

SISTER CARITAS CANCER CENTER



2 0 0 7 A N N U A L R E P O R T

Statistical analysis using 2006 data

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

Mercy
MEDICAL CENTER

YVONNE POLA | SISTER CARITAS CANCER CENTER

It gives me great pleasure to present the Sister Caritas Cancer Center 2007 annual report. I joined the staff in November 2007, coming to Western Massachusetts from a large Midwestern academic hospital. I spent my entire adult life in the Midwest and now return to the east coast where I grew up. The decision to come to the Sister Caritas Cancer Center was easy for me and I am thrilled that the senior leadership of the Sisters of Providence Health System, the Cancer Center staff and physicians saw fit to offer me the Directorship. I join a team of talented and skilled professional staff all of whom have significant experience and vision in cancer service delivery and patient care. My years in academic medicine taught me the strategies and ingenuity involved in developing and applying new technology in the treatment of cancer. With this experience I hope to bring an organizational philosophy and experience to the Sisters of Providence System that will expand the already high quality care provided at the Cancer Center.



In 2007 the Cancer Center continued its successful implementation of intensity modulated radiation therapy. This therapy provides precise delivery of a dose of radiation to the tumor site by sparing healthy tissue and avoiding critical structures. In addition, we continue to perform brachytherapy—the implantation of radioactive seeds for the treatment of prostate cancer. Using the precise setup of image guidance we also treat prostate cancer using external beam therapy and the acculoc system. This system allows us to site the tumor area using implanted non-radioactive seeds that visually “lock” into the accelerator to deliver treatment to the affected area. The Cancer Center continues to provide stereotactic radiosurgery, a specialized treatment for cranial and brain lesions. Finally, the infusion and chemotherapy service remains a strong and integral part of the Cancer Center’s service line.

Our future looks to employing even more precise treatment setups with new technologically advanced techniques as well as administering emerging chemotherapy drugs with proven success in clinical trials. A new technology on the horizon for the Cancer Center is image guidance radiation therapy used in conjunction with external beam radiation. As the Sister Caritas Cancer Center examines the usefulness of image guidance therapy, reviews the varying technological advances, we stay committed to providing these advances to our patients by remaining true to our vision—a commitment to see our patients in a caring, supportive and healing center. I join with our staff in staying true to this commitment.

A handwritten signature in black ink that reads 'Yvonne Pola'.

Yvonne Pola, BA, MS
Director
Sister Caritas Cancer Center

CHAIRPERSON'S REPORT

Mercy Medical Center provides comprehensive diagnosis and management services to patients with cancer in the greater Springfield area. The Sister Caritas Cancer Center provides radiation and chemotherapy infusion services as well as experts in cancer care. A dedicated team including physicians, nurses, therapists, social workers, chaplains and administrative personnel are committed to the Mercy mission for patient care.

The Cancer Committee is a group established under the American College of Surgeons which guides and sets standards for cancer care on a national scale. Our program is accredited by the American College of Surgeons and undergoes a reaccreditation survey every three years to maintain a high standard of care. The Cancer Committee meets quarterly and is composed of professionals integral to the program including physicians, nurses, pharmacists, social workers, chaplains, representatives from the American Cancer Society, risk management, administration and the cancer registry.

The Cancer Committee oversees weekly cancer conferences at which prospective clinical cases are discussed and all relevant medical specialists actively participate. In 2006, 55 conferences were held and 148 cases were discussed including lung, breast, prostate bladder, kidney, brain, GI, and skin malignancies, as well as lymphomas and leukemias. One conference a month is dedicated to breast cancer and separate thoracic conferences are held bimonthly in conjunction with a thoracic medical oncologist from Dana-Farber Cancer Institute. Neuropathology conferences also present CNS malignancies and are held quarterly to discuss prospective cases. The committee also sponsors guest speakers which in 2006 were:

- "Applications of PET/CT Imaging in Oncology"
- "DCIS of Breast: New and Evolving Pathology Concepts"
- "Bone Health in Postmenopausal Women with Early Breast Cancer"
- "Chronic Lymphocytic Leukemia"
- "Clinical Discussions in Non-Small Cell Carcinoma"
- "Liver Directed Therapies"

The Cancer Registry is a vital part of the program and is staffed by Lisa Vona, CTR (Cancer Program Coordinator) and Barbara Lamy, RHIT (Cancer Registrar). They collect data on all cancer patients diagnosed and/or treated at Mercy Medical Center and work with the National Cancer Data Base submitting and recording data. Staging of each case is documented by the registrar and 10% of the analytical cases are randomly reviewed by a physician member as per ACS guidelines.

Quality Improvement and Patient Care Enhancement studies are ongoing in accordance with ACS guidelines. A summary of these studies is included in the Cancer Registrar's Report. The committee also is involved with screening programs. In 2006, screening was conducted for Women's Health including mammograms and PAP smears in May, as well as a dedicated Mammogram Screening Day in October. A prostate screening clinic was held in September.



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

Continued on next page

CHAIRPERSON'S REPORT (CONTINUED)

A Palliative Care Program was established in 2006 under the direction of Shawn Charest, MD and Joanne Schlunk, RN. This covers inpatient and outpatient services for all end-of-life care. Our Spiritual Care Coordinator, Beverly Matakaetis, received a grant from the Lance Armstrong Foundation for \$25,000 and established a volunteer program for end-of-life support entitled "Companions on the Journey."

Community liaison continues with cancer specialists giving public lectures on topics in all aspects of cancer. In November, Mercy Medical Center sponsored a Cancer Expo at the Basketball Hall of Fame with informational booths set up as well as physician specialist on Breast, Lung, Prostate and Brain cancers.

In 2006, a Breast Care Center was opened at Mercy Medical Center with Dr. Steven Schonholz specializing in all aspects of breast cancer surgery. Dr. Schonholz actively participates in studies to advance diagnosis and treatment for breast malignancies. He also serves as the Cancer Committee community liaison physician.

Mercy Medical Center staff continues to be very involved in support of the cancer patients. Mario Taylor of the audio-visual department organized the Third Annual Tennis Tournament in June to raise money for the patient services fund for the Sister Caritas Cancer Center. The staff of the Sister Caritas Cancer Center hosted the Third Annual Cancer Survivor Day in September at the Six Flags picnic grounds. The event included guest speakers, comedians, and the founder of the center, Sr. Mary Caritas. It has become an eagerly awaited annual event which is enjoyed by all and joyfully celebrates those who survived the difficulties in dealing with cancer.

