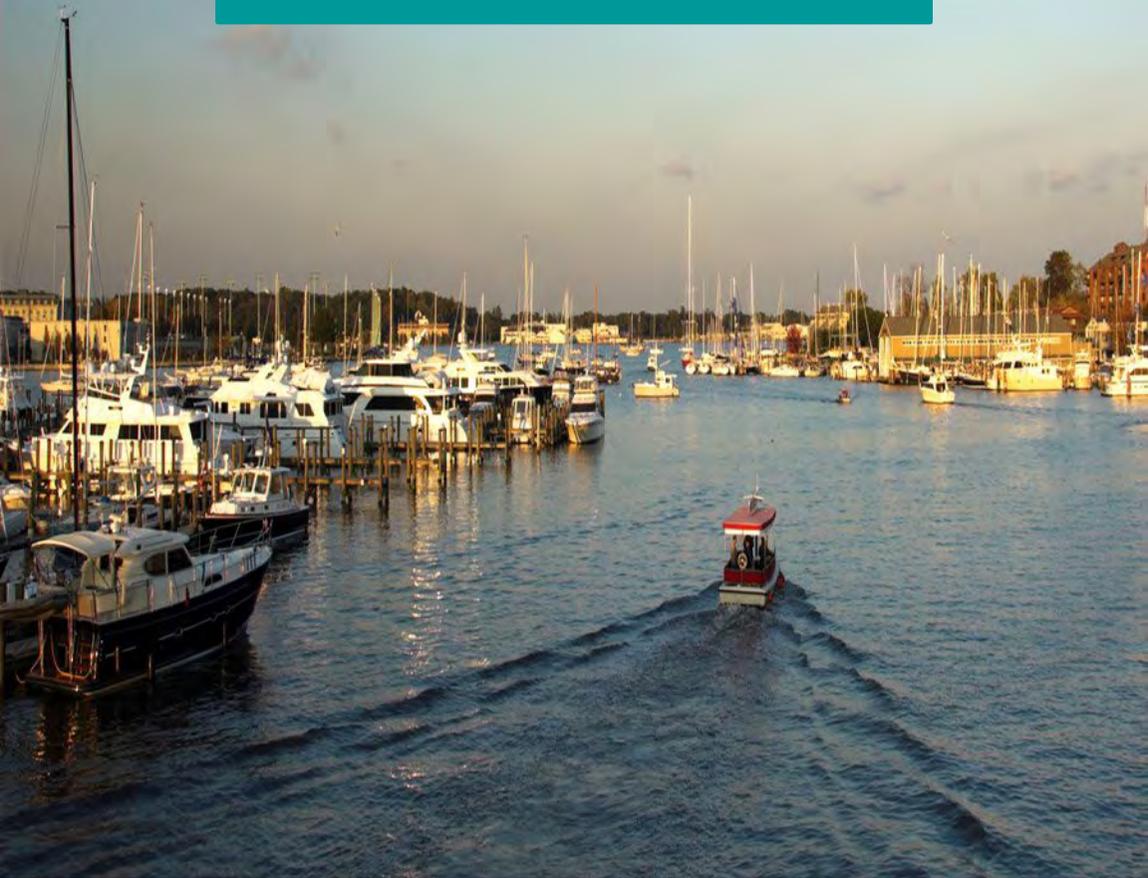


October 2022

Report of Community Health Indicators



Anne Arundel County Department of Health

Table of Contents

Introduction

County Executive's Message	5
Health Officer's Message	6

Demographics

Demographics	8
Demographic Trends	9

Health Outcomes

Life Expectancy Map	11
Leading Causes of Death	12
Leading Causes of Death by Race/Ethnicity	13

Health Equity and Social Determinants of Health

Health Equity	15
Social Determinants of Health	16-17
Economic Factors	18
Individuals Below Poverty Map	19
Housing	20
Education and Language	21
Less than High School Education Map	22
Access to Healthy Food	23
Food Environment Map	24
Health Insurance	25
Health Care Access	26

Table of Contents continued

COVID-19	
COVID-19	28-33
Gun Violence	
Gun Violence	35
Chronic Diseases	
New Cancer Diagnoses	37
Cancer Mortality	38
Diabetes	39
Heart Disease	40
Communicable Diseases	
Infectious Disease Reporting	42
Sexually Transmitted Infections	43
Human Immunodeficiency Virus (HIV)	44
Maternal and Child Health	
Prenatal Care	46
Maternal Child Health	47
Infant Mortality	48
Teen Pregnancy	49
Suicide	
Suicide	51
Alcohol, Tobacco and Substance Use	
Opioid and Other Drug Use	53
Tobacco Use	54
Electronic Cigarette Use	55



Introduction

County Executive's Message

I am pleased to present the Anne Arundel County Department of Health's 2022 Report of Community Health Indicators. I want to thank every single member of the department for the tremendous efforts made to improve the health of our County. Dr. Nilesh Kalyanaraman and his team have done outstanding work. Thank you.

As we continue to wrestle with the long-term impacts of the COVID pandemic, I am proud of the way our department continues to focus on health equity, eliminating the disparities that drive health outcomes in our communities. The pandemic laid bare the ways in which the social determinants of health - income, housing, education, racism, access to health care, among others - affect our communities.

To address these disparities, we know that we need to empower our communities to improve health. Our department staff have done tremendous work to build relationships and uplift residents and community groups. Through these efforts, Dr. Kalyanaraman and his team continue helping us build the framework needed to reduce the barriers our residents face in living healthier lives.

I often say that government should be judged not on the size of its tax base but on the health of the people it serves. Thank you for your contributions in making Anne Arundel County The Best Place - For All.

Respectfully submitted,

Steuart Pittman
County Executive

Health Officer's Message

Anne Arundel County generally is in the top half of health measures in the state. While that's good, we have the resources and the drive to be the healthiest county. To do that, we have to dig deeper into these measures because averages don't tell the whole story.

When we break down data, we see patterns that demand our attention. Some areas of the county have higher life expectancies than other areas. Blacks tend to have higher rates of heart disease than other races and ethnicities. White males have higher rates of gun suicide than other groups. Of course, as we all saw, COVID-19 disproportionately affected people who were older, had chronic health conditions, and blacks.

Understanding health disparities, where they're happening and to whom, is a necessary step on the path to health equity. Using data allows us to dig deeper, to understand why these disparities exist and work to address them using targeted solutions. Barriers such as access to good jobs, access to food, safe communities, transportation or affordable homes are a significant cause of health disparities and ultimately lower life expectancy.

COVID-19 shone a spotlight on health disparities, but they've always been around. What the pandemic did show, is that by working hard to address health disparities, we could reduce and even eliminate them, as we did with the COVID-19 death rate for blacks.

To increase our efforts to achieve health equity, we're deepening our collaborations with communities across the county, both with individuals and through community-based organizations, faith-based organizations and the business community.

One way we are doing this is through the work of our Community Health Ambassadors program. This program invests in community organizations to work in the communities they know best to provide culturally competent health education about COVID-19, vaccines and mental health.

We're also making preventive services more easily accessible for everyone. We've increased the types and locations of immunization and screening services. This year, we've vaccinated our communities for COVID-19, monkeypox, flu, and school immunizations, and that's just the last 3 months!

While we're making progress, we still have more work to do. Increasing our investments in public health and our communities is how we make our county healthier for everyone.

In health,
Nilesh Kalyanaraman, MD, FACP
Health Officer

Demographics



Demographics

The population of Anne Arundel County in 2020 grew by about **0.5%** from 2019. In comparison, the population of Maryland increased by about 0.1% and the United States population grew by 0.35%.

Compared to Maryland, Anne Arundel County has a larger percentage of White non-Hispanic residents, and a smaller percentage of Black non-Hispanic, Hispanic, and Asian or Pacific Islander non-Hispanic residents.

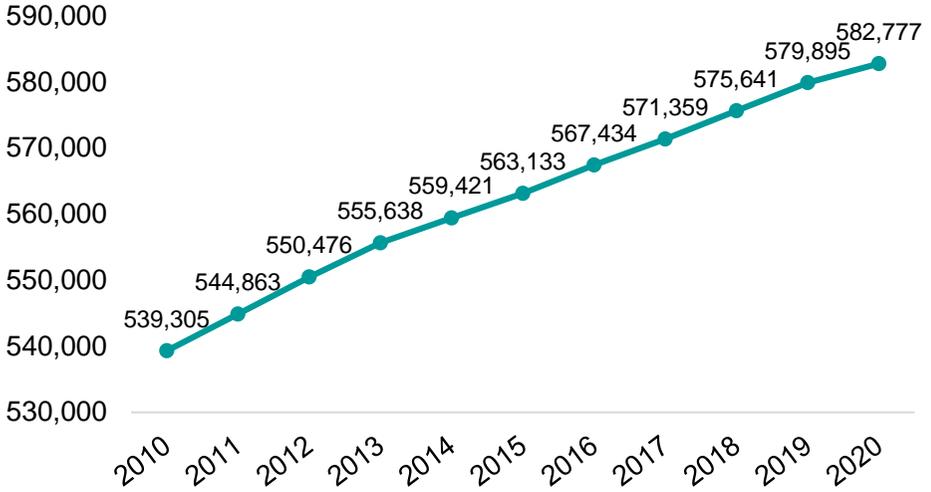
2020 Estimates	Anne Arundel	Maryland	United States
Population			
Total Population Size	582,777	6,055,802	329,484,123
Male	49.5%	48.4%	49.2%
Female	50.5%	51.6%	50.8%
Race and Ethnicity			
White, non-Hispanic	67.4%	50.6%	60.9%
Black, non-Hispanic	18.8%	31.1%	13.2%
Hispanic	8.6%	10.8%	18.6%
Asian, non-Hispanic	4.9%	7.2%	6.5%
Indigenous, non-Hispanic	0.3%	0.3%	0.8%
Age			
Under 5 Years Old	6.1%	5.9%	5.9%
18 Years and Over	77.8%	78.0%	77.9%
65 Years and Over	15.5%	16.3%	16.9%

Data Source: National Center for Health Statistics Bridged-Race Population Estimates. Numbers may differ from previous reports due to changes in data sources. Sources used in previous years reports are no longer available.

Demographic Trends

The Black non-Hispanic, Hispanic, and Asian non-Hispanic populations all grew as a percentage of the population, continuing a trend towards increased racial and ethnic diversity.

Anne Arundel County Population, 2010-2020



Population	2018	2019	2020
Total Population Size	575,641	579,895	582,777
Male	49.5%	49.5%	49.5%
Female	50.5%	50.5%	50.5%
Race/Ethnicity	2018	2019	2020
White, non-Hispanic	69.1%	68.2%	67.4%
Black, non-Hispanic	17.9%	18.4%	18.8%
Hispanic	8.1%	8.3%	8.6%
Asian, non-Hispanic	4.7%	4.8%	4.9%
Indigenous, non-Hispanic	0.3%	0.3%	0.3%

Data Source: National Center for Health Statistics Bridged-Race Population Estimates. Numbers may differ from previous reports due to changes in data sources. Sources used in previous years reports are no longer available.

