



Hunterdon
Regional
Cancer Center

HUNTERDON MEDICAL CENTER
Fox Chase Cancer Center Partner

2006
Cancer Program
Annual Report

Message from the Cancer Committee Chairman and the Director of HRCC

Brian Quinn, MD

Barbara Tofani, RN, MSN

Hunterdon Regional Cancer Center is a community cancer center, dedicated to providing quality care to residents of Hunterdon and surrounding counties. Hunterdon Regional Cancer Center offers a full array of cancer services, from prevention and early detection programs through to up-to-the-minute treatment options, full nutrition and psychosocial support, leading edge research studies and a cancer risk assessment program that is second to none in the state.

We're a community cancer center, but compromise nothing to provide our community with that convenience. We're partners with Fox Chase Cancer Center, a National Cancer Institute-designated facility dedicated to caring for patients with cancer. We're accredited by the American College of Surgeons Commission on Cancer, and follow national guidelines for the provision of quality cancer care, so whether you travel 5 miles to Hunterdon Regional Cancer Center or 50 miles to a large hospital in the city, the clinical care you receive is comparable.

The compassionate care you receive may not be comparable though. Hunterdon Regional Cancer Center has award winning staff and volunteers who are committed to providing the best clinical care in a friendly, safe environment, and that commitment to excellence has been recognized by Hunterdon Health System as well as the professional and lay communities in which we work and live.

- In March of 2006, Hunterdon Regional Cancer Center received the American College of Surgeons Commission on Cancer's prestigious 2005 Outstanding Achievement Award. Hunterdon Regional Cancer Center was the only cancer program in the state of New Jersey to receive that award in 2005, and was one of only 39 programs recognized nationally. The Commission on Cancer cited a number of reasons why Hunterdon Regional Cancer Center was selected for this honor—our attention to detail, our commitment to research, our outreach and community education efforts, and our implementation of cancer-related improvements that directly enhance patient care. While all these elements are essential to building and sustaining a successful program, it's the never-ending commitment to excellence that is shared by the entire staff that makes Hunterdon Regional Cancer Center so deserving of this award.
- Jackie Allen, RN, MSN, our Risk Prevention Nurse, was named Hunterdon Health System Employee of the Year for 2006. Jackie was recognized for her outstanding work in our Family Risk Assessment program. With support from Fox Chase Cancer Center, Jackie started Hunterdon's program in 2003 and has worked tirelessly to provide education, counseling and support to hundreds of patients and families dealing with the reality or possibility of a genetic predisposition to cancer.

- Nancy Fearing, a mammography technician at Hunterdon Medical Center and Partners in Healing volunteer, was the 2006 Honoree for the Hunterdon County BMW Ultimate Drive for the Cure, recognized for her tireless efforts to educate and support those faced with a diagnosis of breast cancer.
- Mary Vecchio, RN, MSN, was recognized as Hunterdon Health System's October Employee of the Month for her work in community outreach and education. Mary's work with schools, religious and community organizations, and local corporations empowers the youngest and oldest in our area to become active partners in their own health and well-being.
- Rene Falls, RN, research nurse and Sandra Moore, a Partners in Healing volunteer, were both recognized in December with Hunterdon Health System's prestigious Wescott Award. The annual Wescott Awards are bestowed upon a nurse, volunteer and staff employee who, by their personal example, exemplify the Hunterdon Healthcare System's culture of caring and commitment to the health and well being of our community. Rene and Sandy both demonstrate the organization's values of caring, collaboration, communication and integrity and have made a positive difference in the lives of others. Although both Rene and Sandy were nominated by their colleagues at the Medical Center, it was the feedback from the patients with whom they both interact that had the most profound influence on their selection for this coveted award.

