

Lehigh Valley Health Network

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Lehigh Valley Topper Cancer Institute

Lehigh Valley Topper Cancer Institute: 2020 Statistical Report

Lehigh Valley Health Network

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2020 Statistical Report



Lehigh Valley Cancer Institute Mission

We ease our community's cancer burden by preventing cancer, by finding cancer early, by providing comprehensive diagnostic, consultative, treatment, support and survivorship services, and by educating health care professionals and residents of the communities we serve about advances in cancer care.



Welcome to Lehigh Valley Cancer Institute's 2020 Annual Report, which features 2019 statistical data and insight into new innovations and programs in cancer care. The unprecedented COVID-19 pandemic impacted the entire health care delivery system and how we provide services and deliver safe care to our patients. Our cancer program had to adjust to the changing landscape of cancer care while continuing to provide safe patient access and services that were needed. Roles and responsibilities to provide innovative treatment were established and implemented.

Lehigh Valley Cancer Institute offers services in prevention, detection, diagnosis, genetics, patient navigation, nutrition, social and psychological support, rehabilitation, clinical trials, multidisciplinary and coordinated care, surgery, radiation therapy, chemotherapy, immunotherapy, hemophilia care, survivorship, palliative care and hospice support.



GREAT PLACE TO WORK

Lehigh Valley Health Network (LVHN) is certified as one of the best places to work in the country. The Great Place to Work® company is the global authority on workplace culture. Since 1992, it has surveyed more than 100 million employees around the world and used those deep insights to define what makes a great workplace.



LEHIGH VALLEY HOSPITALS EARN MAGNET® EDESIGNATION FOR FIFTH TIME

Lehigh Valley Health Network's Lehigh Valley-based hospitals and services achieved Magnet® designation for the fifth consecutive time. The American Nurses Credentialing Center Magnet Recognition Program distinguishes health care organizations that demonstrate excellence in nursing services. Magnet recognition is the highest national credential for nursing excellence, serving as the gold standard for nursing practice.



Memorial Sloan Kettering
Cancer Alliance
MEMBER

MEMORIAL SLOAN KETTERING CANCER ALLIANCE DISEASE MANAGEMENT TEAM

Lehigh Valley Cancer Institute is one of just three MSK Cancer Alliance Partners in the nation. This partnership has strengthened our quality of care and provided our patients access to precision medicine testing, leading-edge clinical trials, and collaboration with patient management and second opinions.

Due to COVID-19, our Disease Management Teams (DMT) were temporarily put on hold, but resumed in September. Virtual meetings have temporarily taken the place of in-person meetings for all weekly tumor boards including breast, hepatobiliary, GYN, pulmonary, skin, urology, neurology and thoracic tumor boards. DMT, MSK Alliance Leadership, QA/PI Steering Committee and clinical practice meetings are held virtually as well. DMTs meet monthly to review treatment patterns, new care paradigms and establish standards of care. The monthly clinical research meeting has continued as a virtual meeting.

Education has also continued through online platform. As an example, discussions have been initiated regarding the new Phase II clinical trial of single-agent Nivolumab in patients with microsatellite unstable/mismatch repair deficient/hypermutated uterine cancer. Despite the temporary shift to virtual meetings and online educational activities due to the pandemic, collaboration and partnership between MSK and Lehigh Valley Cancer Institute continues to remain strong and continues its aim to provide advanced, leading-edge quality care to patients.

Lehigh Valley Cancer Institute Case Information

Lehigh Valley Cancer Institute offers a wide range of cancer services in convenient and patient-focused locations, namely the John and Dorothy Morgan Cancer Center at Lehigh Valley Hospital (LVH)-Cedar Crest, the Cancer Center at LVH-Muhlenberg and the Health Center at Bangor. Patient care also is provided through Lehigh Valley Physician Group practice offices in Allentown, Bethlehem, Hazleton, Bangor and Lehigh.

Breast Health Services is offered in 10 locations throughout the region, and now, for greater convenience, is offered through mobile mammography.

The faculty of Lehigh Valley Cancer Institute is composed of physicians who are cancer care specialists and board certified in their fields. In 2019, the cancer program saw 3,738 new cancer patients.

TOP FIVE CANCER PRIMARIES, LVH-CEDAR CREST AND LVH-MUHLENBERG (FIVE-YEAR COMPARISON)

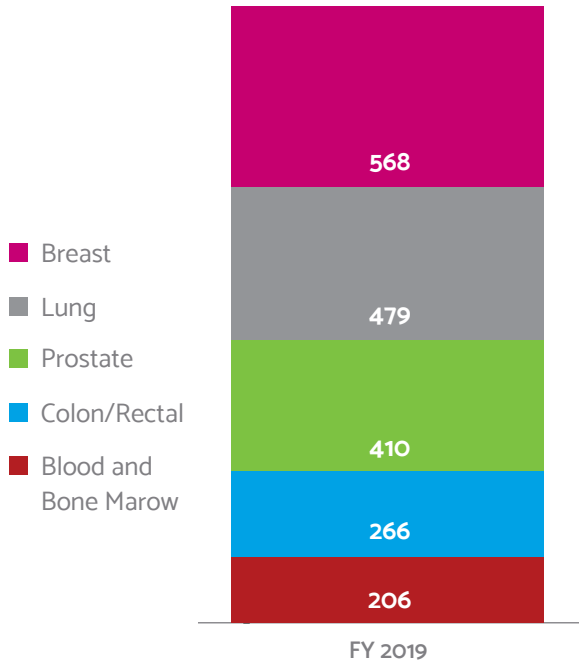
SITE DESCRIPTION	2015	2016	2017	2018	2019
BREAST	474	426	504	559	568
BRONCHUS AND LUNG	404	411	446	471	479
PROSTATE GLAND	245	274	290	377	410
COLORECTAL	298	300	267	281	266
BLOOD AND BONE MARROW	188	217	226	232	206
TOTAL	1,609	1,628	1,733	1,920	1,929



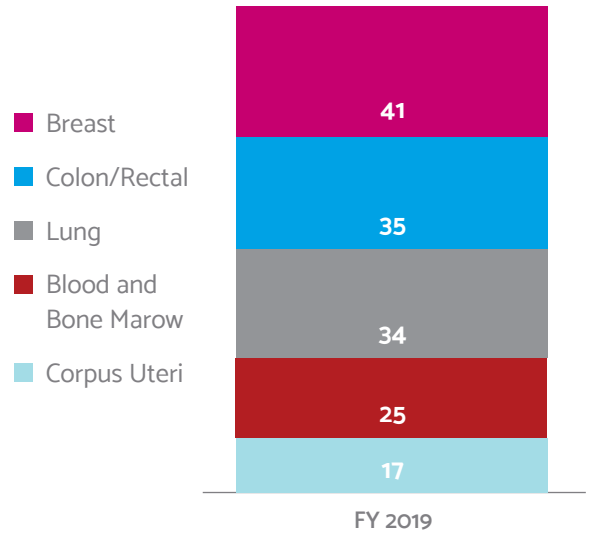
NEW CANCER PATIENTS 2019

2019 Top Five Most Prevalent Sites of Cancers Treated

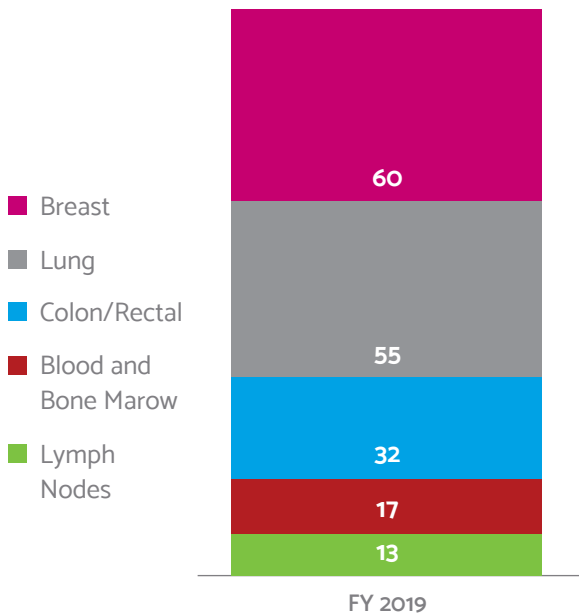
LVH-CEDAR CREST AND LVH-MUHLENBERG



LVH-HAZLETON

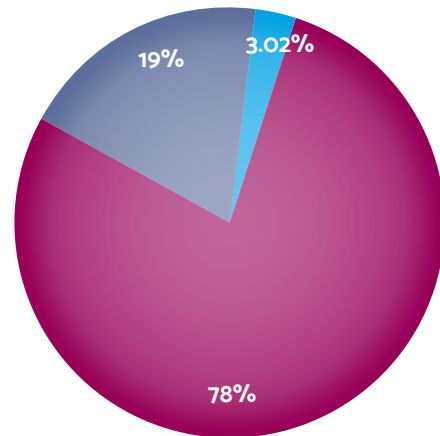


LVH-SCHUYLKILL



Case Classification Based on Patient Migration Patterns

ANALYTIC CASES, LVH-CEDAR CREST AND LVH-MUHLENBERG 2019



- Diagnosed here and treated elsewhere
- Diagnosed here and treated here
- Diagnosed elsewhere and treated here

Cancer Staging and Incidence Terminology

Cancer diagnosis, staging, incidence and treatment have a language of their own. Here are some commonly used terms and resources for more information:

AMERICAN JOINT COMMITTEE ON CANCER (AJCC) STAGING

A classification system used for describing the extent of disease progression based on evaluation of the tumor size/invasion (T), nodal status (N) and metastasis (M) at time of diagnosis. AJCC staging is important in determining treatment plans.

ANALYTIC CANCER CASE

Cases for which the facility provided the initial diagnosis of cancer and/or for which the facility contributed to all or part of the first course of treatment.

NATIONAL CANCER DATABASE (NCDB)

The NCDB, a joint project of the American Cancer Society and the Commission on Cancer, collects information on cancer cases diagnosed and/or treated at hospitals throughout the country. This non-patient-identified information is used to present scientifically reviewed descriptions of patient diagnosis, treatment and outcomes.

