Loudoun County, Virginia Community Health Status Assessment July 2009



History of Loudoun County, Virginia

Loudoun County was originally part of a five million acre Virginia Proprietary granted to noblemen by King Charles II of England in 1649. In 1653 out of this granted land Westmoreland, Stafford, and Prince William counties began to develop. Fairfax County occupied the remaining land in 1742. Fifteen years later, in 1757, the Virginia House of Burgesses divided Fairfax County and the western portion became Loudoun County. Loudoun was named after a Scottish nobleman John Campbell, Earl of Loudoun.

Location

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, West Virginia and Frederick, Montgomery, and Washington Counties in Maryland.

Sources: Loudoun County, Virginia Website http://www.loudoun.gov

USGS National Atlas http://nationalatlas.gov

Demographic Characteristics

Population Data

Known as one of the fastest growing counties in the nation from the late 1990s to the present day, Loudoun County population continues to increase. As of 2007 the population for Loudoun County was estimated to be 278,797. In 2007 the Loudoun County Fiscal Impact Committee predicted that the population will grow to 300,000 by 2010. The U.S. Census reports that from 1997 to 2007 the population increased by 106%, with increasing racial and ethnic diversity.

| | 1997 | 2007 | % Change | |
|----------------|-------------|-------------|-----------------|--|
| Area | Population | Population | (Years '97-'07) | |
| Loudoun County | 135,369 | 278,797 | 106.0% | |
| Northern VA | 1,973,447 | 2,454,486 | 24.4% | |
| Virginia | 6,829,183 | 7,712,091 | 12.9% | |
| United States | 272,646,925 | 301,621,157 | 10.6% | |

Sources: Virginia Employment Commission & U. S. Census Bureau Estimates

| Loudoun County Race Distribution | | | | | |
|--|-------|-------|--|--|--|
| Race % of Population, % of Populatio 2000 2007 | | | | | |
| White | 84.9% | 76.8% | | | |
| Black or African American | 7.1% | 8.3% | | | |
| American Indian and Alaska Native 0.2% 0.3 | | | | | |
| Asian | 5.5% | 12.1% | | | |
| Native Hawaiian and other Pacific | | | | | |
| Islander | 0.1% | 0.1% | | | |
| Two+ races | 2.5% | 2.4% | | | |
| Hispanic or Latino Ethnicity | | _ | | | |
| (% of total population) | 6.1% | 10.2% | | | |

Source: U.S. Census Bureau: "QuickFacts" 2000 & 2007

| Loudoun County Age Distribution | | | | |
|---------------------------------|-------|-------|--|--|
| Age Group 2000 2007 | | | | |
| Persons under 5 years old | 9.7% | 9.5% | | |
| Persons under 18 years old | 28.5% | 30.2% | | |
| Persons 65 years old + | 5.6% | 5.9% | | |

Source: U.S. Census Bureau: "QuickFacts" 2000 & 2007

| Northern Virginia Total Male Population, 2007 | | | |
|---|------------|--|--|
| Locality | Population | | |
| Fairfax County | 499,241 | | |
| Prince William County | 180,349 | | |
| Loudoun County | 139,043 | | |
| Arlington County | 103,101 | | |
| Alexandria City | 67,378 | | |
| Manassas City | 18,219 | | |
| Fairfax City | 11,393 | | |
| Manassas Park City | 5,785 | | |
| Falls Church City | 5,313 | | |

Sources: National Center for Health Statistics & Virginia Department of Health, Health Statistics, 2007

| Northern Virginia Total Female Population, 2007 | | |
|---|------------|--|
| Locality | Population | |
| Fairfax County | 511,000 | |
| Prince William County | 180,062 | |
| Loudoun County | 139,754 | |
| Arlington County | 101,467 | |
| Alexandria City | 72,646 | |
| Manassas City | 17,193 | |
| Fairfax City | 11,956 | |
| Manassas Park City | 5,641 | |
| Falls Church City | 5,635 | |

Sources: National Center for Health Statistics & Virginia Department of Health, Health Statistics, 2007

Socioeconomic Characteristics

Labor Market Data & Employment Data

Agriculture, once the primary industry of this county, now ranks 17th out of the leading industry groups by number of employees and establishments, as reported for the 1st quarter of 2008 by the Virginia Workforce Connection. The leading industry reported for the 1st quarter of 2008 was listed as Professional, Scientific, & Technical Services.