Mercy Medical Center entered several teams in the Annual Relay for Life at Springfield College in May, which raises funds for cancer research.

In November of 2006, Mary Ann Lowen, MD joined the Sister Caritas Cancer Center as a Radiation Oncologist, replacing Alan Stark, MD who retired after 12 years of dedicated service and serving as Medical Director for the department.

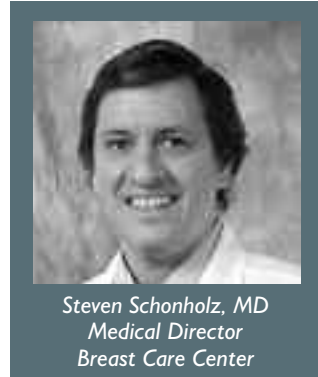


B. Catherine Carton, MD
Chairperson, Cancer Program

BREAST CARE CENTER

The Breast Care Center is a multidisciplinary treatment center that provides women the most complete, accurate and prompt diagnosis and treatment possible. The center offers patients state-of-the-art diagnostic technology and advanced surgical and treatment options in one centralized location.


The Breast Care Center is available to treat women with a variety of symptoms and conditions, including cancer, nipple discharge, cyst, lumps and breast pain. Patients can be scheduled within 24 hours of a problem being identified such as an abnormal mammogram or physical exam. Services at the Breast Care Center are designed to assist a woman from the time of symptoms or abnormal mammogram throughout the entire treatment process.



Our comprehensive services include:

- Consultation with 24 hours
- Digital mammography
- Open MRI with biopsy capability
- Stereotactic biopsies
- Minimally invasive lumpectomy
- Preoperative and postoperative screening for lymphedema
- Genetic evaluation and testing
- Nutritional counseling
- Ultrasound biopsies in the office
- Intact® Procedure
- Specialized breast pathologist with results within 24 to 48 hours
- Clinical trials
- Assistance with all referrals

The Breast Care Center is designed to provide care for multiple concerns while reducing the stress and anxiety of the unknown. We will guide you through the process quickly with professionalism and caring. We will go over all issues in detail and answer all your questions as we work together.



Steven Schonholz, MD
Medical Director
Breast Care Center
at Mercy Medical Center

DEPARTMENT OF MAMMOGRAPHY

Department of Diagnostic Imaging Annual Mammography Report for the Center for Mammography at Mercy Medical Center.

During the period January 1, 2006 to December 31, 2006, 13,126 mammograms were performed at the Center for Mammography. During the same period, 232 needle localizations, 320 stereotactic core biopsies and 11 ductograms were performed. 374 biopsies were recommended on the basis of mammographic findings and 551 patients were advised to return in four or six months for follow up mammography.

Of the 232 needle localizations performed at the Center for Mammography, 131 were positive for malignancy, yielding a positive rate of 59 percent. Of the 320 stereotactic core biopsies performed, 80 were positive for malignancy, yielding a positive rate of 27 percent.

The combined positive rate for all procedures including needle localizations and stereotactic core biopsies is 39 percent. However, many of these procedures were referred from outside institutions.

Based on our own radiologists, there were 374 biopsies recommended. Of these 374 cases, pathology results of 343 cases are available at this time, 9 patients chose to have a follow up mammogram, 9 patients refused any treatment, and results for 13 patients are not currently available for various reasons. Of these results, 82 biopsies were positive for malignancy and 261 were negative, giving a positive rate of 24 percent. Of the 551 patients who were recommended to have a four or six month follow up, to the best of our knowledge, none of them chose to have a biopsy.

Overall, the numbers are well within the acceptable limits and an ongoing analysis of individual physician performance shows no specific trends or areas of concern.



Bernita Spagnoli, MD
Director of
Mammography Program
Center for Mammography

A handwritten signature in cursive script, appearing to read "Bernita Spagnoli, MD".

Bernita Spagnoli, MD
Director of Mammography Program
Center for Mammography at Mercy Medical Center

DIAGNOSTIC IMAGING DEPARTMENT

Mercy Medical Center offers full-service Diagnostic and Interventional Radiology services with state-of-the-art equipment and procedures; providing approximately 150,000 exams per year. A filmless PACS environment gives clinicians 24-hour online access to patient's imaging studies.

Image interpretation and therapeutic interventions are performed by eight board-certified radiologists and nuclear medicine physicians.

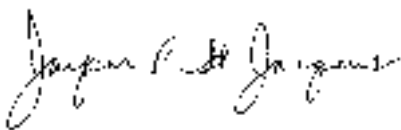
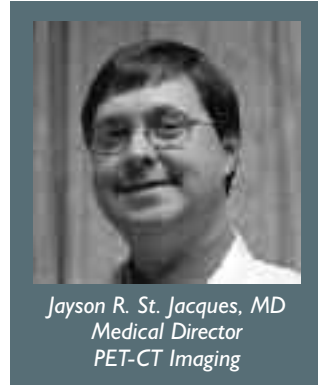
Diagnostic equipment includes a hospital-based fixed PET/CT imaging center for evaluation and staging/restaging cancer, which can also be used to target surgical, chemotherapy, and radiation oncology therapy. On site availability allows easy scheduling of patients, including inpatients, with clinical answers provided within hours instead of days or weeks.

Our 64 channel VCT Cardiac CT Scanner is able to evaluate patients coronary arteries without invasive cardiac catheterization. CT/CTA, MR/MRA, Digital Mammography with CAD (computer aided detection), Breast Stereotactic/Ultrasound/MR guided core biopsy/needle localization, Bone Densitometry, Ultrasound, Nuclear Medicine, Digital Radiography, and Fluoroscopy procedures completes the palette of imaging available.

For imaged based cancer management, the Interventional Radiology Department offers RF ablation of tumors, chemoembolization therapy, image guided diagnostic tissue sampling, vertebroplasty/kyphoplasty and sacroplasty. The Nuclear Medicine Department offers pain management with Quadramet therapy for painful bone metastatic disease and radioimmunotherapy for lymphoma with Bexxar.

Department representation and support is present at all multidisciplinary medical staff conferences including all General, Lung, Breast Cancer Conferences, and Neurosurgery Grand Rounds.

The Diagnostic Imaging Department at Mercy Medical Center strives to provide the best possible patient care with an excellent team devoted to diagnosing, treating, and managing disease.



