health fairs also allows us to develop a network of organizations interested in promoting health issues to the community.

Display and Health Fairs	Encounters
10	1,406

<sup>\*</sup>Encounters are the total number of people that the employee comes in contact with at a healthfair/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 screening services for breast, cervical, prostate and colorectal cancer for uninsured or underserved populations. The NJCEED grant provides monies for outreach, education and cancer screening services with case management for breast, cervical, prostate and colorectal cancer. Services are provided by Virtua affiliated physicians to residents in Camden and Burlington Counties. This year's NJ CEED grant totaled \$ 450,900 and was awarded to Virtua as a regional grant for both Camden and Burlington County.

Camden County CEED screenings	<b>Totals Screened</b>
Breast & Cervical Ca.	415
Prostate Cancer	30
Colon Cancer	80

Burlington County CEED screenings	<b>Totals Screened</b>
Breast & Cervical Ca.	463
Prostate Cancer	43
Colon Cancer	102

*The Virtua Quitcenter* is part of the New Jersey Department of Health and Senior Services Comprehensive Tobacco Control Plan (CTCP). It is one of only eight Quit centers in the state providing professional face to face counseling in individual or group sessions. Participants can obtain up to date consultations on prescription and over the counter medications. Services are provided by trained Tobacco Dependent Specialists to residents of Camden, Burlington, and Gloucester counties. This year's New Jersey CTCP grant totaled \$102,600.

Virtua Quitcenter	<b>Patients Seen</b>
1 <sup>st</sup> Quarter	55
2 <sup>nd</sup> Quarter	54
3 Quarter	57
Totals seen 2009	166

Susan G Komen for the Cure Central & South Jersey Affiliate funded the Breast Care Program \$13,317 high school Breast Self Exam education and instruction. Susan G Komen for the Cure Philadelphia Affiliate funded the Breast Care Program \$29,743 to provide enhanced services through our breast navigation program for women who face multiple barriers to obtaining breast cancer treatment

### Support Groups and Counseling

Virtua Fox Chase Cancer Program offers support groups that provide patients and their loved ones an opportunity to learn ways of coping with their cancer diagnosis and treatment. These specifically designed groups can provide emotional support and decrease the sense of isolation commonly associated with treatment. They provide a forum where patients can get practical advice as well as share thoughts, feelings and concerns. The support groups are facilitated and managed by oncology professionals from the Virtua Fox Chase Cancer Program.

In addition to support groups, patients have access to oncology social workers that provide support both in the hospital and on an outpatient basis including individual and group support, and counseling for children whose parents have cancer. An oncology social worker is a professional who has specialized training in how a diagnosis of cancer affects a person and his or her family and friends. An oncology social worker understands that there are many aspects of a person's life outside of cancer, and that cancer affects each person in a different way. The oncology social worker's expertise is a comprehensive view of the person living with cancer that is respectful of each individual's ethnicity, spirituality, family situation, unique strengths and challenges. It is his or her job to represent a person's interests and needs to the medical team.

Support Groups	Virtua Location	# Of mtgs.	Avg. pts/
Caregivers Group	Mt. Holly	8	3
Man to Man: Prostate Cancer	Mt Holly	9	45
Women Supporting Women with Breast Cancer	Mt. Holly	11	18
General Cancer Survivorship	Mt. Holly	8	1
Survivors Support	Voorhees	9	1
Women Supporting Women with Breast Cancer	Voorhees	12	13

#### **Workshops**

Look Good Feel Better is a program that teaches female cancer patients beauty techniques to help restore their appearance and self-image during chemotherapy and radiation treatments. A licensed cosmetologist teaches participants about makeup, skincare, nail care and options related to hair loss such as wigs, turbans and scarves. Each group receives a free kit of cosmetics to use during and after the workshop. The Virtua Fox Chase Cancer Program sponsors this workshop with the American Cancer Society as a community service and offers it on-site at Virtua Memorial and Virtua Voorhees.

Workshops held	Avg. Attendance
10	6

**Pink Ribbon Poetry Workshop** is a unique program that offers breast cancer patients the opportunity to meet other survivors, to learn about using poetry as a tool for reflection and to express their own feelings through writing and poetry. The women gather to read the poetry of published survivors and create their own poetry, which is published on the Virtua.org website. The group is open to all breast cancer patients and meets every other Thursday at our Voorhees campus.

Workshops held	Avg. Attendance	
24	7	

**Beauty Retreat** is collaboration between Virtua Fox Chase Cancer Program and Rizeri Salon in Marlton. Cancer patients receive spa services, education, and support.

