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# DESCRIPTION OF FACILITY

In January 2017, Pocono Medical Center merged with Lehigh Valley Health Network (LVHN) to become Lehigh Valley Hospital—Pocono, building on more than 90 years of providing high-quality health care "close to home." LVHN's mission "to heal, comfort, and care for the members of our communities..." is consistent with the community-focused traditions of Pocono Health System. Opened in June 2012, the Dale and Frances Hughes Cancer Center is a 58,000-square-foot comprehensive cancer center seeing over 600 analytic cancer cases annually. At the Cancer Center, our mission is to provide the most technologically advanced cancer therapy and treatment in order to offer every patient the optimal chance for cure. Our team of experienced physicians and staff is dedicated to providing state-of-the-art care, utilizing a multidisciplinary approach, to bring the most recent medical advances close to home. Attention will be given to the medical, emotional, financial, nutritional and psychological needs of each patient and their family.

We offer a full range of services, including:

- Advanced cancer treatment and therapy
- Information on prevention and screening
- Genetic testing
- ► Educational programs

- Social services, support groups and counseling
- ► Nutritional and dietary counseling
- Holistic therapy
- ► Clinical research trials
- Surgical services
- ▶ Plastic and reconstructive services

The Hughes Cancer Center is home to the most technologically advanced radiation therapy equipment including:

► Edge<sup>TM</sup> radiosurgery system – The Dale and Frances Hughes Cancer Center is the first cancer center in the region to offer this brand new minimally invasive technology used to treat a wide range of cancerous and noncancerous tumors throughout the body including those of the lung, brain and spine. Using the combination of precision imaging and radiation, Edge radiosurgery is capable of delivering higher doses of radiation to destroy cancer cells. There's no cutting, no anesthesia and no in-hospital stay with this treatment.

- Calypso® extracranial tracking This system, used hand-in-hand with the Edge™ radiosurgery system, enables radiation oncologists at the Dale and Frances Hughes Cancer Center to accurately track tumors to keep them in the path of the radiation beam at all times.
- Stereotactic body radiation therapy (SBRT) This treatment procedure is similar to stereotactic radiosurgery, except that it targets tumors outside the central nervous system.
- ▶ RapidArc<sup>TM</sup> Breakthrough technology that enables highly precise radiation therapy treatments.
- Intensity-modulated radiation therapy (IMRT) and image-guided radiation therapy (IGRT) These systems use computer technology to optimize the delivery of radiation. The Hughes Cancer Center was one of the first cancer centers nationwide to offer IMRT and one of the first 50 centers in the world to offer IGRT.
- ➤ Space OAR® system This treatment reduces rectal injury in men receiving prostate cancer radiation therapy by acting as a spacer and pushing the rectum away from the prostate.
- Brachytherapy:
  - Prostate seed implantation allows for precise treatment of cancer in the prostate gland. The Hughes Cancer Center has been performing prostate seed implants since 1996 and currently serves as a large referral source for patients from many states and countries.
  - Savi brachytherapy for breast cancer This approach uses a catheter balloon inserted into the lumpectomy cavity, and radiation is delivered by a high-dose rate (HDR) unit/source. There is no residual radiation and no need for aftercare or hospitalization.
  - HDR (high-dose radiation)
- LDR (low-dose radiation)
- Volume implants
- Latest chemotherapy treatments New, more targeted drug therapies affect only cancer cells, leaving most normal cells unharmed, causing fewer side effects than standard chemotherapy drugs.



# POPULATION DEMOGRAPHICS

# TOTAL POPULATION

A total of 167,126 people live in Monroe County according to the U.S. Census Bureau American Community Survey 2012–16 five-year estimates. The population density for this county, estimated at 274.76 persons per square mile, is greater than the national average population density of 90.19 persons per square mile.

Report Area	Total Population	Total Land Area (Sq. Miles)	Population Density (Per Sq. Mile)
Monroe County	167,126	608.26	274.76
Pennsylvania	12,783,977	44,742.38	285.72
United States	318,558,162	3,532,068.58	90.19

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract



6 LEHIGH VALLEY CANCER INSTITUT

#### PERCENT CHANGE IN POPULATION BETWEEN 2000 AND 2010

According to the United States Census Bureau Decennial Census, between 2000 and 2010 the population in Monroe County grew by 31,126 persons, a change of 22.44%. A significant positive or negative shift in total population over time impacts health care providers and the utilization of community resources.

Report Area	Total Population, 2000 Census	Total Population, 2010 Census	Total Population Change, 2000-2010	% Population Change, 2000-2010
Monroe County	138,716	169,842	31,126	22.44%
Pennsylvania	12,281,049	12,702,379	421,330	3.43%
United States	280,405,781	307,745,539	27,339,758	9.75%

Data Source: US Census Bureau, Decennial Census. 2000 - 2010. Source geography: Tract

## TOTAL POPULATION BY GENDER

In line with state and national percentages, the population in Monroe County is about equal percentages of males and females.

Report Area	Male	% Male	Female	% Female
Monroe County	82,532	49.38	84,594	50.62
Pennsylvania	6,255,042	48.93	6,528,935	51.07
United States	156,765,322	49.21	161,792,840	50.79

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

# TOTAL POPULATION BY RACE, PERCENT

When comparing race alone, more than three-quarters (77.4%) of individuals who are living in Monroe County are white.

Report Area	White	Black	Asian	Native American/ Native Alaskan	Native Hawaiian/ Pacific Islander	Other Race	Multiple Races
Monroe County	77.40	13.95	2.13	0.32	0.05	3.04	3.11
Pennsylvania	81.37	11.03	3.14	0.20	0.03	1.98	2.24
United States	73.35	12.63	5.22	0.82	0.18	4.75	3.06

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

#### TOTAL POPULATION BY ETHNICITY ALONE

The majority of the population within Monroe County self-reported as non-Hispanic (85.4%) and the remaining 14.64% self-reported as Hispanic or Latino. Pennsylvania data indicates that 6.6% of individuals in the state identify as Hispanic or Latino, compared to 17.33% of individuals who self-reported being Hispanic or Latino in the United States.

