

COMMUNITY HEALTH NEEDS ASSESSMENT – ONCOLOGY 2017





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INTRODUCTION

Lehigh Valley Cancer Institute at Lehigh Valley Health Network (LVHN) is an accredited program with the American College of Surgeons Commission on Cancer. As a part of this accreditation, we are required to conduct a triennial Community Health Needs Assessment (CHNA) to address health care disparities and barriers to cancer care. From this CHNA, we will establish or enhance navigation processes and identify resources to address barriers to care in each year of the three-year cycle.

The CHNA assesses the cancer program's community and local population by evaluating socioeconomic, demographic, behavioral (e.g., tobacco use) and psychosocial characteristics as well as the cancer burden of the community served. This report provides a summary and analysis of a variety of publicly available health data sources relating to the characteristics previously mentioned. Secondary data primarily comes from Community Commons, a comprehensive data platform that compiles publicly available data sources into one location for easy access and analysis. Some examples of data sources provided in Community Commons include the U.S. Census, Centers for Disease Control and Prevention and Department of Education. Additional secondary data was drawn from Pennsylvania Department of Health and LVHN patient population data. Data sources are noted throughout the report. Additional primary data was collected through a survey emailed to community members in Lehigh and Northampton counties. Survey questions examine perceived barriers to accessing care at LVHN for cancer-related services.



DESCRIPTION OF FACILITY

Lehigh Valley Health Network includes eight hospital campuses and 22 health centers caring for communities in seven counties in eastern Pennsylvania. Our Cedar Crest, Muhlenberg and Bangor Cancer Centers are located in Lehigh and Northampton counties where over 3,400 analytic cancer cases were identified in 2016. The Cancer Institute provides a full-range of prevention, screening, diagnostic, treatment, rehabilitation, multidisciplinary consultations, hemophilia, genetics, supportive care, palliative care, home care/hospice and survivorship services at multiple locations. LVHN offers over 100 leading-edge clinical trials through relationships with Memorial Sloan Kettering (MSK) Cancer Center, NCI Community Oncology Research Program (NCORP) and private industry. Tumor board case conferences are held for all cancer sites including joint tumor boards and disease management teams. Interdisciplinary breast services include self-referral mammography, 3-D digital tomosynthesis and minimally invasive breast biopsies. Breast Health Services has 15 convenient locations throughout the region. LVHN has the region's only NAPBC Breast Center of Excellence. Radiation oncology services include Gamma Knife® Icon,™ intensity-modulated radiation therapy (IMRT), image-guided radiation therapy (IGRT), stereotactic radiosurgery (SRS), stereotactic body radiotherapy (SBRT), brachytherapy, 4-D treatment planning (respiratory gating) and more. Multidisciplinary consultation clinics are offered for patients diagnosed with breast, lung/thoracic, prostate, melanoma/soft tissue, gastrointestinal, head and neck, and cervical cancers. Multidisciplinary clinics are staffed with nurse navigators, medical oncologists, surgeons, radiation oncologists, social workers and other professionals to provide a multidisciplinary approach to disease management with a single cohesive recommendation for plan of care.

At Lehigh Valley Cancer Institute, the word “institute” describes a location where clinicians of the highest caliber collaboratively conduct patient care, research, and participate in provider education at the highest level to better predict, prevent and combat disease. We have adopted the institute model because we have the necessary infrastructure, programs and partnerships in place to help our communities stay healthy and provide the most advanced treatment when needed. This includes our membership in the Memorial Sloan Kettering Cancer Alliance, which offers the nation's highest standard of oncology care, access to key MSK clinical trials and integrated learning.



BASIC FACTS ABOUT CANCER

WHAT IS CANCER?

- Cancer is a group of diseases related to uncontrolled growth and spread of abnormal cells.
- Death can occur if growth of abnormal cells spreads.
- If detected early and treated promptly, many cancers can be cured.

WHAT CAUSES CANCER?

- Tobacco, diet and obesity are major contributors to development of cancer.
- Other contributors are believed to include alcohol consumption, sedentary lifestyle, occupation, family history, viruses/biologic agents, prenatal factors/growth, reproductive factors, socioeconomic status, environmental pollution, ionizing/ultraviolet radiation and some drugs/prescription medicines.

HOW IS CANCER PREVENTED?

- Primary prevention includes avoiding cancer-causing exposures to agents like tobacco, sun, excess and dietary fat.
- Secondary prevention includes early detection and treatment of benign precursor lesions.

HOW IS CANCER TREATED?

- Surgery, radiation, chemotherapy, hormones, immunotherapy and targeted therapy

WHO GETS CANCER?

- Cancer strikes all segments of the population.
- Occurrence of cancer rises with age and exposure to risk factors.

WHAT ARE THE MOST COMMON CANCERS?

- In Pennsylvania, the top 10 cancers by incident rate are breast, prostate, lung and bronchus, colon and rectum, uterine, bladder, melanoma of skin, thyroid, Non-Hodgkin lymphoma and kidney.

POPULATION DEMOGRAPHICS

TOTAL POPULATION

A total of 656,372 people live in Lehigh and Northampton counties according to U.S. Census Bureau American Community Survey 2011–15 five-year estimates. The population density for these counties, estimated at 1003.57 and 810.49 persons per square mile, respectively, is greater than the national average population density of 89.61 persons per square mile.

Area	Total Population	Total Land Area (square miles)	Population Density (per square mile)
Lehigh County, Pa.	356,756	345.17	1,033.57
Northampton County, Pa.	299,616	369.67	810.49
Pennsylvania	12,779,559	44,742.87	285.62
United States	316,515,021	3,532,070.45	89.61

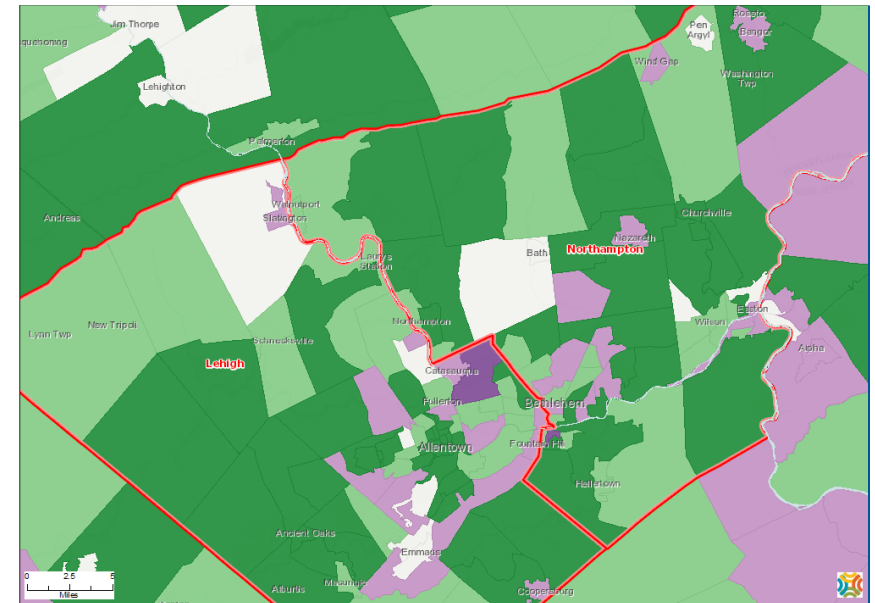
Data Source: U.S. Census Bureau, American Community Survey, 2011–15. Source geography: Tract

PERCENT CHANGE IN POPULATION BETWEEN 2000 AND 2010

According to the United States Census Bureau Decennial Census, between 2000 and 2010 the population in Lehigh County grew by 37,287 persons, a change of 11.94 percent. Population in Northampton grew by 30,771, a change of 11.53 percent, over the same time period. A significant positive or negative shift in total population over time impacts health care providers and utilization of community resources.

Area	Total Population, 2000 Census	Total Population, 2010 Census	Total Population Change, 2000–2010	% Population Change, 2000–2010
Lehigh County, Pa.	312,210	349,497	37,287	11.94
Northampton County, Pa.	266,964	297,735	30,771	11.53
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: U.S. Census Bureau, Decennial Census, 2000–2010. Source geography: Tract



POPULATION CHANGE, PERCENT BY TRACT, U.S. CENSUS 2000–2010

- Over 10.0% Increase
- 1.0–10.0% Increase
- Less Than 1.0% Change
- Over 10.0% Decrease
- No Population or No Data
- Report Area
- 1.0–10.0% Decrease

TOTAL POPULATION BY GENDER

In line with state and national percentages, populations in Lehigh and Northampton counties are about equal percentages of males and females.

Area	Male	% Male	Female	% Female
Lehigh County, Pa.	173,680	48.68	183,076	51.32
Northampton County, Pa.	146,756	48.98	152,860	51.02
Pennsylvania	6,245,344	48.87	6,534,215	51.13
United States	155,734,280	49.2	160,780,741	50.8

Data Source: U.S. Census Bureau, American Community Survey, 2011–15. Source geography: Tract

TOTAL POPULATION BY RACE, PERCENT

When comparing race alone, more than three quarters of individuals who are living in Lehigh County (79.3 percent) and Northampton County (86.48 percent) are white. Lehigh County is in line with Pennsylvania where 81.62 percent of the population is white, which is higher than the national percentage of 73.6 percent.

