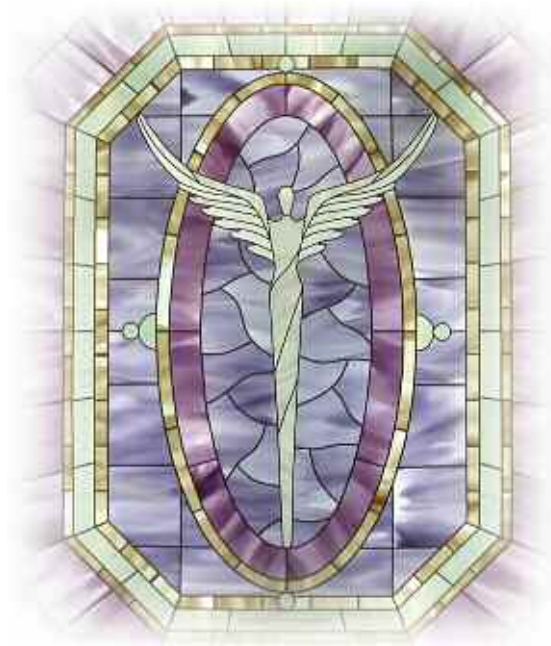


# SISTER CARITAS CANCER CENTER

*2008 Annual Report*



**Mercy**  
MEDICAL CENTER

# SISTER CARITAS CANCER CENTER

## *Vincent J. McCorkle*



*Vincent J. McCorkle, FACHE  
President and Chief  
Executive Officer, SPHS*

Mercy Medical Center continues to be a leader in the prevention, detection and treatment of cancer. Through the services and programs of the Sister Caritas Cancer Center, Mercy is making incredible strides in the fight against cancer.

Everyday the extraordinary team of professionals at the Sister Caritas Cancer Center provides hope and healing, both physical and spiritual, to patients and families faced with a cancer diagnosis. The entire care team remains vigilant in providing the highest quality care for each individual person and takes pride in offering state-of-the-art cancer treatment using the latest technology available.

The clinical expertise and proficiency demonstrated by our team, coupled with an incredible dedication to patient care and service excellence, allows the Sister Caritas Cancer Center to achieve remarkable outcomes and to consistently exceed the needs and expectations of patients and their families.

A handwritten signature in black ink that reads "Vincent J. McCorkle". The signature is written in a cursive, flowing style.

Vincent J. McCorkle, FACHE  
President and Chief Executive Officer  
Sisters of Providence Health System



# SISTER CARITAS CANCER CENTER

*William G. Bithoney, MD*



*William G. Bithoney, MD  
Chief Operating Officer,  
Mercy Medical Center  
Chief Medical Officer,  
SPHS*

It is with great pleasure that I present the Sister Caritas Cancer Center 2008 Annual Report on behalf of the Center's multidisciplinary clinical team. Cancer care continues as a high priority for the Sisters of Providence Health System. Radiation therapy was introduced at the Mercy Medical Center campus in 1992. The Cancer Center now includes two state-of-the-art linear accelerators and a CT/simulator. The prostate seed brachytherapy and stereotactic radiosurgery programs remain a strong and integral part of the radiation therapy service. In addition, chemotherapy and infusion services are provided in Mercy's infusion suite that was designed for maximum patient comfort and convenience, and the best possible patient care. Both the radiation therapy and chemotherapy suite are staffed by board-certified radiation therapists, physicists, dosimetrists, nurses, social workers, spiritual care associates, and cancer registry staff. Three board-certified radiation oncologists, Drs. Catherine Carton, Medical Director, Mary Ann Lowen and Jennifer Hyder provide full-time physician coverage. The Cancer Center is supported by several clinical services and departments throughout Mercy Medical Center including the Breast Care Center, Diagnostic and Interventional Radiology, Pathology, Surgical Specialties, Nutrition, Rehabilitation, Spiritual Care and community-based Medical Oncology. Combined treatment modalities play a significant role in addressing the diagnosis and treatment of cancer at the Sister Caritas Cancer Center. We are proud to offer this Annual Report as a profile of the many physicians who support this leading cancer treatment center in Western Massachusetts, and to give an inside look at the truly remarkable care provided.

A handwritten signature in black ink that reads "William G. Bithoney, MD". The signature is written in a cursive, flowing style.

William G. Bithoney, MD  
Chief Operating Officer, Mercy Medical Center  
Chief Medical Officer, Sisters of Providence Health System

# SISTER CARITAS CANCER CENTER

## *Chairperson's Report*



*B. Catherine Carton, MD  
Chairperson,  
Cancer Program*

Mercy Medical Center provides comprehensive cancer care to the residents of Western Massachusetts with a state-of-the-art facility at the Sister Caritas Cancer Center. Our dedicated team of expert caregivers in multiple disciplines collaborate to deliver the highest quality of care.

The Cancer Committee is central to the organization of all aspects of this care and provides a framework for members of the oncologic team. We adhere to the guidelines of the American College of Surgeons which oversees the activities of cancer care nationally. Our committee meets quarterly to review our progress and plan for the future. We spearhead studies with the Medical Center and are involved with community outreach through our Physician Liaison, as well as community

education with public lectures and screening clinics.

In 2007, screening clinics were provided for breast, prostate and cervical cancer. Lectures were held on prostate cancer, cancer related fatigue, breast cancer diagnosis/management and stereotactic radiation for brain tumors. Community involvement is coordinated with the American Cancer Society including participation in the *We Can Weekend* for cancer survivors. Mercy Medical Center is involved with the American Cancer Society as an affiliate to promote education for cancer patients and their families.

