

2011

THE CANCER CENTER
STATISTICAL REPORT



WELCOME

to Lehigh Valley Health Network Cancer Program's 2011 statistical report, featuring data on cancer cases we treated in 2010.

In September 2011, Lehigh Valley Health Network Cancer Program earned three-year accreditation, with commendation, from the American College of Surgeons Commission on Cancer (CoC).

Lehigh Valley Health Network's Cancer Center is one of only 30 sites nationwide selected to participate in the National Cancer Institute Community Cancer Centers program (NCCCP).



Our Cancer Program's Breast Health Services is fully accredited by the National Accreditation Program for Breast Centers (NAPBC).

American College of Surgeons
Commission on Cancer:
facs.org/cancer

National Cancer Institute's National
Community Cancer Centers Program:
ncccp.cancer.gov

National Accreditation Program
for Breast Centers:
napbc-breast.org

OUR MISSION:

TO REDUCE THE BURDEN THAT CANCER PLACES ON PATIENTS AND THEIR FAMILIES.

2011 CANCER CENTER LEADERSHIP COUNCIL MEMBERS

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*Hematology Oncology
Medical Director, Research*

Keith J. Weinhold, MHA, FACHE
Senior Vice President, Operations

2010 CANCER CASE INFORMATION

Lehigh Valley Hospital–Cedar Crest and Lehigh Valley Hospital–Muhlenberg (collectively Lehigh Valley Health Network) were involved in the diagnosis and/or treatment of over 3,000 cancer patients in 2010. Ninety-six percent (2,887) of those cases were considered analytic cases directly diagnosed and/or treated at Lehigh Valley Health Network. Of these, about 35 percent (998) were diagnosed at another medical facility and referred to Lehigh Valley Health Network for part or all of their cancer treatment.

The most prevalent cancers treated at Lehigh Valley Health Network remains consistent across the past 10 years.

YEAR	MOST TREATED	2	3	4	5
2010	Lung	Breast	Colon/Rectum	Prostate	Corpus Uteri
2009	Breast	Lung	Prostate	Colon/Rectum	Skin
2008	Breast	Lung	Colon/Rectum	Prostate	Urinary Bladder
2007	Breast	Lung	Colon/Rectum	Prostate	Skin
2006	Breast	Lung	Prostate	Colon/Rectum	Urinary Bladder
2005	Breast	Lung	Colon/Rectum	Prostate	Thyroid
2004	Breast	Lung	Prostate	Colon/Rectum	Skin
2003	Breast	Lung	Colon/Rectum	Prostate	Urinary Bladder
2002	Breast	Prostate	Lung	Colon/Rectum	Urinary Bladder
2001	Prostate	Breast	Colon/Rectum	Lung	Thyroid

SOME COMMONLY USED TERMINOLOGY

Analytic Cancer Case: Analytic cases are cases for which the hospital provided the initial diagnosis of cancer and/or for which the hospital contributed to first-course treatment.

Non-analytic Cancer Case: Cases that do not meet definition as an analytic cancer case such as consultations. Non-analytic cases are not reported in treatment and survival statistics.

American Joint Committee on Cancer (AJCC) Staging: A classification system used for measuring the extent of disease at the time of diagnosis. AJCC is important in considering treatment plans.

National Cancer Database: The National Cancer Database (NCDB) is a joint project of the American Cancer Society and the Commission on Cancer. This database collects information on cancer cases diagnosed and treated at hospitals throughout the country. This non-patient identified information is used to present scientifically reviewed descriptions of patient diagnosis, treatment and outcomes. The most recent data from NCDB is on cases newly diagnosed in 2008.

Collaborative Staging: Collaborative Staging is a unified data collection system using both clinical and, if available, pathological information for the primary purpose of guiding treatment.



INCIDENCE BY COUNTY

Over the past five years, 67-71 percent of cancer patients diagnosed and/or treated by Lehigh Valley Health Network resided in either Lehigh or Northampton counties. Other counties making up an average 20 percent of Lehigh Valley Health Network cancer patients included, in decreasing order: Carbon, Berks, Schuylkill and Monroe counties.

COUNTY OF RESIDENCE	2005	2006	2007	2008	2009	2010
Adams	0	0	0	1	0	0
Beaver	0	1	0	0	0	0
Berks	176	180	185	153	170	171
Bradford	0	0	2	1	1	0
Bucks	42	51	49	30	52	59
Cambria	1	0	0	0	0	0
Carbon	120	116	141	129	169	183
Centre	0	3	0	3	2	1
Chester	6	4	7	2	3	3
Clinton	0	0	0	11	0	0
Clearfield	0	1	1	0	0	1
Columbia	1	3	5	4	4	3
Cumberland	0	1	1	0	0	0
Dauphin	0	1	2	3	1	0
Delaware	0	0	0	5	0	3
Elk	0	0	1	0	0	0
Fayette	0	0	0	0	1	0
Franklin	0	0	0	0	0	2
Huntingdon	1	0	0	0	0	0
Juniata	0	1	0	0	0	0
Lackawanna	14	19	34	36	36	39
Lancaster	0	2	2	1	0	1
Lawrence	1	0	0	0	0	0
Lebanon	0	0	0	1	1	2
Lehigh	1,249	1,271	1,316	1,357	1,301	1,328
Luzerne	65	43	66	80	83	80
Lycoming	0	1	2	1	1	3
Mifflin	1	0	0	0	0	0
Monroe	77	77	86	90	107	93
Montgomery	47	56	53	62	67	81
Northampton	454	507	533	578	599	643
Northumberland	0	0	2	1	0	1
Perry	0	1	1	0	0	0
Philadelphia	2	4	1	1	0	3
Pike	2	9	8	4	12	22
Potter	0	0	1	1	0	0
Schuylkill	80	92	77	76	117	98
Sullivan	0	0	0	0	1	0
Susquehanna	0	2	2	3	3	3
Tioga	1	0	0	0	0	0
Wayne	2	2	5	8	5	6
Wyoming	0	1	2	9	3	3
York	4	3	1	0	1	2
Out of State	43	44	46	55	69	53
TOTALS	2,389	2,496	2,632	2,706	2,809	2,887

NON-ANALYTIC CASES*

YEAR	NUMBER
2005	176
2006	224
2007	208
2008	156
2009	165
2010	227

* Diagnosed and all first course of treatment received elsewhere prior to coming to Lehigh Valley Health Network.

All cases diagnosed and/or treated through Lehigh Valley Health Network Cancer Program.

