

Report Card of Community Health Indicators





County Executive's Message

I am pleased to present the Anne Arundel County Department of Health's 2017 Report Card of Community Health Indicators. This report is a valuable resource to help monitor the status of Anne Arundel County residents.

The Report Card information guides county leaders to make informed decisions, and it helps direct resources to neighborhoods and populations most in need of public health interventions. This report demonstrates Anne Arundel County has achieved our health goals in some areas. Other areas, including substance abuse and maternal and infant health, still face challenges.

Health is all around us – from the air we breathe to the water we drink to the friends and family that surround us. I thank the Department of Health staff for the quality services they offer and the deep partnerships they continue to develop with other agencies and community members.

Respectfully,

A handwritten signature in blue ink that reads "Steve".



Steven Schuh
County Executive



Health Officer's Message

The Anne Arundel County Department of Health continues to make progress toward our vision of a vibrant county with healthy people in healthy communities. We have done well improving several of our key community health indicators. According to the latest County Health Rankings, we have experienced improving trends for length of life, health insurance coverage, air quality and high school graduation, as well as a decrease in violent crime.

However, there are some concerning trends as well. Even when taking age into account, county residents have higher cancer rates than Maryland and the nation, especially for lung cancers and melanoma. Mortality rates have declined for all major causes of death in the county over the past decade with the exception of suicides. This may reflect our continuing struggle to prevent and treat substance use disorders.

Our communities around the county are strong and ready to respond to calls to action in cancer, suicide and overdose. To connect opioid overdose survivors with treatment, the department partnered with Anne Arundel Medical Center and Baltimore Washington Medical Center to provide referrals to treatment for people admitted to the emergency departments. This past summer, the department joined with the Maryland Department of Agriculture to mount a rapid response to the Zika virus threat to ensure no local transmission occurred.

Whatever the challenge, the Anne Arundel County Department of Health stands ready with our partners to preserve, promote and protect the health of all those who live, work and play in our beautiful county.

Warm regards,

A handwritten signature in black ink that reads "Jinlene Chan MD".

Jinlene Chan, M.D., M.P.H.
Health Officer





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A family of four is captured in a joyful moment, running along a dirt path in a field of tall, dry grass. The father, wearing a light blue polo shirt and a backpack, runs in the back left. The mother, in a light green polo shirt, runs in the back right. In the foreground, a young girl in a white t-shirt and a young boy in a yellow polo shirt are running towards the camera with wide smiles. The scene is set against a clear, bright blue sky, conveying a sense of outdoor activity and family fun.

Who lives in Anne Arundel County?



Demographics

2015 Estimates	Anne Arundel	Maryland	United States
Population			
Total Population	564,195	6,006,401	321,418,820
Male	49.6%	48.5%	49.2%
Female	50.4%	51.5%	50.8%
Race and Ethnicity			
White, non-Hispanic (NH)	69.5%	52.0%	61.6%
Black, NH	16.3%	29.4%	12.4%
Hispanic	7.3%	9.5%	17.6%
Asian, NH	3.9%	6.4%	5.4%
American Indian and Alaska Native, NH	0.3%	0.2%	0.7%
Others	2.7%	2.5%	2.3%
Age			
Under 5 Years Old	6.3%	6.1%	6.2%
18 Years and Over	77.5%	77.6%	77.1%
65 Years and Over	13.7%	14.1%	14.9%
Median Age (Years)	38.1	38.4	37.8

Data Source: U.S. Census Bureau: State and County Quick Facts; 2015 Population Estimates; 2015 American Community Survey 5-year Estimates and 1-year Estimates; United States Department of Labor; Bureau of Labor Statistics (not seasonally adjusted unemployment rates); National Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention (CDC); Maryland BRFSS, Department of Health and Mental Hygiene (DHMH).



How do social resources affect our health?



Social Environment Factors

Our social environment has profound impacts on our health, both positive and negative. Our social environment includes factors such as income, social support networks, education and exposure to violence. Although Anne Arundel County has a relatively high median household income compared to other jurisdictions in Maryland, there are pockets of poverty in North and South County. For example, Brooklyn Park's poverty rate is over four times the county's average rate.