Our physicians are continually introducing new technology for cancer detection, diagnosis and treatment. Mercy is the first facility in the area to offer MRI guided breast biopsies and to conduct an ongoing assessment of the use of MRI as a screening modality for breast cancer.

Dr. Steven Schonholz has multiple ongoing trials for breast care improvement, including a technique for advancing the breast biopsy procedure, Intact™ breast excision, which is often capable of excising the entire breast abnormality in a single procedure.

Non-physician members of our staff are actively developing and promoting total patient care by providing spiritual and emotional support through group sessions, massage services and the Companions on the Journey program funded by the Lance Armstrong Live Strong Foundation.

The Hospice Program through Mercy Medical Center provides both at home and inpatient care for end-of-life. Dr. Shawn Charest, Medical Director of Mercy Hospice, has taken specialty training to assure the most complete palliative care.

Cancer Conferences are held weekly and attended by multiple specialists, with active participation by surgeons, oncologists, pathologists and radiologists. Sub-specialty conferences are held for thoracic, breast and neuro-oncology.

# SISTER CARITAS CANCER CENTER

## *Chairperson's Report*

In 2007, 27 general cancer conferences, 19 lung conferences, 10 breast conferences and two neurosurgical conferences were held. Patient cases are presented and care management is both discussed and recommended prospectively.

Committed individuals have contributed their fund raising efforts to help support the needs of cancer patients at the Sister Caritas Cancer Center. Mario Taylor, of the Audio-Visual Department, organized the Tennis Tournament for the fourth consecutive year and Bob Kuehl contributed funds from his golf tournament. All monies were donated to the Sister Caritas Patient Services fund which goes directly to patient needs. Our Cancer Survivor Day was held in October at the Six Flags picnic grove and was a great success for a fourth year.

The Cancer Center welcomed a new director in 2007, Yvonne Pola, who brings extensive experience in oncologic administration.

We remain privileged to offer care for our patients and hopeful that advancements in detection and treatment for cancer will soon offer significant reduction in suffering and mortality from these diseases.

**"Medicine, the only profession that labors incessantly to destroy the reason for its existence."  
James Bryce**



Chairperson, Cancer Program

# SISTER CARITAS CANCER CENTER

## *Cancer Registrar's Report*

The Cancer Registry at Mercy Medical Center utilizes a data system designed for the collection, management, analysis and reporting of information regarding patients with cancer who have been diagnosed and/or treated at Mercy Medical Center. Mercy's Cancer Registry is a part of the Massachusetts Cancer Registry and the National Cancer Data Base. Submitting our data yearly to the NCDB also allows the public to view Mercy Medical Center's resources, services and cancer caseload information. The registry has been in existence since 1973, but our reference date is January 1, 1992 with over 23,000 cases entered into the database. The registry is staffed by two full-time registrars.

Each analytic patient is followed on an annual basis. Follow-up is used as an automatic reminder to both the physician and patient to monitor and schedule annual exams. The registry followed over 7,000 patients in 2007 with a successful follow-up rate of 93% (90% is mandated by the ACS).

As an approved Cancer Program, the American College of Surgeons mandates that we perform studies and implement improvements each year. For the year 2007, we conducted the following

### **Patient Care Enhancements:**

- Review of availability of behavioral services for the Breast Care Center.
- Review of availability of nutritional evaluation and consultation for breast cancer patients at the Sister Caritas Cancer Center.
- Evaluate efficacy of MRI preoperatively on a patient population diagnosed with breast cancer.
- Pathology will be checking breast specimens to be sure margins are marked as this will be a standard of care at Mercy Medical Center.
- Breast Health Navigation Program.

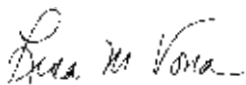
We also conducted the following **Quality Management Studies:**

- Time intervals between abnormal mammogram and the start of adjuvant treatment at Mercy Medical Center.
- Detailed statistical analysis of lung cancer (Annual Report).

As a new initiative in 2007, our cancer program was surveyed by the Commission on Cancer on June 29, 2007. We received a three-year approval with commendation. Our next survey will be in the year 2010.

Also new were the 2007 Multiple Primary and Histology Coding Rules; developed to promote consistent and standardized coding by cancer registrars.

The registrars kept up-to-date with the changes made in 2007 from the American College of Surgeons and the Massachusetts State Registry. They attended state and regional seminars and the NCRA conference in Las Vegas, Nevada.



Lisa Vona, CTR  
Cancer Program Coordinator



Barbara Lamy, RHIT  
Cancer Registrar

# SISTER CARITAS CANCER CENTER

## Statistical Summary of Registry Data

In 2007 Mercy Medical Center Cancer Registry accessioned 1,157 total cases, of which 1,070 cases were diagnosed and/or treated at the facility (analytic cases). This is slightly increased from 2006 when there were 1,075 total cases and 1,001 analytical cases.

