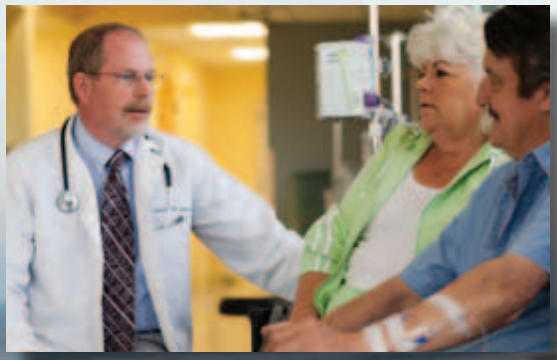
PORTSMOUTH REGIONAL HOSPITAL

Cancer Care Annual Report 2010



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Letter from the Committee Chair

Portsmouth Regional Hospital's Cancer Program experienced significant growth and achievement during 2010. High among our accomplishments was accreditation by the American College of Surgeons (ACOS) with seven commendations, followed later in the year by recognition with the ACOS Commission on Cancer's Outstanding Achievement Award.

During the year, we made great progress in our goals of improving patient accessibility, expanding services and participating in clinical research and community outreach activities. We established the new role of Nurse Navigator to help patients find their way through the emotionally taxing process of receiving a cancer diagnosis and take the next necessary steps for their care. We instituted a formal Survivorship Program to help patients feel less "at sea" following discharge and give them a plan for subsequent care. Our Palliative Care Program has grown significantly in a relatively short period, proving invaluable in the management of care for both inpatients and outpatients.

Our nurse navigator helps patients navigate the arduous and emotionally taxing process of facing a cancer diagnosis and taking the next necessary steps in their care.

We continued to emphasize clinical research. We are affiliated with the Sarah Cannon Research Institute and have access to numerous trials in a broad range of cancer diagnoses. Information about our cancer trials is available on the Portsmouth Regional Hospital website.

Throughout the year, our staff actively took part in numerous educational, screening and cancer prevention activities for the Seacoast community to increase awareness of the risks of cancer and promote early detection. Activities ranged from skin screenings, smoking cessation classes in schools, and participation in events such as the "Relay for Life" and the Women's Expo on Breast Health.

In line with our annual practice of analyzing PRH's Cancer Registry data to identify a cancer subset for in-depth review, during 2010 we focused on breast cancer in younger women – that is, women under the age of 50. John Gens, M.D., our liaison to the ACOS, wrote an analysis comparing PRH diagnosis, staging and outcomes data to corresponding results at other ACOS-accredited institutions. This study's findings are summarized at the end of this report.

Most of all, we continued our emphasis on providing quality care for patients living with cancer, from early diagnosis through optimal treatment and follow-up care.

These achievements were brought about through the skill and hard work of our extraordinary staff of physicians, nurses, social workers, case managers and other team members and through the commitment of the Cancer Care Committee, a multidisciplinary team responsible for ensuring the maintenance of a top-quality cancer program. Whether in diagnosis, treatment or on-going follow-up services, our Cancer Program staff are committed to providing quality, advanced care in a compassionate, patient-centered environment. We will continue our efforts to ensure excellence in every aspect of this process.

Prashant Shankar, M.D.

Portsmouth Regional Hospital's Cancer Care Committe is comprised of hospital administrators, physicians, clinicians and professionals, representing the many dimensions of cancer care.

Cancer Care Committee 2010

SARAH BOWER, R.N.
Hospice

JOANN BROOKS, PH.D.
Director of Rehab

MOLLY BUZDON, M.D.
Surgery

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American Cancer Society,
NE Division

GREGORY DALZELL, R.N.
Director
OP Hematology/Oncology

ARISTOTLE DAMIANOS, M.D.
Gastroenterology

DOUGLAS DESANTIS, M.D.
Internal Medicine

BONNIE FOSSETT, R.N.
Quality Improvement
Coordinator

JANET GALE, M.A., M.A.F.T.

JOHN GENS, M.D.
Surgery
Cancer Liaison Physician

PATTY HENSCHKE
Acting Chief Nursing Officer

JACQUIE HIGGINS, R.D.
Nutrition Connection

JEANNE JONES, R.N.
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ANNE JAMIESON
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STEVEN KAHAN, M.D.
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DARLENE KNAPP, M.D.
Pathology

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SARAH MACDUFFIE, D.O.

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Radiology

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Cancer Conference Coordinator
Physician Advisor Registry

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SONYA SCHWAEGERLE, M.D.
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Chief, Department of Pathology

PRASHANT SHANKAR, M.D.
Hematology/Oncology
Cancer Care Committee Chairman

JOHNNA SHENNETT, R.N.
Palliative Care Representative

SUZANNE STEVENS, R.PH.
Oncology Pharmacist/
Pain Management

CHRISTINE WASILEWSKI, M.D.
Hematology/Oncology

ROBERT WHITE
Director Radiology

Report of the Liaison Officer

AMERICAN COLLEGE OF SURGEONS COMMISSION ON CANCER

We are proud of our Cancer Program's achieving accreditation by the American College of Surgeons' Commission on Cancer in 2010, and especially pleased that we received it with seven commendations within the survey process.

Accreditation is awarded only to institutions that have demonstrated their commitment to providing quality care, measuring our program against a rigorous evaluation covering more than 40 different standards. These are as varied as program leadership, cancer data management, clinical management, research, community outreach, professional education and quality improvement activities.

As a COC-accredited facility, we now have access to the National Cancer Data Bank. This is the only program in the United States providing access to data we can use to assess our treatments and outcomes against national quality measures, as recommended by the National Institute of Medicine. As an accredited facility, we are able to participate in initiatives such as ACOS's Rapid Quality Reporting System, which will be able to alert us if a patient's treatment does not follow the recommended clinical path.

By allowing us to assess our performance and participate in innovative programs, our association with ACOS's Committee on Cancer will help us immensely in furthering our goal of providing quality cancer care for the Seacoast region.

John P. Gens, M.D., FACS

In 2010 Portsmouth Regional Hospital received The American College of Surgeons Accreditation with seven commendations, as well as the College's Outstanding Achievment Award.

Commission on Cancer®

A cancer registrar is involved in analyzing clinical cancer information for the purpose of education, research, and outcome measurement. Confidentiality of patient information and related medical data is strictly maintained.

Cancer Registry Report 2010

Portsmouth Regional Hospital's Cancer Registry is maintained by a nationally certified Cancer Registrar, who collects and analyzes details of clinical cancer cases at PRH for use in education, research and outcomes measurement. Information collected includes such factors as the types of cancers that occur, their incidences, their locations within the body and their disease stages at the time of treatment.

During 2010, 361 new primary cancer cases were abstracted. Patients entered into the registry are followed yearly throughout their lifetimes, and currently 2,192 patients living with cancer are being followed by our department.

Data and statistics from the registry are presented quarterly to the Cancer Committee for education and for monitoring of the Cancer Program.

The registry also contributes data to the New Hampshire State Cancer Registry for analysis at the state and national levels. Such data is critical for programs focused on risk-related behaviors, tobacco use, sun exposure or chemical exposure. Reliable registry data is essential for evaluating the effectiveness of cancer prevention efforts and for ensuring PRH's standards of care.