Area	White	Black	Asian	Native American /Alaska Native	Native Hawaiian /Pacific Islander	Some Other Race	Multiple Races
Lehigh County, Pa.	79.30	6.53	3.17	0.19	0.02	7.83	2.95
Northampton County, Pa.	86.48	5.04	2.75	0.34	0.02	2.40	2.98
Pennsylvania	81.62	10.98	3.07	0.18	0.03	1.98	2.13
United States	73.60	12.61	5.13	0.81	0.17	4.70	2.98

Data Source: U.S. Census Bureau, American Community Survey, 2011–15. Source geography: Tract

TOTAL POPULATION BY ETHNICITY ALONE

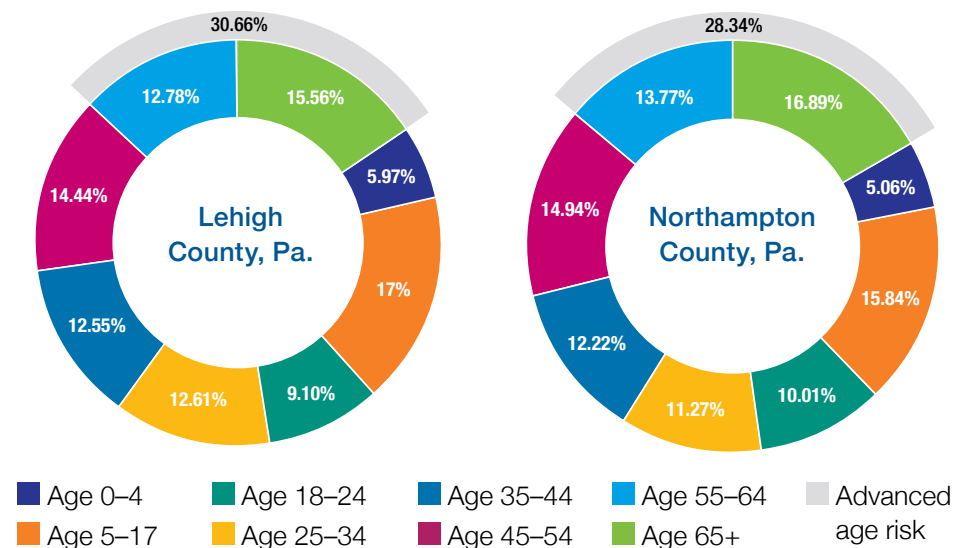
The majority of population within Lehigh County self-reported as non-Hispanic (78.93 percent) and 21.07 percent self-reported as Hispanic or Latino. In Northampton County, 88.31 percent of residents self-reported as non-Hispanic and 11.69 percent reported they are Hispanic and Latino. Pennsylvania data indicates that 6.4 percent of individuals in the state identify as Hispanic or Latino, compared to 17.1 percent of individuals who self-reported being Hispanic or Latino in the United States.

Area	Total Population	Hispanic or Latino Population	% Population Hispanic or Latino	Non-Hispanic Population	% Population Non-Hispanic
Lehigh County, Pa.	356,756	75,169	21.07	281,587	78.93
Northampton County, Pa.	299,616	35,040	11.69	264,576	88.31
Pennsylvania	12,779,559	815,538	6.38	11,964,021	93.62
United States	316,515,021	54,232,205	17.13	262,282,816	82.87

Data Source: U.S. Census Bureau, American Community Survey, 2011–15. Source geography: Tract

TOTAL POPULATION BY AGE

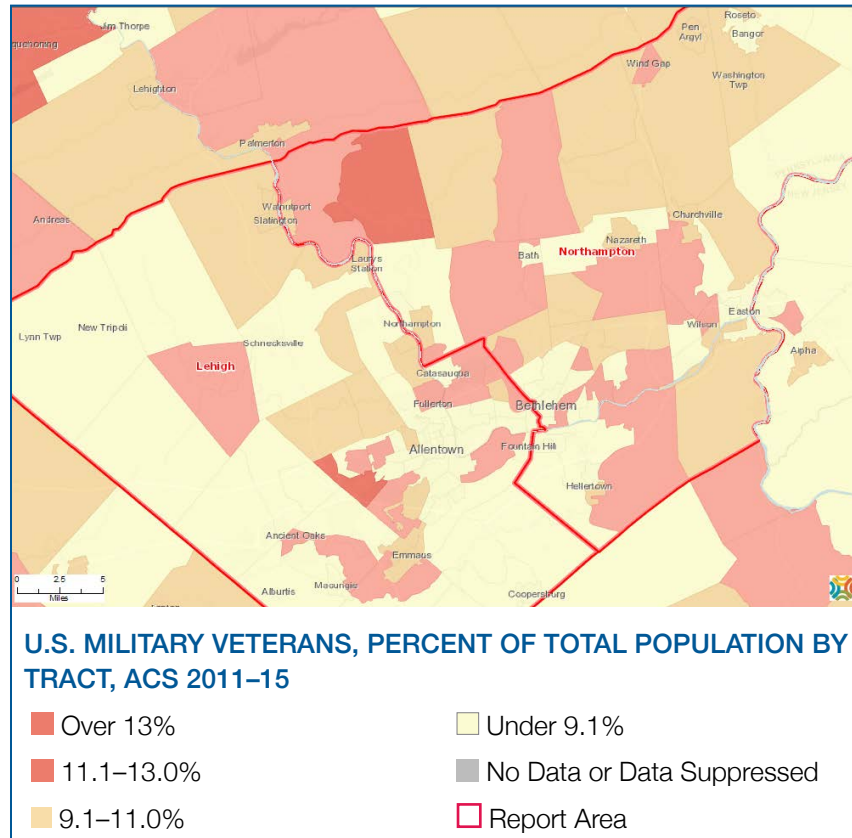
The largest age groups within Lehigh and Northampton counties are those ages 65 and older and those between ages 5 and 17, followed by those between ages 45 and 54. According to National Cancer Institute (NCI), advancing age is the most important overall cancer risk factor. Approximately 30 percent of county population falls into a risk of getting cancer based on age alone.



VETERAN POPULATION

Eight percent of adults in Lehigh County are U.S. military veterans. Nine percent of adults in Northampton County are U.S. military veterans.

According to American Society of Clinical Oncology (ASCO), [Cancer.net](https://www.cancer.net), some studies have suggested that veterans may be at increased risk of cancer due to chemical and radiation exposures during services. This includes exposure to agent orange, oil well fire smoke, nerve gasses like sarin and cyclosarin, drugs used to protect against nerve gasses and pesticides as an example.



Data Source: U.S. Census Bureau, American Community Survey. 2011–15. Source geography: Tract

TOTAL HOUSEHOLDS

FAMILIES WITH CHILDREN

The most recent American Community Survey estimates, 31.83 percent of all occupied households in Lehigh County are family households with one or more child under age 18; in Northampton County this percentage is 30.95 percent. 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.

Area	Total Households	Total Family Households	Families With Children	Families With Children, % of Total Households
Lehigh County, Pa.	133,960	89,871	42,640	31.83
Northampton County, Pa.	112,927	78,401	34,956	30.95
Pennsylvania	4,958,859	3,202,874	1,415,364	28.54
United States	116,926,305	77,260,546	37,419,210	32

Data Source: U.S. Census Bureau, American Community Survey. 2011–15. Source geography: Tract

POPULATION UNDER AGE 18

An estimated 22.96 percent of the population in Lehigh County and 30.9 percent of the population in Northampton County are under age 18.

Area	Total Population	Population Age 0–17	% Population Age 0–17
Lehigh County, Pa.	356,756	81,919	22.96
Northampton County, Pa.	299,616	62,627	20.90
Pennsylvania	12,779,559	2,722,234	21.30
United States	316,515,021	73,683,825	23.28

Data Source: U.S. Census Bureau, American Community Survey. 2011–15. Source geography: Tract

EDUCATION AND ENGLISH PROFICIENCY

HIGH SCHOOL GRADUATION RATE

Within Lehigh County, 83.6 percent of students are receiving their high school diploma within four years. Within Northampton County, 72.1 percent of students are receiving their high school diploma within four years. Data represents the 2014–15 school year for all states except California and Texas.

Area	Total Student Cohort	Estimated Number of Diplomas Issued	% Cohort Graduation Rate
Lehigh County, Pa.	3,817	3,191	83.6
Northampton County, Pa.	3,181	2,292	72.1
Pennsylvania	122,509	106,458	86.9
United States	3,116,301	2,648,271	85

Data Source: U.S. Department of Education, EDData. Accessed via DATA.GOV. Additional data analysis by CARES. 2014–15. Source geography: School District

POPULATION WITH ASSOCIATE-LEVEL DEGREE OR HIGHER

37.38 percent of the population age 25 and older, or 95,603 have obtained an associate-level degree or higher in Lehigh County. In Northampton County, 35.97 percent of the population age 25 and older have received an associate degree.

Area	Total Population Age 25+	Population Age 25+ With Associate Degree or Higher	% Population Age 25+ With Associate Degree or Higher
Lehigh County, Pa.	242,376	90,603	37.38
Northampton County, Pa.	206,993	74,463	35.97
Pennsylvania	8,814,112	3,220,434	36.54
United States	211,462,522	79,981,739	37.82

Data Source: U.S. Census Bureau, American Community Survey. 2011–15. Source geography: Tract

POPULATION WITH NO HIGH SCHOOL DIPLOMA

Within Lehigh County, 12.63 percent of the population age 25 and older are without a high school diploma (or equivalency) or higher. In Northampton County, 10.25 percent of the population age 25 and older are without a high school diploma, which is similar to the 10.78 percent of this age group in the state. Both counties are lower than the U.S. percentage of 13.35 percent.

Area	Total Population Age 25	Population Age 25 With No High School Diploma	% Population Age 25 With No High School Diploma
Lehigh County, Pa.	242,376	30,612	12.63
Northampton County, Pa.	206,993	21,209	10.25
Pennsylvania	8,814,112	950,001	10.78
United States	211,462,522	28,229,094	13.35

Data Source: U.S. Census Bureau, American Community Survey. 2011–15. Source geography: Tract

POPULATION IN LIMITED ENGLISH HOUSEHOLDS

This indicator reports the percentage of population age 5 and older living in Limited English-speaking households. A “Limited English-speaking household” is one in which no member age 14 and older (1) speaks only English at home or (2) speaks a language other than English at home and speaks English “Very well.”