2010 ANALYTIC* CASES BY PRIMARY BODY SITE

PRIMARY SITE	MALE	FEMALE	TOTAL
Head and Neck			
LIP	2	0	2
BASE OF TONGUE	3	2	5
OTHER PARTS OF TONGUE	2	0	2
GUM	1	0	1
FLOOR OF MOUTH	2	0	2
OTHER/UNSPECIFIED PARTS OF MOUTH	5	2	7
PAROTID GLAND	2	5	7
OTHER SALIVARY GLANDS	2	1	3
OTHER ORAL CAVITY	1	0	1
TONSIL	7	1	8
OROPHARYNX	3	0	3
NASOPHARYNX	4	0	4
PYRIFORM SINUS	2	1	3
HYPOPHARYNX	1	0	1
NASAL CAVITY & MIDDLE EAR	1	1	2
ACCESSORY SINUSES	1	3	4
LARYNX	20	3	23
Subtotal	59	19	78
Digestive Organs			
ESOPHAGUS	21	6	27
STOMACH	34	12	46
SMALL INTESTINE	10	4	14
COLON	96	106	202
RECTOSIGMOID JUNCTION	3	8	11
RECTUM	35	26	61
ANUS & ANAL CANAL	2	4	6
LIVER & BILE DUCTS	24	7	31
GALLBLADDER	2	7	9
OTHER BILIARY TRACT	7	4	11
OTHER DIGESTIVE ORGANS	1	0	1
PANCREAS	48	50	98
Subtotal	283	234	517
Respiratory Organs			
BRONCHUS & LUNG	209	173	382
TRACHEA	1	0	1
HEART MEDIASTINUM PLEURA	1	4	5
Subtotal	211	177	388
Breast			
BREAST	6	374	380
Subtotal	6	374	380
Female Genital Organs			
VULVA	0	24	24
VAGINA	0	2	2
CERVIX UTERI	0	26	26
CORPUS UTERI	0	160	160
UTERUS NOS	0	6	6

OVARY	0	76	76
OTH FM. GENITAL ORGN.	0	5	5
Subtotal	0	299	299

Male Genital Organs

PENIS	2	0	2
PROSTATE GLAND	196	0	196
TESTIS	9	0	9
Subtotal	207	0	207

Urinary Tract Organs

KIDNEY	67	37	104
KIDNEY, RENAL PELVIS	6	2	8
URETER	0	1	1
URINARY BLADDER	113	34	147
OTHER URINARY ORGANS	1	0	1
Subtotal	187	74	261

Ophthalmic Sites

ORBIT, NOS and OVERLAPPING LESION	0	1	1
Subtotal	0	1	1

Central Nervous System

MENINGES	19	55	74
BRAIN	43	41	84
OTHER NERVOUS SYSTEM	3	5	8
Subtotal	65	101	166

Endocrine Glands

THYROID GLAND	23	68	91
ADRENAL GLAND	2	2	4
OTHER ENDOCRINE GLANDS	7	4	11
Subtotal	32	74	106

Skin

REPORTABLE SITES AND DEEPLY INVASIVE BASAL & SQUAMOUS CELL TUMORS AND MELANOMA	73	63	136
Subtotal	73	63	136

Musculoskeletal Sites

BONES, JOINTS & ARTICULAR CARTILAGE	2	2	4
BONES, JOINTS & OTHER UNSPECIFIED SITES	3	1	4
CONNECTIVE SUBCUATNEOUS OTHER SOFT TISSUE	7	2	9
RETROPERITONIEUM & PERITONIEUM	1	6	7
Subtotal	13	11	24

Other Sites

HEMATOPOIETIC AND RETICULOENDOTHELIAL SYSTEMS	76	47	123
LYMPH NODES	76	73	149
OTHER ILL DEFINED SITES	4	0	4
UNK PRIMARY	28	20	48
Subtotal	184	140	324

TOTAL	1,320	1,567	2,887
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**Analytic cases are cases diagnosed and/or treated through Lehigh Valley Health Network Cancer Program.*

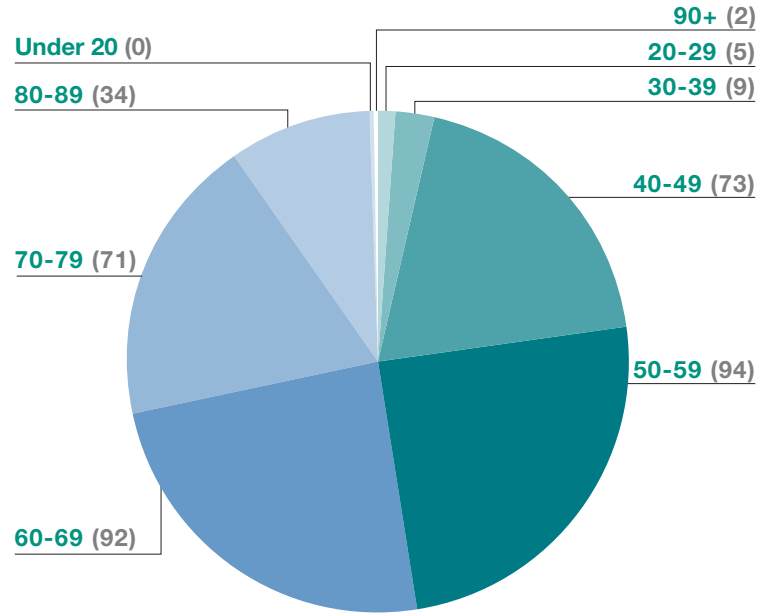
BREAST CANCER

Breast cancer has been the most commonly treated cancer at Lehigh Valley Health Network for the past nine years, accounting for 13.2 percent (380) of 2010 newly diagnosed analytic cases. In 2010, at Lehigh Valley Health Network, 49 percent (186) of new breast cancer cases occurred in women between the ages of 51–69 years old, and 23 percent (87) of cases occurred in women under the age of 50 years. These findings are in line with nationally reported age at diagnosis. Of the 380 cases diagnosed in 2010, males accounted for 6 (1.5 percent) of the cases. Lehigh Valley Health Network identified more early stage breast cancer cases than reported in the most recent 2008 NCDB. Eighty-eight percent (333) of Lehigh Valley Health Network cases were diagnosed at or below stage 2, compared to 82 percent of NCDB cases. More Lehigh Valley Health Network cases (24 percent) were reported at stage 0 than NCDB (20 percent). Through our Lehigh Valley Health Network Breast Health Services, Lehigh Valley Health Network has continuously set the pace for detecting breast cancer at an early stage.