Closely associated with the registry is the hospital's Cancer Conference (often referred to as the Tumor Conference), bringing together clinicians from diverse specialties for a multi-disciplinary approach to planning, providing and evaluating the care of cancer patients. As the following report details, the conference is actively attended by PRH clinicians and plays an important role in the diagnosis and treatment planning for oncology patients at the hospital. The conference is headed by John Gens, M.D., with programs organized by Marni Piper, C.T.R.

Marni Piper, C.T.R.

CANCER CONFERENCE

Open to all PRH health professionals, the Cancer Conference is held most Thursday mornings throughout the year and attended by an average of 35 clinicians representing Oncology and Hematology, Surgery, Radiology, Radiation Oncology, Pathology, Hospice Care and other areas. Oncology nurses, technicians, social workers and case managers often take part.

With diagnostic images, test results and biopsy results reported in detail, each specialist can discuss the benefits and problems involved in each treatment approach and arrive at a recommended plan for action for the patient's care.

A significant aspect of the Cancer Conference are presentations by outside Speakers, often national authorities in their fields who give our staff the opportunity to remain abreast of the latest developments and our patients access to consultations with national experts.

A total of 201 cases were discussed in 41 conferences held during the year:

MONTH	NUMBER PRESENTED
JANUARY	17
FEBRUARY	19
MARCH	19
APRIL	24
MAY	15
JUNE	10
JULY	24
AUGUST	15
SEPTEMBER	20
OCTOBER	18
NOVEMBER	8
DECEMBER	12
	TOTAL: 201

Sites discussed included lung, breast, brain, gallbladder, ovarian, melanoma, esophageal, stomach, colon, lymphoma and liver. Hematopoietic diseases discussed included Hodgkin lymphoma, multiple myeloma and leukemia.

2010 TOPICS:

March
Melanoma & Lung

April
Colon

May
Sarcoma & Lymphoma

June
Breast

July
Treatment Early Breast Cancer

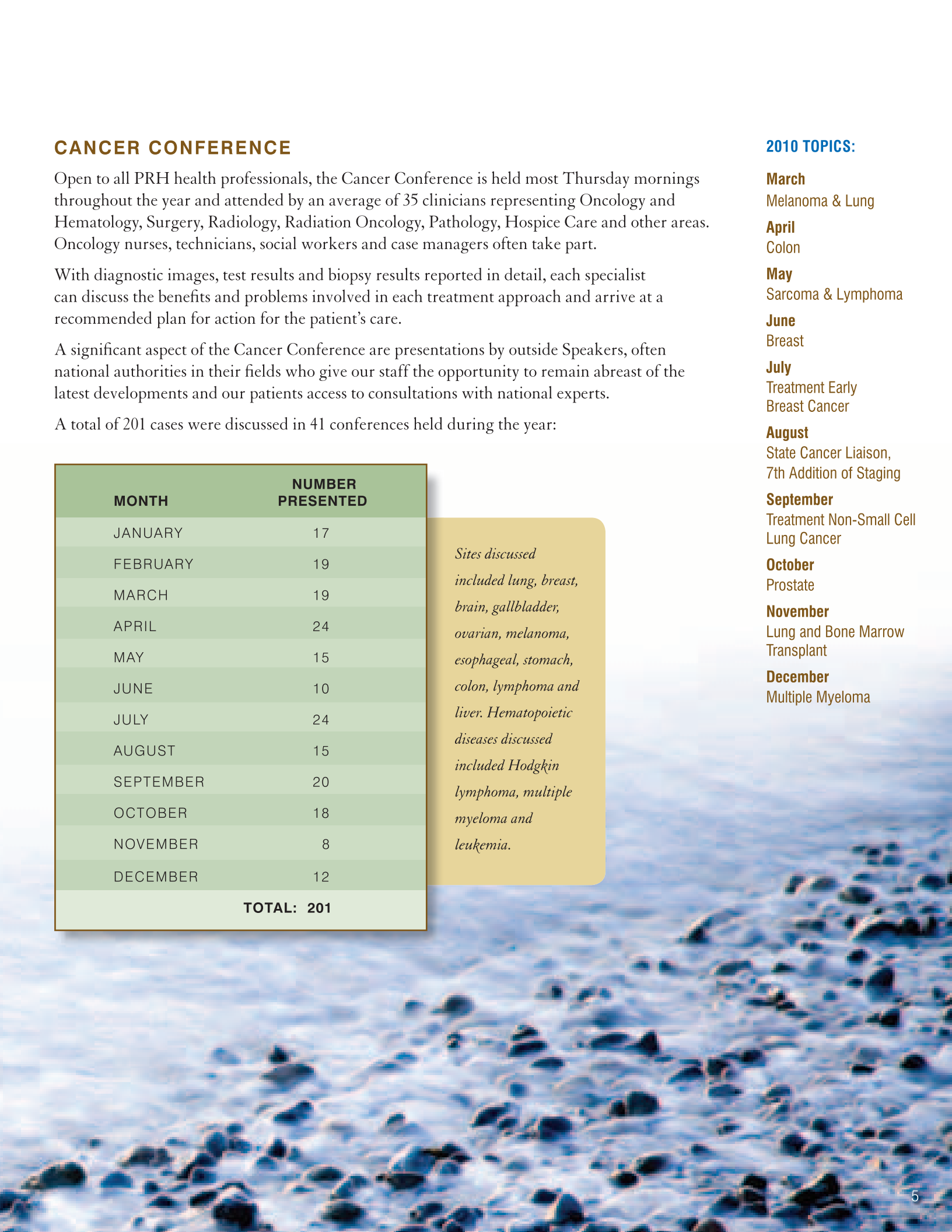
August
State Cancer Liaison, 7th Addition of Staging