Jayson R. St. Jacques, MD
Medical Advisor, Mercy Medical Center PET/CT Imaging
Chief, Nuclear Medicine

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 22,000 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 6,000 patients in 2006 with a successful follow-up rate of 92% (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 2006, we conducted the following **Patient Care Enhancements:**

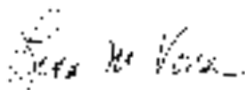
- CT and PET/CT in evaluation of mediastinal LNs in patients with NSCLC.
- Review of breast lumpectomy specimens and how they are marked for orientation purposes.
- Review of patients treated for breast cancer and the evaluation for the BRCA 1, 2 genes.
- Review of educational material for cancer patients seen at the Breast Care Center and Sister Caritas Cancer Center.
- New Breast Care Center
- Install a third digital mammography unit
- Palliative Care Unit
- Percutaneous Excision Trial using Intact BLES
- MRI Study for Breast Cancer

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

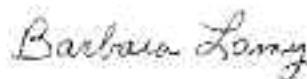
- Correlation of CT and PET with actual tissue diagnosis in the evaluation of mediastinal LN's in patients with non-small cell carcinoma.
- Detailed statistical analysis of colorectal cancer (Annual Report)

New in 2006 – beginning with cases diagnosed January 1, 2006, CoC-approved cancer programs will abstract cases classified as Class of Case 0 (diagnosed at Mercy and first course of treatment elsewhere) but will not be required to perform annual follow-up on these patients or obtain physician AJCC staging in the medical record.

The registrars kept up-to-date with the changes made in 2006 from the American College of Surgeons and the Massachusetts State Registry. They also attended state and regional seminars.



Lisa Vona, CTR
Cancer Program Coordinator



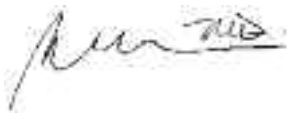
Barbara Lamy, RHIT
Cancer Registrar

STATISTICAL SUMMARY OF REGISTRY DATA

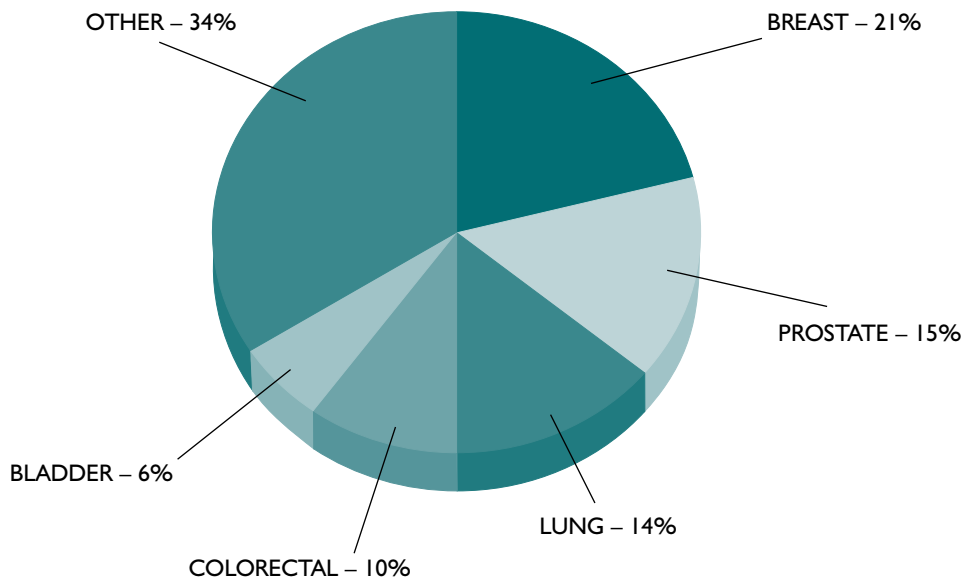
In 2006 the Mercy Medical Center's Cancer Registry accessioned 1075 total cases including 1001 analytic cases (diagnosed and/or treated at Mercy Medical Center). This is slightly decreased from 2005 when there were 1185 total cases, but the same number, 1001 analytic cases. This was comprised of 535 males (49.7%) and 540 females (50.3%). The most common sites were breast cancer—222 cases (20.65%), prostate cancer—158 cases (14.69%), lung cancer—152 cases (14.13%), colorectal cancer—108 cases (10%), bladder cancer—68 cases (6.3%) and lymphomas—46 cases (4.3%).

In males the most common sites were prostate—158 cases (29.5%), lung—73 cases (13.6%), colorectal—58 cases (10.8%) and bladder—43 cases (8%). In females the most common sites were breast—222 cases (41.1%), lung—79 cases (14.6%), colorectal—50 cases (9.2%) and bladder—25 (4.6%).

Prostate cancer cases decreased from 221 in 2005 to 158 in 2006. This is most likely attributable to changes in patterns of referral as opposed to a decrease in incidence. Breast cancer remained stable with 227 in 2005 and 222 in 2006.



B. Catherine Carton, MD
Chairperson, Cancer Program



REQUEST LOG

1/23/06

Number of brain tumors for 2004 and 2005

Requested by: Jeffrey Sussman, MD

Purpose: Pathology

Completed: 1/24/06

2/06

Number of sarcomas in registry database

Requested by: Jeffrey Sussman, MD

Purpose: Pathology

Completed: 2/06

3/29/06

Number of referrals to other hospitals by site and surgeon.