Jackie, Nancy, Mary, Rene and Sandy are each very deserving of the award and recognition bestowed upon them, and we're very proud of them. But, as each of them has said, their achievements have been made possible because of the incredible people with whom we all work every day. Their outstanding efforts represent the passion, drive and commitment of the entire cancer program team, and those efforts are reflected in the comments we receive from our patients:

"It has now been more than three weeks since my last treatment and my body is finally beginning to heal. And so is my spirit. This is possible because [people] are willing to go the extra mile. [They] made a difference in my life for which I am truly grateful. As I look to the future, I carry in my memory the integrity I found in people while going through this life-changing event. My hope is to be able to give back to others just a fraction of the love, support and kindness that was given to me."

Quality and Outcomes Improvement 2006 Melanoma

What is melanoma?

The skin is the largest organ of the body, covering and protecting the rest of the body's organs. The skin is comprised of three layers: the epidermis, the dermis and the subcutis. Non-melanomas, the most common types of skin cancer, develop from the basal and squamous cells found in the epidermis. These types of cancers—squamous cell and basal cell—although a concern because of the rising rate of incidence, rarely spread throughout the body.

Melanoma, a skin cancer that develops in melanocytes, another type of cell in the epidermis, has a much greater tendency to spread to other parts of the body than other skin cancers, and therefore is a much more worrisome type of skin cancer.

Causes of melanoma

Melanin is the substance produced by melanocytes. Melanin protects the deep layers of skin—the dermis and subcutis—from harmful ultraviolet rays, whether from the sun or from the increasingly-popular tanning booths. When the skin is exposed to ultraviolet rays, melanocytes produce melanin, causing the skin to tan. Melanoma develops when these melanocytes start to grow and divide at an abnormal rate, far beyond what the body needs for normal ultraviolet ray protection.

Risk factors

Anyone with excessive ultraviolet light exposure is at risk to develop melanoma, but the risk increases for people who are fair skinned, who tend to burn more easily than people with darker complexions. Other risk factors include:

- ✓ A history of bad sunburns
- ✓ More than 50 moles
- ✓ Atypical moles (dysplastic nevi)
- ✓ A close blood relative (parent, child, sibling, aunt, uncle) with a history of melanoma

One or more risk factors puts a person at an even greater risk for developing melanoma, but it's important to reiterate that anyone can develop melanoma. Men have a higher rate of melanoma than women, and although it is more likely to be diagnosed in older people, melanoma can be found in young people as well.

Characteristics of melanoma

Melanomas typically present as a change in the size, shape or color of an existing mole, but can also appear as a new mole. Melanoma can occur anywhere—the skin, nails, mucous membranes, eyes or even internal organs—but are most commonly seen on the upper body of men and the legs of women.

Melanomas are typically slow growing cancers that start on the surface of the skin, where they can be detected early with good skin surveillance. Melanomas have defining characteristics that make detection of a suspicious lesion fairly simply based on the ABCD rules:

A – Asymmetry – half of the lesion is different than the other half;

B – Borders – melanoma borders are usually ragged or blurred;

C – Color – melanomas typically are a variety of colors and shades;

D – Diameter – melanomas continue to grow when a benign mole does not. If a lesion is larger than the size of a pencil eraser, it is often cause for concern.

Diagnosing melanoma

Once a lesion has been identified as suspicious, a biopsy must be performed to obtain a pathologic diagnosis. There are different methods for obtaining a skin biopsy depending on the size of the lesion and the location on the body. If the physician suspects that the lesion has grown into the deep layers of skin, an incisional or excisional biopsy may be performed. An incisional biopsy removes only a portion of the lesion, while an excisional biopsy removes the entire lesion.

A shave biopsy, where the top layers of the skin are shaved off for microscopic examination, may be performed, but is not recommended for diagnosing melanoma because it may be difficult to accurately measure the depth of invasion. Punch biopsies may also be performed, but are not recommended for anything but the smallest lesions.

If the physician suspects that a melanoma has metastasized, further tests must be performed. A fine needle aspiration (FNA) can be used to obtain small tissue samples from suspected tumors in the lung or liver. FNA can also be used to sample large lymph nodes near a confirmed melanoma. In patients with more advanced melanoma, a sentinel lymph node biopsy can detect the spread of cancer to lymph nodes. Sentinel lymph node biopsy can help direct the need for additional surgery.