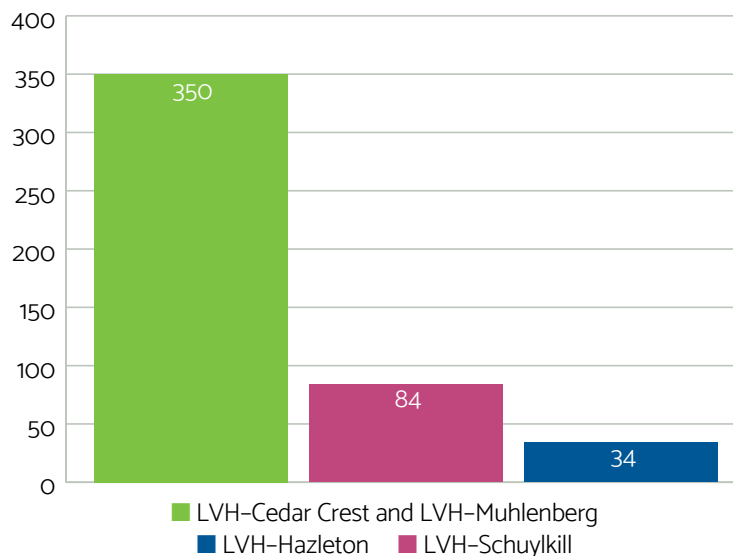
RAPID CANCER REPORTING SYSTEM (RCRS)

The Commission on Cancer (CoC) National Cancer Database (NCDB) has implemented a change to its technology infrastructure, with the transition to a new data platform system referred to as the Rapid Cancer Reporting System (RCRS), formerly known as RQRS.

RCRS, launched Sept. 28, 2020, is a web-based data collection and reporting system that analyzes information gathered through the American College of Surgeon's (ACoS) Quality Data Platform vendor, IQVIA. RCRS now serves as the new single source of data submission for all CoC-accredited hospital registries resulting from the combining of the prior two systems, RQRS and NCDB. Cases submitted to RCRS will include all disease sites from 2004 through current.

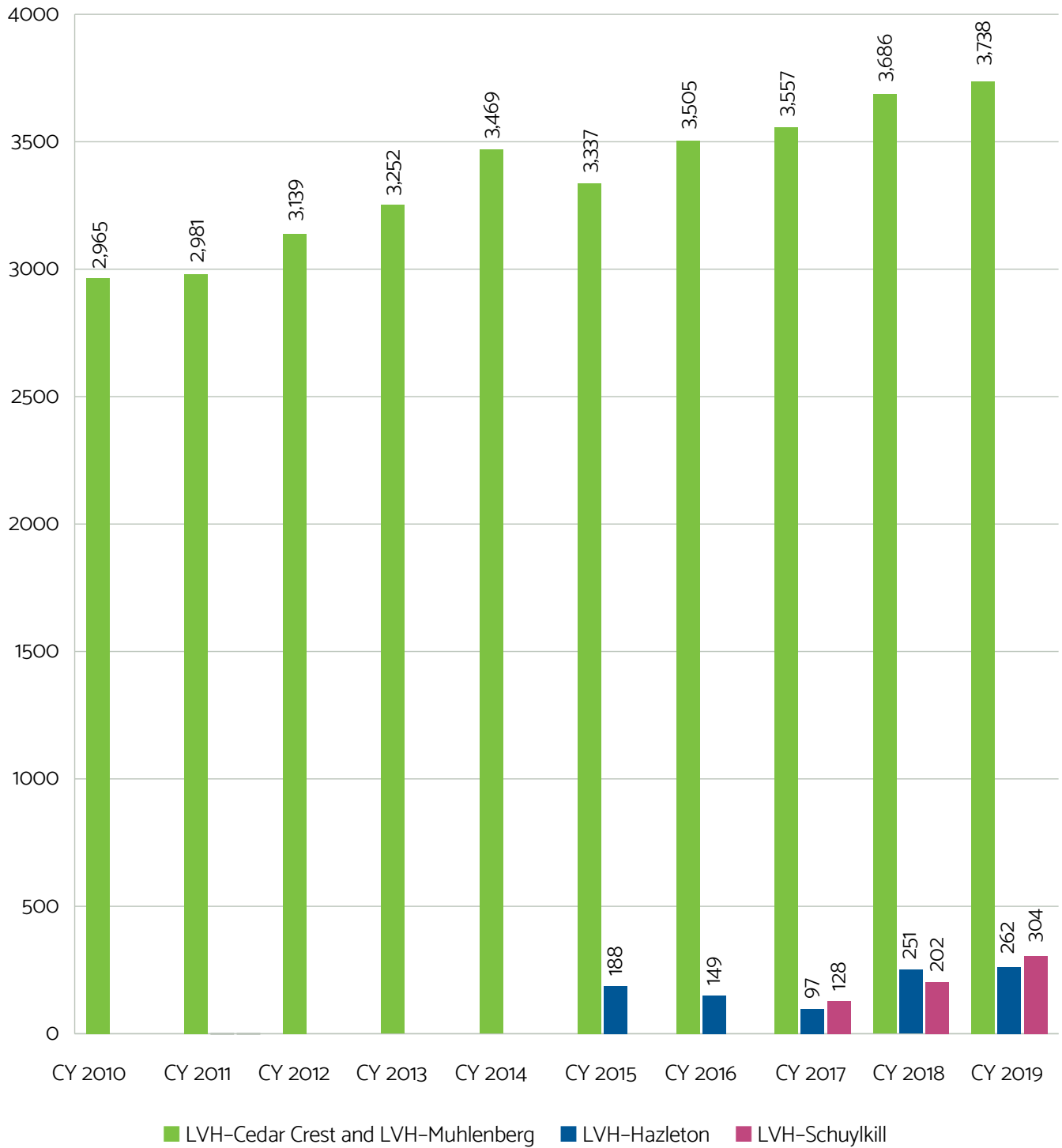
Lehigh Valley Cancer Institute actively participates in the RCRS data collection and reporting program. As a nationwide oncology case repository for real-time and historical data, RCRS enables assessment of hospital-level adherence to quality of cancer care measures for all CoC-accredited programs. Resulting case analysis contributes to a body of evidence-based cancer care knowledge. Based on the evidence, RCRS alerts participants each month to "anticipated care" for their cancer patients. The value in these alerts is to avoid having patients miss out on adjuvant care or therapy that they could receive in addition to their main treatment plan.

Non-Analytic Class of Case Volumes by LVHN Facility, 2019



*Non-Analytic cases represent any of the following scenarios: patients who present at LVH after initial Dx &/or Tx elsewhere and patient is referred for consultation; recurrence of cancer, or disease progression; pathology specimen only; dx'ed & received all first course of Tx in a staff physician's office; or initially diagnosed at autopsy or death certificate.

Total Annual Analytic Cases



Analytic Case Incidence by County of Residence

Lehigh Valley Cancer Institute (LVH-Cedar Crest and LVH-Muhlenberg) provides cancer care for patients in our community and serves as a tertiary referral center. In 2019, we provided diagnostic care, second opinion recommendations and treatment to more than **3,730** patients from **28** Pennsylvania counties. In addition, **42** patients came to our cancer program from communities across the United States.



ANALYTIC CASES 2019

COUNTY OF RESIDENCE	2016	2017	2018	2019
ADAMS	0	0	0	1
BERKS	222	226	277	278
BRADFORD	1	0	3	0
BUCKS	58	45	55	50
BUTLER	0	0	0	1
CAMBRIA	1	1	0	1
CARBON	210	227	186	198
CENTRE	0	1	0	0
CHESTER	2	4	8	7
CLINTON	1	0	1	0
COLUMBIA	4	0	4	6
CUMBERLAND	0	1	1	1
DAUPHIN	0	1	1	0
DELAWARE	0	2	0	1
FRANKLIN	1	0	0	0
GREENE	0	0	1	0
INDIANA	0	0	0	1
JEFFERSON	0	0	2	0
LACKAWANNA	29	28	41	42
LANCASTER	5	3	0	1
LEBANON	1	1	0	1
LEHIGH	1,513	1,566	1,470	1,453
LUZERNE	144	133	153	170
LYCOMING	4	2	3	0
MONROE	166	154	151	155
MONTGOMERY	89	83	71	72
MONTOUR	2	0	0	0
NORTHAMPTON	768	764	920	949
NORTHUMBERLAND	0	1	2	1
PERRY	0	0	0	1
PHILADELPHIA	4	3	1	1
PIKE	13	15	24	19
POTTER	0	0	1	0
SCHUYKILL	191	204	228	269
SOMERSET	0	1	0	0
SULLIVAN	1	0	0	0
SUSQUEHANNA	3	2	5	2
UNION	0	0	0	1
TIOGA	0	1	2	0
VENANGO	0	0	1	0
WAYNE	2	10	13	11
WYOMING	4	5	3	3
YORK	0	0	1	0
OUT OF STATE	66	73	57	42
TOTAL	3,505	3,557	3,686	3,738

2019 Analytic Cases by Primary Body Site

LVH-CEDAR CREST AND LVH-MUHLENBERG

PRIMARY SITE	TOTAL
HEAD AND NECK	137
DIGESTIVE ORGANS	588
ESOPHAGUS	34
STOMACH	51
SMALL INTESTINE	18
COLON	192
RECTOSIGMOID JUNCTION	13
RECTUM	61
ANUS & ANAL CANAL	15
LIVER & BILE DUCTS	71
GALLBLADDER	9
OTHER BILIARY TRACT	15
PANCREAS	109
THORAX	483
BRONCHUS & LUNG	479
THYMUS	2
HEART MEDIASTINUM PLEURA	2
MUSCULOSKELETAL/SOFT TISSUE SITES	37
BLOOD AND BONE MARROW	206
SKIN	156

PRIMARY SITE	TOTAL
BREAST	568
FEMALE GENITAL ORGANS	299
VULVA	13
VAGINA	4
CERVIX UTERI	28
CORPUS UTERI	183
UTERUS NOS	4
OVARY	58
OTHER FEMALE GENITAL ORGANS	9
MALE GENITAL ORGANS	417
PENIS	1
PROSTATE GLAND	410
TESTIS	6
URINARY TRACT ORGANS	294
KIDNEY	112
KIDNEY, RENAL PELVIS	5
URETER	7
URINARY BLADDER	159
OTHER & UNSPECIFIED URINARY ORGANS	11

PRIMARY SITE	TOTAL
CENTRAL NERVOUS SYSTEM	166
MENINGES	97
BRAIN	60
OTHER NERVOUS SYSTEM	9
ENDOCRINE GLANDS	176
THYROID GLAND	145
ADRENAL GLAND	4
OTHER ENDOCRINE GLANDS	27
OTHER	12
RETROPERITONEUM & PERITONEUM	12
LYMPH NODES	152
UNKNOWN PRIMARY	47
TOTAL ANALYTIC CASES	3,738

LVH-HAZLETON

PRIMARY SITE	TOTAL
HEAD AND NECK	13
DIGESTIVE ORGANS	58
BRONCHUS & LUNG	34
MUSCULOSKELETAL/ SOFT TISSUE SITES	2
BLOOD AND BONE MARROW	25
SKIN	2
BREAST	41
FEMALE GENITAL ORGANS	23
MALE GENITAL ORGANS	6
URINARY TRACT ORGANS	15
CENTRAL NERVOUS SYSTEM	10
ENDOCRINE GLANDS	13
OTHER	0
LYMPH NODES	12
UNKNOWN PRIMARY	8
TOTAL ANALYTIC CASES	262