Workshops held	Attendance
1	23

### Advocacy and Community Events

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

#### FCVHP Teams participation in events held in our community included:

- Susan G. Komen Breast Cancer Foundation's *Race for the Cure* in PA and NJ
- Leukemia and Lymphoma Society's Light the Night Walk
- American Cancer Society's Making Strides Against Breast Cancer walk
- American Cancer Society's "Relay for Life" event
- 6<sup>th</sup> Annual Philadelphia International Dragon Boat Festival
- William G. Rohrer Center for Health Fitness 5K Race to benefit Virtua Fox Chase Cancer Program

Additional programs and activities of distinction for oncology patients:

- **Moving On** is a fitness and exercise program that offers a supervised exercise program for cancer survivors. This program is based in Virtua's William G. Rohrer Center for Health Fitness.
- Cancer Genetics Program offers men and women with a family history of breast or ovarian cancer education, counseling and genetic testing for hereditary breast and ovarian cancer.
- Outpatient nutrition services are offered to meet the needs of patients who are undergoing cancer treatment. Patients undergoing chemotherapy or radiation will be counseled by a registered dietician through meal plans that incorporate their individual food preferences.
- **Complementary health services** are available for our patients. They include massage therapy, guided imagery and mind/body healing.
- Collaborative Efforts: Virtua 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 needs. Examples include: American Cancer Society, 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 County CEED Coalition, NJ State CEED Coalition, New Jersey Cancer Control Task Force, and the Camden and Burlington County CAT Coalition.

Virtua Fox Chase Cancer Program will continue to improve upon its effectiveness to bring to the community the best cancer prevention, education, screening services and supportive programming available.

To receive complimentary Virtua Fox Chase Cancer Program publications or multiple copies for your office, please call 1-888-Virtua-3. Topics include smoking cessation, clinical trials, Breast Cancer Handbook, Prostate Cancer Handbook, Cancer Survivor's Guidebook, and health alerts on a variety of cancers and cancer-related topics.

# Virtua Fox Chase Cancer Program 2009 Breast Site Study Diane Gillum, MD and Eric Miller, MD

Breast cancer in the United States is the most common cancer in women, except for skin cancer. While breast cancer occurs in both men and women, it is 100 times more common in women. It continues to be the most common cancer seen in the Virtua Fox Chase Cancer Program. The American Cancer Society's most recent estimates of the incidence of breast cancer in 2009 in the United States show approximately 192,370 new cases of invasive cancer and 62,280 new cases of noninvasive disease. Unfortunately, 40,170 women will die from breast cancer in 2009 <sup>1</sup>.

The last time the annual report of the Virtua Fox Chase Cancer Program focused on breast cancer was 2005. The report this year will emphasize on treatment advances over the last 5 years. In addition, a major milestone for our breast program was reached when it was recently awarded accreditation by the National Accreditation Program of Breast Centers (NAPBC). This reflects a focus of our program on clinical quality measures which will be reviewed. Also included is a presentation of our breast cancer data.

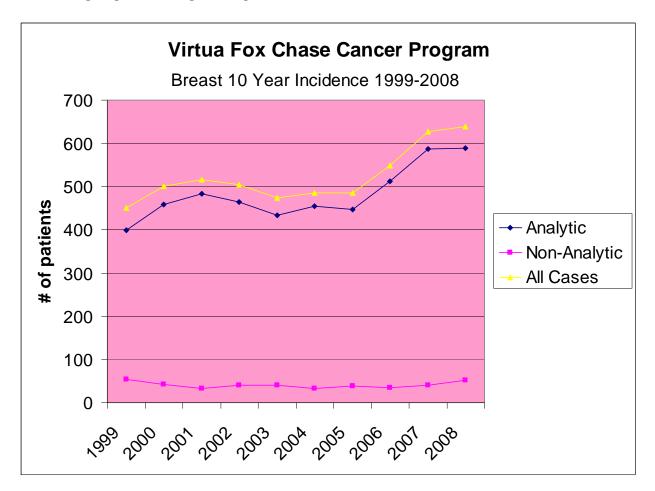
Over the past five years the Breast Care Program at Virtua has grown tremendously and has taken extraordinary measures to identify and meet the needs of all patients through the entire continuum of breast care. In September 2009 Virtua's Breast Care Program achieved accreditation from the NAPBC under the direction of the Virtua Breast Program Leadership Committee. This committee is a subcommittee of the Cancer Committee and consists of members from every discipline involved in breast cancer care including administrators, physician leaders of the oncology program in various disciplines, nurses, social workers, genetic counselors, cancer registrars and physical therapists.