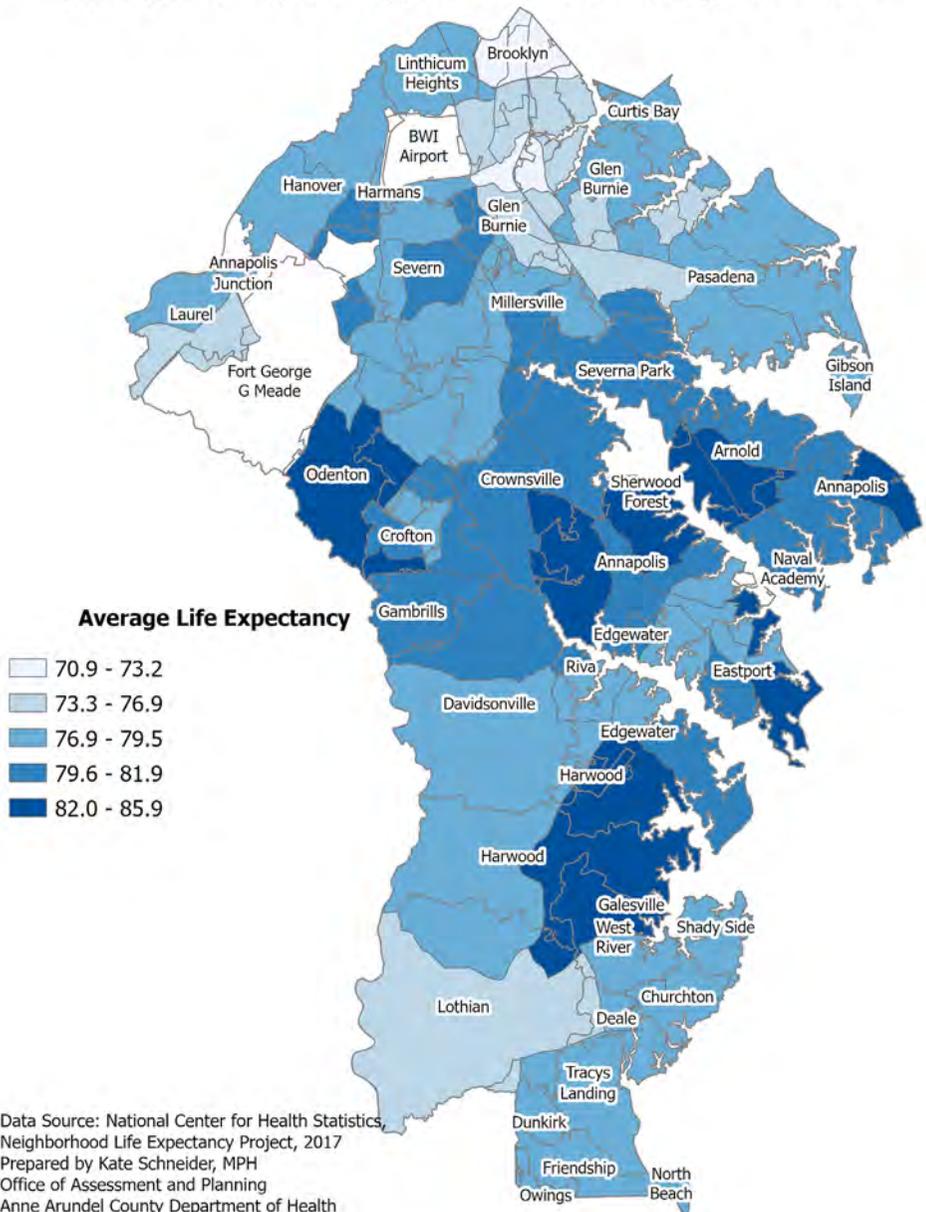
Health Outcomes



Life Expectancy

Life expectancy, which is the average age to which people in a population can expect to live, is affected by the social determinants of health. In Anne Arundel County, there is a 15 year difference between the census tract with the lowest life expectancy (70.9 years) and the highest life expectancy (85.9 years).

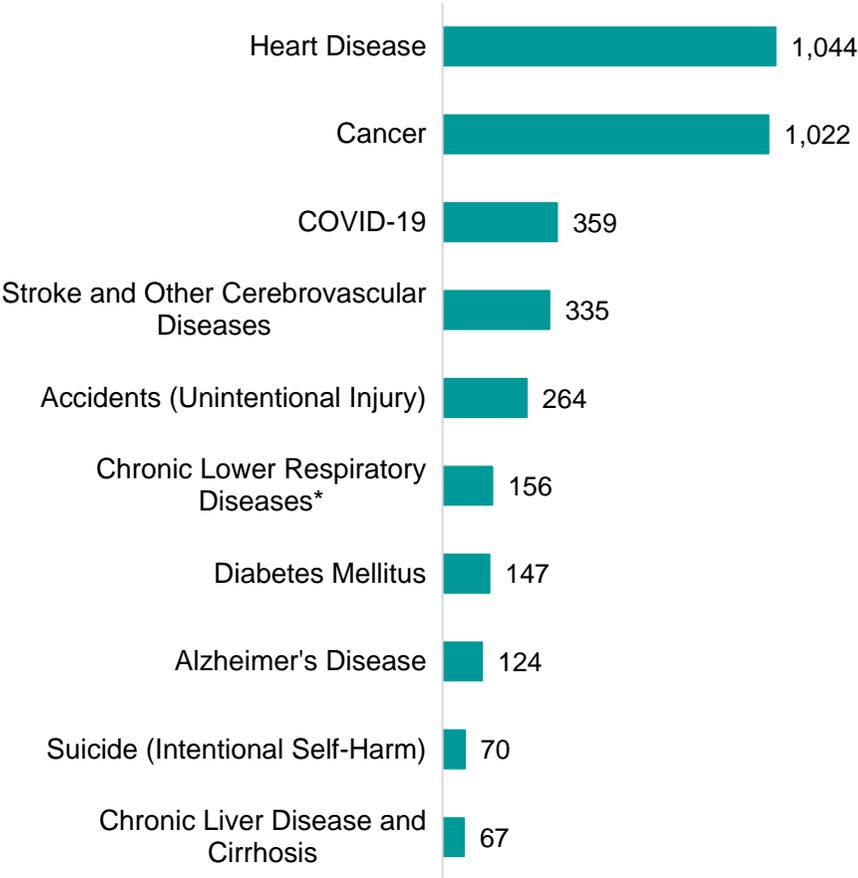
Average Life Expectancy, Anne Arundel County, 2010-2015



Leading Causes of Death

In 2020, there were 5,028 deaths among Anne Arundel County residents, an 11% increase from the number of deaths in 2019. The age-adjusted death rate was 756.8 deaths per 100,000 population, which is 5% higher than the previous year's rate of 718.7 deaths per 100,000, but lower than the Maryland rate of 820.5 deaths per 100,000. Heart disease was the leading cause of death, followed closely by cancer. COVID-19 was the third leading cause of death. Influenza and Pneumonia was the eighth leading cause of death in 2019, but was not one of the top ten causes in 2020.

Top Ten Leading Causes of Death, Anne Arundel County, 2020



*Chronic lower respiratory diseases (CLRD) include chronic obstructive pulmonary disease and asthma.

Data Source: Maryland Department of Health, Vital Statistics Administration, 2020 Annual Report and Jurisdictional Deaths Report for Anne Arundel County.

Leading Causes of Death by Race and Ethnicity

In 2020, there were a total of 5,028 deaths. Of those deaths, 3,943 were non-Hispanic White, 872 were non-Hispanic Black, 90 were non-Hispanic Asian, and 111 were Hispanic. Heart disease was the leading cause of death for non-Hispanic White and non-Hispanic Black residents in Anne Arundel County, cancer was the leading cause of death for non-Hispanic Asian residents, and COVID-19 was the leading cause of death for Hispanic residents.

Leading Causes of Death by Race/Ethnicity, Anne Arundel County, 2020

White, NH	Black, NH	Hispanic	Asian, NH
Heart Disease 21.2%	Heart Disease 20.9%	COVID-19 19.8%	Cancer 25.6%
Cancer 20.6%	Cancer 19.7%	Cancer 11.7%	Heart Disease 13.3%
Cerebrovascular Disease 6.9%	COVID-19 11.0%	Heart Disease 10.8%	COVID-19 7.8%
COVID-19 5.9%	Cerebrovascular Disease 6.2%	Accidents 9.9%	Accidents 5.6%
Accidents 5.0%	Accidents 5.5%		Cerebrovascular Disease 5.6%

NH - non-Hispanic
 Data Source: Maryland Department of Health, Vital Statistics Administration, 2020 Jurisdictional Deaths Report for Anne Arundel County.

Health Equity and Social Determinants of Health



Health Equity

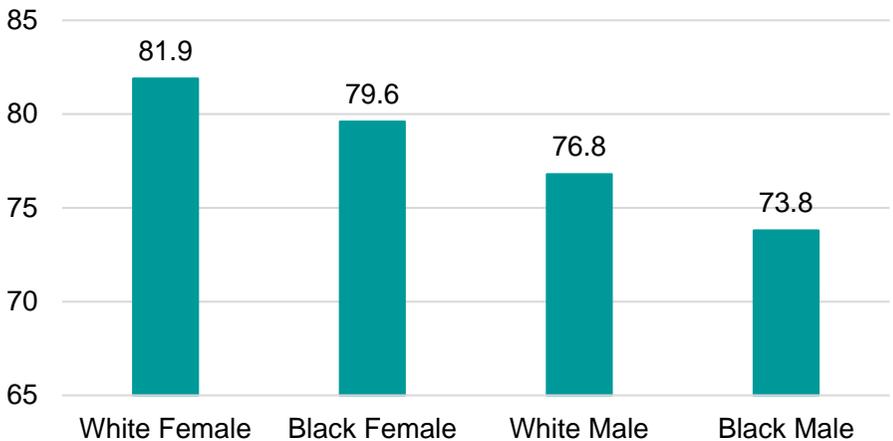
Health equity means that everyone has a fair and just opportunity to be as healthy as possible. In Anne Arundel County, racial/ethnic, income, and geographic disparities are persistent in health measures for our residents.

In this report card, data will be published with breakdowns by race/ethnicity, income, and geography to better understand health disparities and inequities and how they impact health outcomes.

Health equity is achieved when aspects of someone’s identity and circumstances are no longer predictors of their health outcomes.

The average life expectancy is 79.0 years. In Anne Arundel County, White and female residents have a longer life expectancy than Black and male residents, respectively. Unfortunately, data is not available for life expectancy for Hispanics and Asians.

Life Expectancy by Race and Sex, Anne Arundel County, 2018-2020



Data Source: American Public Health Association, Creating the Healthiest Nation: Advancing Health Equity; Centers for Disease Control and Prevention: Health Equity Page; Maryland Department of Health, Vital Statistics Administration, 2020 Annual Report.

Social Determinants of Health

Differences in the social determinants of health, both those explored in this report and those listed in the table below, are often the result social and economic policies and practices that create barriers to opportunity and continue across generations. They are reflected in differences in length of life; quality of life; rates of disease, disability, and death; severity of disease; and access to treatment.

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education			
Support	Walkability				

Health Outcomes
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

The data in this report focuses on the health outcomes in Anne Arundel County where disparities are most evident. The main drivers of disparities are not biological factors, but rather the social determinants of health. The visual below helps explain how race/ethnicity and geography impact poverty level, income, education and access to food. This, in turn, affects life expectancy.



Social Determinants of Health

The social and environmental circumstances and conditions in which people live, work and play influences their health, well-being, and quality of life. These conditions are called **social determinants of health**, and they include economic factors like income, poverty, employment, educational attainment and language, housing and safe neighborhoods, health care, and access to healthy food. For example, those who have less than a high school diploma are at increased risk for chronic diseases like heart disease and diabetes and are more likely to engage in unhealthy behaviors such as smoking or excessive alcohol use.