September
Treatment Non-Small Cell Lung Cancer

October
Prostate

November
Lung and Bone Marrow Transplant

December
Multiple Myeloma



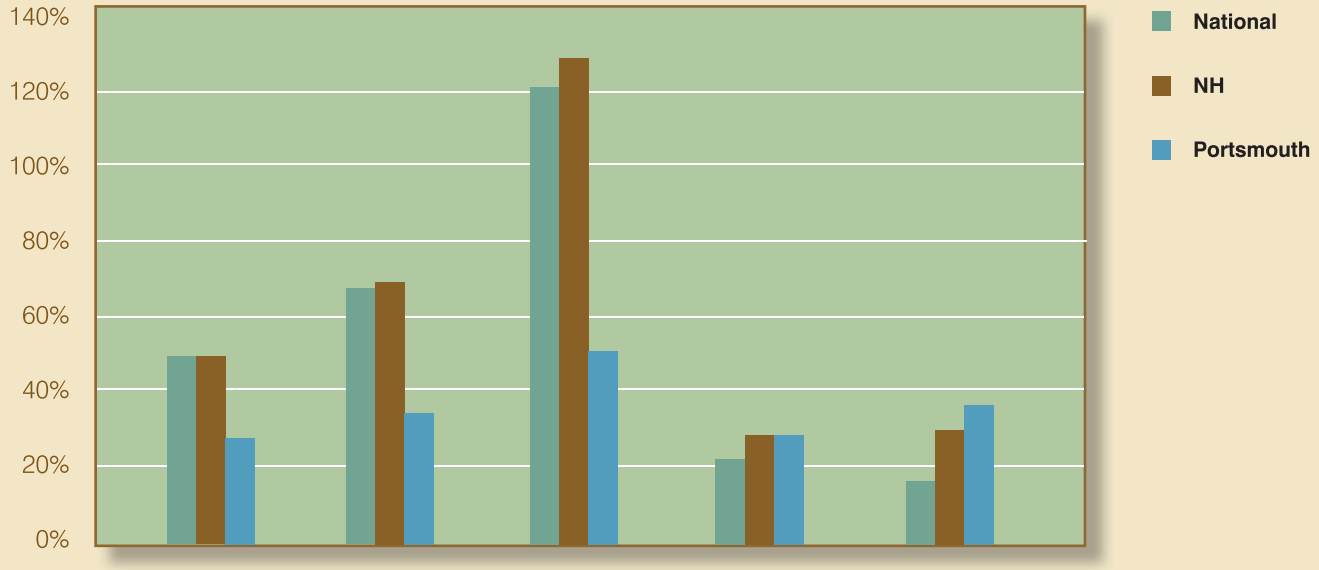
TUMOR REGISTRY CANCER CONFERENCES REPORT
2010 TOTALS

41	**Tumor conferences**
191	**Total cases presented**
187	**Prospective cases (98% Prospective)**
1,412	**Attendees total, facility-wide**

Average physician attendance:	
Medical Oncology	100%
Diagnostic Radiology	100%
Surgery	100%
Radiation Oncology	100%
Pathology	100%

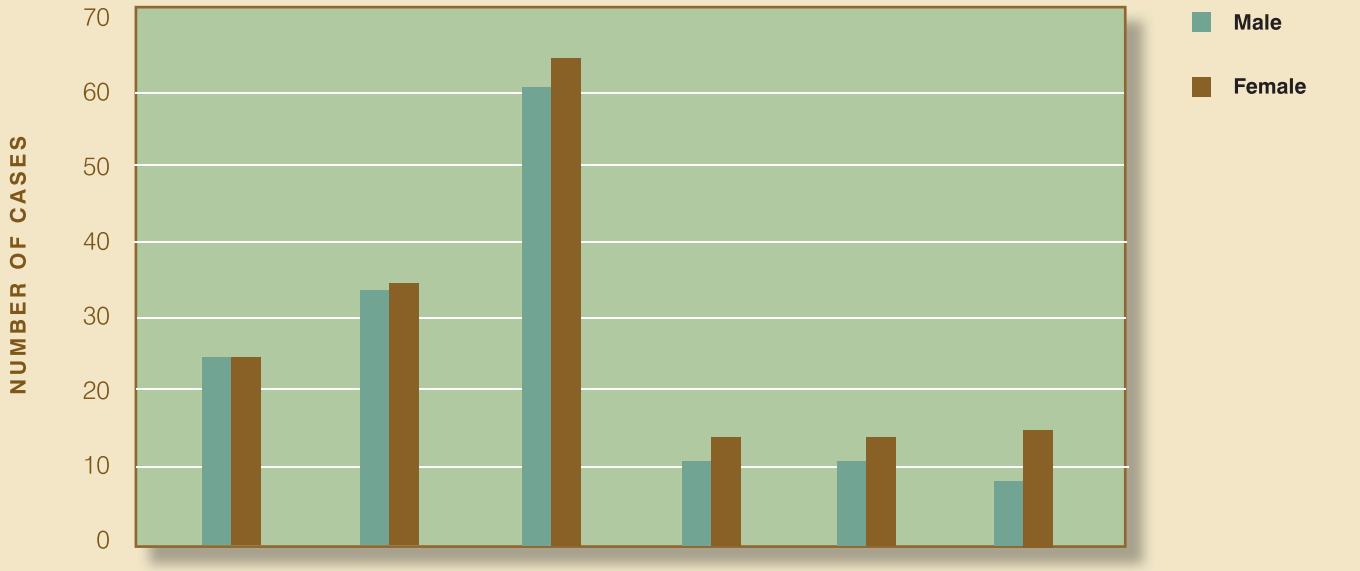
SITES	TOTAL
Bladder	2
Brain	4
Breast	58
Carcinoid	2
Colon/Rectum	34
Esophagus	5
Gallbladder	1
GIST	1
Leiomyosarcoma	4
Liver	1
Lung	25
Lymphadenopathy	4
Lymphoma	3
Melanoma	10
Merkel Cell	11
Ovarian	1
Pancreas	2
Prostate	2
Sarcomas	2
Spine	1
Testes	5
Unk Primary	4
Uterine	1
Discussion Only	4
Metastatic CA	3
Benign	1
TOTAL CASES PRESENTED	**191**

COMPARISON DATA NATIONAL VS STATE VS PORTSMOUTH



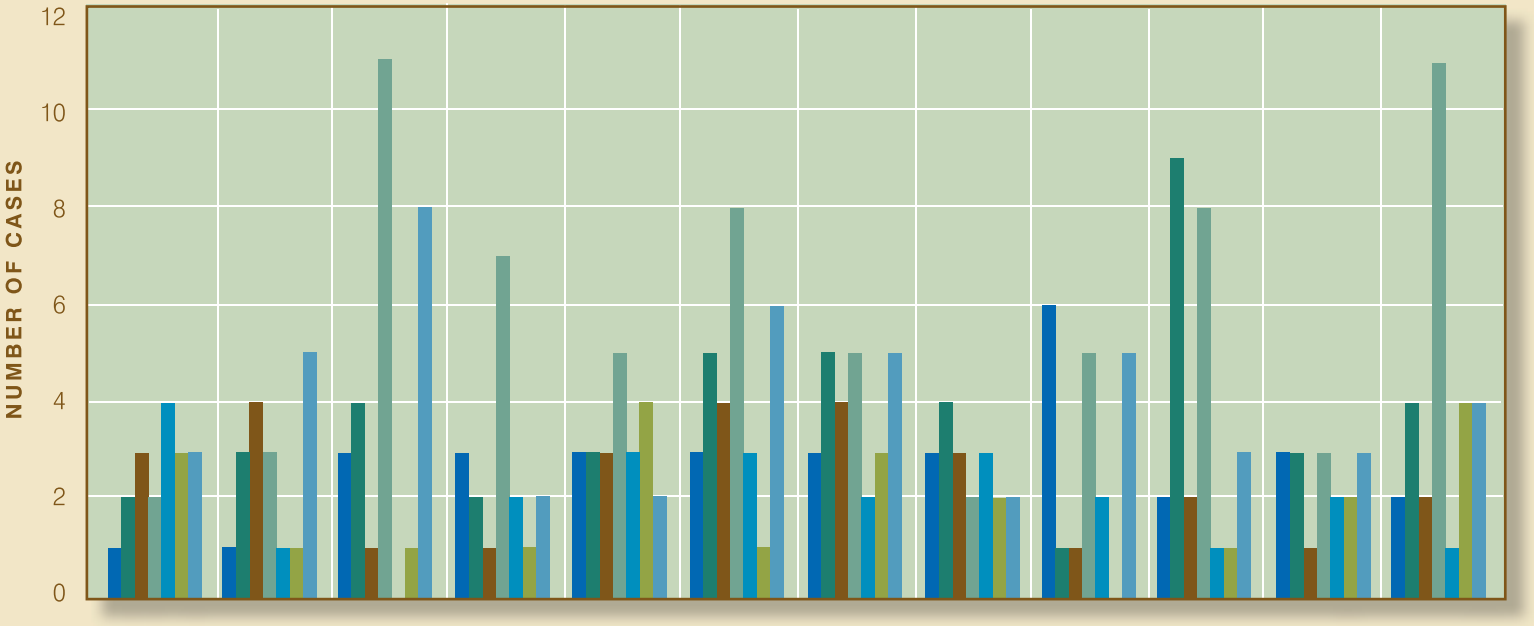
	COLON	LUNG	BREAST	BLADDER	SKIN
National	48.9	68.1	120.5	21.3	18.3
NH	48.8	70.7	130.1	27.8	28.7
Portsmouth	25.41	37.22	49.36	27.7	38.75

