Rhode Island Hospital

The Miriam Hospital

Newport Hospital

Cancer Program Annual Report
2015

Report of the Cancer Committee

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Introduction

In August 2013, the cancer programs at Rhode Island Hospital, The Miriam Hospital, and Newport Hospital officially merged into one, system-wide Comprehensive Cancer Center.

The Comprehensive Cancer Center a Program of Rhode Island Hospital, brings together world-renowned physicians whose level of knowledge and experience are unparalleled in Rhode Island. A multidisciplinary team of specialists from Rhode Island Hospital, The Miriam Hospital and Newport Hospital, provide patients diagnosed with cancer or hematologic disorders, access to a full range of cancer services.

The center's hematology and oncology program has a disease specific focus, led by multidisciplinary teams of highly trained board certified specialists. Teams of expert medical oncologists, hematologists, radiation oncologists, oncology surgeons, radiologists, pathologists, nurse practitioners, physician assistants, nurses, clinical pharmacists, patient navigators, geneticist, social workers and dietitians are dedicated to the diagnosis, treatment, and prevention of cancer. They work closely and compassionately with patients and families to ensure the best possible care is provided to achieve the best possible outcome. When treatment is completed, the center continues to support patients and their families through survivorship and wellness programs.

The Cancer Program at Rhode Island Hospital, The Miriam Hospital, and Newport Hospital were awarded a 3 year accreditation with commendation from the Commission on Cancer (CoC) of the American College of Surgeons (ACoS) in 2015. This voluntary accreditation validates that our Comprehensive Cancer Program meets and exceeds the rigorous standards set by the Commission on Cancer, American College of Surgeons.

The 2015 Annual Report summarizes Cancer Program statistics for 2014, during which time 4,382 cases were accessioned. The analytic case count was 3,588 and the non-analytic case count was 794. For patients diagnosed and treated at Rhode Island Hospital, The Miriam Hospital, and Newport Hospital a lifelong follow-up rate of at least 90% is maintained.

In 2015, the Cancer Committee conducted a breast cancer outcome analysis to assess the program's overall breast cancer experience. It is estimated 231,840 new cases of female breast cancer will be diagnosed in the United States in 2015, accounting for 14% of all cancer diagnoses. Breast cancer is the most commonly diagnosed cancer among women in Rhode Island and the U.S. overall with an incidence of 1 in 8. It is estimated that 730 residents in Rhode Island will be affected by this disease during 2015.

The goals and achievements of the Cancer Program for 2015 were as follows:

Programmatic:
Develop and implement a Breast Cancer Multidisciplinary Clinic (MDC) on the Miriam and Newport Hospital campuses to provide timely patient assessment and coordination of clinical care across the continuum. Patients referred to the breast MDC are seen by medical oncology, radiation oncology, and surgical oncology during their initial visit. At the conclusion of this visit, a preliminary plan of care is established and discussed with the patient. Physicians at The Miriam Hospital include: Drs. Altenhein, Cutitar, and Taneja from surgery, Drs. Lopresti and Strenger from medical oncology and Drs. Leonard & Thurman from radiation oncology. Rhode Island Hospital's breast MDC, implemented in January 2014 was used as the model for this initiative. The Miriam Hospital's first Breast Cancer Multidisciplinary Clinic was held on Monday, May 11, 2015

Clinical:
Develop and implement a standardized process for oral chemotherapy ordering, education and follow-up monitoring for the hematology patient population. In February 2015, a multidisciplinary team of medical oncologist, nurses, and pharmacist was assembled to align processes across the system. Consistent prescription ordering through LifeChart is in development and will serve as the trigger for nursing follow-up. In May 2015, various "smart phrases" were developed to document goals of therapy and plan of care. A follow-up phone call script was also developed and built into LifeChart to ensure consistent documentation across the system.

2015 Quality Improvements:

Developed and implemented a Lung Cancer Screening Clinic:

- Earlier detection is critical to successful lung cancer treatment. Fortunately, greater access to safe and accurate computerized tomography (CT) technology is giving at-risk patients potentially lifesaving information even before symptoms appear. The Lung Cancer Screening Clinic of the Comprehensive Cancer Center's is helping to ensure that low-dose CT (LDCT) tests are accurately interpreted and, if needed, patients have access to further diagnostic testing and world-class cancer treatment options.

  The clinic is currently available at Rhode Island and Miriam hospital, and will be expanding to Newport Hospital in the near future. The clinic accepts referrals for patients with a broad range of concerns such as: nodules identified on lung cancer screening CT scans, high risk smokers who want to discuss lung cancer screening, patients with incidental pulmonary nodules and patients who have findings concerning for lung cancer who need expedited workup.

  A multidisciplinary team including experienced radiologists, pulmonologists and behavioral medicine staff work closely with patients, as well as their families. The team is committed to timely communication and close coordination of care with each patient's primary care physician. Images from all cases referred are reviewed by a dedicated thoracic radiologist. Complex cases are reviewed with the multidisciplinary thoracic oncology tumor board including medical oncology, radiation oncology and thoracic surgery.

  Upon referral, patients are seen at the Lung Cancer Screening Clinic within two weeks. The visit includes a meeting and evaluation by both a pulmonologist and a member of the behavioral medicine staff to help facilitate timely care and smoking cessation in necessary. For patients with findings concerning for cancer, the clinic provides coordinated access to all resources available at lifespan for the evaluation and management of lung cancer. The team also facilitates a seamless transition of these patients from the screening clinic to the multidisciplinary thoracic oncology clinic.

Developed and implemented the "Good Catch" Program in Radiation Oncology

- Rapid technologic advances and increasing complexity have increased the risk for medical errors and the need for comprehensive quality assurance guidelines. The goal of the "Good Catch" program is to provide patient-centered care by improving quality, safety, and efficiency. Utilizing guidelines from AAPM and ASTRO, an open reporting system was developed to capture safety issues, incomplete tasks, errors, delays in patients care and inconveniences. Data collection is continuous and monthly review of all "Good Catches" is conducted to identify common themes. Results have shown this is a very effective way to pinpoint specific areas of workflow breakdown. Because data are collected in real time, relatively small adjustments can be made in a timely manner, resulting in improved patient care and satisfaction.

2015 Quality Improvements (continued):

Developed and implemented a Care Transitions Team:

- Patients are often overwhelmed at the time of hospital discharge and focus on home rather than the discharge process. Based on findings from the 2015 Re-admission Study, a multidisciplinary care transition team of oncology phone nurses, social works, pharmacists, physicians, and palliative care was developed to refine discharge transitions and more effectively manage the post discharge period.

  A 48 hour post discharge follow-up phone call by the oncology phone nurse was implemented. Using a carefully scripted set of questions, oncology phone nurses confirm understanding and compliance with the discharge plan including, medication(s) use, side effects, symptom control, and follow-up care. Any questions or concerns that may arise are addressed through collaboration with physicians, pharmacy staff and social work. This immediate post discharge communication proactively addresses the most common issues in the discharge transition.

2015 Cancer Oversight Committee Membership

Charlene Ainscough, RN, OCN	Clinical Manager	Adult Inpatient Oncology Nursing
Christina Bandera, MD	Gynecologic Oncology	Women's Collaborative
Denise Barrese, CPA, CGMA	Business Manager	The Comprehensive Cancer Center
Megan Begnoche, RN, AOCN	Nursing Quality & Safety Manager *Quality Improvement Coordinator*	The Comprehensive Cancer Center
Carrie Bridges-Feliz	Director *Community Outreach Coordinator*	Community Outreach
James Butera, MD	Medical Oncologist	The Comprehensive Cancer Center
Michelle Carpentier, RN, OCN	Director	The Comprehensive Cancer Center
Anjulika Chawla, MD	Pediatric Oncologist	Pediatric Medical Oncology
Christine Collins, MBA, RPh	Director	Pharmacy
Thomas DiPetrillo, MD	Radiation Oncologist *Chair, Cancer Committee* *Cancer Conference Coordinator*	Radiation Oncology
Nicholas Dominick	Cancer Program Administration Sr. Vice President	Pharmacy & Cancer Services Diagnostic & Support Services
Damian Dupuy, MD	Director of Tumor Ablation Services	Diagnostic Imaging
Sheila Earle, CTR	Cancer Registrar	Oncology Data Management
Alexandra Fiore	Representative	American Cancer Society
Mary Flynn, PhD, RD, LDN	Nutritionist	Nutrition Services
Theresa Graves, MD	Director, Breast Program Breast Surgeon	Surgery
Arnold Herman, MD	Breast Surgeon *Cancer Liaison Physician (CLP)*	Surgery
Theresa Jenner	Director *Psychosocial Services Coordinator*	Clinical Social Work
Susan Korber, RN, OCN	Cancer Program Administrative Director	The Comprehensive Cancer Center
Mark LeGolvan, MD	Pathologist	Pathology Services
Carrie Marcil, PT, LANA	Physical Therapist	Rehabilitation Services

2015 Cancer Oversight Committee Membership

Alessandro Papa, MD	Medical Oncologist	The Comprehensive Cancer Center
Colleen Ramos	Manager	Radiation Oncology
Jayne Ritz, MS, RN, OCN	Manager	The Comprehensive Cancer Center
Andrew Schumacher, CCRP	Manager *Clinical Research Coordinator*	Lifespan Oncology Clinical Research
Jennifer Schwab, MS, CGC	Genetics Counselor	Genetics Clinic
Marsha Stephenson, RN	Clinical Coordinator	Home & Hospice Care Of RI
Tara Szymanski, CTR	Manager, Quality, Accreditations, & Data Management *Cancer Registry Coordinator*	Oncology Data Management
Angela Taber, MD	Palliative Care / Medical Oncologist	The Comprehensive Cancer Center
Susan Trout, CTR	Cancer Registrar	Oncology Data Management
Christina Vieira, CTR	Cancer Registrar	Oncology Data Management
Patricia Weissman, MS, RN	Quality Improvement Specialist	Operational Excellence
Edward Wittels, MD	Medical Oncologist	The Comprehensive Cancer Center