Report Area	Total Population	Hispanic or Latino Population	% Population Hispanic or Latino	Non-Hispanic Population	% Population Non-Hispanic
Monroe County	167,126	24,474	14.64%	142,652	85.36%
Pennsylvania	12,783,977	843,164	6.60%	11,940,813	93.40%
United States	318,558,162	55,199,107	17.33%	263,359,055	82.67%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

#### TOTAL POPULATION BY AGE

The largest age groups within Monroe County are those ages 45-54 and between ages 5 and 17. According to National Cancer Institute (NCI), advancing age is the most important overall cancer risk factor. Approximately 30 percent of county population falls into a risk for getting cancer based on age alone.

Donort Area	Age							
Report Area	0–4	5–17	18–24	25-34	35–44	45–54	55-64	65+
Monroe County	4.54%	16.64%	11.07%	10.38%	11.28%	16.33%	14.82%	14.95%
Pennsylvania	5.59%	15.56%	9.62%	12.78%	11.85%	14.12%	13.79%	16.69%
United States	6.24%	16.87%	9.82%	13.62%	12.73%	13.64%	12.58%	14.50%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

#### **VETERAN POPULATION**

Eight percent of the adult population in Monroe County are veterans, in line with the percent of veterans in the state and country overall. According to American Society of Clinical Oncology (ASCO), Cancer.net, some studies have suggested that veterans may be at increased risk for cancer due to chemical and radiation exposures during services. This includes exposure to agent orange, oil-well fire

smoke, nerve gases like sarin and cyclosarin, drugs used to protect against nerve gasses and pesticides as an example.

Report Area	Total Population Age 18+	Total Veterans	Veterans, % of Total Population
Monroe County	131,619	10,758	8.17%
Pennsylvania	10,074,933	840,258	8.34%
United States	243,935,157	19,535,341	8.01%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

# TOTAL HOUSEHOLDS

#### FAMILIES WITH CHILDREN

The most recent American Community Survey estimates, 31.08% of all occupied households in Monroe County are family households with one or more child(ren) under the age of 18. As defined by the U.S. Census Bureau, a family household is any housing unit in which the householder is living with one or more individuals related to him or her by birth, marriage or adoption. A non-family household is any household occupied by the householder alone, or by the householder and one or more unrelated individuals.

Report Area	Total Households	Total Family Households	Families with Children	Families with Children, % of Total Households
Monroe County	57,127	40,649	17,753	31.08%
Pennsylvania	4,961,929	3,195,577	1,402,621	28.27%
United States	117,716,237	77,608,829	37,299,113	31.69%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

#### POPULATION UNDER AGE 18

An estimated 21.18% of the population in Monroe County is under the age of 18.

Report Area	Total Population	Population Age 0-17	% Population Age 0-17
Monroe County	167,126	35,393	21.18%
Pennsylvania	12,783,977	2,704,268	21.15%
United States	318,558,162	73,612,438	23.11%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

# **EDUCATION AND ENGLISH PROFICIENCY**

#### HIGH SCHOOL GRADUATION RATE

Within Monroe County, 89.2% of students are receiving their high school diploma within four years.

Report Area	Total Student Cohort	Estimated Number of Diplomas Issued	Cohort Graduation Rate
Monroe County	2,253	2,009	89.2
Pennsylvania	122,509	106,458	86.9
United States	3,116,301	2,648,271	85

Data Source: US Department of Education, EDFacts. Accessed via DATA.GOV. Additional data analysis by CARES. 2014-15. Source geography: School District



#### POPULATION WITH ASSOCIATE-LEVEL DEGREE OR HIGHER

31.48% of the population age 25 and older, or 35,645 people, have obtained an associate-level degree or higher in Monroe County.

Report Area	Total Population Age 25+	Population Age 25+ with Associate's Degree or Higher	% Population Age 25+ with Associate's Degree or Higher	
Monroe County	113,238	35,645	31.48%	
Pennsylvania	8,849,846	3,308,130	37.38%	
United States	213,649,147	82,237,511	38.49%	

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

#### POPULATION WITH NO HIGH SCHOOL DIPLOMA

Within Monroe County, 10.45% of the population age 25 and older are without a high school diploma (or equivalency) or higher, which is similar to the 10.46% of this age group in the state. Both the county and state are lower than the U.S. percentage of 13.02%.

Report Area	Total Population Age 25	Population Age 25 with No High School Diploma	% Population Age 25 with No High School Diploma
Monroe County	113,238	11,833	10.45%
Pennsylvania	8,849,846	925,686	10.46%
United States	213,649,147	27,818,380	13.02%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

# POPULATION IN LIMITED ENGLISH HOUSEHOLDS

This indicator reports the percentage of the population age 5 and older living in limited English-speaking households. A "limited English-speaking household" is one in which no member 14 years old and older (1) speaks only English at home or (2) speaks a language other than English at home and speaks English "very well." In Monroe County, 4.41% of the population lives in a limited Englishspeaking household.

Report Area	Total Population Age 5+	Linguistically Isolated Population	% Linguistically Isolated Population
Monroe County	159,539	7,028	4.41%
Pennsylvania	12,069,379	501,180	4.15%
United States	298,691,202	25,440,956	8.52%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

# INCOME AND INSURANCE

# POVERTY - POPULATION BELOW 200% OF THE FEDERAL POVERTY LINE

Poverty is considered a key driver of health status. Within Monroe County, 30.33% of the population are living in households with income below 200% of the Federal Poverty Level (FPL). These percentages are in line with Pennsylvania's overall percentage of 30.2% of the population living below 200% of the FPL and below the national percentage of 33.61%. This indicator is relevant because poverty creates barriers to access including health services, healthy food and other necessities, contributing to poor health status.

Report Area	Total Population	Population in Poverty	% Population in Poverty
Monroe County	164,605	49,928	30.33%
Pennsylvania	12,369,671	3,736,519	30.21%
United States	310,629,645	104,390,198	33.61%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

#### UNINSURED ADULTS

The lack of health insurance is considered a key driver of health status. This indicator reports the percentage of adults age 18 to 64 without health insurance coverage. Around 90% of the population in Monroe County have medical insurance, and just under 10% do not have health insurance, which is in line with Pennsylvania overall and lower than the national percentage of uninsured adults.