2020 Estimates	Anne Arundel	Maryland	United States
Families Below Poverty Level	3.8%	5.9%	9.1%
Individuals Below Poverty Level	5.7%	9.0%	12.8%
Median Household Income	\$103,225	\$87,063	\$64,994
Unemployment Rate	5.2%	5.2%	5.4%
High Housing Costs**	27.2%	30.6%	30.3%
Violent Crime (per 100,000)	311.7	412.2	398.5
High School Graduation	93.2%	90.6%	88.5%
English as Primary Language	88.3%	81.0%	78.5%
Households Receiving SNAP Benefits	6.0%	10.1%	11.4%
Uninsured	4.3%	5.9%	8.7%
Percent of residents reporting routine check up in past year	75.2%	77.2%	76.0%

Numbers may differ from previous reports due to changes in data sources. Sources used in previous years reports are no longer available.

**Percent of people paying 30 percent or more of household income on monthly housing costs.

Data Sources: U.S. Census Bureau: 2020 American Community Survey 5-year Estimates; Maryland Open Data Portal Violent Crime Statistics; Crime Data Explorer, Federal Bureau of Investigation; Centers for Disease Control, 2020 Maryland and United States BRFSS.

Economic Factors

The **poverty level** is a measurement of the minimum amount of annual income needed for individuals and families to pay for essentials, such as housing, food, clothes and transportation. Poverty level takes into account the number of people in a household, their income and the state in which they live and changes every year. Income and employment are highly associated with health outcomes. Those with lower income may not be able to afford healthy choices, health care costs, or health insurance which is often dependent on employment.

From 2018 to 2020, the percent of individuals below the poverty level decreased among all racial/ethnic groups except Black Non-Hispanic (NH) residents. The median household income increased among all racial/ethnic groups. The unemployment percent decreased among all racial/ethnic groups except Asian NH residents.

Percent Below Poverty Level	2018	2019	2020
White, non-Hispanic	5.1%	4.7%	4.6%
Black, non-Hispanic	9.3%	10.0%	9.6%
Hispanic	11.6%	9.7%	11.4%
Asian, non-Hispanic	4.9%	4.2%	3.6%
Median Household Income	2018	2019	2020
White, non-Hispanic	\$102,998	\$105,768	\$108,180
Black, non-Hispanic	\$82,209	\$82,360	\$86,040
Hispanic	\$77,654	\$85,640	\$89,458
Asian, non-Hispanic	\$100,902	\$100,921	\$101,972
Percent Unemployment	2018	2019	2020
White, non-Hispanic	4.2%	3.8%	3.7%
Black, non-Hispanic	6.7%	5.5%	5.9%
Hispanic	5.6%	5.2%	4.1%
Asian, non-Hispanic	3.5%	3.4%	4.2%

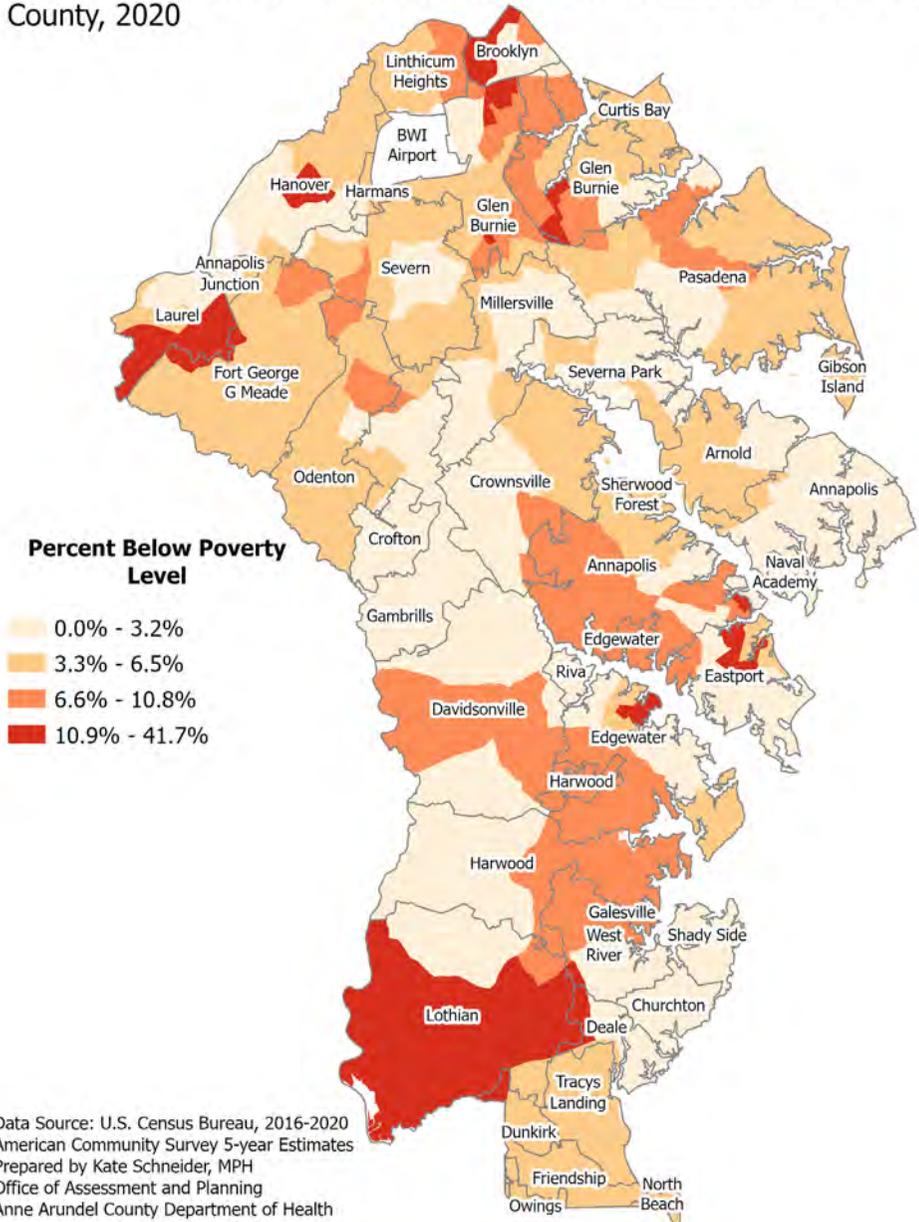
Numbers may differ from previous reports due to changes in data sources. Sources used in previous years reports are no longer available.

Data Sources: U.S. Census Bureau: 2018, 2019, and 2020 American Community Survey 5-year Estimates.

Individuals Below Poverty Level

Areas of higher poverty are shown in darker red. There are pockets of higher poverty areas throughout the county but they are mostly clustered in the north and south of the county.

Percent of Population with Income Below Poverty Level, Anne Arundel County, 2020



Housing

Safe and affordable housing is important for good health. There are four aspects of housing that affect health: stability, quality and safety, affordability, and neighborhood characteristics.

Quality housing, free of contaminants, with access to clean air and water is important for maintaining both mental and physical health. As is living in a neighborhood with access to safe spaces to be outdoors.

Housing costs that are more than 30% of one’s income can lead to housing instability in the form of moving frequently, falling behind in rent or losing housing altogether. The percent of households that spent more than 30% of their income on housing costs decreased from 2018 to 2020.

Additionally, owning a house rather than renting builds wealth, provides long-term stability and can be more affordable over time. The financial stability that can come from home ownership leads to better health outcomes including fewer chronic health conditions and better mental health. In Anne Arundel County in 2020, a much higher proportion of White residents owned their own homes than any other racial/ethnic group.

Monthly Housing Costs Above 30% of Income	2018	2019	2020
Income less than \$50,000	74.0%	73.8%	73.5%
Income more than \$50,000	16.9%	16.6%	16.3%
Percent Owning Own Home	2018	2019	2020
White, non-Hispanic	80.0%	79.8%	80.0%
Black, non-Hispanic	52.2%	52.1%	53.5%
Hispanic	54.7%	53.8%	58.7%
Asian, non-Hispanic	72.8%	71.5%	68.6%

Numbers may differ from previous reports due to changes in data sources. Sources used in previous years reports are no longer available.

Data Sources: US Department of Health and Human Services, Healthy People 2030 Objectives; U.S. Census Bureau: 2018, 2019, and 2020 American Community Survey 5-year Estimates.

Education and Language

Those with more education on average live longer and healthier lives than those with less education. They are more likely to obtain higher paying jobs with insurance, paid leave and retirement plans. They also face less financial and economic stress which can take a toll on physical and mental health. Those with less education often live in lower income neighborhoods which can have less green space, higher crime rates, less access to healthy food, fewer high-quality schools, fewer jobs and higher levels of water and air pollution.

People with limited English proficiency are among the most vulnerable populations. They experience higher rates of medical errors, have worse clinical outcomes and receive lower quality care than those who are English-proficient. In 2020, nearly 12% of Anne Arundel County residents speak a language other than English as their primary language and they report lower English proficiency than those that speak English as their primary language.

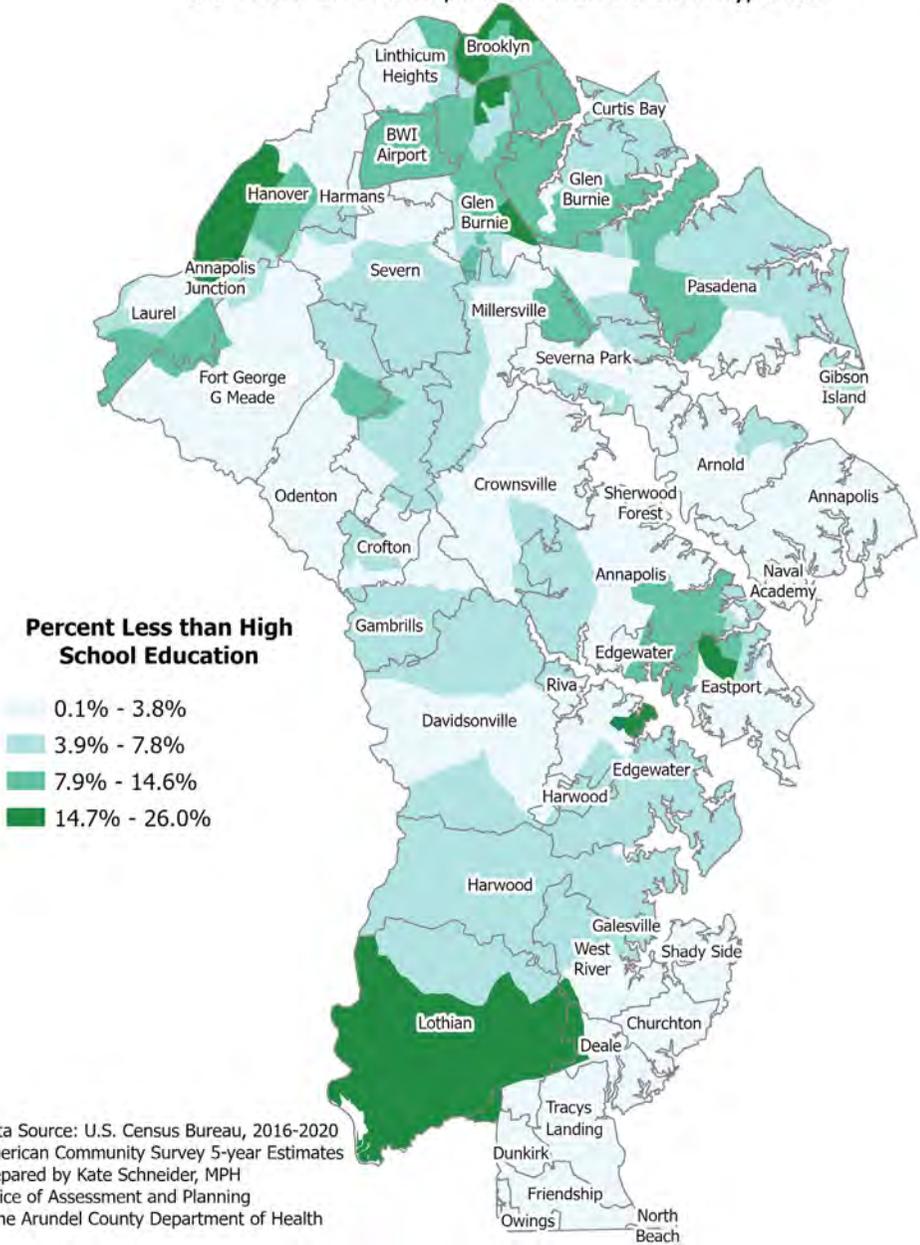
High School Graduate or Higher	2018	2019	2020
White, Non-Hispanic	93.8%	94.2%	94.9%
Black	91.9%	91.8%	92.0%
Hispanic	73.4%	74.6%	79.4%
Asian	88.3%	87.4%	87.8%
Primary Language Spoken at Home	2018	2019	2020
English	88.9%	88.6%	88.3%
Spanish	5.3%	5.5%	5.5%
Other languages	5.7%	5.8%	6.2%