2014 Analytic Case Distribution by Primary Site

Rhode Island Hospital : The Miriam Hospital : Newport Hospital

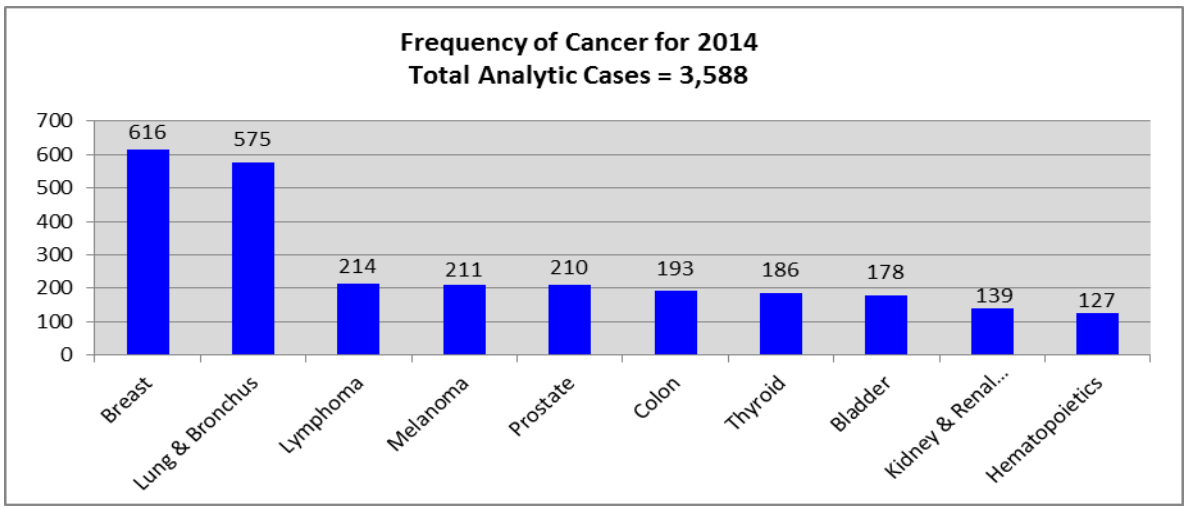
PRIMARY SITE	TOTAL	SEX		AJCC STAGE					Stage Unknown	Stage Not Applicable
		M	F	0	1	2	3	4	99	88
Oral Cavity	48	35	13	0	3	5	11	26	1	2
Lip	1	1	0	0	0	1	0	0	0	0
Tongue	15	12	3	0	2	2	5	6	0	0
Salivary Gland	4	2	2	0	1	0	0	3	0	0
Floor of Mouth	4	2	2	0	0	0	2	2	0	0
Gum & Other Mouth	3	2	1	0	0	0	1	1	0	1
Nasopharynx	4	3	1	0	0	1	2	1	0	0
Tonsil	12	11	1	0	0	1	0	10	1	0
Oropharynx	2	1	1	0	0	0	0	2	0	0
Hypopharynx	2	1	1	0	0	0	1	1	0	0
Other Oral Cavity Organs	1	0	1	0	0	0	0	0	0	1
Digestive System	617	340	277	19	100	128	148	160	51	11
Esophagus	46	30	16	2	3	6	11	15	9	0
Stomach	68	47	21	0	17	14	18	12	7	0
Small Intestine	20	12	8	0	1	3	10	6	0	0
Colon	193	100	93	12	35	41	47	47	11	0
Rectum & Rectosigmoid	82	37	45	3	20	9	26	20	4	0
Anus & Anorectum	18	7	11	2	2	11	2	1	0	0
Liver & Intrahepatic Duct	48	32	16	0	8	9	9	10	5	7
Gallbladder	10	2	8	0	0	3	4	3	0	0
Other Biliary	29	18	11	0	6	6	7	2	6	2
Pancreas	94	51	43	0	7	26	9	43	9	0
Retroperitoneum	4	3	1	0	1	0	2	1	0	0
Other Digestive Organs	5	1	4	0	0	0	3	0	0	2
Respiratory System	599	289	310	9	166	47	113	251	11	2
Larynx	21	16	5	3	6	1	4	6	1	0
Lung & Bronchus	575	272	303	6	160	46	108	244	10	1
Other Respiratory	3	1	2	0	0	0	1	1	0	1
Mesothelioma	7	7	0	0	0	0	0	5	2	0
Bone & Soft Tissue	35	19	16	0	15	3	5	10	2	0
Bone & Joints	7	3	4	0	4	0	0	3	0	0
Soft Tissue	28	16	12	0	11	3	5	7	2	0
Skin Excluding Basal & Squamous Cell	227	134	93	52	92	35	13	9	26	1
Melanoma – Skin	210	124	86	52	89	30	10	8	22	0
Other Non-Epithelial Skin	17	10	7	0	3	5	3	1	4	1
Other Defined Sites	57	19	38	0	0	0	0	0	0	57
Breast	616	10	606	125	256	123	31	22	59	0

PRIMARY SITE	TOTAL	SEX		AJCC STAGE					Stage Unknown	Stage Not Applicable
		M	F	0	1	2	3	4	99	88
Female System	107	N/A	107	1	37	4	30	24	8	3
Cervix Uteri	29	N/A	29	0	7	2	11	8	1	0
Corpus & Uterus, NOS	37	N/A	37	0	23	1	5	3	5	0
Ovary	30	N/A	30	0	6	0	11	12	0	1
Vagina	2	N/A	2	0	1	1	0	0	0	0
Vulva	5	N/A	5	0	0	0	2	1	2	0
Other Female Organs	4	N/A	4	1	0	0	1	0	0	2
Male System	229	229	N/A	1	52	96	46	30	1	3
Prostate	210	210	N/A	0	42	93	45	29	1	0
Testis	10	10	N/A	0	8	1	1	0	0	0
Penis	6	6	N/A	1	2	2	0	1	0	0
Other Male Organs	3	3	N/A	0	0	0	0	0	0	3
Urinary System	327	217	110	84	122	29	39	32	17	4
Urinary Bladder	178	129	49	82	45	22	11	14	4	0
Kidney & Renal Pelvis	139	83	56	2	77	5	26	14	13	2
Ureter	7	3	4	0	0	2	1	4	0	0
Other Urinary Organs	3	2	1	0	0	0	1	0	0	2
Brain & Other Nervous System	165	79	86	0	0	0	0	0	0	165
Brain	87	49	38	0	0	0	0	0	0	87
Cranial Nerves & Other	78	30	48	0	0	0	0	0	0	78
Endocrine System	208	57	151	0	127	15	32	9	3	22
Thyroid Gland	186	47	139	0	127	15	32	9	3	0
Other including Thymus	22	10	12	0	0	0	0	0	0	22
Hematopoietic System	127	79	48	0	0	0	0	0	0	127
Leukemia	100	64	36	0	0	0	0	0	0	100
Myeloma	27	15	12	0	0	0	0	0	0	27
Lymphomas	214	119	95	0	49	41	29	67	23	5
Hodgkin's Disease	24	7	17	0	2	12	3	5	2	0
Non-Hodgkin’s	190	112	78	0	47	29	26	62	21	5
Kaposi Sarcoma	4	3	1	0	0	0	0	0	0	4
Total Analytic Cases	**3,588**	**1,637**	**1,951**	**299**	**979**	**522**	**488**	**649**	**247**	**404**
		46%	**54%**	**8%**	**27%**	**15%**	**14%**	**18%**	**7%**	**11%**

Top Ten Sites and Residence at Diagnosis

Top Ten Sites

The ten most common sites for the Cancer Program, based on 2014 analytic* cases are (in descending order by percent of total incidence) Breast (17%), Lung and Bronchus (16%), Lymphoma (6%), Skin (Melanoma) (6%), Prostate (6%), Colon (5%), Thyroid (5%), Bladder (5%), Kidney & Renal Pelvis (4%) and Hematopoietic Malignancy's (3%). This distribution differs from that of the American Cancer Society (ACS) which is noted to be (in descending order by percent of total incidence) Breast (14%), Prostate (14%), Lung and Bronchus (13%), Colon (6%), Lymphoma (5%),Hematopoietic Malignancy's (5%), Melanoma (4%), Bladder (4%), Kidney & Renal Pelvis (4%), and Thyroid (4%).

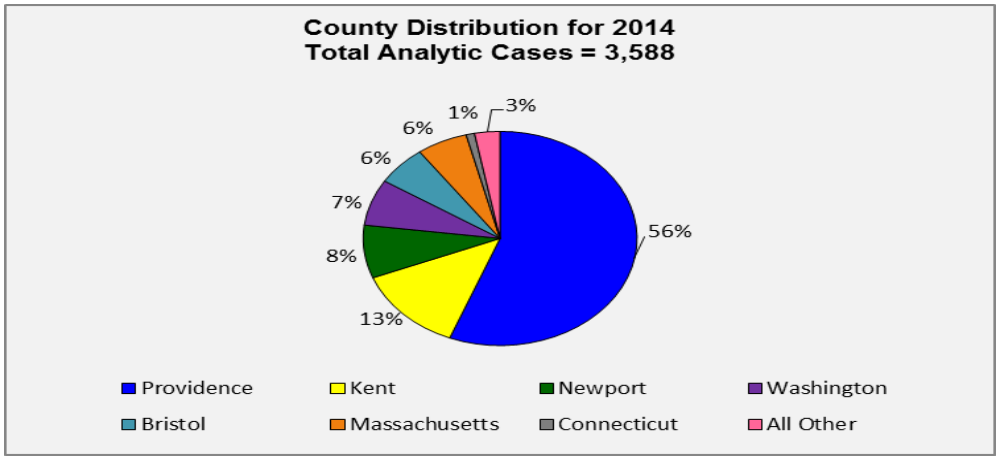


*Analytic - cancer case that was diagnosed and/or received all or part of the first course treatment at the reporting facility.