Area	Total Population Age 5+	Linguistically Isolated Population	% Linguistically Isolated Population
Lehigh County, Pa.	335,468	14,313	4.27
Northampton County, Pa.	284,458	5,649	1.99
Pennsylvania	12,061,898	273,804	2.27
United States	296,603,003	13,540,408	4.57

Data Source: U.S. Census Bureau, American Community Survey. 2011–15. Source geography: Tract

INCOME AND INSURANCE

POVERTY – POPULATION BELOW 200 PERCENT OF THE FEDERAL POVERTY LINE

Poverty is considered a key driver of health status. Within Lehigh County, 30.57 percent of the population lives in households with income below 200 percent of the Federal Poverty Level (FPL). Within Northampton County, 25.14 percent of the population lives in households with income below 200 percent of the FPL. These percentages are in line with Pennsylvania's overall percentage of 30.6 percent of the population living below 200 percent of the FPL and below the national percentage of 34.26 percent. This indicator is relevant because poverty creates barriers to access including health services, healthy food and other necessities that contribute to poor health status.

Area	Total Population	Population in Poverty	% Population in Poverty
Lehigh County, Pa.	347,353	106,193	30.57
Northampton County, Pa.	288,852	72,626	25.14
Pennsylvania	12,365,782	3,783,636	30.6
United States	308,619,550	105,726,604	34.26

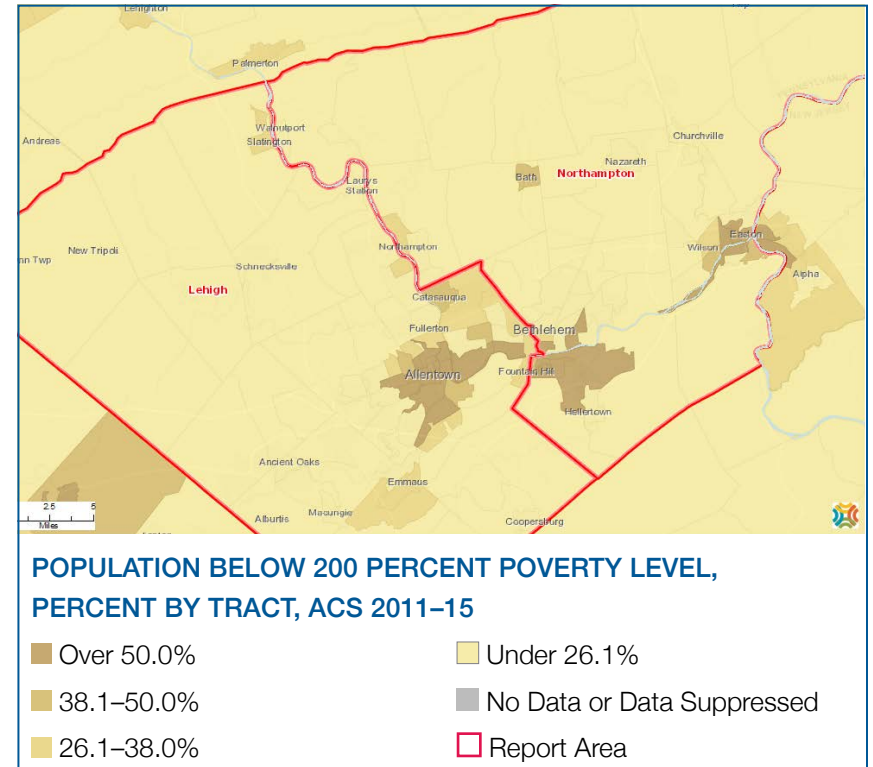
Data Source: Population Below 200 percent Poverty Level, Percent by Tract, ACS 2011–15

UNINSURED ADULTS

Lack of health insurance is considered a key driver of health status. This indicator reports the percentage of adults ages 18 to 64 without health insurance coverage. Around 90 percent of the population in Lehigh and Northampton counties have medical insurance, and 10 percent or less do not have health insurance, which is in line with Pennsylvania overall and lower than the national percentage of uninsured adults.

Area	Total Population Age 18–64	Population With Medical Insurance	% Population With Medical Insurance	Population Without Medical Insurance	% Population Without Medical Insurance
Lehigh County, Pa.	215,210	193,221	89.78	21,989	10.22
Northampton County, Pa.	178,578	164,326	92.02	14,252	7.98
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: U.S. Census Bureau, Small Area Health Insurance Estimates. 2015. Source geography: County



Data Source: U.S. Census Bureau, American Community Survey, 2011–15. Source geography: Tract

POPULATION RECEIVING MEDICAID

This indicator reports the percentage of population with insurance enrolled in Medicaid (or other means-tested public health insurance), which is 20.53 percent in Lehigh County and 15.22 percent in Northampton County.

Area	Total Population	% With Any Health Insurance	Population Receiving Medicaid	% of Insured Population Receiving Medicaid
Lehigh County, Pa.	351,921	316,900	65,072	20.53
Northampton County, Pa.	296,646	273,960	41,699	15.22
Pennsylvania	12,575,088	11,468,414	2,145,834	18.71
United States	311,516,332	271,070,101	57,557,806	21.23

Data Source: U.S. Census Bureau, American Community Survey, 2011–15. 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 Lehigh and Northampton counties, 2.83 percent and 3.43 percent of households receive public assistance income, respectively.

Area	Total Households	Households With Public Assistance Income	% Households With Public Assistance Income
Lehigh County, PA	133,960	3,791	2.83
Northampton County, PA	112,927	3,873	3.43
Pennsylvania	4,958,859	173,057	3.49
United States	116,926,305	3,223,786	2.76

Data Source: U.S. Census Bureau, American Community Survey, 2011–15. Source geography: Tract

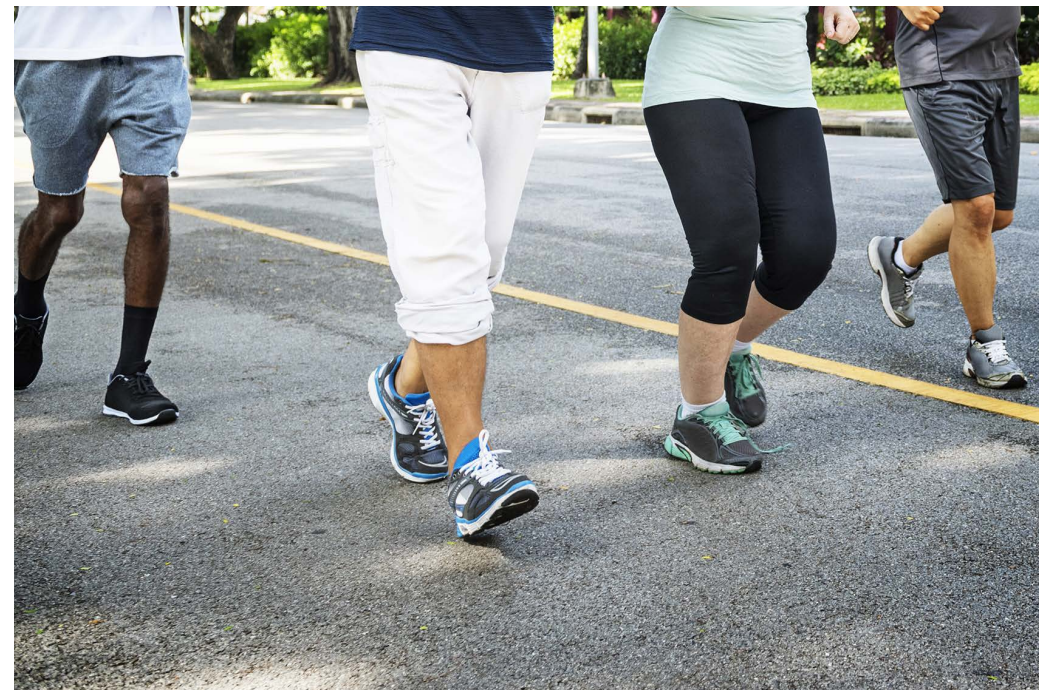
BEHAVIORAL RISK FACTORS

FORMER AND CURRENT SMOKERS

In Lehigh County, an estimated 104,152 adults, or 44.38 percent, report ever smoking 100 or more cigarettes. In Northampton County, an estimated 102,784, or 50.7 percent, report ever smoking 100 or more cigarettes. In comparison, 47.33 percent of adults in Pennsylvania and 44.16 percent of adults nationally report ever smoking 100 or more cigarettes. 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.”

Area	Adults Age 18+	Total Adults Ever Smoking 100 or More Cigarettes	% Adults Ever Smoking 100 or More Cigarettes
Lehigh County, Pa.	234,658	104,152	44.38
Northampton County, Pa.	202,733	102,784	50.70
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 18 percent of adults in Lehigh and Northampton counties 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 may also increase the risk for pancreas and stomach cancers.

Area	Total Population Age 18	Estimated Adults Drinking Excessively	Estimated Adults Drinking Excessively (crude percentage)	Estimated Adults Drinking Excessively (age-adjusted percentage)
Lehigh County, Pa.	264,870	47,147	17.8	18.9
Northampton County, Pa.	231,056	39,973	17.3	18.2
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. U.S. Department of Health & Human Services, Health Indicators Warehouse. 2006–12. Source geography: County

PHYSICAL INACTIVITY

Within Lehigh County, 21.3 percent 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?” In Northampton County, this percentage was 23.4 percent.

Area	Total Population Age 20	Population With No Leisure Time Physical Activity	% Population With No Leisure Time Physical Activity
Lehigh County, Pa.	265,327	59,168	21.3
Northampton County, Pa.	227,271	56,136	23.4
Pennsylvania	9,697,156	2,244,307	22
United States	234,207,619	52,147,893	21.8

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 Lehigh County, 78.9 percent of adults over age 18 are consuming less than five servings of fruits and vegetables each day; this percentage is 78.1 percent in Northampton County. Both counties are above Pennsylvania and U.S. percentages. This is important because lack of healthy eating behaviors affects the chance of developing cancer for all adults.