Numbers may differ from previous reports due to changes in data sources. Sources used in previous years reports are no longer available.
 Data Source: Virginia Commonwealth University, Center on Society and Health, Why Education Matters to Health: Exploring the Causes; AMA Journal of Ethics, Language-Based Inequity in Health Care: Who Is the “Poor Historian”?; U.S. Census Bureau: 2018, 2019, and 2020 American Community Survey 5-year Estimates.

Education

Areas with less education are shown in darker green. There are clusters in the north county, Annapolis and Lothian area.

Percent of Population with Less than High School Education, 25 Years and Older, Anne Arundel County, 2020



Access to Healthy Food

Lack of access to healthy food, also called food insecurity, has a direct impact on health. Those who can't afford or have trouble getting quality nutritious food have higher risk of chronic illness such as diabetes, heart disease and obesity. Additionally, children who are food insecure may experience trouble focusing in school which can lead to lower education levels and lower income in the future.

One measure of access to food is the number of households that are receiving supplemental nutrition assistance program benefits (SNAP) or food stamps. The proportion of households receiving benefits has decreased from 2018 to 2020, but Black NH and Hispanic households receive these benefits at more than twice the rate of White NH and Asian NH households.

Additionally, access to food can also be measured by how closely people live to grocery stores and supermarkets and if they have access to transportation to get to the store. Low access is defined as living further than 1 mile to a store without access to a vehicle. Census tracts with low access to food also tend to have residents with lower levels of education, lower incomes and higher unemployment.

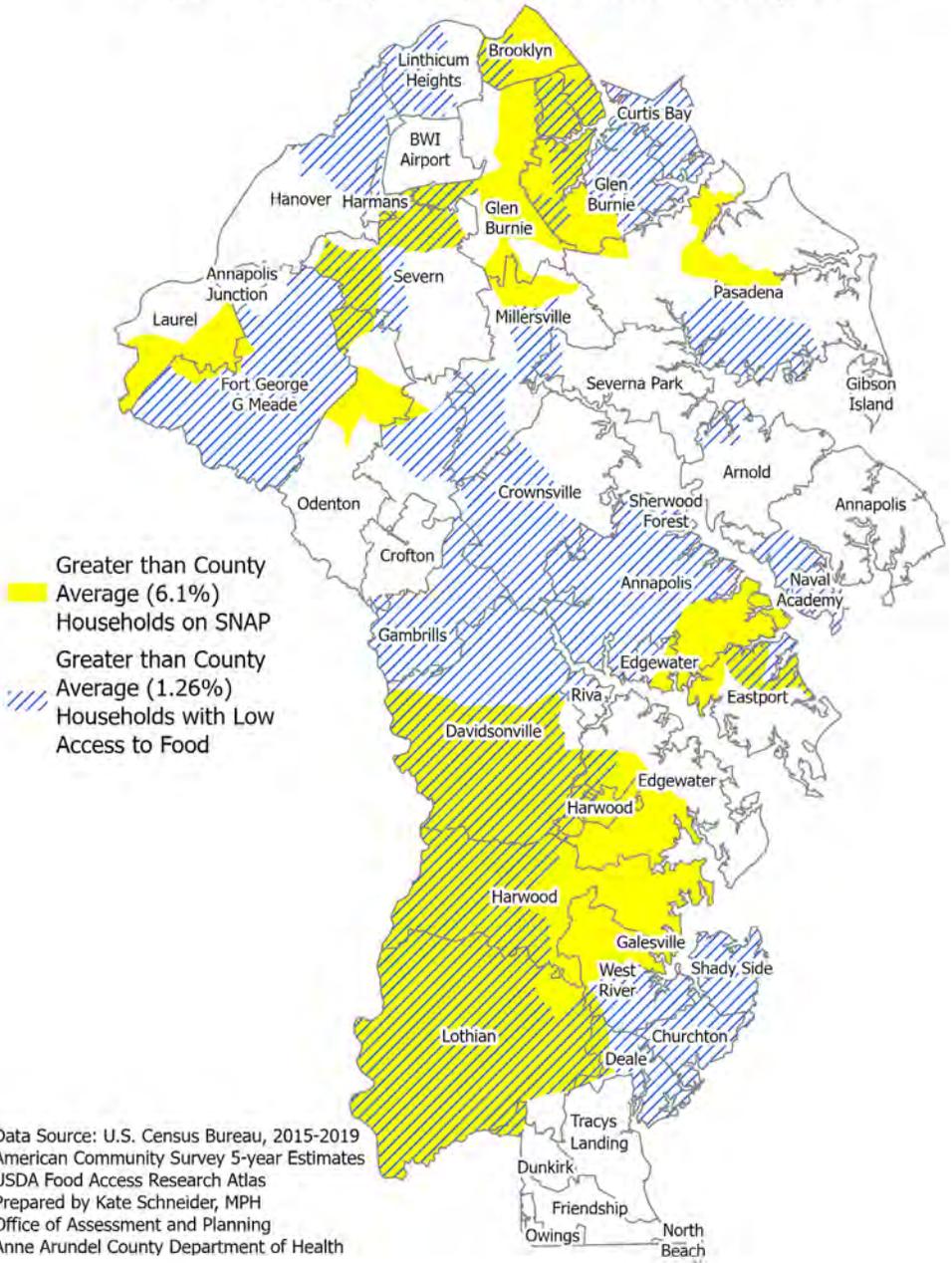
Year	2018	2019	2020
Percent of population who lack adequate access to food	8.0%	7.0%	7.0%

Households on Food Stamps/SNAP Benefits	2018	2019	2020
White, Non-Hispanic	4.6%	4.2%	4.2%
Black, Non-Hispanic	13.8%	13.5%	12.3%
Hispanic	12.5%	10.8%	11.1%
Asian, Non-Hispanic	4.5%	5.2%	5.0%

Numbers may differ from previous reports due to changes in data sources. Sources used in previous years reports are no longer available.
 Data Source: US Department of Health and Human Services, Healthy People 2030 Objectives; U.S. Census Bureau: 2018, 2019, and 2020 American Community Survey 5-year Estimates; USDA, Characteristics and Influential Factors of Food Deserts; Robert Wood Johnson Foundation, 2018, 2019, 2020 County Health Rankings.

Food Environment

Access to Healthy Food, Anne Arundel County, 2019



NOTE: Low access is defined as the percentage of housing units more than 1 mile from nearest supermarket or grocery store without access to vehicle.

Health Insurance and Access

One important measure of access to health care is the ability of people to get the care they need. People without health insurance are more likely to miss preventive care such as vaccinations or cancer screenings. They also delay necessary care which can lead to serious illness or other health problems. An estimated 23,561 Anne Arundel County residents (4.3%) do not have health insurance, with the largest proportion of uninsured residents occurring among the Hispanic population.

Additionally, high deductible insurance plans and steep copays can prevent even those with insurance from affording and accessing care. In 2020, 7.2% of Anne Arundel County adults reported being unable to see a doctor when needed which is down from 9.0% in 2019.

2020 Estimates	Percent of Residents Uninsured	Number of Residents Uninsured
White, Non-Hispanic	3.2%	12,475
Black, Non-Hispanic	4.5%	4,020
Hispanic	18.0%	7,892
Asian, Non-Hispanic	6.9%	1,485
Total	4.3%	23,561

Numbers may differ from previous reports due to changes in data sources. Sources used in previous years reports are no longer available.

Data Sources: U.S. Census Bureau, 2020 American Community Survey 5-year Estimates; CDC, 2020 Maryland BRFSS.

Health Care Access

Adequate access to health care involves not only insurance coverage and the ability to pay for care, but also access to providers. Anne Arundel County’s provider-patient ratios continue to be much higher than those of both Maryland and the United States. High provider-patient ratios are associated with poorer patient health outcomes, as people can wait longer to see their doctors which can delay necessary preventive care and doctors have less time to devote to each patient which can lead to burnout.

In 2020, 75.2% of county residents reported having a routine yearly check up with their doctor, while more than 7% of residents reported that they were unable to see a doctor in the past year because they could not afford the cost. Additionally, 83.1% of residents reported having at least one personal doctor or a doctor they routinely see. Having a relationship with a doctor is important to ensure residents get effective preventive care.

2020 Estimates	Anne Arundel	Maryland
Primary Care Physician Ratio	1,470:1	1,130:1
Mental Health Provider Ratio	490:1	360:1
Dentist Ratio	1,460:1	1,260:1

2020 Estimates	Black, NH	White, NH	Overall
Percent of residents reporting routine check up in past year	78.3%	75.7%	75.2%
Percent of residents unable to see a doctor due to cost	*	6.2%	7.2%
Percent of residents reporting having one or more personal doctor	80.1%	86.7%	83.1%

*Data for Black NH are not shown due to small sample size.