Source: Rhode Island, Miriam, & Newport Hospital Oncology Data Management Departments
Source: http://www.cancer.org/acs/groups/content/@research/documents/webcontent/acspc-042151.pdf

Residence at Diagnosis

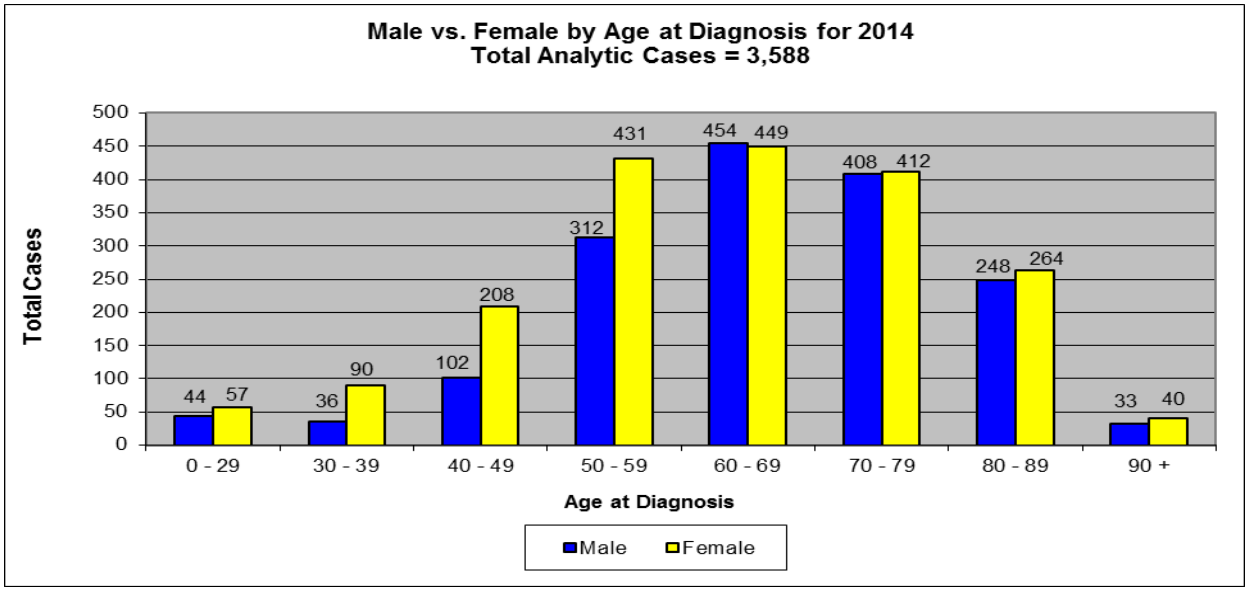
Rhode Island Hospital and The Miriam Hospital are located in Providence County and serve as major referral centers for Rhode Island, Massachusetts, and the surrounding areas. More than 50% of the Hospital's analytic cancer patients accessioned in 2014 reside in Providence County. The remainder of the Hospital's cancer patient population is distributed throughout Rhode Island and Massachusetts. Newport Hospital however, is located on Aquidneck Island and serves as the major referral center for Newport and Bristol County. More than 87% of Newport Hospital's analytic cancer patients accessioned in 2014 reside in Newport County.



Gender by Age and Stage of Disease at Diagnosis

Gender by Age

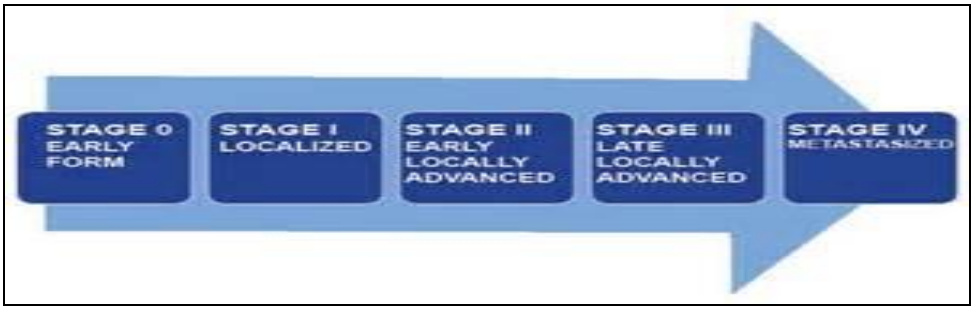
In 2014, the gender distribution for the program was 46% male and 54% female. This distribution differs from the American Cancer Society (ACS) gender distribution. Based on American Cancer Society (ACS) data, the estimated gender distribution of US cancer cases in 2014 was 51% male and 49% female. The most common age group for the cancer program was 60 – 69; approximately 25% of patients were in this age group at the time of initial diagnosis.



Source: Rhode Island, Miriam, & Newport Hospital Oncology Data Management Departments
Source: http://www.cancer.org/acs/groups/content/@research/documents/webcontent/acspc-042151.pdf

Stage of Disease at Diagnosis

Cases entered into the Cancer Registry are categorized according to the tumor / node / metastases (TNM) staging system developed by the American Joint Committee on Cancer (AJCC) to describe the extent or spread of disease at diagnosis, which is generally predictive of survival. Of analytic cases entered into the Cancer Registry, 299 (8%) were classified as TNM stage 0, 979 (27%) as stage I, 522 (15%) as stage II, 488 (14%) as stage III, 649 (18%) as stage IV, 247 (7%) were classified as not staged, and 404 (11%) were not applicable to the TNM staging system.



Source:http://www.bing.com/images/search?q=cancer+stages&FORM=HDRSC2#!?q=cancer+stages&view=detailv2&&id=78DB9A177DD4C99436547B8B70CB004C23AFEDA9&selectedIndex=4&ccid=fE66gpL7&simid=607997173216184651&thid=OIP.M7c4eba8292fb58c7868c57d0ed2d67ecH0&mode=overlay

Cancer Program Practice Profile Report (CP3R)

Cancer Program Practice Profile Reports (CP3R)

The Cancer Program Practice Profile Reports were developed by the Commission on Cancer of the American College of Surgeons to encourage quality improvement. Evidence based measures and accountability measures promote improvements in care delivery and are the highest standard for measurement. These measures displayed below demonstrate accountability and promote transparency. The concordance rates for Rhode Island Hospital, The Miriam Hospital, and Newport Hospital are illustrated in the tables below.

	2013 CP3R Rates	Rhode Island Hospital	The Miriam Hospital	Newport Hospital	Combined Program
BREAST	Breast conservation surgery rate for women with AJCC clinical stage 0, I, or II breast cancer (Surveillance) (BCS) **(Compliance – N/A)**	84%	70.7%	76.5%	80.6%
	Image or palpation-guided needle biopsy (core or FNA) of the primary site is performed to establish diagnosis of breast cancer (Quality Improvement) (nBx) **(Compliance – 80%)**	95.4%	100%	100%	96%
	Radiation therapy is considered or administered following any mastectomy within 1 year of diagnosis of breast cancer for women with > = 4 positive regional lymph nodes (Accountability) (MASTRT) **(Compliance – 90%)**	85.7%	50%	No data	75%
	Radiation therapy is administered within 1 year (365 days) of diagnosis for women under age 70 receiving breast conserving surgery for breast cancer (Accountability) (BCS/RT) **(Compliance – 90%)**	96.5%	96.2%	100%	96.2%
	Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1c N0 M0, or Stage II or III ERA and PRA negative breast cancer (Accountability) (MAC) **(Compliance – 90%)**	100%	100%	100%	100%
	Tamoxifen or third generation aromatase inhibitor is considered or administered within 1 year (365 days) of diagnosis for women with AJCC T1c N0 M0, or Stage II or III ERA and/or PRA positive breast cancer (Accountability) (HT) **(Compliance – 90%)**	88.1%	87.5%	100%	89.9%

	2013 CP3R Rates	Rhode Island Hospital	The Miriam Hospital	Newport Hospital	Combined Program
CERVIX	Radiation therapy completed within 60 days of initiation of radiation among women diagnosed with any stage of cervical cancer (Surveillance) (CERRT) **(Compliance – N/A)**	66.7%	No data	No data	66.7%
	Chemotherapy administered to cervical cancer patients who received radiation for stages IB2-IV cancer (Group 1) or with positive pelvic nodes, positive surgical margin, and/or positive parametrium (Group 2) (Surveillance) (CERCT) **(Compliance – N/A)**	71.4%	No data	No data	71.4%
	Use of brachytherapy in patients treated with primary radiation with curative3 intent in any stage of cervical cancer (Surveillance) (CBRRT) **(Compliance – N/A)**	83.3%	No data	No data	83.3%

	2013 CP3R Rates	Rhode Island Hospital	The Miriam Hospital	Newport Hospital	Combined Program
GASTRIC	At least 15 regional lymph nodes are removed and pathologically examined for resected gastric cancer (Quality Improvement) (G15RLN) **(Compliance – N/A)**	100%	85.7%	No data	100%

	2013 CP3R Rates	Rhode Island Hospital	The Miriam Hospital	Newport Hospital	Combined Program
COLON	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 (Accountability) (ACT) **(Compliance – 90%)**	84.6%	77.8%	100%	81%
	At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer (Quality Improvement) (12RLN) **(Compliance – 85%)**	89.2%	86.5%	100%	88%