2015 Estimates	Anne Arundel	Maryland	United States
Median Household Income	\$89,031	\$74,149	\$53,482
Families Below Poverty Level	3.8%	7.0%	11.3%
Individuals Below Poverty Level	5.9%	10.0%	15.5%
Children in Single Parent Households	26%	34%	31%
Unemployment Rate, January 2017	3.8%	4.5%	4.8%
High Housing Costs*	34.5%	34.8%	33.9%
High School Graduation	88%	87%	83%
Violent Crime (per 100,000)	460	465	373

*Percent of people paying 30 percent or more of household income on monthly housing costs.
Data Source: U.S. Census Bureau: 2015 American Community Survey 5-year Estimates and 1-year Estimates; United States Department of Labor; Bureau of Labor Statistics; 2015 Crime in the United States, Federal Bureau of Investigation.



How do individual behaviors affect our health?



Tobacco Use

Tobacco use is a risk factor, not just for lung and bronchus cancer, but for several other comorbidities, such as coronary heart disease and stroke. Cigarette smoke impacts almost every organ in the body and is associated with several of the leading causes of death in Anne Arundel County. Current adult cigarette use has declined significantly in the county over the past decade, but still slightly above the *Healthy People 2020* goal of 12 percent.

Current Adult Cigarette Smokers			
	2015	HP 2020	Met?
Anne Arundel	14.9%	12%	No
Maryland	14.6%	12%	No
United States	15.1%	12%	No

12th Graders Cigarette and E-Cigarette Use			
	Currently Using Cigarettes	Currently Using E-Cigarettes	Ever Used E-Cigarettes
Anne Arundel (2014)	16.2%	28.5%	50.8%
Maryland (2015)	11.9%	24.2%	45.1%
United States (2015)	14.1%	28.2%	50.9%



25 times

The increased risk of developing lung cancer in smokers compared to nonsmokers



4 times

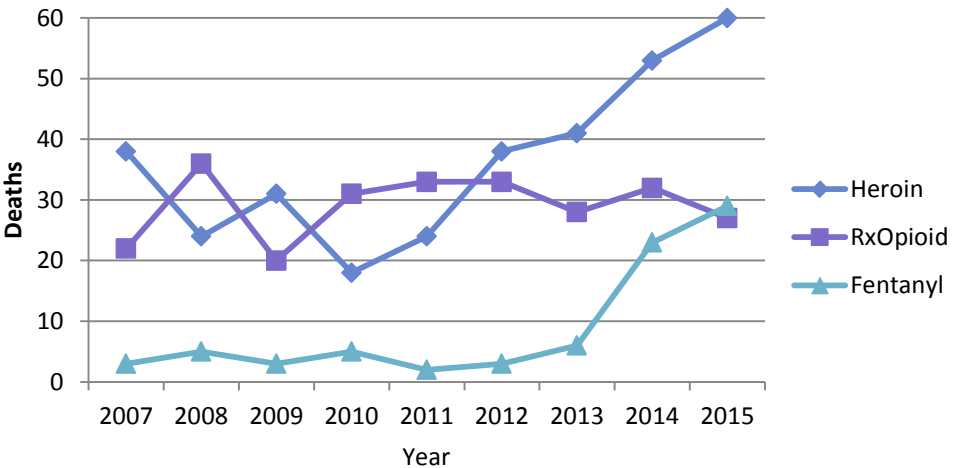
The increased risk of developing heart disease in smokers compared to nonsmokers



Drug and Alcohol Use

Over the past five years, substance use disorders, specifically prescription opioid and heroin use, have increased dramatically in the county. One of the major concerns of opioid use disorders is the risk of fatal overdose, particularly when fentanyl, a drug several times more powerful than heroin, is knowingly or unwittingly used. Alcohol dependence is related to other substance use. Individuals with a dependence on alcohol are more likely than the general population to use other drugs. Substance use disorders involving either opioids or alcohol are associated with increased risks of accidental death.

Opioid-Related Intoxication Deaths in Anne Arundel County, 2007-2015



54.8%

Percent of Anne Arundel County high school students reporting underage drinking in 2014



31.1%

Percent of Anne Arundel County adults reporting at least one occasion of binge drinking* in 2015

*Binge drinking is defined as five or more drinks for men and four or more drinks for women, in about two hours. (CDC)

Data Source: 2015 Drug and Alcohol Related Intoxication Deaths Report, Maryland DHMH; 2015 Maryland BRFSS; 2014 Maryland Youth Risk Behavioral Survey; National Institutes of Health Institute on Alcohol Abuse and Alcoholism.