TOP 10 SITES BY SEX N=231



	COLON	BRONCHUS & LUNG	SKIN	BREAST	BLADDER	OTHER
Male	12	27	6	0	17	30
Female	18	15	14	64	8	20

PORTSMOUTH REGIONAL HOSPITAL TOP 10 SITES BY MONTH 2010 N=271



	JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Colon	1	1	3	3	3	3	3	3	6	2	3	2
Bronchus & Lung	2	3	4	2	3	5	5	4	1	9	3	4
Skin	3	4	1	1	3	4	4	3	1	2	1	2
Breast	2	3	11	7	5	8	5	2	5	8	3	11
Prostate Gland	4	1	0	2	2	3	2	3	2	1	2	1
Bladder	3	1	1	1	4	1	3	2	0	1	2	4
Other	3	5	8	2	2	6	5	2	5	3	3	4

Year in Review

The Hematology and Oncology Center at Portsmouth Regional Hospital continued to grow in 2010. We saw 10,039 patients, an increase of 1,288 – or 12 percent – over 2009.

EDUCATIONAL PROGRAMS

The Center hosted the Seacoast Oncology Nurses Association Conference, offering an educational opportunity to Seacoast nurses. Topics covered included survivorship, lymphedema, cognitive impairment in cancer patients, chemo-induced neutropenia, and breast imaging modalities.

Our commitment to supporting oncology nursing education extended to providing an internship program for nursing students interested in specializing in oncology nursing. Great Bay Community College honored the clinic by presenting an award for "Outstanding Community Health Nursing Partner" for its role in mentoring students in this advanced learning program.

NEW AND EXPANDED SERVICES

Services provided within the center were enriched with the creation of a Nurse Navigation Program to facilitate care coordination for patients and family members and enhancement of the Palliative Care Program with appointment of a dedicated Palliative Care Nurse to focus on patients' comfort and quality of life. Both programs are described in detail in subsequent sections.

In 2010, the nurses of the Hematology and Oncology Center set a goal of establishing a Survivorship Program for our patients. This program benefits patients by outlining their treatment and guidelines, and reviewing them in detail at the completion of treatment. A care plan is developed to lead patients through treatment and follow up planning.

PATIENT TREATS

Our oncology staff understands that patients have days that may require a "pick me up." This understanding prompted the formation of a treasure chest of patient treats that includes free tickets to local events and other fun items. Oftentimes, a chance to go to a movie or a massage or reflexology at The Rehab Center has a positive impact on a day when they don't feel so well. Caring for our patients means more than giving medical therapy. Our focus is also on helping patients live with cancer and its treatment in a positive way.

COMMUNITY OUTREACH

One of the activities that our nurses and physicians find most gratifying are the opportunities to give back to our community, through participation in educational programs providing cancer prevention information

GOALS

Our goals for 2011 include becoming a Nationally Certified Breast Center and expansion of the Palliative Care Team's availability.

Greg Dalzell, R.N.

At Portsmouth Regional Hospital, caring for patients with cancer means more than giving medical therapy. We try to help them find a new normal quality of life.

PALLIATIVE CARE PROGRAM

Palliative Care focuses on comfort and quality of life for those affected with life-limiting/ life-threatening illness. It provides comfort to patients and their families without respect to disease, prognosis or other goals of care. Enhancement of quality of life and relief from suffering are paramount as individual goals but work together to prevent suffering.

Palliative care can help a patient who lives with chronic, incurable disease that involves advanced illness management. These patients may be facing increased debility, life limitations or life changes. It also is appropriate for patients who do not wish to have aggressive therapies or testing, regardless of age or diagnosis, whose focus is comfort and quality of life. Among illnesses frequently seen are cancer, heart disease, lung disease, kidney disease, AIDS, cystic fibrosis, Alzheimer's disease, and ALS.

Palliative care:

- Empowers patients and their loved ones
- Explores goals for treatments
- Enhances quality of life
- Clarifies medications and recommended treatments
- Discusses pain symptom management
- Provides information and support for care planning
- Promotes communication with healthcare team
- Assists with information regarding advanced directives
- Helps with difficult decision making about complex medical issues
- Supports family caregivers
- Helps coordinate extended care
- Addresses stress, anxiety, grief & bereavement
- Affirms life and looks at dying as a normal process
- Neither hastens or postpones death
- Offers a support system to family and others to cope during illness and bereavement

Johanna Shennett, R.N.

NURSE NAVIGATION

The Nurse Navigation program was established in 2010 to provide patients with assistance through the process of care within the highly complex and individualized healthcare system. The navigator meets with all patients receiving category IV mammogram results in the Breast Center and walks with the patient through the early stages of this difficult journey. By identifying barriers (such as fear, lack of knowledge or understanding, financial issues, physical issues, or cultural issues), the nurse navigator helps to minimize the potential effects and promotes a more positive experience for the patient.

Navigation services are available at the Breast Center and for newly diagnosed oncology patients.

Gail DeRoche, B.A., R.N.

Among the many resources avaiable at Portsmouth Regional Hospital, Palliative Care provides comfort to patients and their families regardless of disease, prognosis, or other goals of care.

GENETIC TESTING

Genetic testing is offered to individuals at risk for developing hereditary cancer. To be eligible, patients need to have information about family history on both the maternal and paternal side. Although there is still much to learn about genetics, many tests are available to determine one's risk for hereditary cancers.

The obvious benefit of genetic testing is a better understanding of a patient's risk for a certain disease. Testing is not perfect, but it can help high risk patients make decisions about their health and future healthcare decisions.

Currently genetic tests for breast and ovarian, colorectal and uterine, colorectal polyps and cancer, melanoma, and pancreatic cancers are offered.

Rhonda Dandeneau, R.N.

LYMPHEDEMA

Lymphedema, or swelling of the arm from buildup of fluid, may occur any time after treatment for breast cancer. Any treatment that involves axillary lymph node dissection or radiation to the axillary lymph nodes carries the risk of lymphedema because normal drainage of lymph fluid from the arm is changed.