	2013 CP3R Rates	Rhode Island Hospital	The Miriam Hospital	Newport Hospital	Combined Program
LUNG	At least 10 regional lymph nodes are removed and pathologically examined for AJCC stage IA, IB, IIA, and IIB resected NSCLC (Surveillance) (10RLN) **(Compliance – N/A)**	30.4%	18.2%	0%	26.5
	Surgery is not the first course of treatment for cN2, M0 lung cases (Quality Improvement) (LNoSurg) **(Compliance – N/A)**	58.3%	100%	100%	67.7%
	Systemic chemotherapy is administered within 4 months to day preoperative or day of surgery to 6 months postoperatively, or it is considered for surgically resected cases with pathologic lymph node positive (pN1) and (pN2) NSCLC (Quality Improvement) (LCT) **(Compliance – N/A)**	56.5%	100%	100%	61.5%

	2013 CP3R Rates	Rhode Island Hospital	The Miriam Hospital	Newport Hospital	Combined Program
RECTUM	Preoperative chemo and radiation are administered for clinical AJCC T3N0, T4N0, or Stage III; or Postoperative chemo and radiation are administered within 180 days of diagnosis for clinical AJCC T1-2 N0 with pathologic AJCC T3N0, T4N0, or Stage III; or treatment is considered; for patients under the age of 80 receiving resection for rectal cancer (Quality Improvement) (RECRTCT) **(Compliance – N/A)**	87.5%	86.7%	No data	85%

	2013 CP3R Rates	Rhode Island Hospital	The Miriam Hospital	Newport Hospital	Combined Program
ENDOMETRIUM	Chemotherapy and/or radiation administered to patients with Stage IIIC or IV Endometrial cancer (Surveillance) (ENDCTRT) **(Compliance – N/A)**	No data	No data	No data	No data
	Endoscopic, laparoscopic, or robotic performed for all Endometrial cancer (excluding sarcoma and lymphoma), for all stages except stage IV (Surveillance) (ENDLRD) **(Compliance – N/A)**	No data	100%	No data	100%

	2013 CP3R Rates	Rhode Island Hospital	The Miriam Hospital	Newport Hospital	Combined Program
OVARY	Salpingo-oophorectomy with omentectomy, debulking/cytoreductive surgery, or pelvic exenteration in Stages I-IIIC Ovarian cancer (Surveillance) (OVSAL) **(Compliance – N/A)**	66.7%	No data	No data	66.7%
	Chemotherapy started within 42 days (before or after) the Date of Most Definite Surgery in Stages IA-IV Ovarian, Fallopian Tube, or Peritoneal cancers (Surveillance) (OVCT) **(Compliance – N/A)**	75%	100%	No data	75%

2015 Community Outreach Summary

The mission of Lifespan Community Health Services is to develop, implement and evaluate initiatives to improve the health status of the people in Rhode Island and southern New England. This is accomplished through coordination of health education and prevention programs and services within Lifespan and its partners and with other community health providers.

In addition to activities directly provided through Lifespan Community Health Services, the system and its partners collaborate with other community groups on numerous programs and partnerships designed to keep people healthy and out of the hospital. Many of these programs are broad in scope, benefiting people from all walks of life with a wide range of health information and service needs. Others are designed specifically to meet the needs of certain populations. Some of these special populations include children and at-risk teens, people with HIV and AIDS, the elderly, people with substance abuse problems, and people coping with chronic illness or end-of-life issues.

2015 Prevention & Screening Programs

Tobacco Prevention – smoking cessation counseling continues to be a need of the community. Lifespan Community Health Services (LCHS) continues to partner with the Rhode Island Department of Health (DOH) to offer smoking cessation counseling and treatment services to uninsured and underinsured people who might not otherwise be able to access or afford treatment.

Sun Smarts – to reduce the increasing number of melanoma cases and prevent late stage disease LCHS has partnered with the Comprehensive Cancer Center, ABC 6, University Dermatology, and the Rhode Island Department of Health to offer free skin cancer screening events to the community. The events utilized the American Academy of Dermatology Melanoma/Skin Screening Form and screened a total of 433 individuals. Planning for the 2016 screening events has begun and based on findings from the participant surveys, next year's programs will include enhanced educational materials.

See, Test, Treat – was initiated by the College of American Pathologist (CAP) in 2001 to connect uninsured and underinsured women to preventive care and educational resources. The program provides free cervical and breast cancer screenings as well as Tdap immunization, rapid HIV, Hep C testing, and flu vaccines, as well as health education materials. The program also allows women to receive same day screening, diagnoses, and connection to follow-up care, removing any barriers to care that may exist. The state's very first See, Test, Treat screening program was held at Rhode Island Hospital's Comprehensive Cancer Center on May 9, 2015.

2015 Breast Cancer Patient Outcome Analysis

In 2015, an estimated 231,840 new cases of female breast cancer will be diagnosed in the United States, accounting for 14% of all cancer diagnoses. It is estimated 730 residents in Rhode Island will be diagnosed with this disease.

Breast cancer is the most commonly diagnosed cancer among women in Rhode Island and the U.S. overall with an incidence of 1 in 8. Women are 100 times more likely to develop breast cancer than men. Several of the well-established risk factors for breast cancer are listed below.

Risk Factors

1. **Age and gender** – the risk of developing breast cancer increases with age. On average, women over 60 are more likely to be diagnosed with breast cancer. Only about 10 to 15 percent of breast cancers occur in women younger than 45. However, this may vary for different races and ethnicities.

2. **Family history of breast cancer** – approximately 20-30% of women with breast cancer have a family history of the disease.

3. **Genes** – the most common genetic defects are found in the BRCA1 and BRCA2 genes.

4. **Menstrual cycle** – women who get their period early (before age 12) or go through menopause late (after age 55) have an increased risk for breast cancer.

5. **Hormone replacement therapy (HRT)** – receiving hormone replacement therapy for several years can increase the risk of developing breast cancer.

6. **Radiation** – receiving radiation therapy as a child or young adult to treat cancer of the chest area can significantly increase the risk of developing breast cancer (8 – 25 fold).

Symptoms/Signs of Early Breast Cancer

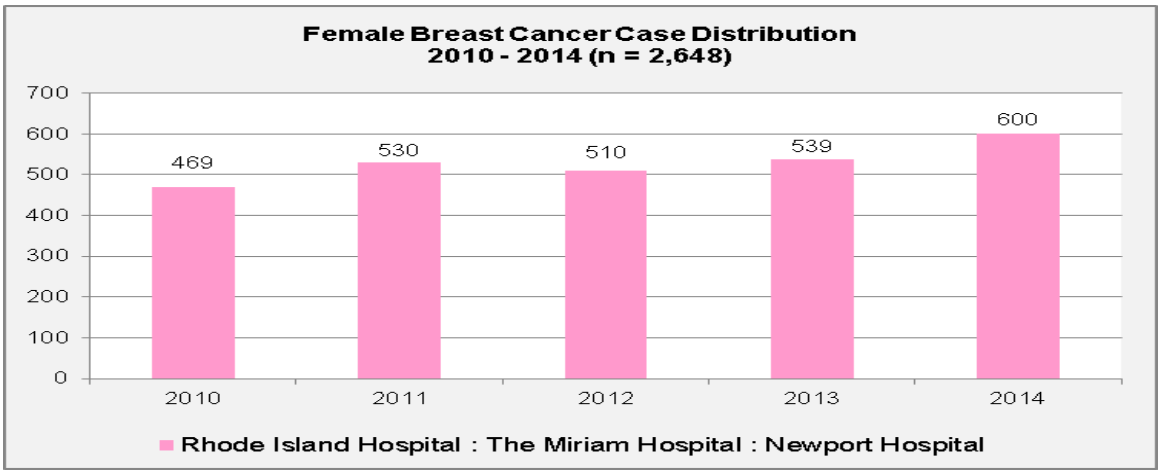
- None, lump in the breast or armpit that is firm
- Change in the size, shape, or feel of the breast or nipple
- Bloody or clear fluid emitting from the nipple
- General pain in/on any part of the breast

Symptoms/Signs of Advanced Breast Cancer

- Malaise/Fatigue
- Weight Loss
- Nipple Retraction
- Peeling or flaking of the nipple skin
- Bone Pain
- Swelling of breast or arm on the same side as the affected breast
- Redness or pitting of the breast skin
- Breast pain or discomfort
- Skin Ulceration

Note: These symptoms may be attributed to a number of conditions other than cancer. It is important to consult with a medical professional.

From 2010 through 2014, the Cancer Program's Oncology Data Management Department accessioned 2,648 analytic* patients with female breast cancer.

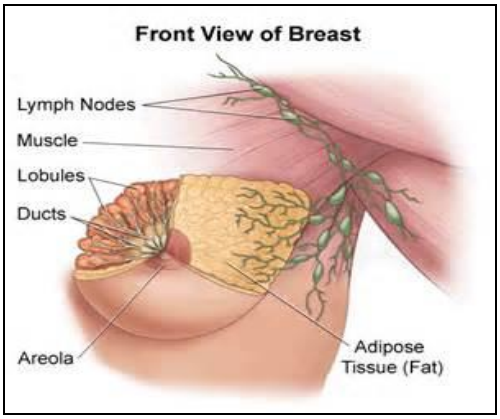


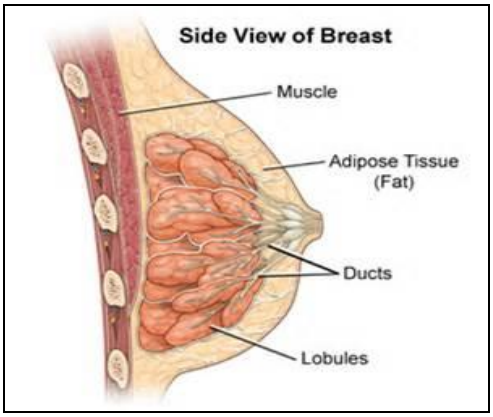
*Analytic - cancer case that was diagnosed and/or received all or part of the first course treatment at the reporting facility.
*Source: Rhode Island, Miriam, & Newport Hospital Oncology Data Management Departments

ACoS Commission on Cancer – National Cancer Database Hospital Comparison Benchmark Reports

Hospital comparison benchmark reports are available from the NCDB for the years 2003 to 2013. Various comparisons can be made by primary site, hospital type (Academic, Comprehensive Community, and Community Cancer Programs), by geographical location (individual state, ACS Division, or all states) and diagnostic year (2003 to 2013, or combined).