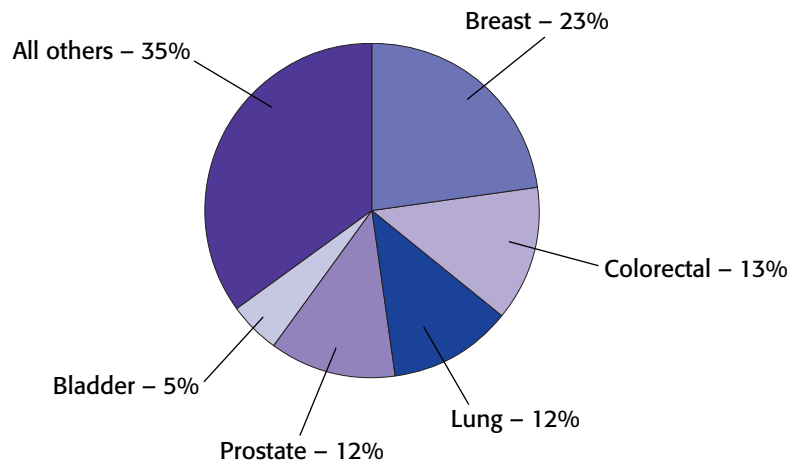
The most common sites were Breast (23%), Colorectal (13%), Lung (12%), Prostate (12%), Bladder (5%) and Others (35%). Females comprised 54.4% and males 45.6% of the cases. In females, the five most common sites were Breast (40.8%), Gastrointestinal (16.7%), Respiratory (12%), Genitourinary (5.4%) and Central Nervous System (5.4%). The remainder of cases were melanoma, lymphoma and others. In males, the five most common sites were Prostate (25.6%), Gastrointestinal (21.6%), Urinary (15.7%), Respiratory (12.9%) and Melanoma (5.5%).

The number of cases and percentages are relatively unchanged from the previous years.



B. Catherine Carton, MD  
Chairperson, Cancer Program

### TOP FIVE SITES



# SISTER CARITAS CANCER CENTER

## *Request Log*

**1/16/07**

*Number of cancer patients treated at Mercy in 2005 and 2006.*

Requested by: Crystal Brown – American Cancer Society

Purpose: Hospital Scan (report)

Completed: 1/16/07

**2/1/07**

*Class of Case for Lung Carcinomas seen between 9/05 and 9/06.*

Requested by: Frank Claudio – Director of Cancer Center

Purpose: Finance

Completed: 2/1/07

**2/26/07**

*Number of patients in 2005 who were treated for brain tumors.*

Requested by: Kamal Kalia, MD – Neurosurgeon

Purpose: Application

Completed: 2/26/07

**2/20/2007**

*Number of primary brain tumors and melanomas diagnosed at Mercy in 2005.*

Requested by: Stefanie Kapusta – Schering Plough Pharmaceuticals

Purpose: Unknown

Completed: 3/1/07

**4/11/07**

*Number of treatments with stereotactic radio-surgery for 2005 to present.*

Number of lung cancers for 2005 to present.