In July 2008, Loudoun County was ranked by CNN Money as the fourth best county for job growth out of the top 25 counties across the United States. This rating reports Loudoun's job growth at 58.94% for years 2000-2007. The report acknowledges Loudoun's highly educated population as an aid to support its ranking for Best Job Growth. This ranking names Loudoun's leading employers as the Loudoun County Public School District, followed by such diverse companies as America Online, local government, Inova Loudoun Hospital, Toll Brothers and United Airlines.

Sources: Loudoun County, Virginia Website http://www.loudoun.gov

Virginia Workforce Connection https://www.vawc.virginia.gov/

Custom Area Report for Loudoun County http://www.vawc.virginia.gov
Cable News Network Fortune & Money Website http://www.money.cnn.com

Loudoun County's Top 12 Employers

| Company | Employment Range |
|---------------------------------|------------------|
| Loudoun County Public Schools | 5,000+ |
| AOL LLC | 1,000-4,999 |
| County of Loudoun | 1,000-4,999 |
| Department of Homeland Security | 1,000-4,999 |
| Loudoun Hospital Center | 1,000-4,999 |
| M.C. Dean, Inc. | 1,000-4,999 |
| Orbital Sciences Corporation | 1,000-4,999 |
| Toll Brothers | 1,000-4,999 |
| U.S. Postal Service | 1,000-4,999 |
| United Airlines, Inc. | 1,000-4,999 |
| Verizon Business | 1,000-4,999 |
| Wal Mart Associates | 1,000-4,999 |

Sources: Virginia Employment Commission, 2nd Quarter 2007

Loudoun County Department for Economic Development, 2nd Quarter 2007

The U.S. Census reported for 2007 that the Loudoun Labor Force annual average was 160,188 with 156,743 employed and 3,445 unemployed. This represents an unemployment rate of 2.2%.

For January 2009, the Virginia Employment Commission reported that the Loudoun County total civilian labor force was 167, 095 with 159,982 employed and 7,113 unemployed. This 4.3% unemployment rate ranks favorably with the region, the state and the nation.

Labor Force

| Area | Civilian Labor | Number Employed | Number Unemployed | Unemployment Rate |
|---------------|-------------------|--------------------|----------------------|-------------------|
| Loudoun | | | | |
| County | 167,095 | 159,982 | 7,113 | 4.30% |
| Northern VA* | 1,449,484 | 1,382,175 | 67,309 | 4.60% |
| Virginia | | | | |
| Statewide | 4,118,432 | 3,854,734 | 263,698 | 6.40% |
| United States | 153,445,000 | 140,436,000 | 13,009,000 | 8.50% |

^{*&#}x27;Northern VA' includes the counties of Arlington, Clarke, Fairfax, Fauquier, Loudoun, Prince William, Spotsylvania, Stafford, and Warren. It also includes the cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, and Manassas Park.

Source: Virginia Employment Commission, January 2009

Income

| Per Capita and Median Household Income | | | | | | |
|--|-------------------------------------|-------------------------------------|----------|----------|--|--|
| | Per C | apita | Median H | ousehold | | |
| | 1999 | 2006 | 1999 | 2006 | | |
| Loudoun | | | | | | |
| County | \$33,530 | \$40,380 | \$80,648 | \$99,371 | | |
| Virginia | \$33,975 \$29,899 \$46,677 \$56,277 | | | | | |
| United States | \$21,587 | \$21,587 \$25,267 \$41,994 \$48,451 | | | | |