Throughout this report are samples of hospital comparison benchmarks on female breast cancer generated for all ACoS approved Cancer Programs in the United States and the ACoS Cancer Programs in Rhode Island. This will be a valuable tool for assessing our diagnostic and therapeutic efforts as more data from proceeding years is added to the database.





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2015 Breast Cancer Patient Outcome Analysis

The table below is based on information obtained from the National Cancer Data Base (NCDB) and illustrates a case distribution comparison between Rhode Island Hospital, The Miriam Hospital, Newport Hospital and the other hospitals within the state of Rhode Island.

Breast Cancer Diagnosed 2003 to 2013 by YEAR
All Diagnosed Cases – Hospital Type: All Types/Systems
Rhode Island Hospital, The Miriam Hospital, Newport Hospital vs. Other Hospitals in the State of Rhode Island

	Number of Cases					Percent of Cases
	Rhode Island Hospital	The Miriam Hospital	Newport Hospital	Combined Program Total	Combined Total All Other Hospitals In Rhode Island	Combined Program Percent
YEAR						
2003	235	136	48	419	977	43%
2004	302	178	49	529	1,087	49%
2005	304	124	47	475	1,040	46%
2006	326	145	55	526	1,129	46%
2007	294	164	46	504	1,142	44%
2008	350	166	39	555	1,186	47%
2009	375	169	39	583	1,182	49%
2010	291	118	43	452	1,037	43%
2011	315	160	45	520	1,105	47%
2012	333	124	42	499	1,179	42%
2013	384	110	47	541	1,186	46%
Total	3,509	1,594	500	5,603	12,250	46%

Source: 2015 National Cancer Data Base (NCBD) / Commission on Cancer (CoC) / Wednesday, November 4, 2015

Each year in the United States, over 200,000 females will learn they have breast cancer. The highest overall breast incidence rates are in Caucasian, non-Hispanic women, while African American women are noted to have the highest mortality rate from breast cancer.

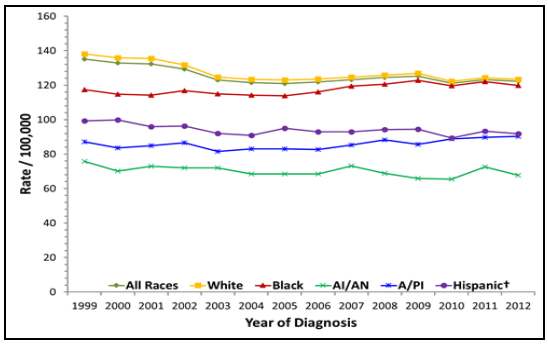
The table below is based on breast cancer and contains information obtained from the National Cancer Database (NCDB) which illustrates a race comparison between Rhode Island Hospital, The Miriam Hospital, Newport Hospital and other hospitals within the state of Rhode Island as well as hospitals in all other states.

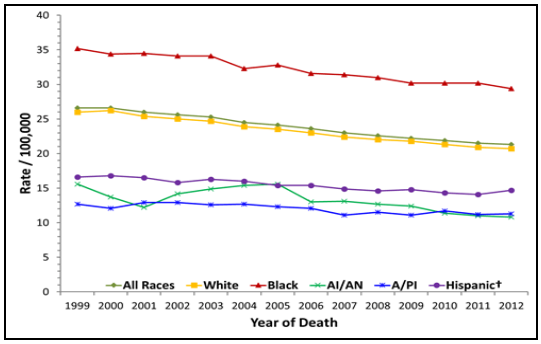
Breast Cancer Diagnosed 2003 to 2013 by RACE
All Diagnosed Cases – Hospital Type: All Types/Systems
Rhode Island Hospital, The Miriam Hospital, Newport Hospital vs. Other Hospitals in the State of Rhode Island vs. Hospitals in All States

	Number of Cases			Percent of Total Breast Cancer Cases by Race		
	Combined Program Total	Other Reporting Hospitals In Rhode Island	National Reporting Hospitals	Combined Program Total	Other Reporting Hospitals In Rhode Island	National Reporting Hospitals
RACE						
White	5,087	6,916	1,752,478	90.79%	88.95%	79.15%
Black	245	186	242,162	4.37%	2.39%	10.94%
Hispanic	133	294	111,356	2.37%	3.78%	5.03%
Asian & Pacific Islander	52	81	67,305	0.93%	1.04%	3.04%
Native American	2	17	5,237	0.04%	0.22%	0.24%
Other/Unknown	84	2	35,539	1.5%	3.61%	1.61%
Total	5,603	7,775	2,214,077	100%	100%	100%

Source: 2015 National Cancer Data Base (NCBD) / Commission on Cancer (CoC) / Wednesday, November 4, 2015

Breast Cancer
Incidence Rates and Death Rates by Race/Ethnicity, U.S., 1999–2012





Source: http://www.cdc.gov/cancer/breast/statistics/race.htm

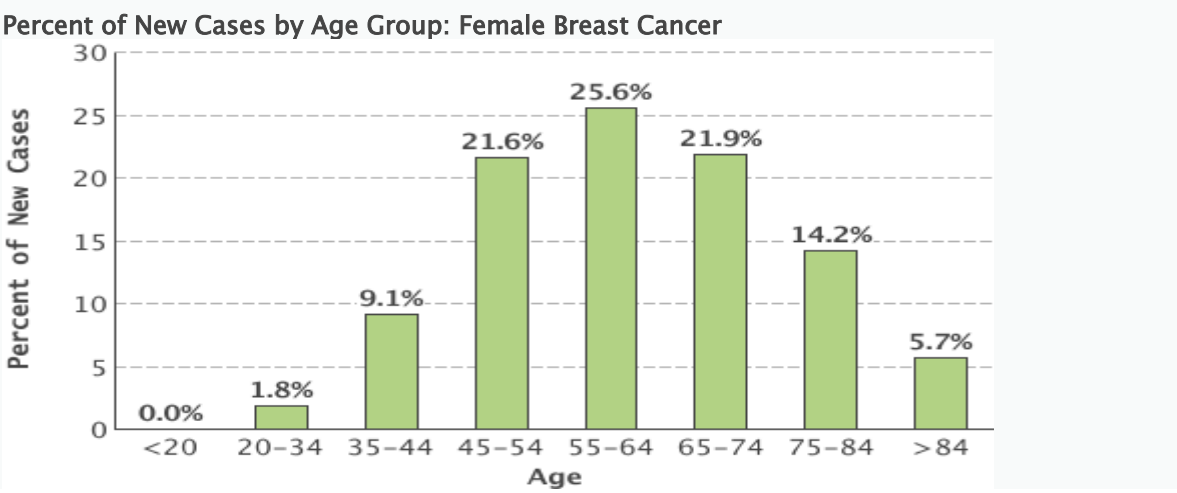
Breast Cancer Diagnosed 2003 to 2013 by AGE
All Diagnosed Cases – Hospital Type: All Types/Systems

Rhode Island Hospital, The Miriam Hospital, Newport Hospital vs.

	Number of Cases			Percent of Total Breast Cancer Cases by Age		
	Combined Program Total	All Other Reporting Hospitals In State of RI	National Reporting Hospitals	Combined Program Total	Other Reporting Hospitals In State of RI	National Reporting Hospitals
AGE						
Under 20	1	0	176	0.02%	0%	0.01%
20-29	17	26	10,151	0.3%	0.33%	0.46%
30-39	193	300	92,737	3.44%	3.86%	4.19%
40-49	989	1,469	398,170	17.65%	18.89%	17.98%
50-59	1,445	1,834	558,598	25.79%	23.59%	25.23%
60-69	1,353	1,760	548,488	24.15%	22.64%	24.77%
70-79	960	1,370	387,243	17.13%	17.62%	17.49%
80-89	567	891	193,130	10.12%	11.46%	8.72%
90+	78	125	25,383	1.39%	1.61%	1.15%
Total	5,603	7,775	2,214,077	100%	100%	100%

Source: 2015 National Cancer Data Base (NCBD) / Commission on Cancer (CoC) / Wednesday, November 4, 2015

Per S.E.E.R. website: From 2008 – 2012, Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). The age distribution displayed below is not limited by any specific stage or histology.



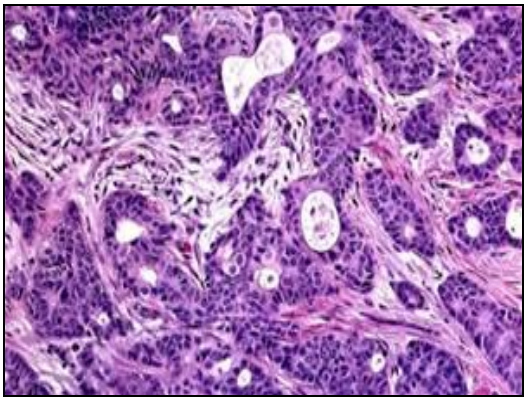
Source: http://seer.cancer.gov/statfacts/html/breast.html

The most common histological type of invasive breast cancer is ductal carcinoma, making up nearly 70% – 80% of diagnoses. Lobular carcinoma is noted to be the second most common type, accounting for 1 out of 10 invasive breast cancers. The histologic characteristics including the tumor grade can have important therapeutic implications and affect prognosis. Some of the less common invasive breast cancer histology's include tubular, mucinous, papillary, adenoid cystic, inflammatory and Paget's disease.