Data Sources: Robert Wood Johnson Foundation, 2022 County Health Rankings; CDC, 2020 Maryland BRFSS; U.S. Census Bureau

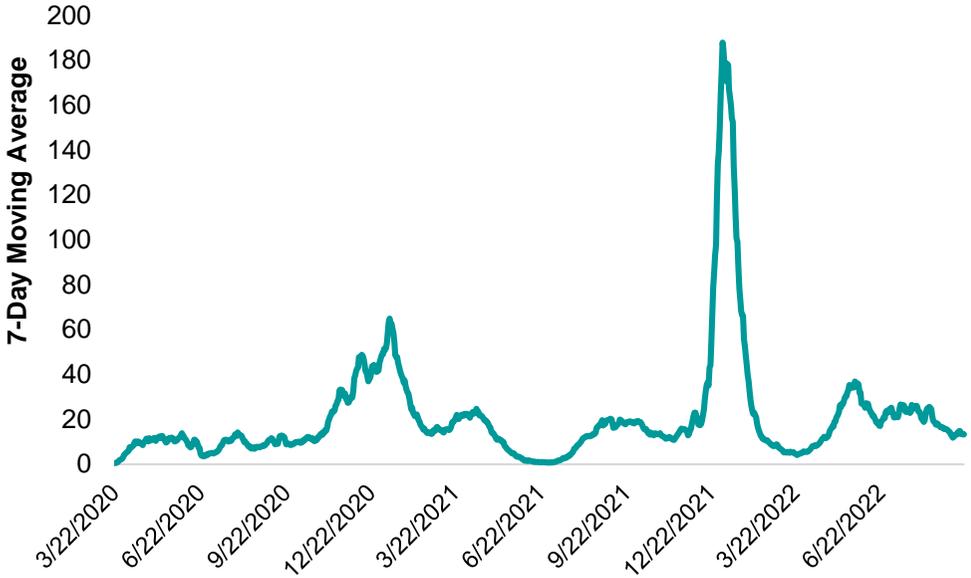
COVID-19



COVID-19 Cases

COVID-19, is a disease caused by the virus SARS-CoV-2. COVID-19 is primarily transmitted person-to-person both through respiratory droplets and aerosolized transmission. While many cases are asymptomatic or have mild symptoms, those with severe disease are at higher risk of serious long-term health outcomes and death. As of September 19, 2022, Anne Arundel County has had 109,535 cases and 1,156 deaths.

**New COVID-19 Cases per 100,000,
Anne Arundel County**



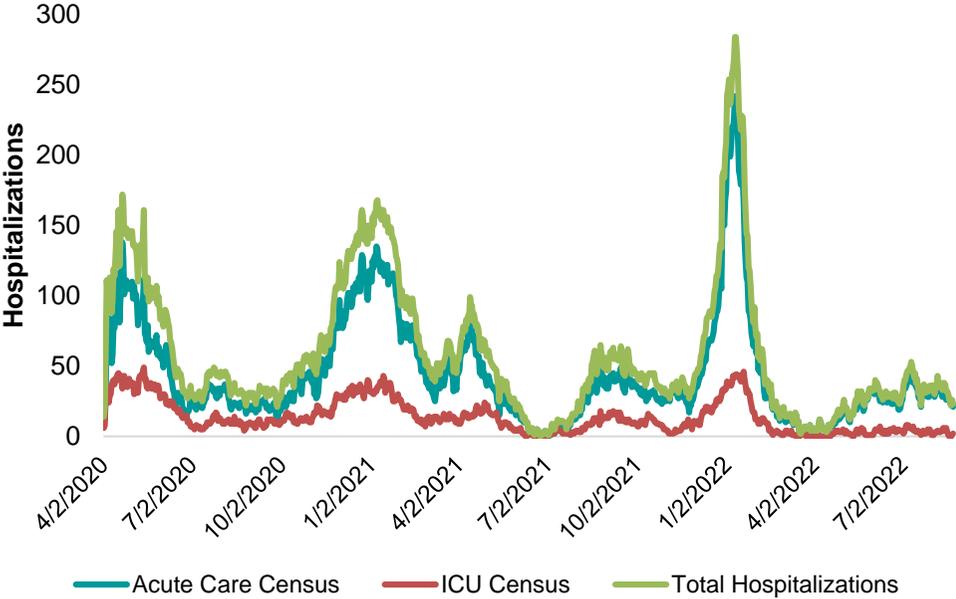
Data through September 19, 2022.

Data Source: Centers for Disease Control and Prevention, Maryland Department of Health, National Electronic Disease Surveillance System (NEDSS)

COVID-19 Hospitalizations

Some individuals with COVID-19 may require hospitalization and if their condition is very severe they could be admitted to the intensive care unit (ICU). Older individuals or those with underlying medical conditions such as diabetes, heart disease, or lung disease are at higher risk for hospitalization than those who are younger or have no underlying medical conditions.

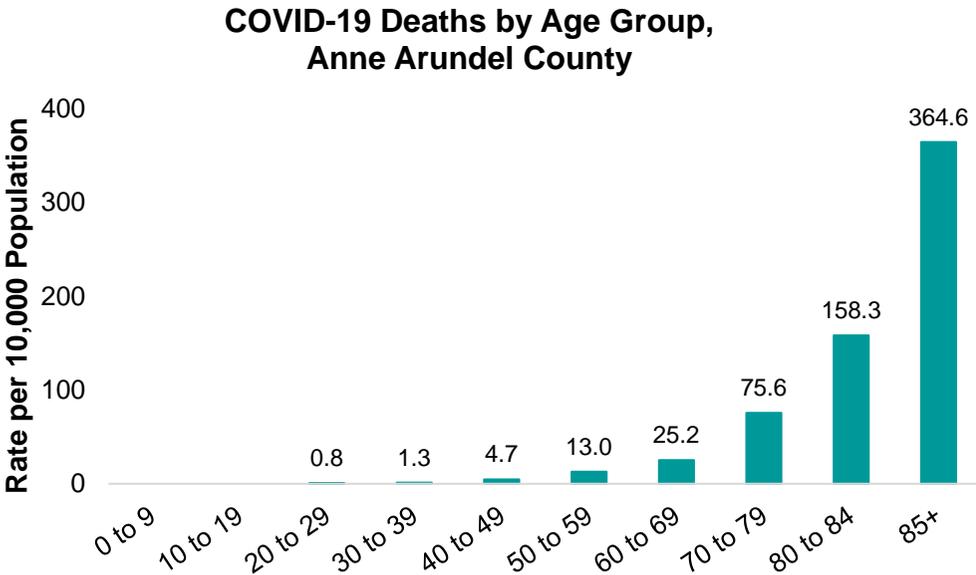
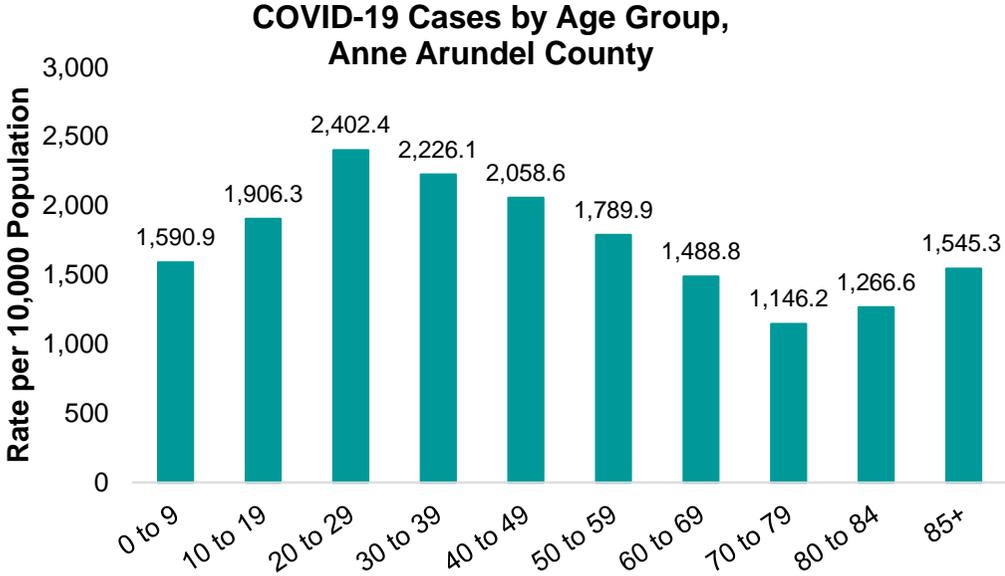
COVID-19 Hospitalizations, Anne Arundel County



Data through September 19, 2022.
Data Source: CRISP Hospital Dashboards

COVID-19 Age Disparities

COVID-19 health disparities exist across different age groups in the County. COVID-19 cases are distributed across all age groups, with the highest case rate seen in the 20 to 29 age group. The rate of death due to COVID-19 increases with age and is highest in the 85+ age group.



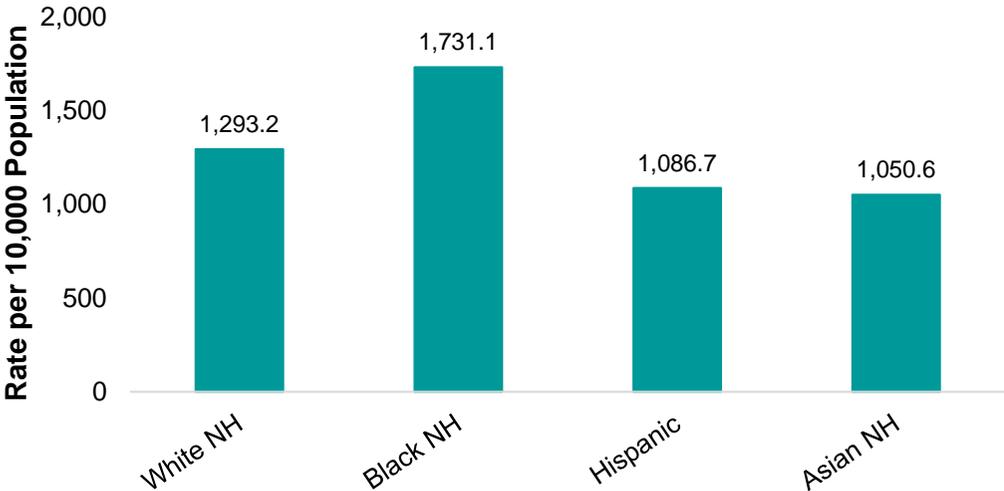
Data through September 19, 2022

Data Source: Maryland Department of Health, National Electronic Disease Surveillance System (NEDSS)

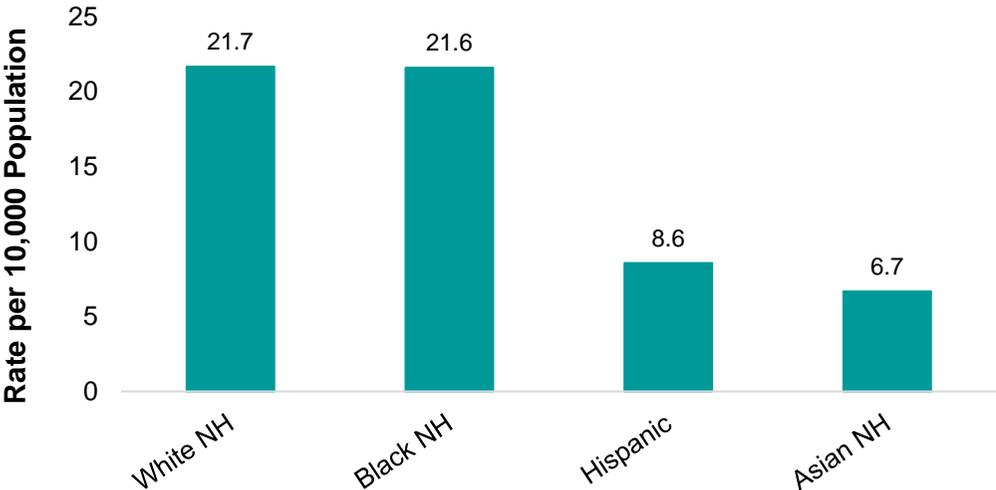
COVID-19 Race/Ethnicity Disparities

COVID-19 health disparities exist across different racial/ethnic groups in the County. Case rates were highest among non-Hispanic Black residents. Death rates were similar in White and Black residents with lower rates of death in Hispanic and Asian residents.