One of the first symptoms of lymphedema may be a feeling of tightness in the arm or hand on the same side that was treated for breast cancer. Patients are encouraged to promptly report any swelling, tightness or injury to the arm or hand.

There is no effective way to predict who will and will not develop lymphedema. It can occur right after surgery, or months, or even years later. The possibility of developing lymphedema remains throughout a woman's lifetime.

With care, lymphedema can often be avoided or, if it develops, kept under control. Injury or infection involving the affected arm or hand can contribute to the development of lymphedema or make existing lymphedema worse, so preventive measures should focus on protecting the arm and hand. Most doctors recommend that women avoid having blood drawn from or blood pressures taken on the arm on the side of the lymph node surgery or radiation.

Rhonda Dandeneau, R.N.

REHABILITATION SERVICES - LYMPHEDEMA

Patients who have undergone breast cancer surgery are seen in Physical Therapy for evaluation of upper-extremity mobility, scar mobility, pain, swelling – and lymphedema or risk for lymphedema. Patients who have expanders also benefit from physical therapy to aide in UE mobility and help with skin and surgical scar mobility. A total of 27 patients were seen in 2011.

Joann Brooks, D.P.T., M.P.H., O.C.S., C.L.T. and Mickey Frackelton, P.T.A., C.L.T. completed training and certification by Norton School of Lymphedema.

Lymphedema can occur following partial or full mastectomy, node resection and radiation. Each patient is evaluated for the risk of lymphedema or the beginning of lymphedema to

The role of the Nurse Navigator was added to help connect patients with care and serve as a resource to family members. Navigation services are avvailable at The Breast Center and for newly diagnosed oncology patients.

prevent it from becoming severe. Treatment includes the comprehensive assessment, patient education, manual lymphatic drainage massage, bandaging, exercise and fitting of compressive garment at the end of treatment. Early intervention prevents such complications of shoulder immobility, skin breakdown and cellulitis. In 2011, the acquisition of a compression pump will add to the services and result in faster resolution of swelling and will be available for home use for patients needing extended care of lymphedema.

INPATIENT MEDICAL/ONCOLOGY UNIT & NURSING EDUCATION

While advances in oncology treatments allow most patients to be treated in an outpatient setting, therapy does sometimes require an inpatient stay.

Over the past few years, the Medical/Oncology Unit at Portsmouth Regional Hospital has maintained a core staff that is hospital-certified in chemotherapy administration. These nurses have attended and passed the Oncology Nursing Society's two-day "Chemotherapy and Biotherapy Guidelines" course. To enhance the technical skills needed to safely administer chemotherapy, the nurses have also had an orientation in our Hematology and Oncology Center. The staff has ongoing collaboration with our outpatient clinic nurses regarding improving the patient care experience.

Portsmouth Regional Hospital supports nurses' education by underwriting their attendance at the National Oncology Nursing Society Congress and for the education needed to gain hospital certification in chemotherapy administration. The hospital also has sponsored nurses' membership in the local Seacoast Oncology Nursing Society chapter (SONS). Educational offerings provided by SONS and by other external sources have great attendance by the hospital certified chemotherapy nurses and other interested unit staff nurses.

As advances in outpatient treatments increase, thereby shifting therapies from the unit to the clinic, inpatient nurses may rotate working in the clinic on an as-needed basis in order to maintain their skill sets. This allows continuing education and growth for the inpatient nurses and deepens the relationship between the Medical/Oncology Unit and the Hematology and Oncology Center.

Focus on Breast Cancer

HISTORY & SURGICAL TREATMENTS OF BREAST CANCER

Breast cancer is an ancient disease. The first known description of the disease dates back 3,500 years to ancient Egypt. Egyptian physicians felt that there was no cure. Hippocrates in 460 B.C. felt the disease was due to an excess of "black bile" or "melanchole." Galen in 200 A.D. felt that the disease was due to a humoral imbalance and that it could be treated with opium, licorice, sulpher, castor oil and various salves. Surgery was never considered an option because the disease was always thought of as a systemic humoral imbalance.

In 1680, a French physician, Francois de la Boe Sylvius, was the first to challenge the humoral theory, when he stated that the disease was caused by a transformation of lymphatic fluids from acidic to acrid. In 1713, Ramazzini proposed that the disease was due to a lack of sexual activity. Friedrich Hoffman of Prussia noted that women who had regular sex but still developed cancer were practicing "vigorous" sex that resulted in lymphatic blockage.

Henri Le Dran, another French physician, was the first to argue that surgery could cure breast cancer as long as the infected lymph nodes were removed. At about the same time Claude Nicholas Le Cat argued that the scalpel was the only way to cure cancer and he was the first to amputate the breast, remove lymph nodes and the pectoralis major muscle.

In the late 19th Century, William Halstead popularized the radical mastectomy. Halsted was one of the first to use modern surgical techniques, modern anesthesia, blood transfusion, and an understanding of wound healing led to significant improvement in survival. Radical mastectomy removed the entire breast, the pectoralis major and minor muscles and all the lymph nodes in the axilla. Radical mastectomy was the standard of care for breast cancer for almost 100 years. Unfortunately the operation left a huge cosmetic defect, and women who had the operation had to deal with lymphedema, a deformed chest wall, hollow voids under the collarbone and armpit, and chronic pain.

In the mid 1900's Jerome Urban at Memorial Sloan Kettering performed super-radical mastectomies wherein he did a radical mastectomy and took out part of the chest wall to remove the internal mammary nodes. At about that time Patey and other surgeons showed that results similar to radical mastectomy could be achieved with a modified mastectomy, which left the chest wall muscles intact. Extended lymph node dissections were also abandoned to significantly lower the risk of lymphedema, again without decrease in survival. Other operations that were routinely done at that time and into the 1980's were oophorectomies, hypophysectomies and adrenalectomies, all done in the hopes of modulating estrogen production to control metastatic disease. These operations have disappeared with the development of tamoxifen and aromatase inhibitors.

In 1955 George Crile, Jr., a surgeon at the Cleveland Clinic, was the first surgeon to question the radical mastectomy when he argued that breast cancer was not a localized disease but rather a systemic disease. He, along with Bernard Fisher from the University of Pittsburgh, championed breast conservation surgery (lumpectomy) along with radiation and chemo-therapy. Fisher and Crile directly challenged the surgeon's role as the primary source of breast cancer treatment.

The first known description of breast cancer dates back 3,500 years to ancient Egypt. Today's modern surgical treatment of most breast cancers is lumpectomy and sentinel node biopsy.

Portsmouth Regional Hospital's Breast Center has been helping Seacoast women detect and prevent breast cancer since it opened in 1990.

Thus the scope of surgical resection and lymphadenectomy has become less and less as the role of chemotherapy and hormonal therapies have expanded. Today the modern surgical treatment of most (but not all) breast cancers is lumpectomy (limited resection) and sentinel node biopsy (limited lymph node dissection). If patients do need a mastectomy, then immediate reconstruction can often be done either by an implant technique or by using the patient's own tissue to create a new breast. These techniques can be used in the majority of patients along with chemotherapy, radiation and hormonal therapy to provide a high rate of survival.