Source: U.S. Census Bureau

Loudoun County Wages

| Area | Average Weekly Wage | Average Hourly Wage |
|-----------------------|---------------------|---------------------|
| Loudoun County | \$1,106 | \$27.65 |
| Northern VA | \$1,200 | \$30.00 |
| Virginia Statewide | \$915 | \$22.88 |

Source: Virginia Employment Commission, 1st Quarter 2008

Health Resource Availability

Safety Net Services

The Loudoun County local public health system provides a variety of health resources and services across the county. One of the primary options by which residents may obtain health services is through the Loudoun County Health Department. Community Health resources and services provided to all residents include: immunizations, tuberculosis (TB) testing, and testing for sexually transmitted diseases. The Health Department also provides family planning, maternity and pediatric dental services to low income residents. Most patient services are provided at the Heritage Way location in Leesburg, with TB screenings offered at the Research Place location in Ashburn.

Additional safety net medical services are provided by the Loudoun Community Health Center, the Loudoun Free Clinic and urgent care centers. The Loudoun Community Health Center opened in May 2007 and provides sliding scale sick visits, health screenings, chronic disease management, well-child care, school physicals, and well-woman care. The Loudoun Free Clinic was established to serve low-income, uninsured residents of Loudoun County ages 18-64 years with acute and chronic illnesses at no charge.

Located in Leesburg is an acute care community hospital, Inova Loudoun Hospital. Inova Loudoun Hospital is a 183-bed state of the art facility, which is part of the not-for-profit Inova Healthcare System. It has three emergency departments (EDs): a pediatric and adult ED in Lansdowne and a general ED at the Cornwall facility in downtown Leesburg. The hospital has received prestigious Magnet designation for nursing excellence and obtained specialty excellence rankings by Healthgrades, an independent healthcare ratings company. Most recently, the hospital received the Gastrointestinal Surgery Excellence Award for years 2008 and 2009 and has been certified as a Primary Stroke Center. Inova Loudoun Hospital currently has four nurses in their Pediatric Emergency Department with the new Certified Pediatric Emergency Nurse (CPEN) designation.

Health Service Providers

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

Loudoun County has health services dispersed in various places throughout the county although most are located in the east, between Leesburg and Sterling. The concern is not always the number of resources but the location of those resources. This may not be a concern if there is available access to transportation. For residents who live in the Lovettsville area traveling into Leesburg is a 17 mile trip one way. There are other points in the western portion of the county that would have to travel further. If services are needed beyond Leesburg then travel becomes more challenging. Expansion of public transportation has been identified as a need. Although the Metrorail is expected to extend to Dulles International Airport and slightly beyond the Loudoun County Parkway there is still need for additional transportation services beyond the Dulles area.

According to the U.S. Census, there are estimated to be over 20,000 uninsured Loudoun County residents.

| Insured & Uninsured Estimates | | | | | | |
|-------------------------------|---|------------|--------|--|--|--|
| All Ages | | | | | | |
| | Number Insured Number Uninsured % Uninsured | | | | | |
| Loudoun County, VA | 167,418 | 22,067 | 11.6 % | | | |
| Virginia | 6,137,631 | 854,481 | 12.2% | | | |
| United States | 239,713,822 | 39,803,537 | 14.2% | | | |
| Insured & Uninsured Estimates | | | | | | |
| Under Age 18 | | | | | | |
| | Number Insured Number Uninsured % Uninsured | | | | | |
| Loudoun County, VA | 50,263 | 6,907 | 12.1% | | | |
| Virginia | 1,593,494 | 187,730 | 10.5% | | | |
| United States | 63,696,617 | 8,617,432 | 11.9% | | | |

Sources: U.S. Census Bureau, Small Area Health Insurance Estimates, July 2005

Quality of Life

Education

Loudoun County is viewed as having exceptional educational opportunities and services for its citizens who look forward to a lifetime of learning.

Campuses exist for some of the best and most competitive higher education institutions. There are campuses for George Mason University, Northern Virginia Community College, Patrick Henry College, Shenandoah University, Strayer University, and The George Washington University. These institutions provide options for learning through hundreds of disciplines.