LVH-SCHUYLKILL

PRIMARY SITE	TOTAL
HEAD AND NECK	12
DIGESTIVE ORGANS	65
BRONCHUS & LUNG	56
BLOOD AND BONE MARROW	17
SKIN	7
BREAST	60
FEMALE GENITAL ORGANS	20
PROSTATE GLAND	10
URINARY TRACT ORGANS	16
CENTRAL NERVOUS SYSTEM	13
ENDOCRINE GLANDS	9
OTHER	1
LYMPH NODES	13
UNKNOWN PRIMARY	5
TOTAL ANALYTIC CASES	304

#1 Breast Cancer

INCIDENCE OF BREAST CANCER BY AGE AT DIAGNOSIS LVHN 2019

AGE AT DIAGNOSIS	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	3	19	75	148	164	120	35	4	568

BREAST CANCER TREATMENT BY AJCC STAGE AT DIAGNOSIS LVHN 2019

TREATMENT	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE UNK	*LVHN TOTAL	LVHN %
SURGERY ONLY	29	9	1	5	0	25	69	13.7%
CHEMOTHERAPY ONLY	0	0	0	0	2	0	2	0.4%
SURGERY + RADIATION	17	11	0	0	0	13	41	8.2%
SURGERY + CHEMOTHERAPY	0	6	1	1	0	2	10	2.0%
SURGERY + CHEMOTHERAPY + RADIATION	0	10	3	2	0	0	15	3.0%
SURGERY + RADIATION + HORMONE	28	151	3	1	0	31	214	42.5%
SURGERY + HORMONE	12	28	1	1	0	10	52	10.3%
SURGERY + CHEMOTHERAPY + RADIATION + HORMONE	0	19	6	0	0	0	25	5.0%
SURGERY + CHEMOTHERAPY + RADIATION + IMMUNOTHERAPY	0	2	0	1	0	0	3	0.6%
SURGERY + CHEMOTHERAPY + RADIATION + HORMONE + IMMUNOTHERAPY	0	7	0	0	0	0	7	1.4%
SURGERY + CHEMOTHERAPY + HORMONE	0	7	1	1	0	1	10	2.0%
SURGERY + CHEMOTHERAPY + HORMONE + IMMUNOTHERAPY	0	4	0	0	0	0	4	0.8%
SURGERY + CHEMOTHERAPY + IMMUNOTHERAPY	0	3	0	0	0	0	3	0.6%
CHEMOTHERAPY + RADIATION + HORMONE	2	4	2	0	3	2	13	2.6%
HORMONE THERAPY ONLY	0	0	0	0	11	1	12	2.4%
OTHER SPECIFIED THERAPY	0	3	0	1	7	3	14	2.8%
NO FIRST COURSE TREATMENT	1	4	2	0	1	1	9	1.8%
TOTAL	89	268	20	13	24	89	503	100%

* 2 cases excluded having no AJCC Staging - Phyllodes tumor; 63 cases excluded due to Stage Classification Performed After Initial Multimodality Therapy.

#2 Lung Cancer

INCIDENCE OF LUNG CANCER BY AGE AT DIAGNOSIS LVHN 2019

AGE AT DIAGNOSIS	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	0	1	13	67	149	176	67	6	479

LUNG CANCER *TREATMENT BY AJCC STAGE DIAGNOSIS LVHN 2019

TREATMENT	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE UNK	STAGE NA	*LVHN TOTAL	LVHN %
SURGERY ONLY	1	69	5	1	0	0	4	80	16.7%
RADIATION THERAPY ONLY	0	54	4	4	24	5	1	92	19.2%
SURGERY + CHEMOTHERAPY	0	1	7	1	0	0	0	9	1.9%
CHEMOTHERAPY + RADIATION	0	3	8	48	24	0	1	84	17.6%
CHEMOTHERAPY ONLY	0	0	2	2	29	0	0	33	6.9%
SURGERY + CHEMOTHERAPY + RADIATION	1	1	1	1	0	0	0	4	0.8%
IMMUNOTHERAPY ONLY	0	1	0	0	12	0	0	13	2.7%
RADIATION + IMMUNOTHERAPY	0	0	0	0	10	0	0	10	2.1%
CHEMOTHERAPY + IMMUNOTHERAPY	0	0	0	1	23	1	1	26	5.4%
CHEMOTHERAPY + RADIATION + IMMUNOTHERAPY	0	0	0	8	19	0	1	28	5.9%
OTHER SPECIFIED THERAPY	0	0	0	1	3	0	0	4	0.8%
NO FIRST COURSE TREATMENT	0	17	8	11	57	0	2	95	19.9%
TOTAL	2	146	35	78	201	6	10	478	100%

*1 case excluded due to Stage Classification Performed After Initial Multimodality Therapy.

#3 Prostate Cancer

INCIDENCE OF PROSTATE CANCER BY AGE AT DIAGNOSIS LVHN 2019

AGE AT DIAGNOSIS	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	0	0	7	74	173	131	22	3	410

PROSTATE CANCER TREATMENT BY AJCC STAGE DIAGNOSIS LVHN 2019

TREATMENT	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE UNK	*LVHN TOTAL	LVHN %
SURGERY ONLY	16	68	29	3	16	132	32.3%
RADIATION THERAPY ONLY	6	15	0	0	1	22	5.4%
SURGERY + RADIATION + HORMONE THERAPY	0	1	7	11	0	19	4.6%
SURGERY + HORMONE THERAPY	0	3	8	3	1	15	3.7%
RADIATION + HORMONE THERAPY	1	48	30	7	4	90	22.0%
HORMONE THERAPY ONLY	0	1	2	17	3	23	5.6%
SURGERY + RADIATION	0	0	2	0	0	2	0.5%
OTHER SPECIFIED THERAPY	0	0	0	1	0	1	0.2%
NO FIRST COURSE TREATMENT	67	16	6	1	15	105	25.7%
TOTAL	90	152	84	43	40	409	100%

*1 case excluded as ineligible for AJCC Staging.

#4 Colon/Rectal Cancer

INCIDENCE OF COLON CANCER BY AGE AT DIAGNOSIS LVHN 2019

AGE AT DIAGNOSIS	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	3	4	12	38	44	47	37	7	192

COLON CANCER TREATMENT BY AJCC STAGE DIAGNOSIS LVHN 2019

TREATMENT	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE UNK	*LVHN TOTAL	LVHN %
SURGERY ONLY	1	28	41	16	6	4	96	50.5%
SURGERY + CHEMOTHERAPY	0	0	12	21	9	1	43	22.6%
SURGERY + CHEMOTHERAPY + IMMUNOTHERAPY	0	0	0	2	3	0	5	2.6%
SURGERY + IMMUNOTHERAPY	0	1	0	1	2	1	5	2.6%
CHEMOTHERAPY ONLY	0	0	0	0	9	2	11	5.8%
CHEMOTHERAPY + IMMUNOTHERAPY	0	0	0	0	11	0	11	5.8%
OTHER SPECIFIED THERAPY	0	0	1	0	0	0	1	0.5%
NO FIRST COURSE TREATMENT	0	2	1	1	7	7	18	9.5%
TOTAL	1	31	55	41	47	15	190	100%

*2 cases excluded as ineligible for AJCC Staging.

#4 Colon/Rectal Cancer

INCIDENCE OF RECTAL CANCER BY AGE AT DIAGNOSIS LVHN 2019

AGE AT DIAGNOSIS	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	2	1	3	16	24	10	5	0	61

RECTAL CANCER TREATMENT BY AJCC STAGE DIAGNOSIS LVHN 2019

TREATMENT	STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4	STAGE UNK	*LVHN TOTAL	LVHN %
SURGERY ONLY	0	10	1	0	3	0	14	27.5%
SURGERY + CHEMOTHERAPY + RADIATION	0	0	1	5	1	0	7	13.7%
SURGERY + CHEMOTHERAPY	0	0	0	2	2	0	4	7.8%
SURGERY + CHEMOTHERAPY + RADIATION + IMMUNOTHERAPY	0	0	0	1	0	0	1	2.0%
CHEMOTHERAPY + RADIATION	0	0	2	3	3	1	9	17.6%
CHEMOTHERAPY ONLY	0	0	0	2	4	0	6	11.8%
CHEMOTHERAPY + IMMUNOTHERAPY	0	0	1	0	1	0	2	3.9%
RADIATION THERAPY ONLY	0	0	0	1	1	0	2	3.9%
OTHER SPECIFIED THERAPY	0	0	0	1	0	0	1	2.0%
NO FIRST COURSE TREATMENT	0	0	1	0	3	1	5	9.8%
TOTAL	0	10	6	15	18	2	51	100%

*10 cases excluded as ineligible for AJCC Staging.

#5 Blood and Bone Marrow Cancer

INCIDENCE OF BLOOD AND BONE MARROW CANCER BY AGE AT DIAGNOSIS LVHN 2019

AGE AT DIAGNOSIS	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	5	9	3	7	12	24	42	55	42	7	206

BLOOD AND BONE MARROW CANCER TREATMENT BY AJCC STAGE DIAGNOSIS LVHN 2019

FIRST COURSE	*LVHN TOTAL	LVHN %
CHEMOTHERAPY ONLY	76	36.9%
CHEMOTHERAPY + HORMONE THERAPY + IMMUNOTHERAPY	9	4.4%
CHEMOTHERAPY + HORMONE THERAPY	6	2.9%
CHEMOTHERAPY + IMMUNOTHERAPY	6	2.9%
CHEMOTHERAPY + STEM CELL TRANSPLANT	5	2.4%
IMMUNOTHERAPY ONLY	3	1.5%
CHEMOTHERAPY + HORMONE THERAPY + IMMUNOTHERAPY + STEM CELL TRANSPLANT	2	1.0%
CHEMOTHERAPY + RADIATION + HORMONE + IMMUNOTHERAPY + TRANSPLANT	1	0.5%
CHEMOTHERAPY + RADIATION + STEM CELL TRANSPLANT	1	0.5%
CHEMOTHERAPY + RADIATION + HORMONE THERAPY	1	0.5%
RADIATION THERAPY ONLY	1	0.5%
OTHER SPECIFIED THERAPY	14	6.8%
NO FIRST COURSE TREATMENT	81	39.3%
TOTAL	206	100%



Coming in Summer 2021: Lehigh Valley Hospital-Hecktown Oaks

Lehigh Valley Health Network (LVHN) broke ground in December 2019 for a new hospital in Northampton County, which will be located just off Route 33, along Hecktown Road in Lower Nazareth Township. The hospital, known as Lehigh Valley Hospital (LVH)-Hecktown Oaks, will feature a wide range of LVHN services, as well as a thoughtfully designed patient experience.

