2017 Cancer Program

Annual Report

The Institute for Cancer Care AT MERCY

Where Hope Begins

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Message from the Chairman and Cancer Liaison

More than 14 years ago, the Mercy Cancer Program received approval from the American College of Surgeons and Commission on Cancer as a Comprehensive Community Cancer Program.

The Institute for Cancer Care at Mercy (ICC) is a highly respected cancer program with a celebrated reputation for delivering university-quality care in a community-teaching hospital setting. In keeping with the mission of The Sisters of Mercy to provide high quality health care, our comprehensive cancer program provides advanced diagnosis and leading edge treatment. A multidisciplinary team of highly skilled oncology specialists, certified oncology nurses, practitioners and physician assistants, chemotherapy staff, dietitians and others comprise Mercy's cancer team. The ICC has access to the latest technology, leading edge clinical trials and research, support services and educational resources.

Mercy is one of only three Maryland hospitals that serves as a principal teaching location for both residents and medical students. As a community teaching hospital, Mercy offers patients highly specialized care in breast cancer, gynecologic cancer, gastrointestinal/digestive tract, head and neck cancer, lung cancer, merkel cell, neuroendocrine tumors (NET), pancreatic cancer, peritoneal malignancy/abdominal cancer, skin cancer and melanoma, thyroid and prostate cancer. Mercy is at the forefront of treatment for complex medical conditions and in the development and implementation of new medical procedures and technologies.

Mercy is home to renowned national and international cancer experts, the Cancer Doctors of Mercy, who lead our Centers of Excellence. As experts and teachers in their respective fields, our doctors have helped our cancer program evolve into one of the region's premiere cancer healthcare providers. As a teaching hospital, our physician experts have trained doctors from across the globe in the latest surgical techniques.

Mercy's cancer program has received national and local recognitions, including Full Accreditation from the American College of Surgeons (ACS) and Commission on Cancer (CoC). This prestigious seal of approval for cancer programs formally acknowledges Mercy's commitment to providing high-quality cancer care to our community. Other awards include:

- Joint Commission Core Certification – Uterine – Ovarian Cancer. Mercy is the first hospital in Maryland to achieve Uterine and Ovarian Cancer certification, and is only one of five institutions nationwide to be received this honor.
- National Accreditation Program for Breast Centers – The ACS designated The Hoffberger Breast Center at Mercy an accredited breast center which works to provide the most efficient and contemporary breast care using scientific evidence about what works best for patients.

- American College of Radiology (ACR) – Breast Imaging Center of Excellence – awarded to The Tyanna O'Brien Center at Mercy for achieving excellence by seeking and earning accreditation in all of ACR's voluntary breast-imaging accreditation programs and modules.
- A Best Hospital by *U.S. News & World Report* and a "high performing" hospital in Colon Cancer Surgery.
- 15 Cancer Doctors – "*Top Doc"* Awards recognized by *Baltimore* magazine
- 3 Cancer Doctors – *Castle Connolly Medical Ltd. - Top Docs* 2017
- Welcomed six new doctors – Kieran Brune, M.D., Lung Center, Aditya Halthore, M.D., Radiation Oncology, Behnaz Goudarzi, M.D., Falguni Patel, D.O., and Amy Vogia, D.O., Women's Imaging, and Vinod Varki, M.D., Medical Oncology
- Expanded Infusion Services to our community site, Mercy Personal Physicians at Glen Burnie
- Annual National Cancer Survivors Day - celebrated our cancer survivors, caregivers and families
- Provided financial assistance in the amount of $2,000 for patients groceries

Recruiting the best cancer experts, providing innovative medicine and on-site patient services, offering comprehensive, compassionate and a full continuum of care, and teaching other physicians worldwide – it's what makes Mercy special and draws patients from across the country and the world for their cancer care.

We are pleased to present the 2017 Cancer Program Annual Report for The Institute for Cancer Care at Mercy. This report outlines the resources and services available, while reviewing and evaluating our 2017 patient care statistics benchmarked against state and national data.

Sincerely,

David Riseberg, M.D.
Chairman, Cancer Committee

Armando Sardi, M.D.
Cancer Physician Liaison, American College of Surgeons and Commission on Cancer

Cancer Registry Report

The principal role of the Cancer Registry is to collect information on the occurrence of cancer in both inpatients and outpatients. The data collected consists of patient demographics, primary cancer sites, tumor histology, cancer stage and diagnosis and treatment, etc. The information is then stored in a database that is reported to the State of Maryland's Cancer Registry database quarterly. The cancer registry data is reported annually to the National Cancer Database in Chicago. This reporting relationship allows Mercy to compare its data among other cancer facilities both locally and nationally.

Our certified cancer registrars follow the standards of the American College of Surgeons Commission on Cancer and the Maryland Cancer Registry. The registry collects and analyzes data - demographics, family history, risk factors, diagnostic procedures, cancer site and histology, tumor markers, prognostic indicators, staging, treatment, follow-up and survival information for each patient. The information collected is used for research, quality improvement and planning, as well as to coordinate Mercy's Cancer Conferences and Cancer Committee meetings.

An essential part of the cancer registrars' job involves life-time follow-up on all Cancer Registry patients. We are required to maintain an 80% follow up rate for all patients entered into the Cancer Registry from our reference date of 2003 forward and a 90% follow-up rate for the most recent 5-year period. We follow these patients for the remainder of their lives so that any recurrence information is captured and subsequent treatment received can be added to the patients' abstract in the Cancer Registry database.

In 2017, Mercy's follow up rates were above the Commission on Cancer requirement follow-up rate of 89.90% with 11,260 patients under active follow-up. For the most current five-year period, Mercy's follow-up was 94.61 % with 6,504 patients under active follow-up. An estimated 1,700 new cases are added to the Cancer Registry database yearly.