Requested by: Frank Claudio

Purpose: Administrative/Cancer Center

Completed: 3/29/06

7/3/06

List of deaths for radiation therapy patients

Requested by: Tammy Carlin

Purpose: Radiation Therapy death clearance

Completed: 7/6/06

8/4/06

Class of Case Report for 2004 and 2005

Requested by: Frank Claudio

Purpose: Administrative/Cancer Center

Completed: 8/4/06

11/17/06

List of deaths for radiation therapy patients

Requested by: Tammy Carlin

Purpose: Radiation Therapy death clearance

Completed: 11/20/06

11/29/06

Various statistical reports

Requested by: Frank Claudio

Purpose: Radiation Oncology Census 2006

Completed: 12/6/06

12/18/06

Cases for 2006 by Zip Code

Requested by: Andrew Martino –

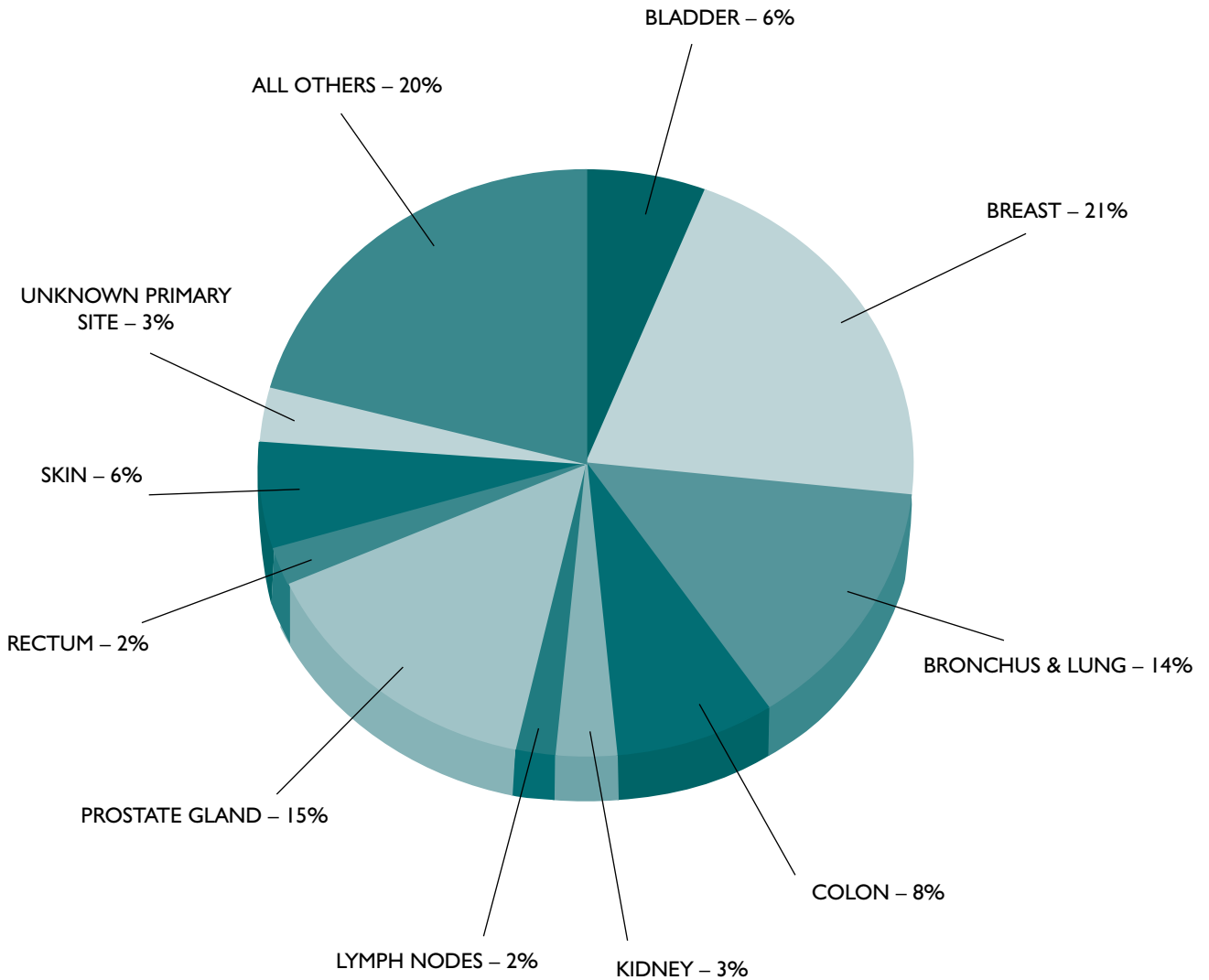
CT/PET (Alliance Imaging)

Purpose: Population Distribution

Completed: 12/20/06

2006 ANALYTIC/NON-ANALYTIC CASES

Case Distribution/Primary Sites



BEST STAGE (ICD-O-3)
2005 Primary Site Table

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	
Buccal Cavity & Pharynx	24	22	2	18	6	0	0	5	5	1	9	1	1	0	
Lip	2	2	0	2	0	0	0	1	1	0	0	0	0	0	
Tongue	9	8	1	6	3	0	0	1	2	0	5	0	0	0	
Salivary Glands	1	1	0	1	0	0	0	0	0	0	1	0	0	0	
Floor of Mouth	2	2	0	2	0	0	0	1	1	0	0	0	0	0	
Gum & Other Mouth	3	2	1	1	2	0	0	1	1	0	0	0	0	0	
Nasopharynx	1	1	0	1	0	0	0	1	0	0	0	0	0	0	
Tonsil	4	4	0	3	1	0	0	0	0	1	2	0	1	0	
Hypopharynx	1	1	0	1	0	0	0	0	0	0	1	0	0	0	
Other Buccal Cavity & Pharynx	1	1	0	1	0	0	0	0	0	0	0	1	0	0	
Digestive System	168	160	8	102	66	0	24	26	27	28	40	4	11	0	
Esophagus	12	12	0	10	2	0	1	1	1	2	5	0	2	0	
Stomach	18	17	1	11	7	0	0	0	4	1	6	2	4	0	
Small Intestine	9	8	1	6	3	0	0	0	0	4	2	2	0	0	
Colon Excluding Rectum	80	75	5	41	39	0	14	18	14	14	12	0	3	0	
Cecum	20	19	1	7	13	0	3	6	4	2	4	0	0	0	
Ascending Colon	18	17	1	9	9	0	2	3	4	6	1	0	1	0	
Transverse Colon	11	9	2	5	6	0	3	0	4	2	0	0	0	0	
Splenic Flexure	1	1	0	1	0	0	0	0	0	0	1	0	0	0	
Descending Colon	6	5	1	4	2	0	2	1	1	0	0	0	1	0	
Sigmoid Colon	23	23	0	14	9	0	4	8	1	4	5	0	1	0	
Large Intestine, NOS	1	1	0	1	0	0	0	0	0	0	1	0	0	0	
Rectum & Rectosigmoid Junction	28	27	1	17	11	0	6	6	4	6	4	0	1	0	
Rectosigmoid Junction	6	6	0	4	2	0	1	0	1	2	2	0	0	0	
Rectum	22	21	1	13	9	0	5	6	3	4	2	0	1	0	
Anus, Anal Canal & Anorectum	1	1	0	1	0	0	1	0	0	0	0	0	0	0	
Liver & Intrahepatic Bile Duct	3	3	0	3	0	0	0	0	0	0	3	0	0	0	
Liver	3	3	0	3	0	0	0	0	0	0	3	0	0	0	
Gallbladder	5	5	0	2	3	0	2	0	2	0	1	0	0	0	
Pancreas	12	12	0	11	1	0	0	1	2	1	7	0	1	0	
Respiratory System	162	150	12	80	82	0	0	42	9	33	59	1	6	0	
Nasal Cavity, Middle Ear & Accessory Sinuses	1	1	0	1	0	0	0	0	0	0	0	1	0	0	
Larynx	8	7	1	6	2	0	0	6	0	1	0	0	0	0	
Lung & Bronchus	152	141	11	73	79	0	0	36	8	32	59	0	6	0	
Trachea, Mediastinum & Other Respiratory Organs	1	1	0	0	1	0	0	0	1	0	0	0	0	0	