FOR MORE INFORMATION GO TO
www.lvhn.org/cancer

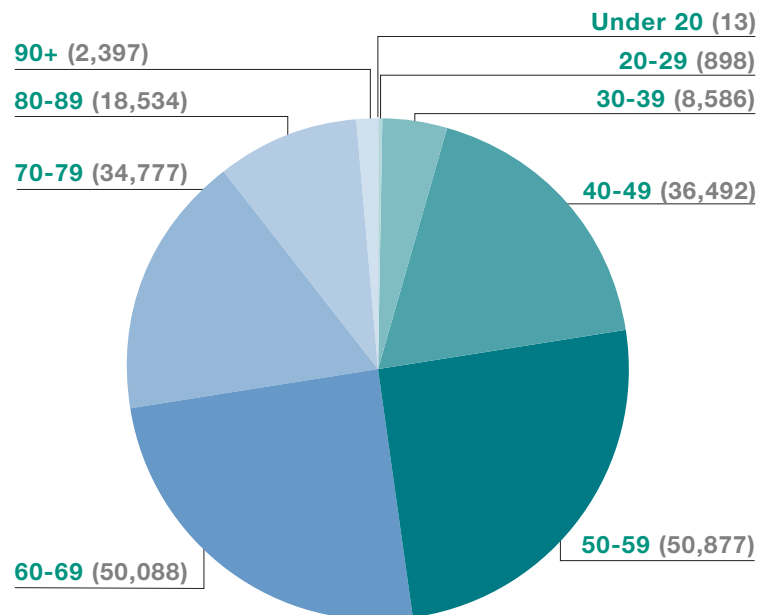
BREAST CANCER BY AGE AT DIAGNOSIS

LVHN 2010



BREAST CANCER BY AGE AT DIAGNOSIS

NCDB 2008



*NCDB Data: All Diagnosed Cases—All Types Hospitals in All States—
 Data from 1,370 Hospitals

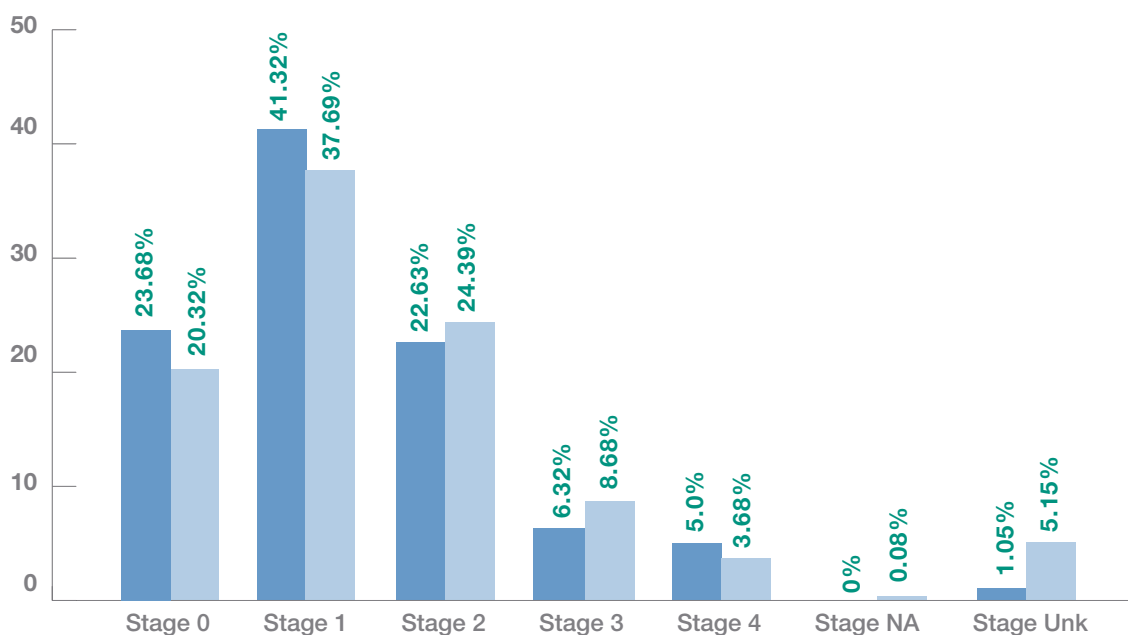
LEHIGH VALLEY HEALTH NETWORK 2010 BREAST ANALYTIC CASES

INITIAL TREATMENT BY AJCC COLLABORATIVE STAGE

TREATMENT	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	NOT STAGED	STAGE UNK	TOTAL
Surgery Only	30	29	7	2	1	0	0	69
Surgery + Radiation Therapy	26	32	3	0	1	0	0	62
Surgery + Chemotherapy	0	13	12	6	1	0	0	32
Surgery + Radiation Therapy + Chemotherapy	1	1	5	2	0	0	0	9
Surgery + Radiation Therapy + Hormone Therapy	21	44	9	0	0	0	0	74
Surgery + Hormone Therapy	7	19	9	1	0	0	1	37
Surgery + Radiation Therapy + Chemotherapy + Hormone Therapy	1	8	11	3	0	0	0	23
Surgery + Chemotherapy + Hormone Therapy	0	6	11	5	0	0	0	22
Other	1	1	14	4	13	0	1	34
No Treatment	3	4	5	1	3	0	2	18
TOTAL	90	157	86	24	19	0	4	380

BREAST CANCER COMPARISON OF AJCC COLLABORATIVE STAGE AT DIAGNOSIS

LVHN 2010 ■ NCDB 2008 ■

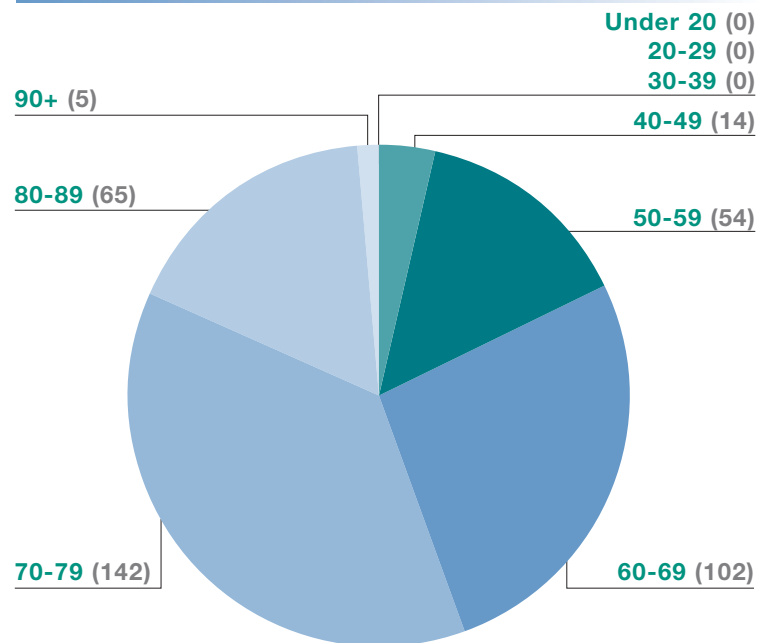


LUNG CANCER

Lung cancer has been the second most commonly treated cancer at Lehigh Valley Health Network for the past eight years, this year running equal with breast and accounting for 13.2 percent (382) of 2010 cases. About 82 percent (314) newly diagnosed patients were at or above age 60 years, with 64 percent (244) of all newly diagnosed patients between the ages of 60-79 years. National Cancer Database (NCDB) reports 78 percent of all newly diagnosed lung cancer patients at or above 60 years as opposed to 62 percent between the ages of 60-79 years. Lehigh Valley Health Network was less likely to use radiation only or chemotherapy only as patient management strategies than strategies reported to NCDB in 2008.

