

Loudoun County, Virginia

**2013 Mobilizing for Action through
Planning and Partnership Assessment:
Community Health Status Assessment**

Published July 2014



Table of Contents

Introduction	Page 1
Demographic Characteristics	Page 3
Access to Care	Page 7
Quality of Life	Page 9
Parks, Recreation and Community Services	Page 11
Environmental Health	Page 13
Behavioral Risk Factors	Page 15
Social and Mental Health Services	Page 17
Maternal and Child Health	Page 17
Death, Illness and Injury	Page 19
Infectious Diseases	Page 22
Summary and Next Steps	Page 25
Attachment 1: Acronyms	Page 27

Introduction

What is MAPP?

Mobilizing for Action through Planning and Partnerships (MAPP) is a community-wide strategic planning tool for improving community health and the community-wide public health system. This tool, facilitated by public health leadership, is designed to help communities prioritize health issues and to ultimately identify resources for addressing them.

The MAPP model comprises a roadmap of four assessments designed to build a healthier community by providing critical insights into healthcare challenges and opportunities throughout the community. The four MAPP assessments include:

- I. Community Themes and Strengths Assessment
- II. Local Public Health System Assessment
- III. Community Health Status Assessment
- IV. Forces of Change Assessment

This report summarizes the **Community Health Status Assessment (CHSA)** conducted in Loudoun County in August 2013. The results of the CHSA provide an understanding of the community's health status and ensure that the community's priorities include specific health status issues (e.g., high lung cancer rates or low immunization rates).

This assessment, within the scope of the above forces, was completed in August 2013, and addressed the questions:

- I. How healthy are our residents?, and
- II. What does the health status of our community look like?

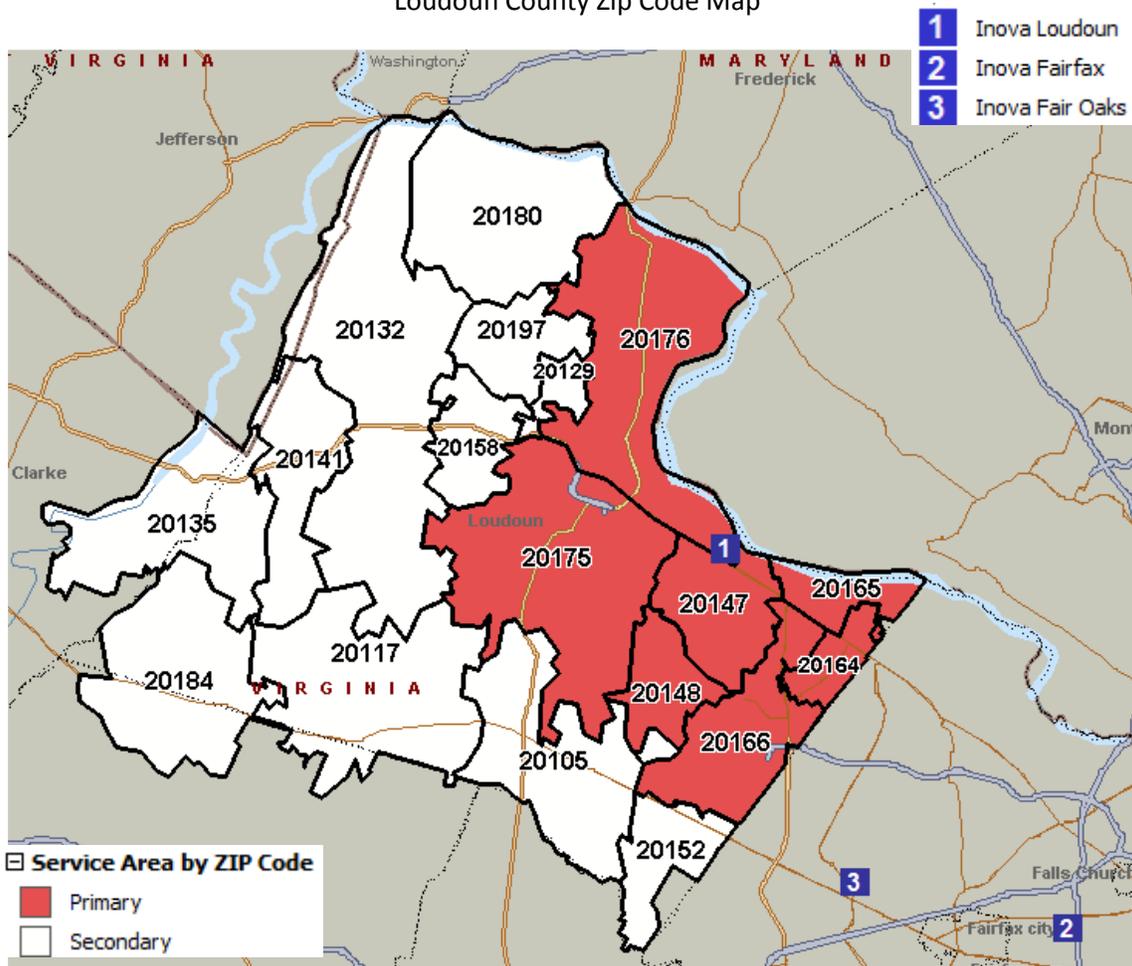
A similar Community Health Status Assessment was last conducted in 2008. With the rapid changes in the county's demographics, it was deemed necessary to re-assess the previous results in order to more accurately create effective strategies for the next five years.

Loudoun County, Virginia

In 1649, King Charles II granted Loudoun County, which was part of a five million acre Virginia Propriety, to seven noblemen. Between 1653 and 1730, within the Proprietary, Westmoreland, Stafford, and Prince William counties were formed. Later, in 1742 the remaining land was designated to Fairfax. In 1757, the House of Burgess divided Fairfax County with the western portion named Loudoun for John Campbell, earl of Loudoun. Leesburg has served continuously as the county seat since 1757.

Positioned between Washington D.C. and the Shenandoah Valley, Loudoun County rests at the foothills of the Blue Ridge Mountains. It is 35 miles northwest of our nation's capital and shares borders with the Virginia counties of Clarke, Fauquier, Prince William, and Fairfax. It also shares borders with Jefferson County in West Virginia and Frederick, Montgomery and Washington Counties in Maryland.

Loudoun County Zip Code Map



Sources: Inova Loudoun Hospital Community Health Needs Assessment
 Loudoun County, Virginia Website
 U.S. Geological Survey National Atlas

For more than two centuries, agriculture was the dominant way of life in Loudoun County, which had a relatively constant population of about 20,000. That began to change in the early 1960s, when Dulles International Airport was built in the southeastern part of the county. The airport subsequently attracted new businesses, workers, and their families to the area.

At the same time, the metropolitan Washington, D.C., area began a period of rapid growth. Major road improvements made commuting from Loudoun County much easier, attracting more and more people to the eastern part of the county. In the last three decades, the population of Loudoun County nearly quadrupled.

Today Loudoun is a growing dynamic Virginia county of about 336,898 people as of 2012. Loudoun is known for its beautiful scenery, rich history, healthy diversity of expanding business opportunities, comfortable neighborhoods, and high quality public services.