NAPBC accreditation is given only to those centers that have committed to provide high quality care in breast disease diagnosis and treatment. Facilities that achieve accreditation must demonstrate compliance with twenty-seven program standards. NAPBC is administered by the American College of Surgeons. Development of the NAPBC program began in 2005 and the formal process of surveying breast centers for accreditation started in September 2008. Presently there are 105 accredited programs in the United States with only 3 accredited programs in New Jersey. Virtua's newly accredited breast center distinguishes itself by the volume of cases managed, the active role of patient navigators, access to clinical trials and most importantly, Virtua's commitment to excellence in the care of its patients.

To earn accreditation, a breast center must meet or exceed quality standards established by the NAPBC, be evaluated every three years, and maintain high levels of excellence. NAPBC accreditation is voluntary. NAPBC accredited centers provide patients with the following:

- Comprehensive care including a complete range of state-of-the-art services and equipment
- A multidisciplinary team-approach to coordinate the best available treatment options
- Information about ongoing cancer clinical trials and new treatment options

- Access to prevention and early detection programs, cancer education, and support services
- Ongoing monitoring and improvements in cancer care



Advances in the treatment of breast cancer continue, largely as a result of clinical trials and new technology. This section will highlight some of the major changes seen in treatment approaches over the last 5 years.

Virtua participated in the National Surgical Adjuvant Breast Program prevention study comparing tamoxifen and raloxifene (STAR). This study showed that raloxifene is as effective as tamoxifen in reducing the risk of invasive breast cancer with a lower risk of thromboembolic events, cataracts and uterine cancer. It also reduced the risk of non-invasive cancer but this did not reach statistical significance. <sup>2</sup> Changes in endocrine therapy have incorporated the use of aromatase inhibitors for treatment of postmenopausal patients with invasive breast cancer as noted in multiple trials including the ATAC and MA-17 trials. One of the biggest advances in chemotherapy agents has been trastuzumab, a monoclonal antibody active in Her-2 positive disease. Trastuzumab has been shown in selected patients to markedly improve survival rates in the adjuvant setting. The current trend is to continue to develop targeted biologic agents such as this.

The majority of breast cancer patients at Virtua are treated with breast conservation. There has been increased utilization of mastectomy which seems to be patient driven in many respects, particularly contralateral prophylactic mastectomy. MRI utilization has increased preoperatively. As indications for MRI are being refined, we now have the ability to biopsy MRI identified lesions which are otherwise radiographically occult by mammogram and ultrasound utilizing MRI directed core biopsy. Improved techniques for breast reconstruction have been developed with more options for autologous flap reconstruction. Sentinel node biopsy is the standard of care for nodal assessment in clinically node negative women.

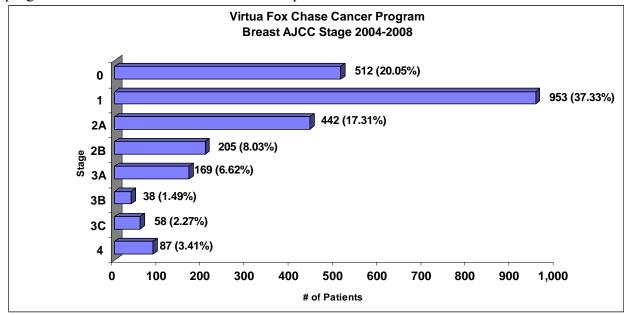
Sentinel node biopsy utilization rates for stage I and II disease at Virtua are monitored closely and in 2008 this was 80%. We are participating in an American College of Surgeons Oncology Group (ACOSOG) trial in patients with needle biopsy proven axillary metastases to evaluate the down-staging of nodes following preoperative chemotherapy and whether examination of the sentinel lymph nodes in these patients can eliminate the need for lymph node dissection.

Generally, lumpectomy is followed by breast radiation to decrease the risk of local recurrence. Virtua has participated in the NSABP B-39 /RTOG-0413 trial comparing standard whole breast radiation to partial breast radiation in selected patients. We have treated patients using partial breast radiation utilizing several techniques with favorable results. Patients can be treated with partial breast radiation off-protocol based on accepted national criteria. Virtua is presently participating in a NSABP-43 trial to evaluate trastuzumab as a radiosensitizer in patients with Her-2 positive Ductal Carcinoma Insitu. Partial breast radiation has several advantages, particularly a shorter course of treatment with similar local recurrence rates compared to whole breast radiation. It is important to note that long term recurrence and survival data with this new technique will take years to accumulate.