There are no specific blood tests for melanoma. LDH (lactate dehydrogenase) levels may be elevated in patients with widespread disease, but is not usually a helpful test for making an initial diagnosis. Chest x-rays, CT scans, MRI, PET scans and nuclear bone scans can all be helpful in identifying spread of the disease to distance organs and bones. Diligent screening with early intervention remains the best way to identify melanoma at its earliest, most treatable stage.

Staging

There are two types of staging for melanoma: clinical staging, which is based on the physical examination and imaging studies, and pathologic staging, which combines the information from the clinical staging with that found from microscopic evaluation of the tissue samples. With pathologic evaluation, the pathologist measures the thickness of a melanoma using the Breslow measurement technique. In general, the thicker the melanoma on examination using this technique, the greater the chance the melanoma has or will spread. Pathologists can also measure a melanoma using the Clark level, which describes the thickness of a melanoma in relation to its penetration into the skin. The Clark level is reported on a Roman numeral scale of I to V, with Clark level I having the best prognosis and Clark level V demonstrating the worst prognosis. Although the Breslow measurement is the measurement of choice because it is a less subjective measurement, both systems can be helpful in determining the extent or stage of the disease.

Melanoma is staged according to the American Joint Committee on Cancer (AJCC) staging system using the TNM staging categories. For melanoma, the T category refers to the thickness of the lesion and presence of ulceration, N indicates lymphatic invasion and M indicates spread to distant organs. According to the AJCC guidelines, melanoma is staged as follows:

Stage 0: The melanoma is in situ, meaning that it involves the epidermis but has not spread to the dermis. This is also called Clark level I.

Stage IA: The melanoma is less than or equal to 1.0 mm or about 1/25 inch in thickness and no ulceration is present. Using the Clark system, this can be level II or III. It appears to be localized in the skin and has not been found in lymph nodes or distant organs.

Stage IB: The melanoma is less than or equal to 1.0 mm in thickness and is ulcerated, *or* Clark IV or V, *or* it is between 1.01 and 2.0 mm and is not ulcerated. It appears to be localized in the skin and has not been found in lymph nodes or distant organs.

Stage IIA: The melanoma is between 1.01 mm and 2.0 mm in thickness and is ulcerated, *or* it is between 2.01 and 4.0 mm and is not ulcerated. It appears to be localized in the skin and has not been found in lymph nodes or distant organs.

Stage IIB: The melanoma is between 2.01 mm and 4.0 mm in thickness and is ulcerated, *or* it is thicker than 4.0 mm and is not ulcerated. It appears to be localized in the skin and has not been found in lymph nodes or distant organs.

Stage IIC: The melanoma is thicker than 4.0 mm and is ulcerated. It appears to be localized in the skin and has not been found in lymph nodes or distant organs.

Stage III: The melanoma has spread to lymph nodes nearest the affected skin area. There is no distant spread.

Stage IV: The melanoma has spread beyond the original area of skin and the nearby lymph nodes to other organs, such as the lung, liver, or brain, or to distant areas of the skin or lymph nodes.

Treatment of Melanoma

Treatment of melanoma largely depends on the thickness of the tumor and the extent, if any, of spread of the disease. In most cases, a wide local excision is done to remove the tumor and minimize the chance of local recurrence. It is important that the surgeon obtain clear margins—no cancer cells remain after the tumor was removed—if at all possible. As recommended by the NCCN guidelines, the size of the margin is dependent upon the thickness of the tumor. In most cases, a wide excision will leave a scar. For melanomas on the face, Mohs surgery, where the cancer is removed layer by layer, may be performed to minimize scarring. If a melanoma is on a finger or toe, a portion of the digit may be amputated in order to obtain clear margins.

Once melanoma has spread to distant organs, the chance of curing the disease with surgery becomes highly unlikely. Surgery may, however, be performed to control spread of the disease, extend survival and improve quality of life. Chemotherapy, although not as effective in treating melanoma as other cancers, is used in stage IV disease to manage symptoms and, in some cases, extend survival.