Among the facilities is a four-story hospital, 24/7 emergency room for adults and children, comprehensive surgical services provided by Lehigh Valley Institute for Surgical Excellence, a healing garden and more. A medical office building will offer both primary and specialty care services, as well as specialty care from Lehigh Valley Heart Institute, a Joint and Spine Center, Breast Health Services, rehabilitation services, and other LVHN practices and services. Lehigh Valley Cancer Institute also will have a space for patient care. The Cancer Institute team will provide innovative and compassionate patient care and help guide patient participation in clinical trials through the institute's membership in the Memorial Sloan Kettering Cancer Alliance. Patients also will have access to radiation oncology and infusion services.

LVH-Hecktown Oaks is slated to open summer 2021.



New Health Campus Planned for Carbon County

Lehigh Valley Health Network also will build a new health campus on Route 443 in Mahoning Township, adjacent to the Borough of Lehigh. Plans include a new hospital, to be named Lehigh Valley Hospital–Carbon, and a medical office building, all designed for patient convenience and easy access to LVHN services.

The campus will offer a full-service, 24/7 emergency room, full OR services and suites providing inpatient and outpatient surgical care, and a wide range of diagnostic services including magnetic resonance imaging (MRI). The hospital also will include private rooms for inpatient care. Lehigh Valley Institute for Surgical Excellence will oversee surgery services at the hospital.

The medical office building will provide specialty care services, including heart care (Lehigh Valley Heart Institute), primary care, Breast Health Services and other specialty care services. In addition, we will expand Lehigh Valley Cancer Institute care in Carbon County and offer greater access to world-class clinical trials and treatments through the Memorial Sloan Kettering Cancer Alliance.



Dickson City Hospital

Lehigh Valley Health Network is continuing to grow. In addition to new hospitals in Carbon County and Lower Nazareth, there will be a new hospital in Dickson City, Lackawanna County.

The hospital will be physically attached to Coordinated Health Scranton Orthopedics, which has been well known in the community for over 25 years. While the hospital will have a surgical specialty focus with seven operating rooms and two procedure rooms, it also will have an 18-bay emergency department, 24 inpatient beds and a helipad for critical care transports.



LGBTQ Health Care Equality Ranking

Giving patients and colleagues the experience they expect and deserve begins with modeling Lehigh Valley Health Network's (LVHN) core values: compassion, integrity, collaboration and excellence. LVHN demonstrates a commitment to advancing health equity for individuals in the lesbian, gay, bisexual, transgender and queer or questioning (LGBTQ) community, and creates an inclusive work environment for all. That commitment is once again receiving national recognition.

Lehigh Valley Hospital (LVH)–Cedar Crest, LVH–17th Street, LVH–Muhlenberg and LVHN–Tilghman are recognized as an “LGBTQ Healthcare Equality Leader” in the Human Rights Campaign’s Healthcare Equality Index (HEI) for 2020. LVHN has achieved a perfect score in the criteria to achieve this designation. LVHN is committed to providing compassionate, high-quality health care that meets the needs of all patients, including those in the LGBTQ community, by offering respect and inclusion for all orientations and identities.

How Lehigh Valley Cancer Institute Keeps Patients Safe During COVID-19

Physicians and nurses at Lehigh Valley Cancer Institute have worked together throughout the COVID-19 pandemic to ensure cancer patients continue to receive outstanding care and leading-edge treatments, while minimizing their risk for contracting the virus. Since some cancer patients may be immunosuppressed and more susceptible to COVID-19, we have made multiple accommodations to ensure their safety. We continue to be here for our patients and their loved ones by providing the same personalized, convenient and compassionate care we always have. The Cancer Institute has worked to adapt efficiently to changing patient and staff needs during the COVID-19 pandemic while also maintaining its commitment to providing the same world-class care that patients have come to expect. Our multiple locations throughout the region continue to offer the latest treatments and surgical techniques and access to prestigious clinical trials and collaborations. COVID-19-related changes include operational shifts at some locations, as well as new safety measures for in-person visits.

Also new are multiple safety measures designed to reduce the spread of COVID-19 at Cancer Institute facilities without unduly burdening patients or disrupting their care. Anyone who needed cancer treatment got the treatment they needed with few limitations. Safety protocols include:

- Screenings for both patients and visitors for COVID-19 symptoms the day before their visit and during check-in, including temperature checks
- Providing cloth masks to all patients and requiring all visitors to wear face masks at all times
- Enforcing social distancing by limiting the number of patients in waiting rooms
- Allowing only one family member or friend to accompany patients during visits (occasional exceptions are made when multiple people will be involved in patient care)
- Cleaning and disinfecting facilities on a daily basis
- Offering the option of virtual appointments, including phone and video visits



LVHN's Pediatric Oncology Group Collaborates to Fight Childhood Cancer

The pediatric oncology team at Lehigh Valley Reilly Children's Hospital offers world-class diagnostic and treatment capabilities close to home, with the goal of mitigating long-term side effects. Tumor board and case conference management of children with pediatric cancers, such as leukemia and lymphoma, including Hodgkin lymphoma, neuroblastoma, Wilms' tumor, medulloblastoma and sarcoma, are provided to our pediatric patients so they can receive all their care at Lehigh Valley Reilly Children's Hospital.

We have highly trained pediatric oncologists, surgeons, radiologists, pathologists, pharmacists and radiation oncologists, as well as experienced pediatric oncology nurses, child-life specialists and social workers. The team at Lehigh Valley Reilly Children's Hospital conducts tumor board conferences every month and a patient care conference every week, which fine-tunes a patient's

prospective care plan. The tumor board draws upon the expertise of pathology, radiology, pediatric medical oncology, pediatric hematology oncology and radiation oncology to provide the patient and family with a comprehensive care plan.

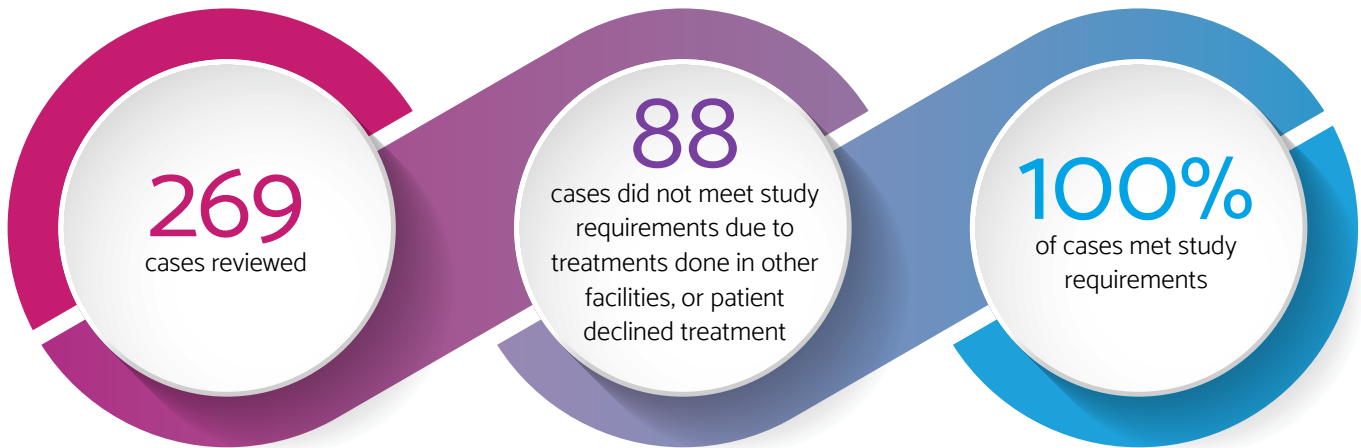
Eligible patients are offered to participate in major clinical trials. Lehigh Valley Health Network is a member of the Children's Oncology Group (COG), the world's largest international clinical trials organization devoted exclusively to childhood and adolescent cancer research. On occasion that a pediatric patient requires a specialized treatment that cannot be offered locally, Lehigh Valley Reilly Children's Hospital's pediatric oncology team partners with specialists at a larger center, such as Children's Hospital of Philadelphia (CHOP), to provide care. It is all part of the commitment to ensure the best outcome for our youngest patients.



Evidence-Based Study

COMMISSION ON CANCER STANDARD 7.2: MONITORING COMPLIANCE WITH EVIDENCE-BASED GUIDELINES

Each year, a physician performs an in-depth retrospective study of individual patient evaluation and treatment information to determine if evidence-based guidelines were met in the treatment of Lehigh Valley Cancer Institute patients. This year the study focused on the retrospective review of outcomes associated with treatment modalities utilized in the management of diffuse large B-cell non-Hodgkin's lymphoma based on the National Comprehensive Cancer Network guidelines and Memorial Sloan Kettering Cancer Center standards of care.



Clinical Trials

TARGETED THERAPIES THROUGH STRATA ONCOLOGY PARTNERSHIP

In June 2019, Lehigh Valley Health Network officially partnered with STRATA Oncology, a precision oncology company, to bring an additional method of tumor molecular profiling to patients. Through the Strata partnership, LVHN has access to therapeutic clinical trials that use therapies targeted at mutations found by Strata or other molecular profiling tests.

To date, LVHN has two therapeutic studies through Strata. The first study, which opened through Mirati Therapeutics Inc., enrolls patients who are found to have a KRAS G12C mutation. Patients receive 600 mg of MRTX849 twice a day, by mouth. The second study, which opened through Arcus Biosciences Inc., enrolls patients who have a high tumor mutational burden (TMB-H) or are Strata Immune Signature Positive. Patients receive 360 mg of AB112, intravenously, every three weeks. To date, LVHN has enrolled one patient in each of the therapeutic trials.

TRIALS	ADULTS	PEDS	TOTAL
PHASE 1	3	0	3
PHASE 2	32	7	39
PHASE 3	27	10	37
REGISTRY	1	0	1
QUALITY OF LIFE	4	3	7
REGISTRY/BIOLOGY	0	1	1
BIOLOGY	5	3	8
TOTAL	72	34	96



STRATA Oncology Partnership to Increase Access to Precision Medicine for Cancer Patients

Lehigh Valley Health Network is among only five health systems nationally and the only one in the Lehigh Valley region to join the Strata Precision Oncology Network.™ Routine tumor molecular profiling through the Strata trial at LVH–Cedar Crest and LVH–Muhlenberg is available at more than 100 hospitals across the Strata Precision Oncology Network, covering 140,000 newly diagnosed cancer patients annually.

Strata Oncology’s growing portfolio of pharma-sponsored clinical trials will be available to eligible patients at Lehigh Valley Cancer Institute. This partnership positions Lehigh Valley Cancer Institute on the leading-edge of providing patients access to the latest technology and clinical research in precision oncology. Strata testing is offered at no cost and features an expanded gene panel, from nearly 500 cancer genes, and includes analytical validation of 36 emerging gene expression biomarkers, compared with commercial gene sequencing tests that can cost patients as much as \$5,000. As many as 1,000 LVHN patients could benefit from the Strata partnership each year.