Demographic Characteristics

Population Data

Loudoun County is one of the fastest growing counties in the nation. From the years 1997 to 2007 the population had a 106% increase going from 135,369 to 278,797. From 2007 to 2012, the population has experienced a 21% increase, more than triple the rate of growth of Virginia and more than quadruple the rate of the United States.

Area	2007 Population	2012 Population	% Change (2007-2012)
Loudoun County	278,797	336,898	20.84 %
Northern VA	2,454,486	2,752,499	12.14%
Virginia	7,712,091	8,185,867	6.14%
United States	301,621,157	315,091,138	4.47%

* Northern Virginia includes; Alexandria (city), Fairfax (city), Falls Church (city), Manassas (city), Manassas Park (City), Fredericksburg (City), Arlington County , Fairfax County, Loudoun County, Prince William County, Clarke County, Fauquier County, Spotsylvania County, Stafford County, and Warren County.

Source: Virginia Employment Commission and U.S. Census 2012 Population Estimate

Loudoun County continues to diversify racially and ethnically; compared to Virginia overall, Loudoun County has a lower proportion of African American residents and a greater proportion of Asian and Hispanic residents, with this trend continuing over the past five years. Loudoun residents tend to be younger than the average Virginian, with a higher proportion of its residents under age 18 and a lower proportion over 65; this gap has been slowly narrowing, though, over the past five years.

Race Distribution			
Race	Loudoun % of Population, 2007	Loudoun % of Population, 2012	Virginia % of Population, 2012
White	76.8%	72.3%	71.1%
African American or Black	8.3%	7.7%	19.7%
American Indian and Alaska Native	0.3%	0.5%	0.5%
Asian	12.1%	16.0%	6.0%
Native Hawaiian and other Pacific Islander	0.1%	0.1%	0.1%
Two + Races	2.4%	3.4%	2.6%
Hispanic or Latino	10.2%	12.8%	8.4%

Source: U.S. Census Bureau "Quick Facts" for Loudoun County 2007
U.S. Census 2012 Population Estimate

Age Distribution			
Age Group	Loudoun 2007	Loudoun 2012	Virginia 2012
Persons under 5 years old	9.5%	8.1%	6.2%
Persons under 18 years old	30.2%	29.8%	22.7%
Persons 65 +	5.9%	7.3%	13.0%

Source: U.S. Census Bureau "Quick Facts" for Loudoun County 2007
U.S. Census 2012 Population Estimate

Socioeconomic Characteristics

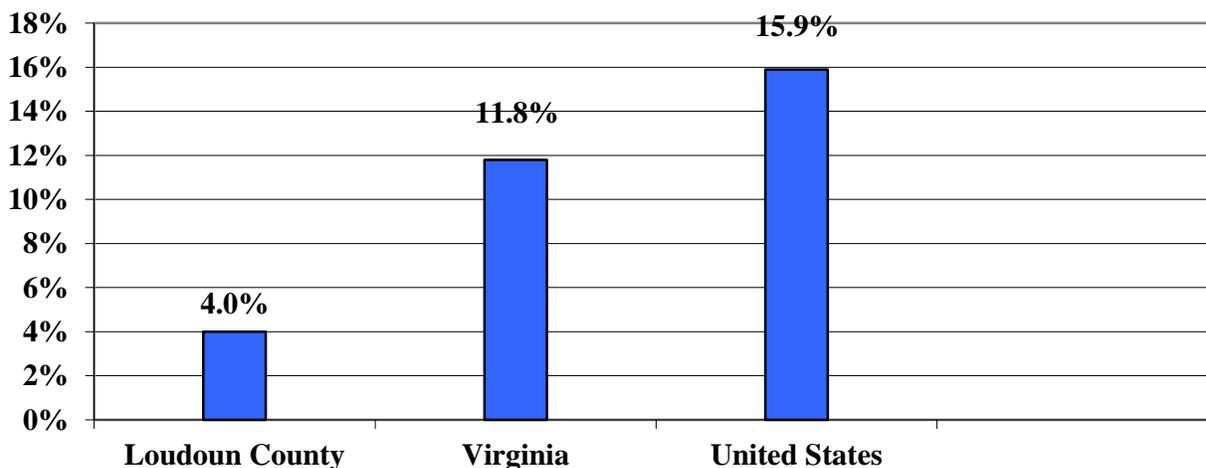
According to Forbes magazine, Loudoun is the county with the highest median family income in the United States at \$115,574 in 2012 (<http://www.forbes.com/sites/nathanvardi/2012/04/24/americas-richest-counties/>), with a poverty rate of 4%, significantly lower than that of Virginia (12%) or the nation (16%). The five year average median household income and per capita income were both significantly higher than for Virginia overall, though hourly wages were only slightly above the state average.

The agriculture industry is now ranked 19th in leading industry groups compared to 2009 when it was ranked 17th by the Virginia Workforce Connection. The leading industry for the most employees and establishments is listed as retail trade, with AOL, Inova Loudoun Hospital, M. C. Dean, Orbital Sciences Corporation, and Raytheon Company representing the top private sector employers.

According to CNN Money, Loudoun County is ranked as the number one place to find jobs. The ratings report job growth at 83.6% between years 2000-2011, with 24.6% between the years 2007-2011. The major businesses in the area allow the job growth along with easy access to the nation's capital and to Dulles Airport.

Sources: Virginia Workforce Connection
Cable News Network Fortune & Money Website

Percent of People in Poverty, 2012



Source: Inova Loudoun Hospital Community Health Needs Assessment
Bureau of the Census, [Small Area Income and Poverty Estimates](#)

Loudoun County's Top 12 Employers, 2012	
Company	Employment Range
Loudoun County Public Schools	10,000 +
AOL Inc.	1,000- 4,999
Inova Loudoun Hospital	1,000- 4,999
Loudoun County Government	1,000- 4,999
M. C. Dean Inc.	1,000- 4,999
Orbital Sciences Corporation	1,000- 4,999
Raytheon Company	1,000- 4,999
United Air Line Inc.	1,000- 4,999
Verizon Business	1,000- 4,999
Air Serv Corp.	500- 999
Club Demonstration Services Inc.	500- 999
Commonwealth of Virginia	500-999

Source: Loudoun County Economic Development Website, 2012

Labor Force 2008-2012 Community Survey 5-Year Estimates					
Population 16 years and over					
Area	Civilian Labor	Number Employed	Number Unemployed	Unemployment Rate	Armed Forces
Loudoun County	175,671	168,008	7,663	3.4%	1,100
Virginia	4,154,410	3,867,416	286,994	4.5%	122,105
United States	156,533,205	141,996,548	14,536,657	6.0%	1,131,106

Source: U.S. Census Bureau 2008-2012 American Community Survey 5-Year Estimates

Per Capita and Median Household Income 2012		
	Per Capita Money Income in the Past 12 Months (2008-2012)	Median Household Income (2008-2012)
Loudoun County	\$46,732	\$133,732
Virginia	\$33,326	\$76,566

Source: U.S. Census Bureau 2008-2012 American Community Survey 5-Year Estimates

Loudoun County Wages 2012		
Area	Average Hourly Wage	Average Weekly Wage
Loudoun County	\$29.28	\$1,171
Northern Virginia	\$31.22	\$1,248
Virginia	\$26.05	\$1,042

Source: Virginia Workforce Connection

Access to Care

Insurance Coverage

It is estimated that 8.4% of the Loudoun County population under age 65 is uninsured, with 4.8% of Loudoun County's children having no insurance. While these rates are lower than those of Virginia and the nation, they represent 26,334 people without insurance in Loudoun County.