Immunotherapy stimulates the body's own immune system to attack a cancer. Cytokines, the proteins that activate the immune system, have been noted to shrink melanoma tumors and extend survival in stage III and IV disease. The side effects from cytokines, as well as other immunotherapies, can be significant and difficult for patients to tolerate; therefore, these patients should be monitored closely.

Discussion

As a community cancer center, Hunterdon Medical Center has an obligation to educate the residents of Hunterdon and surrounding counties on the importance of prevention and early detection of melanoma. Limiting sun and UV light exposure, wearing protective clothing, and proper use of sunscreens are all effective strategies people should use to decrease their chance of developing melanoma. The "Slip, Slop and Slide" program, an educational program developed for school age children and their parents on the importance of sun safety, has been offered to areas schools since early 2005.

Regular skin surveillance, through both self-examination and examination by a physician, is essential to detect melanomas early when they are most easily treated and when cure is most likely. Hunterdon Regional Cancer Center sponsors annual skin cancer screenings, open to all members of the community. The screenings are performed by dermatologists from the community, and patients are navigated through the system to help ensure proper follow-up care and treatment. In 2005, 125 people attended the skin cancer screening; twenty-two were

referred for follow-up care. There were no melanomas diagnosed through the hospital-sponsored skin cancer screening in 2005.

The Hunterdon Medical Center Cancer Committee expressed concern about case finding for melanomas in 2005. That year, melanomas accounted for approximately 4% of all cancers nationally. At Hunterdon Medical Center, there were only 16 cases of melanoma diagnosed, representing only 2.12% of the analytic cases. This number is down from 28 cases diagnosed in 1998. As a result of Cancer Committee discussion, the cancer registry will rereview 2005 case finding to ensure no cases were missed.

In addition, there was discussion about the number of melanomas reported to the state by the dermatologists' offices. Patients who are biopsied in the dermatologist's office usually have their pathology sent to an outside dermatopathologist who ultimately makes the diagnosis of melanoma. The dermatologist's office owns the charts, and is therefore responsible for reporting their cases to the state. As such, these cases will not be reflected in the Hunterdon Medical Center cancer registry data. It was suggested by a cancer committee member that all dermatologists submit their cancer registry data to the Hunterdon Medical Center registry for a certain period of time—3-6 months—to see if this is a more efficient and effective means of capturing accurate data on melanomas diagnosed by Hunterdon Medical Center physicians.

The other question posed by the cancer committee with respect to melanoma was survival data comparing Hunterdon Medical Center to state and national averages. Attached is a graph showing 5 year survival data for Hunterdon Medical Center versus state and national data. For stages 0-3, Hunterdon Medical Center survival data exceeded New Jersey data. For stages 0, 1 and 3, Hunterdon Medical Center exceeded national survival rates as well. Hunterdon Medical Center reported no stage 4 disease in the time period reviewed. Most notable is that, of the 19 patients diagnosed with stage 0 and 1 disease at Hunterdon Medical Center, all are still alive 5 years after diagnosis.