Area	Total Population Age 18	Total Adults With Inadequate Fruit / Vegetable Consumption	% Adults With Inadequate Fruit / Vegetable Consumption
Lehigh County, Pa.	257,226	202,951	78.9
Northampton County, Pa.	227,875	177,970	78.1
Pennsylvania	9,703,855	7,326,411	75.5
United States	227,279,010	171,972,118	75.7

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

DENTAL CARE UTILIZATION

This indicator reports the percentage of adults age 18 and older who self-report that they have not visited a dentist, dental hygienist or dental clinic within the past year. Approximately 25 percent of adults in Lehigh County and 27 percent of adults in Northampton County did not have a dental exam. Regular dental exams are typically the primary opportunity to screen for oral (head/neck) cancers. Lack of routine screening decreases the chance of finding cancer at an early stage and misses an opportunity to educate and intervene regarding behavioral health risks such as smoking.

Area	Total Population Age 18 +	Total Adults Without Recent Dental Exam	% Adults With No Dental Exam
Lehigh County, Pa.	261,940	65,156	24.9
Northampton County, Pa.	228,935	62,403	27.3
Pennsylvania	9,857,384	2,804,554	28.5
United States	235,375,690	70,965,788	30.2

Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System.

SCREENING RATES

POPULATION-LEVEL SCREENING RATES

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. Around 65 percent of female Medicare enrollees have had a mammogram in the past two years in Lehigh and Northampton counties.

Area	Total Medicare Enrollees	Female Medicare Enrollees Age 67–69	Female Medicare Enrollees With Mammogram in Past Two Years	% Female Medicare Enrollees With Mammogram in Past Two Years
Lehigh County, Pa.	34,534	2,724	1,795	65.9
Northampton County, Pa.	33,441	2,695	1,762	65.4
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 age 50 and older who self-report they have ever had a sigmoidoscopy or colonoscopy. Seventy percent of the population age 50 and older in Lehigh County has ever been screened for colon cancer, which is higher than Pennsylvania and national percentages. Northampton County is in line with the state and national percentages at 64 percent of the population age 50 and older.

Area	Total Population Age 50+	Estimated Population Ever Screened for Colon Cancer	Crude Percentage	Age-Adjusted Percentage
Lehigh County, Pa.	92,371	66,138	71.6	70.3
Northampton County, Pa.	83,195	54,909	66	63.9
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. U.S. Department of Health & 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 they have had a Pap test in the past three years. Over 80 percent of the female population age 18 and older obtain a regular Pap test.

Area	Female Population Age 18	Estimated Number With Regular Pap Test	Crude Percentage	Age-Adjusted Percentage
Lehigh County, Pa.	224,575	181,906	81	82.6
Northampton County, Pa.	205,929	162,478	78.9	80.1
Pennsylvania	8,337,831	6,395,116	76.7	78.8
United States	176,847,182	137,191,142	77.6	78.5

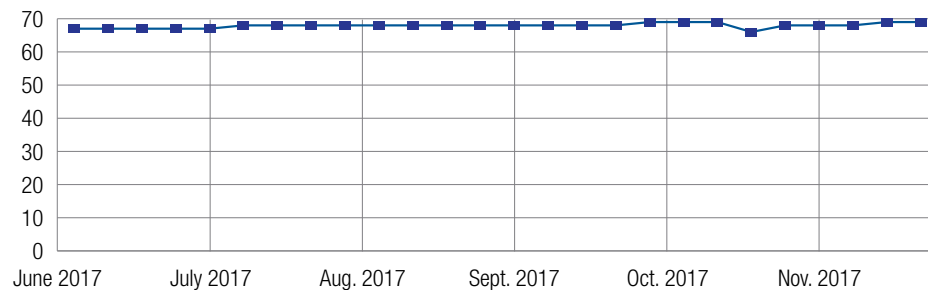
Data Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System. Accessed via the Health Indicators Warehouse. U.S. Department of Health & Human Services, Health Indicators Warehouse. 2006–12. Source geography: County

LVHN-SPECIFIC SCREENING RATES

MAMMOGRAMS

Mammography screening rates at LVHN have improved between 2016 and 2017. Comparing November 2016 to November 2017 showed a 4.9 percent improvement. (Source: CIBIT Quality Dashboard). LVHN Epic Executive Dashboard demonstrates ongoing improvement, but with continued efforts needed to make the final push to achieve the 70 percent goal.

BREAST CANCER SCREENING

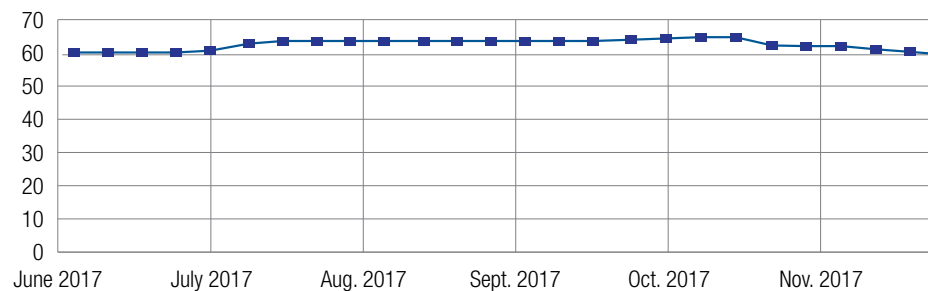


Source: Epic Executive Dashboard Breast Cancer Screening

COLON CANCER SCREENING

Colonoscopy screening rates at LVHN have improved between 2016 and 2017. Comparing November 2016 to November 2017 showed a 1.7 percent improvement. (Source: CIBIT Quality Dashboard). For 2017 year to date, LVHN Epic Executive Dashboard demonstrates ongoing improvement, but with continued efforts needed to achieve a 70 percent goal.

COLONOSCOPY SCREENING

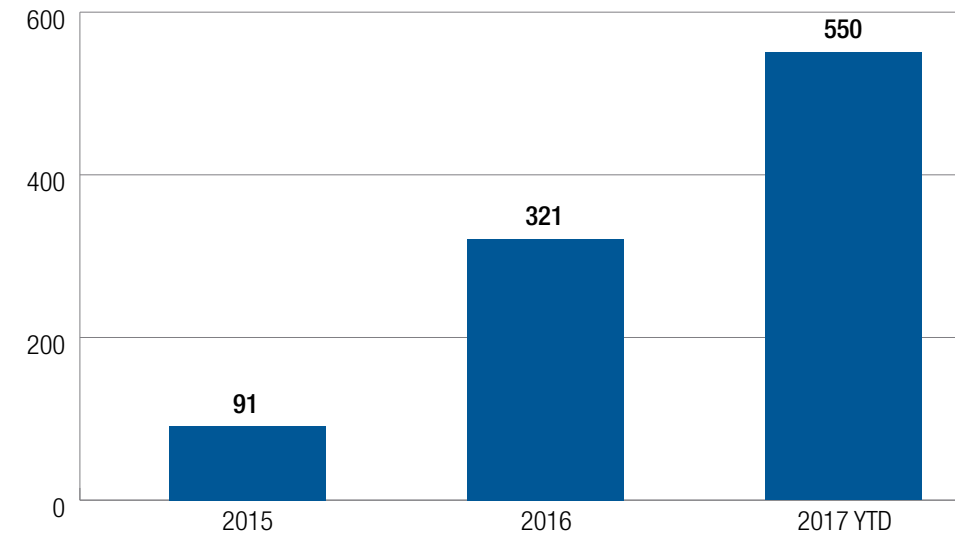


Source: Epic Executive Dashboard Breast Cancer Screening

LUNG CT SCREENING

LVHN began offering low-dose lung computed tomography (CT) screening immediately upon clinical evidence supporting its routine use, but prior to widespread insurance coverage. In 2015, the program offered the service for a nominal out-of-pocket fee. With the 2015 decision by Medicare to cover low-dose lung CT screening for at-risk populations, and the community outreach efforts of LVHN, the program has made great strides in increasing screening rates. Recently, it was identified that of the over 500 lung CT screenings performed at LVHN in 2017YTD, less than 40 were performed at the 17th Street campus, which is designed to meet the needs of our underserved/disparate populations. This finding may represent an opportunity to fill an unmet need in the community. One barrier to utilization may be the insurance requirement for patients to have a shared decision-making visit with a primary care provider, and disparate populations are less likely to have an established primary care provider.

LVHN LOW-DOSE LUNG CT SCREENINGS





CANCER INCIDENCE

LEHIGH AND NORTHAMPTON COUNTIES

BREAST CANCER

This indicator reports the age-adjusted incidence rate (cases per 100,000 population per year) of females with breast cancer adjusted to 2000 U.S. standard population age groups. Breast cancer incidence rate for Lehigh and Northampton counties is 124.2 and 137.3 per 100,000 females, respectively. These incidence rates are below (Lehigh) and above (Northampton) the Pennsylvania rate of 129.8 per 100,000 people.

Area	Estimated Total Population (Female)	New Cases (Annual Average)	% Cancer Incidence Rate (per 100,000 Pop.)
Lehigh County, Pa.	22,222	276	124.2
Northampton County, Pa.	19,737	271	137.3
Pennsylvania	829,738	10,770	129.8
United States	18,515,303	228,664	123.5

Data Source: State Cancer Profiles. 2010–14. Source geography: County

CERVICAL CANCER

This indicator reports the age-adjusted incidence rate (cases per 100,000 population per year) of females with cervical cancer adjusted to 2000 U.S. standard population age groups. Cervical cancer incidence rates for Lehigh and Northampton counties are 8.5 and 6.5 per 100,000, respectively. The Northampton County rate is below the Healthy People 2020 target of 7.1 per 100,000 people.

Area	Estimated Total Population (Female)	New Cases (Annual Average)	% Cancer Incidence Rate (per 100,000 Pop.)
Lehigh County, Pa.	18,823	16	8.5
Northampton County, Pa.	16,923	11	6.5
Pennsylvania	697,368	530	7.6
United States	16,137,921	12,299	7.62
HP 2020 Target			<= 7.1

Data Source: State Cancer Profiles. 2009–13. Source geography: County

COLON AND RECTUM CANCER

This indicator reports the age-adjusted incidence rate (cases per 100,000 population per year) of colon and rectum cancer adjusted to 2000 U.S. standard population age groups. Colon and rectum cancer incidence rates for Lehigh and Northampton Counties are 42.7 and 41.1 per 100,000, respectively. Significant effort will be needed to achieve the Healthy People target of 38.7.