The Cancer Registry at Mercy plays a vital role in helping our patients look to the future with hope.

Cancer Conferences

Cancer Conferences at The Institute for Cancer Care at Mercy are a key element of the CoC accredited program. Conferences are held on a weekly basis with a multidisciplinary team of medical and radiation oncologists, surgeons, pathologists, diagnostic radiologists, nurses, clinical nurse and patient navigators, genetic counselors and non-clinical staff.

At the conference a summary of patient cases along with pathology slides and imaging studies are reviewed. The discussion involves creating care plans tailored to each individual's health risk factors and personal needs. Factors involved in developing the care plans involve a discussion of staging, treatment options, surgeries, diagnostic tests, clinical trials, evidenced bases guidelines and survival outcomes.

In 2017, a total of 762 cases were presented offering opportunities for discussions of a variety of treatment options. The following cancer cases were presented.

2017 Cancer Cases

Cancer Site	***Number of Cases***
Adrenal Gland	1
Ampulla	1
Angiosarcoma	4
Anus	2
Appendix	11
Bladder	1
Breast	484
Colon	39
Cervix	1
Esophagus	5
Fallopian Tube	1
Gallbladder	1
Intraheaptic Bile Duct	2
Kaposi Sarcoma	1
Kidney	2

2017 Cancer Cases *(continued)*

Larynx	1
Leiomysarcoma	3
Liposarcoma	4
Liver	3
Lung	10
Lymphoma	6
Melanoma	16
Merkel Cell	3
Multiple Myeloma	1
Myxofibrosarcoma	2
NET Appendix	3
NET Lung	2
NET Pancreas	8
NET Small Intestines	11
NET Stomach	5
NET NOS	15
Ovary	13
Pancreas	17
Peritoneal Mesothelioma	3
Peritoneum	10
Prostate	3
Rectum	19
Sarcoma	3
Small intestine	1
Stomach	12
Thyroid	28
Unknown Primary	2
Uterus	1
Vagina	1
Vulva	1
Total	**762**

Primary Site Table 2017 Cancer Cases

(Summary By Body System, Sex, Class and Best CS/AJCC Stage Report)

Primary Site	*Total (%)*	*Male*	*Female*	*Analytic*	*Non Analytic*	*Stage 0*	*Stage I*	*Stage II*	*Stage III*	*Stage 4*
ORAL CAVITY & PHARYNX	***18 (0.8%)***	***14***	***4***	***11***	***7***	***0***	***2***	***1***	***1***	***7***
Tongue	*8 (0.3%)*	*7*	*1*	*6*	*2*	*0*	*1*	*1*	*1*	*3*
Salivary Glands	*1 (0.0%)*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*
Floor of Mouth	*2 (0.1%)*	*1*	*1*	*2*	*0*	*0*	*0*	*0*	*0*	*2*
Gum & Other Mouth	*1 (0.0%)*	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*1*
Tonsil	*4 (0.2%)*	*4*	*0*	*1*	*3*	*0*	*1*	*0*	*0*	*0*
Hypopharynx	*1 (0.0%)*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*1*
Other Oral Cavity & Pharynx	*1 (0.0%)*	*1*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*
DIGESTIVE SYSTEM	***381 (16.3%)***	***185***	***196***	***283***	***98***	***7***	***52***	***58***	***36***	***70***
Esophagus	*11 (0.5%)*	*8*	*3*	*10*	*1*	*1*	*2*	*2*	*1*	*3*
Stomach	*30 (1.3%)*	*12*	*18*	*23*	*7*	*1*	*4*	*3*	*3*	*7*
Small Intestine	*28 (1.2%)*	*14*	*14*	*20*	*8*	*0*	*3*	*3*	*2*	*2*
Colon Excluding Rectum	*131 (5.6%)*	*61*	*70*	*95*	*36*	*4*	*23*	*17*	*14*	*30*
Cecum	*20*	*8*	*12*	*18*	*2*	*1*	*6*	*5*	*1*	*5*
Appendix	*27*	*11*	*16*	*11*	*16*	*0*	*0*	*3*	*0*	*4*
Ascending Colon	*17*	*9*	*8*	*17*	*0*	*0*	*7*	*1*	*2*	*6*
Hepatic Flexure	*3*	*2*	*1*	*1*	*2*	*0*	*1*	*0*	*0*	*0*
Transverse Colon	*11*	*5*	*6*	*8*	*3*	*0*	*1*	*2*	*2*	*2*
Splenic Flexure	*3*	*2*	*1*	*1*	*2*	*0*	*1*	*0*	*0*	*0*
Descending Colon	*8*	*5*	*3*	*6*	*2*	*1*	*2*	*1*	*1*	*1*
Sigmoid Colon	*32*	*14*	*18*	*28*	*4*	*1*	*5*	*5*	*7*	*9*
Large Intestine, NOS	*10*	*5*	*5*	*5*	*5*	*1*	*0*	*0*	*1*	*3*
Rectum & Rectosigmoid	*41 (1.8%)*	*26*	*15*	*32*	*9*	*1*	*3*	*6*	*9*	*8*
Rectosigmoid Junction	*11*	*5*	*6*	*7*	*4*	*0*	*0*	*2*	*1*	*3*
Rectum	*30*	*21*	*9*	*25*	*5*	*1*	*3*	*4*	*8*	*5*
Anus, Anal Canal & Anorectum	*9 (0.4%)*	*3*	*6*	*7*	*2*	*0*	*2*	*4*	*0*	*0*
Liver & Intrahepatic Bile Duct	*52 (2.2%)*	*34*	*18*	*36*	*16*	*0*	*10*	*11*	*3*	*5*