Requested by: George Hemingway

Purpose: Finance

Completed: 4/11/07

**5/14/07**

*Number of cases referred to other hospitals in 2006.*

Requested by: Sharon Adams-Babineau

Purpose: Administrative

Completed: 5/14/07

**5/22/07**

*Prostate and Breast surgeries: Mercy vs. Baystate Medical Center.*

Requested by: Sharon Adams-Babineau

Purpose: Administrative

Completed 5/30/07

**7/3/07**

*Lists of deaths for radiation therapy patients.*

Requested by: Tammy Carlin

Purpose: Radiation Therapy death clearance

Completed: 7/6/07

**10/24/07**

*Lists of deaths for radiation therapy patients.*

Requested by: Tammy Carlin

Purpose: Radiation Therapy death clearance

Completed: 11/1/07

**10/29/07**

*Number of lymphoma cases for 2006 and 2007.*

Requested by: Jeffrey Sussman, MD

Purpose: Pathology

Completed: 10/29/07

# SISTER CARITAS CANCER CENTER

## Best Stage (ICD-O-3)

*Year First Seen This Primary = 2007*

PRIMARY SITE	Class of Case			Sex		Stage Distribution – Analytic Cases Only									
	Cases	A	N/A	M	F	Oth	0	I	II	III	IV	88	UNK	Inv	
<b>Buccal Cavity &amp; Pharynx</b>	<b>20</b>	<b>19</b>	<b>1</b>	<b>16</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Lip	1	1	0	1	0	0	0	1	0	0	0	0	0	0	
Tongue	4	4	0	4	0	0	0	2	1	0	1	0	0	0	
Salivary Glands	3	3	0	1	2	0	0	2	1	0	0	0	0	0	
Floor of Mouth	3	2	1	2	1	0	0	0	0	1	1	0	0	0	
Nasopharynx	1	1	0	1	0	0	0	0	0	0	1	0	0	0	
Tonsil	4	4	0	4	0	0	0	0	0	1	3	0	0	0	
Oropharynx	1	1	0	1	0	0	0	0	0	1	0	0	0	0	
Hypopharynx	3	3	0	2	1	0	0	0	1	0	2	0	0	0	
<b>Digestive System</b>	<b>219</b>	<b>210</b>	<b>9</b>	<b>114</b>	<b>105</b>	<b>0</b>	<b>37</b>	<b>50</b>	<b>26</b>	<b>38</b>	<b>41</b>	<b>8</b>	<b>9</b>	<b>1</b>	
Esophagus	12	11	1	12	0	0	0	1	0	4	3	0	3	0	
Stomach	25	25	0	14	11	0	0	5	4	4	7	4	1	0	
Colon Excluding Rectum	105	104	1	47	58	0	31	29	11	16	14	2	1	0	
Cecum	28	28	0	13	15	0	10	10	1	5	2	0	0	0	
Appendix	2	2	0	1	1	0	0	0	0	0	0	2	0	0	
Ascending Colon	15	15	0	6	9	0	5	1	2	5	2	0	0	0	
Hepatic Flexure	6	6	0	1	5	0	2	2	1	1	0	0	0	0	
Transverse Colon	14	14	0	6	8	0	2	5	2	1	3	0	1	0	
Splenic Flexure	5	5	0	2	3	0	0	2	1	0	2	0	0	0	
Descending Colon	10	10	0	5	5	0	2	3	2	1	2	0	0	0	
Sigmoid Colon	19	19	0	9	10	0	6	6	1	3	3	0	0	0	
Large Intestine, NOS	6	5	1	4	2	0	4	1	0	0	0	0	0	0	
Rectum & Rectosigmoid Junction	33	29	4	21	12	0	5	7	5	9	2	0	0	1	
Rectosigmoid Junction	7	6	1	4	3	0	1	2	0	2	1	0	0	0	
Rectum	26	23	3	17	9	0	4	5	5	7	1	0	0	1	
Anus, Anal Canal & Anorectum	5	4	1	3	2	0	1	0	1	1	0	1	0	0	
Liver & Intrahepatic Bile Duct	6	6	0	3	3	0	0	3	0	2	0	0	1	0	
Liver	6	6	0	3	3	0	0	3	0	2	0	0	1	0	
Gallbladder	6	5	1	2	4	0	0	2	2	0	1	0	0	0	
Other Biliary	5	5	0	1	4	0	0	0	1	1	2	0	1	0	
Pancreas	21	20	1	10	11	0	0	3	2	1	12	0	2	0	
Other Digestive Organs	1	1	0	1	0	0	0	0	0	0	0	1	0	0	
<b>Respiratory System</b>	<b>144</b>	<b>134</b>	<b>10</b>	<b>68</b>	<b>76</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>6</b>	<b>38</b>	<b>50</b>	<b>0</b>	<b>8</b>	<b>1</b>	
Nasal Cavity, Middle Ear & Accessory Sinuses	1	1	0	0	1	0	0	1	0	0	0	0	0	0	
Larynx	2	2	0	1	1	0	0	1	0	0	0	0	1	0	
Lung & Bronchus	141	131	10	67	74	0	0	29	6	38	50	0	7	1	

# SISTER CARITAS CANCER CENTER

## Best Stage (ICD-O-3)

*Year First Seen This Primary = 2007*

PRIMARY SITE	Class of Case			Sex		Stage Distribution – Analytic Cases Only								
	Cases	A	N/A	M	F	Oth	0	I	II	III	IV	88	UNK	Inv
<b>Bones &amp; Joints</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Bones & Joints	1	0	1	0	1	0	0	0	0	0	0	0	0	0
<b>Soft Tissue</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Soft Tissue (including Heart)	3	3	0	2	1	0	0	1	1	1	0	0	0	0
<b>Skin excluding Basal &amp; Squamous</b>	<b>53</b>	<b>52</b>	<b>1</b>	<b>29</b>	<b>24</b>	<b>0</b>	<b>20</b>	<b>20</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>1</b>
Melanoma – Skin	52	51	1	28	24	0	20	20	3	0	4	1	3	0
Other Nonepithelial Skin	1	1	0	1	0	0	0	0	0	0	0	0	0	1
<b>Breast</b>	<b>257</b>	<b>245</b>	<b>12</b>	<b>2</b>	<b>255</b>	<b>0</b>	<b>68</b>	<b>106</b>	<b>49</b>	<b>15</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>0</b>
Breast	257	245	12	2	255	0	68	106	49	15	6	0	1	0
<b>Female Genital System</b>	<b>33</b>	<b>29</b>	<b>4</b>	<b>0</b>	<b>32</b>	<b>1</b>	<b>5</b>	<b>13</b>	<b>1</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>0</b>
Cervix Uteri	8	8	0	0	7	1	4	0	0	2	0	0	2	0
Corpus & Uterus, NOS	15	13	2	0	15	0	0	10	1	1	0	1	0	0
Corpus Uteri	14	12	2	0	14	0	0	10	1	0	0	1	0	0
Uterus Nos	1	1	0	0	1	0	0	0	0	1	0	0	0	0
Ovary	7	5	2	0	7	0	0	1	0	3	1	0	0	0
Vagina	1	1	0	0	1	0	1	0	0	0	0	0	0	0
Vulva	2	2	0	0	2	0	0	2	0	0	0	0	0	0
<b>Male Genital System</b>	<b>147</b>	<b>138</b>	<b>9</b>	<b>147</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>11</b>	<b>119</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>
Prostate	135	127	8	135	0	0	0	2	119	3	3	0	0	0
Testis	9	8	1	9	0	0	0	8	0	0	0	0	0	0
Penis	2	2	0	2	0	0	1	1	0	0	0	0	0	0
Other Male Genital Organs	1	1	0	1	0	0	0	0	0	0	0	1	0	0
<b>Urinary System</b>	<b>117</b>	<b>95</b>	<b>22</b>	<b>83</b>	<b>34</b>	<b>0</b>	<b>32</b>	<b>38</b>	<b>11</b>	<b>4</b>	<b>7</b>	<b>0</b>	<b>3</b>	<b>0</b>
Urinary Bladder	74	53	21	57	17	0	30	11	9	1	1	0	1	0
Kidney & Renal Pelvis	40	39	1	25	15	0	2	25	2	3	5	0	2	0
Ureter	2	2	0	0	2	0	0	2	0	0	0	0	0	0
Other Urinary Organs	1	1	0	1	0	0	0	0	0	0	1	0	0	0
<b>Brain &amp; Other Nervous System</b>	<b>53</b>	<b>48</b>	<b>5</b>	<b>19</b>	<b>34</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>0</b>	<b>4</b>
Brain	19	19	0	11	8	0	0	0	0	0	0	19	0	0
Other Nervous System	1	1	0	1	0	0	0	0	0	0	0	1	0	0
Benign/Borderline Primary	33	28	5	7	26	0	0	0	0	0	0	24	0	4
Intracranial & CNS														
<b>Endocrine System</b>	<b>16</b>	<b>15</b>	<b>1</b>	<b>3</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>
Thyroid	14	13	1	1	13	0	0	11	2	0	0	0	0	0
Other Endocrine (Including Thymus)	2	2	0	2	0	0	0	0	0	0	0	1	0	1