Area	Estimated Total Population	New Cases (Annual Average)	% Cancer Incidence Rate (per 100,000 Pop.)
Lehigh County, Pa.	43,559	186	42.7
Northampton County, Pa.	38,929	160	41.1
Pennsylvania	1,609,280	6,936	43.1
United States	34,945,477	139,083	39.8
HP 2020 Target			<= 38.7

Data Source: State Cancer Profiles. 2010–14. Source geography: County

LUNG CANCER

This indicator reports the age-adjusted incidence rate (cases per 100,000 population per year) of lung cancer adjusted to 2000 U.S. standard population age groups. Lung cancer incidence rates for Lehigh and Northampton counties are 63.1 and 64.5 per 100,000, respectively.

Area	Estimated Total Population	New Cases (Annual Average)	% Cancer Incidence Rate (per 100,000 Pop.)
Lehigh County, Pa.	43,264	273	63.1
Northampton County, Pa.	39,224	253	64.5
Pennsylvania	1,631,957	10,673	65.4
United States	35,229,411	215,604	61.2

Data Source: State Cancer Profiles. 2010–14. Source geography: County

PROSTATE CANCER

This indicator reports the age-adjusted incidence rate (cases per 100,000 population per year) of males with prostate cancer adjusted to 2000 U.S. standard population age groups. Prostate cancer incidence rates for Lehigh and Northampton counties are 124.3 and 141.6 per 100,000, respectively.

Area	Estimated Total Population (Male)	New Cases (Annual Average)	% Cancer Incidence Rate (per 100,000 Pop.)
Lehigh County, Pa.	20,112	250	124.3
Northampton County, Pa.	18,008	255	141.6
Pennsylvania	767,744	9,021	117.5
United States	16,980,487	194,936	114.8

Data Source: State Cancer Profiles. 2010–14. Source geography: County

PRIMARY DATA: COMMUNITY MEMBER SURVEYS

SURVEY RESPONDENTS

A total of 527 community members completed a survey about cancer-related risk factors and barriers to care. Among those who responded: 71 percent female and 29 percent male; 67 percent are 40–65 years old; 31 percent over 65; 75 percent are married; 94.5 percent are white or Caucasian; over 99 percent are English-speaking; nearly 80 percent have at least some college education; and over 70 percent are working full time or retired. Seventy-one percent of respondents live in Lehigh County, with the remaining living in Northampton County.

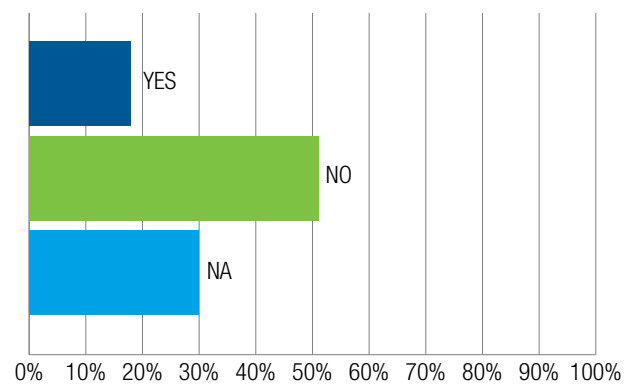
Nearly 60 percent of respondents had ever been diagnosed with cancer, specifically with the following types:

Answer Choices	Responses	
Lung Cancer	4.48%	15
Colon Cancer	7.16%	24
Breast Cancer	29.85%	100
Prostate Cancer	6.87%	23
Skin Cancer	15.22%	51
Ovarian Cancer	2.09%	7
Cervical Cancer	2.69%	9
Leukemia/Lymphoma	8.66%	29
Bladder Cancer	2.09%	7
Pancreatic Cancer	1.79%	6
Other (please specify)	34.93%	117

Total Respondents: 335

About 25 percent of respondents are currently being treated for cancer, and a majority (70 percent) of survey participants responded that someone in their family has had cancer.

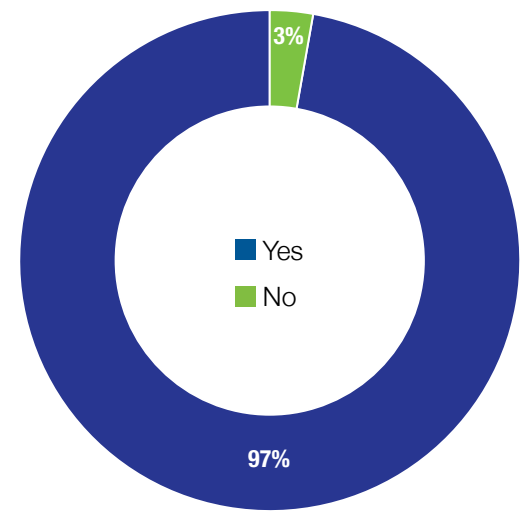
HAS ANYONE TALKED TO YOU ABOUT GENETIC COUNSELING?



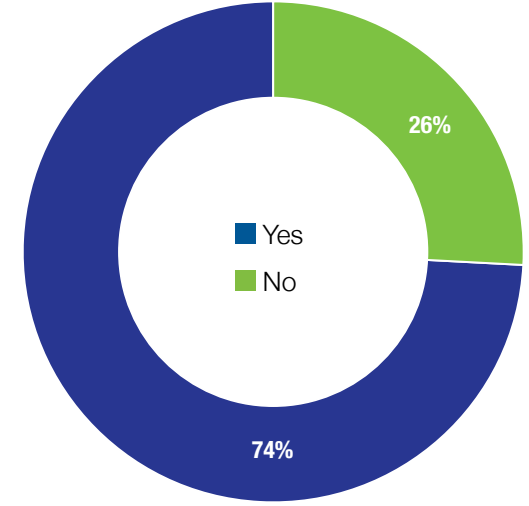
25% OF RESPONDENTS ARE CURRENTLY BEING TREATED FOR CANCER

SCREENING RATE

IF YOU ARE A WOMAN OVER AGE 40, HAVE YOU HAD A MAMMOGRAM?



IF YOU ARE OVER AGE 50, HAVE YOU BEEN SCREENED FOR COLON CANCER?



OTHER CANCER SCREENINGS RESPONDENTS WERE ASKED ABOUT INCLUDE:

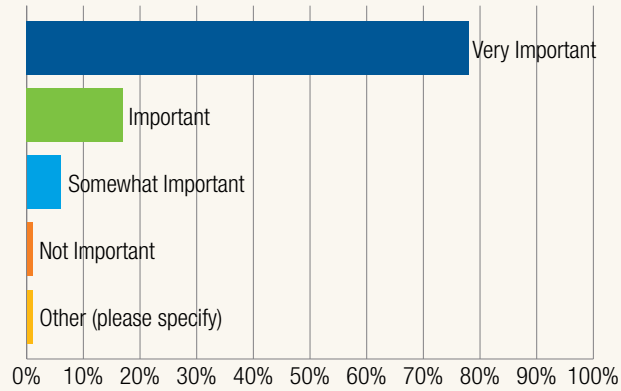
Answer Choices	Responses	
Lung Cancer	10.67%	56
Skin Cancer	44.95%	236
Oral Cancer	21.71%	114
None of the above	45.71%	240
Total Respondents: 525		

For those who have not had any cancer screenings in the last year, participants were asked to identify reasons they had not. The full list of options is below. The reason most endorsed by respondents was that they did not know they needed a screening.

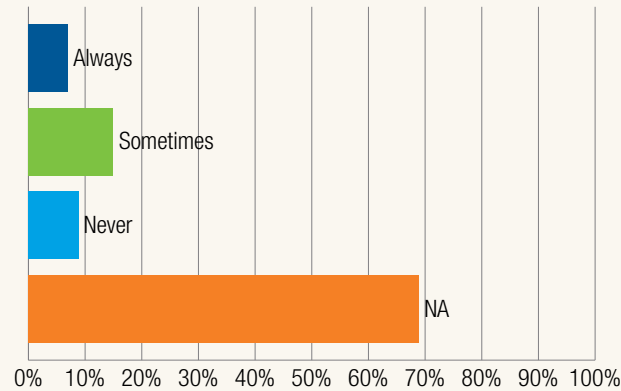
Answer Choices	Responses	
Did not know I needed them	21.36%	96
Too young	1.34%	6
Do not have a health care provider	0.22%	1
Do not have insurance	0.45%	2
Lack transportation	0.00%	0
Fear of results	1.78%	8
N/A	68.37%	307
Other (please specify)	8.02%	36
Total Respondents: 449		

HEALTH BEHAVIORS

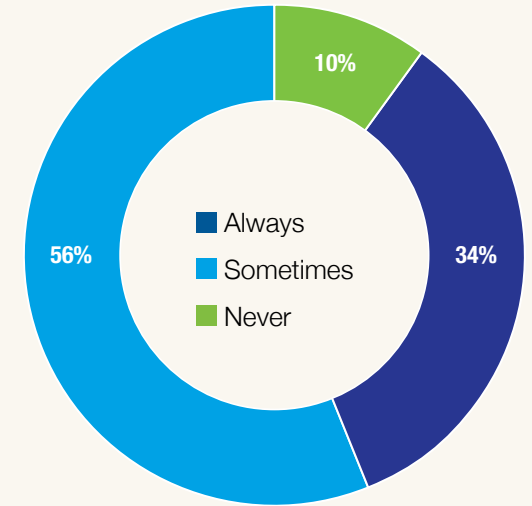
HOW IMPORTANT DO YOU THINK CANCER SCREENINGS ARE TO YOUR HEALTH?