BEST STAGE (ICD-O-3)
2006 Primary Site Table

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	
Bones & Joints	1	1	0	1	0	0	0	1	0	0	0	1	0	0	
Bones & Joints	1	1	0	1	0	0	0	0	0	0	0	1	0	0	
Soft Tissue	4	3	1	3	1	0	0	0	1	1	0	0	1	0	
Soft Tissue (including Heart)	4	4	1	3	1	0	0	0	1	1	0	0	1	0	
Skin excluding Basal & Squamous	58	56	2	35	23	0	26	19	8	3	0	0	0	0	
Melanoma – Skin	56	54	2	35	21	0	26	18	7	3	0	0	0	0	
Other Nonepithelial Skin	2	2	0	0	2	0	0	1	1	0	0	0	0	0	
Breast	222	213	9	0	222	0	46	99	56	12	0	1	0	0	
Female Genital System	28	27	1	0	28	0	9	11	2	1	1	1	2	0	
Cervix Uteri	11	11	0	0	11	0	9	0	1	0	0	0	1	0	
Corpus & Uterus, NOS	12	11	1	0	12	0	0	9	1	0	0	1	0	0	
Corpus Uteri	11	10	1	0	11	0	0	9	1	0	0	0	0	0	
Uterus Nos	1	1	0	0	1	0	0	0	0	0	0	1	0	0	
Ovary	5	5	0	0	5	0	0	2	0	1	1	0	1	0	
Male Genital System	167	147	20	167	0	0	1	4	131	2	5	0	4	0	
Prostate	158	139	19	158	0	0	0	1	131	2	4	0	1	0	
Testis	7	6	1	7	0	0	0	3	0	0	0	0	3	0	
Penis	2	2	0	2	0	0	1	0	0	0	1	0	0	0	
Urinary System	111	100	11	70	41	0	32	34	10	11	12	0	1	0	
Urinary Bladder	68	62	6	43	25	0	26	18	9	4	5	0	1	0	
Kidney & Renal Pelvis	39	34	5	24	15	0	3	15	1	7	7	0	1	0	
Ureter	3	3	0	2	1	0	2	1	0	0	0	0	0	0	
Other Urinary Organs	1	1	0	1	0	0	1	0	0	0	0	0	0	0	
Brain & Other Nervous System	24	22	2	7	17	0	0	0	0	0	0	19	0	3	
Brain	9	8	1	1	8	0	0	0	0	0	0	5	0	3	
Benign/Borderline Primary	15	14	1	6	9	0	0	0	0	0	0	14	0	0	
Intracranial & CNS															
Endocrine System	16	16	0	6	10	0	0	5	0	0	4	5	0	2	
Thyroid	9	9	0	3	6	0	0	5	0	0	4	0	0	0	
Other Endocrine (Including Thymus)	7	7	0	3	4	0	0	0	0	0	0	5	0	2	

BEST STAGE (ICD-O-3)
2004 Primary Site Table

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	
Lymphomas	46	43	3	22	24	0	0	8	9	7	13	1	4	1	
Hodgkin Lymphoma	4	4	0	4	0	0	0	1	1	1	1	0	0	1	
Hodgkin – Nodal	4	4	0	4	0	0	0	1	1	1	1	0	0	1	
Non-Hodgkin Lymphoma	42	39	3	18	24	0	0	7	8	6	12	1	4	1	
NHL – Nodal	20	18	2	11	9	0	0	4	2	5	6	0	1	0	
NHL – Extranodal	22	21	1	7	15	0	0	3	6	1	6	1	3	1	
Myeloma	5	3	2	3	2	0	0	0	0	0	0	3	0	0	
Multiple Myeloma	5	3	2	3	2	0	0	0	0	0	0	3	0	0	
Leukemias	5	4	1	2	3	0	0	0	0	0	0	4	0	0	
Lymphocytic Leukemia	3	2	1	2	1	0	0	0	0	0	0	2	0	0	
Chronic Lymphocytic Leukemia	3	2	1	2	1	0	0	0	0	0	0	2	0	0	
Myeloid & Monocytic Leukemia	2	2	0	0	2	0	0	0	0	0	0	2	0	0	
Acute Myeloid Leukemia	1	1	0	0	1	0	0	0	0	0	0	1	0	0	
Chronic Myeloid Leukemia	1	1	0	0	1	0	0	0	0	0	0	1	0	0	
Mesothelioma	3	3	0	3	0	0	0	1	0	1	0	1	0	0	
Mesothelioma	3	3	0	3	0	0	0	1	0	1	0	1	0	0	
III – Defined/Unspecified	30	30	0	15	15	0	0	0	0	0	0	25	0	5	
III – Defined & Unspecified Sites	30	30	0	15	15	0	0	0	0	0	0	25	0	5	
Invalid	1	1	0	1	0	0	1	0	0	0	0	0	0	0	
**Invalid Sites	1	1	0	1	0	0	1	0	0	0	0	0	0	0	
Total	1075	1001	74	535	540	0	139	253	259	99	144	65	31	11	

Note:

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

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

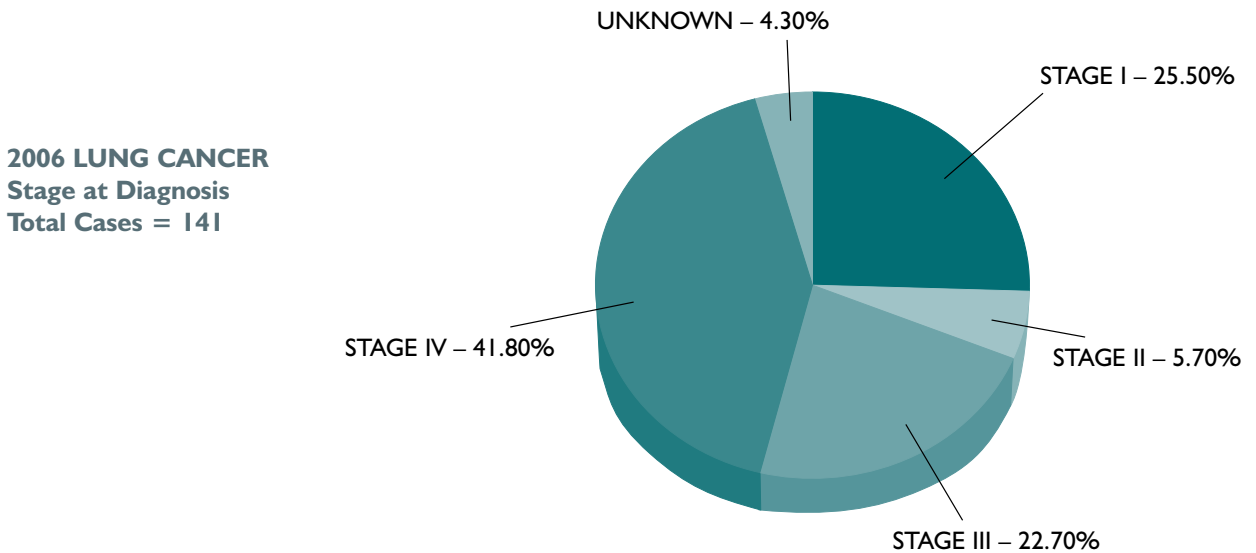
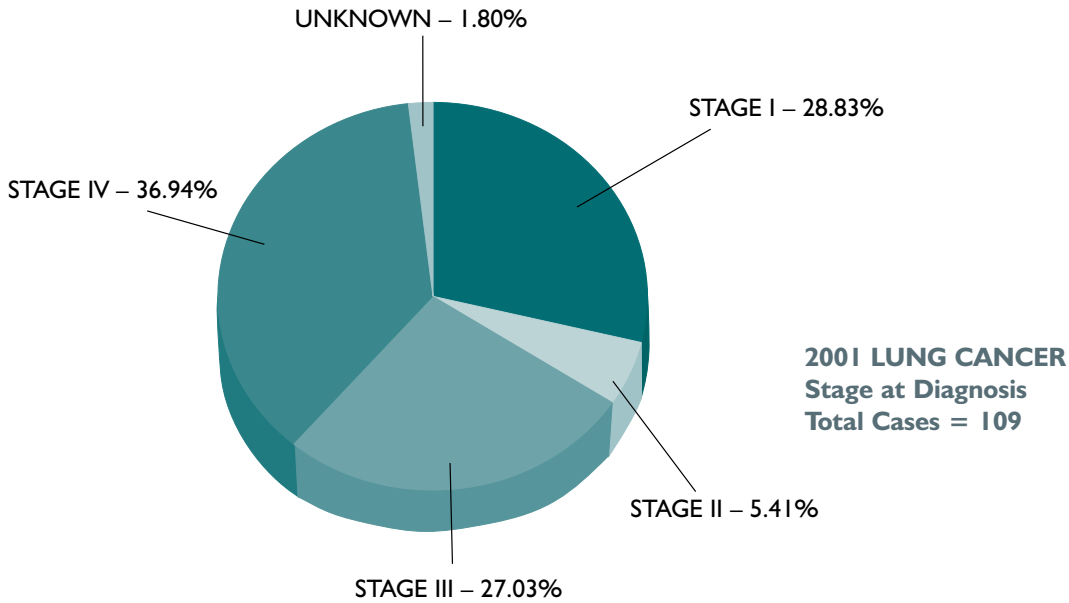
** Invalid Site Group includes:

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)

DETAILED STATISTICAL ANALYSIS OF LUNG CANCER



Lung cancer is the most preventable cancer yet continues to be one of the most common cancers in the United States and the leading cause of cancer related death, far surpassing all other causes of cancer related deaths.

In 2006 there were an estimated 162,460 deaths from lung cancer (American Cancer Society Facts and Figures 2006), accounting for 29% of all cancer deaths. The estimated number of cases of lung cancer was 174,470, giving a mortality rate of approximately 93%.

DETAILED STATISTICAL ANALYSIS OF LUNG CANCER (CONTINUED)

The incidence of lung cancer in men is 78 per 100,000 and has been decreasing from a high of 102 per 100,000 in 1984. This remains second only to the incidence of prostate cancer. In women the incidence of lung cancer had increased steadily to a peak of 54 per 100,000 in 1998, where it remains. These indices reflect the trends in male and female cigarette smoking.

In men the death rate from lung cancer declined steadily from 1991 to 2002 by approximately 1.9% per year. Death rates in women have plateaued in the last several years after a steady increase for several decades. The death rate from lung cancer continues to far surpass all other death rates in both men and women. These rates correlate directly with cigarette smoking trends.

Cigarette smoking is the major risk factor for developing lung cancer. Other minor risk factors include asbestos exposure, radon, second hand smoke, certain metal exposures, some organic chemicals and radiation exposure. Genetic susceptibility plays a role, especially in those who develop lung cancer at an early age. Lung cancer may be completely asymptomatic and discovered incidentally on a chest x-ray or chest CT scan, but the majority of patients present with respiratory or systemic symptoms. These include persistent cough, non-resolving pneumonia, coughing up blood, chest pain, hoarseness, fatigue, shortness of breath or weight loss.

After detection of a suspicious mass on a chest x-ray or CT scan, a biopsy must be taken to determine if it is cancer and what specific type of cancer. The biopsy may be done at the time of a bronchoscopy procedure or under the guidance of a CT scan using a needle placed through the skin.

Lung cancer is categorized into two major groups, small cell lung cancer and non-small cell lung cancer. Non-small cell cancer is comprised of two major types, squamous cell carcinoma and adenocarcinoma. After the diagnosis has been established, the stage of the disease must be determined prior to initiating appropriate treatment. Staging and work-up investigations include a complete history of the patient and a physical examination as well as blood work, complete CT scans of the chest, abdomen and pelvis, and often of the head. In recent years, PET (Positron Emission Tomography) has been used in lung cancer staging, as it may detect disease not identified on other staging studies.

Lung cancer is divided into four stages, I-IV, as determined by the size and extent of the lung lesion, the spread to lymph nodes and the spread of disease beyond the chest to distant organs, usually bones, liver and brain.

In non-small cell lung cancer, in Stage I or Stage II with only a solitary lung lesion or minimal lymph node involvement, surgery is usually indicated to remove the lesion and lymph nodes if the patient is medically able to tolerate the surgical procedure. If the lesion is more extensive or if multiple lymph nodes are involved, Stage III, radiation and chemotherapy are indicated to treat the disease and surgery may then be recommended if the disease has regressed with the radiation and chemotherapy. If the disease has spread beyond the chest, Stage IV, then chemotherapy is the main treatment.