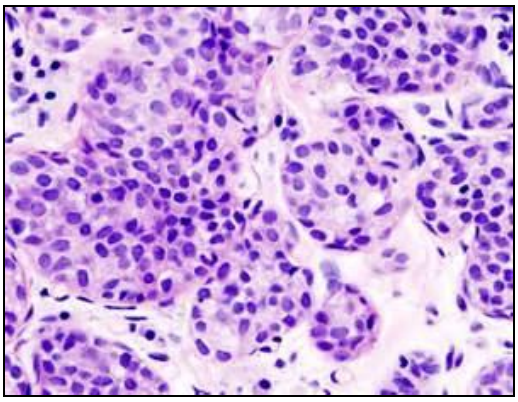
Inflammatory breast cancer is a rare and aggressive type of breast cancer. It often starts in the ducts and spreads into the lymphatic's, including dermal lymphatics. Inflammatory breast cancer accounts for 1 to 5 percent of breast cancers in the United States.

Paget's disease of the breast is another rare type of cancer which usually begins in the breast ducts and spreads to the skin of the nipple and areola. This may results in scaly, red, itchy or irritated skin in these areas.

Ductal carcinoma in-situ, often described as non-invasive or intraductal carcinoma is another form of breast cancer which lies solely within the lining of the milk ducts and has not spread through the duct walls into surrounding breast tissue. If ductal carcinoma in-situ lesions are left untreated, over time cancer cells may break through the duct and spread to nearby tissue, becoming an invasive cancer.



Ductal Carcinoma



Lobular Carcinoma

The breast cancer histological distribution for Rhode Island, Miriam, and Newport Hospital between 2010 and 2014 are displayed in the table below.

Breast Cancer Histological Distribution	Number of Cases Per Histology	Percentage of Cases Per Histology
Intraductal Carcinoma plus 2 or More Subtypes	219	8.27%
Infiltrating Duct Carcinoma, NOS	1,548	58.46%
Infiltrating Duct and Lobular Carcinoma	146	5.51%
Infiltrating Duct Mixed w/ Other Types of Carcinoma	93	3.51%
Lobular Carcinoma In-Situ, NOS	105	3.97%
Lobular Carcinoma, NOS	210	7.93%

Source Image 1: http://nst1350505036068.jpg1502 x 889 · jpegstudyblue.com
Source Image 2: http://ccm.ucdavis.edu/bcancercd/312/lob_carcinoma.html
Source: http://www.cancer.gov/cancertopics/factsheet/Sites-Types/paget-breast

Tumor Grade

Multiple grading systems have been proposed in an effort to minimize inter-observer variability. The Scarff-Bloom-Richardson classification system utilizes tubule formation, nuclear pleomorphism and mitotic count. It assigns a score of between 1 and 3 to each with an overall score of 3-5 described as well-differentiated, 6-7 moderately differentiated and 8-9 poorly differentiated. This system has been shown to be of independent prognostic significance. A group from Nottingham, UK refined this methodology. They evaluate three morphological features: percentage of tubule formation, degree of nuclear pleomorphism and an accurate mitotic count using a defined field area. They also assign a score of between 1 and 3 for each and again a strong correlation exists between the score and prognosis with the highest scores having a worse prognosis. The Nottingham Combined Histologic Grade System can be summarized as follows:

Grade 1 (G1) Well Differentiated, Low combined histologic grade 3-5 (favorable)

Grade 2 (G2) Moderately Differentiated, Intermediate combined histologic Grade 6-7 (moderately favorable)

Grade 3 (G3) Poorly Differentiated, High combined histologic grade 8-9 (unfavorable)

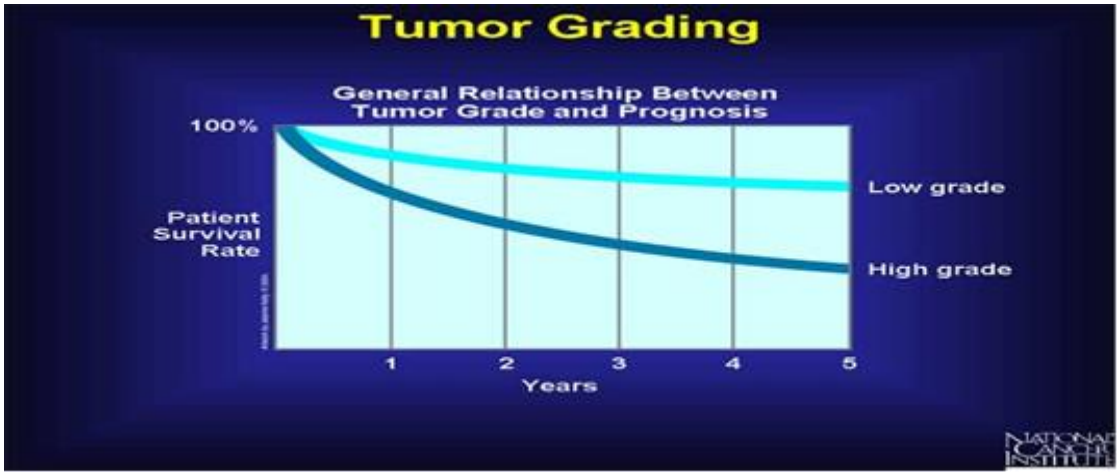
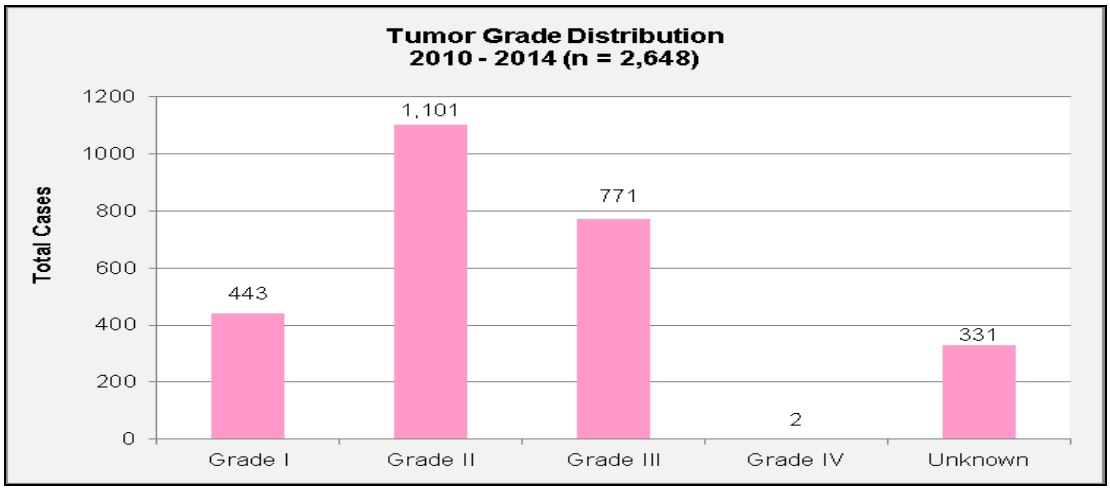


Image Source: http://www.cancer.gov/cancertopics/understand...

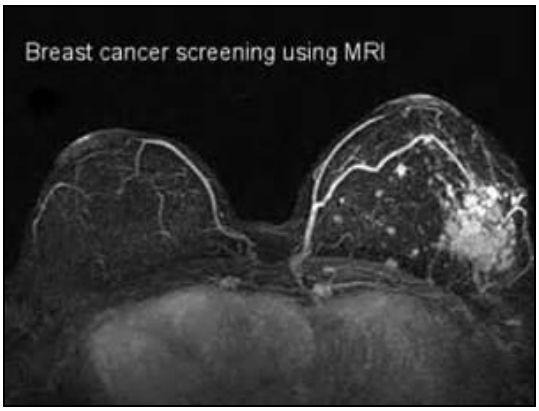


Source: Rhode Island, Miriam, & Newport Hospital Oncology Data Management Departments

Accepted diagnostic imaging techniques that assist the physician when clinically staging a breast cancer patient are:

1. Breast Ultrasound
2. Breast MRI
3. Digital Mammography (Tomosynthesis)

Tomosynthesis is a newer type of digital mammogram that provides three-dimensional (3-D) images of the breast, which provides the radiologist significantly more visual information about the mammogram. With a standard two-dimensional (2-D) mammogram, overlapping tissue can hide abnormalities or can make normal tissue appear suspicious. Tomosynthesis, however, gives the radiologist a way to see the whole breast in 3-D without the uncertainty caused by overlapping tissue or normal variation in breast tissue.



Source: http://www.bing.com/images/search?q=images+of+breast+tomosynthesis&qpvt=images+of+breast+tomosynthesis&qpvt=images+of+breast+tomosynthesis&FORM=IGRE

Staging System

The most widely used staging scheme is the AJCC Cancer Staging Manual (TNM). The TNM describes the extent of primary Tumor (T stage), whether or not the cancer has spread to regional lymph Nodes (N stage), and the absence or presence of distant Metastasis (M stage). Patients diagnosed with breast cancer after January 1, 2003 are staged with the AJCC Cancer Staging Manual 6th Edition. The 7th Edition Staging Manual was implemented for cancer diagnosed on or after January 1, 2010.

Source Image 1: http://www.bing.com/images/search?q=stage+1+breast+cancer&qs.....