Primary Site	Total (%)	Male	Female	Analytic	Non Analytic	Stage 0	Stage I	Stage II	Stage III	Stage 4
Liver	48	32	16	32	16	0	10	8	3	4
Intrahepatic Bile Duct	4	2	2	4	0	0	0	3	0	1
Gall Bladder	2 (0.1%)	0	2	2	0	0	0	1	0	1
Other Biliary	10 (0.4%)	4	6	8	2	0	0	1	0	3
Pancreas	47 (2.0%)	17	30	35	12	0	4	9	4	10
Retroperitoneum	5 (0.2%)	2	3	3	2	0	1	1	0	1
Peritoneum, Omentum & Mese	12 (0.5%)	2	10	9	3	0	0	0	0	0
Other Digestive Organs	3 (0.1%)	2	1	3	0	0	0	0	0	0
RESPIRATORY SYSTEM	134 (5.7%)	51	83	100	34	1	31	11	14	38
Nose, Nasal Cavity& Middle Ear	1 (0.0%)	1	0	0	1	0	0	0	0	0
Larynx	9 (0.4%)	7	2	7	2	0	1	0	3	2
Lung & Bronchus	124 (5.3%)	43	81	93	31	1	30	11	11	36
BONES & JOINTS	2 (0.1%)	0	2	1	1	0	0	1	0	0
Bones & Joints	2 (0.1%)	0	2	1	1	0	0	1	0	0
SOFT TISSUE	10 (0.4%)	5	5	8	2	0	2	3	1	1
Soft Tissue (including Heart)	10 (0.4%)	5	5	8	2	0	2	3	1	1
SKIN EXCLUDING BASAL & S	105 (4.5%)	62	43	92	13	18	53	7	12	1
Melanoma – Skin	101 (4.3%)	59	42	88	13	17	52	7	11	1
Other Non-Epithelial Skin	4 (0.2%)	3	1	4	0	1	1	0	1	0
BASAL & SQUAMOUS SKIN	3 (0.1%)	1	2	0	3	0	0	0	0	0
Basal/Squamous cell carcinoma	3 (0.1%)	1	2	0	3	0	0	0	0	0
BREAST	615 (26.3%)	2	613	493	122	115	188	137	38	14
Breast	615 (26.3%)	2	613	493	122	115	188	137	38	14
FEMALE GENITAL SYSTEM	478 (20.5%)	0	478	392	86	14	157	35	7	50
Cervix Uteri	66 (2.8%)	0	66	35	31	0	16	9	6	3

Primary Site	Total (%)	Male	Female	Analytic	Non Analytic	Stage 0	Stage I	Stage II	Stage III	Stage 4
Corpus & Uterus, NOS	232 (9.9%)	0	232	219	13	3	118	14	27	15
Corpus Uteri	223	0	223	213	10	3	118	14	27	13
Uterus, NOS	9	0	9	6	3	0	0	0	0	2
Ovary	80 (3.4%)	0	80	67	13	0	10	6	22	18
Vagina	11 (05%)	0	11	4	7	0	2	1	0	0
Vulva	38 (1.6%)	0	38	18	20	2	10	0	1	0
Other Female Genital Organs	51 (2.2%)	0	51	49	2	9	1	5	11	14
MALE GENITAL SYSTEM	213 (9.1%)	213	0	158	55	0	43	72	14	11
Prostate	204 (8.7%)	204	0	149	55	0	43	72	14	11
Testis	6 (0.3%)	6	0	6	0	0	0	0	0	0
Penis	1 (0.0%)	1	0	1	0	0	0	0	0	0
Other Male Genital Organs	2 (0.1%)	2	0	2	0	0	0	0	0	0
URINARY SYSTEM	92 (3.9%)	65	27	72	20	19	21	11	9	6
Urinary Bladder	49 (2.1%)	36	13	38	11	18	9	7	1	3
Kidney & Renal Pelvis	40 (1.7%)	26	14	31	9	0	11	4	8	2
Ureter	3 (0.1%)	3	0	3	0	1	1	0	0	1
EYE & ORBIT	1 (0.0%)	0	1	0	1	0	0	0	0	0
Eye & Orbit	1 (0.0%)	0	1	0	1	0	0	0	0	0
BRAIN & OTHER NERVOUS SYSTEM	34 (1.5%)	10	24	12	22	0	0	0	0	0
Brain	7 (0.3%)	4	3	3	4	0	0	0	0	0
Cranial Nerves Other Nervous	27 (1.%)	6	21	9	18	0	0	0	0	0
ENDOCRINE SYSTEM	52 (2.2%)	15	37	39	13	0	19	2	7	4
Thyroid	35 (1.5%)	10	25	34	1	0	19	2	7	3
Other Endocrine including Thyroid	17 (0.7%)	5	12	5	12	0	0	0	0	1
LYMPHOMA	68 (2.9%)	39	29	45	23	0	7	6	9	18