The Loudoun County Public School system (LCPS) provides superior quality education to each of their 56,363 students and regularly ranks among the best public school systems across the United States. For school year 2008-2009 Loudoun County Standards of Learning Pass Rates ranged from 92%-97% for English, English (Grades 3-5), History, History (Grade 3), Math, Science, and Science (Grade 3) examinations.

Each year the number of LCPS students taking Advanced Placement (AP) tests grows. Over 50% of Loudoun students who have taken AP test for the past 3 years received a passing score.

While the College Board report shows that SAT scores nationally and for Virginia have been on the decline for years 2005-2007, the LCPS students have SAT scores which have increased for those same years. The majority (65%) of graduating high school seniors from LCPS obtain an Advanced Diploma.

Source: Loudoun County Public Schools, 2007-2008 School Year

| Educational Attainment | | | | | |
|---|---------|--------|--------|--|--|
| Subject | Total % | Male | Female | | |
| Population 18-24 years | 19,493 | 10,112 | 9,381 | | |
| Less than high school graduate | 11.3% | 13.7% | 8.8% | | |
| High school graduate (includes equivalency) | 37.6% | 40.7% | 34.3% | | |
| Some college or Associates Degree | 35.9% | 33.8% | 38.2% | | |
| Bachelor's degree or higher | 15.1% | 11.8% | 18.6% | | |
| | | | | | |
| Population 25 years and over | 166,291 | 81,402 | 84,889 | | |
| Less than 9 th grade | 2.6% | 2.3% | 2.8% | | |
| 9 th -12 th grade | 3.3% | 3.7% | 2.8% | | |
| High school graduate (includes equivalency) | 16.0% | 14.6% | 17.4% | | |
| Some college, no degree | 15.8% | 15.0% | 16.5% | | |
| Associates degree | 7.3% | 6.5% | 8.0% | | |
| Bachelor's degree | 35.5% | 35.6% | 35.3% | | |
| Graduate or professional degree | 19.7% | 22.4% | 17.1% | | |
| | | | | | |
| % high school graduate or higher | 94.2% | 94.0% | 94.4% | | |
| % bachelors degree or higher | 55.2% | 58.0% | 52.5% | | |

U.S. Census 2005-2007 American Community Survey (Population numbers are also estimates for years 2005-2007)

Parks, Recreation & Community Services

In, "...promote[ing] safe and healthy lifestyles for all Loudoun County citizens," the Loudoun County Department of Parks, Recreation & Community Services (PRCS) provides multiple opportunities for youth, adults, and senior adults to learn, grow, and become engaged within their community.

For senior adults, PRCS provides their services under the Division of Aging Services, an Area Agency on Aging (AAA). This division provides services to adults aged 55+ and their families. The Division of Aging services includes home delivered meals, senior trips, two adult day or respite centers, four senior centers, and elder resources.

Loudoun's youngest citizens are provided with quality recreation across the county. The Loudoun PRCS hosts day camps, school's out camps, specialty camps, sports camps, summer camps, and community center and park camps. 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 Loudoun providing diverse services.

The Loudoun County PRCS host 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 aged 2-21 with varied disabilities. They also conduct a special camp for children aged 6-12 with autism spectrum disorders.

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 toward the District of Columbia. In 2008, Community Themes & Strengths "Healthcheck" focus groups were held across Loudoun County and residents who commute for work expressed that quality of life was negatively impacted due to their stressful daily commute times. Residents of the Neersville area, a small town in northwestern Loudoun County expressed their concerns with traffic, congestion, and obeying the laws of the road. There is growing concern that the rural road conditions even when well maintained are not equipped to handle the increasing traffic. Even in the rural neighborhoods of western Loudoun, near the Catoctin Mountains, residents experience the traffic congestion of a city on its rural roads during their respective "rush hours".