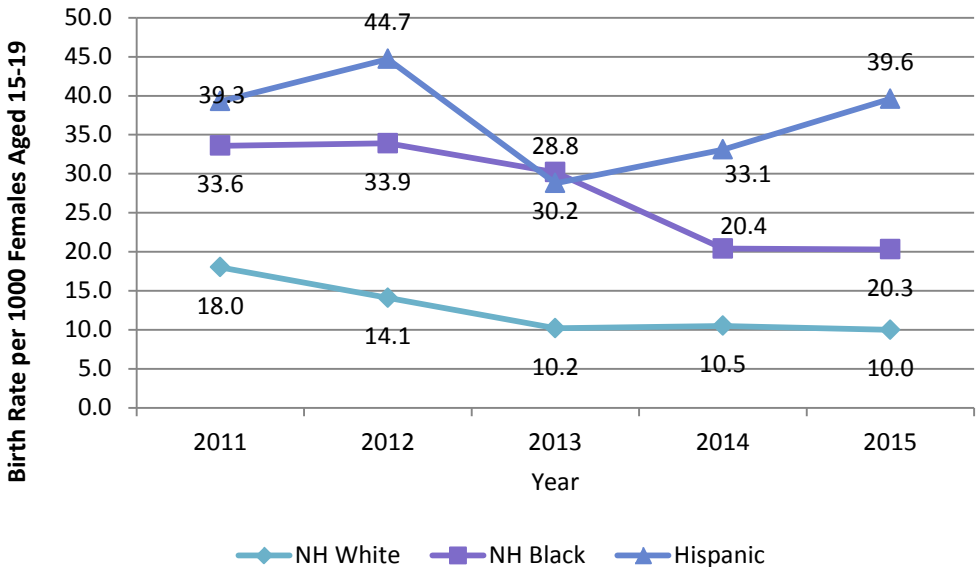


Sexually Transmitted Infection/ Teen Pregnancy

While teenage pregnancy is declining in the county overall, birth rates among Hispanic teens has increased between 2013 and 2015. Additionally, teens ages 10-19 years represented one quarter of all chlamydia cases and 15 percent of all gonorrhea cases in 2015.

Births to Women 15-19 Years Old per 1,000 Women Ages 15-19					
	2011	2012	2013	2014	2015
Anne Arundel	22.3	20.3	15.6	13.9	14.4
Maryland	24.7	22.1	19.3	17.8	16.9
United States	31.3	29.4	26.6	24.2	22.3

**Teen Births per 1,000 teens (Ages 15-19, Female)
by Race/Ethnicity
Anne Arundel County, 2011-2015**

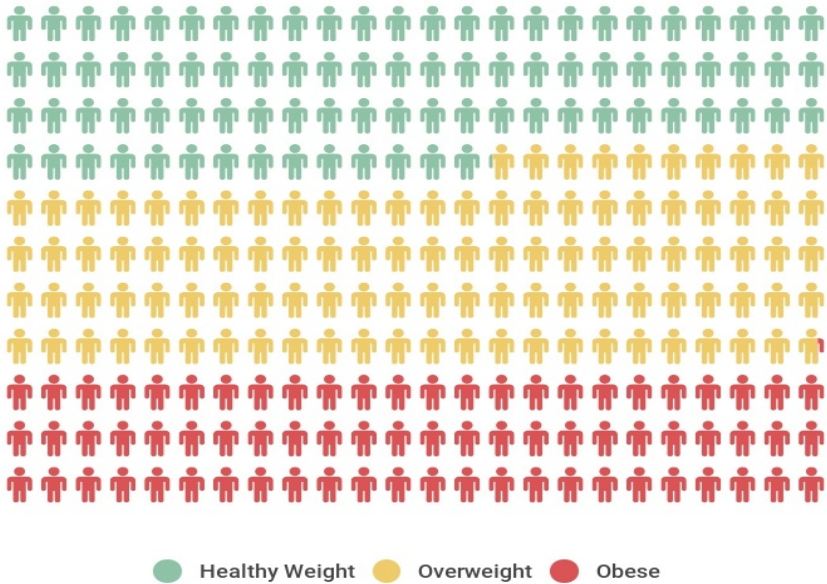


Data Source: 2015 Vital Statistics Annual Report, Maryland DHMH; Center for Sexually Transmitted Infection Prevention, Maryland DHMH.