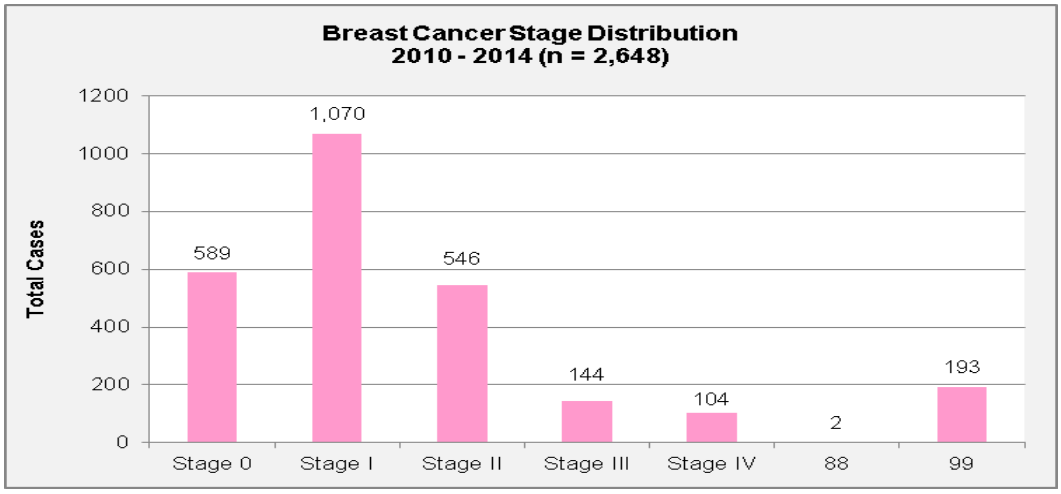
The table below is based on breast cancer and contains information obtained from the National Cancer Database (NCDB) which illustrates a stage comparison between Rhode Island Hospital, The Miriam Hospital, Newport Hospital and the other hospitals within the state of Rhode Island as well as hospitals in all other states.

Breast Cancer Diagnosed 2003 to 2013 by STAGE
All Diagnosed Cases – Hospital Type: All Types/Systems
Rhode Island Hospital, The Miriam Hospital, Newport Hospital vs. Other Hospitals in the State of Rhode Island vs. Hospitals in All States

	Number of Cases			Percent of Total Breast Cancer Cases by Stage		
	Combined Program Total	Other Reporting Hospitals In Rhode Island	National Reporting Hospitals	Combined Program Total	Other Reporting Hospitals In Rhode Island	National Reporting Hospitals
STAGE						
0	1,065	1,611	440,271	19.01%	20.72%	19.89%
I	2,240	3,201	858,262	39.98%	41.17%	38.76%
II	1,205	1,833	541,077	21.51%	23.58%	24.44%
III	325	541	193,869	5.80%	6.96%	8.76%
IV	172	236	81,778	3.07%	3.04%	3.69%
Not Applicable	6	7	2,075	0.11%	0.09%	0.09%
Unknown	590	346	96,745	10.53%	4.45%	4.37%
Total	5,603	7,775	2,214,077	100%	100%	100%

Source: 2015 National Cancer Data Base (NCBD) / Commission on Cancer (CoC) / Wednesday, November 4, 2015

The stage distribution for the 2,648 breast cancer patients diagnosed at Rhode Island, Miriam, and Newport Hospital from 2010 to 2014 is illustrated in the graph below.



Source: Rhode Island, Miriam, & Newport Hospital Oncology Data Management Departments
*88 – N/A; 99 - Unknown

Treatment for breast cancer is based on many factors including the histology, the stage, whether or not the cancer is sensitive to certain hormones, and whether or not the cancer overproduces HER-2/neu. Many studies indicate that patients with hormonal (ER and or PR) receptors have a significantly higher survival rate. Tumors expressing both hormone receptors have the greatest benefit from hormonal therapy.

There are several treatment options for patients with breast cancer: surgery, chemotherapy, radiation therapy, endocrine therapy, and immunotherapy. Most patients will receive a combination of these treatments.

Stage 0 cancers will be treated with breast conservation surgery plus radiation or mastectomy. Stage I and II cancers will undergo breast conservation surgery plus radiation or mastectomy with lymph node removal. Endocrine therapy, chemotherapy, or an immunotherapy (biologic) may also be recommended. Stage III cancers will have surgery and possibly endocrine therapy, chemotherapy, or an immunotherapy (biologic). Stage IV cancers may involve surgery, radiation, chemotherapy, endocrine therapy, or a combination of these treatments.

Breast conservation surgery – involves removal of the cancer and a small area of healthy tissue surrounding it, referred to as margins. This procedure is less radical than a mastectomy and preserves as much breast tissue as possible. In general, this is described as a lumpectomy, segmental, or partial mastectomy.

Sentinel lymph node biopsy – a fairly new procedure which identifies the regional lymph nodes most likely to contain cancerous cells. This allows physicians to determine the capability of the breast cancer to metastasize to these regional lymph nodes while limiting the number of lymph nodes removed for examination.

Mastectomy – is a procedure which removes the whole breast. There are four different types of mastectomies: simple or total mastectomy, modified radical mastectomy, radical mastectomy and skin and/or nipple-sparing mastectomy.

- Simple or total mastectomy – removes the entire breast, nipple and areola, no lymph nodes are removed unless they are located directly in the tissue of the breast. No muscles are taken with this procedure.
- Modified radical mastectomy – involves removal of the entire breast plus level I and II axillary lymph nodes. The lining over the muscle in the chest is removed but the actual muscles are usually not disturbed during this procedure.
- Radical mastectomy – the entire breast including the nipple is removed, the level I and II axillary lymph nodes are also removed. The muscles located in the chest wall under the breast are also removed. This procedure is rarely performed today, as the modified radical mastectomy, a less invasive procedure, is proven to be equally as effective.
- Skin and/or Nipple-sparing mastectomy – is a type of skin sparing mastectomy that removes the breast tissue but allows a woman to retain her breast skin, areola, and nipple. This procedure is intended to improve the cosmetic result without compromising the effectiveness of the oncologic surgery.

Accelerated Partial Breast Irradiation (APBI) – APBI encompasses a number of different techniques and approaches utilizing brachytherapy or external beam radiotherapy. With APBI, the radiation treatment is focused specifically on the part of the breast where the tumor was removed. Because the radiation is so targeted, it affects less of the healthy tissue and organs close to the breast. This treatment can be given in a more condensed schedule than some alternative radiation therapies for breast cancer.

Breast cancer rehabilitation – is a program which focuses on the changes and deficits that occur following surgery, reconstruction, chemotherapy and/or radiation therapy.

Treatment Goals	*Interventions*
1. Supple and pain free scar mobility	Scar management – scar massage techniques, Silicone gel strips, and soft-tissue mobilization
2. Increase mobility	Stretching activities – to lengthen muscles and tissues tightened by surgery and adjuvant therapies
3. Increase muscle strength	Strengthening exercises – progressive exercise
4. Improve posture	Postural exercises and education
5. Improve skin sensitivity	Scar management/skin desensitization
6. Improve function/endurance	Therapeutic activities and exercises
7. Increase education/knowledge	Education regarding scar management, lymphedema, awareness, return to exercise, posture, body mechanic and home program

Lymphedema Management – is a program which utilizes a four step method called Complete Decongestive Therapy (CDT) to reduce the side effects associated with breast cancer surgery and/or radiation therapy.

Components of Complete Decongestive Therapy (CDT)
- Manual lymphatic drainage (MLD)
- Compression
- Skin care/hygiene
- Exercise

Goals of Lymphedema Management
- Reduce swelling
- Facilitate the flow of lymphatic fluid to decongest the area
- Increase motion and function
- Decrease congested tissue
- Prevent or reduce episodes of infection
- Reduce fibrosis (soften hardened skin and tissue) and increase scar mobility
- Independence in self-care of lymphedema management including use of compression garments as needed

The program at Rhode Island, Miriam, and Newport Hospital is staffed by licensed physical therapists that have been trained in lymphedema management.

The table below is based on breast cancer and contains information obtained from the National Cancer Database (NCDB) which illustrates a treatment comparison between Rhode Island Hospital, The Miriam Hospital, Newport Hospital and the other hospitals within the state of Rhode Island as well as hospitals in all other states.

Breast Cancer Diagnosed 2003 to 2013 by TREATMENT
All Diagnosed Cases – Hospital Type: All Types/Systems
Rhode Island Hospital, The Miriam Hospital, Newport Hospital vs. Other Hospitals in the State of Rhode Island vs. Hospitals in All States

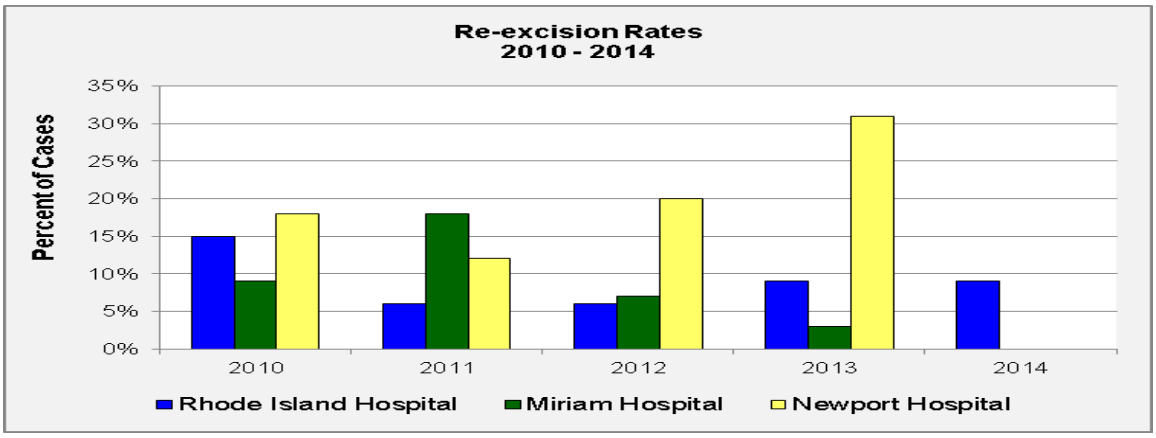
	Number of Cases			Percent of Total Breast Cancer Cases by Treatment		
	Combined Program Total	Other Reporting Hospitals In Rhode Island	National Reporting Hospitals	Combined Program Total	Other Reporting Hospitals In Rhode Island	National Reporting Hospitals
TREATMENT						
Surgery, Radiation & Hormone	1,226	1,700	436,212	21.88%	21.86%	19.70%
Surgery Only	911	1,522	408,721	16.26%	19.58%	18.46%
Surg., Radiation, Chemo & Hormone	706	878	262,882	12.60%	11.29%	11.87%
Surgery & Hormone Therapy	604	1,057	251,779	10.78%	13.59%	11.37%
Surgery & Radiation	543	701	204,180	9.69%	9.02%	9.22%
Surgery, Radiation & Chemo	420	526	176,487	7.50%	6.77%	7.97%
Surgery, Chemo & Hormone Therapy	172	330	114,826	3.07%	4.24%	5.19%
Surgery & Chemo	152	323	133,895	2.71%	4.15%	6.05%
Other Specified Therapy	339	253	76,577	6.05%	3.25%	3.46%
No 1st Course Rx	291	176	64,351	5.19%	2.26%	2.91%
Total	5,603	7,775	2,214,077	100%	100%	100%