Patient Navigation

TOTAL MDC VISITS FY 2020	275
NUMBER OF NEW NAVIGATED PATIENTS FY 2020	1,042
TOTAL NAVIGATOR-ASSISTED PATIENTS FY 2020	1,939
SOCIAL WORK NEW REFERRALS	795
SOCIAL WORK NEW ENCOUNTERS	2,053
REFERRAL TYPES SPECIFIC TO TRAVEL BARRIERS	397
% OF REFERRAL TYPES SPECIFIC TO TRAVEL BARRIERS	50%
REFERRAL TYPES SPECIFIC TO FINANCIAL BARRIERS (INCOME, MEDICAL INSURANCE, FAP)	353
% OF REFERRAL TYPES SPECIFIC TO FINANCIAL BARRIERS (INCOME, MEDICAL INSURANCE, FAP)	44.4%
PATIENT REFERRALS NON-NETWORK COMMUNITY-BASED FINANCIAL AID	57 (7%)
PATIENT REFERRALS NON-NETWORK COMMUNITY-BASED FINANCIAL AID (DOLLAR AMOUNT)	\$67,170
PATIENT REFERRALS CANCER CENTER GRANT FUNDS	418 (54.6%)
PATIENT REFERRALS CANCER CENTER GRANT FUNDS (DOLLAR AMOUNT)	\$86,601.31

Cancer Program Annual Goal

Each calendar year the Cancer Committee is required to establish and implement one clinical or one programmatic goal to meet the requirement of the American College of Surgeons' Commission on Cancer Standards.

Our long-term goal is to establish a multidisciplinary clinic for geriatric patients. Our first step in the interim is to assess and evaluate the medications given to our geriatric patients and their functional status, and to conduct initial screening of this population. We plan to develop a committee that will oversee identifying patients over age 80 by encompassing geriatrics, palliative care and oncology in our top five cancer sites, namely breast, lung, prostate, colon and hematology. The group of geriatric patients will undergo function and cognitive assessments, be provided with treatment plans, and offered needed supportive services to address any gaps in these areas.

One of our physicians presented a program looking at our geriatric population and evaluating patients' baseline statistics through Epic electronic health record assessments. We will participate in the Memorial Sloan Kettering Cancer Center's geriatric program to see how its program works and any barriers faced. Due to COVID-19, this project was placed on hold but there are plans to move forward as soon as possible.

Community Health Needs Assessment

As a requirement of the American College of Surgeons Commission on Cancer, a community health needs assessment (CHNA) is conducted every three years. This survey evaluates health care disparities and barriers to cancer care in our community. It evaluates socioeconomic characteristics, demographic characteristics, behavioral/ psychosocial characteristics, existing services, prevention and screening, and gaps in services. We have an outstanding partnership with community agencies and utilize social media. The results of the survey provide valuable information for planning and conducting services where gaps are identified.

The CHNA showed a higher rate of cervical cancer in the Lehigh Valley compared to Pennsylvania and the United States. An educational panel discussion on HPV and cervical cancer addressing prevention and the importance of screening was held virtually Sept. 16, 2020, in partnership with the Cancer Support Community.

LEHIGH COUNTY ANNUAL CERVICAL CANCER INCIDENCE (rate per 100,000 population)



Lehigh County **8.5**



Pennsylvania **7.6**



United States **7.62**

Cancer Data Management

The **Cancer Data Management Department** of Lehigh Valley Cancer Institute captures a complete summary of patient demographics, history, diagnosis, and treatment for every cancer patient seen. The data is abstracted and stored in a secure cancer registry database, an information software system designed for the collection, management and analysis of data on persons with diagnosis of malignant neoplastic disease including benign brain tumors. In turn, the information is used by medical providers, as well as local, state and national agencies, such as the Pennsylvania Cancer Registry (PCR), Department of Health, and Commission on Cancer's Rapid Cancer Reporting System (RCRS), to make important decisions.

MULTIDISCIPLINARY CANCER CASE CONFERENCES

The Cancer Data Management Department organizes the multidisciplinary cancer case conferences or tumor boards. These are conferences involving multidisciplinary teams of providers and other allied health professionals to discuss and evaluate cancer cases and make treatment decisions and recommendations. This process results in improved clinical decision-making, clinical outcomes and patient experience.



CANCER CONFERENCES
HELD IN 2020

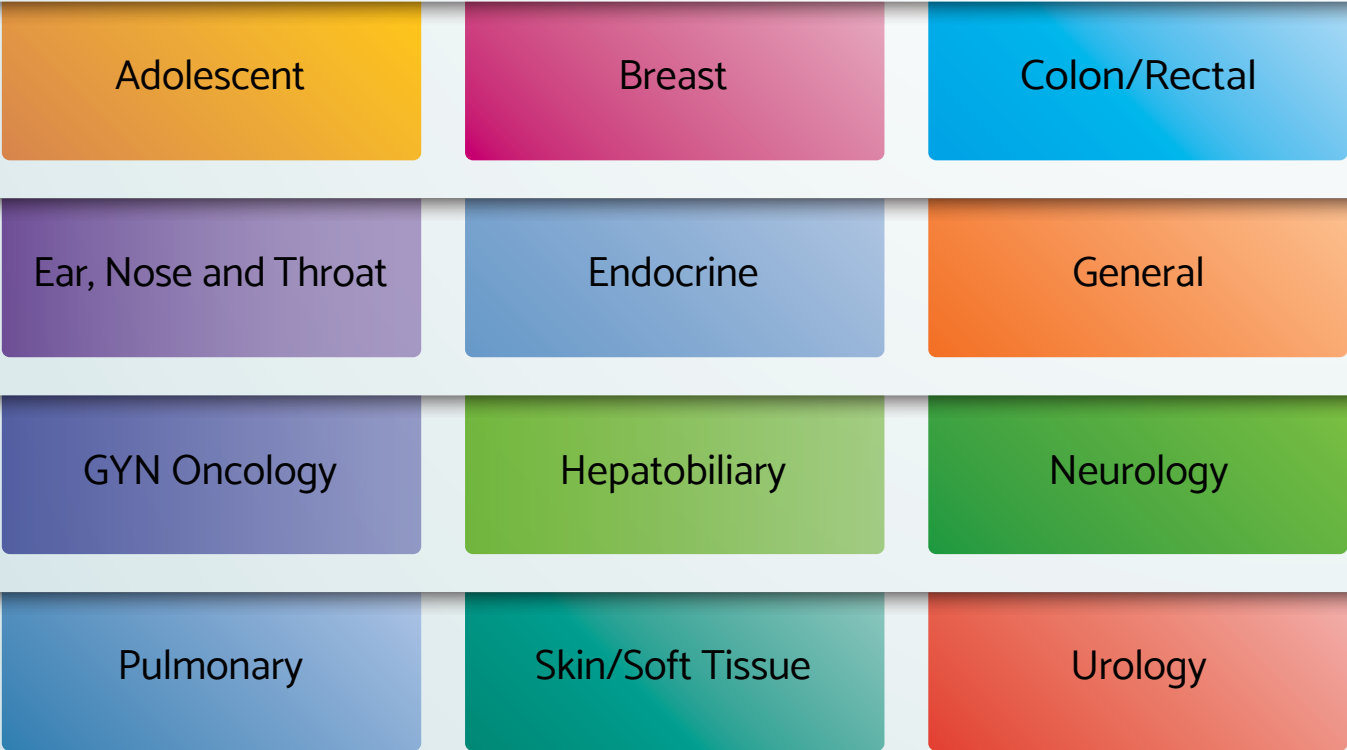


TOTAL NUMBER OF
CASE PRESENTATIONS



DEDICATED
DISCIPLINES

SITE-SPECIFIC SPECIALTY TUMOR BOARDS



Infusion Services

Intravenous (IV) therapy is given for oncology and non-oncology disorders and is provided at one of three convenient, comfortable locations:

12 infusion bays at Health Center at Bangor

24 infusion bays at LVH–Muhlenberg multipurpose area

38 infusion bays at LVH–Cedar Crest multipurpose area at John and Dorothy Morgan Cancer Center



44,878 TOTAL VISITS AT THESE THREE SITES

LVHN Now Offers Greater Access to Endoscopies

Lehigh Valley Health Network, through a joint venture with Eastern Pennsylvania Gastroenterology and Liver Specialists (EPGI), now provides upper and lower endoscopies, including screening colonoscopies at a new endoscopy center located at the Health Center at Easton, 2401 Northampton St., Easton. The Easton location joins other LVHN endoscopy sites at:

- LVH–Cedar Crest
- LVH–17th Street
- LVH–Muhlenberg
- Eastern Pennsylvania Endoscopy Center, 1501 N. Cedar Crest Blvd., Allentown

LVHN and EPGI have a long-standing, exclusive clinical alignment. The practice is made up of 18 board-certified providers.





Robotic Prostatectomy Goes Back to the Future With New Single-Port Extra-Peritoneal Procedure

Today, thanks to new advances in robotic surgery, patients can get all the advantages of minimally invasive prostatectomy but performed extra-peritoneally through a single port. Lehigh Valley Health Network is one of just a handful of medical centers in the world to bring patients this state-of-the-art robotic prostatectomy technique, and has one of just four surgeons in the world performing extra-peritoneal single-port robotic prostatectomy.

SINGLE-PORT ADVANTAGES

The ability to perform the procedure using just a 3-centimeter incision below the belly button brings significant benefits to both patients and surgeons. Surgical timelines are about the same, but there's less blood loss. And, because it is a single-port surgery, the surgeon can stay outside the peritoneum, so there is no pressure on the bowel. Patients can remain on their backs during the procedure, making anesthesia much simpler. Drains are no longer needed. Patients go home the same day, and they can remain completely opioid-free.



Radiation Oncology

Radiation oncology may play a crucial role in your cancer treatment. Lehigh Valley Cancer Institute's Department of Radiation Oncology offers patients the availability of state-of-the-art technology and techniques being offered at LVH-Cedar Crest and LVH-Muhlenberg facilities.

SERVICES PROVIDED:

- Six linear accelerators
- Stereotactic body radiotherapy
- Prostate stereotactic body radiotherapy
- Prostate stereotactic body radiotherapy with SpaceOAR
- Linac-based single fraction cranial radiosurgery
- Gamma Knife Icon radiosurgery
- Leksell Gamma Knife Icon
- Intensity-modulated radiation therapy (IMRT)
- Two large-bore 16-slice computed tomography simulators with latest technology including metal artifact reduction software
- Brachytherapy – high-dose and low-dose
- 3D treatment planning
- Image-guided radiation therapy (IGRT)
- Respiratory gating
- Optical surface monitoring system
- Prone breast radiation therapy
- Dose painting technique
- Pediatric radiation oncology
- Real-time imaging
- Varian Edge with six degrees of freedom tabletop
- Calypso Target Localization System
- Varian Edge Micro Multi-Leaf Collimators (MLC)
- Optical Surface Monitoring System (OSMS)



July 2020: New Inpatient Oncology Unit Features Infection Control and Comfort Amenities

Lehigh Valley Cancer Institute recently opened a new inpatient unit at Lehigh Valley Hospital–Cedar Crest. The unit was specifically designed to meet the unique safety, privacy and comfort needs of our oncology patients. Located on the fifth floor of the Kasych Family Pavilion, the new unit features 22 specialized private rooms.