Kevin G. Looser, M.D.
Surgery

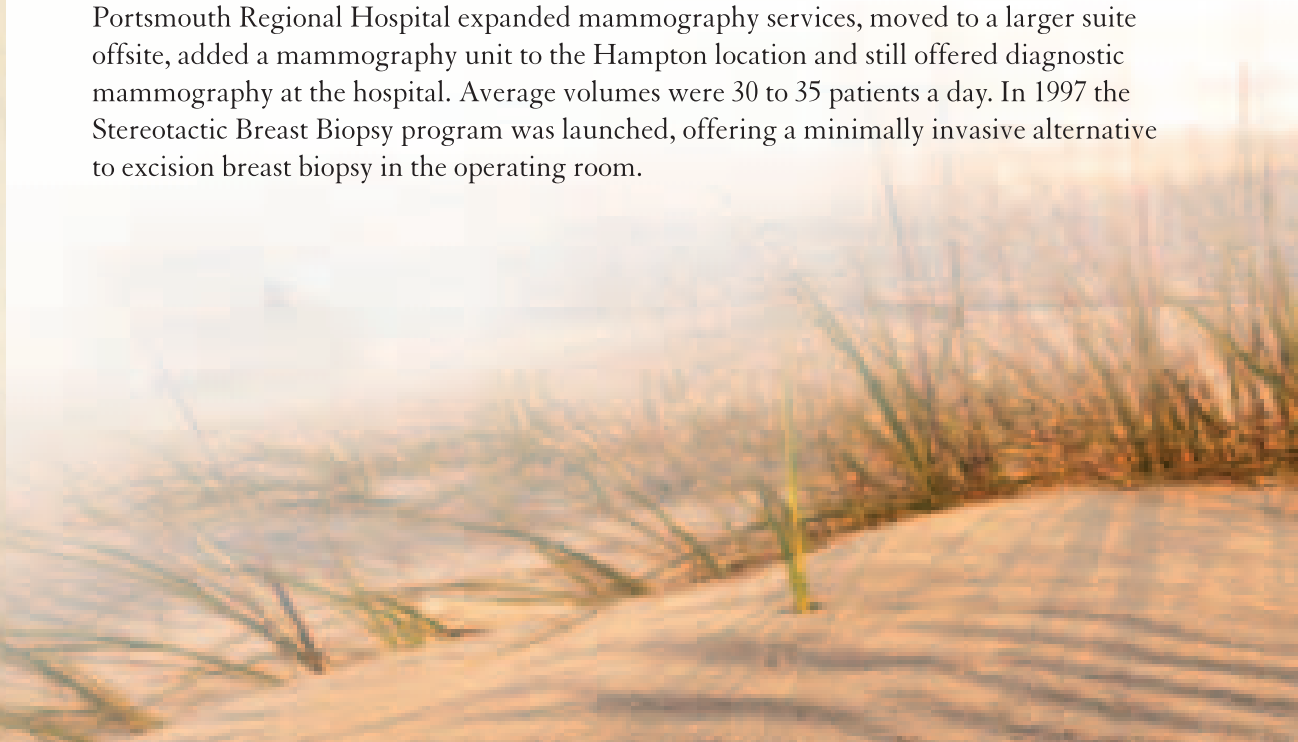
PORTSMOUTH REGIONAL HOSPITAL'S BREAST CENTER & MAMMOGRAPHY PROGRAMS

Portsmouth Regional Hospital has a long history of commitment to Women's Health. Mammography was first started at the hospital in 1967, with films being done only as a diagnostic tool. In 1978, the hospital adopted Xerography, a new technology at the time and a precursor to screening mammography. Healthcare professionals were beginning to discuss recommending screening mammograms for aged 50 and older.

By 1988, Xerography had become obsolete as film screen mammography replaced it as the latest technology. And with it came compression. It was proven that compression helped see inside the breast tissue better. Specialists were able to find cancer earlier and smaller.

The year 1990 saw the opening of Portsmouth Regional Hospital's first "Breast Center," an offsite facility for screening mammography that averaged about 25 patients a day. Diagnostic mammography was still performed at the main hospital. The 90's were a busy time for mammography. Prominent women were openly discussing stories about breast cancer and the disease caught the national spotlight. On October 1, 1994, Congress passed the Mammography Quality Standards Act (MQSA) which standardized and improved mammography across the country. All facilities were required to be accredited by the U.S. Food and Drug Administration (FDA) and adhere to strict quality standards.

Portsmouth Regional Hospital expanded mammography services, moved to a larger suite offsite, added a mammography unit to the Hampton location and still offered diagnostic mammography at the hospital. Average volumes were 30 to 35 patients a day. In 1997 the Stereotactic Breast Biopsy program was launched, offering a minimally invasive alternative to excision breast biopsy in the operating room.



In 2000, sentinel node/lymphatic mapping was added to the hospital's breast cancer "toolbox." The year 2003 saw the beginning of a new age of breast imaging. Digital mammography was approved by the FDA and was heralded as the "state-of-the-art" technology. Portsmouth Regional Hospital replaced all film screen units with one digital unit and still averaged about 30 to 35 patients per day. This unit was housed in a newly designed Breast Center in the Medical Office Building along with the stereotactic unit and a bone density unit. Diagnostic patients were booked at certain times and received a verbal report before leaving. The Breast Center was considered the "Gold Standard" by HCA. MRI breast imaging was also added this year. The hospital was the first facility in the state to offer digital mammography and CAD, computer aided detection (an electronic second look).

In 2005, the Center added a second digital unit and started averaging 50 patients per day. In 2007 MRI breast biopsies were offered. On November 10, 2009, the Portsmouth Regional Hospital Breast Center opened at the Millennium Building at 155 Borthwick Avenue. The latest digital technology is offered with the GE Essential, a large field unit as well as our other digital unit.

Bone density and Breast Ultrasound are also offered. The Stereotactic unit was moved to the Imaging Department at the hospital with a mammography unit for wire localizations. PRBC is averaging 50-60 patients per day. Each patient receives a preliminary report via phone call within 24 hours. A collaborative service between Mammography and Oncology was added with the addition of the Nurse Navigator.

Over the years, breast cancer diagnostic services and treatment methods have continued to grow. From a two-room "Breast Center" seeing 3,500 to 4,000 patients a year in 1990 to a state-of-the-art facility in 2010 averaging 11,000 patients each year, the hospital is proud of its commitment to breast health.

Looking forward, the Center continues to be excited to investigate and offer the newest technology. The next advance, in the near future, is Digital Tomosynthesis.

Wendy W. Blood, R.T.R.M., C.B.P.N.-I.C.

Portsmouth Regional Hospital was the first facility in New Hampshire to offer digital mammography and CAD (Computer Aided Detection)—an electronic second look.

The Medical Staff at Portsmouth Regional Hospital's Cancer Care Program conduct research and studies to examine cancer trends in our community and beyond, giving them insight and tools to make the best decisions with their patients.

REPORT ON THE EXPERIENCE AT PORTSMOUTH REGIONAL HOSPITAL ON THE DIAGNOSIS OF PATIENTS YOUNGER THAN AGE 50 WITH BREAST CANCER

There has been a recent debate as to the need for mammography for patients at average risk younger than age 50. Of significant recent historical note, an Independent Task Force through the National Cancer Institute recommended in 2009 that average-risk patients can delay mammography until age 50. There was quite a hue and cry about the dangers of missing cancers in younger patients, and finally, that recommendation was abandoned.