Insured & Uninsured Estimates Under Age 65 (2005 & 2012)						
	Number Insured		Number Uninsured		% Uninsured	
	2005	2012	2005	2012	2005	2012
Loudoun County	167,418	286,938	22,067	26,334	11.6%	8.4%
Virginia	6,137,631	6,833,297	854,481	955,207	12.2%	12.3%
United States	239,713,822	258,778,088	39,803,537	45,206,153	14.2%	14.9%

Source: U.S. Census Bureau 2008-2012 American Community Survey 5-Year Estimates

Insured & Uninsured Estimates			
Under 19 (2012)			
	Number Insured	Number Uninsured	% Uninsured
Loudoun County	95,333	4,565	4.8%
Virginia	1,845,142	117,053	6.3%
United States	73,835,298	5,953,533	8.1%

Source: U.S. Census Bureau 2008-2012 American Community Survey 5-Year Estimates

Health Resource Availability

The Loudoun County local public health system offers a variety of health resources and services. One option for obtaining safety net health services is through the Loudoun County Health Department's Community Health Services division. Community Health resources and services are provided to all residents including immunizations, tuberculosis screening, and testing for sexually transmitted infections.

In May 2013, Inova Loudoun Hospital's Cornwall campus in Leesburg opened with new renovations. The newly renovated Cornwall campus includes a new emergency room, expanded diagnostic imaging services, a new laboratory, a 22-bed inpatient behavioral medicine unit and expanded space for the Loudoun Free Clinic and the Loudoun Child Advocacy Center.

Hospital Corporation of America's (HCA's) StoneSpring Medical Center opened in 2013 off Route 50 in southeast Loudoun County. This facility currently operates a 24-hour, 7-day-a-week emergency department and ambulance receiving station, and a helipad for trauma-care transport and rapid medical-emergency response. StoneSpring plans to open an 80-bed hospital at that site in 2015.

HealthWorks for Northern Virginia, formally known as Loudoun Community Health Center, provides additional safety net services for those who have limited or no health insurance. Urgent care centers are placed around the county and the Loudoun Free Clinic serves low-income, uninsured residents of Loudoun County ages 18-64 with acute and chronic illnesses at no charge. There is now a mobile health service available in Loudoun County; the Mobile Hope bus brings health screenings, flu shots, clinics, and other preventive and wellness efforts all around the county. The Northern Virginia Dental Clinic provides reduced cost adult dental services.

The Health Department also provides family planning, maternity WIC and pediatric dental services to low income residents. Most patient services are located at the Health Department's Shenandoah Building or HealthWorks locations in Leesburg, with tuberculosis screenings and WIC services offered at the Health Department's Research Place location in Ashburn.

Sources: Health Works Northern Virginia
Inova Newsroom Website
Leesburg Today Article "Inova's Downtown Campus Renovated For Expanded Role"

Health Service Providers

Loudoun County residents have a variety of health service providers available in the county or in surrounding localities, including nonprofit organizations, governmental agencies, and private practitioners.

Most of the health services in Loudoun County are located in the east, between Leesburg and Sterling. This can be a concern when there is a lack of transportation and when residents from Western Loudoun have to make a longer commute for healthcare.

Quality of Life

Education

Higher education institutions in Loudoun County include George Mason University, Northern Virginia Community College, Patrick Henry College, Shenandoah University, Strayer University, and the George Washington University.

Loudoun County has 82 public schools that educated 68,289 students in 2012. Seven Loudoun County Public Schools (LCPS) received the 2012 Governor's Award for Educational Excellence. The county also has the Charles Monroe Technology Center, Loudoun's Governor's Career & Technical STEM Academy.

Within the past five years, the average LCPS SAT score has risen 15 points. During the same time, the average Virginia score has dropped two points and the average national score nine points.

Source: Loudoun County Public Schools, 2012-2013 School Year

Over the past five years, the percentage of young adults in Loudoun County without a high school degree has increased from 11% to 16%, while that of the adult population overall has remained consistent at 6%, compared to the Virginia average of 12%. Loudoun residents are also more likely than the average Virginian to have a bachelor's degree (58% versus 36%).

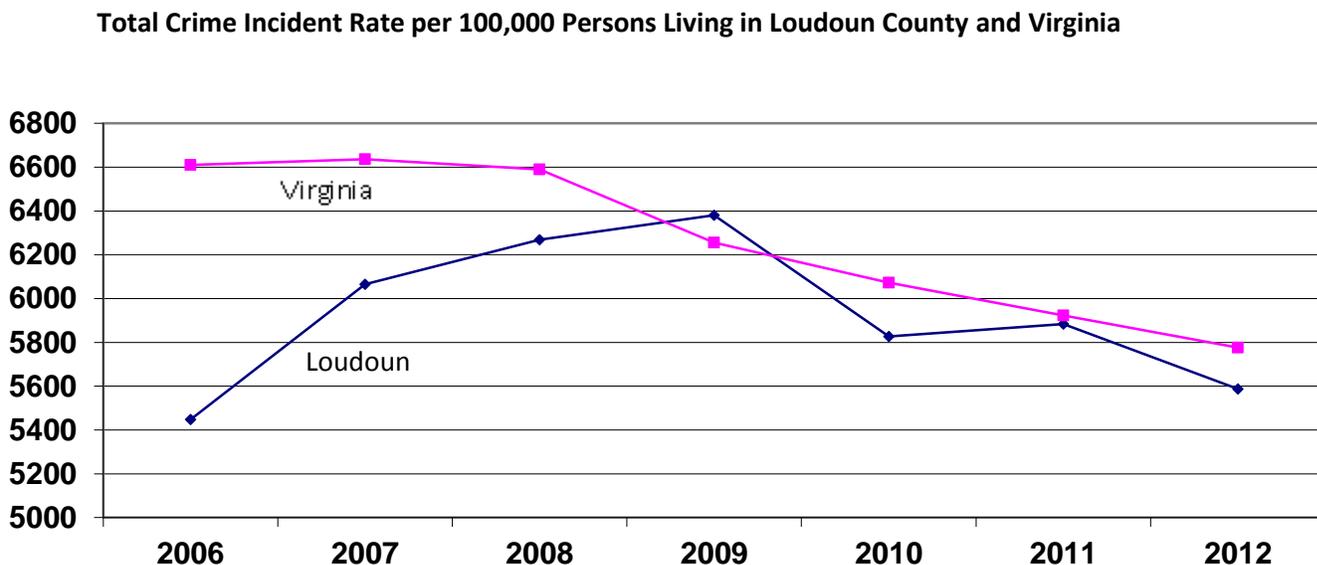
Educational Attainment of Loudoun County, 2012					
Subject	Loudoun Total % 2007	Loudoun Total % 2012	Loudoun Male 2012	Loudoun Female 2012	Virginia Total % 2012
Population 18-24 Years	19,493	22,146	11,287	10,859	826,469
Less than a high school graduate	11.3%	15.6%	24.7%	6.2%	11.5%
High school graduate (includes equivalency)	37.6%	27.9%	31.1%	24.6%	30.9%
Some college or Associate's Degree	35.9%	43.5%	34.8%	52.4%	46.4%
Bachelor's Degree or higher	15.1%	13.0%	9.4%	16.8%	11.3%
Population 25 years and over	166,291	214,523	104,531	109,992	5,504,766
Less than 9 th grade	2.6%	3.2%	2.9%	3.4%	5.0%
9 th – 12 th grade	3.3%	2.9%	3.1%	2.6%	7.1%
High school graduate (includes equivalency)	16.0%	14.3%	13.7%	14.9%	25.3%
Some college, no degree	15.8%	16.4%	15.9%	16.9%	20.0%
Associate's Degree	7.3%	5.7%	5.1%	6.3%	7.2%
Bachelor's Degree	35.5%	33.1%	32.4%	33.8%	20.6%
Graduate or professional degree	19.7%	24.4%	26.9%	22.0%	14.9%
% high school graduate or higher	94.2%	94.0%	94.0%	93.9%	87.9%
% bachelor's degree or higher	55.2%	57.5%	59.3%	55.8%	35.5%