Each of the private patient rooms features positive pressure and HEPA filters in the ceiling to help reduce the spread of infectious contaminants. Positive pressure rooms are important when treating immunocompromised patients. Positive pressure rooms maintain a higher pressure in the treated room, compared to the neighboring environment, to filter the air by forcing out airborne particles originating in the room and inhibiting potential contaminants in the surrounding environment from entering. Air also is circulated through HEPA filters to control the movement of airborne contaminants. Additionally, six patient rooms also feature negative pressure in an anteroom to protect both staff and other patients. In a negative-pressure anteroom, air pressure is reduced to contain airborne contaminants, such as viruses, fungi, bacteria, yeast, molds and gases, within the room. Negative pressure helps prevent aerosolized infections from exiting into the hallway. These unique

features protect patients and staff, which gives peace of mind to patients and their families.

The new inpatient oncology unit is designed to help patients feel more at home. Features include:

- 55-inch TVs with Bluetooth compatibility so patients can stream television and movies in their room using their own phone or computer
- Smart beds equipped with chargers and a modern built-in headboard against the wall for a more homelike aesthetic
- Computer workstations
- Access to a private bathroom and showers with a foldable chair attached to the wall and a ceiling lift
- Magnetic boards for patients to post personal items, such as cards, photos and inspirational quotes

There is also a meditation room for both patients and colleagues with comfortable seating, dimmable lighting, aromatherapy, white noise and a small TV for guided meditation, and three benches located throughout the unit for patients to sit if they need a break from walking.



Lehigh Valley Cancer Institute

LEHIGH VALLEY HEALTH NETWORK

Patient and Family Advisory Council

The Cancer Institute Patient and Family Advisory Council (PFAC) was initiated in December 2017. This group is comprised of patients, family members of cancer patients (who have met LVHN Volunteer Services qualifications), as well as Cancer Institute staff and physicians. The group has received orientation regarding leadership and priorities for the Cancer Institute. PFAC meets monthly and provides valuable input into planning new projects, reviewing education materials and participating on committees.

PATIENT AND FAMILY ADVISORY COUNCIL FY 2020 ACHIEVEMENTS

- Participated in Patient Education Committee
- Participated in design planning for new inpatient oncology unit 5K South (opened July 2020)
- Created a pamphlet about deep breathing and relaxation, which was added to the Patient Education library
- Participated in filming of radiation oncology patient education video
- Designing a welcome brochure for new patients
- Supported Healing Arts Cart program (on hold due to COVID-19)
- Participated in design of the healing garden in planning the new Lehigh Valley Hospital-Hecktown Oaks campus
- Participated in Magnet® reaccreditation survey (fifth Magnet redesignation achieved in September 2020)
- Several meetings canceled after February 2020 due to COVID-19; one virtual meeting held in April



Breast Health Services*

During COVID-19, Breast Health Services (BHS) colleagues relied on each other to stay safe and informed, to keep patients “in the know,” and to keep patients’ needs front and center.

On March 23, BHS intentionally postponed services to keep colleagues and the community safe. The Breast Health Services team called every patient who was scheduled for a mammogram and rescheduled the appointment for four to six weeks later. That’s thousands of phone calls and an example of what a health care partner should do.

Eighty percent of the work Breast Health Services does involves screening mammograms. Rather than sit idle, they got stuff done. While it was parked, our Mobile Mammography Coach received routine maintenance, as did our mammography equipment. The team opened LVHN’s 16th mammography location in Lehighton. Through effective communication, the team assured our community that diagnostic mammograms were being performed for women who needed one. By having daily huddles with staff, leaders answered colleagues’ questions, addressed their concerns and planned for the day when services would reopen.

On May 11, BHS reopened their doors for screening mammograms, and the Mammo Coach got back on the road. The plan to keep patients and colleagues safe was ready to go. Here’s what patients experienced:

- A screening phone call the day before their appointment
- An eCheck-in process to limit time at the registration desk
- Plexiglass barriers at the registration desk
- Abundant hand sanitizer stations
- Signs that show patients areas that are cleaned and need to be cleaned
- Mammography technologists who clean the equipment in front of the patient before and after it is used

Women were comforted to know they would be safe, and they quickly turned to us for care. Breast Health Services added evening and Saturday hours to give women convenient access. By Memorial Day, patient volumes were at 80% of what they were before the pandemic. Today, volumes are consistently around 110% of budget, meaning even more women are coming to LVHN for mammography services than we had planned.

16 MAMMOGRAPHY UNITS

1 MOBILE 3D MAMMOGRAPHY COACH

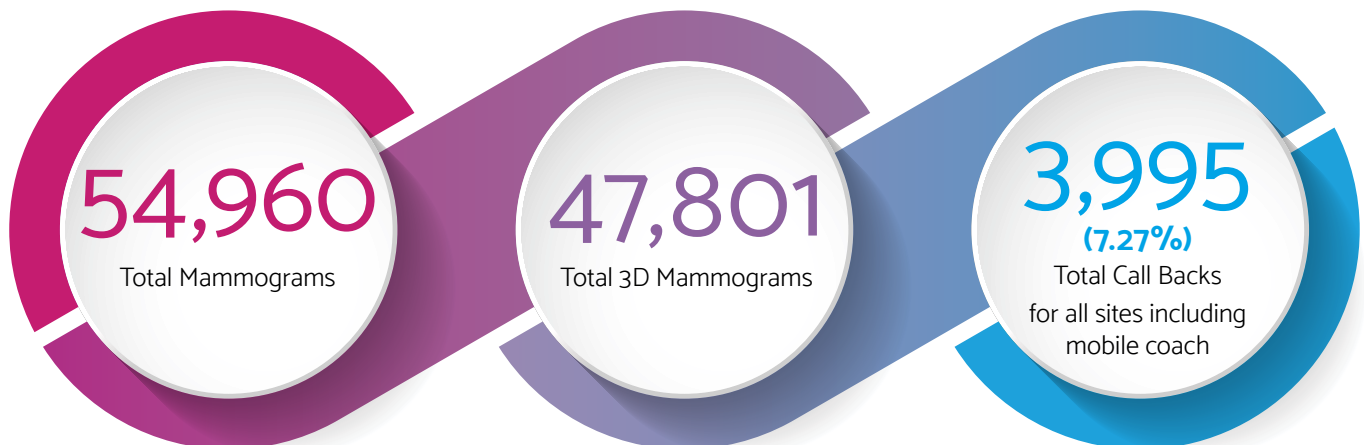
6 DEDICATED BREAST ULTRASOUND BIOPSY UNITS

2 STEREOTACTIC BIOPSY UNITS

2 BREAST MRI MAGNET

10 MAMMOGRAPHY SITES (INCLUDING 1 MOBILE)

*Program details and numbers include Lehigh Valley and Northampton County Breast Health Service locations.



Mobile Mammography Coach

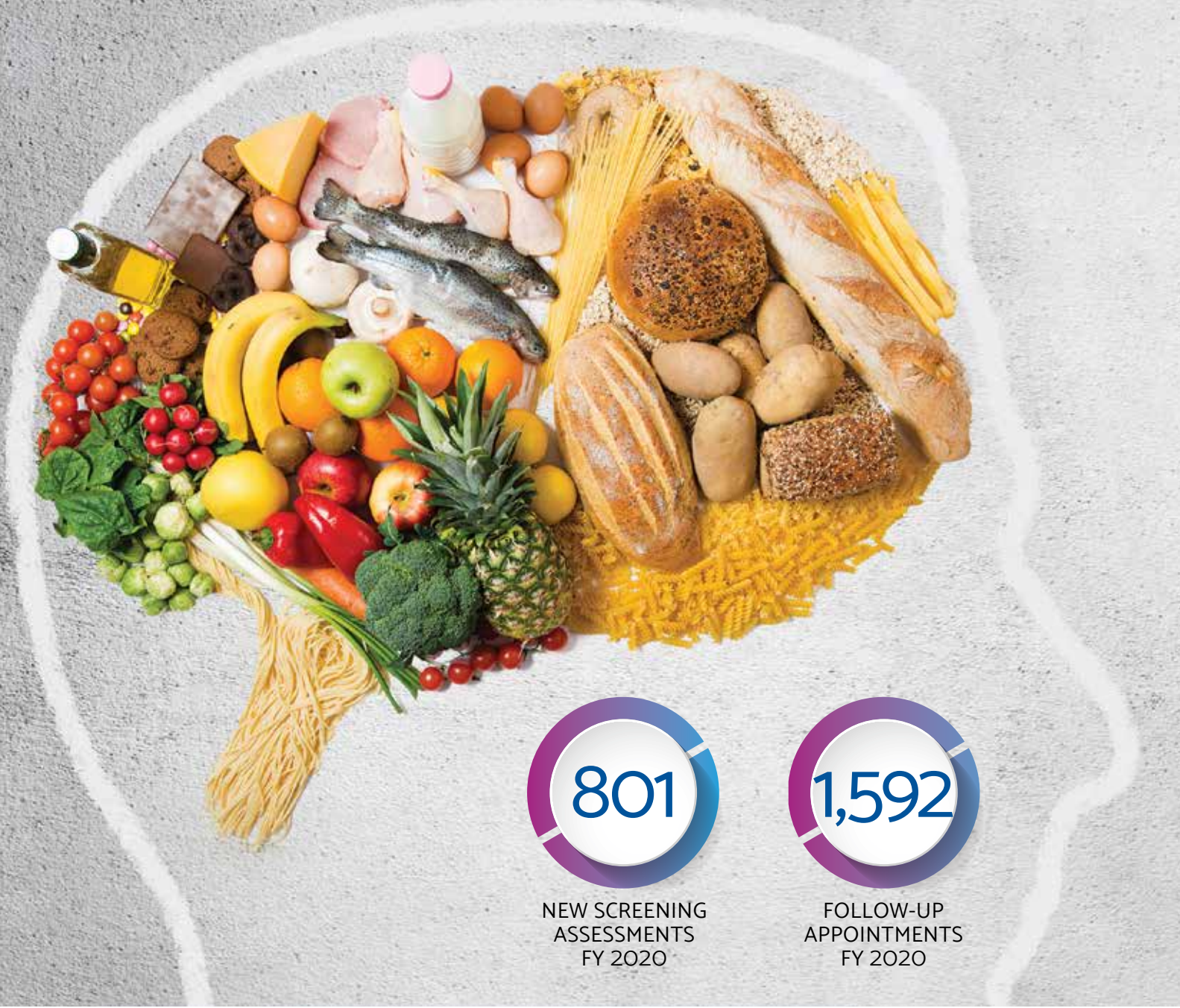


DIFFERENT
LOCATIONS SERVED



PATIENTS
SCREENED





NEW SCREENING ASSESSMENTS
FY 2020



FOLLOW-UP APPOINTMENTS
FY 2020

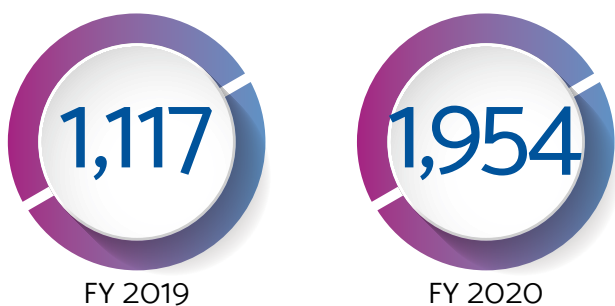
Nutritional Counseling

The Lehigh Valley Cancer Institute has four registered dietitian nutritionists (RDNs) who are uniquely trained to assist patients and their families to manage any treatment-related symptom nutritional needs and determine appropriate nutritional goals, strategies and plans to achieve those goals before, during and after treatment. Our RDNs provide screening assessment for risk and diagnosis of malnutrition, nutrition-related problems, overweight and obesity, medical nutrition therapy, nutrition counseling, nutrition education and management, and coordination of enteral and parenteral nutrition. They also offer their expertise to community outreach programs through presentations, cooking demonstrations, and participation in health fairs for survivorship, health promotion and disease prevention.