Overweight and Obesity

Many factors impact body weight, including lifestyle, the surrounding environment, genetics and certain diseases. Modifying behaviors, such as eating and physical activity habits, can help people maintain a healthy weight. Almost half of Anne Arundel County adults report no or insufficient leisure-time physical activity. Being overweight or obese increases the risk of diabetes, heart disease, cancer, stroke, high cholesterol, high blood pressure, sleep disorders, respiratory problems and other health issues. Overweight and obesity are determined using weight and height to determine a BMI or “body mass index” measure. 38.2 percent are overweight (BMI of 25 to 29.9) and 25.5 percent are obese (BMI of 30 or more). Only 30.9 percent of adults in Anne Arundel County are a healthy weight.*



2015	Anne Arundel	Maryland	United States
Adults with Hypertension	29.7%	32.5%	31.9%
Adult with Diabetes	9.4%	10.3%	10.4%

*Percentages of healthy weight, overweight and obese do not add up to 100 percent because of missing values in the survey responses.

Data Source: 2015 Maryland BRFSS; Healthy People 2020, U.S. Department of Health and Human Services (DHHS).

TASTE THE RAINBOW!

Eat a Variety of Fruits and Vegetables Every Day



How does the physical environment affect our health?



Food Environment

Food deserts are defined by the United States Department of Agriculture (USDA) as urban neighborhoods and rural towns without ready access to fresh, healthy and affordable food. Typically, these areas are low-income, where the population lacks economic resources to travel for food purchases. There are 17 census tracts in Anne Arundel County which are considered food deserts; these areas are in Glen Burnie, Brooklyn Park, Linthicum Heights, Eastport, Fort Meade, Jessup and Severn.

Of the 69,000 county residents that live in food deserts, 54 percent are non-Hispanic White, 26 percent are non-Hispanic Black or African American, 12 percent are Hispanic (any race) and 4 percent are Asian. Approximately 26 percent (18,000) of the population living in food deserts are less than 18 years of age.



69,000

County residents live in food deserts



8%

Percent of county residents who face food insecurity

Anne Arundel County
FOOD environment

Anne Arundel County is the 8th largest jurisdiction in Maryland with over 644,000 residents. The county has 107 public schools, approximately 60,000 students, 5,000 businesses and three major institutions of higher education. There are also two major healthcare serving counties nearby. The county has two state parks, over 70 county parks and more than 120 miles of beach coastline. Anne Arundel County has a lot to offer. Let there be many healthy and delicious food choices to help you stay healthy and affordable food.

DID YOU KNOW? Approximately 69,000 Anne Arundel County residents live in a food desert.

- Food deserts are defined by the United States Department of Agriculture (USDA) as urban neighborhoods and rural towns without ready access to fresh, healthy and affordable food. Typically, these areas are low-income, where the population lacks economic resources to travel for food purchases. There are 17 census tracts which are considered food deserts in Anne Arundel County located in Glen Burnie, Brooklyn Park, Linthicum Heights, Eastport, Fort Meade, Jessup and Severn.
- Of the 69,000 county residents that live in food deserts, 54% are non-Hispanic White, 26% are non-Hispanic Black or African American, 12% are Hispanic (any race) and 4% are Asian. Roughly one in four (18,000) live in food deserts that have access to supermarkets or grocery stores that provide healthy food choices for their produce, bread, dairy, whole grains and lean meat.
- Approximately 26% (18,000) of the population living in food deserts are less than 18 years of age.

For more information on the food environment in Anne Arundel County, visit:

<http://www.aahealth.org/pdf/FoodEnvironmentFact.pdf>



Rabies

Rabies is a significant public health threat since rabid animals can come in contact with people and their pets. Rabies is a fatal viral infection. While pets can be vaccinated against rabies, people exposed to rabies must undergo a costly series of injections to protect themselves from the disease. In 2016, there were 15 confirmed cases of rabid animals in the county, down from 35 confirmed rabid animals in 2015.



Data Source: Bureau of Environmental Health, Anne Arundel County Department of Health.

How do we access care?