Primary Site	*Total (%)*	*Male*	*Female*	*Analytic*	*Non Analytic*	*Stage 0*	*Stage I*	*Stage II*	*Stage III*	*Stage 4*
Hodgkin Lymphoma	*9 (0.4%)*	*7*	*2*	*5*	*4*	*0*	*0*	*3*	*1*	*1*
Non-Hodgkin Lymphoma	*59 (2.5%)*	*32*	*27*	*40*	*19*	*0*	*7*	*3*	*8*	*17*
NHL-Nodal	*32*	*19*	*13*	*25*	*7*	*0*	*4*	*2*	*8*	*8*
NHL – Extranodal	*27*	*13*	*14*	*15*	*12*	*0*	*3*	*1*	*0*	*9*
MYELOMA	*27 (1.2%)*	*15*	*12*	*16*	*11*	*0*	*0*	*0*	*0*	*0*
Myeloma	*27 (1.2%)*	*15*	*12*	*16*	*11*	*0*	*0*	*0*	*0*	*0*
LEUKEMIA	*29 (1.2%)*	*13*	*16*	*12*	*17*	*0*	*0*	*0*	*0*	*0*
Lymphocytic Leukemia	*12 (0.5%)*	*7*	*5*	*2*	*10*	*0*	*0*	*0*	*0*	*0*
Myeloid & Monocytic Leukemia	*17 (0.7%)*	*6*	*11*	*10*	*7*	*0*	*0*	*0*	*0*	*0*
Acute Myeloid Leukemia	*8*	*4*	*4*	*6*	*2*	*0*	*0*	*0*	*0*	*0*
Chronic Myeloid Leukemia	*8*	*2*	*6*	*4*	*4*	*0*	*0*	*0*	*0*	*0*
Other Myeloid Leukemia	*1*	*0*	*1*	*0*	*1*	*0*	*0*	*0*	*0*	*0*
MESOTHELIOMA	*2 (0.1%)*	*0*	*2*	*0*	*2*	*0*	*0*	*0*	*0*	*0*
Mesothelioma	*2 (0.1%)*	*0*	*2*	*0*	*2*	*0*	*0*	*0*	*0*	*0*
KAPOSI SARCOMA	*4 (0.2%)*	*2*	*2*	*3*	*1*	*0*	*0*	*0*	*0*	*0*
Kaposi Sarcoma	*4 (0.2%)*	*2*	*2*	*3*	*1*	*0*	*0*	*0*	*0*	*0*
MISCELLANEOUS	*67 (2.9%)*	*22*	*45*	*32*	*35*	*0*	*0*	*0*	*0*	*0*
Miscellaneous	*67 (2.9%)*	*22*	*45*	*32*	*55*	*0*	*0*	*0*	*0*	*0*
TOTAL	*2,335*	*714*	*1,621*	*1, 769*	*566*	*174*	*575*	*344*	*208*	*220*

Primary Sites

Statistical Summary

In 2017, 2,335 cases were added to the Mercy Cancer Registry database. Of these, 1,769 (76 percent) were classified as analytic cases.

Analytic cases include those which are diagnosed at Mercy, but definitive care occurs at another facility; all other cases which are diagnosed at Mercy and receive part or all of their treatment at our facility as well as cases diagnosed at another facility, but receive part or all of their definitive treatment at Mercy.

Non-analytic cases are treated at Mercy for progression of disease, recurrences or those diagnosed at autopsy totaled 566 (24 percent).

Mercy's top five primary sites of analytic cases breast (493), corpus uteri (219), prostate (204), colon (95), lung (93) and all other (720).

Five Major Cancer Sites for All Analytic Sites and Males and Females

Top Five Sites	*All Cases*	*Top Five Male Sites*		*Top Five Female Sites*	
Breast	493	Prostate	149	Breast	491
Corpus Uteri	219	Melanoma	50	Corpus Uteri	219
Prostate	149	Colon	47	Ovary	67
Colon	95	Urinary Bladder	28	Lung	66
Lung	93	Lung	27	Other Female Genital Organs	48
All Other	720	All Other	217	All Other	360
Total	**1,769**	**Total**	**518**	**Total**	**1,251**

The American Cancer Society (ACS) projected five major sites for Maryland in 2017 – breast (female), lung and bronchus, prostate, colon and rectum, and melanoma (skin). The ACS's five projected sites for the United States for males - prostate, lung and bronchus, colon and rectum, urinary bladder and melanoma of skin. The ACS's five projected sites for females in the United States – breast, lung and bronchus, colon and rectum, uterine corpus and thyroid.

Of the analytic cases diagnosed at The Institute for Cancer Care at Mercy, 29 percent were male and 71 percent were female.

Analytical Cases By Gender

	Number	***Percent***
Male	518	29%
Female	1,251	71%

Patients diagnosed with cancer at The Institute for Cancer Care varied in age from 0-29 to 80 and above. The majority of cancer patients were ages 60-69.

Age at Diagnosis Males and Females

Age Group	***Male***		***Female***	
	Number of Cases	Percent of Cases	Number of Cases	Percent of Cases
0-29	4	1%	12	1%
30-39	16	3%	44	4%
40-49	38	7%	150	12%
50-59	103	20%	296	24%
60-69	166	32%	393	32%
70-79	132	25%	237	19%
80+	59	12%	119	8%
	518	**100%**	**1,251**	**100%**