The U.S. Census Bureau estimates that in 2007 Loudoun County residents' mean travel time to work was 33.6 minutes. Residents who participated in the Community Themes and Strengths Assessment who must commute for work strongly feel the need for increased public transportation in the county to help address congestion and traffic. Of the approximately 146,544 working residents who commute to work age 16 and older, 114,130 were estimated by the U.S. Census to have commuted to work in a car, truck, or van alone,. In 2007, the U.S. Census Bureau estimated 15,589 persons in Loudoun carpooled for their commute to work. Census estimates for 2007 show that only 2,472 persons utilized public transportation (*excludes taxicabs*) for their commute to work.

The Loudoun County Commuter Services provide commuter buses Monday to Friday from Loudoun Park & Ride stops to Metrorail stops and various points into the District of Columbia (DC). In the evening, they reverse routes to bring persons back into the county. Statistics from Loudoun County Office of Transportation Services show that they service thousands of patrons each day. With the Loudoun County population on a steady incline the need for additional public transportation continues to grow.

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.

Behavioral Risk Factors

Communities That Care Youth Survey

The Communities That Care Youth Survey (CTCYS) measures 19 risk and 10 protective factors as well as current levels of substance abuse, violence, and delinquency. The survey is designed for students in grades 6th through 12th. Its purpose is to help communities identify the risk and protective factors that pose the most significant challenges and opportunities in the community.

CTCYS was conducted with 1,318 students attending Loudoun County Public Schools (LCPS). Behavior related issues explored include; alcohol, tobacco and other drug use, poor school achievement, and delinquency. Prevalence of drug use, violence, and antisocial behaviors are also assessed in the CTCYS. Additional data is provided to highlight core measures, which are named as the leading methods for identifying drug use and perceptions in youth by U.S. federal agencies.

Risk & Protective Factor Profile

According to the CTCYS, having good social skills and strong moral and religious beliefs were found to be the most important factors protecting students from engaging in high risk behaviors. A lack of stability and attachment to a community and poor family supervision were the most important factors putting students at risk for engaging in these behaviors.

| Risk & Protective Factor Profile | | | |
|--|----|--|--|
| 3 Highest Protective Factor Scores | | | |
| Social Skills | 55 | | |
| Belief in Moral Order | 54 | | |
| Religiosity | 53 | | |
| 3 Highest Risk Factor Scales | | | |
| Community Transitions and Mobility | 61 | | |
| Low Neighborhood Attachment | 56 | | |
| Poor Family Supervision | 53 | | |
| 3 Lowest Protective Factor Scores | | | |
| Community Rewards for Prosocial Involvement | 39 | | |
| Community Opportunities for Prosocial Involvement | 45 | | |
| School Rewards for Prosocial Involvement | 45 | | |
| 3 Lowest Risk Factor Scales | | | |
| Perceived Risks of Drug Use | 33 | | |
| Early Initiation of Drug Use and Antisocial Behavior | 37 | | |
| Perceived Availability of Drugs and Firearms | 39 | | |
| *Note: a normative average score is 50. | | | |

Alcohol, Tobacco, and Other Drug Use

According to the CTCYS results, alcohol was by far the most abused substance. The prevalence of alcohol, tobacco, and other drug use increased as grade-level increased, with the exception of hallucinogens, inhalants, methamphetamine, and prescription tranquilizers. Hallucinogen, methamphetamine and prescription tranquilizer use peaked around 10th grade and then declined and inhalant use peaked in 6th grade and then declined.

The two charts below depict students who participated in the CTCYS and reported using alcohol, tobacco, or other drugs over their lifetime or within the 30 days prior to taking the survey.