Report Area	Total Population Age 18 - 64	Population with Medical Insurance	% Population With Medical Insurance	Population Without Medical Insurance	% Population Without Medical Insurance
Monroe County	102,755	92,820	90.33%	9,935	9.67%
Pennsylvania	7,651,209	6,973,720	91.15%	677,489	8.85%
United States	194,584,952	168,884,012	86.79%	25,700,940	13.21%

Data Source: US Census Bureau, Small Area Health Insurance Estimates. 2015. Source geography: County

#### POPULATION RECEIVING MEDICAID

This indicator reports the percentage of the population with insurance enrolled in Medicaid (or other means-tested public health insurance), which is 19.17% in Monroe County.

Report Area	Total Population	% With Any Health Insurance	Population Receiving Medicaid	% of Insured Population Receiving Medicaid
Monroe County	166,133	149,890	28,734	19.17%
Pennsylvania	12,579,598	11,579,382	2,216,468	19.14%
United States	313,576,137	276,875,891	59,874,221	21.62%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

#### PUBLIC ASSISTANCE

This indicator reports the percentage of households receiving public assistance income. Public assistance income includes general assistance and Temporary Assistance to Needy Families (TANF). In Monroe County, 2.97% of households receive public assistance income, respectively.

Report Area	Total Households	Households with Public Assistance Income	% Households with Public Assistance Income
Monroe County	57,127	1,696	2.97%
Pennsylvania	4,961,929	168,007	3.39%
United States	117,716,237	3,147,577	2.67%

Data Source: US Census Bureau, American Community Survey. 2012-16. Source geography: Tract

#### **UNEMPLOYMENT RATE**

Total unemployment in the report area for the current month was 4,651, or 5.7% of the civilian non-institutionalized population age 16 and older (non-seasonally adjusted).

Report Area	Labor Force	Number Employed	Number Unemployed	Unemployment Rate
Monroe County	81,065	76,414	4,651	5.7
Pennsylvania	6,439,865	6,127,195	312,670	4.9
United States	160,059,369	152,893,934	7,165,435	4.5

# LANGUAGE SPOKEN

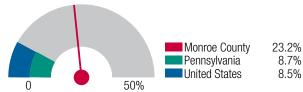
Community members living in Monroe County speak a variety of languages, in addition to English. The most common languages include: Spanish, Polish, and Russian (Monroe County Leaders Key Informant Interviews, 2017). A total of 4.7% of the population age 5 and older speak a language other than English at home and speak English less than "very well" (US Census Bureau, ACS 2011-2015).



## TRANSPORTATION AND COMMUNITY

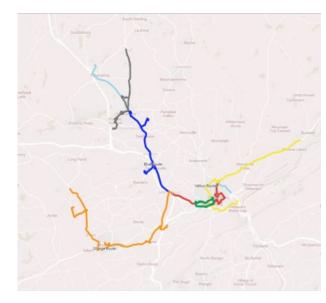
A significant proportion of Monroe County adults work outside the region, many in New York City, and thus endure lengthy commutes each day. The percentage of the population that commutes to work for over 60 minutes each direction is 23.2%, which is more than double that of the state (8.7%) and the nation (US Census Bureau, ACS 2011-2015).

# PERCENTAGE OF WORKERS COMMUTING MORE THAN 60 MINUTES



Public transportation within Monroe County is limited. A recent survey of social service agencies conducted by the United Way of Monroe County identified transportation assistance as the largest gap in service. This is corroborated by a client survey – 28% of clients identified transportation as one of their top challenges they face daily. However, among those survey respondents, only about 11% reported receiving some type of assistance with transportation in the past two years. Clients responding to the survey frequently indicated that transportation both to work and places other than work would help them with their daily challenges. The map provided displays Monroe County Transit Authority (MCTA) bus routes within the county; many areas have no defined coverage. A deficiency in availability of robust public transport is again particularly salient for those of lower socioeconomic status (SES) and especially for those of low SES living in more distal regions of the county where MCTA does not travel. Consequences include social isolation; inability to obtain food, medications and other necessities; and inability to travel to medical and other appointments.

Further compounding the challenge of public transportation is Monroe County's low walkability. which limits physical activity opportunities, such as biking and walking. Monroe County has a walk score of 0 from Walk Score, a database that rates communities' overall walkability. This demonstrates that Monroe County is primarily car-dependent, and almost all errands require a car (Walk Score, 2017). Additional data from the National Children's Health Study, a biennial nationally representative survey of children's health, evaluated the overall accessibility of walking paths or established walking paths across the nation. Nationally they reported 74% of the population had access to walking routes/paths. The same question was asked in Monroe County, and 57% of survey respondents (N=341) indicated accessible pathways.



# BEHAVIORAL RISK FACTORS

## FORMER AND CURRENT SMOKERS

In Monroe County, an estimated 143,432 adults, or 42.51%, report ever smoking 100 or more cigarettes, compared to 47.33% of adults in Pennsylvania and 44.16% of adults nationally. According to the National Cancer Institute, "smoking is a leading cause of cancer and death from cancer. It causes cancers of the lung, esophagus, larynx, mouth, throat, kidney, bladder, liver, pancreas, stomach, cervix, colon and rectum as well as acute myeloid leukemia."

Report Area	Adults Age 18+	Total Adults Ever Smoking 100 or More Cigarettes	% Adults Ever Smoking 100 or More Cigarettes
Monroe County	143,432	60,971	42.51%
Pennsylvania	9,707,875	4,595,088	47.33%
United States	235,151,778	103,842,020	44.16%

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Additional data analysis by CARES. 2011-12. Source geography: County

### ALCOHOL CONSUMPTION

This indicator reports the percentage of adults age 18 and older who self-report heavy alcohol consumption (defined as more than two drinks per day on average for men and one drink per day on average for women). An estimated 24.5% of adults in Monroe County drink excessively. According to the American Cancer Society, cancers linked to alcohol use include mouth, throat (pharynx), larynx, esophagus, liver, colon and rectum, and breast and also may increase the risk for pancreas and stomach cancers.