Source: U.S. Census Bureau American Community Survey 2012 (Population numbers are estimates)

Community Safety

Crime in our community can have an effect on health. People who are routinely exposed to crime and violence may have a higher chance of developing poor health. The Virginia State Police conducts an annual report of the crime incidents in Virginia and shows that Loudoun County's crime rate has decreased significantly from 2009, going from 6,380 to 5,587 total arrests. The crime with the greatest number of arrests in Loudoun County is for drug/narcotic offenses, with 649 arrests in 2012.

Source: Virginia State Police Website, Virginia Uniform Crime Reporting Program, Crime in Virginia Reports 2005-2012



Source: Virginia State Police Website, Virginia Uniform Crime Reporting Program, Crime in Virginia Reports

Parks, Recreation, and Community Services

Loudoun County's Parks, Recreation and Community Services (PRCS) department provides multiple opportunities for youth, adults, and senior adults to learn, grow, and become engaged in their community. The PRCS mission statement gives a clear understanding for their goal to get residents more involved in the community: "Our mission is to provide outstanding recreational and leisure opportunities, outcome-focused community services, and stewardship of our natural resources to promote quality of life for Loudoun's residents and visitors".

The Loudoun County Area Agency on Aging (AAA) is a service under the PRCS department for seniors (55+) and their families. This service plans activities and field trips for older adults, has three adult day care centers, four senior centers and provides home delivered meals.

Youth are provided with quality recreation all around the county. The PRCS department hosts day camps, summer camps, specialty camps, sports camps, and community center and park camps to allow children to have fun in a safe community setting. PRCS also provides pre-school care, care for elementary and middle school students, and delinquency prevention programs.

Additional youth services are provided by a variety of entities, including the Loudoun County Public School System, Loudoun County Libraries, the Loudoun Youth Initiative, Boy and Girl Scouts of America, the YMCA, and other private facilities.

Loudoun PRCS operates 27 parks across the county in addition to other historic properties. Each location offers a unique opportunity to discover what Loudoun County has to offer. Eleven community centers exist throughout the county providing diverse services.

The Loudoun County PRCS hosts specialty camps for those with disabilities. Most camps are licensed as a Virginia State Day Care Program. The PRCS specialty camps enroll children and adults ages 2-21 with varied disabilities. They also conduct a special camp for people ages 6-23 with autism spectrum disorders.

In addition to PRCS, the Northern Virginia Regional Parks Authority operates several parks in Loudoun County (www.nvrpa.org/park/main_site/content/NVRPA_Parks), including the Algonkian, Ball's Bluff, Blue Ridge, Brambleton, Gilbert's Corner, Red Rock Wilderness Overlook, Temple Hall Farm, and Washington & Old Dominion Regional Parks. The Town of Leesburg operates Ida Lee Park.

Source: Loudoun County Parks, Recreation, and Community Services Website.

Commuting & Travel

Commuting within Loudoun County for employment can be a challenge, but this challenge is magnified for those who drive eastward out of the county towards the District of Columbia. Loudoun County is working to address transportation through its Countywide Transportation Plan (<http://www.loudoun.gov/index.aspx?nid=1068>).

There are many options for traveling throughout Loudoun County. The county government is actively promoting bicycling and walking alternatives (<http://www.loudoun.gov/index.aspx?NID=249>) and the Washington and Old Dominion (W&OD) Trail that runs through Loudoun County is a safe way to walk or bike from town to town. More than 670 Loudoun County Residents registered for "Bike to Work Day" on May 17, 2013. Two hundred and six cyclists visited the Leesburg pit stop that day and 313 cyclists visited the Sterling pit stop that day.

Virginia Regional Transit (www.vatransit.org) is a nonprofit organization that provides public transportation in Loudoun and surrounding counties. In Loudoun County, Virginia Regional Transit provides both fixed bus routes and demand response service, with travel assistance from a resident's home to access basic care.

Loudoun County Transit (<http://www.loudoun.gov/index.aspx?NID=221>) provides commuter buses Monday to Friday from Loudoun Park & Ride locations to Metrorail stops and various points in the District of Columbia. In the evening, they reverse routes to bring persons back into the county. Statistics from the Loudoun County Office of Transportation Services (www.loudoun.gov/index.aspx?NID=128) show that they service thousands of patrons each day. With Loudoun County's population on a steady incline the need for additional transportation continues to grow.

Source: Loudoun County, Virginia Website, Bicycle & Pedestrian Information
Virginia Regional Transit Website
Loudoun County, Virginia Website, Commuter Bus Service

Environmental Health

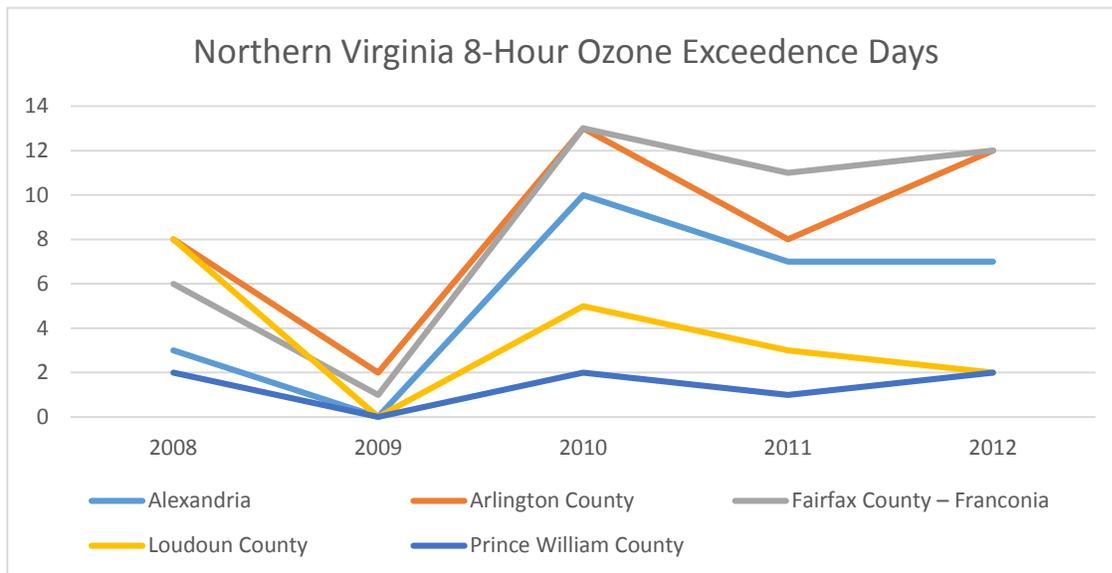
The Metropolitan Washington Council of Governments (MWCOC) Board of Directors adopted a Climate Change Report on November 12, 2008 (http://www.mwcog.org/store/item.asp?PUBLICATION_ID=334). After listing evidence for global warming caused by human greenhouse gas emissions, it divides recommendations into those for energy consumption (heating, lighting, commercial operations, residential appliances, etc.) and transportation and land use. Transportation-related recommendations include incentives for buying hybrids, shifting short trips from driving to other modes, promoting car sharing, mixed-use and transit oriented development, transit expansion, bicycle and pedestrian paths, and focusing new development around walkable areas.