COVID-19 Cases by Race/Ethnicity, Anne Arundel County

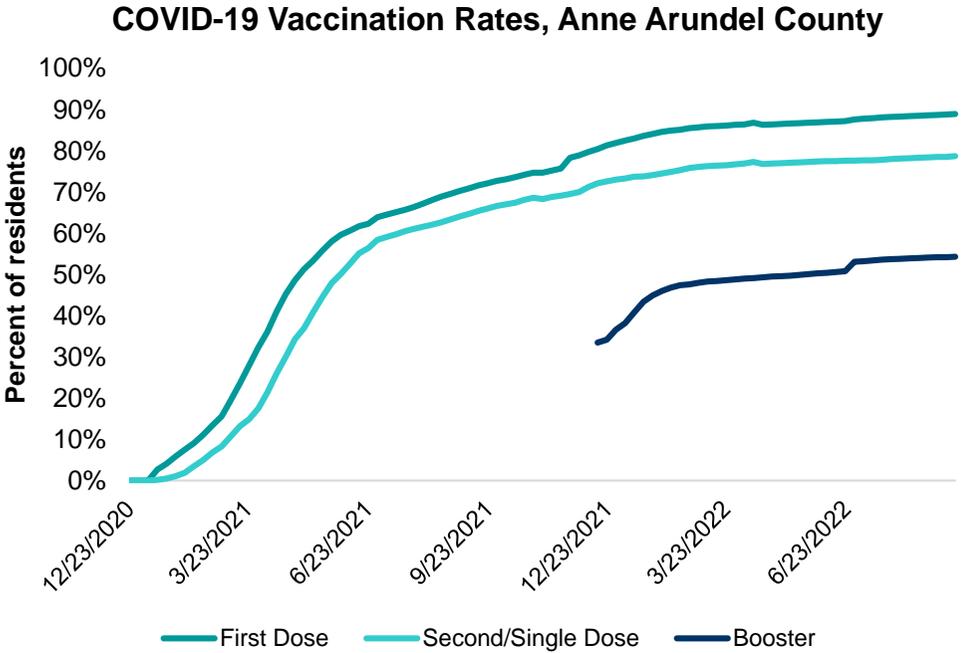


COVID-19 Deaths by Race/Ethnicity, Anne Arundel County



COVID-19 Vaccination Rates

In December 2020, the first vaccines for COVID-19 were approved by the FDA for emergency use. As of September 19, 2022, over 515,000 first doses of COVID-19 vaccines have been administered to county residents, and 79% of county residents have completed the two-dose vaccine series. Additionally, 54% of county residents have received a booster dose of the vaccine.

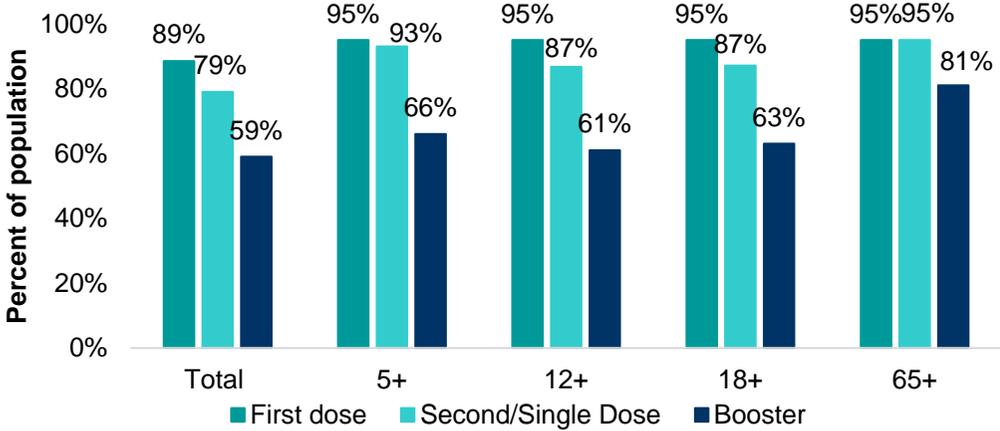


Data through September 19, 2022
Data Source: Centers for Disease Control and Prevention, COVID-19 Vaccinations in the United States.

COVID-19 Vaccination Demographics

Both vaccination completion and booster rates are highest in the 65+ age group, with more than 80% of residents aged 65+ having received a booster dose. The percentage of residents that completed the primary two-dose series is highest among non-Hispanic Asian residents, and is lowest among Hispanic residents.

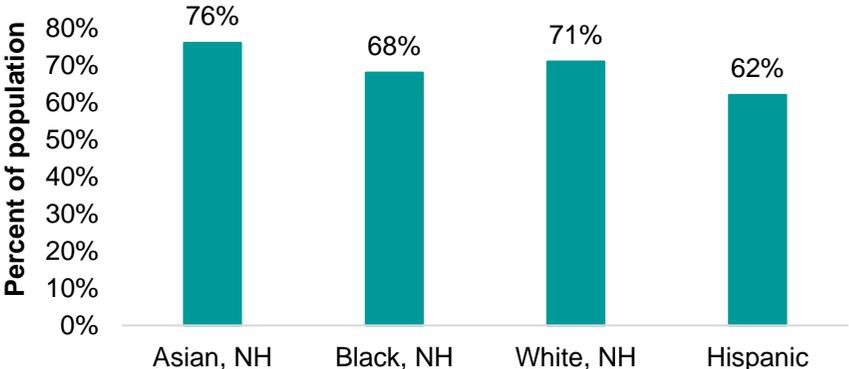
COVID-19 Vaccination Rates by Age, Anne Arundel County



Data through September 19, 2022

Data Source: Centers for Disease Control and Prevention, COVID-19 Vaccinations in the United States.

Completion of Two-Dose Primary COVID-19 Vaccination Series by Race/Ethnicity, Anne Arundel County



Data through September 19, 2022

Data Source: Maryland Department of Health, Immunet Raw Data Files. Data source does not include vaccines administered by the Department of Defense, Veterans Affairs, or Bureau of Prisons Federal Entities.



Gun Violence

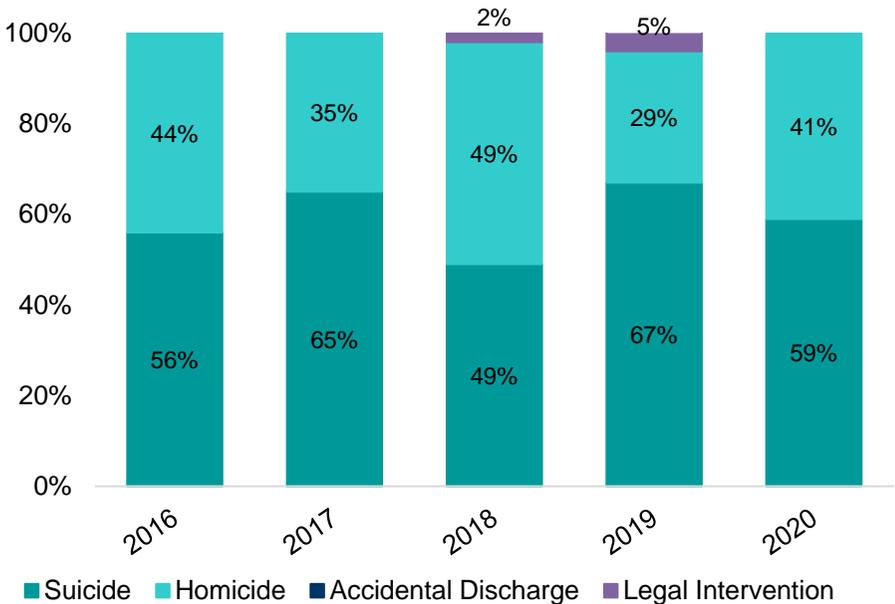
Gun Violence

In 2019, the Anne Arundel County Executive declared gun violence a public health issue and committed to decreasing gun violence in the county.

Gun violence affects all people but it disproportionately affects males, with significant racial disparities. The 2016-2020 homicide rate among Black NH males is 20.3 deaths per 100,000 population, versus only 1.9 deaths per 100,000 population among White NH males. Conversely, the 2016-2020 suicide rate among White NH males is 10.4 deaths per 100,000 population, compared to 3.2 deaths per 100,000 population among Black NH males. This difference points to the need for different strategies for different populations.

Suicides were a majority of the gun deaths in 4 out of the 5 years. Over the past 5 years, suicides comprised 59% of all gun deaths and homicides were 40% of all gun deaths.

Causes of Firearm Deaths by Year, Anne Arundel County



Data Source: Maryland Department of Health, Vital Statistics Administration, Death Files, 2013-2020

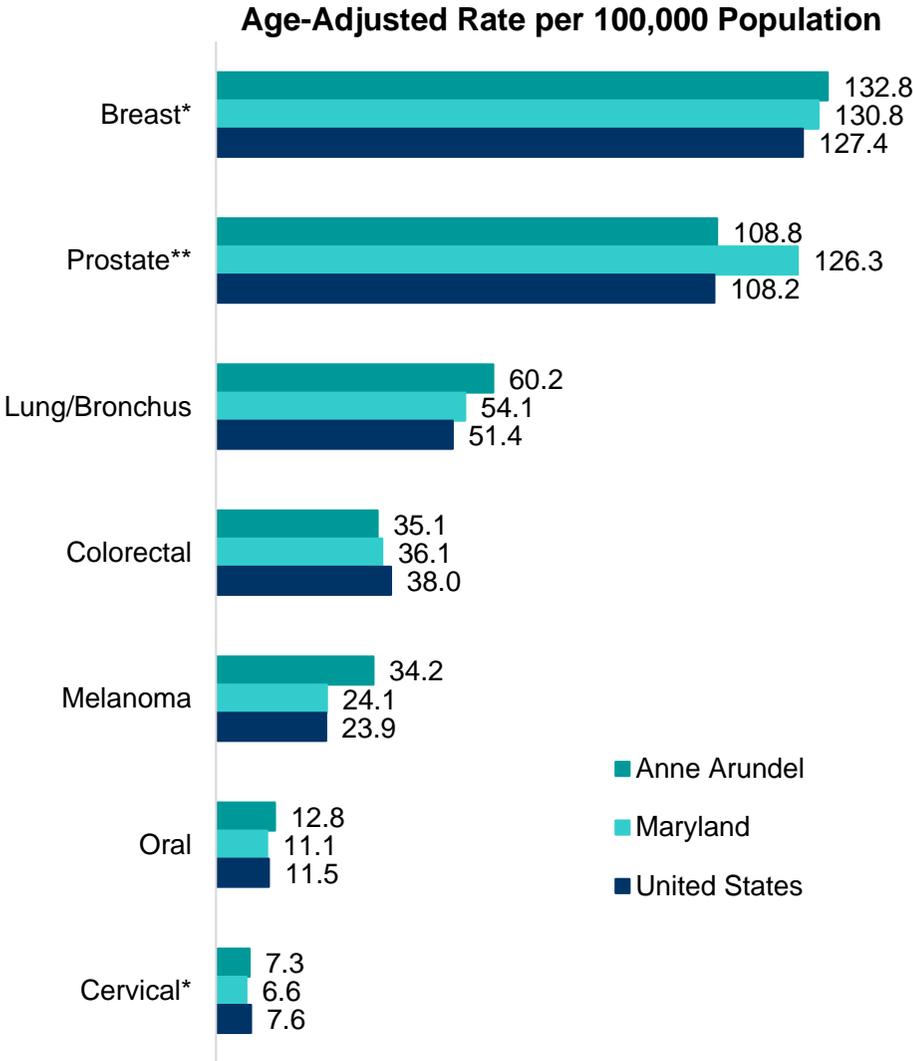


Chronic Diseases

New Cancer Diagnoses

Breast cancer and prostate cancer had the highest incidence rates among Anne Arundel County residents from 2014 to 2018. Cancer incidence rates in Anne Arundel County are very similar to those in Maryland and the United States.