Report Area	Total Population Age 18	Estimated Adults Drinking Excessively	Estimated Adults Drinking Excessively (Crude Percentage)	Estimated Adults Drinking Excessively (Age-Adjusted Percentage)
Monroe County	128,002	30,976	24.2%	24.5%
Pennsylvania	9,857,384	1,705,327	17.3%	18.7%
United States	232,556,016	38,248,349	16.4%	16.9%

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health and Human Services, Health Indicators Warehouse. 2006-12. Source geography: County

#### PHYSICAL INACTIVITY AND OBESITY

Within Monroe County, 24.5% of adults age 20 and older self-report no leisure time for activity, based on the question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening or walking for exercise?"

Report Area	Total Population Age 20	Population with no Leisure Time Physical Activity	% Population with no Leisure Time Physical Activity
Monroe County	125,043	32,261	24.50%
Pennsylvania	9,697,156	2,244,307	22%
United States	234,207,619	52,147,893	21.80%

Data Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. 2013. Source geography: County

## FRUIT AND VEGETABLE CONSUMPTION

In Monroe County, 72.2% of adults over the age of 18 are consuming less than five servings of fruits and vegetables each day, which is below Pennsylvania and U.S. percentages. This is important because lack of healthy eating behaviors affect the chance of developing cancer for all adults.

Report Area	Total Population (Age 18)	Total Adults with Inadequate Fruit/Vegetable Consumption	% Adults with Inadequate Fruit/Vegetable Consumption
Monroe County	123,351	89,059	72.20%
Pennsylvania	9,703,855	7,326,411	75.50%
United States	227,279,010	171,972,118	75.70%

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health and Human Services, Health Indicators Warehouse. 2005-09. Source geography: County



#### **OVERALL GENERAL HEALTH STATUS**

Report Area	Total Population Age 18+	Estimated Population with Poor or Fair Health	Crude Percentage	Age-Adjusted Percentage
Monroe County	128,002	15,232	11.90%	11.80%
Pennsylvania	9,857,384	1,518,037	15.40%	14.20%
United States	232,556,016	37,766,703	16.20%	15.70%

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health and Human Services, Health Indicators Warehouse. 2006-12. Source geography: County

# SCREENING RATES

# SCREENING COMPLIANCE

#### **MAMMOGRAM**

This indicator reports the percentage of female Medicare enrollees, age 67-69, who have received one or more mammograms in the past two years. At LVH-Pocono, 15,267 mammograms were provided in 2017.

Report Area	Total Medicare Enrollees	Female Medicare Enrollees Age 67-69	Female Medicare Enrollees with Mammogram in Past 2 Years	% Female Medicare Enrollees with Mammogram in Past 2 Years
Monroe County	17,858	1,643	1,024	62.4%
Pennsylvania	1,053,822	91,755	59,441	64.8%
United States	26,753,396	2,395,946	1,510,847	63.1%

Data Source: Dartmouth College Institute for Health Policy Clinical Practice, Dartmouth Atlas of Health Care. 2014. Source geography: County

#### COLONOSCOPY

This indicator reports the percentage of adults 50 and older who self-report that they have ever had a sigmoidoscopy or colonoscopy.

Report Area	Total Population Age 50	Estimated Population Ever Screened for Colon Cancer	Crude Percentage	Age-Adjusted Percentage
Monroe County	42,286	28,670	67.8%	66.1%
Pennsylvania	3,524,771	2,301,675	65.3%	62.1%
United States	75,116,406	48,549,269	64.6%	61.3%

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health and Human Services, Health Indicators Warehouse. 2006-12. Source geography: County

#### PAP TEST

This indicator reports the percentage of women age 18 and older who self-report that they have had a Pap test in the past three years.

Report Area	Female Population Age 18	Estimated Number with Regular Pap Test	Crude Percentage	Age-Adjusted Percentage
Monroe County	104,339	77,941	74.7%	74.5%
Pennsylvania	8,337,831	6,395,116	76.7%	78.8%
United States	176,847,182	137,191,142	77.6%	78.5%

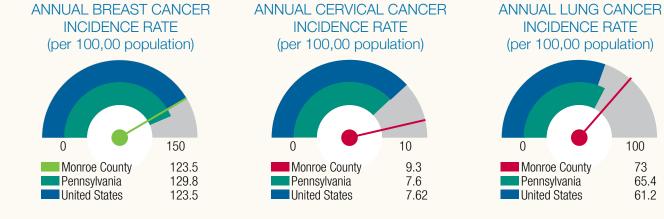
Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. US Department of Health and Human Services, Health Indicators Warehouse. 2006-12. Source geography: County

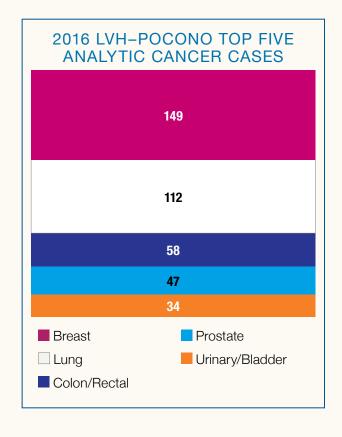
#### LUNG CT SCREENING

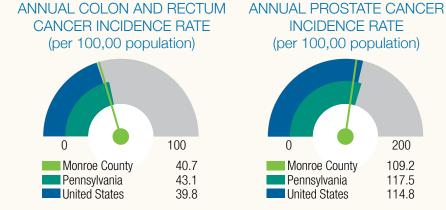
At LVH-Pocono, 249 lung CT screenings were completed in 2017, resulting in eight positive screens.