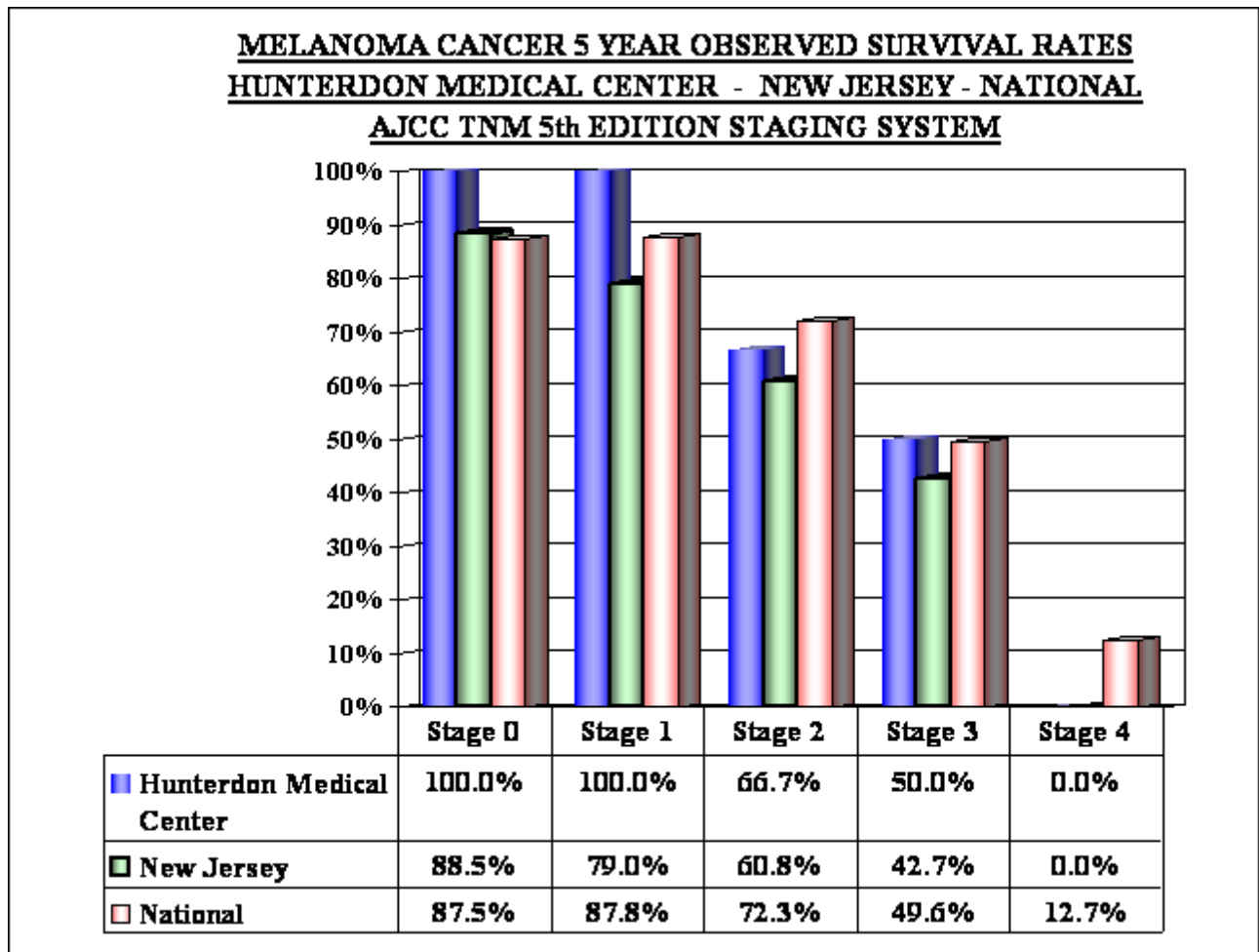
The Cancer Committee felt that the favorable survival data reflected the cancer care team's commitment to following NCCN guidelines for the diagnosis and treatment of melanomas at all stages.

**HUNTERDON MEDICAL CENTER
 1998 & 1999 MELANOMA CANCER
 FIVE YEAR OBSERVED SURVIVAL RATE BY STAGE
 COMPARED TO *NEW JERSEY AND *NATIONAL
 *NATIONAL CANCER DATA BASE PATIENTS DIAGNOSED IN 1998 & 1999
 *National Data Reported from 1,225 Hospitals
 *State of New Jersey/ Data Reported from 18 Hospitals**

HUNTERDON MEDICAL CENTER NEW JERSEY NATIONAL

<u>MELANOMA</u>	<u>Cases</u>	<u>Rate</u>	<u>Cases</u>	<u>Rate</u>	<u>Cases</u>	<u>Rate</u>
Stage 0	7	100.0%	61	88.5%	11,170	87.5%
Stage 1	12	100.0%	132	79.0%	19,814	87.8%
Stage 2	6	66.7%	53	60.8%	8,920	72.3%
Stage 3	2	50.0%	46	42.7%	6,102	49.6%
Stage 4	0	0.0%	11	0.0%	2,155	12.7%
<u>All Cases</u>	<u>28</u>	<u>89.2%</u>	<u>303</u>	<u>68.8%</u>	<u>48,161</u>	<u>76.3%</u>

Source: NCDB, Commission on Cancer, ACoS/ACS.Survival Reports, v3.0 - February 27, 2007



*1 Case was identified and excluded.