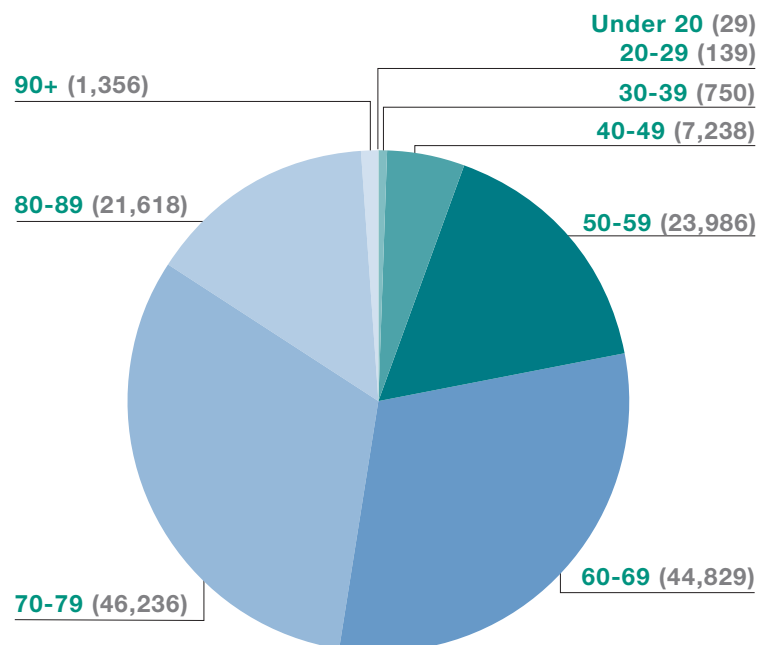
LUNG CANCER BY AGE AT DIAGNOSIS

LVHN 2010



LUNG CANCER BY AGE AT DIAGNOSIS

NCDB 2008



*NCDB Data: All Diagnosed Cases—All Types Hospitals in All States—
Data from 1,370 Hospitals

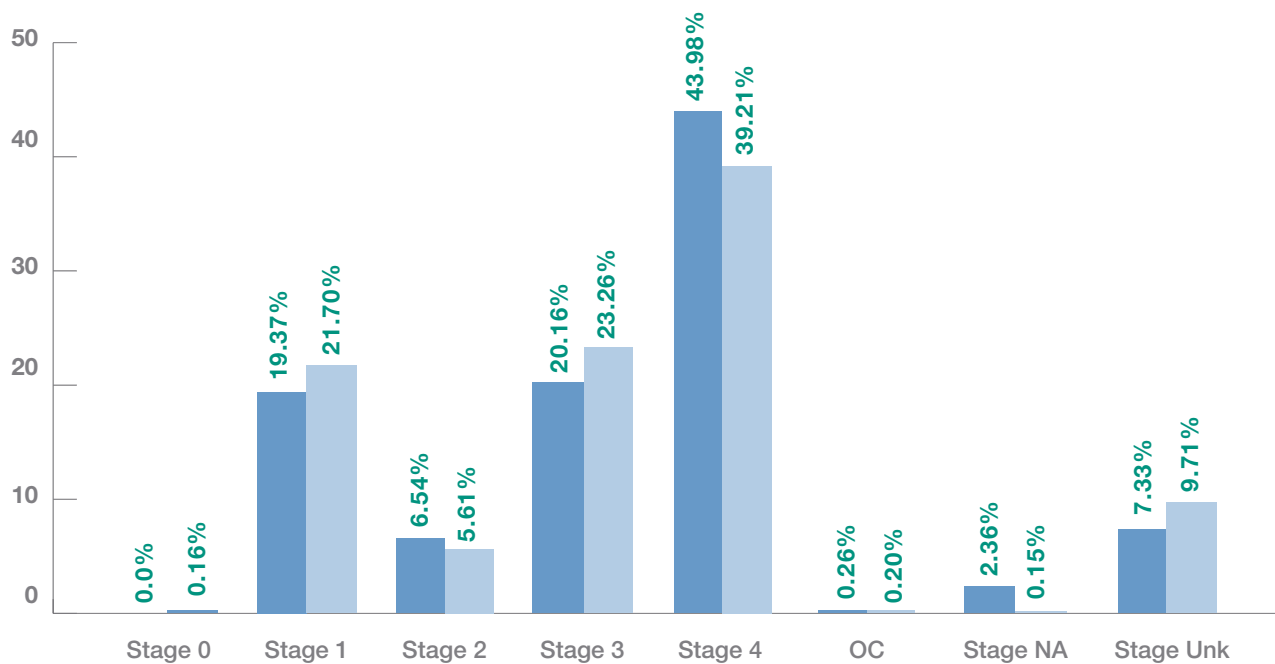
LEHIGH VALLEY HEALTH NETWORK 2010 LUNG ANALYTIC CASES

INITIAL TREATMENT BY AJCC COLLABORATIVE STAGE

TREATMENT	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	OC	STAGE NA	STAGE UNK	TOTAL
Surgery Only	0	56	7	10	3	0	6	0	82
Radiation Only	0	8	1	2	21	0	1	2	35
Surgery + Chemotherapy	0	2	6	7	3	0	0	1	19
Radiation + Chemotherapy	0	0	3	23	32	0	0	7	65
Chemotherapy Only	0	0	0	6	24	0	1	3	34
Surgery + Radiation + Chemotherapy	0	0	3	5	3	0	0	0	11
Other Specified Therapy	0	1	2	8	28	0	0	0	39
No 1st Course Treatment	0	7	3	16	54	1	1	15	97
TOTAL	0	74	25	77	168	1	9	28	382