# CANCER INCIDENCE

# CANCER INCIDENCE IN MONROE COUNTY AND LVH-POCONO







# **CANCER MORTALITY**

Report Area	Total Population	Avg. Annual Deaths, 2010-2014	Crude Death Rate (Per 100,000 Pop.)	Age-Adjusted Death Rate (Per 100,000 Pop.)
Monroe County	168,398	338	200.6	177.2
Pennsylvania	12,753,797	28,813	225.91	175
United States	313,836,267	581,919	185.42	166.3
HP 2020 Target				<= 160.6

Data Source: Centers for Disease Control and Prevention, National Vital Statistics System. Accessed via CDC WONDER. 2010-14. Source geography: County

# LVHN STATISTICS FROM TUMOR REGISTRY

# 2016 LVH PREVALENCE BY DISEASE SITES

PRIMARY SITE	TOTAL
Head and Neck	14
Digestive Organs	109
Esophagus	5
Stomach	5
Small Intestine	3
Colon	42
Rectosigmoid Junction	2
Rectum	14
Anus and Anal Canal	3
Liver and Bile Ducts	4
Gallbladder	1
Other Biliary Tract	6
Pancreas	24
Other Digestive Organs	0
Thorax	114
Bronchus and Lung	112
Thymus	0
Heart Mediastinum Pleura	2
Musculoskeletal/Soft Tissue Sites	5
Blood and Bone Marrow	33
Skin	5
Breast	149
Female Genital Organs	33
Vulva	0
Vagina	1
Cervix Uteri	2
Corpus Uteri	23
Uterus Nos	0
Ovary	7
Other Female Genital Organs	0
Placenta	0

PRIMARY SITE	TOTAL
Male Genital Organs	52
Penis	2
Prostate Gland	47
Testis	3
Other and Unspecified Male Genital Organs	0
Jrinary Tract Organs	48
Kidney	12
Kidney, Renal Pelvis	1
Ureter	1
Urinary Bladder	34
Other and Unspecified Urinary Organs	0
Central Nervous System	3
Meninges	0
Brain	3
Other Nervous System	0
ndocrine Glands	16
Thyroid Gland	15
Adrenal Gland	0
Other Endocrine Glands	1
Other	2
Orbit, Ocular	0
Other III Defined Sites	1
Retroperitoneum and Peritoneum	1
ymph Nodes	25
Jnknown Primary	15
ata source: LVHN Tumor Registry	

Data source: LVHN Tumor Registry



# 2016 LVH AGE AT DIAGNOSIS FOR TOP 5 DISEASE SITES

		INCIDEN	CE OF BRE	AST CANCER	R BY AGE AT	DIAGNOSIS	LVH-Poco	no 2016		
Age at Diagnosis	20-29	30–39	40-49	50–59	60-69	70–79	80–89	90–100	TOTAL	
(N)	0	4	20	32	49	30	13	1	149	
		INCIDE	NCE OF LUN	IG CANCER	BY AGE AT I	DIAGNOSIS	LVH-Pocon	o 2016		
Age at Diagnosis	20-29	30–39	40-49	50-59	60-69	70–79	80–89	90–100	TOTAL	
(N)	0	0	3	20	35	40	11	3	112	
		INCIDENC	E OF PROS	TATE CANCE	R BY AGE A	T DIAGNOSI	S LVH-Poc	ono 2016		
Age at Diagnosis	0-39	40-49	50-59	60-69	70–79	80-89	90–100	TOTAL		
(N)	0	0	9	17	16	5	0	47		
		INCIDEN	ICE OF COL	ON CANCER	BY AGE AT	DIAGNOSIS	LVH-Pocor	10 2016		
Age at Diagnosis	10-29	30–39	40-49	50-59	60-69	70–79	80-89	90–100	TOTAL	
(N)	0	0	2	6	10	11	13	2	44	
		INCIDEN	CE OF RECT	TAL CANCER	BY AGE AT	DIAGNOSIS	LVH-Poco	no 2016		
Age at Diagnosis	20-29	30–39	40-49	50–59	60-69	70–79	80–89	90–100	TOTAL	
(N)	0	0	2	3	7	2	0	0	14	
	IN	CIDENCE OF	URINARY E	BLADDER C	ANCER BY A	GE AT DIAG	NOSIS LVH-	-Pocono 20 <sup>-</sup>	16	
Age at Diagnosis	0–19	20–29	30-39	40-49	50-59	60-69	70–79	80-89	90–100	TOTA
(N)	0	0	0	0	2	9	14	8	1	34

# 2016 LVH ANALYTIC CASE STAGING -SELECT SITES BY STAGE OF DISEASE

DI.	east	Lu	ng	
Stage	Vol	Stage	Vol	
Stage 0	33	Stage 0	0	
Stage 1	69	Stage 1	36	
Stage 2	31	Stage 2	7	
Stage 3	7	Stage 3	19	
Stage 4	6	Stage 4	49	
Stage UNK	3	Stage UNK	1	
TOTAL	149	TOTAL	112	
Colorectal		Prostate		
Stage	Vol	Stage	Vol	
Stage 0	0	n/a		
olage 0				
Stage 1	8	Stage 1	10	
· ·	8	Stage 1 Stage 2	10 29	
Stage 1		· ·		
Stage 1 Stage 2	14	Stage 2	29	
Stage 1 Stage 2 Stage 3	14 16	Stage 2 Stage 3	29	
Stage	Vol	Stage		

Urinary Bladder				
Stage	Vol			
*Stage 0	18			
Stage 1	5			
Stage 2	6			
Stage 3	0			
Stage 4	3			
Stage UNK	2			
TOTAL	34			

\*Urinary Bladder: Stage 0 includes Stage 0A (n=16) and Stage 0is (n=2)

Data source: LVHN Tumor Registry

# RESOURCES AVAILABLE TO OVERCOME BARRIERS ON-SITE OR BY REFERRAL

# CARE COORDINATION

## NURSE NAVIGATORS BY DISEASE SITE

When you learn you have cancer, you may feel overwhelmed and scared. You and your family may have questions and concerns. Nurse navigators are available to support you through this difficult time. Nurse navigators can:

- Offer emotional support and teach you about your diagnosis and treatment
- ▶ Help you communicate with your physicians
- ▶ Provide guidance for decision-making about choices in your care
- Direct you to support services and community resources to assist with treatment-related supplies, financial concerns and transportation
- ▶ Assist with coordination of all members of the health team
- ▶ Guide you to survivorship services when your treatment is complete

## **MULTIDISCIPLINARY CONSULTATION**

Disease-site specific multidisciplinary consults facilitated by nurse navigators are available – an opportunity to meet with all care providers at one time. A nurse navigator will be with you along the way to help support you before, during and after your visit.