Health Care Access

Despite the Affordable Care Act (ACA) increasing access and expectations for health care, a number of barriers exist which prevent Anne Arundel County residents from accessing timely and appropriate health care services. In 2015, 6.4 percent of county residents did not have health insurance, down from 9.6 percent in 2013. The Hispanic population has the highest rate of uninsured in the county at 22 percent. Even with insurance, patients have difficulty finding providers. Anne Arundel County’s primary care physician-to-population and dentist-to-population ratios are worse, on average, than those for the state. Lack of insurance and inability to see an appropriate primary care provider drive the sick to hospital emergency departments, increasing costs of care for conditions that could have been prevented or treated in a lower level setting.

2015	Anne Arundel	Maryland	United States
Uninsured	6.4%	9.0%	13.0%
Uninsured ED Utilization	10.5%	10.7%	16.0%



11.9%

Percent of Anne Arundel County residents that couldn't afford to see a doctor in the past year



17.0%

Percent of Anne Arundel County residents that do not have a primary care physician

Data Source: 2015 Maryland BRFSS; 2016 Maryland Senior Health Insurance Program (SHIP); 2017 County Health Rankings, Robert Wood Johnson Foundation; 2015 American Community Survey, U.S. Census.



Prenatal Care

Anne Arundel County's prenatal care trends are concerning. The county has not reached its Healthy People 2020 goal of 77.9% of women receiving prenatal care during their first trimester. We are not moving closer to this goal. Indeed, between 2011 and 2015, there has been a decrease of 9.4% of pregnant women in Anne Arundel County receiving prenatal care in their first trimester. Rates of early prenatal care have decreased since 2011 for Whites, Blacks and Hispanics. Getting early and regular prenatal care improves the health of both mothers and their babies. With regular prenatal care, women and their providers are able to reduce the risk of pregnancy complications like preeclampsia and complications with the infant like neural tube defects. These complications not only cause high emergency medical costs, but may result in disability and death.

Percent of Women Receiving First Trimester Prenatal Care (First trimester includes the first 12 weeks of pregnancy)

	2011	2012	2013	2014	2015
Anne Arundel	74.7%	71.4%	74.2%	68.5%	65.3%
Maryland	67.7%	67.9%	67.0%	66.6%	66.9%
White, NH	77.2%	74.1%	75.3%	74.7%	71.5%
Black, NH	58.5%	62.4%	62.1%	58.0%	57.1%
Hispanic, Any Race	61.5%	55.6%	61.2%	53.5%	46.4%

Data Source: 2015 Vital Statistics Annual Report, Maryland DHMH; Healthy People 2020, U.S. DHHS.



How healthy
are we?



Healthy People 2020

At the start of each decade, the U.S. Department of Health and Human Services provides a set of ten-year national objectives for improving health. The Healthy People 2020 goals help guide Anne Arundel County's ongoing efforts toward building a healthier community. The county has already met some of the 2020 goals and continues to work toward others.

Indicator	Anne Arundel (as of 2015*)	National 2020 Goal	Met National 2020 Goal
Mortality (age-adjusted rates per 100,000 population)			
Coronary Heart Disease	159.3	103.4	No
Stroke	37.6	34.8	No
Diabetes	16.6	66.6	Yes
Unintentional Injuries	24.9	36.4	Yes
All Cancer	175.4	161.4	No
Lung Cancer	50.0	45.5	No
Female Breast Cancer	23.3	20.7	No
Homicide	***	5.5	Yes
Suicide	10.9	10.2	No

*Rates based on data from 2013-2015.

**Rates based on data from 2009-2013.

***Rates for fewer than 20 deaths not calculated.

Lung cancer data also includes data on cancer of bronchus.