| Alcohol, Tobacco, and Other Drug Prevalence of Use (in lifetime) | | |
|--|--------|--|
| Alcohol | 54.30% | |
| Cigarettes | 26.40% | |
| Marijuana | 20.20% | |
| Prescription pain relievers | 12.70% | |
| Inhalants | 9.80% | |

| Prevalence of Use Rates (30 days prior to taking survey) | | |
|--|--------|--|
| Alcohol | 25.90% | |
| Cigarettes | 9.70% | |
| Marijuana | 9.10% | |
| Prescription pain relievers | 4.80% | |
| Smokeless Tobacco | 4.00% | |

| Core Measures for All Students | | | |
|--------------------------------|---------|---------|-----------|
| Measure [^] | Tobacco | Alcohol | Marijuana |
| 30-Day Use Prior to Survey | 9.7% | 25.9% | 9.1% |
| Perceived Risk | 93.3% | 80.2% | 84.9% |
| Parental Disapproval | 95.2% | 88.6% | 96.8% |
| Avg. Age of Onset of Use | | | |
| (in years) | 13.3 | 13.4 | 14.1 |

Perceived risk is the percentage of students who reported that a drug was a moderate risk or great risk when used regularly. Parental Disapproval is defined as the percentage of parents who would feel it is wrong or very wrong to use.

Other Anti Social Behaviors

Bullying type behaviors were the most common other antisocial behaviors reported.

| Prevalence of Antisocial Behaviors (in lifetime) | | |
|--|--------|--|
| (Top 3 listed for all students surveyed) | | |
| Attacking someone with intent to hurt | 10.30% | |
| Being drunk or high at school | 8.90% | |
| Getting suspended | 6.90% | |

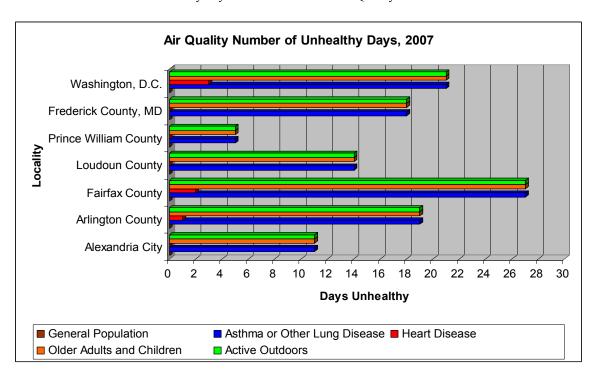
Environmental Health

A Climate Change Report was adopted on November 12, 2008 by the Metropolitan Washington Council of Governments (MWCOG) Board of Directors (available online at www.mwcog.org/uploads/pub-documents/zldXXg20081203113034.pdf). 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

| An Quanty | | | | | | |
|--|---|----|---|----|----|--|
| Number of Unhealthy Days in 2007 (reported for the respective populations) | | | | | | |
| | General Population Asthma or Other Lung Disease Heart Disease Active Outdoors | | | | | |
| Fairfax County, VA | 0 | 27 | 2 | 27 | 27 | |
| Washington, D.C. | 0 | 21 | 3 | 21 | 21 | |
| Arlington County, VA | 0 | 19 | 1 | 19 | 19 | |
| Frederick County, MD | 0 | 18 | 0 | 18 | 18 | |
| Loudoun County, VA | 0 | 14 | 0 | 14 | 14 | |
| Alexandria City, VA | 0 | 11 | 0 | 11 | 11 | |
| Prince William County, VA | 0 | 5 | 0 | 5 | 5 | |

^{*}All localities listed in the Unhealthy days chart above are an Air Quality nonattainment area.



The metropolitan Washington, DC region has been designated by the U.S. Environmental Protection Agency (EPA) as 'nonattainment' with the 1997 Clean Air 8-Hour Ground-Level Ozone rule. Air quality nonattainment is defined by U.S. Environmental Protection Agency as, "areas of the country where air pollution levels persistently exceed the national ambient air quality standards." (http://www.epa.gov/air/oaqps/greenbk/)

The Virginia Department of Environmental Quality (VDEQ) reported seven days in 2008 when the eight-hour ozone concentrations were above the normal standards of 75 parts per billion for Loudoun County. Eight-Hour Ozone is the air quality standard measured for a duration of over eight hours. This standard assists with identifying when ozone in the air exists at unhealthy levels for susceptible populations.