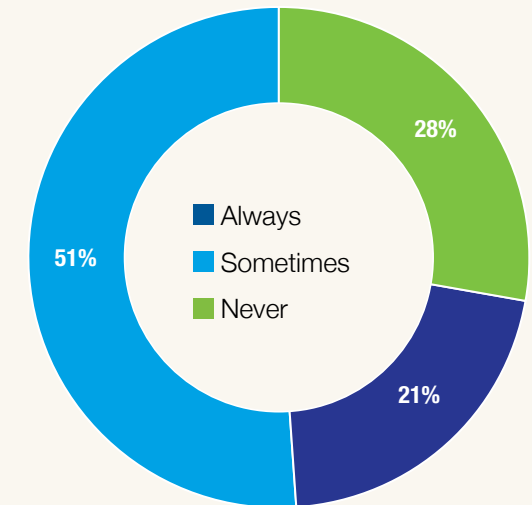
IF YOU ARE A MAN, DO YOU PRACTICE TESTICULAR SELF-EXAMINATIONS?



YOU APPLY SUNSCREEN BEFORE OUTDOOR ACTIVITIES:



YOU EXERCISE 30 MINUTES A DAY, FIVE DAYS A WEEK:

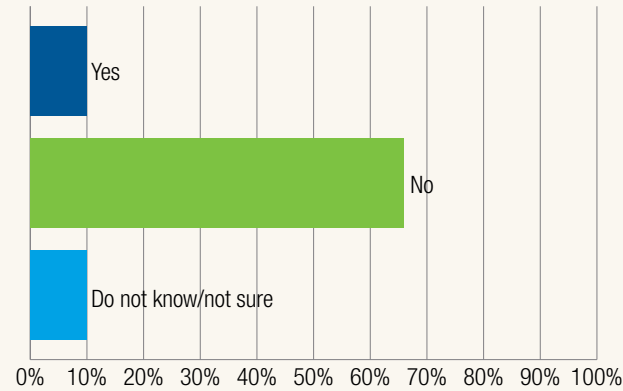


HEALTH BEHAVIORS CONTINUED

DO YOU GET YOUR TEETH CLEANED REGULARLY?

Answer Choices	Responses	
Every year	84.48%	441
Every 2–5 years	8.62%	45
I have never had my mouth checked/teeth cleaned	0.57%	3
Do not know/not sure	2.11%	11
N/A	4.21%	22
Total		522

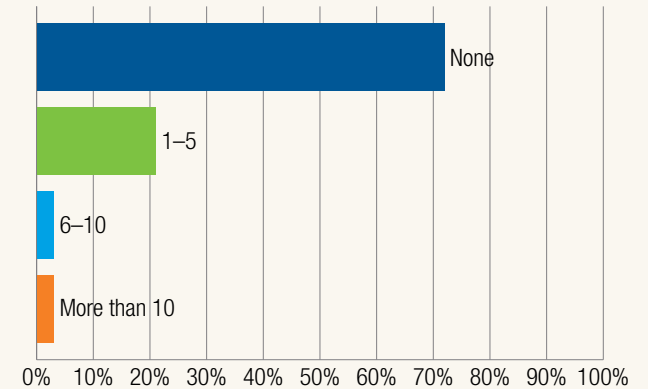
DO YOU COME IN CONTACT WITH ANY OF THE FOLLOWING CHEMICALS: ASBESTOS, SOLVENTS, BENZENE AND/OR FORMALDEHYDE?



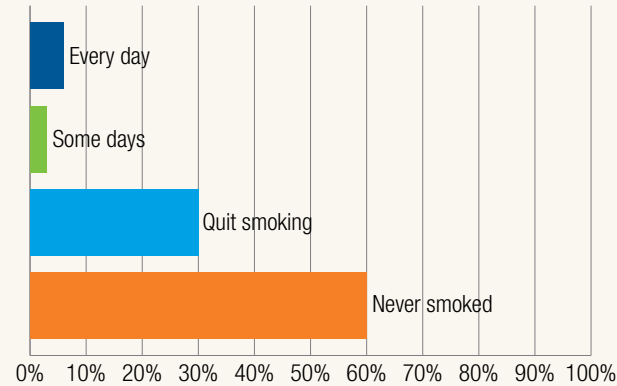
ARE YOU EXPOSED TO TOBACCO SMOKE IN YOUR HOME OR WORK?

Answer Choices	Responses	
Always	3.44%	18
Sometimes	14.69%	77
Never	81.87%	429
Total		524

HOW MANY TIMES DURING THE PAST 30 DAYS DID YOU HAVE 3 OR MORE DRINKS IN AN EVENING?



DO YOU USE CIGARETTES OR TOBACCO PRODUCTS?



KNOWLEDGE OF SERVICES PROVIDED AND CANCER

THE CANCER INSTITUTE HAS THE FOLLOWING SERVICES AVAILABLE FOR THE COMMUNITY. CHECK ALL THAT YOU ARE AWARE OF:

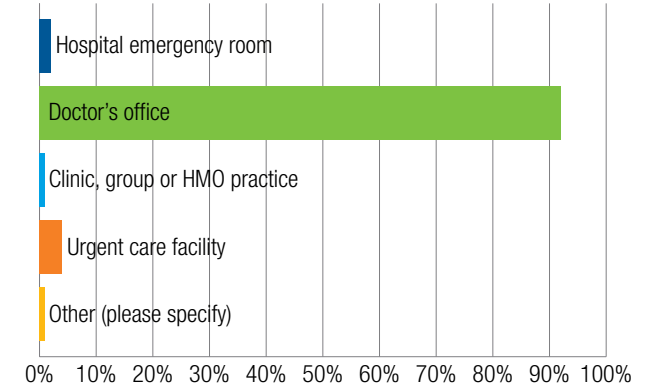
Answer Choices	Responses	
Breast and Cervical Cancer Control Program (BCCCP – free mammograms and Pap tests)	29.20%	132
Community educators	28.32%	128
Community speakers	31.86%	144
Educational seminars	37.83%	171
Educational displays	25.22%	114
eNewsletter	31.64%	143
Health fairs	43.36%	196
Healthy You magazine	75.88%	343
LVHN website	85.40%	386
Quit tobacco resources	28.54%	129
SurvivorPLACE cancer survivor clinic	22.12%	100
Total Respondents: 452		

43.24% OF RESPONDENTS OBTAIN CANCER-RELATED INFORMATION FROM FAMILY AND FRIENDS

WHAT SOURCES DO YOU USE TO OBTAIN CANCER-RELATED INFORMATION?

Answer Choices	Responses	
Family/friends	43.24%	224
Doctors/nurses/pharmacists	78.76%	408
TV	15.06%	78
Internet/social media	64.09%	332
Library	5.60%	29
Newspaper	13.13%	68
N/A	6.18%	32
Other (please specify; if internet, specify websites)	9.65%	50
Total Respondents: 518		

WHAT KIND OF PLACE DO YOU GO WHEN YOU ARE SICK OR NEED ADVICE ABOUT YOUR HEALTH?



ACCESS AND BARRIERS TO CARE

WHEN WAS YOUR LAST PHYSICAL EXAM?

Answer Choices	Responses	
Less than one year	78.71%	414
One year to less than three years	17.68%	93
More than three years	3.23%	17
Never had a physical exam	0.38%	2
Total		526

ARE YOU ABLE TO VISIT A DOCTOR WHEN NEEDED?

Answer Choices	Responses	
Always	88.43%	466
Sometimes	10.25%	54
Seldom	0.95%	5
Never	0.38%	2
Total		527

WHAT IS THE BIGGEST OBSTACLE YOU FACE IN ACCESSING HEALTH CARE?

Answer Choices	Responses	
Not sure what is available	10.86%	53
Do not have insurance	0.82%	4
Do not have transportation	1.43%	7
Location of services	3.89%	19
Language barriers	0.41%	2
Cultural barriers	0.20%	1
N/A	71.93%	351
Other (please specify)	14.75%	72
Total Respondents: 488		

WHAT TYPE OF HEALTH INSURANCE DO YOU CURRENTLY HAVE?

Answer Choices	Responses	
I do not have any health insurance	0.38%	2
Medicare	35.69%	187
Medicaid	2.86%	15
Private insurance or HMO plan	65.84%	345
Other (please specify)	15.27%	80
Total Respondents: 524		

HAVE YOU OR A FAMILY MEMBER EVER RECEIVED PALLIATIVE CARE FOR CANCER?

Answer Choices	Responses	
Yes	23.7%	122
No	50.19%	262
I don't know what palliative care is	26.44%	138
Total		522

LVHN STATISTICS FROM TUMOR REGISTRY

LVHN PREVALENCE BY DISEASE SITES

2016 LVHN ANALYTIC CASES BY PRIMARY BODY SITE (N = 3505)

PRIMARY SITE	TOTAL
Head and neck	90
Digestive organs	619
Esophagus	43
Stomach	49
Small intestine	14
Colon	190
Rectosigmoid junction	21
Rectum	63
Anus and anal canal	16
Liver and bile ducts	61
Gallbladder	12
Other biliary tract	12
Pancreas	134
Other digestive organs	4
Thorax	419
Bronchus and lung	411
Thymus	3
Heart mediastinum pleura	5
Breast	426
Female genital organs	300
Vulva	13
Vagina	4
Cervix uteri	26
Corpus uteri	182
Uterus nos	3
Ovary	63
Other female genital organs	8
Placenta	1

PRIMARY SITE	TOTAL
Male genital organs	323
Penis	4
Prostate gland	300
Testis	18
Other and unspecified male genital organs	1
Musculoskeletal/soft tissue	33
Blood and bone marrow	217
Skin	160
Urinary tract organs	334
Kidney	144
Kidney, renal pelvis	15
Ureter	10
Urinary bladder	162
Other and unspecified urinary organs	3
Central nervous system	209
Meninges	103
Brain	86
Other nervous system	20
Endocrine glands	178
Thyroid gland	146
Adrenal gland	2
Other endocrine glands	30
Other	6
Orbit, ocular	0
Other ill-defined sites	1
Retroperitoneum and peritoneum	5
Lymph nodes	144
Unknown primary	47