LUNG CANCER COMPARISON OF AJCC COLLABORATIVE STAGE AT DIAGNOSIS

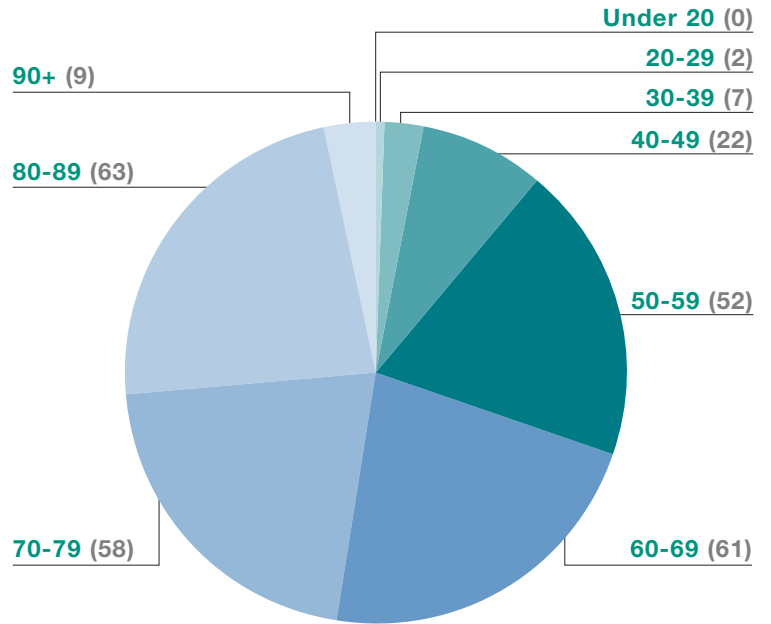
LVHN 2010 ■ NCDB 2008 ■



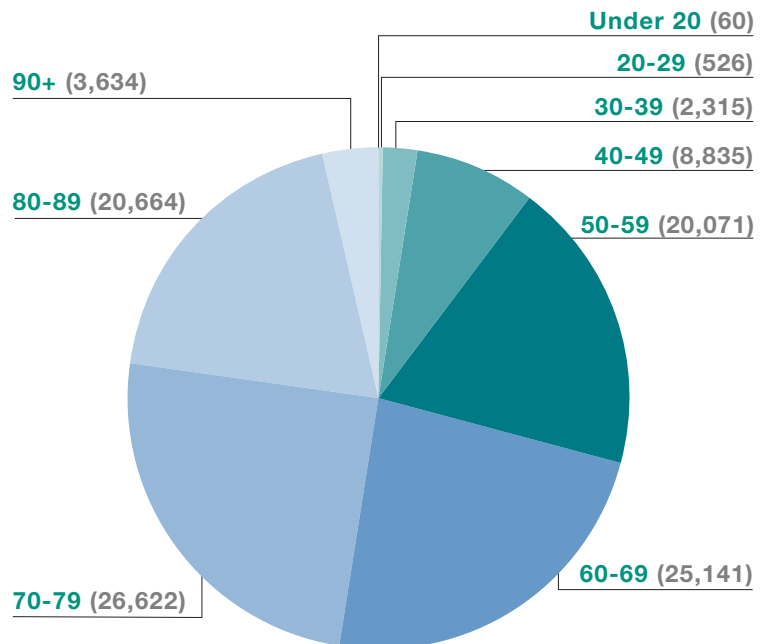
COLON AND RECTUM CANCER

Colon and rectum cancer was the third most common cancer treated at Lehigh Valley Health Network in 2007, 2008 and 2010. Colon and rectum cancer includes the colon (202 cases), rectosigmoid (11 cases), and rectal (61 cases) cancers. Eighty percent (80 percent) of new colorectal cancers were diagnosed at Lehigh Valley Health Network in patients aged 60 years and older in 2007 with a continual decline of 77 percent in 2008, 75 percent in 2009 and 70 percent in 2010.

COLON AND RECTUM CANCER BY AGE AT DIAGNOSIS
LVHN 2010



COLON AND RECTUM CANCER BY AGE AT DIAGNOSIS
NCDB 2008

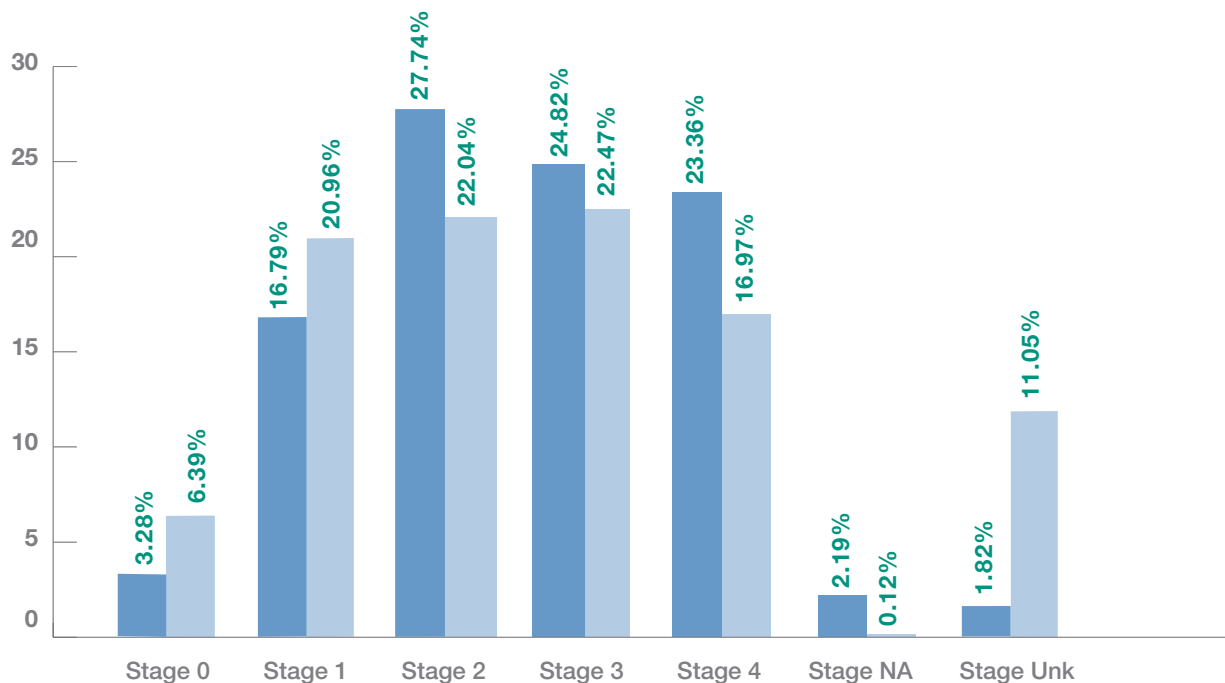


*NCDB Data: All Diagnosed Cases—All Types Hospitals in All States—
Data from 1,370 Hospitals

**LEHIGH VALLEY HEALTH NETWORK 2010 COLON AND RECTUM CANCER ANALYTIC CASES
INITIAL TREATMENT BY AJCC COLLABORATIVE STAGE**