# CULTURAL AND LINGUISTIC

#### INTERPRETER SERVICES/CULTURAL COMPETENCY

Communicating with patients in their preferred language is a priority for LVHN. We have available bilingual nurse navigators, on-site interpreters, employees trained in medical interpretation, contracted sign language interpreters, video remote interpreter services via iPad, telephonic interpretation (Cyracom phones) and translation services for documents.

#### CULTURAL SENSITIVITY

LVHN provides regular training on cultural competency and maintains a website of resources to support understanding of all cultural backgrounds and the unique needs of our patients.

## ECONOMIC/LOGISTICS

#### ONCOLOGY SOCIAL WORKERS

We understand cancer affects you and your loved ones in many different ways. Our social workers provide resources to assist with financial difficulties, transportation and community resources.

Our colleagues help minimize the confusion and stress that can be caused by financial concerns. They will answer your questions about health insurance, precertification requirements, medical bills and financial assistance options. They may be able to help you receive free or reduced-cost services and medicine at LVHN, as well as access financial aid through cancer support agencies and philanthropic funds.

# HELP WITH MEDICAL ASSISTANCE/DISABILITY

Patients who need assistance with obtaining state medical assistance or disability are referred to our partner PATHS.

### HELP SELECTING INSURANCE PLANS APPRISE

Medicare patients who need help in understating their Medicare insurance, prescription plans or making informed choices about Medicare, Medigap and Medicare Advantage plans are referred to the APPRISE program offered through the Area Agency on Aging. (1-800-783-7067)

## HEALTHY WOMAN PROGRAM (1-800-215-7494)

We connect women to the Healthy Woman Program, a free breast and cervical cancer early detection program of the Pennsylvania Department of Health. It is funded by the Department of Health and through a grant the department receives from the Centers for Disease Control and Prevention. Free services for those meeting the eligibility standards include:

- Clinical breast examination
- Mammogram
- Pelvic examination and Pap test
- Follow-up diagnostic tests for an abnormal screening result

# BREAST AND CERVICAL CANCER PREVENTION AND TREATMENT PROGRAM (BCCPT)

We connect under/uninsured patients for whom breast or cervical cancer is detected to a follow-up program from Healthly Woman. Patients may be eligible for free treatment through the Pennsylvania Department of Human Services' (DHS) Breast and Cervical Cancer Prevention and Treatment Program (BCCPT).

#### PUBLIC TRANSPORTATION

LANTA-metro buses stop on the hospital campus.

#### VALET PARKING

Valet parking is available free of charge at our center.

# EMOTIONAL. SPIRITUAL AND PSYCHOSOCIAL

# SUPPORT GROUPS

Creative Expression, Pet Therapy, Reiki, Massage Therapy, Emotional Needs Assessment, Beading and Energizing with Exercise

# PASTORAL CARE

Spiritual support can help you face difficult news about your illness or find peace in a time of turmoil. Our chaplains are available to help you at your request. We also have a guiet chapel available for meditation and reflection. At Lehigh Valley Health Network, we offer spiritual support and guidance if you need it through our Pastoral Care Department. A chaplain can help you and your family identify the sources of your fear and find strength through your faith, other meaningful value systems or spiritual resources from the community.

# ACCESS TO RESEARCH

#### **ONCOLOGY CLINICAL TRIALS**

Patients have access to leading-edge clinical trials. We also have a dedicated team that supports patients through decision-making, enrollment and treatment.

# SUPPORT DURING AND AFTER TREATMENT

## ONCOLOGY NUTRITIONAL ASSESSMENT AND COUNSELING

Registered dietitians are available to provide nutrition assessment, counseling and education. They make nutrition recommendations to help with management of treatment-related side effects. Dietitians also may provide guidance for healthy eating, supplement use and weight management, both during and after treatment.

### ONCOLOGY GENETIC RISK ASSESSMENT AND COUNSELING

You may be concerned about your family's risk for cancer, particularly if more than one relative has had a similar health condition. LVHN can help assess your family's inherited risk for developing cancer by utilizing genetic and medical history tools.

# **END-OF-LIFE AND GRIEF SUPPORT**

#### PALLIATIVE CARE

Palliative care is specialized medical care for people with serious illnesses. Its focus is on providing patients with relief from symptoms, pain and stress of a serious illness with the goal of improving quality of life for both the patient and the family. Palliative care is provided by a team of doctors, nurses and other specialists who work with the patient's other doctors to provide an extra layer of support. It is appropriate at any age and at any stage in a serious illness. Access to palliative care is available, in the hospital, our outpatient cancer clinic, or in the home/assisted-living facility.

# **HOSPICE**

When you, your loved one and a physician decide emotional and physical needs should be the focus of care, it's time to consider hospice. At LVHN, we are dedicated to helping those on the final passage live their lives to the fullest in the time they have left. We provide a full range of services to allow you or your loved one peace, comfort, courage and dignity in your own home or in our hospice

unit. Nurses are on-call 24 hours a day, seven days a week. We provide hospice services to people in all settings – whether you live alone, with someone else or in a long-term care facility.

Hospice is generally covered by Medicare, Medical Assistance, HMOs and other managed care and private insurance plans. Thanks to the generosity of grateful family members and community donors, Lehigh Valley Hospice is able to care for eligible patients regardless of their ability to pay.

We encourage you to call hospice as soon as you change your focus from cure to comfort and care. We can help organize your life, draw upon available resources and prepare for what's ahead, as well as provide relief from pain and other symptoms. Getting hospice involved early may give you more quality time with loved ones.