2006 Cancer Program Goals and Objectives

All 2006 goals and objectives established by the Cancer Committee were achieved in full or part as outlined below.

- ❖ 2005 registry data was reviewed for myeloma and it was determined that Hunterdon Medical Center did not have sufficient number of myeloma cases to adequately perform a survival analysis of any value.
- ❖ Create true interdisciplinary breast clinic, located in the Cancer Center.
 - Dr. Susan McManus, a dedicated breast surgeon, sees patients regularly in the Cancer Center; medical and radiation oncologists are available for immediate consultation when needed to provide true interdisciplinary management of patient care issues.
 - The Interdisciplinary Breast Care Team, led by Dr. McManus, meets weekly to discuss prospective breast cancer cases; the conference is attended by surgeons, medical and radiation oncologists, pathologists, radiologists, family practice physicians, the breast care coordinator, the risk assessment, research and chemotherapy nurses, the oncology social worker and dietitian and the Cancer Center administrator.
 - The team refers to National Comprehensive Cancer Network (NCCN) guidelines during all clinical discussions.
- ❖ Develop prostate, lung and colorectal surgical services, using the breast program as a model for program development.
 - An interdisciplinary lung conference was initiated in September 2006. Raymond Singer, MD, a thoracic surgeon from Lehigh Valley Hospital in Allentown, PA, participates regularly in Lung Conference along with medical and radiation oncologists, pulmonologists, pathologists, radiologists, family practice physicians, the risk assessment, research and chemotherapy nurses, the oncology social worker and dietitian and the Cancer Center administrator.
 - Approximately fifty percent of the cases discussed at Lung Conference are prospective in nature.
 - As with breast conference, the team refers to National Comprehensive Cancer Network (NCCN) guidelines during all clinical discussions.
 - James Choi, MD, will join Hunterdon Health System's urology department in January 2007.
- ❖ Add a dedicated CT simulator in Radiation Oncology.
 - A CT simulator was installed in November 2006 and the first intradepartmental simulation was completed in December 2006.
 - All CT simulations for radiation oncology are now done in the radiation oncology department.
- ❖ Expand oncology psychosocial services to include complementary services.
 - Hunterdon Regional Cancer Center offers Reiki therapy, guided imagery and meditation to patients free of charge; yoga is available in the medical center for a nominal fee.