Cancer Incidence Rates, Anne Arundel County, Maryland, and the United States, 2014-2018



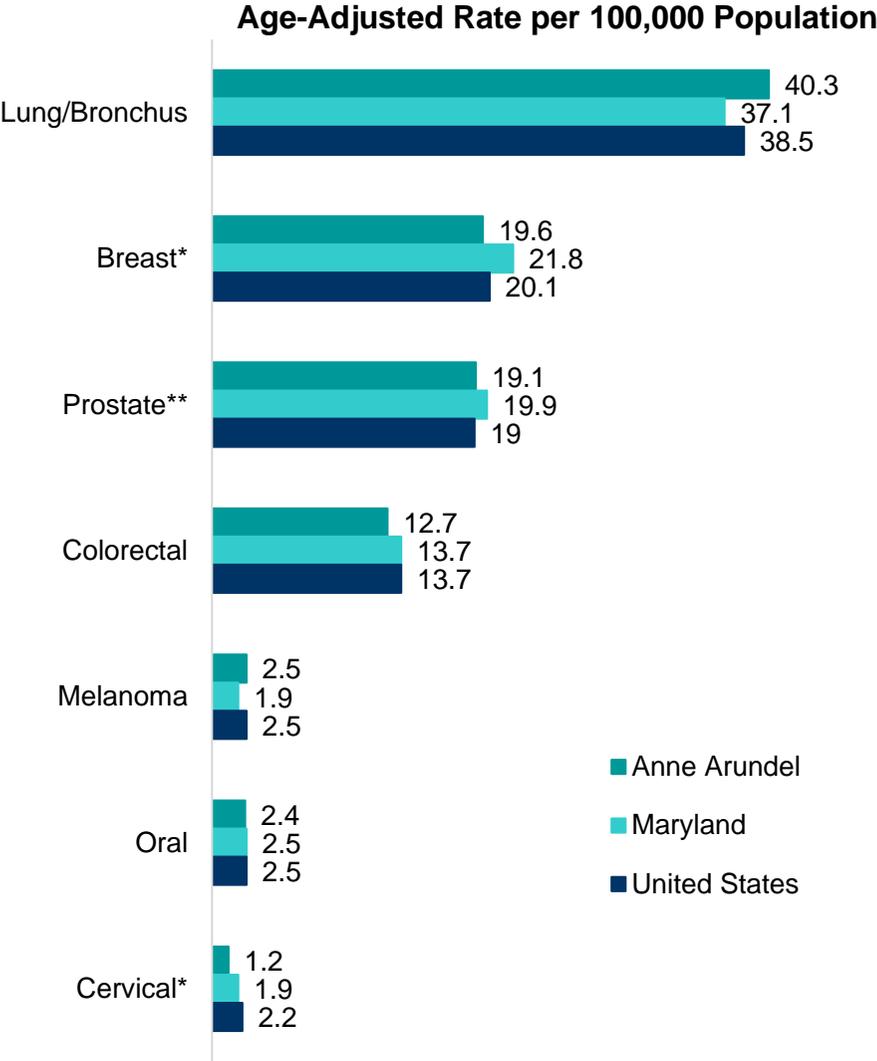
*Denominator includes only biologically female residents.

**Denominator includes only biologically male residents.

Cancer Mortality

Lung and bronchus cancers had the highest mortality rates among Anne Arundel County residents from 2014 to 2018. Cancer mortality rates in Anne Arundel County are very similar to those in Maryland and the United States.

Cancer Mortality Rates, Anne Arundel County, Maryland, and the United States, 2014-2018



*Denominator includes only biologically female residents.

**Denominator includes only biologically male residents.

Diabetes

Diabetes Mellitus Type 2 is a chronic disease that often develops as a result of overweight, obesity and lack of physical activity. Other risk factors include high blood pressure, having low HDL cholesterol or high triglycerides, or being age 45 or older. Diabetes tends to run in families and occurs more often in certain racial/ethnic groups.

In 2020, 8.6% of residents of Anne Arundel County had Type 2 Diabetes. Residents aged 65+ had the highest percentage of diabetes (19.8%) compared to those in younger age groups. A higher proportion of females had diabetes compared to males (9.3% vs 7.9%), and non-Hispanic Black residents had a higher proportion of diabetes compared to non-Hispanic White residents (10% vs 8.1%).

Prevalence of Diabetes by Age Group, Anne Arundel County, 2018-2020			
	2018	2019	2020
45-54	10.1%	9.9%	*
55-64	16.9%	19.7%	16.9%
65+	26.6%	22.1%	19.8%

Prevalence of Diabetes by Sex, Anne Arundel County, 2018-2020			
	2018	2019	2020
Female	10.0%	7.1%	9.3%
Male	9.6%	11.2%	7.9%

Prevalence of Diabetes by Race/Ethnicity, Anne Arundel County, 2018-2020			
	2018	2019	2020
Black, NH	10.8%	12.8%	10.0%
White, NH	9.6%	8.6%	8.1%

NH- non-Hispanic

*Data for ages 45-54 in 2020 is not shown due to small sample size.

Data Source: Maryland Behavioral Risk Factor Surveillance System, 2018-2020

Heart Disease

Heart disease was the leading cause of death in Anne Arundel County in 2020. Residents ages 65+ had the highest rate of deaths due to heart disease, with 1011.4 deaths per 100,000 residents during the three year span from 2018-2020. When comparing racial and ethnic groups, Black non-Hispanic residents had the highest rate of death due to heart disease, with 194.8 deaths per 100,000 residents during the same three-year span. Additionally, hospitalizations due to heart disease among Medicaid recipients ages 65+ were highest among Black residents.

	2016-2018	2017-2019	2018-2020
Heart Disease Death Rate per 100,000 Residents by Age Group, Anne Arundel County			
Ages 35+	306.5	305.7	304.6
Ages 65+	1015.0	1024.5	1011.4
All Ages	158.6	158.0	157.4
Heart Disease Death Rate per 100,000 Residents by Race/Ethnicity, Anne Arundel County			
White, NH	161.3	159.2	157.5
Black, NH	169.4	178.4	194.8
Hispanic	94.7	95.6	95.3

	2016-2018	2017-2019
Heart Disease Hospitalization Rate per 1,000 Medicare Beneficiaries Age 65+ by Race/Ethnicity, Anne Arundel County		
White	39.5	37.6
Black	47.5	48.5
Hispanic	17.3	17.0

NH- non-Hispanic

Data Source: Centers for Disease Control and Prevention, Interactive Atlas of Heart Disease and Stroke.



Communicable Diseases

Infectious Disease Reporting

Public health surveillance of these infectious diseases allows the Department of Health to monitor trends in disease, identify populations or geographic areas of high risk, allocate resources, develop policies, formulate and assess the effectiveness of control and prevention measures, and provide early warning of possible disease outbreaks.

Number of Selected Reportable Diseases In Anne Arundel County						
	2016	2017	2018	2019	2020	5-Year Mean
Campylobacter	81	96	78	110	70	87
Salmonella	105	120	130	126	96	115
Vibrio	17	13	11	18	20	16
Legionellosis	6	17	42	28	16	22
<i>M. tuberculosis</i>	10	11	7	12	7	9
Hepatitis B**	95	99	107	98	74	95
Hepatitis C**	619	549	514	460	260	480
Meningitis, meningococcal	1	0	0	0	0	<1
Pertussis	28	9	15	2	2	11
Chlamydia	1,973	1,636	1,819	1,686	1,477	1,718
Gonorrhea	546	342	484	652	597	524
Syphilis***	41	22	21	26	52	32
Lyme Disease	173	126	93	108	70	114
Animal Rabies	15	30	11	18	14	18
Outbreaks: Gastrointestinal	5	10	11	8	2	7
Outbreaks: Respiratory****	8	8	17	11	6	10

**Includes both acute and chronic cases

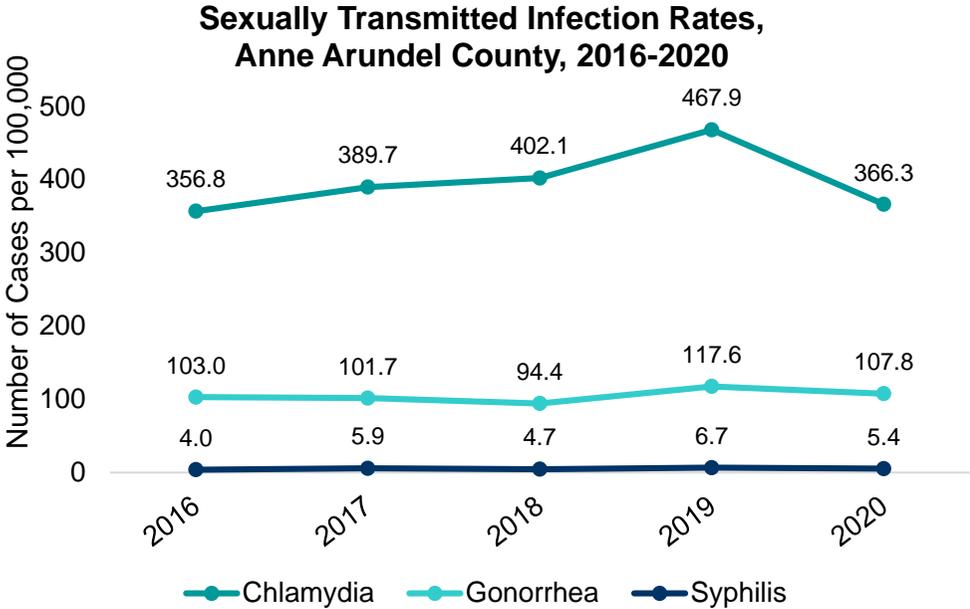
***Includes primary and secondary

****Respiratory Outbreaks include Pneumonia and Influenza/Influenza-like Illness

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

Sexually Transmitted Infections

Over the past five years, there has been an increase in sexually transmitted infections including chlamydia, gonorrhea, primary syphilis, and secondary syphilis cases in Anne Arundel County, with Maryland and the United States following a similar trend.



Data Source: Maryland Department of Health, Center for STI Prevention.

Human Immunodeficiency Virus (HIV)

As of December 31, 2020, there were 1,439 people living with diagnosed HIV in Anne Arundel County. The rate of HIV in non-Hispanic Blacks is almost triple that of Hispanics and almost nine times that of non-Hispanic Whites. Out of the nearly 800 people in Anne Arundel County living with HIV, nearly 60% of them are non-Hispanic Black.