# PREVENTION, SCREENING AND MISCELLANEOUS SERVICES

#### TOBACCO CESSATION PROGRAM

Our private and confidential Tobacco Treatment Program will increase your chances for living smoke-free. As an over-the-phone and face-to-face counseling service, we are here for you if you are ready to quit smoking or using tobacco products. Programs like ours have been scientifically proven to increase your chances of living a smoke-free life. Enrolling in our Tobacco Treatment Program will help you get through the physical and psychological withdrawal associated with quitting smoking.

#### TOBACCO CESSION PA FREE QUITLINE

The PA Free Quitline is a free, evidence-based tobacco cessation service available to all Pennsylvanians through the Department of Health. Annually, the PA Free Quitline provides services to over 13,000 Pennsylvanians. Participants are self-referred by calling 1-800-QUIT-NOW or 1-855-DEJELO-YA (335-3569) [Spanish]. Providers refer by Fax to Quit or electronic referral methods. Patients can enroll online via PA.Quitlogix.org

## **SCREENING SERVICES**

LVHN has cancer screening services available for all cancers. We can connect uninsured and underinsured patients with low-cost or free screening services directly and through our partners like the local health bureaus.

#### PLASTIC SURGERY

If you're thinking about reconstructive or plastic surgery, it's important for you to research the capabilities of the surgeon and supporting clinical team. That could be the biggest difference in feeling good about your decision. The plastic surgeons at LVHN are with you every step of the way.

#### **WOUND CARE**

If you have a long-lasting (chronic) or cancer-related wound, LVPG Wound Healing has the most experience in the region to help treat your condition. Located at Lehigh Valley Hospital-Cedar Crest in Allentown, Pa., and Lehigh Valley Hospital-Muhlenberg in Bethlehem, Pa., we are the longest operating wound care center in the area.

#### PATIENT RESOURCE CENTER

Free educational materials are available; including brochures, books and access to nationally recognized cancer-focused websites. Information about support services also can be found here.

#### **FDUCATIONAL PROGRAMS**

Education programs for patients and families are provided throughout the year; schedules are available by calling 888-402-LVHN.

# **COMMUNITY PARTNERS**

# AMERICAN CANCER SOCIETY (ACS)

The American Cancer Society has programs and services to help people with cancer and their loved ones understand cancer, manage their lives through treatment and recovery, and find the emotional support they need. And best of all, our help is free. We can also help connect you to other free or low-cost resources available in your area. ACS's Road to Recovery Program provides transportation to and from treatment for people who do not have a ride and are unable to drive themselves.

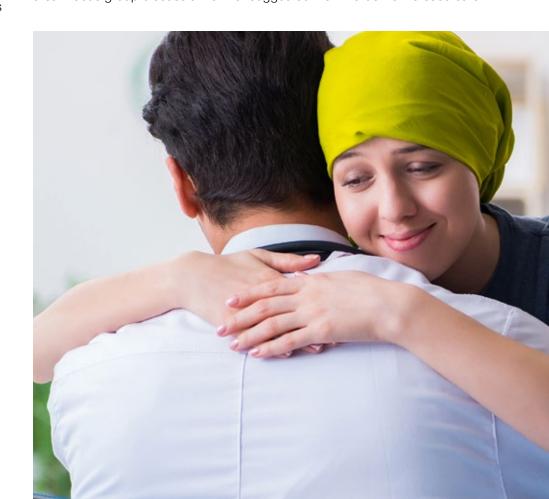
# LEUKEMIA LYMPHOMA SOCIETY (LLS)

LLS is the leading source of free, highly specialized blood cancer information, education and support for patients, survivors, families and health care professionals. We touch patients in their communities through our chapters across the U.S. and Canada. We advocate for blood cancer survivors and their families, helping patients navigate their cancer treatments and ensuring they have access to quality, affordable and coordinated care.

# ADDRESSING BARRIERS TO CARE

# LOGISTICAL/ ECONOMIC

30.3% of Monroe residents are living below 200% of the Federal Poverty Line. Qualitative data collected from focus group discussions with various community leaders highlighted that poverty is a significant issue that creates barriers to accessing health care services, dental services, and healthy and nutritious foods. Additionally, community members highlighted many issues with insurance in the community. Due to a large portion of the population in Monroe County commuting long distances, insurance affects overall access to care in the community. Many residents face issues when their insurance coverage is provided through jobs in surrounding states. Problems develop when patients' insurance requires them to see specific providers that are not always covered in the Monroe County service area. Focus group discussion further suggested that in order to increase care in



the community for these high-risk and high-need individuals, an affordable clinic could be initiated in the community to provide some care for the needs of this specific population.

While financial navigation, social worker and nurse navigation support is in place, the uncertainty of the federal regulatory climate, insurance marketplace, expansion of high-deductible plans, prescription medication costs (oral chemotherapy, etc.) and uncertain economic opportunities are driving up patient financial obligations and will likely require the need for ongoing and additional support in addressing financial barriers to care. As the demand increases, available funding sources often run dry. Expansion of philanthropy efforts to ensure patient assistance funds are replenished will be important to ensuring continuation and/or expansion of patient support for both medical and nonmedical needs. Expansion of financial coordination services also may be of benefit.



Additionally, while transportation support is available, demand continues to be high as patients and families continue to balance working schedules with clinical services as well as the distance to services.

# ACCESS TO CARE

# Family and Social Support

Our focus group and key informant interviews indicate that mental health and social support is a significant concern within Monroe County and was expressed as an increasing need. In particular, patients and families with cancer need specialized support to help along the cancer journey. Creating awareness and expansion of services offered may help mitigate this concern among cancer patients, families and survivors.

Focus group conversations also all generally discussed the need to increase awareness of resources throughout the community. There is a general belief that education about resources around the community could lead to overall better health outcomes. It was mentioned that due to amount of time spent out of the area for work, Monroe County residents sometimes lack awareness of community-wide resources.

As LVH expands, there is a need to provide additional, convenient locations of cancer care services in a broader area to decrease travel time for patients. Tele-health services in addition to brick-and-mortar facility expansions are two ways these barriers could potentially be addressed.