Counseling Services

Our licensed professional counselors provide emotional support for our patients and family members to deal with a cancer diagnosis. We have bilingual (Spanish/English) counselors available to assist as well.

COUNSELING VISITS WITH LICENSED COUNSELORS



This is a **75%** increase from FY 2019 to FY 2020. Our social workers have increased their hours as of July 2019 to meet the needs of our patients. During COVID-19 (March, April, May), counseling visits were changed to telephone or video encounters. During those three months the average number of visits was 195 per month. The monthly average for the previous eight months was 150 visits. There was a **30%** increase in visits during the first three months of COVID-19.

NUMBER OF SUPPORT GROUP ATTENDANCE

YEAR	SOS (BREAST CANCER SURVIVORS)	METASTATIC BREAST	PROSTATE
FY 2020	45	18	91
FY 2019	87	28	117
Percent decrease in FY 2020	48%	35%	22%

Groups were not held in April, May and June due to COVID-19. Virtual groups started again in September 2020.

Financial Coordination

There are eight financial coordinators who assist patients at LVH-Cedar Crest, LVH-Muhlenberg and Health Center at Bangor in reducing financial barriers to care. Financial coordinators assist with: precertification requirements, health insurance, medical bills, and navigate the complexity of insurance and community resources that are available. Our financial coordinators help patients receive free or reduced-cost services from supporting agencies.

	ORAL MEDICATIONS ASSISTANCE OBTAINED	PATIENTS HELPED ORAL MEDICATIONS	FAP PATIENTS HELPED CHARITY	PATHS PATIENTS REFERRED
FY 2012	\$3,590,246	257	666	294
FY 2013	\$4,366,205	202	749	294
FY 2014	\$3,388,420	152	725	247
FY 2015	\$3,058,370	109	655	221
FY 2016	\$4,380,076	155	590	223
FY 2017	\$5,419,690	176	577	220
FY 2018	\$5,114,294	296	615	214
FY 2019	\$7,805,256	299	616	130
FY 2020	\$13,188,581	344	562	144

Palliative Care Services

Palliative care is specialized medical care for people living with a serious illness. This type of care is focused on providing relief from the symptoms and stress of a serious illness. The goal is to improve quality of life for both patients and the family.

The care is provided by a specially educated team of doctors, nurses and other specialists who work together with a patient's other doctors to provide an extra layer of support. Palliative care is based on the needs for the patient, not on the patient's prognosis. This care is appropriate at any age and at any stage in a serious illness, and it can be provided along with curative treatment.

The services provided by OACIS/Palliative Medicine assist with:

- Medical collaboration and management across continuum of care
- Clarify goals of care and treatment
- Advance care planning
- Self-management goals
- Complex symptom management
- Complex communication
- Preventive care planning
- Communication/collaboration with oncologist and PCP
- Explore psychosocial/spiritual needs

Our services are provided in the hospital setting, the cancer center or at home. We are there to help coordinate with your physician and members of your health care team to determine the kind of care you want.



Cancer Rehabilitation Services

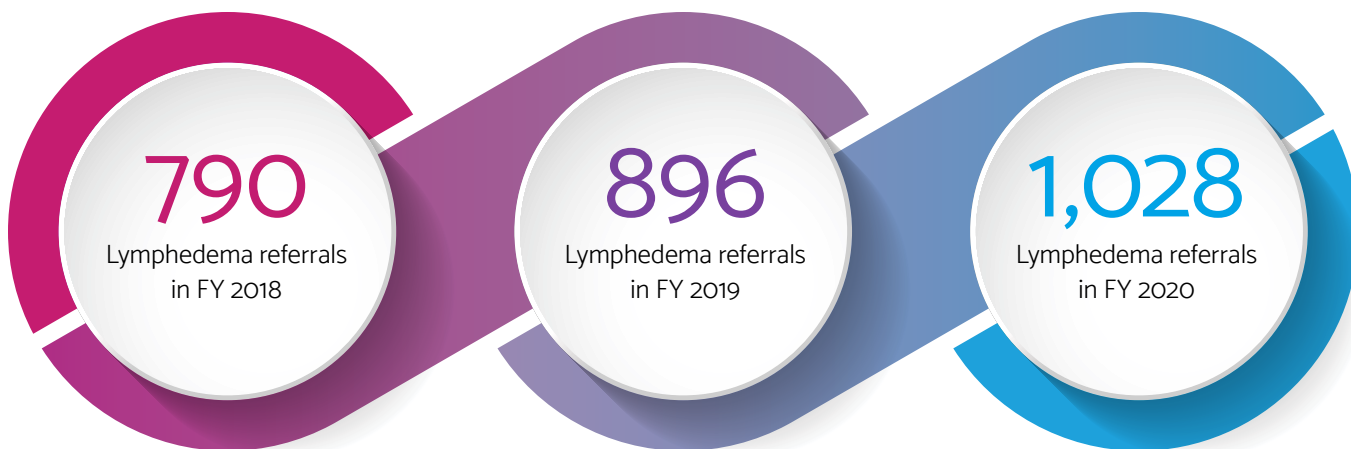
Cancer Rehabilitation Services is an essential component of cancer care and the patient journey. Our services begin at the time of diagnosis and continue throughout treatment and surveillance or through end of life.

Services are available in eight counties. Preventive, restorative, supportive and palliative interventions through multiple levels of care are offered. A seamless model of care is offered from any provider at any level of care with the continuum from bedside, fall prevention and home safety. Services are available seven days a week, 365 days a year.

During COVID-19, hours were expanded to provide proper distancing, which limited the number of people at the facility at any given time. Video visits also were provided to promote safety and offer therapy within the facility and at patients' homes. The main goal is to provide improved daily function and quality of life for our cancer patients and survivors.

TOTAL LYMPHEDEMA REFERRALS

30% growth in referrals over last two years



Oncology Social Work

Social workers are a vital part of the cancer team, providing assistance to patients needing support and access to resources. They advocate through agencies such as the Cancer Support Community, American Cancer Society, Lymphoma/Leukemia Society, and other community, state and grant-funded programs providing needed support for our patients. Social workers coordinate with other members of the team to identify patients with specific needs or issues.

FY 2020 STATISTICS – LEHIGH VALLEY CANCER INSTITUTE GRANTS AND FUNDS

SOURCE	AMOUNT	NUMBER OF INDIVIDUALS SERVED
Fall Back Grant (W5K)	\$2,531.76	25 women
Travel (W5K)	\$1,303.04	26 women
Prager Fund	\$34,017.07	136 individuals
Pink Ribbon Fund	\$42,453.88	85 women
Courtney Fund	\$5,749.22	18 colon/rectal individuals
Cancer Fund	\$508.34	7 individuals
Bus Passes	\$38.00	5 individuals

Genetic Counseling and Assessment

The Gregory and Lorraine Harper Cancer Risk and Genetic Assessment Program is comprised of four full-time certified licensed genetic counselors, a part-time genetics nurse navigator, a nurse practitioner, an outreach coordinator, two clinical assistants and the medical director of the department. Services are expanding to other locations to make access easier for patients. Currently 40-45 patients are seen per week.

Patients who are interested in cancer risk assessment and genetic testing for hereditary cancer syndromes meet with a counselor for in-depth evaluation of personal management, family history of cancer, cancer risk assessment and discussion of guidelines to reduce/prevent cancer.

Low or no-cost testing options are available through testing lab financial assistance or research options. Referrals are

received through Epic electronic health record system or faxed through outside facilities.

Some of the current initiatives include:

- Strata and FoundationOne somatic testing are currently being reviewed to determine risk for germline mutations.
- Working with Breast Health Services to develop a program to identify high-risk breast cancer patients.
- Reviewing new NCCN guidelines regarding genetic/familial high-risk assessment for breast, ovarian and pancreatic cancers. The colon/rectal high risk has been stratified with Lynch syndrome identifying risk per gene, and screening recommendations are now gene based and expanding what we know about risks associated with other potential genes.

GENETIC COUNSELOR VISITS FOR FY 2020





Hackerman-Patz House

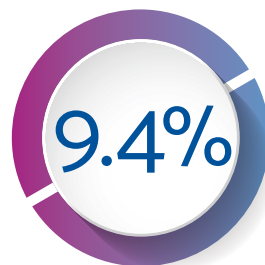
Hackerman-Patz House is a convenient and affordable “home away from home” for families of patients receiving care at Lehigh Valley Hospital-Cedar Crest.