Small cell lung cancer is staged as limited or extensive stage. This is determined if the extent of the disease in the chest can be encompassed in a radiation field to treat all the disease without compromising lung function. In limited stage disease, radiation and chemotherapy are used, in extensive stage disease chemotherapy alone is used, and may be followed by radiation therapy. Surgery is not usually indicated in treatment of small cell lung cancer.

DETAILED STATISTICAL ANALYSIS OF LUNG CANCER (CONTINUED)

Multiple chemotherapeutic drugs have been used for treatment in lung cancer and newer biologic 'targeted' therapies are showing great promise, and are becoming more widely used. In spite of aggressive surgery, chemotherapy and radiation therapy, the overall survival rate at 5 years for patients with lung cancer is 15%. For those detected with Stage I disease the 5 year survival is 50%. The one year overall survival has increased from 37% in 1975 to 42% in 2001 for all patients with lung cancer.

In 2006, 136 cases of lung cancer were diagnosed or treated at Mercy Medical Center. This date was compared with the 2001 registry data which showed that 111 cases were accessioned. The breakdown of stage at presentation was as follows: in 2001 – Stage I (28%), Stage II (5.4%), Stage III (27%), Stage IV (36.9%), and Unknown (1.8%) and in 2006 – Stage I (25.5%), Stage II (5.6%), Stage III (22.7%), Stage IV (41.8%), and Unknown (4.2%). The slightly higher percentage of Stage IV patients in 2006 may be a result of more extensive staging procedures with the wider use of PET scans.

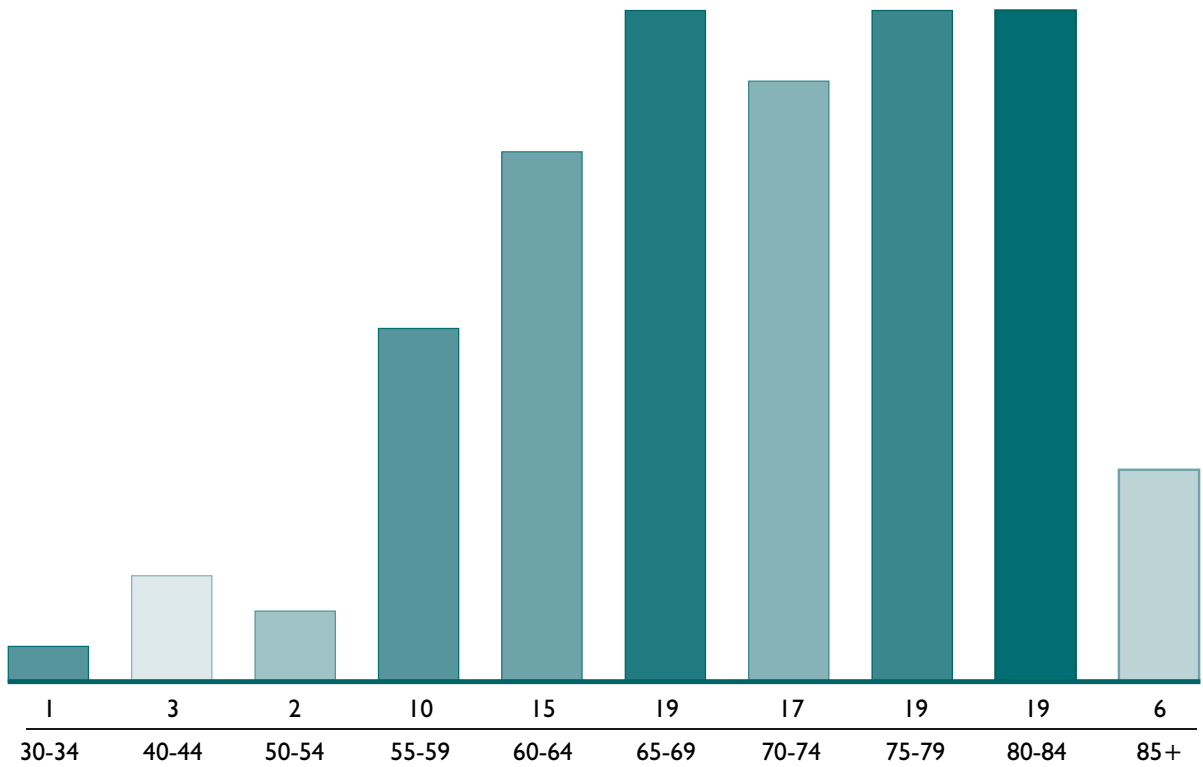
The patients diagnosed with lung cancer in 2001 were 48.6% female and 51.3% male. In 2006, 51.7% were female and 48.2% were male. This is consistent with national trends of more females developing lung cancer, paralleling cigarette smoking trends. In 2001, 94.6% were Caucasian and 4.5% were Black. In 2006, 92.2% were Caucasian and 7% were Black. The age at time of diagnosis in 2001 ranged from 30-85+ years and in 2006, from 35-85+ years.

The registry collects data on the smoking history of patients. In 2001, 85% of the patients were current or former smokers, and in 2006, 91% were current or former smokers. Registry data records the treatment for all patients diagnosed or treated at Mercy Medical Center and reflects that most patients were treated with a combination of surgery, chemotherapy, and radiation, following the initial biopsy. There were only minor differences in the percentage of patients undergoing each type of treatment comparing 2001 and 2006. In 2001, 14.4% of patients underwent biopsy, radiation and chemotherapy, while in 2006, this was 19.1%. In 2001, 9.9% of patients underwent radiation not preceded by a biopsy, this dropped to 3.5% in 2006. This may be a result of more accurate and safe biopsy procedures.

While the incidence and death rate from lung cancer is declining, it continues to be a major cause of morbidity and mortality. It remains the number one cause of cancer death in the United States and the only common cancer for which the main causative agent, cigarette smoking has been identified. The incidence and deaths from lung cancer could be dramatically reduced if cigarette smoking ceased.