| 8-Hour Ozone Concentrations | | | |
|-----------------------------|------------------------|--|--|
| | Recorded concentration | | |
| Date | (in parts per billion) | | |
| 6/12/2008 | 100 ppb | | |
| 6/13/2008 | 79 ppb | | |
| 7/16/2008 | 79 ppb | | |
| 7/18/2008 | 78 ppb | | |
| 7/29/2008 | 89 ppb | | |
| 8/21/2008 | 80 ppb | | |
| 9/3/2008 | 79 ppb | | |

Water Quality

Fecal coliforms are defined by the EPA 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." (www.epa.gov/safewater/contaminants/ecoli.html#two) Fecal coliform bacteria levels have been found in the Catoctin Creek that exceeded Virginia Department of Environmental Quality (VDEQ) standards. The EPA, through the Virginia Department of Conservation and Recreation, has begun offering grant money to homeowners living in the Catoctin Creek Watershed to make repairs to their onsite wastewater treatment systems. The Loudoun County Health Department has been coordinating the distribution of grant funding to qualified residential homeowners.

In addition to funding for OWTSs, the Loudoun Soil and Water Conservation District is providing agricultural grants to farmers and landowners to support the reduction of livestock fecal coliforms.

Social and Mental Health

The Loudoun County Department of Mental Health, Mental Retardation and Substance Abuse Services (MH/MR/SAS) offers core services to eligible Loudoun residents. The county has two 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/MR/SAS also has the Friendship House, which provides an all-day psychosocial rehabilitation program 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 partners with the county Department of MH/MR/SAS, to advocate for mental health, educate others about mental health, and assist with funding mental health services.

Maternal and Child Health

| Maternal & Child Health Measure | Virginia | Loudoun County |
|--|----------|----------------|
| Total Live Births | 108,417 | 5,160 |
| Birth Rate Per 1,000 Total Population | 14.1 | 18.5 |
| Non-Marital Births | 38,281 | 837 |
| Low Weight Births, (under 2,500 grams / 5 lb. 8 oz.) | 9,344 | 338 |
| Low Weight Births Percent of Total Births | 8.6 | 6.6 |
| Prenatal Care Began in First 13 Weeks | 90,225 | 4,507 |
| % Prenatal Care Began in First 13 Weeks | 83.2% | 87.3% |
| Induced Terminations of Pregnancy | 27,292 | 681 |
| Natural Fetal Deaths | 7,362 | 435 |
| Total Teenage Pregnancies, Ages 10-19 | 13,766 | 215 |
| -Pregnancy Rate Per 1,000 Females (Ages 10-19) | 27.2 | 11.6 |
| Pregnancies, Ages <15 yrs | 252 | 4 |
| -Pregnancy Rate Per 1,000 Females (Ages <15) | 1 | 0.4 |
| Pregnancies, Ages 15-17 | 3,887 | 49 |
| -Pregnancy Rate Per 1,000 Females (Ages 15-17) | 25 | 8.6 |
| Pregnancies, Ages 18-19 | 9,627 | 162 |
| -Pregnancy Rate Per 1,000 Females (Ages 18-19) | 90.3 | 71.6 |
| Total Infant Deaths | 839 | 19 |
| -Infant Death Rate Per 1,000 Live Births | 7.7 | 3.7 |

Virginia Department of Health, Health Statistics, 2007

Death, Illness, and Injury

Leading Causes of Death, U.S. & Virginia

| | ng causes of Beatin, cost & th | | | | |
|----|--------------------------------|-----------|-------------|----------|------------|
| | | U.S. | % of Total | Virginia | % of Total |
| | United States, 2005 | Number | U.S. Deaths | Number | VA Deaths |
| 1 | Diseases of the heart | 652,091 | 26.60% | 14,192 | 24.50% |
| 2 | Malignant neoplasms | 559,312 | 22.80% | 13,877 | 24.00% |
| 3 | Cerebrovascular diseases | 143,579 | 5.90% | 3,675 | 6.40% |
| | Chronic lower respiratory | | | | |
| 4 | diseases | 130,933 | 5.30% | 2,897 | 5.00% |
| 5 | Accidents | 117,809 | 4.80% | 2,638 | 4.60% |
| 6 | Diabetes mellitus | 75,119 | 3.10% | 1,642 | 2.80% |
| 7 | Alzheimer's disease | 71,599 | 2.90% | 1,550 | 2.70% |
| 8 | Influenza and pneumonia | 63,001 | 2.60% | 1,464 | 2.50% |
| | Nephritis, nephrotic syndrome | | | | |
| 9 | and nephrosis | 43,901 | 1.80% | 1,277 | 2.20% |
| 10 | Septicemia | 34,136 | 1.40% | 1,201 | 2.10% |
| | All causes | 2,448,017 | | 57,855 | |