An important part of each patient's treatment planning includes Virtua's interdisciplinary breast cancer conferences, which are held four times per month across Virtua. These conferences are attended by breast cancer specialists including surgeons, radiation and medical oncologists, plastic surgeons, oncology nurses and other health care providers with a special interest in breast cancer. The breast cancer conference discussions focus on collaborative strategies for the assessment, staging, diagnosis, treatment, and follow-up of the cancer patient. Pertinent information including patient history, physical examination findings, and pathology, imaging and operative findings are reviewed and discussed. Staging, treatment options, clinical trial eligibility, journal article review and latest cancer therapies are also considered as the team continually strives to formulate consensus-based management decisions.

In 2007, the Virtua Fox Chase Cancer Program implemented the Breast Care Nurse Navigaton Service. Breast care nurse navigators are available to newly diagnosed patients to assist with education, support and access to resources. The goal of the Nurse Navigation Service is to support physicians in improving clinical outcomes and to enhance patient satisfaction. Nurse Navigation offers personalized service and helps guide each individual through the patient's cancer journey. Since implementation this program has navigated over 1,000 breast cancer patients. The Breast Nurse Navigation Program has been highly

sucessful at Virtua and is presently being used as a model to develop nurse naviagation programs for thoracic and colo-rectal cancer patients.

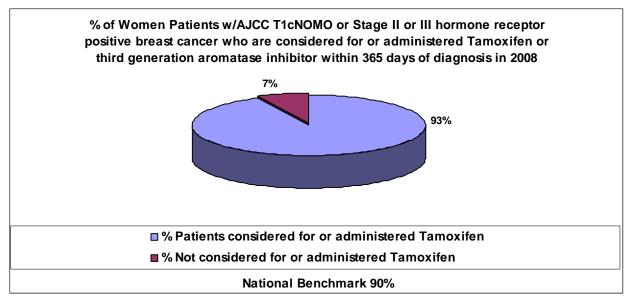


Accomplishing our success has required emphasizing accurate staging of disease, standardizing care based on stage of disease, and developing methods to measure outcomes at Virtua. There has been a similar emphasis at a national level, particularly the American College of Surgeons and the National Quality Forum (NQF). The breast program seeks to provide our patients with the high quality of care set by these national organizations.

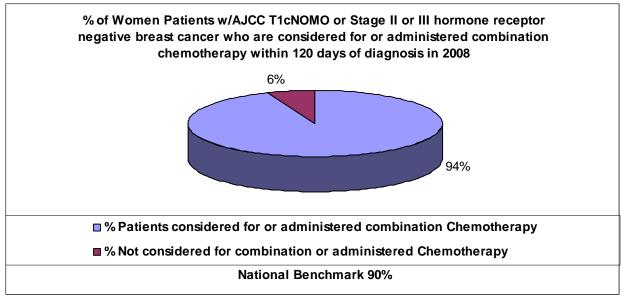
NQF is a nonprofit organization designed to support an integrated national quality improvement approach. It has been involved in the consensus development process to set the quality standards across health care, including cancer care. With regards to breast cancer care, the American College of Surgeons Commission on Cancer submitted quality parameters which were endorsed by the NQF in 2007 and are monitored through eQUIP (electronic quality improvement packets). Within Virtua, these quality measures are monitored on the Quality dashboard which is reviewed quarterly by the Oncology Program of Excellence, Cancer Committee and the Breast Program Leadership Committee. Trends are evaluated and any opportunities for improvement identified with action plans to facilitate improvements across Virtua.

These quality measures for breast cancer established by the NQF are:

1. Tamoxifen or aromatase inhibitor is considered or administered within 1 year of diagnosis for women with Stage T1c, II or III hormone receptor positive disease. Our 2008 registry data revealed 93% compliance with this measure. This was a 2% increase from the previous year and above the 90% national benchmark.



2. Combination chemotherapy is considered or administered within 4 months of diagnosis for women under the age of 70 with Stage T1c, II or III hormone receptor negative disease. Again, excellent compliance (94%) was seen in the 2008 registry cases. The benchmark is 90%



3. Radiation therapy is administered within 1 year of diagnosis for women under the age of 70 receiving breast conserving surgery for breast cancer treatment. This measure presented some challenges and was the basis for one of the quality improvement projects set by the Breast Program Leadership Committee. It is required for accreditation of the breast program. (See details below)