# SISTER CARITAS CANCER CENTER

## Best Stage (ICD-O-3)

Year First Seen This Primary = 2007

PRIMARY SITE	Class of Case			Sex		Stage Distribution – Analytic Cases Only									
	Cases	A	N/A	M	F	Oth	0	I	II	III	IV	88	UNK	Inv	
<b>Lymphomas</b>	<b>44</b>	<b>35</b>	<b>9</b>	<b>22</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>7</b>	<b>6</b>	<b>9</b>	<b>0</b>	<b>3</b>	<b>0</b>	
Hodgkin Lymphoma	8	8	0	5	3	0	0	2	2	3	0	0	1	0	
Hodgkin – Nodal	8	8	0	5	3	0	0	2	2	3	0	0	1	0	
Non-Hodgkin Lymphoma	36	27	9	17	19	0	0	8	5	3	9	0	2	0	
NHL – Nodal	18	11	7	6	12	0	0	1	2	2	6	0	0	0	
NHL – Extranodal	18	16	2	11	7	0	0	7	3	1	3	1	2	0	
<b>Myeloma</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>1</b>	
Multiple Myeloma	6	5	1	3	4	0	0	0	0	0	0	4	0	1	
<b>Leukemias</b>	<b>10</b>	<b>8</b>	<b>2</b>	<b>1</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	
Lymphocytic Leukemia	4	2	2	0	4	0	0	0	0	0	0	2	0	0	
Chronic Lymphocytic Leukemia	3	1	2	0	3	0	0	0	0	0	0	1	0	0	
Other Lymphocytic Leukemia	1	1	0	0	1	0	0	0	0	0	0	1	0	0	
Myeloid & Monocytic Leukemia	5	5	0	1	4	0	0	0	0	0	0	5	0	0	
Acute Myeloid Leukemia	5	5	0	1	4	0	0	0	0	0	0	5	0	0	
Other Leukemia	1	1	0	0	1	0	0	0	0	0	0	1	0	0	
Other Acute Leukemia	1	1	0	0	1	0	0	0	0	0	0	1	0	0	
<b>Mesothelioma</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Mesothelioma	1	1	0	1	0	0	0	0	0	0	1	0	0	0	
<b>Kaposi Sarcoma</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	
Kaposi Sarcoma	1	1	0	1	0	0	0	0	0	0	0	1	0	0	
<b>III – Defined/Unspecified</b>	<b>32</b>	<b>32</b>	<b>0</b>	<b>17</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>4</b>	
III – Defined & Unspecified Sites	32	32	0	17	15	0	0	0	0	0	0	28	0	4	
<b>Total</b>	<b>1157</b>	<b>1070</b>	<b>87</b>	<b>528</b>	<b>629</b>	<b>1</b>	<b>163</b>	<b>296</b>	<b>228</b>	<b>114</b>	<b>130</b>	<b>97</b>	<b>29</b>	<b>13</b>	

### Note:

–This report excludes primary sites with a count of “0”.

– Groups in blue font aggregate to form the category immediately above the first item in the group.

### \*\* Invalid Site Group includes:

1. Any site or histology code not within valid range or site code not found in the primary site table.
2. Cases with unusual primary site/histology codes that have been over-ridden in an edit.
3. Sites with a primary site code of C44\* with histology codes 8000-8110.

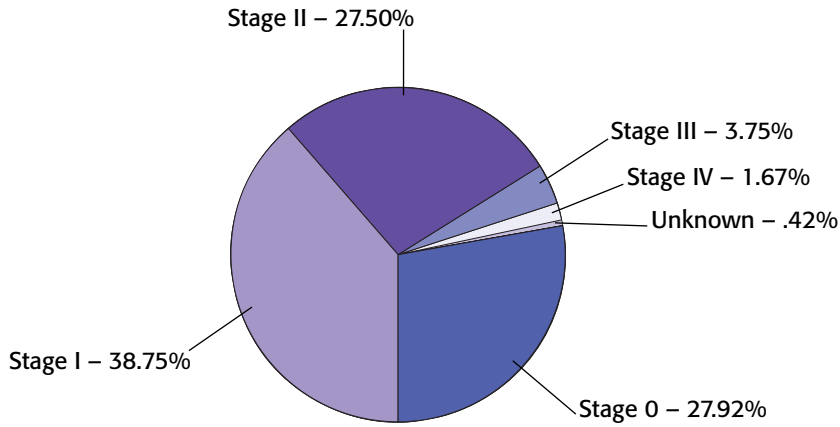
Invalid Site Group does NOT include cases where the behavior code is 0 or 1.