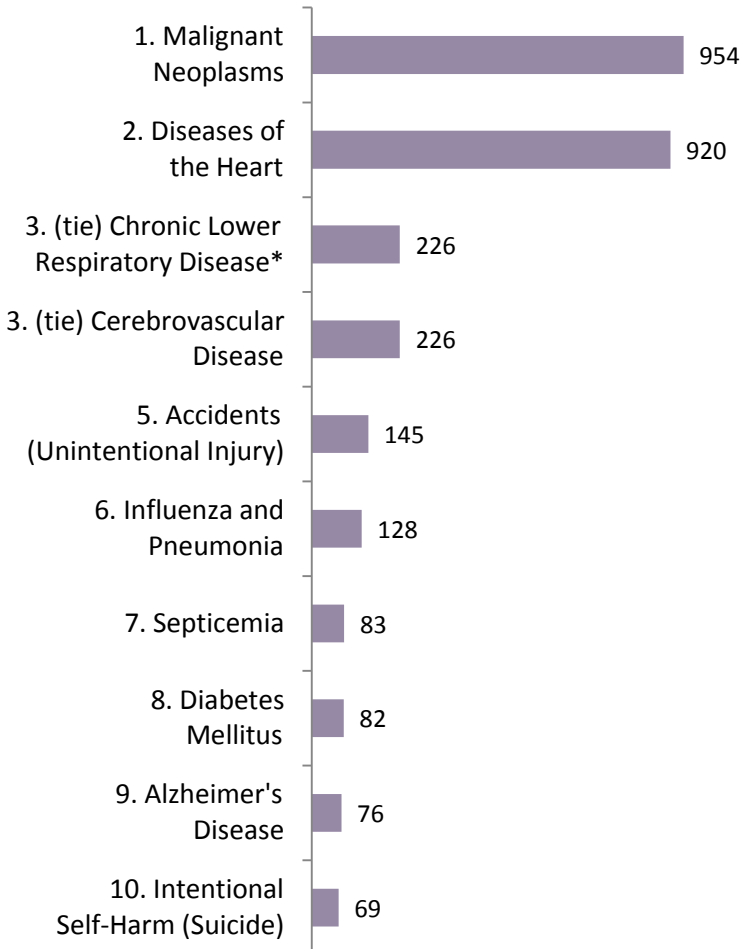
Data Source: 2015 Vital Statistics Annual Report, Maryland DHMH; 2017 Cancer Report, Cigarette Restitution Fund Program, Maryland DHMH; Healthy People 2020, U.S. DHHS.



Leading Causes of Death

In 2015, 4,095 Anne Arundel County residents were reported to have died, and life expectancy was 79.8 years. There are many modifiable risk factors that contribute to the leading causes of death, including smoking, high blood pressure, overweight and obesity, physical inactivity, poor diet and excess alcohol consumption. Leading a healthy lifestyle can reduce the burden of long-term disability and premature death.

Top Ten Leading Causes of Death Among Anne Arundel County Residents, 2015



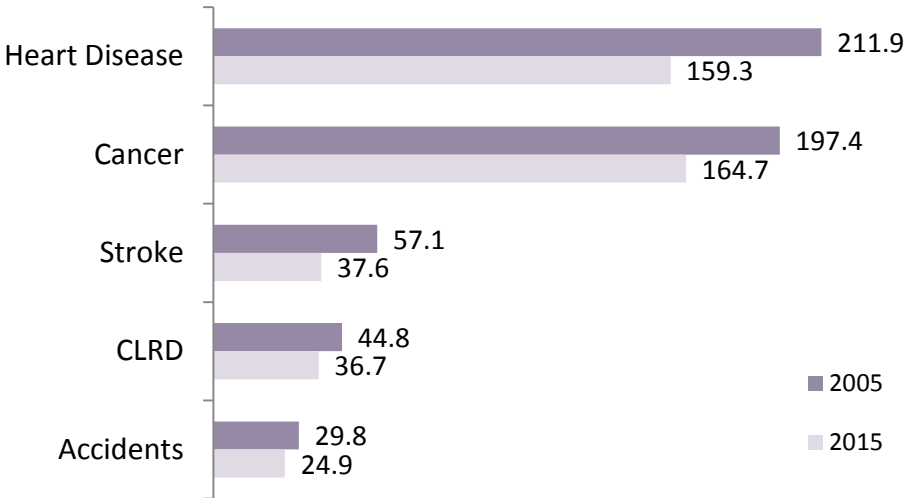
*Chronic lower respiratory diseases (CLRD) include chronic obstructive pulmonary disease and asthma.
Data Source: 2015 Vital Statistics Annual Report, Maryland DHMH; Maryland SHIP.