Source: 2015 National Cancer Data Base (NCBD) / Commission on Cancer (CoC) / Wednesday, November 4, 2015

2015 Breast Cancer Patient Outcome Analysis

Re-excision Analysis

The surgical goal for Breast Conserving Surgery (BCS) is negative margins with an acceptable cosmetic result. Until 2014 there had been no consensus or guidelines for what constitutes an acceptable negative margin. Nationally the re-excision rate can range between 20-40%.



To further investigate the findings above a retrospective analysis of breast cancers diagnosed from 2010 to 2014 that underwent surgical resection at Rhode Island, Miriam, and Newport Hospital was conducted. Data for this analysis was obtained from the Cancer Registry database and electronic patient record.

87 patients were included in the review (55 from RIH, 21 from TMH, 11 from NPH). Case distribution was 69% invasive (n = 60) and 31% in-situ (n = 27). Age distribution for the in-situ population ranged from 42 – 79 with a median age of 54. The range for the invasive population was slightly larger going from 34 – 87 with a median of 63. A review of staging for the invasive population revealed the majority of patients were diagnosed with 1A disease (62%).

Margin Analysis

	Positive Margin	Margin < 2mm	Margin > 2mm
RIH	38	16	1
TMH	6	14	1
NPH	8	3	~
Total	52	33	2

87 patients underwent re-excision for either close (33) or positive (52) margins. Further review of the cases indicated 58% (n = 30) of positive margins were involved by an invasive carcinoma. Overall, 45% (n = 39) had residual disease identified on re-excision, 67% (n = 18/27) were DCIS patients and 33% (n = 20/60) were patients with invasive disease.

Conclusion

While it is not possible to achieve a 0% re-excision rate due to occult, multifocal, invasive, and in situ disease, a rate of < 20% would be considered acceptable. Mechanisms to reduce the incidence of positive margins include intraoperative specimen analysis with specimen radiograph and pathology gross margin analysis. If the positive rate remains in excess of 20%, additional methods including the recently published Shave Margin Technique has resulted in 50% fewer positive margins and re-excisions. The indication for re-excision will be documented in the Tumor Board Note and a policy to minimize re-excision will be established.

Breast Multidisciplinary Clinic

The breast cancer multidisciplinary clinic (MDC), a program of the Comprehensive Cancer Center at Rhode Island Hospital, The Miriam Hospital, and Newport Hospital was originally established at Rhode Island Hospital in 2014 to provide patients with a streamlined approach to diagnostic and treatment options. Patients who present with a breast cancer diagnosis typically require evaluation by multiple specialists including a surgical oncologist, medical oncologist, radiation oncologist, and genetics, and may require treatment from some or all of the above disciplines. The team members of the breast MDC work together to create an individualized, coordinated plan of care which is based on national treatment guidelines. A dedicated nurse navigator then guides patients through the health care system and their treatment.

During 2014, 142 new breast cancer patients were seen in the MDC at Rhode Island Hospital. In 2015, the MDC was expanded to The Miriam Hospital campus, with 27 patients seen thus far. Patients who present with a breast cancer diagnosis are discussed during multidisciplinary tumor boards. In 2015, 270 cases were prospectively reviewed. Tumor board discussions include a case review, national treatment guidelines, applicable prognostic indicators, as well as applicable clinical trials with the formulation and implementation of a treatment plan.

The physicians of the breast cancer MDC are affiliated with The Warren Alpert Medical School of Brown University and actively participate in on-going clinical research. Eligible patients have access to clinical trials which focus on advanced imaging, surgical, and radiation techniques, as well as targeted chemotherapy agents.

Breast Cancer Clinical Trials
Comprehensive Cancer Center

M14-011	Neo-adjuvant triple negative : Veliparib to standard chemotherapy
NSABP B-51	Post-Mastectomy Chestwall or Post-Lumpectomy + Regional Nodal XRT in Patients with (+)Axillary Nodes Before Neoadjuvant Chemotherapy; Pathologically (-) Axillary Nodes After Neoadjuvant Chemotherapy
Alliance A011202	Axillary Lymph Node Dissection vs Axillary Radiation in Breast Cancer Patients (cT1-3 N1) Who Have (+) Sentinel Lymph Node Disease After Neoadjuvant Chemotherapy
LS-P-COMB	Metastatic triple neg, first line: Cobimetinib + Paclitaxel
Signature Trial	Targeted treatment after initial therapy
MATCH	Targeted treatment advanced solid tumors that are no longer responding to standard therapy
BrUOG BR-291	Accuboost SBRT

Quality Oncology Practice Initiative
Spring 2015 Breast Cancer Measures

QOPI is an oncologist-led, practice-based quality improvement program sponsored by the American Society of Clinical Oncology (ASCO). The program offers a retrospective chart review for ambulatory hematology – oncology practices for systematic data collection, adherence to accepted standards of care and quality improvement goals to effectively measure and compare results with other practices in a consistent and meaningful way.

Rhode Island and Miriam Hospital performance rates for the breast cancer measures from the spring 2015 data collection round are illustrated in the table below.

Breast Cancer Spring 2015	Rhode Island Hospital	Miriam Hospital	Academic Aggregate
Measures	Site Rate (%)	Site Rate (%)	Mean
Chemotherapy recommended within 4 months of diagnosis for women under 70 with AJCC stage I (T1c) to III ER/PR negative breast cancer	100.00%	100.00%	99.44%
Complete staging for women with invasive breast cancer (Cancer stage, HER2,and ER/PR status)	97.50%	85.29%	92.34%
Combination chemotherapy received within 4 months of diagnosis by women under 70 with AJCC stage I (T1c) to III ER/PR negative breast cancer	100.00%	100.00%	92.74%
Test for Her-2/neu overexpression or gene amplification	100.00%	100.00%	98.61%
Trastuzumab recommended for patients with AJCC stage I (T1c) to III Her-2/neu positive breast cancer	100.00%	100.00%	96.48%
Trastuzumab received when Her-2/neu is negative or undocumented **(Lower Score - Better)**	0.00%	4.55%	0.88%
Trastuzumab not received when Her-2/neu is negative or undocumented (inverse of 56)	100.00%	95.45%	99.12%
Trastuzumab received by patients with AJCC stage I (T1c) to III Her-2/neu positive breast cancer	100.00%	100.00%	97.45%
Tamoxifen or AI recommended within 1 year of diagnosis for patients with AJCC stage I (T1c) to III ER or PR positive breast cancer	100.00%	100.00%	99.01%
Tamoxifen or AI received within 1 year of diagnosis by patients with AJCC stage I (T1c) to III ER or PR positive breast cancer	100.00%	100.00%	96.12%
Tamoxifen or AI received when ER/PR status is negative or undocumented **(Lower Score - Better)**	0.00%	0.00%	1.31%

Summary

This is a review of breast cancer patients who presented to Rhode Island, Miriam, and Newport Hospital over a five year period from 2010-2014. The number of breast cancer cases within the program has fluctuated over the years, with significant increases noted in 2008, 2009, 2011 and 2013. A decrease was noted in 2010 when compared to other years. Overall, the number of cases diagnosed at Lifespan as a percent of those diagnosed elsewhere in Rhode Island has remained stable over the years.

As seen in the rest of Rhode Island, Caucasians made-up the vast majority of breast cancer cases in Rhode Island Hospital but unlike the rest of the State, African Americans made-up the second most common group as opposed to Hispanics. Our distribution of breast cancers by age was similar to that found in other hospitals in Rhode Island and was also similar to that reported by the National Cancer Data Base (NCDB) with the majority occurring between the ages of 50 and 59.

Stage I was the most frequently reported stage of breast cancer at diagnosis in Rhode Island Hospital and was also reported as the most frequent stage by the National Cancer Data Base (NCDB).

The Comprehensive Cancer Program at Rhode Island Hospital, The Miriam Hospital, and Newport Hospital adhere to NCCN (National Comprehensive Cancer Network) Clinical Practice Guidelines for the treatment of all cancers. The majority of patients treated for breast cancer underwent surgery, radiation and hormone therapy which is consistent with the treatment distribution seen at other hospitals in the state and nationally. The use of surgery, chemotherapy, radiation therapy and hormone therapy treatment is also consistent with other hospitals demonstrating breast cancer treatment of our patients is in line with national expectations.

Implementation of the breast multidisciplinary clinic has facilitated the definitive diagnosis and treatment of breast cancer patients in the combined program at Lifespan. The time from diagnosis, to assessment, and treatment has been shortened with this coordination of care.