SERVICES AND AMENITIES:

- 20 private, smoke-free rooms
- Private bath, safe, TV, mini-fridge, table and chairs
- Kitchenette including microwave, refrigerator and coffeemaker
- Laundry facilities (coin operated)
- Great room for relaxing, meeting other guests
- Children’s playroom
- Library with computer and printer
- Outdoor patio
- Free Wi-Fi services
- Use of LVHN fitness and wellness services



Guests
in FY 2020

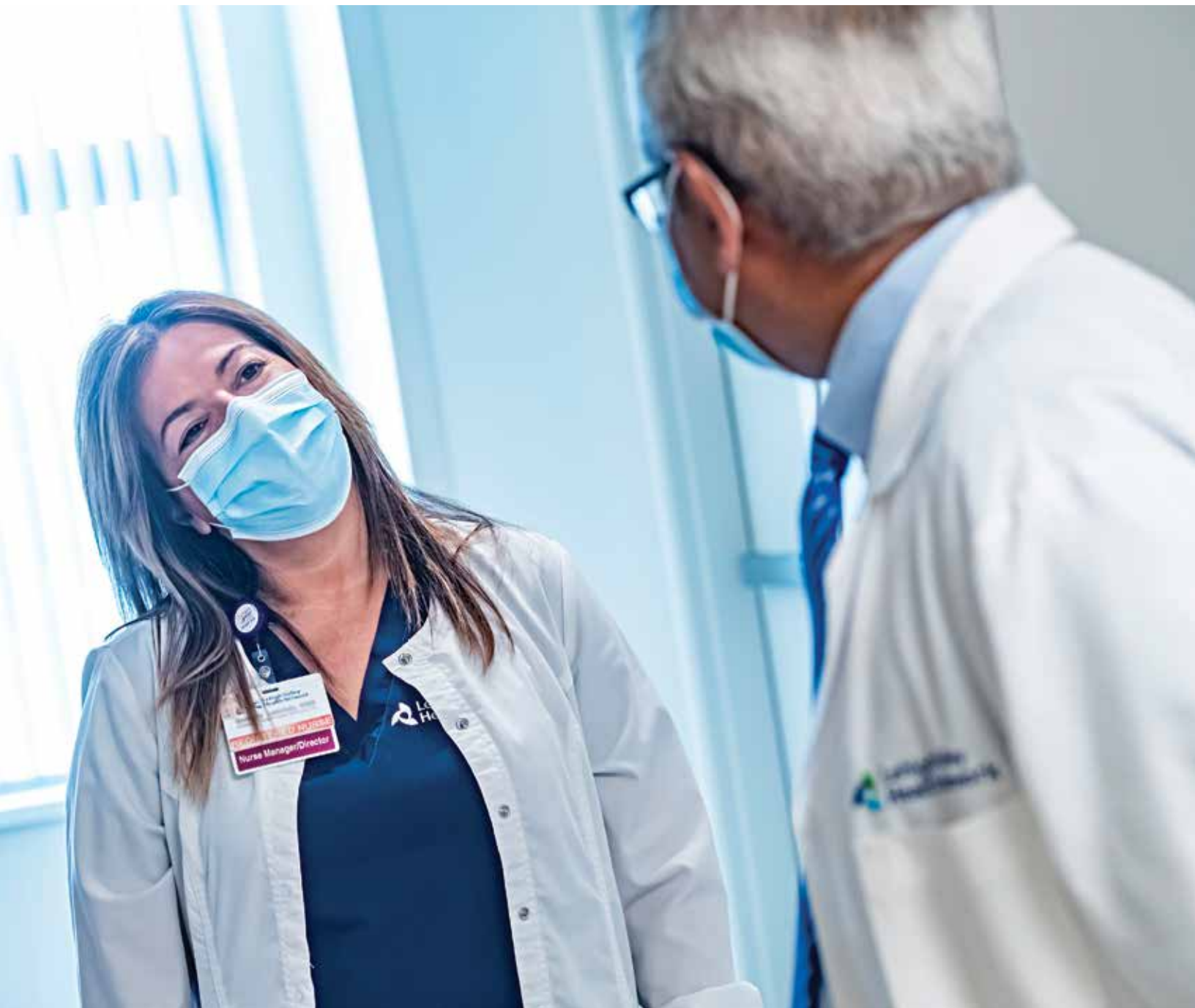


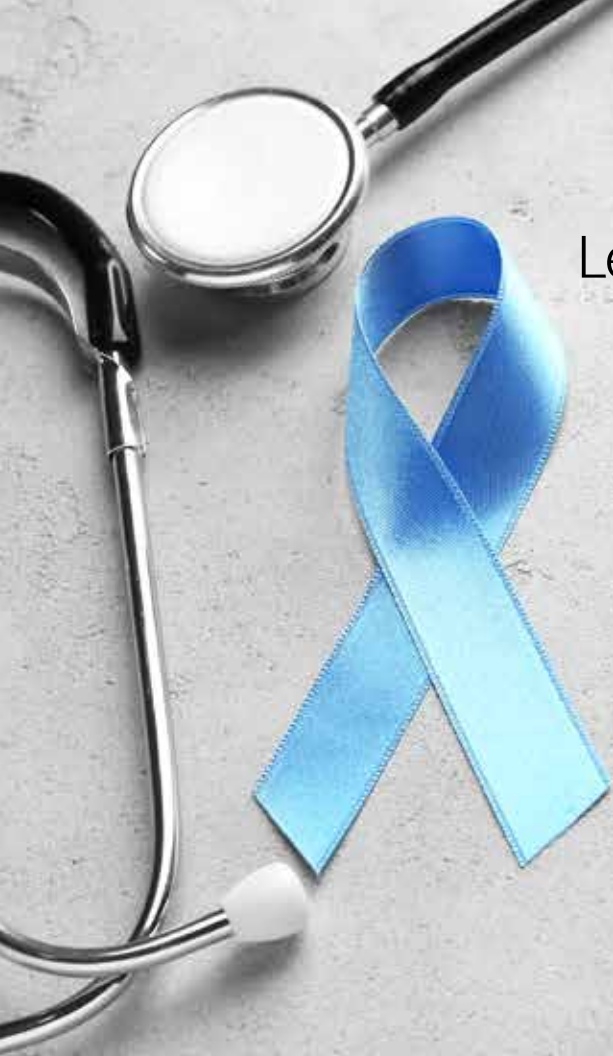
Oncology patients
in FY 2020

Oncology Therapeutics Committee

The oncology therapeutics committee meets monthly and is represented by all six cancer centers across LVHN. The sites include LVH-Cedar Crest, LVH-Muhlenberg, Health Center at Bangor, LVH-Pocono, LVH-Schuylkill and LVH-Hazleton. The committee is comprised of members of various disciplines from throughout the Cancer Institute including physicians, nurses, financial coordinators, revenue cycle specialist, infusion, informatics, clinical nurse specialists,

medical office practices, pharmacy and administration of the Cancer Institute. All new drugs administered in the infusion center are reviewed and discussed for safety, efficacy, administration and cost. Other topics include drug shortages, financial issues, drug evaluation for adverse effects and usage, and inpatient topics. By having a multidisciplinary committee, the information is disseminated to the entire Cancer Institute, which helps give better care to our patients.





Lehigh Valley Cancer Institute Locations

Lehigh Valley Cancer Institute offers a range of services in convenient, patient-focused locations.

Lehigh Valley Physician Group (LVPG) practices provide services in Allentown, Bangor, Bethlehem, East Stroudsburg, Hazleton, Lehighton and Pottsville.

LEHIGH VALLEY CANCER INSTITUTE

- John and Dorothy Morgan Cancer Center at Lehigh Valley Hospital–Cedar Crest
- LVHN Cancer Center at Lehigh Valley Hospital–Muhlenberg
- LVHN Cancer Center–Hazleton
- LVHN Cancer Center–Schuylkill
- Dale and Frances Hughes Cancer Center at Lehigh Valley Hospital–Pocono
- Health Center at Bangor
- LVPG Hematology Oncology–Lehighton

BREAST HEALTH SERVICES

- Breast Health Services at Lehigh Valley Hospital–17th Street
- Breast Health Services at Lehigh Valley Hospital–Cedar Crest
- Breast Health Services at Lehigh Valley Hospital–Muhlenberg
- Health Center at Bangor
- Health Center at Bartonsville
- Health Center at Bath
- Health Center at Bethlehem Township
- Health Center at Moselem Springs
- Health Center at Trexlertown
- Lehigh Valley Hospital–Pocono
- Lehigh Valley Hospital–Schuylkill
- LVHN Imaging Center
- Carbon Plaza Mall
- LVHN–Coordinated Health Breast Care–2300 Highland
- LVHN–Coordinated Health Breast Care–1405 N. Cedar Crest

Publications, Presentations and Posters Authored by Lehigh Valley Cancer Institute

Misbat Chaudry, MD

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Roberto Fratamico, MD

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Ranju Gupta, MD

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Maged Khalil, MD

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Muhammad Rizvi, MD

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Usman Shah, MD

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Fellow Submissions

Rachel Kinney, MD

Kinney R, Khalil M. Neoadjuvant immunotherapy in microsatellite-unstable non-metastatic colorectal cancer: A single-institute experience and review of the literature. *Clinical Colorectal Cancer* (Accepted, pending publication).

Kinney R, Decker R, Rizvi M, et al. Neuroendocrine tumor with cardiac metastasis: Case report and review of the literature. *Front Cardiovasc Med/Cario-Oncology* (Accepted, pending publication).

Saro Sarkisian, MD

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Nursing Submissions

Cerami C & Pingyar D. Onboarding of new nurses with no previous oncology experience. *Oncology Nursing Society* (May 2020). Poster presentation.

Malinoski K. Nursing led advanced care planning process. *Oncology Nursing Society* (September 2020). Abstract.

Atkins H. Social distancing of oncology clinical staff by implementing remote work during COVID-19 pandemic. *Oncology Nursing Society* (September 2020). Abstract.

Debra Rodrigue, MSN, RN-BC, AOCNS,[®] Jennifer Winkelmann, BSN, RN, OCN,[®] Maura Price, MSN, RN, AOCNS,[®] Eleni Kalandranis, MSN, RN, OCN,[®] CMSRN, Lisa Klempner, MSN, RN, OCN,[®] and Neena Kapoor-Hintzen, RN, MSN, NP-C

Opioid Misuse

An organizational response while managing cancer-related pain.



Lehigh Valley Health Network Cancer Program Affiliations

- American College of Surgeons' Commission on Cancer Accreditation (ACoS CoC)
- Member, Memorial Sloan Kettering Cancer Alliance
- Member, Michigan Cancer Research Consortium National Community Oncology Research Program (NCORP)
- Rapid Cancer Reporting System (RCRS)
- American College of Radiology (ACR) Radiation Oncology Practice Accreditation since 2012
- American College of Radiology (ACR) Breast Health Services Accreditation
- American College of Radiology (ACR) Breast Imaging Center of Excellence Designation (BICOE)
- American College of Radiology (ACR) Lung Cancer Screening Center
- National Accreditation Program for Breast Centers (NAPBC) Breast Health Service Accreditation
- National Quality Measures for Breast Centers (NQMBC) Certified Quality Breast Center of Excellence – Breast Health Services
- Quality Oncology Practice Initiative (QOPI) LVPG Hematology Oncology – certified since 2011
- U.S. News and World Report 2014-2015 High Performer – Cancer
- NCI Community Cancer Center Program Selected (NCCCP) April 2010–June 2014 (one of 21)
- National Committee Quality Assurance (NCQA) Patient-Centered Specialty Practice Level 2 Recognition – LVPG Hematology Oncology March 20, 2014–March 2017



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