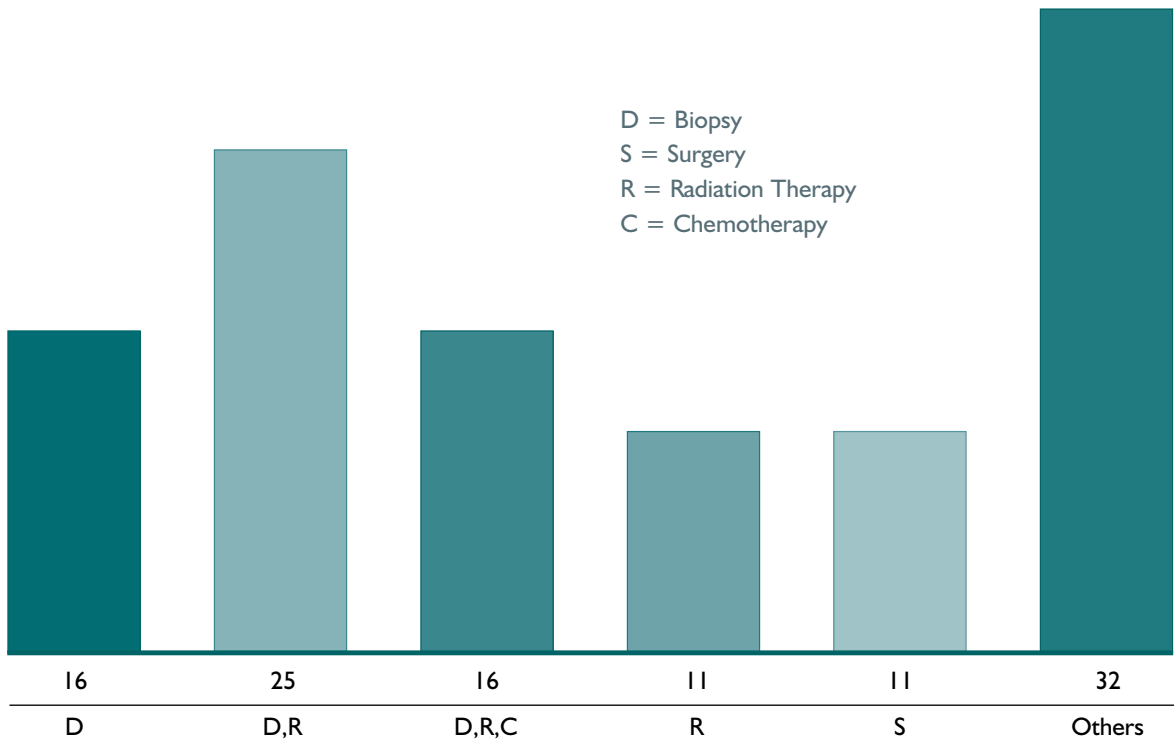
2001 LUNG CANCER CASES

Total Cases = 111
Age at Diagnosis



2001 LUNG CANCER CASES

First Course of Treatment
(All Stages)



LUNG CANCER 2001 VS. 2006

In-depth Site Study—5 Year Survival

TABLE 1 – CLASS OF CASE	2001		2006	
(0) Diagnosed here, Treatment elsewhere	4	3.25%	2	1.32%
(1) Diagnosed here, Treatment here	82	66.67%	105	69.08%
(2) Diagnosed elsewhere, Treatment here	25	20.33%	34	22.37%
(3) Diagnosed elsewhere, Treatment elsewhere	11	8.94%	11	7.24%
(6) Diagnosed in MD office no Treatment here	1	.81%	0	.00%
TABLE 2 – RACE	2001		2006	
(1) White	105	94.59%	130	92.20%
(2) Black	5	4.50%	10	7.09%
(2) Vietnamese	1	.90%	1	.71%
TABLE 3 – SEX	2001		2006	
(1) Female	54	48.65%	73	51.77%
(1) Male	57	51.35%	68	48.23%
TABLE 4 – AGE RANGE + DIAGNOSIS	2001		2006	
30-34	1	.90%	0	.00%
35-39	0	.00%	1	.71%
40-44	3	2.70%	0	.00%
45-49	0	.00%	7	4.96%
50-54	2	1.80%	6	4.26%
55-59	10	9.01%	13	9.22%
60-64	15	13.51%	20	14.18%
65-69	19	17.12%	15	10.64%
70-74	17	15.32%	24	17.02%
75-79	19	17.12%	23	16.31%
80-84	19	17.12%	24	17.02%
85+	6	5.41%	8	5.67%

1999 BREAST CANCER CASES

In-depth Site Study—5 Year Survival

TABLE 5 – AJCC STAGE				
	2001		2006	
Stage I	32	28.83%	36	25.53%
Stage II	6	5.41%	8	5.67%
Stage III	30	27.03%	32	22.70%
Stage IV	41	36.94%	59	41.84%
Unknown	2	1.80%	6	4.26%
TABLE 6 – FIRST COURSE OF TREATMENT SUMMARY				
	2001		2006	
Chemo Only	2	1.80%	2	1.42%
Biopsy Only	16	14.41%	23	16.31%
Bx/Chemo	8	7.21%	10	7.09%
Bx/Radiation	25	22.52%	36	25.53%
Bx/Radiation/Chemo	16	14.41%	27	19.15%
Bx/Surgery	8	7.21%	12	8.51%
Bx/Surgery/Chemo	0	0.00%	2	1.42%
Bx/Surgery/Radiation	1	0.90%	1	.71%
Bx/Surgery/RT/Chemo	1	0.90%	4	2.84%
Radiation Only	11	9.91%	5	3.55%
Radiation/Chemo	6	5.41%	1	.71%
Surgery Only	11	9.91%	14	9.93%
Surgery/Chemo	1	0.90%	1	.71%
Surgery/RT/Chemo	1	0.90%	1	.71%
Radiographic Only	4	3.60%	2	1.42%

GLOSSARY

In-Situ	Intraepithelial, noninvasive, noninfiltrating.
Local	Invasive cancer confined to organ of origin.
Regional	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.
Distant	Direct extension or metastasis. Direct continuity to other organs. Discontinuous metastasis. Distant lymph nodes. Determined to be systemic in origin.
Unknown	Not recorded, insufficient work-up, stage could not be medically determined.
88	Not applicable
Analytic	Class 0: diagnosed at Mercy Medical Center/treated elsewhere. Class 1: diagnosed at Mercy Medical Center. Class 2: diagnosed elsewhere/treated here.
Non-analytic	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.
First Course Treatment	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.
AJCC Stage	TNM classification of malignant tumors: (T) local tumor growth; (N) spread to regional lymph nodes; (M) metastasis.

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.

Cancer Facts & Figures—2006

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 3.20

CoC Approved Cancer Program Standards for 2004

American College of Surgeons

Collaborative Staging Manual and Coding Instructions

Collaborative Staging Task Force of the American
Version 01.03.00

Procedure Manual

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

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Sister Caritas Cancer Center

2007
ANNUAL REPORT



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

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