Air Quality

In 2005, the Environmental Protection Agency (EPA) designated the Washington Area, including Loudoun County, as a nonattainment area, meaning the region did not meet the national standard for EPA's six regulated contaminants. In order to improve air quality in a nonattainment area, states must draft a plan known as a state implementation plan (SIP). The plan outlines the measures that the state will take in order to improve air quality. Once a nonattainment area meets the standards and additional redesignation requirements in the Clean Air Act [Section 107(d)(3)(E)], EPA will designate the area as a "maintenance area." The Metropolitan Washington Council of Governments created a new air quality particulate plan in March 2008 for the year 2009 (<http://www.mwcog.org/environment/air/>). This goes beyond the Clean Air Act requirements in an effort to gain further reductions of fine particle pollution. Fine particle pollution consists of tiny airborne particles that can get into lungs and bloodstream and cause health problems.

The Virginia Department of Environmental Quality (VDEQ) reported seven days in 2008 when the eight-hour ozone concentrations exceeded the normal standards of 75 parts per billion for Loudoun County (<http://www.deq.virginia.gov/Programs/Air/AirQualityForecasting/Eighthourozoneexceedances.aspx>). This standard assists with identifying when ozone in the air exists at unhealthy levels for susceptible

populations. In 2012, there were only two occurrences where the eight-hour ozone concentrations were above normal, which is a decrease since 2008.



Sources: Metropolitan Washington Council of Governments Website
Virginia Department of Environmental Quality Website

Water Quality

Loudoun County surface water impacts the Chesapeake Bay. To help address surface water concerns, a water quality implementation plan was developed in 2004 for Catoctin Creek (<http://www.deq.virginia.gov/Portals/0/DEQ/Water/TMDL/ImplementationPlans/catoctip.pdf>) to address high levels of fecal coliform bacteria. Fecal coliforms are defined by the Environmental Protection Agency as “bacteria that are associated with human or animal wastes...and their presence in drinking water is a strong indication of recent sewage or animal waste contamination.” (<http://water.epa.gov/drink/contaminants/basicinformation/ecoli.cfm#two>).

The Loudoun Soil and Water Conservation District has a plan to restore the water quality by 2015 (<http://www.loudounwatershedwatch.org/catoctin/about.html>). It targets cattle with access to streams and failing septic tank systems as the major source of problems of problems. This plan involves community involvement to help plan a riparian buffer (line of vegetation that protects the water from pollution like storm water runoff) and help keep the area clean and reduce fecal coliforms.

Many Loudoun County residents receive their drinking water through individual wells and maintain onsite septic systems. The Health Department permits and oversees these systems to reduce the likelihood of groundwater contamination and disease. Key recent initiatives have included a septic tank pumpout requirement and an annual inspection requirement of alternative onsite systems.

Sources: Loudoun Watershed Watch Website
Loudoun County Health Department Website

Behavioral Risk Factors

Youth Health Risk Factor Profile

The youth health risk factor profile is an indicator estimate based on the data from the Virginia Youth Risk Behavioral Surveillance Survey for children ages 14-19. The estimates indicate that in Northern Virginia, more than 33,000 youth may use tobacco, more than 47,000 may use alcohol, more than 42,000 may be at risk for depression, and more than 46,000 may be overweight or obese in Northern Virginia. Results from Loudoun County showed similar concerns.

Youth Health Risk Profile for Loudoun County, 2011	
Used Tobacco in Past 30 Days	5,635
Consumed Alcohol in Past 30 Days	8,046
Felt Sad or Hopeless for Two or More Weeks in a Row	6,793
Classified as being Overweight or Obese	7,052

Source: Northern Virginia Health Foundation Community Health Indicators Report, 2013

Virginia Behavioral Risk Factor Surveillance Survey

The CDC's Behavioral Risk Factor Surveillance Survey (BRFSS) helps states nationwide to gather information about a wide range of health-related behaviors of adults. The main focus of this survey system is to collect information on these behaviors with leading causes of death including heart disease, cancer, stroke, diabetes, injury, and other important health issues.

These results show that the overall health of Loudoun County residents is good, though poor physical or mental health prevented almost two thirds of residents from doing their usual activities over the 30 days prior to responding. 15% were not able to see a doctor due to cost.

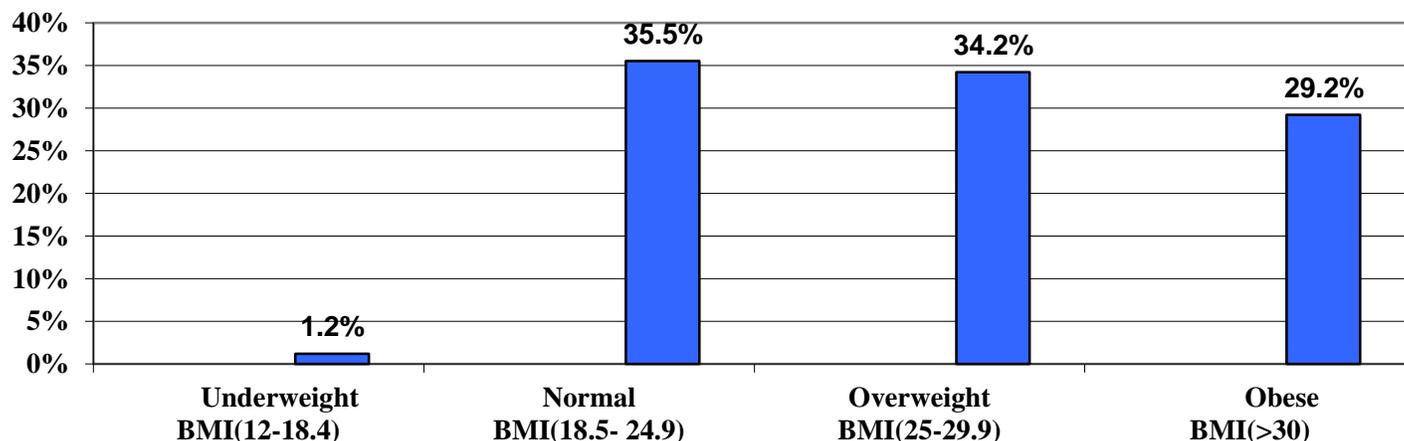
Compared to Virginians overall, Loudoun residents were more likely to have visited a dentist within the previous year (76% versus 70%), more likely to have health care coverage (89% versus 82%), and ate more daily fruits (1.3 versus 1.0) and vegetables (2.1 versus 1.7). Loudoun residents were less likely to have had a routine checkup (65% versus 73%), to have had a flu shot (37% versus 42%), to have been treated for diabetes (43% versus 51%), to have been diagnosed with asthma (10% versus 13%) or COPD (2% versus 6%), to be overweight (57% versus 64%), or to have ever been tested for HIV (37% versus 41%).