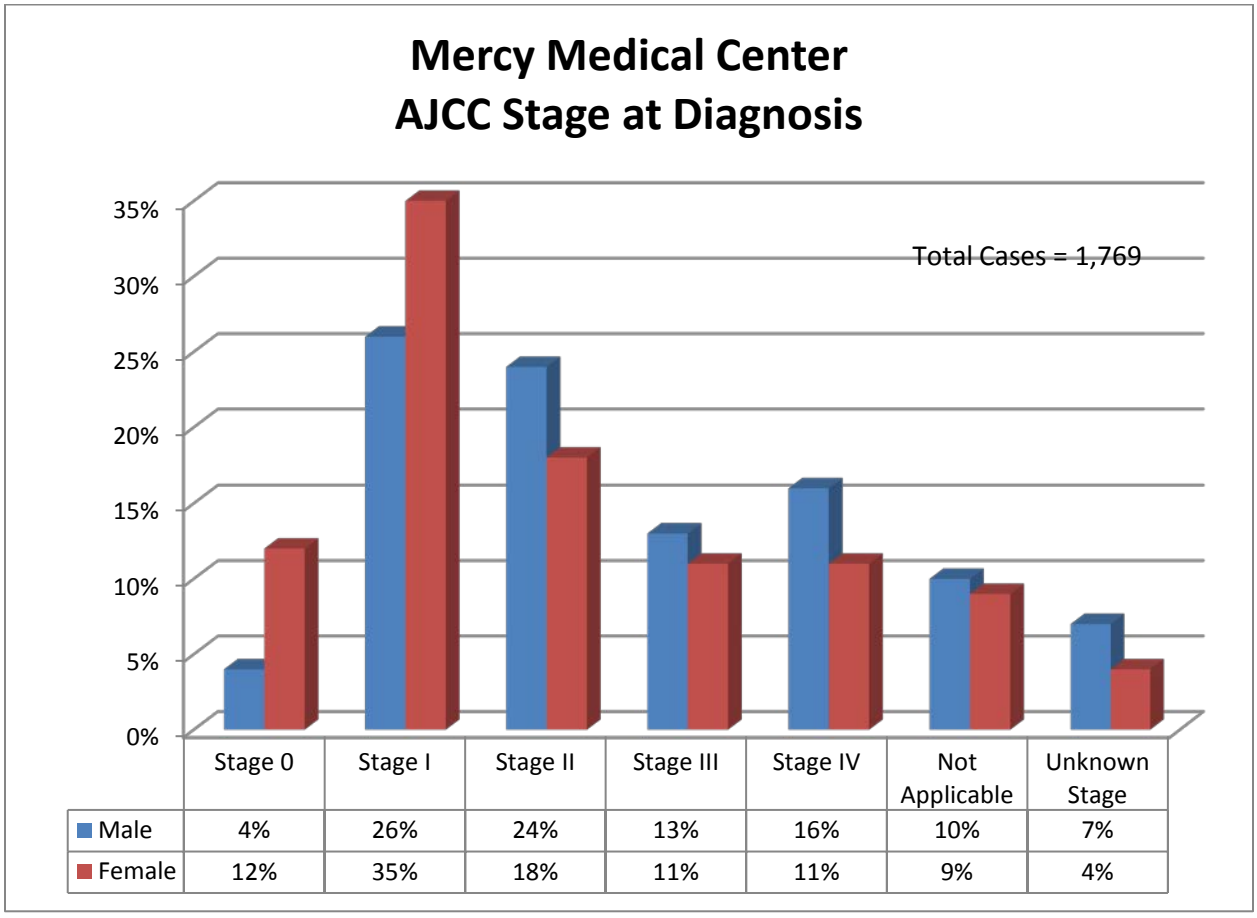
The distribution by race showed that 66 percent of cancer patients were Caucasian. African-American patients made up 30 percent and the remaining four percent represented other races.

Analytical Cases By Race

	Number	***Percent***
Caucasian	1,162	66%
African American	531	30%
Other	76	4%
Total	**1,769**	**100%**

American Joint Commission on Cancer (AJCC) Stage at Diagnosis

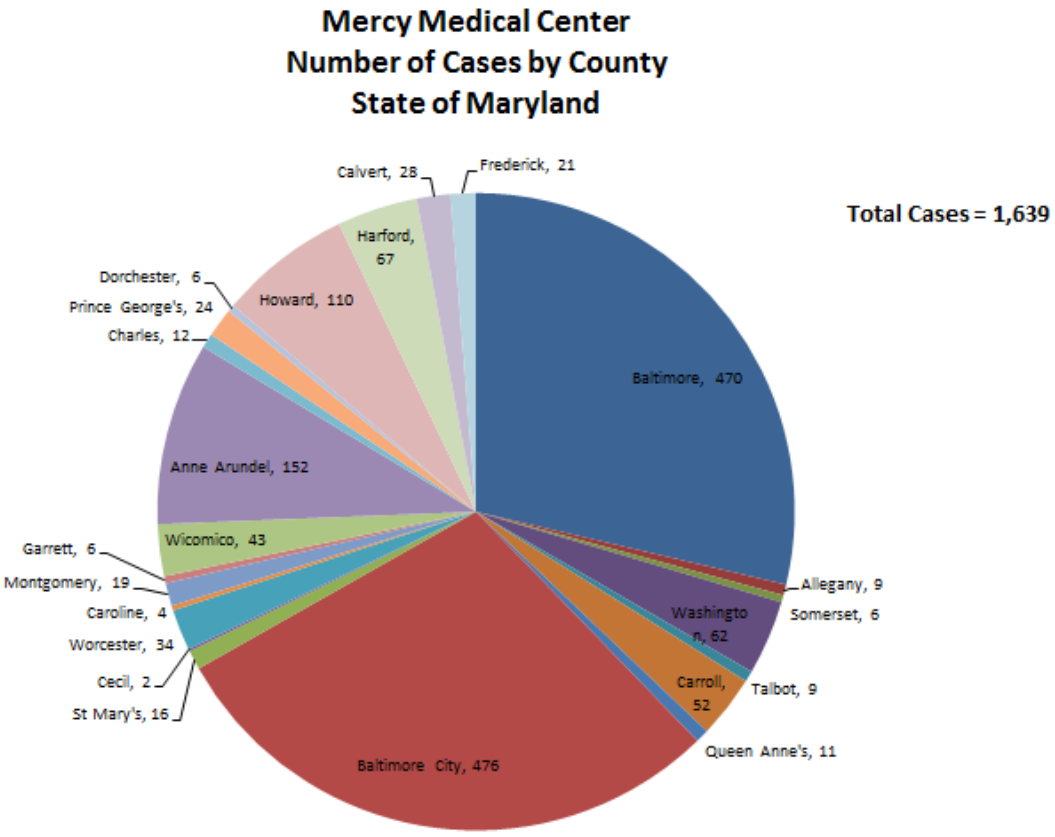
The Stage of cancer is measured from Stage 0 to Stage IV. In 2017, the majority of males (26%) and females (35 %) were diagnosed with Stage 1.