Source: National Center for Health Statistics, 2005

Leading Causes of Death, Virginia, Planning District 8, and Loudoun County

| Leading Causes of Death (COD) | Virginia | Planning [*] District 8 | Loudoun County | Loudoun County Ranking |
|---|----------|-------------------------------------|----------------|---------------------------|
| Malignant Neoplasms (Cancer) Deaths | 24.05% | 26.52% | 26.57% | 1 |
| Diseases of Heart Deaths | 23.77% | 21.69% | 21.06% | 2 |
| Cerebrovascular Diseases Deaths | 5.53% | 4.77% | 5.29% | 4 |
| Unintentional Injury Deaths | 4.98% | 4.47% | 5.84% | 3 |
| Chronic Lower Respiratory Diseases Deaths | 4.77% | 3.68% | 3.09% | 5 |
| Alzheimer's Disease Deaths | 2.93% | 2.68% | 1.65% | 8 |
| Diabetes Mellitus Deaths | 2.59% | 2.28% | 2.43% | 6 |
| Nephritis and Nephrosis Deaths | 2.48% | 2.33% | 1.98% | 7 |
| Septicemia Deaths | 2.34% | 2.69% | 1.21% | 10 |
| Influenza and Pneumonia Deaths | 2.11% | 2.13% | 1.32% | 9 |
| Total Deaths for All Ages | 57,835 | 8,740 | 907 | |

Virginia Department of Health, Health Statistics 2007

^{*}Planning district 8 includes Arlington, Fairfax, Loudoun, and Prince William counties. It also includes the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park.

Infectious Diseases

The Health Department serves the citizens of Loudoun County by monitoring for the occurrence of reportable and emerging diseases or 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.

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 of 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 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 Loudoun County for years 2006-2008. While these numbers reflect only those meeting a strict epidemiological definition, the number of disease investigations has increased each year. In particular, Lyme Disease investigations increased from 141 in 2006 to 843 in 2008.

| Loudoun County Reportable Disease Report | | | | | |
|--|-----------|-----------|-----------|--|--|
| | Year 2008 | Year 2007 | Year 2006 | | |
| AIDS | 11 | 0 | 16 | | |
| Campylobacteriosis | 28 | 35 | 24 | | |
| Chlamydia | 436 | 295 | 285 | | |
| E. coli, shiga toxin-producing | 32 | 13 | 7 | | |
| Giardiasis | 22 | 25 | 26 | | |
| Gonorrhea | 66 | 19 | 29 | | |
| Haemophilus influenzae infection, invasive | 8 | 0 | 1 | | |
| Hepatitis A, acute | 4 | 3 | 6 | | |
| Hepatitis B, acute | 1 | 3 | 1 | | |
| Hepatitis C, past & present | 83 | 77 | 19 | | |
| HIV | 14 | 18 | 17 | | |
| Influenza-Like Illness | 971 | 835 | 703 | | |
| Lyme disease | 219 | 277 | 127 | | |
| Rabies, post-exposure | 35 | 52 | 60 | | |
| Salmonellosis | 47 | 49 | 40 | | |
| Shigellosis | 9 | 6 | 8 | | |
| Syphilis, early & late | 5 | 4 | 7 | | |
| Varicella (Chickenpox) | 104 | 114 | 85 | | |
| Tuberculosis | 21 | 16 | 21 | | |