Virginia Behavioral Risk Factor Surveillance Survey, 2012			
	Loudoun	Northern Virginia	Virginia
Health is Excellent, Very Good or Good	84.5%	88.7%	82.5%
Poor Physical or Mental Health Prevented Doing Usual Activities in Past 30 days	64.4%	67.7%	67.8%
Physical Health Not Good During Past 30 Days	30.9%	25.4%	29.3%
Mental Health Not Good During Past 30 Days	26.4%	25.0%	27.8%
Ever Been Told Had a Depressive Disorder	11.0%	13.4%	16.6%
Visited a Dentist Within the Previous Year	75.9%	74.8%	70.4%
Has Health Care Coverage (Adults 18-64)	89.3%	84.5%	81.8%
Needed to See a Doctor in Previous Year But Could Not Because of Cost	15.0%	14.4%	15.2%
Had Routine Checkup in Previous Year	64.6%	67.5%	72.5%
Had a Flu Shot Within the Previous Year	37.3%	42.0%	42.4%
Always or Nearly Always Uses a Seatbelt When Ride in Car	95.0%	96.1%	93.2%
Current Smoker	9.4%	11.9%	19.0%
Fruits Eaten Per Day (Median)*	1.32	1.28	1.07
Vegetables Eaten Per Day (Median)*	2.06	1.85	1.66
Any Physical Activity in the Previous 30 Days	78.8	84.8	77.5
Binge Drinker	15.4%	20.3%	15.7%
Treated for Diabetes in Previous 3 Years	43.2%	48.1%	50.7%
Diagnosed With Asthma	9.6%	13.5%	13.4%
Diagnosed with COPD	2.4%	2.8%	6.2%
Overweight or Obese	57.2%	55.7%	63.6%
Ever Tested for HIV	37.4%	47.0%	41.3%

* 2011 Data

Source: Virginia Department of Health Website, Virginia Behavioral Risk Factor Surveillance Survey

Weight Classification According to Body Mass Index for Virginia



Source: Virginia Department of Health Website, Virginia Behavioral Risk Factor Surveillance Survey

Social and Mental Health Services

The Loudoun County Department of Mental Health, Substance Abuse, and Developmental Services (MH/SA/DS) offers core services to eligible Loudoun County residents. The county has two public mental health centers; one is located in Leesburg and the other in Sterling. The centers provide emergency, outpatient, prevention, community support, supported living, and employment services. MH/SA/DS also has the Friendship House, which provides all day- psychosocial rehabilitation programs for its members.

The Inova Loudoun Hospital Behavioral Medicine Unit provides medication management, art therapy, family and group therapy, individual therapy, short-term in-patient psychiatric care, and other services.

Friends of Loudoun County Mental Health, a non-profit organization that collaborates with the county Department of MH/SA/DA to advocate for mental health, educates others about mental health, and assists with funding mental health services.

Maternal and Child Health

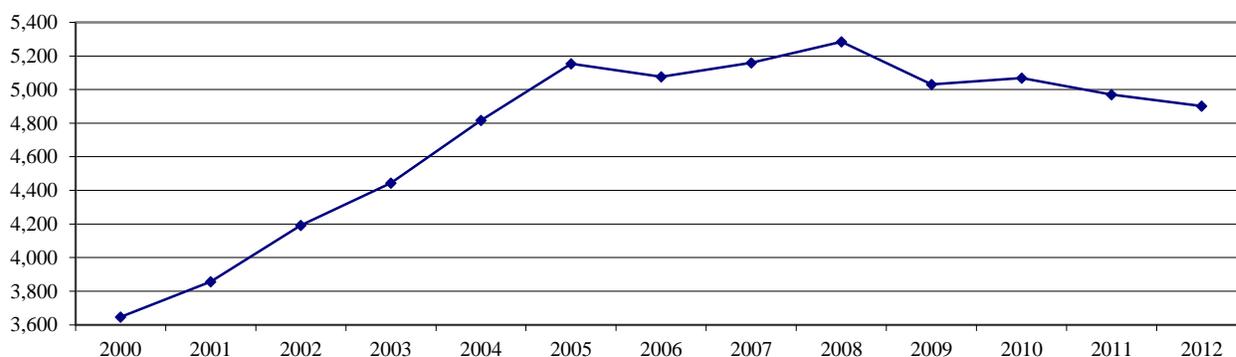
The Women, Infants, and Children (WIC) Program, offered by the Loudoun County Health Department, is a supplemental food program that offers nutritional counseling and education. WIC also serves pregnant or lactating women, infants, and children five years old or younger who meet eligibility requirements.

According to the CDC, childhood obesity rates have more than doubled in children and tripled in adolescents in the past 30 years. The percentage of children ages 6-11 who are obese in the United States has increased from 7% to 18% between the years 1980-2010. Similarly, the percentage of adolescents

ages 12-19 who are obese has increased from 5% to 18% during the same time period. Obesity has been linked to type 2 diabetes because obesity may be a trigger for type 2 diabetes. An article from the Loudoun Times Mirror states, “According to the Centers for Disease Control and Prevention (CDC) up to 46 percent of all new cases of diabetes for patients under 20 are now type 2”. The article stated that puberty may even make this problem worse.

Maternal and child health can be a predictor of health challenges and opportunities in the future. The total live birth number in Loudoun County showed a steady increase from 2000 to 2008. The numbers since 2009 have been fairly steady, with 4,902 live births in 2012. While the birth rate has dropped since 2007, it still remains consistently higher than the rate for Virginia.

Total Live Births in Loudoun County



Compared to Virginia overall, Loudoun County has a lower percentage of non-marital births (15% versus 35%), a lower percentage of low birth weight births (7% versus 8%), a lower infant death rate (4 versus 6 per 1,000 live births), and a higher percentage of pregnant women receiving first trimester care (89% versus 83%). Of those who do get pregnant, Loudoun County has a significantly lower rate in all age groups below 20.