	Stage 0	Stage I	Stage II	Stage III	Stage IV	Not Applicable	Unknown Stage
Male	4%	26%	24%	13%	16%	10%	7%
Female	12%	35%	18%	11%	11%	9%	4%

Cancer Population By County

In 2017, Mercy's largest cancer patient population came from Baltimore City with 477 cases and the second largest number of cases at 472 from Baltimore County. Other cases include 22 other counties - Allegany, Somerset, Washington, Talbot, Carroll, Queen Anne's, St. Mary's, Cecil, Worcester, Caroline, Montgomery, Garrett, Wicomico, Anne Arundel, Charles, Prince George's, Dorchester, Howard, Harford, Calvert and Frederick.



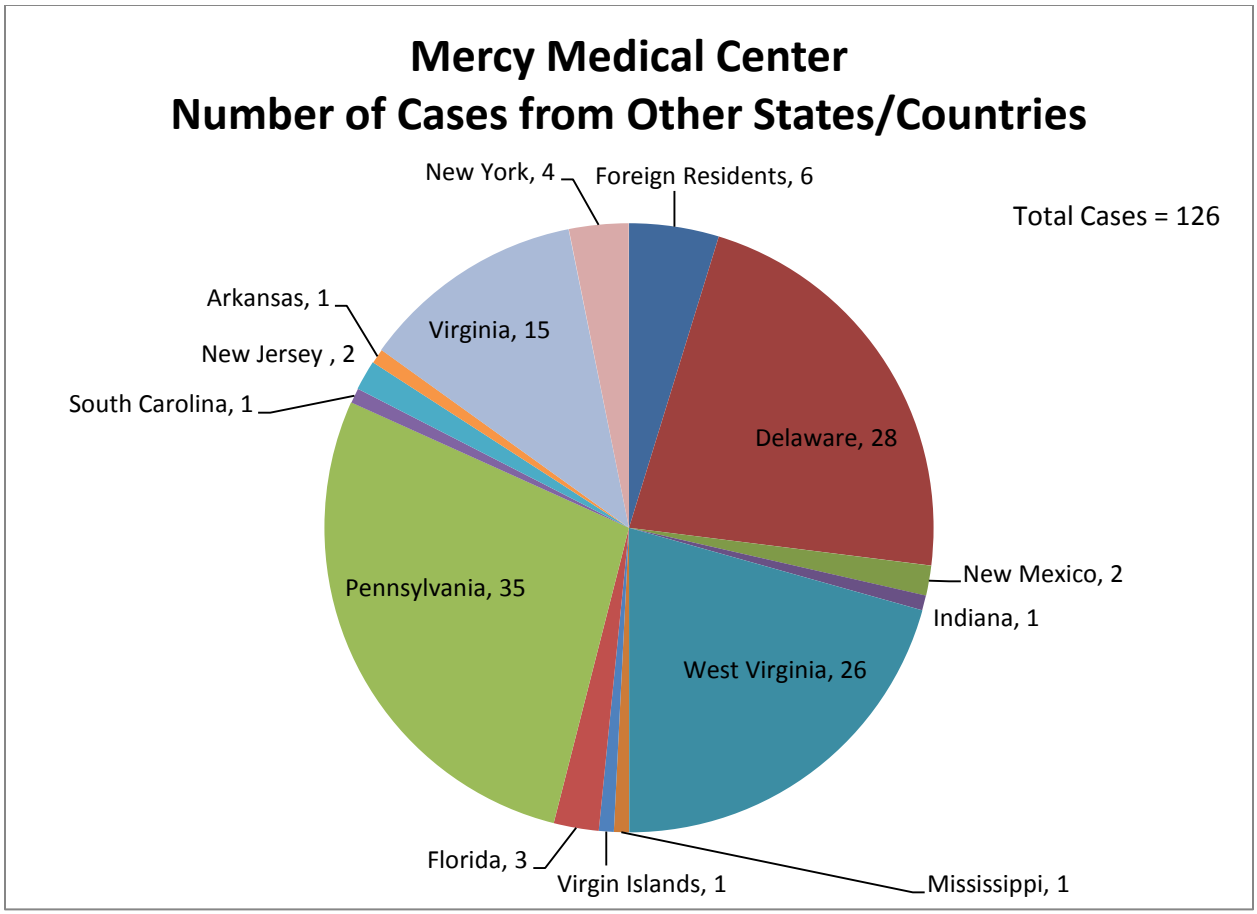
Maryland Residents at Diagnosis by County

Of Mercy's analytic cancer patients for 2017, a total of 1,643 were residents of Maryland. While the majority of these patients resided in Baltimore City, it should be noted that patients at Mercy represented nearly every county in the state.

County	*Number of Cases*
Allegany	9
Anne Arundel	152
Baltimore City	477
Baltimore County	472

Calvert	28
Carroll	52
Caroline	4
Cecil	2
Charles	12
Dorchester	6
Frederick	21
Garrett	6
Harford	67
Howard	110
Montgomery	19
Prince George's	24
Queen Anne's	11
St. Mary's	16
Somerset	6
Talbot	10
Washington	62
Wicomico	43
Worcester	34
Total	**1,643**

In 2017, Mercy added 126 analytic cases from numerous states outside of Maryland and outside of the United States.