(NAACCR Volume III. Data Analysis and Reporting, Process Standards Chapter III.B.1)

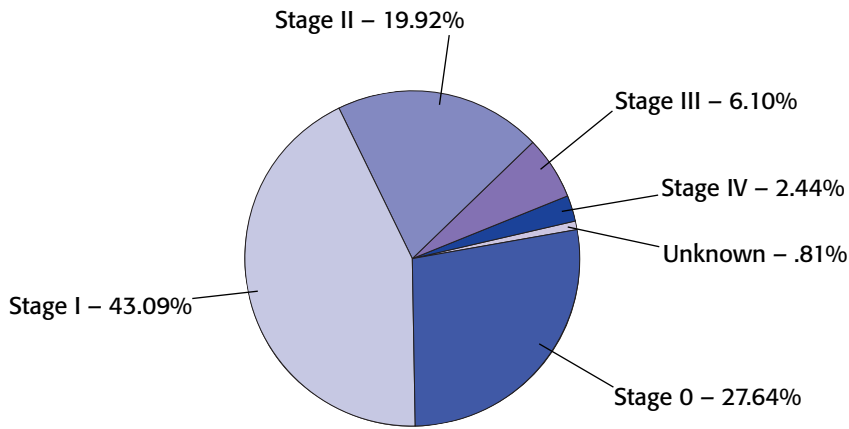


# SISTER CARITAS CANCER CENTER

## Detailed Statistical Analysis of Breast Cancer

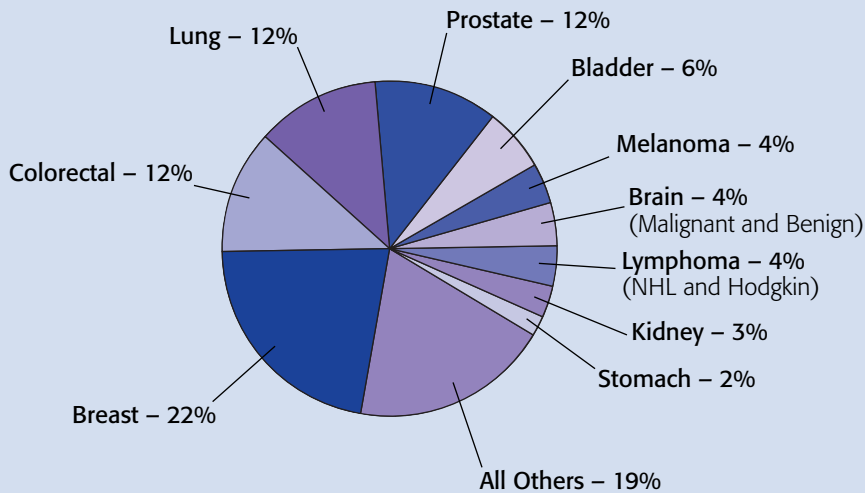


**2002 BREAST CANCER**  
 Stage at Diagnosis  
 Total cases = 240 cases



**2007 BREAST CANCER**  
 Stage at Diagnosis  
 Total cases = 246

## 2007 ANALYTIC/NON-ANALYTIC CASES Case Distribution/Primary Sites



## *Detailed Statistical Analysis of Breast Cancer*

Breast cancer (invasive or in-situ disease) was diagnosed in approximately 240,000 women in 2007. It is the most common cancer in women. Approximately 2,000 cases of breast cancer occurred in males. The incidence of breast cancer in women recently declined by 3.5% in the period of 2001-2004, compared with the previous increases from 1980-2001. The recent decline in incidence is believed to be related to a decrease in mammography screening according to the American Cancer Society Facts and Figures 2007, as well as decreased use of hormone replacement therapy following the publication of the results of the Women's Health Initiative trial in 2002. Mammography screening in women over 40 years decreased from 70% to 66% in 2005, and this may give the appearance of declining incidence, which may actually be underdetection. These facts bring to light the importance of screening mammography for early detection of breast cancer.

Breast cancer may be in-situ or invasive in-situ cancers are confined within the ducts (ductal carcinoma in-situ) or lobules (lobular carcinoma in-situ), and have a very high cure rate with surgery and radiation. Almost 30% of breast cancers detected by mammography are in-situ.

Breast cancer risk increases with age and 95% of new breast cancers are in women over 40 years old, while 97% of deaths occur in women over 40 years old. The median age of breast cancer diagnosis in the US is 61 years. In women over 40 years old, white women have a higher incidence of breast cancer, while less than 40 years, African American women have a higher rate. African American women have a higher mortality from breast cancer at any age. All other ethnic groups have a lower incidence and death rate than African American and white women.

The death rate for breast cancer between 1990-2004 declined 2.2% annually. This decline was mainly in women less than 50 years of age, and has been attributed to improvements in breast cancer treatment and early detection.

Multiple risk factors have been identified for breast cancer, including: female sex, age over 65 years, BRCA-1 or BRCA-2 gene mutation, two or more first degree relatives with breast cancer over 40 years old, personal history of breast cancer, previous atypical ductal hyperplasia and dense breast tissue. These are the factors which confer the highest relative risk, although multiple other risk factors have also been identified including previous radiation to the chest wall, early menarche, late menopause, nulliparous, late first pregnancy, long-term hormone replacement therapy, postmenopausal obesity, excessive alcohol consumption and Jewish heritage.