This study was to analyze patients aged younger than 50 who were average risk with the diagnosis of breast cancer and determine if the diagnosis of these patients was comparable favorably with other patients of older age groups. Our study included all patients diagnosed with breast cancer in the year 2010. This number totaled 65 patients. Of those, 13 were younger than age 50. Twelve of the patients were between 40 and 49. One patient was younger than age 40.

The stage at diagnosis was analyzed. The analysis was made as to the stage at diagnosis for those younger patients compared to the stage at diagnosis for older age groups. Diagram 1 shows the distribution of stage in recently diagnosed breast cancers in our program in 2010. When comparing the stage at diagnosis of the older groups, you will find that these stage comparisons are very similar if sometimes not identical.

Also of significant note, the percentage of the 65 patients that were diagnosed to have breast cancer younger than age 50, that being 20 percent, which is a significant number.

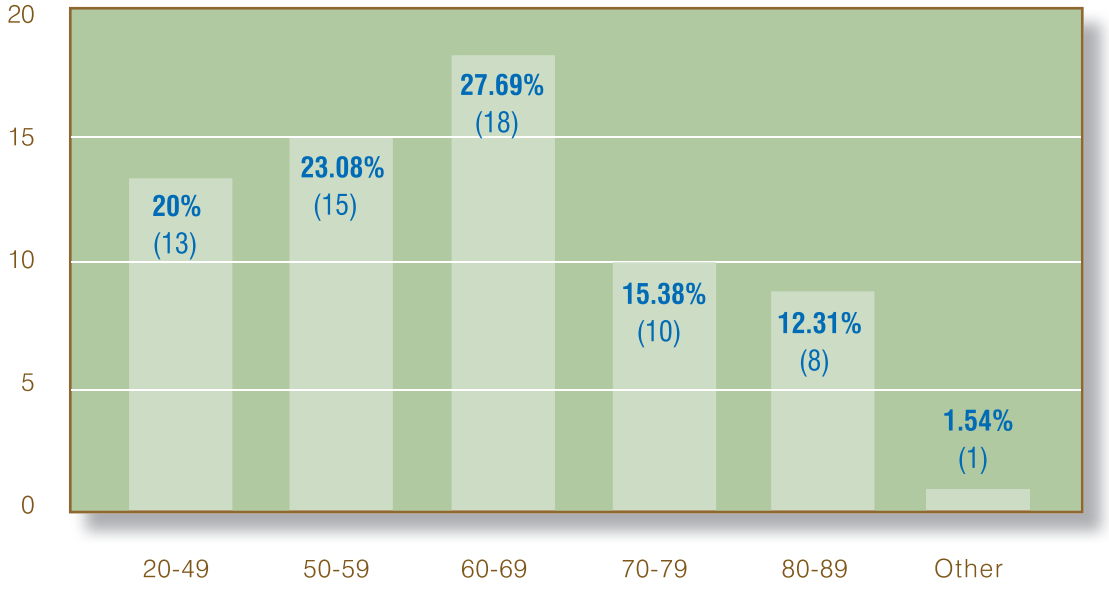
CONCLUSIONS: Although small in number, this study seems to suggest the importance of getting mammograms on women between age 40 and 50 because of the significant percentage of women found in our program during 2010 to have breast cancer.

I have interviewed the radiologists and general surgeons in our program as to what they recommend to their patients or to primary care physicians who ask at what age women should be getting mammograms. I am happy to report that their unanimous recommendation is for women to receive a first mammogram at age 40, and then yearly after that. They have also suggested that mammograms be done earlier if there is any higher risk than the usual or concern with any abnormality found in the breast on breast examination.

Another aspect of the study focused on the number of patients getting BRAC-1 and BRAC-2 screening when diagnosed with breast cancers younger than age 50. It is known that patients under age 50 are at sufficient risk of having familial genetic links that BRAC-1 and BRAC-2 genetic testing is suggested. Of the 13 patients that fit this category, seven were within our program at the time and approximately four were tested for either BRAC-1 or BRAC-2 or both. Since we feel the study should be taken on 100 percent of women who have the risk factor of early age, we are embarking on an educational program at our Cancer Conference on the risk factors for breast cancer which should be presented within the next month or two. We will continue to monitor these factors.

John P. Gens, M.D., F.A.C.S.

DIAGRAM 1 AGE AT DIAGNOSIS BY SEX - FEMALE N=65



All radiologists and general surgeons in Portsmouth Regional Hospital's breast cancer program who participated in this study recommend that women receive a first mammogram at age 40, and yearly after that.

PATHOLOGY 2010 BREAST STATISTICS

PATIENTS UNDER AGE 50: 14 (21%)

Average Age: 46 (Invasive carcinoma ave. 45; In situ carcinoma ave. 49)

In Situ: 4 (28%)

Invasive: 10 (72%)
Invasive ductal: 8
Invasive lobular: 2
ER positive: 8 (6 of which are Her2 negative, 2 of which are Her2 positive)
ER negative: 2 (1 of which is Her2 negative, 1 of which is Her2 positive)
Staging:
T1: 5 patients
T2: 2 patients

PATIENTS 50 AND OVER: 53 (79%)

Average Age: 67 (Invasive carcinoma ave. 66; In situ carcinoma ave. 68)

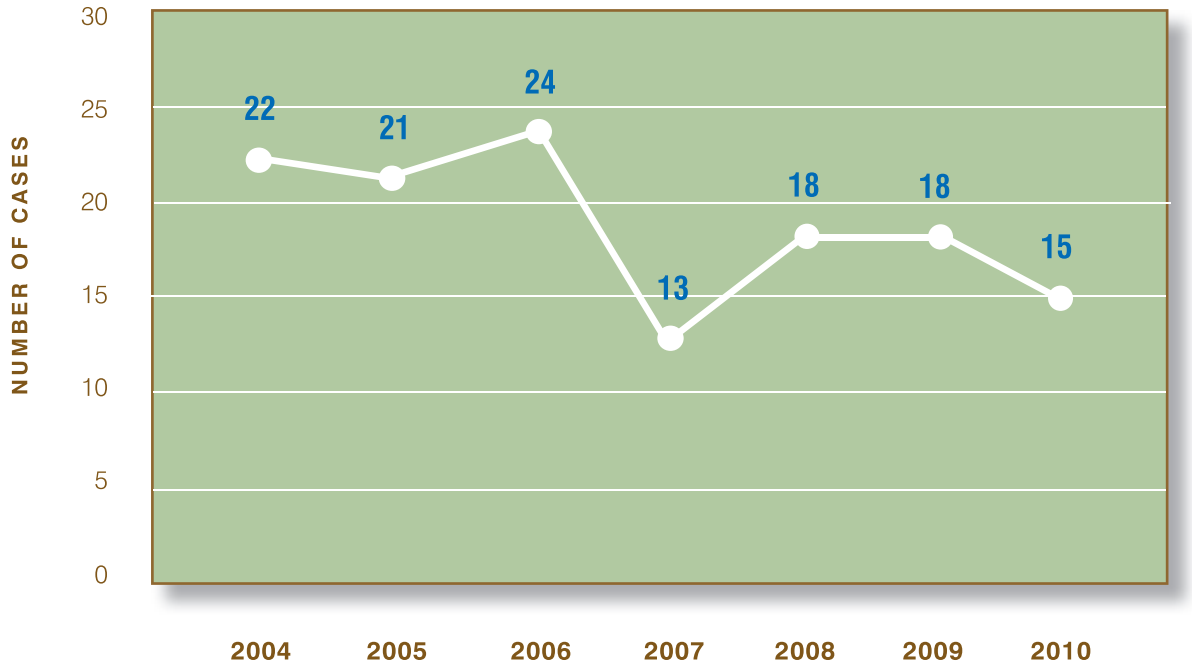
In Situ: 23 (43%)