Non-Maryland Residents* and Other Countries

States	***Number of Cases***
Arkansas	1
Delaware	28
Florida	3
Indiana	1
North Carolina	1
New Jersey	2
New York	4
Pennsylvania	35
Mississippi	1
New Mexico	2
South Carolina	1
Virginia	15
West Virginia	26
Foreign Residents	6
Foreign Countries	4
Total	**126**

Clinical Research

The Institute for Cancer Care (ICC) at Mercy Medical Center conducts various pharmaceutical, cooperative group and investigator run oncology clinical trials. At this time, 1445 patients are actively participating in clinical trials within the ICC.

In 2017, there were 40 trials open to accrual in the Treatment, Screening, Diagnostic, Bio-repository, Patient Registry and Quality of Life Settings. A total of 202 patients were enrolled in these trials which represents 11% of our Cancer patient population in 2017. To learn more about Mercy's clinical trials, please visit https://mdmercy.com/about-mercy/patient-clinical-trials .

Institutional Research

Totals for all current studies open to accrual or closed to accrual with subjects in long term follow-up (LTFU)

American College of Surgeons Commission on Cancer Research Category	Number studies open to accrual in 2017*	Number studies closed to accrual (patients in LTFU) in 2017	Number Consented /Enrolled in 2017	Cumulative Active Study Population CY 2017**
Treatment Trials	24	22	34	356
Prevention Trials	0	0	0	0
Screening Trials	1	0	0	2
Diagnostic Trials	2	1	0	113
Economics of Care Trials	0	0	0	0
Bio-Repository/Bio-Banking Trials	3	1	74	524
Patient Registry Trials	8	2	94	449
Quality of Life or Supportive Care Trials	2	0	0	1
Genetic Trials	0	0	0	0
TOTALS	40	26	202	1445

*This number includes any study that was open to accrual during CY 2017. If a study closed to accrual during CY 2017, it is still counted in the number of studies open to accrual in 2017. For studies that were permanently closed they are still counted in this table as they may have either been open to accrual or had patients in LTFU during CY 2017. **This number indicates cumulative study population for 2017 only. This does not reflect the total number of study participants from the inception of research as Mercy.

Cancer Related-Services and Support Services

The Institute for Cancer Care offers a variety of cancer services and support services for patients and their families. These services include diagnostic radiology, surgery, hematology and oncology, radiation oncology and rehabilitative services.

Diagnostic Radiology

- Advanced digital technology for screening and diagnostic mammograms, including:
    - 3D Mammography (Tomosynthesis)
    - Diagnostic 3D Mammography (Tomosynthesis)
    - Breast Ultrasound
    - Magnetic resonance imaging (MRI) – breast MRI and biopsy
    - Image-guided minimally invasive breast biopsies
- Computed Tomography (CT)
- Fluoroscopy
- Interventional Radiology
- Nuclear Medicine
- PET scan
- PET/CT scan

Hematology and Medical Oncology

- Biological Therapy
- Chemoembolization
- Chemotherapy
- Endocrine Therapy
- Radiofrequency Ablation
- Targeted Therapy

Rehabilitation Services

- Lymphedema management
- Occupational therapy
- Wound care
- Vitalstim® Swallowing

Cancer Related-Services and Support Services (continued)

Surgery

- Breast
- Colorectal
- Cytoreductive
- Ear, nose and throat
- Gynecologic Traditional and Robotic Surgery
- Hyperthermic Intraperitoneal Chemotherapy (HIPEC) in conjunction with Cytoreductive Surgery
- Isolated Limb Infusion
- Laparoscopic
- Needle Localization
- Palliative
- Plastic and Reconstructive
- Radiofrequency Ablation
- Thoracic
- Whipple Procedure
- Urologic
- Vascular

Radiation Oncology

- Brachytherapy
- External Beam Radiotherapy
- Intensity Modulated Radiation Therapy (IMRT)
- Intraoperative Radiotherapy (IORT)
- Needle Localization
- TrueBeam™
    - Image-guided raditotherapy (IGRT)
    - Stereotactic radiosurgery (SRS)
    - Stereotactic body radiosurgery (SBRT)
    - Volumeric-modulated arc therapy (VMAT)
    - Intensity modulatedradiotherapy (IMRT)
    - Three-dimensional conformal therapy (3DCRT)

Cancer Related-Services and Support Services (continued)

Support Services

- Art Therapy
- Breast Center Certified Nurse Navigator
- Dietitian - Cancer Nutrition
- Clinical Nurse Navigator
- Clinical Trials
- Financial Assistance
- Genetic Counseling
- Lung Cancer Screening
- Music Therapy
- Neuroendocrine Nurse Navigator
- Occupational Therapy
- Pastoral Care
- Patient Navigator - ACS
- Physical Therapy
- Skin Cancer Screening
- Smoking Cessation Program
- Social Work
- Women’s Health Boutique

Physician Experts

The Institute for Cancer Care at Mercy offers unparalleled medical expertise in cancer care treatment. Our team of renowned physicians is recognized as leading experts in their fields for the treatment of a wide spectrum of cancers including breast, colon, gynecologic, gastrointestinal, liver, lung, merkel cell, neuroendocrine tumors, peritoneal malignancy/abdominal , skin and melanoma, thyroid and prostate.

Using an integrated and multi-disciplinary approach, Mercy cancer doctors care and offer a full continuum of care including prevention, diagnosis and treatment.

Mercy's cancer doctors are known world-wide for their expert surgical skills and regularly serve as preceptors at national and international conferences, and are pursued for second opinions to evaluate complex cancer cases.

Physicians of The Institute for Cancer Care at Mercy

Armando Sardi, M.D.
Director, Institute for Cancer Care

The Hoffberger Breast Center
Neil B. Friedman, M.D., Medical Director
Gauri Bedi, M.D., Associate Director
Jennifer Joh, M.D.