The life time risk of a woman developing breast cancer is 12.2%. Women with BRCA-1 mutation have a 65% risk of developing breast cancer by the age of 70, and women with BRCA-2 mutation have a 45% risk. Genetic counseling and testing have become much more widespread for women at risk of carrying these mutations. When indicated, bilateral prophylactic mastectomies may be considered and dramatically reduces the risk in women with these mutations.

Breast cancer is detected by clinical exam or screening imaging. The American Cancer Society recommends annual mammography and clinical exam with optional monthly self-examination for all women over 40 years and clinical exams every three years for women age 20-39. In 2007, an expert panel of the American Cancer Society outlined risk groups who may benefit from MRI screening in addition to the above. Women with a known genetic mutation and those with a lifetime risk of over 20% of developing breast cancer would be appropriate for annual MRI screening. This would also be appropriate for women who had chest wall radiation between the ages of 10-30 years, and those with certain inherited syndromes.

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## *Detailed Statistical Analysis of Breast Cancer*

Women with a lifetime risk of 15-20% are advised to discuss the benefits of MRI screening with their clinicians and include women with extremely dense breasts on mammograms or women with a previous history of ductal carcinoma in-situ, lobular carcinoma in-situ, atypical ductal hyperplasia or atypical lobular hyperplasia.

Mammography detects approximately 80-90% of breast cancers. The vast majority of screening mammograms are normal, while 10% may detect abnormalities which require further testing. In Massachusetts the rate of screening mammography was approximately 68% in 2004, compared to a National rate of 58%.

Breast cancer is diagnosed by tissue sampling of the palpable or imaged detected abnormality. This is often done with ultrasound guidance or more recently with MRI if the abnormality is visible only with MRI. Following the diagnosis of breast cancer, most patients will be treated with a combination of surgery, chemotherapy, radiation, hormones or biologic therapy. The indicated course of treatment depends on the stage of cancer, and the treatment plan will be individualized according to the tumor size, involvement and number of lymph nodes, the estrogen/progesterone receptor status, and other biological markers, as well as presence of distant metastatic disease. Details of treatment should be thoroughly discussed with the patient and the treating physicians, including the surgeon, medical oncologists, radiation oncologist and, if indicated, plastic reconstructive surgeon and genetic counselor. Many clinical trials are ongoing in breast cancer treatments, and if indicated, patients may be enrolled in such trials.

In reviewing the registry data at Mercy Medical Center for 2007, there were 246 cases of breast cancer; there was only one case of male breast cancer. This compares to 233 cases in 2002, of which two were in males. The age range for 2007 was from 25-85 years, and for 2002 was 30-85 years. The peak in 2007 was age 50-54 (13.8%) and in 2002 it was 50-59 years (12.5%). In 2007, 23% were younger than age 50 years, while in 2002, 19% were younger than 50 years. In 2007, 92.6% were white, 6.7% African American and 0.8% of other ethnicity. In 2002, the corresponding groups were 93.3%, 6.6% and 0%.

The stage grouping for 2007 was Stage 0 (27.6%), Stage I (43%), Stage II (19.9%), Stage III (6.1%), Stage IV (2.4%) and unknown (0.8%). In 2002 the groups were Stage 0 (27.9%), Stage I (38.7%), Stage II (27.5%), Stage III (3.75%) and Stage IV (1.6%). There is no significant change in stage distribution over the five-year period when considering the relatively small numbers of cases.

Treatment for the entire group of patients consisted of the modalities listed in Table 6. The most common treatment was surgery and radiation in 2002, and surgery, radiation and hormones in 2007. In 2002, 77 women (33%) had either biopsy and/or surgery only, with no adjuvant treatment. In 2007, 54 women (23%) had only biopsy and/or surgery. These relatively high percentages of surgery only groups include women who underwent mastectomies and, therefore, may not have required adjuvant treatment.

The relative survival rates for Mercy Medical Center breast cancer patients from 2002 at 5 years (2007) was as follows: Stage 0 (DCIS) – 100%, Stage I – 100%, Stage II – 95.8%, Stage III – 53.5% and Stage IV – 0%. When compared with the National Cancer Data Base for 2001, the respective survival rates were Stage 0 – 95%, Stage I – 91%, Stage II – 82%, Stage III – 55% and Stage IV – 19%.

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## Breast Cancer 2007 VS 2002

<b>TABLE 1 – CLASS OF CASE</b>		<b>2002</b>		<b>2007</b>	
(0) Diagnosed here, treatment elsewhere		3	1.25%	8	3.32%
(1) Diagnosed here, treatment here		138	57.50%	147	59.76%
(2) Diagnosed elsewhere, treatment here		99	20.33%	91	36.99%
(3) Diagnosed elsewhere, treatment elsewhere		0	.00%	0	.00%
<b>TABLE 2 – RACE</b>		<b>2002</b>		<b>2007</b>	
(1) White		218	93.56%	220	92.44%
(2) Black		15	6.44%	16	6.72%
(99) Other		0	.00%	2	.84%
<b>TABLE 3 – SEX</b>		<b>2002</b>		<b>2007</b>	
(1) Female		231	99.14%	237	99.58%
(1) Male		2	.86%	1	0.42%
<b>TABLE 4 – AGE RANGE + DIAGNOSIS</b>		<b>2002</b>		<b>2007</b>	
25-29		0	.00%	1	.41%
30-34		3	1.25%	1	.41%
35-39		6	2.50%	4	1.63%
40-44		16	6.67%	22	8.94%
45-49		21	8.75%	30	12.20%
50-54		27	11.25%	34	13.82%
55-59		30	12.50%	29	11.79%
60-64		23	9.58%	24	9.76%
65-69		26	10.83%	26	10.57%
70-74		23	9.58%	21	8.54%
75-79		30	12.50%	22	8.94%
80-84		14	5.83%	23	9.35%
85+		21	8.75%	9	3.66%