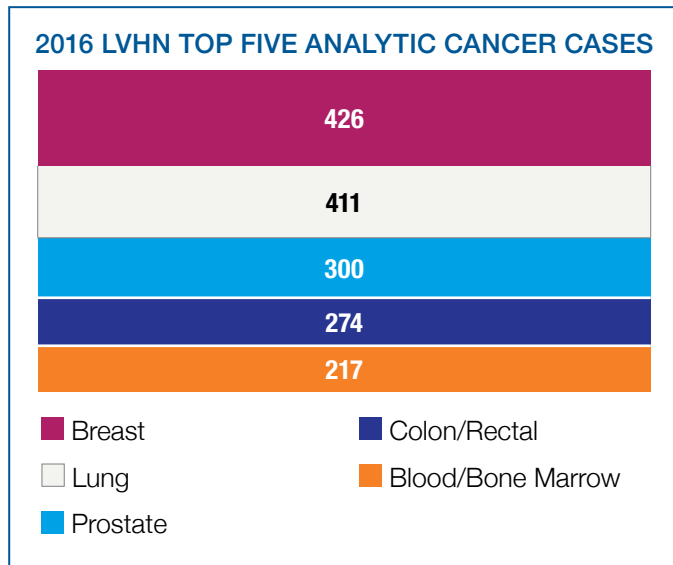
3,505
ANALYTIC CASES

(Source: LVHN Tumor Registry)

2016 LVHN ANALYTIC CASE STAGING – SELECT SITES BY STAGE OF DISEASE*

BREAST		Lung		PROSTATE		COLON		RECTUM	
Stage	Volume	Stage	Volume	Stage	Volume	Stage	Volume	Stage	Volume
Stage 0	67	Stage 0	3	n/a		Stage 0	5	Stage 0	3
Stage 1	182	Stage 1	82	Stage 1	55	Stage 1	34	Stage 1	10
Stage 2	88	Stage 2	36	Stage 2	168	Stage 2	50	Stage 2	5
Stage 3	29	Stage 3	93	Stage 3	25	Stage 3	56	Stage 3	9
Stage 4	23	Stage 4	183	Stage 4	36	Stage 4	36	Stage 4	9
Stage unknown	1	Stage unknown	11	Stage unknown	15	Stage unknown	25	Stage unknown	11
TOTAL	390	TOTAL	408	TOTAL	299	TOTAL	206	TOTAL	47

*Note: some cases excluded due to AJCC stage classification Performed During or After Initial Multimodality Therapy



2016 LVHN AGE AT DIAGNOSIS FOR TOP FIVE DISEASE SITES

INCIDENCE OF BREAST CANCER BY AGE AT DIAGNOSIS LVHN 2016										
Age at diagnosis	0-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	-	0	14	67	108	134	68	28	7	426
INCIDENCE OF LUNG CANCER BY AGE AT DIAGNOSIS LVHN 2016										
Age at diagnosis	0-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	-	0	0	15	61	132	124	67	12	411
INCIDENCE OF PROSTATE CANCER BY AGE AT DIAGNOSIS LVHN 2016										
Age at diagnosis	0-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	-	0	0	7	65	126	81	20	1	300
INCIDENCE OF COLON CANCER BY AGE AT DIAGNOSIS LVHN 2016										
Age at diagnosis	0-19	10-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	-	1	6	14	44	45	60	34	7	211
INCIDENCE OF RECTAL CANCER BY AGE AT DIAGNOSIS LVHN 2016										
Age at diagnosis	0-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	-	1	0	5	15	21	8	11	2	63
INCIDENCE OF BLOOD AND BONE MARROW CANCER BY AGE AT DIAGNOSIS LVHN 2016										
Age at diagnosis	0-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL
(N)	5	2	3	13	35	52	52	49	6	217

(Source: LVHN Tumor Registry)

FOCUS GROUP INSIGHTS

The Cancer Institute Patient and Family Advisory Council (PFAC) was created in 2017 to improve and maintain high-quality patient- and family-centered care. PFAC council members are encouraged to share their health care experiences. They are empowered to offer advice and guidance on presented discussion topics contributing patient and family points of view and insights.

At the inaugural meeting, patients and staff members were asked to identify potential opportunities for improvement and gaps in services in the cancer program. They shared individual experiences and offered suggestions for improvement as summarized below. These ideas and suggestions will be evaluated in conjunction with the findings in this report as we focus on a patient-centered approach to care and prioritize improvement actions. The PFAC affords us a dynamic forum for continuing discourse and patient involvement in planning and advising the Cancer Institute leadership.

IDENTIFY ONE THING TO IMPROVE AT LVHN

- ▶ Stronger presence of patient feedback
- ▶ Voice of the patient
- ▶ Communication – follow up after discharge (Home Care doesn't know the patient)
- ▶ Someone from inpatient floor to call the patient
- ▶ Cold tables in radiation oncology
- ▶ Stronger links to the community to meet needs of underserved

IDENTIFY ONE GAP IN SERVICE OR A BARRIER TO CARE THAT YOU BELIEVE EXISTS FOR PEOPLE NEEDING SERVICES IN OUR CANCER PROGRAM:

- ▶ Services and program are siloed.
 - There is a disconnect between inpatient and outpatient services
 - Patients are asked the same questions over and over

- ▶ Patients could benefit from others' experiences. There should be a program for patients to talk to other patients.
- ▶ One underserved population is younger people, people who want to have kids. Good info not available regarding fertility and reproduction.
- ▶ Coordination of care for patients.
 - Every patient should have a navigator. Care should be streamlined so patients spend less time at the hospital and more time living their lives
 - What about people who don't know the system or what to expect?
- ▶ Language
 - Would be nice to have interpreters (Spanish)
 - Use translation apps on phone
- ▶ Privacy issues – men and women go into the same changing rooms with only a little curtain
- ▶ Environment
 - Infection control – Better housekeeping in the infusion and radiation oncology waiting areas
 - No seat covers for toilets
 - Need comfortable areas for patients and family members; warm and welcoming areas.
- ▶ Could have better use of technology –
 - Give patient an iPad to use to keep them busy
 - Internet doesn't work everywhere in the Cancer Center
- ▶ Communication – Don't tell people when they're going to die. What do we say and what do we not say? Have honest conversations to help patients meet their goals. How much does the patient want to know?

RESOURCES AVAILABLE TO OVERCOME BARRIERS ON-SITE OR BY REFERRAL

CARE COORDINATION

NURSE NAVIGATORS BY DISEASE SITE AND BILINGUAL NURSE NAVIGATORS

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 care team
- ▶ Guide you to survivorship services when your treatment is complete
- ▶ Bilingual (Spanish) nurse navigators can help communicate primarily in your preferred language

MULTIDISCIPLINARY CONSULTATION

Disease-site specific and facilitated by nurse navigators, a multidisciplinary consultation offers an opportunity to meet with all care providers at one time. During the conference, the team will provide you with a combined written opinion, reflecting the scope of your condition and a unified recommendation for the best course of care. You will have time to discuss your concerns and ask questions of the group. 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

In addition to 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 are available.

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 FINANCIAL COORDINATORS

Our financial coordinators are available at all hospital locations to help minimize confusion and stress that can be caused by financial concerns. They will answer your questions about health insurance, pre-certification 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**).

FURNITURE ASSISTANCE VIA LEHIGH VALLEY OUTREACH DEPOT (LVOD)

LVOD provides assistance with obtaining furniture for individuals and families suffering from disasters/ catastrophic events such as fire, floods, hurricanes, earthquakes, abusive situations, transitioning from a homeless situation or other significant life-changing event (eviction or infestations for example).



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.

FAMILY LODGING HOUSE

Hackerman-Patz House at Lehigh Valley Hospital-Cedar Crest is a convenient and affordable “home away from home” that offers an alternative to an expensive hotel or daily trips to and from a distant home. Whether your loved one is a patient or you’re receiving care yourself, our goal remains the same: to offer you comfortable accommodations and a supportive environment that allows you to focus on healing. Discounted rates are available for military members. Financial assistance is also available.

CC Cancer Center	FY16 Total Transactions	FY17 Total Transactions
	2860	2154

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 Pennsylvania Department of Health. It is funded by the Department of Health and through a grant the department receives from 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 Healthy Woman to BCCPT. Patients may be eligible for free treatment through Pennsylvania Department of Human Services’ (DHS) Breast and Cervical Cancer Prevention and Treatment Program (BCCPT).

PUBLIC TRANSPORTATION

LANTA-metro buses stop on the campus of Cedar Crest, Muhlenberg and 17th Street hospitals.

VALET PARKING

Valet parking is available free of charge at our Cedar Crest, 17th Street and Muhlenberg campuses.

CC Cancer Center	FY16 Total Transactions	FY17 Total Transactions
	8840	9544

EMOTIONAL, SPIRITUAL AND PSYCHOSOCIAL

ONCOLOGY COUNSELING SERVICES

A diagnosis of cancer upsets the balance of so many aspects of your life. One part that may not receive enough attention is your own mental well-being. Our licensed counselors and therapists are experts in cancer care and can help you find ways to manage the emotional roller coaster cancer puts you on, and provide you with tools you need to maintain your sense of well-being. We also help family members and caregivers cope and feel less distressed.

SUPPORT OF SURVIVORS (SOS)

If you are a breast cancer patient, Support of Survivors (SOS) is a support system designed for you. Staffed by a network of volunteers who are breast cancer survivors, SOS offers information, insight and encouragement to women – and their families – as they face breast cancer diagnosis and treatment. You can reach SOS by calling the Survivors’ Helpline at **610-402-4SOS** (4767). This line connects you to a voice mailbox. Leave a message with contact information, and an SOS volunteer will return your call.