Sources: Loudoun County’s WIC Program Website
 The Centers for Disease Control and Prevention Website
 Loudoun Times Mirror Article “On the Rise: Childhood Type 2 Diabetes”
 Virginia Department of Health, Division of Health Statistics, 2000-2012

Maternal and Child Health 2012			
Measure	Loudoun County, 2007	Loudoun County 2012	Virginia 2012
Total Live Births (number)	5,160	4,902	102,811
Birth Rate (per 1,000 Total Population)	18.5	14.6	12.6
% Non-Marital Births	16.2%	15.4%	35.3%
Low Weight Births (Percent of Total Births)	6.6%	6.7%	8.2%
% First Trimester Care	87.3%	88.9%	83.0%
Induced Terminations of Pregnancy (total number)	681	579	21,438
Natural Fetal Deaths (total number)	435	327	5,538
Pregnancy Rate, Ages 10-19 Years (per 1,000 girls age 10-19)	11.6	6.3	16.7
Pregnancy Rate, Ages <15 Years (per 1,000 girls age 10-15)	0.4	0.1	0.6
Pregnancy Rate, Ages 15-17 Years (per 1,000 girls age 15-17)	8.6	5.8	14.3
Pregnancy Rate, Ages 18-19 Years (per 1,000 women age 18-19)	71.6	31.9	56.1
Infant Death Rate (deaths in infants less than 1 year old per 1,000 live births that year)	3.7	3.9	6.3

NOTE: Low weight births are defined as births under 2,500 grams (5 pounds 8 ounces). First trimester care includes prenatal care begun in first 13 weeks of pregnancy. Pregnancy rates shown are per 1,000 females.

Source: Virginia Department of Health, Health Statistics, 2012

Death, Illness, and Injury

According to the Virginia Department of Health, the total number of deaths by place of residence for Virginia was 57,835 for 2012. The total number of deaths by place of residence for Loudoun County is 907 for the year 2012.

The leading causes of death for the United States, Virginia and Loudoun County were the same, though in slightly different order, and consisted of (for Loudoun):

1. Cancer
2. Heart diseases

3. Stroke
4. Chronic respiratory diseases
5. Unintentional injuries

Compared to Virginia overall, Loudoun County's mortality rates were lower for each of the ten leading causes of death. Loudoun, though, lagged behind the northern Virginia rates overall and, specifically, for cancer, heart disease, strokes, accidents, diabetes, kidney disease and suicide.

Leading Causes of Death for U.S. and Virginia, 2012			
Cause of Death	United States Rank	Virginia Rank	Loudoun Rank
Diseases of the Heart	1	1	2
Malignant Neoplasms	2	2	1
Chronic Lower Respiratory Diseases	3	4	5
Cerebrovascular Diseases	4	3	3
Accidents (Unintentional Injuries)	5	5	4

Leading Causes of Death for Virginia, Northern Virginia and Loudoun County, 2012				
	United States	Loudoun County	Northern Virginia	Virginia
1	Malignant Neoplasms	154.0	145.8	181.5
2	Diseases of the Heart	145.7	132.8	182.8
3	Cerebrovascular Diseases	36.9	30.0	42.9
4	Accidents (Unintentional Injuries)	27.9	21.8	37.4
5	Chronic Lower Respiratory Diseases	23.9	24.3	37.5
6	Diabetes Mellitus	16.3	12.6	19.6
7	Nephritis, Nephritic Syndrome and Nephrosis	15.1	14.4	19.2
8	Alzheimer's Disease	13.5	18.6	23.3
9	Influenza and Pneumonia	10.2	13.8	16.5

10	Suicide	9.0	8.0	11.1
	All Causes	638.1	583.2	765.6

Sources: Virginia Department of Health, Division of Health Statistics, 2012

CDC National Center for Health Statistics, 2012

Cancer Profile

In 2012, cancer was the leading cause of death in Loudoun County and northern Virginia, and the second leading cause of death in Virginia. Between 2007- 2011, there were 70,100 cancer deaths in Virginia, for a rate of 174.8; in Loudoun County there were 1,330 cancer deaths and a rate of 147.4 during that period. Much of this difference can be attributed a significantly lower rate of lung cancer in Loudoun County. The leading diagnoses were breast cancer, lung and bronchus cancer, and colorectal cancer. 6.5% of Loudoun residents reported ever having cancer, compared to 9.0% for Virginia overall.

Cancer Mortality Rate for Loudoun County and Virginia, 2007-2011		
	Loudoun	Virginia
All Cancers	147.4	174.8
Breast Cancer	21.9	23.4
Colorectal Cancer	14.9	15.4
Lung and Bronchus Cancer	38.0	49.5
Prostate	22.4	23.5

Source: Virginia Department of Health, Division of Health Statistics, 2012

Cancer Incidence Rate for Loudoun County and Virginia, 2005-2009		
	Loudoun	Virginia
All Cancers	410.1	454.4
Breast Cancer	123.4	124.0
Cervical Cancer	5.3	6.6
Colorectal Cancer	37.5	43.1
Lung and Bronchus Cancer	47.6	67.4

Melanoma	21.2	20.7
Oral Cavity	8.1	10.5
Ovarian	11.2	11.9
Prostate	143.1	157.7

Source: Cancer in Virginia: Overview and Data Tables Report Date: July 2012

www.vdh.virginia.gov/ofhs/prevention/cpc/documents/2013/pdf/VA_CCC_2012_Annual_Report%20062912.pdf

Infectious Diseases

The Health Department serves the citizens of Loudoun County by monitoring for the occurrence of reportable and emerging diseases of suspected outbreaks of illness (natural or otherwise), providing recommendations and guidance to prevent the spread of communicable diseases, and investigating outbreaks of disease and other public health emergencies.

Healthcare providers are required to report suspected or confirmed cases of over 70 infectious diseases to the local public health department so they can be investigated. A wide range of conditions are monitored, including:

- Respiratory infections [e.g., influenza (both seasonal and pandemic), legionellosis, etc.]
- Gastrointestinal illnesses (e.g., norovirus, salmonellosis/typhoid fever, shigellosis, Shiga toxin-producing *Escherichia coli*, campylobacteriosis, botulism, hepatitis A, listeriosis, giardiasis, cholera, etc.)
- Agents that may be used for bioterrorism (e.g., anthrax, tularemia, smallpox, viral hemorrhagic fevers, Q fever, etc.)
- Other conditions for public health importance (e.g., emerging infectious diseases, invasive bacterial infections, drug-resistant infections, outbreaks)
- Infections and other health conditions potentially associated with healthcare facilities
- Sexually transmitted infections (e.g., syphilis, HIV/ AIDS)
- Tuberculosis
- Environmental illnesses (e.g., mold, lead)
- Vaccine- preventable illnesses (e.g., chickenpox, mumps)
- Zoonotic diseases (e.g. rabies, West Nile virus infection)

Methods used to accomplish these tasks include:

Communicable Disease Surveillance- Providing guidance on surveillance laws, regulations, and methods to local health departments and healthcare providers; investigating potential clusters identified through laboratory-based surveillance; and supporting state-wide disease reporting systems.

Syndromic Surveillance- Developing and implementing novel methods for rapidly identifying unusual patterns of illness in the community.

Outbreak Management- Coordinating responses for outbreak investigation management.

Communication- Coordinating and contributing to the development of materials to inform healthcare professionals and the public on health issues of importance in Loudoun.

Emergency Planning and Response- Working to develop educational materials to help businesses and the public prepare for and respond to communicable disease emergencies; and supporting state planning to prepare for and respond to communicable disease emergencies, such as a pandemic influenza, bioterrorism events, and other widespread outbreaks.

Infection Control- Providing consultation to medical facilities, schools, and businesses to identify the sources of outbreaks and control the spread of disease; providing guidance for infection control to hospitals, nursing homes, correctional facilities, schools, and other agencies.