Access to clinical trials and specialized services not currently available at the Hughes Cancer Center require patients to travel away from their support system and experience many challenges. While services are available via referral to other locations within our network, opportunities exist to expand offerings/access.

Mobile mammography may be an avenue to explore in order to lessen logistical gaps for preventive screening studies as well as decreasing stage of disease.

# CULTURAL/LINGUISTIC/SOCIAL

Tobacco utilization in Pennsylvania continues to outpace national rates. Early intervention and education is critical to breaking the tobacco cycle. Continued efforts to prevent or reduce tobacco utilization would be beneficial to the community in addition to radon exposure reduction. According to the Pennsylvania Department of Environmental Protection, "Pennsylvania has one of the most

serious radon problems in the United States. Approximately 40 percent of Pennsylvania homes have radon levels above Environmental Protection Agency's action guidelines of 4 picocuries per liter." Education regarding the risk for lung cancer and help with obtaining free radon testing kits would be a benefit to the community.

Culturally Eastern Pennsylvanians are at higher than national rates of obesity and lower than national rates of physical activity thus placing them at greater risk for many types of cancer. Programs surrounding healthy eating and an active lifestyle would be a benefit to this community.

Cervical cancer incidence rates are higher than state or national rate. Early intervention and education is critical to making inroads to prevention of cervical cancer. Partnerships with primary care and gynecology may lend insights into barriers to vaccine or preventive behaviors, and there may be opportunities to team up on community programming.

## COMMUNICATION

Lack of knowledge about wellness behaviors for prevention and during treatment can contribute to the cancer burden. Outreach for education on prevention, early detection and self-care during treatment will continue to be key in supporting the community. Focused efforts for increasing screening rates for early detection will also be important for the community as even those without economic barriers are missing routine screenings.

While all cancer screening services are available, timely access is a challenge for some screening services and in general, utilization continues to lag behind in desired performance rates. Ongoing work to expand the number of eligible patients receiving routine screenings on schedule should continue to be an area for gap reduction. Ongoing efforts to eliminate both provider and consumer confusion resulting from conflicting screening recommendation schedules should persist.

# PROVIDER/SYSTEM CENTERED

As the network expands, lack of shared medical records will provide challenges in efficiency and care coordination. Efforts are underway to expand the centralization to a single electronic medical record (EMR) platform. Phasing will continue to standardize systems across all new mergers, and expanses will be an important component.

Staffing shortages of physicians and nurses as well as increased provider burn out create access barriers to care. It will be important to ensure there are efforts in place to train, retain and recruit qualified medical professionals to protect access to care.

Patients in this community continue to utilize tobacco and die of lung cancer at greater than national rates. The data suggests a need for continued efforts aimed at tobacco use prevention and cessation as well as early detection/screening. Patients who have lung screenings with positive nodule findings need to be followed closely by experts in the management of patients at high risk for lung cancers. Currently there is limited access in pulmonary care to cohort this population of patients for dedicated management. Patients currently are referred to primary care or pulmonary providers independently.

While palliative care programs are available, there continues to be a gap in patient/family and provider use and acceptance. Even with that gap, the existing demand often exceeds the capacity/timeliness needs of the population.

Across the various focus groups, the need for more specialty care providers across all disciplines of care was highlighted. This lack of providers is a source of concern and frustration for community stakeholders and was raised as an issue by respondents throughout focus groups and interviews. This feedback also mirrors the reality expressed by practice managers, health care administrators, and community leaders who relayed a gap in the patient care continuum upon identification of a patient's need for services across all specialty providers. In cancer care screening, diagnosis and treatment, there is a strong need for dermatologists, endocrinologists, urologists, gynecologic oncologists and medical oncologists.

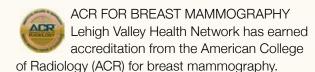


# OUR AWARDS, CERTIFICATIONS AND ACCREDITATIONS



AMERICAN COLLEGE OF RADIOLOGY (ACR) Lung Cancer Screening Center ACR Lung Cancer Screening Center

program recognizes facilities committed to providing quality screening care to patients at the highest risk for lung cancer.





ACR AND THE AMERICAN SOCIETY FOR RADIATION ONCOLOGY (ASTRO) SEAL OF ACCREDITATION

Lehigh Valley Hospital-Cedar Crest and Lehigh Valley Hospital-Muhlenberg have been awarded the ACR and the American Society for Radiation Oncology (ASTRO) seal of accreditation.

ACR CERTIFIED QUALITY BREAST CENTER OF EXCELLENCE LVHN Breast Health Services also is designated as a Breast Imaging Center of Excellence by the ACR.



# ACR DIAGNOSTIC IMAGING CENTER OF EXCELLENCE

This achievement is a one-of-a-kind program that takes your department or practice to the next level of imaging, efficiency, safety and quality care.



COMMISSION ON CANCER Continuously since 1992, Lehigh Valley Health Network has been

an accredited cancer program through the American College of Surgeons Commission on Cancer® (CoC), a designation only granted when a facility voluntarily commits to provide the best in cancer diagnosis and treatment, while also complying with standards established by the CoC.



NATIONAL QUALITY MEASURES FOR BREAST CENTERS (NQMBC) CERTIFIED QUALITY BREAST CENTER OF EXCELLENCE™

Breast Health Services at Lehigh Valley Hospital (LVH) and LVH–Pocono were named Certified Quality Breast Centers of Excellence™ in the National Quality Measure for Breast Centers (NQMBC) by the National Consortium of Breast Centers.

THE JOINT COMMISSION (TJC)
The Joint Commission accreditation and certification is recognized nationwide as a symbol of quality that reflects an organization's commitment to meeting safe and effective care of the highest quality and value.



U.S. NEWS & WORLD REPORT
Each year, U.S. News & World Report
ranks hospitals according to patient

satisfaction, patient outcome and access to leading-edge care across many specialties. In cancer care, U.S. News & World Report recognizes Lehigh Valley Hospital as "high performing" in recognition of our qualified staff, patient access to advanced technologies and patient survival.