LYMPHEDEMA SUPPORT GROUP

Lymphedema is fluid retention caused by a compromised lymphatic system. It can occur in any body part due to cancer and/or cancer treatment. Lymphedema therapy can be accessed through the Cancer Rehabilitation page, but LVHN also encourages patients to attend meetings of the Lymphedema Support Group. It meets three times per year and provides a way to connect with other patients who have lymphedema.

ADDITIONAL SUPPORT GROUPS

We provide monthly support groups for women with metastatic breast cancer and men with urologic cancers. We can assist with referrals to other support groups offered in the community.

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 quiet 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. Interfaith chaplains are available on a 24-hour basis. Chapels are available in all hospitals.

ACCESS TO RESEARCH

ONCOLOGY CLINICAL TRIALS

As members of the Memorial Sloan Kettering Cancer Alliance and NCORP (NCI Community Oncology Research Program) patients have access to hundreds of leading-edge clinical trials. A dedicated team of oncology clinical trials nurse navigators also 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. Lehigh Valley Health Network can help assess your family's inherited risk for developing cancer by utilizing genetic and medical history tools. In-person and telemedicine services available.

CANCER REHABILITATION

If you are suffering from fatigue, weakness, balance problems, lymphedema or other symptoms related to your condition and treatment, our specially educated rehabilitation therapists can help provide relief or recommend steps you can take to improve your symptoms through physical, occupational and speech therapy. We offer specialized programs in lymphedema detection and management, osteoporosis education, fatigue management, breast cancer and pelvic floor rehabilitation, management of issues related to head and neck cancer, and post-rehabilitation fitness.

CANCER SURVIVORPLACE

As you near completion of your treatments you may wonder, "What's next?" Lehigh Valley Health Network offers the Survivorship Program, a comprehensive follow-up care program designed to help you with the transition to your post-treatment phase. Mary Rose Muhr Slemmer SurvivorPLACE (Programs for Living After the Cancer Experience) is designed to help people live a healthy life after they have undergone cancer treatment.

ASSIST TO FITNESS/MIND-BODY FITNESS

LVHN offers a program to cancer survivors that provides three months free membership to LVHN Fitness Centers, including consultation with a trainer, use of exercise equipment and access to classes. This program is made available through a generous grant from the Women's 5K Classic and Mary Rose Muhr Slemmer Fund.



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 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.

REIKI MANUAL THERAPY

Reiki is a light touch manual therapy from Japan that supports the whole person. Reiki can have a relaxing effect similar to meditation in that it is designed to reduce anxiety and promote comfort. The practitioner, a trained volunteer, places his/her hands over positions on the body along energy centers and pathways on the head, neck, shoulders and upper chest, abdomen, legs and feet (similar to those used by acupuncturists). The practitioner's hands are held flat against the receiver's body in a stationary manner in each position for several minutes. The receiver may feel warmth or coolness, tingling or relaxation, or may feel nothing during a session. Sometimes people fall asleep as they become more relaxed. The Reiki session will still be effective even if the person is asleep. The therapy is offered free to outpatients receiving cancer treatment or follow-up care in the Cancer Center.

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 Lehigh Valley Health Network, 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.

GRIEF SUPPORT

Loss of a loved one stirs intense emotions; sometimes those feelings are very difficult to cope with. Through our grief support services, we offer several options to help children and adults work through their grief. Lehigh Valley Health Network's Bereavement Services offers emotional, psychological and spiritual support to help people cope with grief, loss and life transition.



PREVENTION, SCREENING AND MISCELLANEOUS SERVICES

TOBACCO CESSATION PROGRAM – LEHIGH VALLEY HEALTH NETWORK

LVHN's 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 CESSATION – PA FREE QUITLINE

The PA Free Quitline is an 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 under-insured patients with low-cost or free screening services directly and through our partners like 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. Plastic surgeons at Lehigh Valley Health Network 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. This educational information is available in our Cancer Support Team office.

EDUCATIONAL PROGRAMS

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



**QUIT
SMOKING**

COMMUNITY PARTNERS

AMERICAN CANCER SOCIETY (ACS)

The American Cancer Society (ACS) 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. Best of all, ACS help is free. ACS can 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. LLS touches patients in their communities through chapters across the U.S. and Canada. The organization advocates for blood cancer survivors and their families, helping patients navigate their cancer treatments and ensuring they have access to quality, affordable and coordinated care.

CANCER SUPPORT COMMUNITY OF THE GREATER LEHIGH VALLEY (CSC)

The Cancer Support Community's programs help people affected by cancer—survivors, caregivers, friends and family—regain control of their lives, reduce stress and isolation, and restore a sense of hope for a better quality of life regardless of stage of disease or type of cancer. CSC offers multiple disease-site-specific support groups, educational programs, social connection activities and wellness activities.

HEALTH BUREAU – CITY OF ALLENTOWN

Allentown Health Bureau's mission is to prevent disease and injury and to protect and promote the public's health. AHB serves the City and surrounding communities. **(AHB 610-437-7513)**

PROGRAM DESCRIPTION: The purpose of cancer prevention activities is to collaborate with local hospitals and community agencies to increase awareness about cancer in our community, and to promote ways in which individuals can protect themselves from cancer through prevention and/or early detection.

The Cancer Prevention Program provides FREE screening services and education programs to address cancer issues in our community. The goal of these services is to reduce incidence (number of new cases developed) and mortality (number of deaths) of those cancers that have been identified as preventable or more successfully treated if detected early. The program focuses on the most common forms of cancer – breast, cervix and gynecologic, colon/rectum, ovarian, prostate and skin. AHB offers the following primary services.

- ▶ **SCHEDULE FREE MAMMOGRAMS** for women age 40 and older who do not have health insurance to help pay for the mammogram. Participating sites include Breast Health Services of Lehigh Valley Hospital and others.
- ▶ **SCHEDULE FREE PAP TESTS** for women age 21 and older who do not have health insurance to help pay for the Pap test. Participating sites include Center for Women's Medicine of Lehigh Valley Hospital and others.

- ▶ **CONDUCT FREE CANCER EDUCATION PRESENTATIONS.** Available topics include breast cancer, cervical and gynecologic cancers, colorectal cancer, ovarian cancer, prostate cancer and skin cancer.
- ▶ **FREE RADON TEST KITS:** Allentown Health Bureau, in cooperation with the American Lung Association and PA Department of Environmental Protection, is offering free radon test kits to Lehigh Valley residents who have never completed a prior radon test in their home **(610-437-7759)**.

ADDRESSING BARRIERS TO CARE

LOGISTICAL/ECONOMIC

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

Access to phase I clinical trials, bone marrow transplants and precursor services are not presently offered at LVHN, requiring patients to travel away from their support system and experience logistical/economic challenges.

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.

While financial navigation, social worker and nurse navigation support is in place, the uncertainty of 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 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 non-medical needs.

CULTURAL/LINGUISTIC/SOCIAL

Patients with limited English proficiency (LEP) are less likely to receive all recommended health care services according to a number of studies. There is a continued need to support and expand the knowledge for those with LEP that professional interpretation services are available in several formats to ensure continued efforts on decreasing language as a barrier to care.

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.

Culturally, southeast Pennsylvanians are at higher than national rates of obesity and lower than national rates of physical activity.

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 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. Currently, inpatient and outpatient facilities in the Lehigh Valley utilize a single EMR (Epic) for the majority of patient care records. LVPG–Pocono has transitioned to Epic for outpatient care and plans are in place to bring Epic to LVPG–Schuylkill practices. Phasing will continue to standardize systems across all new mergers, and expansions will be an important component in overall integrated coordination of care.

Staffing shortages of physicians and nurses as well as increased provider burnout 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 preserve access to care.

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 are currently referred to primary care or pulmonary providers independently.

Patients with head and neck cancer have one of the most complex situations requiring extensive care coordination and social support. At present, while we have nurse navigation, we do not have a full level 5 multidisciplinary clinic (MDC). Due to the complex needs of these patients, moving to a full service MDC where all care providers are gathered in one setting with the patient and family would be best suited to meet the needs of this population.

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

ACCREDITATIONS



- ▶ Member, Memorial Sloan Kettering Cancer Alliance
- ▶ Commission on Cancer (CoC) Accredited – continuously since 2005
- ▶ 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 Center of Excellence Designation (COE)
- ▶ American College of Radiology (ACR) – Lung Cancer Screening Center
- ▶ National Accreditation Program for Breast Centers (NAPBC) – Breast Health Services Accreditation
- ▶ National Quality Measures for Breast Centers (NQMCB) Certified Quality Breast Center of Excellence™ – Breast Health Services
- ▶ American Association of Gynecologic Laparoscopists (AAGL) – Center of Excellence for Minimally Invasive Gynecology (COEMIG)
- ▶ Quality Oncology Practice Initiative (QOPI) Certified – LVPG Hematology-Oncology Associates – continuously certified since 2011
- ▶ U.S. News and World Report 2014-15 High Performer – Cancer
- ▶ NCI Community Cancer Center Program Selected (NCCCP) 4/2010 – 6/2014 (one of 21)
- ▶ National Committee Quality Assurance (NCQA) Patient-Centered Specialty Practice Level 2 Recognition – LVPG Hematology-Oncology Associates 3/20/2014 – 3/20/2017

REFERENCES AND ADDITIONAL SOURCES OF CANCER INFORMATION IN PENNSYLVANIA

AMERICAN CANCER SOCIETY

[Cancer Facts and Figures](#)

CANCER SUPPORT COMMUNITY

Access to Care in Cancer 2016: Barriers and Challenges. November 2016.

NATIONAL CANCER INSTITUTE

[Understanding Cancer, Cancer Statistics and Cancer Disparities](#)

PENNSYLVANIA DEPARTMENT OF HEALTH

[Cancer Facts and Figures: Pennsylvania, 2017](#)

PENNSYLVANIA DEPARTMENT OF HEALTH

[The Burden of Cancer in Pennsylvania: Calculating Costs, Understanding Impacts, Exploring Interventions. Pennsylvania, 2017](#)

PENNSYLVANIA DEPARTMENT OF HEALTH

[Cancer Statistics](#)



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