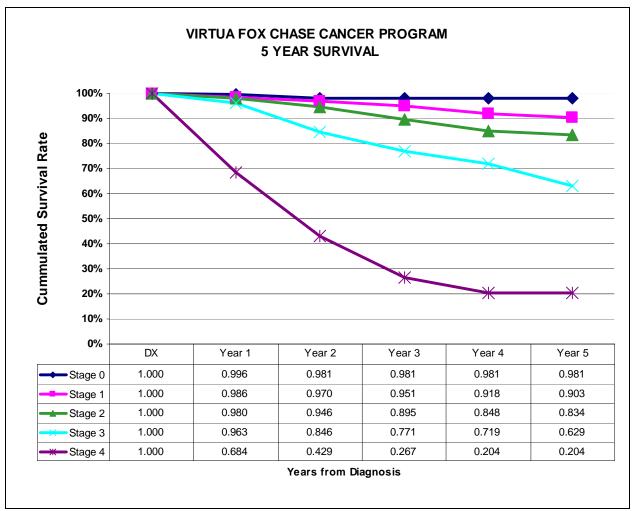
The NAPBC also emphasizes quality initiatives, as discussed previously. One of the standards for this accreditation was to develop at least two ongoing quality improvement initiatives. The two projects chosen were:

1. Radiation therapy is administered within 1 year of diagnosis for women under the age of 70 treated with breast conserving surgery.

This standard evaluates breast radiation for local control for patients with any stage disease who have undergone breast conserving surgery. Initially, evaluation of our compliance was below our standard for this quality measure. Investigation revealed that 65% of patients had radiation at Virtua; however documentation on the patients who received radiation outside of the Virtua system was often found to be incomplete. In addition documentation in cases where patients refused recommended radiation was lacking. Our compliance was 87% with a national benchmark of 95%. Continued monitoring and improvement of data collection is a priority for the cancer registry. Nurse navigators and surgeons will assist in ensuring compliance with this quality measure.

2. Needle biopsy is the initial diagnostic procedure of choice rather than open surgical biopsy.

This measure is increasingly seen as the hallmark of a quality breast program. It is important to note that many surgeons at Virtua are certified or actively pursuing certification in breast ultrasound and stereotactic biopsy procedures. Our cancer registrars developed a coding system to record the method of biopsy used to establish a diagnosis of breast cancer. The codes are assigned based on whether the patient had a surgical biopsy or a needle biopsy. Within the surgical biopsy group, an enhanced coding system was developed for biopsy with or without image guidance. Within the needle biopsy category, an enhanced coding system was developed for either mammographic, ultrasound or MRI directed biopsy. Analysis of this quality measure at Virtua revealed a high compliance rate of 89% for 2008 cases. A benchmark for this indicator is not well established, although across the country, 35% of breast cancer diagnoses are still made with surgical biopsies. The Breast Program Leadership Committee felt it was best to continue to monitor this and strive for as close to 95% compliance as suggested in a recent consensus statement.<sup>3</sup>



The survival rates presented in this graph are observed survival rates of analytic breast cancer cases seen at Virtua 2004-2008. Observed survival rates from 1998-2001 (latest data available) from the National Cancer Data Base reveal the following: 95.1 for Stage 0; 90.9 for Stage 1; 82.2 for Stage 2, 56.4 for Stage 3 and 18.6 for Stage 4.

#### Conclusions:

Early diagnosis of breast cancer and preventing the spread of disease are key to saving lives. Nearly all breast cancers can be treated successfully if found early. Quality of life is important and women diagnosed with breast cancer experience many concerns. Breast cancer treatment creates many challenges to body image, sexuality, issues of fertility, early menopause and depression. Our goal is to minimize disease and symptoms and optimize quality of life. Virtua's physicians and dedicated team of health care professionals will strive to provide high-quality care and treatment to all patients. As medical break-throughs continue to occur, Virtua is committed and will remain on the forefront of providing high quality comprehensive breast cancer care.

<sup>1</sup>American Cancer Society, "What are the Key Statistics for Breast Cancer", available at: <a href="http://www.cancer.org/docroot/CRI/content/CRI">http://www.cancer.org/docroot/CRI/content/CRI</a> 2 4 1X What are the key statistics for breast cancer 5.asp?sitearea=, accessed November 20, 2009.

<sup>2</sup>Vogel VG, Constantino JP, Wickerman DL, et.al. Effects of Tamoxifen vs. Raloxifene on the Risk of Developing Invasive Breast Cancer and Other Disease Outcomes: The NSABP Study of Tamoxifen and Raloxifene (STAR) P-2 Trial. JAMA 2006; 295(23):2727-41.

<sup>3</sup>Silverstein MJ, Recht A, Lagios MD, et al. Image-Detected Breast Cancer: State of the Art Diagnosis and Treatment. JACS 2009; 209(4):504-520.

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National Quality Forum available at <a href="www.qualityforum.org">www.qualityforum.org</a>, accessed November 2009
National Accreditation Program for Breast Centers available at
<a href="www.accreditedbreastcenters.org">www.accreditedbreastcenters.org</a>, accessed November 2009.