The Code of Virginia requires localities to report a given list of communicable diseases to the Virginia Department of Health. Below is a condensed list of Loudoun County Reportable Diseases for years 2010-2012. While these numbers reflect only those meeting a strict epidemiological definition, the number of disease investigations has increased each year. In particular, the number of people living in Loudoun County with HIV is 164 as of December 31, 2012. The number of people in Loudoun County living with AIDS is 196 as of December 31, 2012.

Loudoun County Reportable Disease Report			
	Year 2010	Year 2011	Year 2012
Campylobacteriosis	43	33	42
Chlamydia	342	445	532
E. Coli, shiga toxin-producing	14	11	5
Giardiasis	40	15	10
Gonorrhea	59	38	61
Haemophilus influenzae infection, invasive	2	0	2
Hepatitis A, acute	6	3	3
Hepatitis B, acute	1	2	2
Hepatitis C, acute and chronic	72	69	53
HIV	19	21	13
Lyme disease	223	261	219
Rabies, post- exposure	82	52	49

Salmonellosis	41	35	37
Shigellosis	3	9	7
Syphilis, early	4	4	11
Varicella (Chickenpox)	71	43	37
Tuberculosis	10	13	16
2012 Reportable Disease Incidence			
	Loudoun	Northern Virginia	Virginia
Campylobacteriosis	12.9	10.3	9.4
Chlamydia	163.2	234.2	432.5
E. Coli, shiga toxin-producing	1.5	1.0	1.0
Ehrlichiosis/Anaplasmosis	0.9	0.6	1.8
Giardiasis	3.1	5.0	3.4
Gonorrhea	19.1	29.5	85.1
Haemophilus influenzae infection, invasive	0.6	0.7	1.2
Hepatitis A, acute	0.9	1.0	0.6
Hepatitis B, acute	0.6	0.3	1.0
Hepatitis C, acute and chronic	0.0	0.1	0.9
HIV	6.8	15.8	13.6
Lyme disease	67.3	17.9	13.7
Pertussis	5.8	5.4	7.7
Salmonellosis	11.4	10.4	14.1
Shigellosis	2.2	2.0	1.1
Syphilis, early	3.4	7.3	7.3
Varicella (Chickenpox)	11.4	7.5	6.2

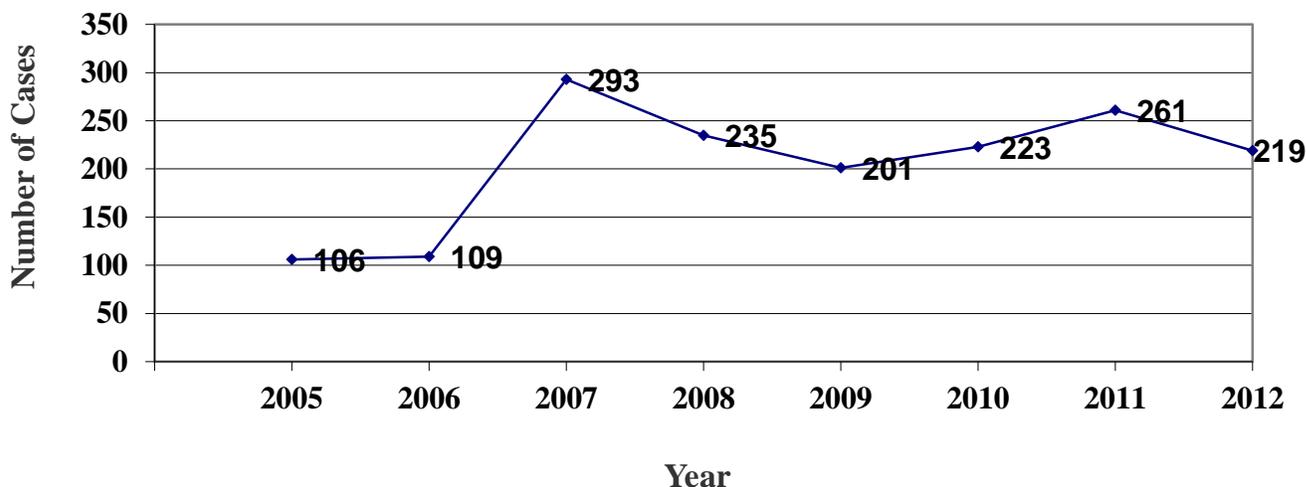
Tuberculosis	4.6	6.2	2.9
---------------------	-----	-----	-----

Sources: VEDSS (Virginia Electronic Data Surveillance System)
 Virginia Department of Health Quarterly Surveillance Report (2012)
 Virginia Department of Health website [Number of Reported Cases and Rate per 100,000 Population for Selected Diseases by Locality, District, and Region, 2012](#)

In general, the communicable disease rate in Loudoun is lower than for the northern Virginia region and for Virginia overall; this is most notable for sexually transmitted infections such as chlamydia, gonorrhea, HIV and syphilis. In contrast, Loudoun has a higher incidence rate of campylobacter, Lyme disease and varicella.

Lyme disease, in particular, had a major increase in Loudoun County, going from 109 cases in 2006 to 293 cases in 2007. Since then, the number of cases of Lyme disease in Loudoun County has fluctuated in the low to mid 200 each year.

Lyme Disease in Loudoun County



Source: VEDSS (Virginia Electronic Data Surveillance System)

Summary and Next Steps

Loudoun is a rapidly growing and diversifying county in the national capital region. While it is the nation's wealthiest county with highly educated citizens, there is a growing subpopulation of low income, mainly immigrant, residents with limited access to care; this presents an ongoing challenge to the county's safety net services.

As a bedroom community, travel and traffic remain a continuing challenge as does maintaining a clean and healthy environment. Loudoun County is taking concrete steps to assure and improve the quality of its air and water. A byproduct of maintaining Loudoun's natural habitat has been an increase in reported Lyme disease cases.

Loudoun County remains an excellent place to live and to raise children, with quality schools, low crime rates, low rates of reportable diseases and many available parks and community services. Tobacco and alcohol use remain a continuing challenge among Loudoun County youth, though not out of proportion with the region.

This assessment will be posted online for review and input from the public along with the other three assessments that form the basis of the MAPP model. The Loudoun Health Council will take the lead in incorporating information from the MAPP assessments and comments from the public into a revised Community Health Improvement Plan (CHIP).

Attachment I: Acronyms

AAA:	Area Agency on Aging
BRFSS:	Behavioral Risk Factor Surveillance Survey
CDC:	Centers for Disease Control and Prevention
CHIP:	Community Health Improvement Plan
CHSA:	Community Health Status Assessment
COPD:	Chronic Obstructive Pulmonary Disease
HCA:	Hospital Corporation of America
LCPS:	Loudoun County Public Schools
MAPP:	Mobilizing for Action through Planning and Partnerships
MH/SA/DS:	Loudoun County Department of Mental Health, Substance Abuse, and Developmental Services
MWCOG:	Metropolitan Washington Council of Governments
PRCS:	Loudoun County Department of Parks, Recreation and Community Services
VDEQ :	Virginia Department of Environmental Quality
VEDSS:	Virginia Electronic Data Surveillance System
W&OD:	Washington and Old Dominion Trail
WIC:	Women, Infants and Children