TREATMENT	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	NOT STAGED	STAGE UNK	TOTAL
Surgery Only	6	42	60	24	10	5	1	148
Surgery + Chemotherapy	0	0	3	28	15	0	0	46
Radiation + Chemotherapy	1	0	0	3	4	0	0	8
Surgery + Radiation + Chemotherapy	0	3	8	11	4	0	1	27
Other Specified Therapy	1	1	4	2	20	1	0	29
No 1st Course Treatment	1	0	1	0	11	0	3	16
TOTAL	9	46	76	68	64	6	5	274

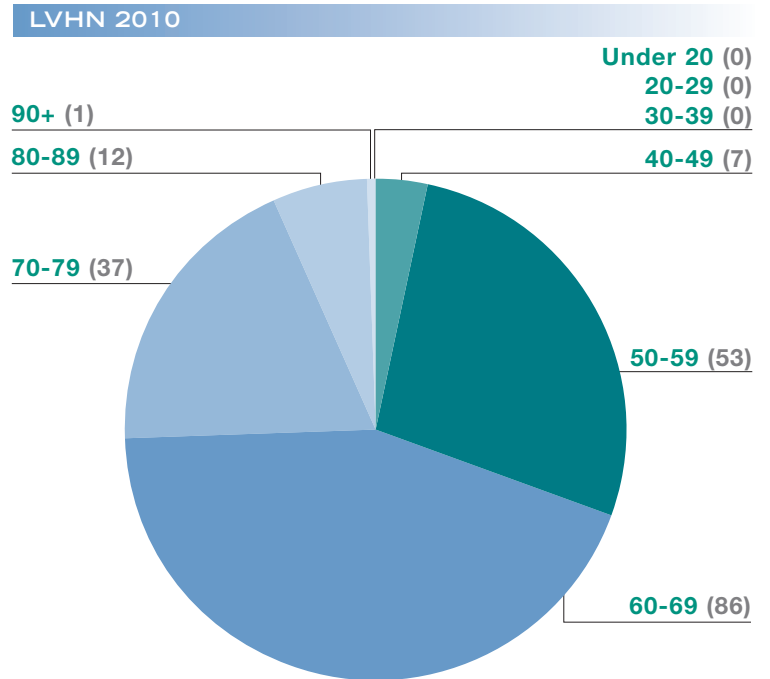
COLON AND RECTUM CANCER COMPARISON OF AJCC COLLABORATIVE STAGE AT DIAGNOSIS
LVHN 2010 ■ NCDB 2008 ■



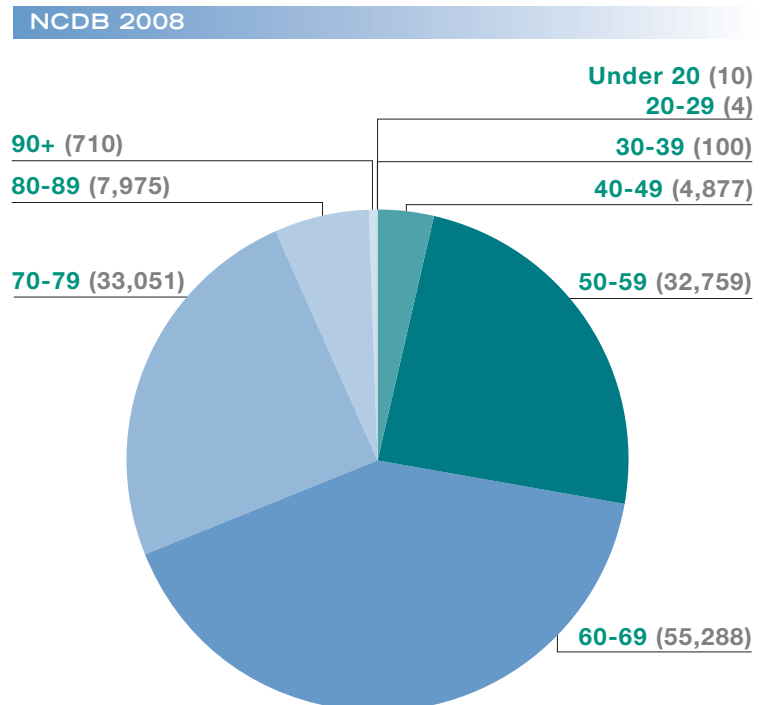
PROSTATE CANCER

Prostate cancer was the fourth most common cancer treated at Lehigh Valley Health Network in 2007, 2008 and 2010. During 2009, prostate cancer made an unusual appearance as the third most common treated cancer at Lehigh Valley Health Network accounting for 9 percent of its 2009 caseload. Seventy-one percent (139) of 2010 newly diagnosed patients were between the ages of 50-69 years in comparison to the 2008 NCDB reported rate of 65 years old. Cases newly diagnosed at Stage II were similar for Lehigh Valley Health Network and NCDB at approximately 80 percent. However, approximately 18 percent of cases were reported at Stage III or IV compared to NCDB reported rate of 13 percent. Most men continue to choose definitive treatment of surgery at both Lehigh Valley Health Network (67 percent) and nationwide (49.5 percent).