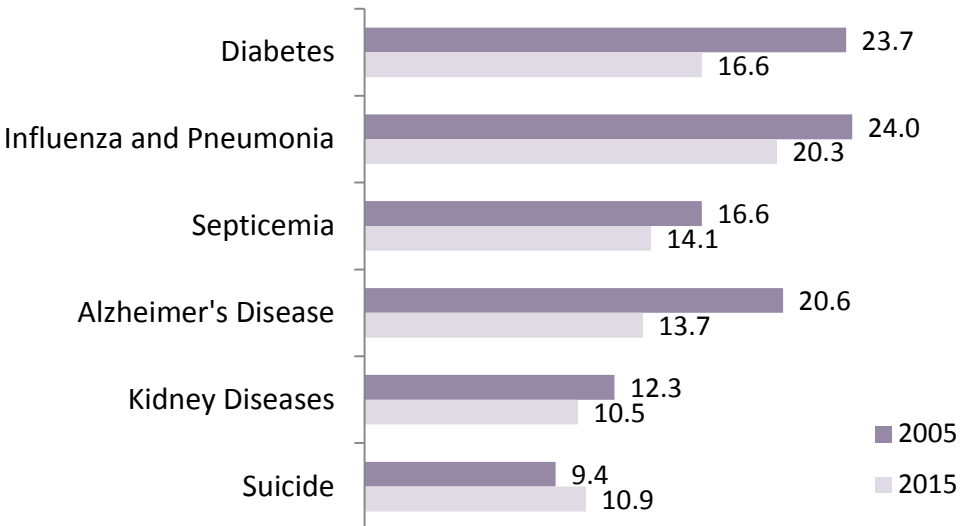
Mortality Trends

Mortality Rates, Anne Arundel County, 2005 vs. 2015

Age-Adjusted Mortality Rate per 100,000 Population



Age-Adjusted Mortality Rate per 100,000 Population



Data Source: 2015 Vital Statistics Annual Report, Maryland DHMH.



Cancer Incidence

Cancer Incidence Rates*, Anne Arundel County, 2009-2013

Cancer Type	County Case Count	Anne Arundel Rates	Maryland Rates	United States Rates
All Sites (Both Genders**)	13,372	458.7	443.6	448.7
Breast (Female)	2,033	128.3	128.5	125.0
Cervical (Female)	91	6.4	6.5	7.5
Colorectal (Both Genders**)	951	33.4	36.8	41.0
Colorectal (Male)	491	38.4	41.8	46.8
Colorectal (Female)	459	29.5	33.0	35.5
Lung/Bronchus (Both Genders**)	1,766	62.6	57.2	57.3
Lung/Bronchus (Male)	871	69.4	65.6	74.6
Lung/Bronchus (Female)	890	65.6	51.0	53.4
Melanoma (Both Genders**)	890	30.4	21.0	21.8
Prostate (Male)	1,995	136.9	130.9	129.4

*Age-adjusted rates per 100,000 population.

**Total also includes unknown gender cases.

Data Source: 2016 Cancer Report, Cigarette Restitution Fund Program, Maryland DHMH; National Center for Health Statistics, CDC WONDER.



Cancer Mortality

Cancer Mortality Rates*, Anne Arundel County, 2009-2013

Cancer Type	County Death Count	Anne Arundel Rates	Maryland Rates	United States Rates
All Sites (Both Genders)	4,884	175.4	168.4	168.5
Breast (Female)	362	23.3	23.1	21.5
Cervical (Female)	41	2.8	2.1	2.3
Colorectal (Both Genders)	365	13.1	14.9	15.1
Colorectal (Male)	201	16.2	18.2	18.1
Colorectal (Female)	164	10.7	12.5	12.7
Lung/Bronchus** (Both Genders)	1,766	50.0	44.5	46.0
Lung/Bronchus (Male)	871	59.0	54.1	57.8
Lung/Bronchus (Female)	890	43.3	37.4	37.0
Melanoma (Both Genders)	91	3.3	2.6	2.7
Prostate (Male)	212	20.1	21.3	20.7

*Age-adjusted rates per 100,000 population.

**Includes cancer of the trachea.

Data Source: 2017 Cancer Report, Cigarette Restitution Fund Program, Maryland DHMH; National Center for Health Statistics, CDC WONDER.



Maternal and Child Health

In 2015, there were 6,924 births in Anne Arundel County. Of those births, 4,393 were non-Hispanic white, 1,259 were non-Hispanic black and 847 were Hispanic. Many factors affect pregnancy and childbirth including the mother's pre-pregnancy health status, the mother's age at birth, access to health care and socioeconomic status. Anne Arundel County achieved its Healthy People 2020 goal for both low birth weight and preterm births.