Digestive Health and Liver Disease
Paul Thuluvath, M.D., Medical Director
Michael Cox, M.D.
Richard Desi, M.D.
Patrick Hyatt, M.D.
Scott Huber, M.D.
Anurag Maheshwari, M.D.
Lisa Pichney, M.D.
Amit Raina, M.D.
Hwan Yoo, M.D.

Gynecologic Oncology Center
Dwight Im, M.D., Medical Director, The Neil B. Rosenshein, M.D., Institute for Gynecologic Care
Teresa Diaz-Montes, M.D., Associate Director, The Lya Segall Ovarian Cancer Institute
Jennifer Ducie, M.D.
Neil B. Rosenshein, M.D., Director, The Lya Segall Ovarian Cancer Institute
Hyung Ryu, M.D.

Physicians of The Institute for Cancer Care at Mercy (continued)

Lung Center
Albert Politio, M.D., Director
Audrey Liu, M.D.
Kieran Brune, M.D.

Medical Oncology and Hematology
David Riseberg, M.D., Chief
Sandy Kotiah, M.D., Director, The Neuroendocrine Tumor Center at Mercy
Richard Huslig, M.D.
Peter Ledakis, M.D.
Vinod Varki, M.D.

Radiation Oncology
Maria Jacobs, M.D., Director
Aditya Halthore, M.D.

Surgical Oncology
Armando Sardi, M.D., Director
Kurtis Campbell, M.D.
Vadim Gushchin, M.D., Director, *Gastrointestinal Oncology*

The Melanoma and Skin Cancer Center
Vadim Gushchin, M.D., Director
Douglas Buethe, M.D.
Kurtis Campbell, M.D.
Brendan Collins, M.D.
Ruth Peng, M.D.
Craig Vander Kolk, M.D.
Vinod Varki, M.D.
Armando Sardi, M.D.

Thyroid
William Valente, M.D.

Urology
Stanley Silber, M.D., Director
Ira Hantman, M.D.
Blaine Kristo, M.D.
Alan Kusakabe, M.D.
Robert Thompson, Jr., M.D.

Cancer Committee

Cancer Committee members meet quarterly to review and evaluate the efficacy of treatment modalities, develop targeted educational and screening programs, cancer staging and diagnosis and treatment of cancers, support services and prevention and research. Members assess the cancer program to make recommendations and improvements for cancer patients and their caregivers.

Physician Members

David Riseberg, M.D.*	Chair, Cancer Committee, Chief of Medical Oncology and Hematology
Armando Sardi, M.D.*	Commission on Cancer, Cancer Liaison Physician, Medical Director, The Institute for Cancer and Chief, Division of Surgical Oncology
Edgar Alonsozana, M.D.*	Chief, Department of Pathology
Brad Cogan, M.D.*	Chair, Department of Radiology
Vadim Gushchin, M.D.	Director, The Melanoma and Skin Cancer Center and Gastrointestinal Oncology
Maria Jacobs, M.D.	Director, Radiation Oncology
Jennifer Joh, M.D.	The Hoffberger Breast Center
Alan Kusakabe, M.D.	The Urology Center
Michael Sambat, M.D.	Palliative Care
David Sill, M.D.	The Tyanna O'Brien Center for Women's Imaging
Debra Vachon, M.D.	The Center for Inflammatory Bowel and Colorectal Diseases

Non-Physician Members

Jean Acuna, RN*	Director, Quality Improvement
Allison Beckham, RN	Neuroendocrine Nurse Navigator
Kim Bushnell, DNP, RN	Vice President, Patient Care Services/Chief Nursing Officer
Dan Collins	Senior Director, Media Relations
Joan Marie Lake, RN	Manager, Outpatient Chemotherapy
Maria Conigliaro, RN	Manager, Outpatient Chemotherapy
Mary Beth Coyne	Senior Director, Operations

Non-Physician Members (continued)

Lauren Decker, MHA, BSN	Director, Medical/Surgical
Marie Sheila Dessources	Survivorship Coordinator
Kira Eyring	Coordinator, American Cancer Society (ACS)
Debbie Feldman	Director, Outpatient Rehabilitation
Bryan Fick	Vice President, Clinical Services
Jennifer Francis	Director, Operations / Surgical Oncology
Andrea Gerbasio-Stephenson	Regulatory Coordinator / Institutional Research
Stacey Huber	Patient Resource Navigator, ACS
Julia Irwin, RN	Interim Nurse Manager B15
Isatu Jalloh, BSN, RN	Director, Oncology
Deb Kirkland, RN, BSN, MPH, CBPN-IC	Breast Nurse Navigator
Rachelle Lucerna, MSN, OCN	Clinical Nurse Navigator
Maureen McBeth, PT, CLT-LANA	Program Manager
Lisa McConnell, RN, BSN*	Research Nurse Coordinator
Terri Palazzo, MSN, RN	Interim Director, Infusion Services
Kevin Prue, R PH	Pharmacist
Mary Quigley, LGSW-C*	Clinical Social Worker
Tara Simpson, CRNP*	Palliative Care
Cathy Sudborough, CTR*	Manager, Cancer Program and Cancer Registry Coordinator
Mary Tracy	Chaplain, Pastoral Care
Leigh Tracy	Oncology Dietitian
Lydia Wilson	Manager, Physician Practice Development and Marketing

**Commission on Cancer Required*

Commission on Cancer

NAPBC
NATIONAL ACCREDITATION PROGRAM FOR BREAST CENTERS
ACCREDITED BREAST CENTER
A QUALITY PROGRAM OF THE AMERICAN COLLEGE OF SURGEONS

ACR AMERICAN COLLEGE OF RADIOLOGY BREAST IMAGING CENTER OF EXCELLENCE

RADIATION ONCOLOGY ACR AMERICAN COLLEGE OF RADIOLOGY ACCREDITED FACILITY