PROSTATE CANCER BY AGE AT DIAGNOSIS



PROSTATE CANCER BY AGE AT DIAGNOSIS

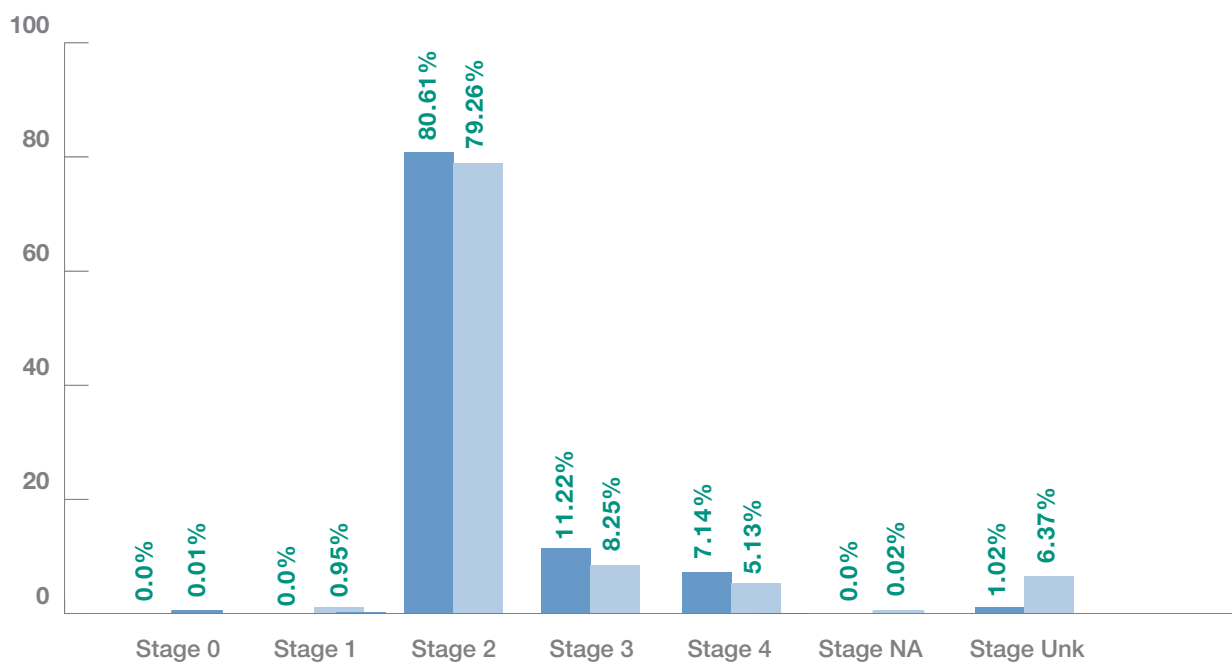


*NCDB Data: All Diagnosed Cases—All Types Hospitals in All States—
Data from 1,370 Hospitals

**LEHIGH VALLEY HEALTH NETWORK 2010 PROSTATE CANCER ANALYTIC CASES
INITIAL TREATMENT BY AJCC COLLABORATIVE STAGE**

TREATMENT	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	NOT STAGED	STAGE UNK	TOTAL
Surgery Only	0	0	107	20	3	0	2	132
Radiation Only	0	0	20	0	0	0	0	20
Radiation + Hormone Therapy	0	0	24	0	0	0	0	24
Hormone Therapy Only	0	0	0	0	4	0	0	4
Other Specified Therapy	0	0	2	2	5	0	0	9
No 1st Course Treatment	0	0	5	0	2	0	0	7
TOTAL	0	0	158	22	14	0	2	196

PROSTATE CANCER COMPARISON OF AJCC COLLABORATIVE STAGE AT DIAGNOSIS
LVHN 2010 ■ NCDB 2008 ■

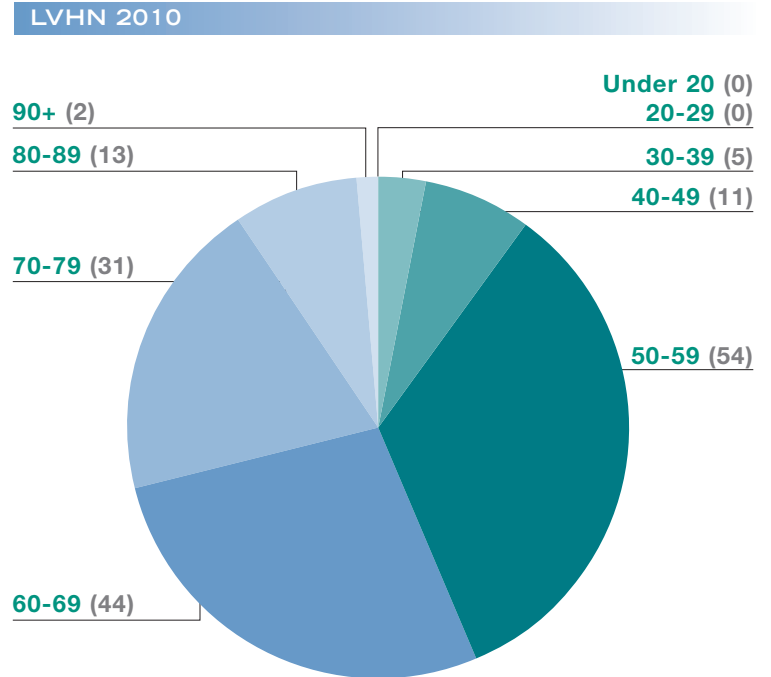


CORPUS UTERI*

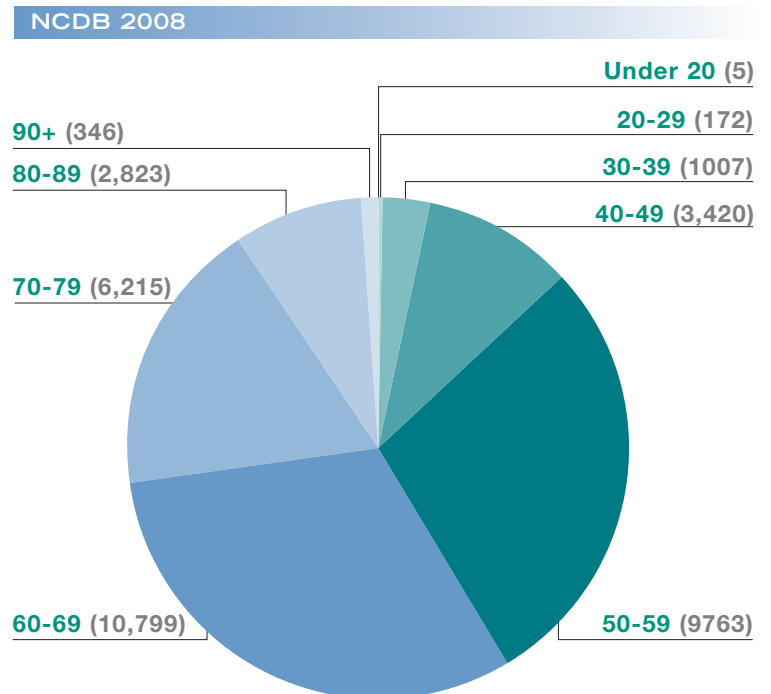
Corpus uteri is the fifth most common cancer treated at Lehigh Valley Health Network. Lehigh Valley Health Network reported age at diagnosis is very similar to that of 2008 NCDB, with at least 60 percent of patients diagnosed between the ages of 50-60 years old. Lehigh Valley Health Network reported a lower stage at diagnosis with 64 percent of cases being diagnosed at or below stage 1 compared to 53 percent of 2008 NCDB reported cases, and 12 percent diagnosed at stage 2 compared to NCDB reported rate of 7.5 percent. Lehigh Valley Health Network case management was similar to NCDB reported case management with greater than 60 percent of patients treated with surgery only.