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## Breast Cancer 2007 VS 2002

<b>TABLE 5 – AJCC STAGE</b>	<b>2002</b>		<b>2007</b>	
Stage 0	67	27.92%	68	27.64%
Stage I	93	38.75%	106	43.09%
Stage II	66	27.50%	49	19.92%
Stage III	9	3.75%	15	6.10%
Stage IV	4	1.67%	6	2.44%
Unknown	1	.42%	2	.81%
<b>TABLE 6 – FIRST COURSE OF TREATMENT SUMMARY</b>	<b>2002</b>		<b>2007</b>	
Biopsy Only	7	2.92%	5	2.03%
Biopsy/Chemo	-----		2	.81%
Bx/Chemo/Palliative	-----		2	.81%
Biopsy/Radiation	-----		1	.41%
Bx/RT/Hormone	2	.83%	-----	
Bx/Surgery	37	15.42%	30	12.20%
Bx/Surgery/Chemo	5	2.08%	7	2.85%
Bx/Surgery/Chemo/Hormone	-----		4	1.63%
Biopsy/Surgery/Hormone	5	2.08%	15	6.10%
Biopsy/Surgery/Radiation	47	19.58%	37	15.04%
Bx/Surgery/RT/Chemo	16	6.67%	15	6.10%
Bx/Surgery/RT/Chemo/Hormone	6	2.50%	20	8.13%
BX/Surgery/RT/Hormone	15	6.25%	44	17.89%
Bx/Surgery/RT/H/Endocrine	-----		1	.41%
Surgery Only	40	16.67%	24	9.76%
Surgery/Chemo	9	3.75%	2	.81%
Surgery/Chemo/Hormone	1	.42%	1	.41%
Surgery/Hormone	1	.42%	12	4.88%
Surgery/Radiation	3	1.25%	8	3.25%
Surgery/Radiation/Chemo	31	12.92%	3	1.22%
Surgery/Radiation/Chemo/Hormone	4	1.67%	2	.81%
Surgery/Radiation/Hormone	2	.83%	11	4.47%
Surgery/RT/Hormone/Endocrine	1	.42%	-----	



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## Glossary

<b>In-Situ</b>	Intraepithelial, noninvasive, noninfiltrating.	<b>Analytic</b>	Class 0: diagnosed at Mercy Medical Center/treated elsewhere. Class 1: diagnosed at Mercy Medical Center. Class 2: diagnosed elsewhere/treated here.
<b>Local</b>	Invasive cancer confined to organ of origin.	<b>Non-analytic</b>	Class 3: diagnosed elsewhere, first course of treatment elsewhere and seen here for further treatment of recurrence. Class 4: diagnosed here prior to reference date (1992). Class 5: diagnosed at autopsy only.
<b>Regional</b>	Neoplasm beyond the organ or origin. (a) by direct extension to adjacent organs/tissues. (b) to regional lymph nodes. (c) both of above; regional by direct extension and lymph nodes.	<b>First Course Treatment</b>	Planned first course of therapy – within four months of initial diagnosis. Includes any therapeutic procedure directed at cancer tissue, whether in a primary or metastatic site. palliative/non-curative treatment (i.e., thoracentesis) is not considered treatment.
<b>Distant</b>	Direct extension or metastasis. Direct continuity to other organs. Discontinuous metastasis. Distant lymph nodes. Determined to be systemic in origin.	<b>AJCC Stage</b>	TNM classification of malignant tumors. (T) local tumor growth (N) spread to regional lymph nodes (M) metastasis
<b>Unknown</b>	Not recorded, insufficient work-up, stage could not be medically determined.		
<b>88</b>	Not applicable.		

## References

### SEER Summary Staging Manual 2004

(Surveillance, Epidemiology and End Results) U.S. Department of Health, Education and Welfare, Public Health Service.

**ICD-0** (International Classification of Disease for Oncology)  
Third Edition, World Health Organization, 2000.

**AJCC Cancer Staging Manual**, Sixth Edition, 2002  
American Joint Committee on Cancer.

**Breast Cancer Facts & Figures 2007**  
American Cancer Society, Atlanta, GA.

**Massachusetts Cancer Registry Abstracting and Coding Manual for Hospitals**,  
Fifth Edition, December 2003  
Division of Health Statistics and Research.

**Precis-Hospital Self-Paced Tutorial**  
IMPAC Medical Systems, Inc.  
Version 5.20.

**COC Approved Cancer Program Standards for 2004-Revised Edition**  
American College of Surgeons.

**Collaborative Staging Manual and Coding Instructions**  
Collaborative Staging Task Force of the American Joint Committee on Cancer  
Version 01.04.00.

**Procedure Manual**  
Cancer Registry – Mercy Medical Center  
Updated/Revised as needed.

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Our mission is to heal. Our passion is to care.

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