	2011	2012	2013	2014	2015
Percent of Low Birth Weight Infants					
Anne Arundel	8.1%	7.8%	7.5%	8.1%	7.8%
Maryland	8.9%	8.8%	8.5%	8.6%	8.6%
United States	8.1%	8.0%	8.0%	8.0%	8.1%
Percent of Low Birth Weight Infants, Anne Arundel by Race/Ethnicity					
White, NH	6.7%	6.5%	6.1%	6.9%	6.4%
Black, NH	13.5%	12.1%	12.3%	13.8%	12.6%
Hispanic, Any Race	7.9%	7.9%	7.4%	6.9%	7.2%
Percent of Women Having Preterm Births					
Anne Arundel	9.9%	9.4%	8.9%	9.1%	9.3%
Maryland	11.1%	12.7%	12.5%	12.2%	11.9%
United States	11.4%	12.0%	11.7%	11.5%	11.4%
Percent of Preterm Infants, Anne Arundel by Race/Ethnicity					
White, NH	9.0%	8.9%	8.0%	8.2%	8.4%
Black, NH	14.1%	10.4%	11.9%	13.5%	12.1%
Hispanic, Any Race	8.9%	9.5%	8.9%	7.9%	9.6%

Data Source: 2011-2015 Vital Statistics Annual Reports, Maryland DHMH; National Center for Health Statistics, CDC.



Infant Mortality

Infant mortality measures deaths during the first year of life. In 2015, there were 35 infant deaths in Anne Arundel County, with an overall infant mortality rate of 5.1 per 1,000 live births. The county exceeded its Healthy People 2020 goal for infant mortality of less than 6.0 deaths per 1,000 live births.

A significant disparity continues to exist between white and black infant mortality. In 2015, black infants in Anne Arundel County had a mortality rate of 9.3 per 1,000 live births, 3.7 times that for white infants. A similar disparity is seen at the state and national levels.

	2011	2012	2013	2014	2015
Infant Mortality – All Races per 1,000 Live Births					
Anne Arundel	5.1	6.4	5.6	5.7	5.1
Maryland	6.7	6.3	6.6	6.5	6.7
United States	6.0	6.0	6.0	5.8	6.0
Infant Mortality – Whites per 1,000 Live Births					
Anne Arundel	3.5	5.5	4.4	3.8	3.7
Maryland	4.0	4.1	4.5	4.2	4.3
United States	5.1	5.1	5.1	4.9	5.1
Infant Mortality – Blacks per 1,000 Live Births					
Anne Arundel	13.0	9.0	10.5	12.7	9.3
Maryland	12.0	10.3	10.5	10.6	11.2
United States	11.4	10.9	10.5	11.0	11.3

Data Source: 2011-2015 Vital Statistics Annual Reports, Maryland DHMH; National Center for Health Statistics, CDC, CDC Wonder.



General Disease Reporting

Number of Selected Reportable Diseases In Anne Arundel County

	2012	2013	2014	2015	2016*	5-Year Mean
Campylobacter	73	53	83	61	81	70
Salmonella	99	79	81	141	105	101
Vibrio	13	11	9	5	16	11
Legionellosis	11	15	8	5	6	9
<i>M. tuberculosis</i>	10	8	3	10	10	8
Hepatitis B**	91	81	104	76	96	90
Hepatitis C**	577	570	567	519	652	577
Meningitis, meningococcal	0	0	0	0	1	<1
Pertussis	37	29	42	28	28	33
Chlamydia	1439	1392	1681	1696	1973	1636
Gonorrhea	230	274	322	337	546	342
Syphilis***	24	27	44	42	41	36
Lyme Disease	90	109	99	107	174	116
Animal Rabies	19	40	36	38	15	30
Outbreaks: Gastrointestinal	15	9	8	13	5	10
Outbreaks: Respiratory	1	11	14	18	8	10

*Provisional data.

**Includes both acute and chronic cases.

***Includes primary and secondary.

Data Source: Bureau of Disease Prevention and Management, Anne Arundel County Department of Health.



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The services and facilities of the Anne Arundel County Department of Health are available to all regardless of race, color, religion, political affiliation, national origin, age, gender identity, sexual orientation or disability.



ANNE
ARUNDEL
COUNTY

MARYLAND

DEPARTMENT OF HEALTH