**Corpus Uteri is the main body of the uterus above the constriction behind the cervix and below the openings of the fallopian tubes.*

CORPUS UTERI BY AGE AT DIAGNOSIS



CORPUS UTERI BY AGE AT DIAGNOSIS

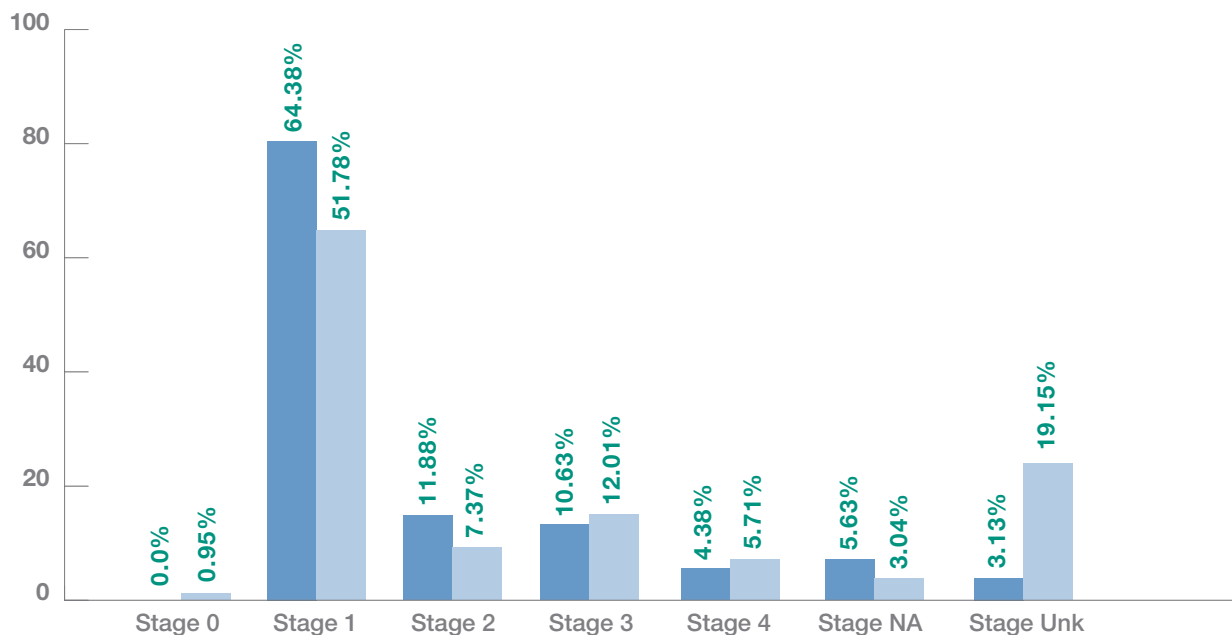


**NCDB Data: All Diagnosed Cases—All Types Hospitals in All States—Data from 1,370 Hospitals*

LEHIGH VALLEY HEALTH NETWORK 2010 CORPUS UTERI ANALYTIC CASES
INITIAL TREATMENT BY AJCC COLLABORATIVE STAGE

TREATMENT	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE NA	STAGE UNK	TOTAL
Surgery Only	0	82	10	3	4	5	5	109
Surgery + Radiation	0	14	4	3	0	0	0	21
Surgery + Chemotherapy	0	1	2	3	0	1	0	7
Surgery + Radiation + Chemotherapy	0	3	1	5	1	2	0	12
Other Specified Therapy	0	2	2	3	1	0	0	8
No 1st Course Treatment	0	1	0	0	1	1	0	3
TOTAL	0	103	19	17	7	9	5	160


CORPUS UTERI CANCER COMPARISON OF AJCC COLLABORATIVE STAGE AT DIAGNOSIS
LVHN 2010 ■ NCDB 2008 ■





CANCER COMMITTEE MEMBERSHIP

At Lehigh Valley Health Network, we excel in care for our cancer patients. Lehigh Valley Health Network's Cancer Committee oversees activities of the cancer program and is responsible for ensuring quality care and facilitating advancements. The multidisciplinary cancer committee is composed of medical and administrative personnel with a full range of specialty skill sets. We also work closely with the American Cancer Society and Leukemia and Lymphoma Society.



2011 CANCER COMMITTEE MEMBERSHIP

MEMBER NAME	DISCIPLINE
Ahmed, Basil MD	Medical Oncology/Hematology
Andrews, Charles MD	Radiation Oncology, Chair
Barnaby, Janine RPh, BCOP	Oncology Certified Pharmacist
Barr, Gavin MD	Primary Care Physician
Bleznak, Aaron MD	Surgical Oncology, Cancer Committee Chair, CoC Liaison Physician
Boulay, Richard MD	Gynecology Oncology, Chair; Cancer Committee Chair-elect
Boyle, Linda PT	Rehabilitative Services
Brennan, Jennifer RD, CSO, LDN	Oncology Certified Dietitian
Cerrone, Mary Jane RN	Pain Control/Palliative Care
Chupella, Mary Ann MA, LPC	Leukemia and Lymphoma Society
Dellers, Elizabeth MD	Associate Chief, Division of Anatomic Pathology
Dwinal, Brenda CTR	Tumor Registry Supervisor
Fillebrown, Ruth RN, CHPN	Hospice/Home Health Nurse
Friedman, Eliot MD	Chief, Division of Hematology-Medical Oncology
Harper, Gregory MD, PhD	Medical Oncology, Medical Director, NCCCP
Kimmel, Sharon PhD, MHA, CCRP	Director, Oncology Clinical Trials and Data Management
Krukltis, Robert MD	Chief, Division of Pulmonary
Lewis, Shanti MD	Psychiatry
Lichtenwalner, Sarah RN, OCN	Multipurpose Infusion Area, Muhlenberg
Mack, Nadesda BSN, MBA, OCN	Breast Health Services, Director
Martz, Ulla LSW MSW	Social Worker/Case Management
Matthias, Darlene BSN, MS, OCN	Multipurpose Infusion Area, Director
McGonigle, Lenore MEd	Facility-Based Education/Community Outreach
Monteleone, Philip MD	Pediatric Medical Oncology
Nair, Suresh MD	Medical Oncology, Medical Director, Research
O'Connell, Mary Ellen MSN, MBA	Performance Improvement/Quality Management
Park, John MD	Colon and Rectal Surgery
Pendurthi, T. Kumar MD, PhD	General Surgeon
Reimer, Nicole BSN, OCN	Oncology Medical Surgery Inpatient Unit, Director
Rienzo, Robert MD	Chief, Section of Nuclear Medicine
Rutt, Barbara, RN, Mdiv, BCC	Pastoral Care
Schiavone, Karen RN	American Cancer Society
Weinhold, Keith MHA, FACHE	Senior Vice President, Operations
Skandan, Savitri MD	Hematology-Medical Oncology, CoC Liaison Physician Elect
Sevedge, Kathleen MSN, OCN	Director, Cancer Support Services
Wertz, Robert MD	Medical Director, Pain Management Center
Zukas, Jeanne MD	Medical Resident

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