Invasive: 27 (57%)
Invasive ductal: 24
Invasive lobular: 3
Invasive lobuloductal: 2
Neuroendocrine: 1
ER positive: 21 (18 of which are Her2 negative, 3 of which are Her2 positive)
ER negative: 6 (3 of which are Her2 negative, 3 of which are Her2 positive)
Staging:
T1: 10 patients
T2: 2 patients
T3: 2 patients

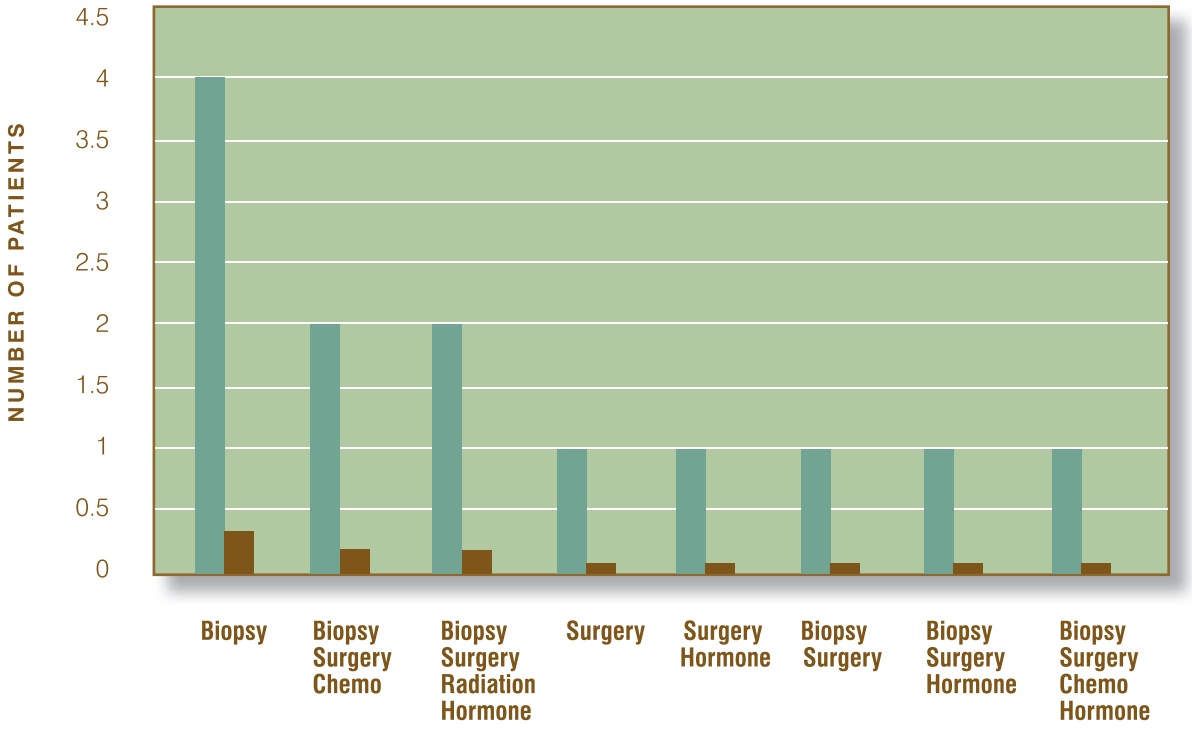
Sonya Schwaegerle, M.D.

Women with a higher than normal risk for breast cancer or those who have an abnormal breast examination should receive their first mammogram before age 40.

FEMALE BREAST CANCER CASES 2004-2010 AGES 20-49 N=131



1ST COURSE TREATMENT BREAST CANCER WOMEN UNDER AGE 50 N=13



Series 1	4	2	2	1	1	1	1	1
Series 2	30.80%	15.40%	15.40%	7.70%	.70%	.70%	.70%	.70%

Cancer patients are never alone. Many organizations provide valuable support and information to make the journey through cancer a little easier.

Resources & References

CANCER ORGANIZATIONS:

AMERICAN CANCER SOCIETY
1-800-ACS-2345
http://www.cancer.org/

AMERICAN CANCER SOCIETY HEALTH CARE IN THE "GRANITE STATE"
http://www.statestats.com

AMERICAN COLLEGE OF SURGEONS COMMISSION ON CANCER
http://facs.org/

NATIONAL CANCER INSTITUTE
http://cancer.gov/

NATIONAL PROGRAM OF CANCER REGISTRIES
http://www.cdc.gov/cancer/

GILDA'S CLUB WORLDWIDE
http://www.gildasclub.org

LANCE ARMSTRONG FOUNDATION
http://www.livestrong.org

NATIONAL COALITION FOR CANCER SURVIVORSHIP
http://www.canceradvocacy.org

PATIENT ADVOCATE FOUNDATION
A liaison between patient and insurer, employer and creditor to resolve insurance, job retention and debt crisis matters relative to the diagnosis.
http://www.patientadvocate.org

TUMOR REGISTRY REFERENCE BOOKS:

AJCC - Manual for Staging Cancer, Seventh Edition
Lippincott Williams & Wilkins 2010
Facility Oncology Registry Data Standards (FORDS)

American Cancer Society Textbook of Clinical Oncology, Second Edition, 1995

International Classification of Diseases for Oncology, Third Edition. WHO, 2000National Oncology Data Base-Provided by Commission on Cancer, American College of Surgeons

IMPAC Medical Systems, 2011
(Data software used in tumor registry)

BREAST CANCER ORGANIZATIONS:

These national organizations can provide information, materials, and services related to breast cancer and support groups in your area, if available.

AMERICAN CANCER SOCIETY (ACS) INFORMATION LINE
1-800-ACS-2345
ACS provides free information and emotional support from trained volunteers, anytime before, during, or after treatment. Programs include Reach for Recovery, Partners, Early Support, and Look Good. . . Feel Better.

NATIONAL ALLIANCE OF BREAST CANCER ORGANIZATIONS (NABCO)
212-889-0606

NATIONAL CANCER INSTITUTE'S CANCER INFORMATION HOTLINE
1-800-4-CANCER
Free information on treatment, clinical trials, eating hints, advanced cancer, and local services.

NATIONAL COALITION FOR CANCER SURVIVORSHIP
301-650-8868

333 Borthwick Avenue
Portsmouth, NH 03801
603-436-5110
portsmouthhospital.com