- The Oncology Mind/Body staff has identified a network of practitioners in acupuncture, Qigong and other integrative therapies for referral of patients and caregivers.
 - Hunterdon Regional Cancer Center staff has developed strong collaborative relationships with the American Cancer Society, The Wellness Community of Central Jersey and Gilda's Club of Bucks County to coordinate services in an effort to expand the number and types of supportive and integrative programs offered to patients and the community.
- ❖ Expand oncology nutrition services, with a focus on partnering with Hunterdon Health and Wellness to create both prevention and treatment programs that combine diet and exercise.
- Hunterdon's Cancer Program has a dedicated oncology dietitian experienced in both western and eastern philosophies of diet and exercise.
 - Extensive nutrition and education programs were offered to patients and the community.
 - Plans for 2007 include the addition of a half time dietitian, and continued partnering with diet and exercise resources throughout the Hunterdon Healthcare System to provide a full range of diet and nutrition resources for cancer patients and caregivers.
- ❖ Expand Risk Assessment Program to include Prostate Risk Assessment Program (PRAP).
- PRAP started to enroll clients in October 2006.
- ❖ Market Hunterdon Regional Cancer Center staff and services to Hunterdon and surrounding counties through active involvement in community-wide events, including but not limited to Relay for Life, Fit for Cancer, Hunterdon Health and Wellness Family Fun Run and other community events.
- Hunterdon Regional Cancer Center had a never-ending presence in the community in 2006. In addition to active involvement in the above noted activities, HRCC staff participated in senior, community and corporate health fairs, classroom education programs in elementary, middle and high schools in the county, Survivor's Day, all Hunterdon County Cancer Coalition activities, and assorted community education events and fundraisers.
 - Hunterdon Regional Cancer Center provided patient education displays for the Hunterdon Medical Center lobby monthly on a variety of cancers, including colorectal, prostate, breast, melanoma, ovarian, head and neck and other cancers. Prevention and early detection strategies were emphasized in these displays.
 - Hunterdon Regional Cancer Center staff spoke at many community and professional education programs on a variety of topics related to cancer care, nutrition, caregiving, family/genetic risk and integrative therapies.
- ❖ Continue outreach efforts, with a focus on screening and early detection, by partnering with primary care physicians in the community.
- Jackie Allen has worked with primary care physicians to integrate cancer risk assessment into their practice, and to refer appropriate patients for education, counseling and possible genetic testing.

- Pamela Vlahakis, Breast Care Coordinator, works with primary care physicians to ensure that patients with known or suspected breast cancer are referred for navigation through the system, helping to ensure timely and seamless care.
- Hunterdon Regional Cancer Center received a \$10,000 grant from the Susan G. Komen Foundation to work with primary care physicians and community leaders to reach women over the age of 65 to determine why they don't get mammograms, and what should be done to increase participation. The initial efforts for this program have been so successful that the Komen Foundation awarded Hunterdon Regional Cancer Center an additional \$10,000 to continue the project in 2007.

All the cancer-related programs and activities of Hunterdon Medical Center are overseen by the Cancer Committee. Cancer Committee members include:

MEMBER	SPECIALTY
Brian Quinn, MD – Chairman	Medical Oncology
Samuel Bae, MD	Gastroenterology
Myron Bednar, MD, QI Coordinator	Medical Oncology
John Bello, MD, FACS	General Surgery
Kenneth Blankstein, MD, Cancer Conference Coordinator	Medical Oncology
Michelle Grove	Gynecology
David Cohn, MD	Pulmonary
Steven Diamond, MD, Cancer Registry Quality Coordinator	Pathology
Andrew Greenberg, MD	Radiation Oncology
Carla Jardim, MD	Family Practice
Allen Kern, MD	Urology
David Lewis, MD	Dermatology
Mark Malzberg, MD	Medical Imaging
Robert Pickoff, MD	Chief Medical Officer, Administration
Douglas Worden, MD	ENT
Community Outreach Coordinator/Physician Liaison	
David Adelman	Director, Pharmacy
Jackie Allen, RN	Prevention Nurse
Michele Capossela	American Cancer Society
Audrey Vitolins	Coordinator, Oncology M/B Services
Donna Donaruma, RN	Oncology Unit QI
Rene Falls, RN, OCN	Clinical Research Nurse
Carrol Fiorino, RN, MSN, AOCN	Nurse Manager, 3 West
Jeanne Gee	Oncology Dietician
Joan Grady, RN, MSN, AOCN	Executive Dir, Hunterdon Regional Community Health
Michele Kenyon, RT (T)	Dosemistrist/Manager, Radiation Oncology
Carol Klein, MA, CCC-S, MPA	Director, Rehabilitation Services
Claire Long, RN	Director, Quality Improvement/Risk Management
Pat Longworth, RN	Assistant Director, 3 West
Marci Paulk, RT	Assistant Director, Medical Imaging Services
Elaine Sein	FCCC
Mary Stamets, CTR	Cancer Registry Manager
Barbara Tofani, RN	Director, HRCC
Pamela Vlahakis, RN	Nurse Coordinator, Breast Care Program