New HIV Cases in Anne Arundel County, 2016-2020

	2016	2017	2018	2019	2020
Number of HIV Cases	53	42	41	47	36

HIV Rates per 100,000 by Race/Ethnicity, Anne Arundel County, 2020

	Number of Cases	Rate per 100,000	Percent of Cases
Black, NH	834	959.9	58.0%
White, NH	368	111.0	25.6%
Hispanic	135	370.7	9.4%



Maternal and
Child Health

Prenatal Care

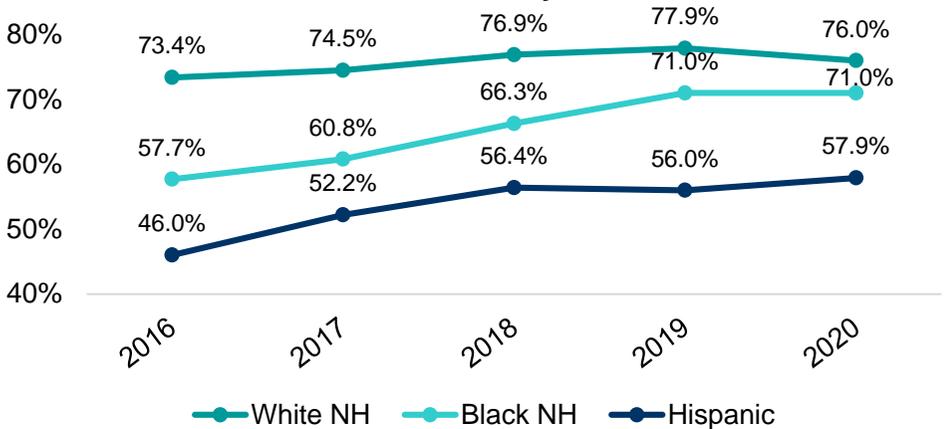
Prenatal care is essential for healthy birth outcomes for both mothers and babies. Women who get regular prenatal care have a reduced risk of pregnancy complications, low birth weight infant death.

As of 2020, almost 72% of pregnant women received prenatal care in the first trimester (first 12 weeks); down from almost 73% in 2019. The percent of non-Hispanic White residents who received first trimester prenatal care decreased.

Percent of Women Receiving First Trimester Prenatal Care

	2016	2017	2018	2019	2020
Anne Arundel	66.1%	68.1%	71.4%	72.8%	71.8%
Maryland	67.8%	66.3%	70.0%	69.9%	70.2%

Percent of Women Receiving First Trimester Prenatal Care by Race/Ethnicity, Anne Arundel County, 2016-2020



*NH - Non-Hispanic

Data Source: Maryland Department of Health, Vital Statistics Administration, 2016-2020 Annual Reports;

U.S. Department of Health and Human Services, Healthy People 2020.

Maternal and Child Health

In 2020, there were 6,827 live births in Anne Arundel County. Of those births, 3,917 were non-Hispanic White, 1,451 were non-Hispanic Black and 1,058 were Hispanic. Low birth weight and preterm birth can increase the risk of infant death, breathing problems, obesity and other diseases during childhood. Black women were much more likely to have low birth weight or preterm infants than White or Hispanic women.

The percent of low birth weight and preterm births increased in Hispanic and non-Hispanic Black infants in Anne Arundel County from 2019 to 2020.

	2016	2017	2018	2019	2020
Percent of Low Birth Weight Infants (<2,500 grams or about 5.5 lbs)					
Anne Arundel	7.4%	7.8%	7.7%	7.8%	7.7%
Maryland	8.6%	8.9%	8.9%	8.7%	8.5%
United States	8.2%	8.3%	8.3%	8.3%	8.2%
Percent of Low Birth Weight Infants, Anne Arundel County by Race/Ethnicity					
White, NH	6.2%	6.5%	6.7%	6.9%	5.8%
Black, NH	11.7%	12.3%	11.6%	11.3%	12.1%
Hispanic	6.2%	7.2%	6.7%	6.6%	8.0%
Percent of Women Having Preterm Births (<37 weeks of gestation)					
Anne Arundel	8.7%	9.7%	10.5%	9.9%	10.0%
Maryland	10.1%	10.5%	10.2%	10.3%	10.1%
United States	9.8%	9.9%	10.0%	10.2%	10.1%
Percent of Preterm Infants, Anne Arundel County by Race/Ethnicity					
White, NH	7.8%	9.3%	10.0%	9.5%	9.0%
Black, NH	11.7%	12.1%	12.8%	10.8%	12.2%
Hispanic	8.0%	7.7%	10.1%	10.6%	11.1%

Data Source: Maryland Department of Health, Vital Statistics Administration, 2016-2020 Annual Reports; National Vital Statistics Report: Births: Final Data for 2020. U.S. Department of Health and Human Services, Healthy People 2020.

Infant Mortality

Infant mortality measures deaths of babies during the first year of life. In 2020, there were 31 infant deaths in Anne Arundel County, with an overall infant mortality rate of 4.5 deaths per 1,000 live births. This is an increase from the rate of 4.2 per 1,000 live births in 2019.

From 2019 to 2020, the infant mortality rate in non-Hispanic Black infants decreased from 8.3 deaths to 5.5 deaths per 1,000 live births. As mortality rates are based on small numbers of deaths, year to year variability is not uncommon.

	2016	2017	2018	2019	2020
Infant Mortality – All Races per 1,000 Live Births					
Anne Arundel	5.6	4.1	3.2	4.2	4.5
Maryland	6.5	6.5	6.1	5.9	5.7
United States*	5.9	5.8	5.9	5.7	5.6
Infant Mortality – Non-Hispanic White per 1,000 Live Births					
Anne Arundel	5.3	2.8	3.2	2.3	3.3
Maryland	4.3	4.0	4.1	4.1	3.3
United States	4.8	4.9	4.9	4.6	4.5
Infant Mortality – Non-Hispanic Black per 1,000 Live Births					
Anne Arundel	10.1	7.9	4.0	8.3	5.5
Maryland	10.5	11.2	10.2	9.3	9.9
United States	11.8	11.4	10.8	10.8	10.6
Infant Mortality – Hispanic per 1,000 Live Births					
Anne Arundel	**	5.3	**	6.5	5.7
Maryland	5.4	4.7	3.8	5.1	4.6
United States	5.2	5.0	5.0	4.9	5.0

*US Data is one year behind, so 2020 data is from 2019

**Rate not calculated, fewer than 5 deaths.

Source: Maryland Department of Health, Vital Statistics Administration, 2016-2020 Annual Reports; National Center for Health Statistics, Linked Birth/Infant Deaths of CDC WONDER Online Database, accessed 6/8/2022.

Teen Pregnancy

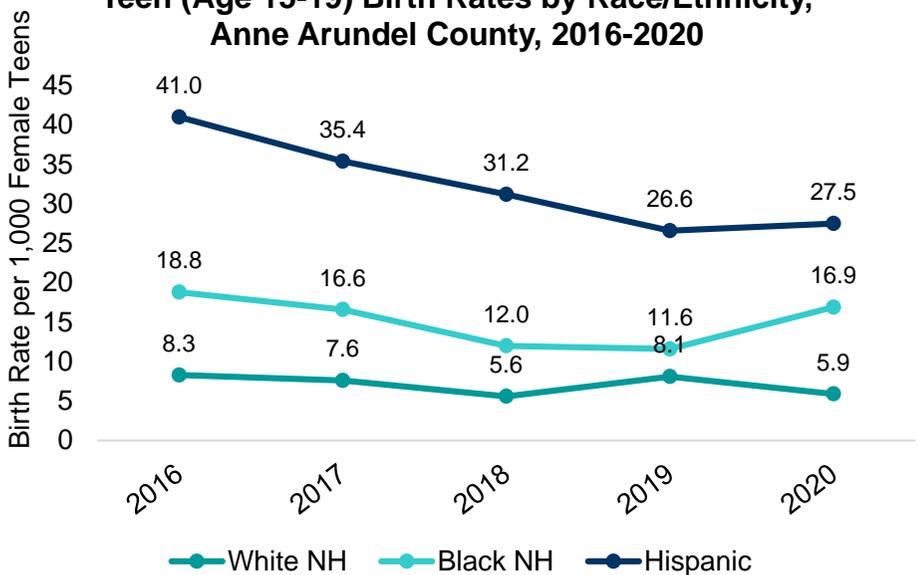
Pregnant teens are at higher risk for complications such as low birth weight, preterm birth, high blood pressure, and postpartum depression. Teenage pregnancy rates have declined over the past five years. In 2020, there were 10.6 births per every 1,000 females aged 15-19 years in Anne Arundel County; lower than both the state and national averages.

Although the teen birth rate has declined overall since 2014, it is much higher among Hispanic teens than Black and White teens. In fact, the birth rate in Hispanic teens is more than four times that of non-Hispanic White teens and 1.6 times that of non-Hispanic Black teens.

Births to Women Ages 15-19 Years Old per 1,000, Anne Arundel County, 2016-2020

	2016	2017	2018	2019	2020
Anne Arundel	13.4	12.1	9.4	11.2	10.6
Maryland	15.9	14.2	14.1	13.9	13.0
United States	20.3	18.8	17.4	16.0	15.4

Teen (Age 15-19) Birth Rates by Race/Ethnicity, Anne Arundel County, 2016-2020



*NH - Non-Hispanic

Data Source: Maryland Department of Health, Vital Statistics Administration, 2016-2020 Annual Reports.



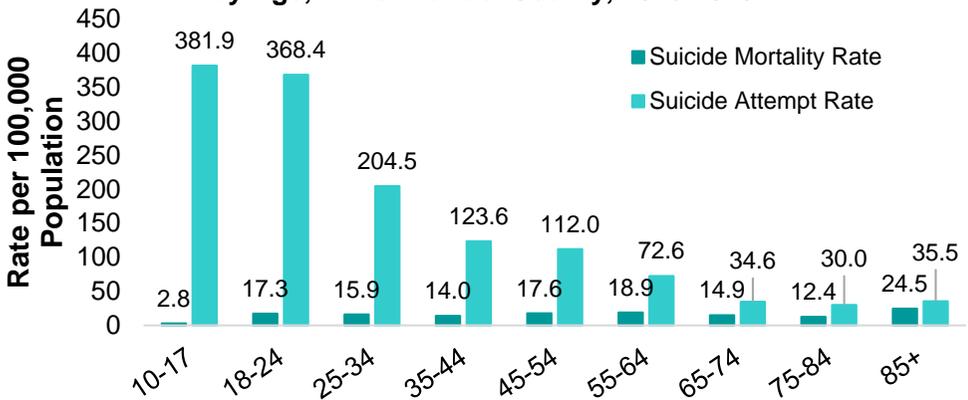
Suicide

Suicide

In 2017 the number of deaths by suicide reached the highest level ever. Encouragingly, 2020 was the third year in a row with a decrease in suicides. Those under the age of 34 attempt suicide at the highest rates while those above 85+ have the highest death rate. White males make up the majority of suicide deaths in Anne Arundel County followed by White females and Black males.

	2016	2017	2018	2019	2020
Number of Deaths	53	95	79	75	70
Number of Suicide Attempts	862	902	909	838	649

Suicide Mortality and Attempt Rate per 100,000 Population by Age, Anne Arundel County, 2016-2020



Sex/Race Category	Suicides	Rate per 100,000 population
White Male	244 (65.6%)	24.7
White Female	78 (21.0%)	7.8
Black Male	24 (6.5%)	9.5
Black Female	Suppressed	Suppressed
Hispanic Male	13 (3.5%)	10.9
Hispanic Female	Suppressed	Suppressed
Other	8 (2.2%)	5.6
Total Suicide Deaths (2016-2020)	372	12.9

Data Source: Maryland HSCRC Outpatient and Inpatient Files, 2016-2020; Maryland Department of Health, Vital Statistics Administration, Death Files, 2016-2020.



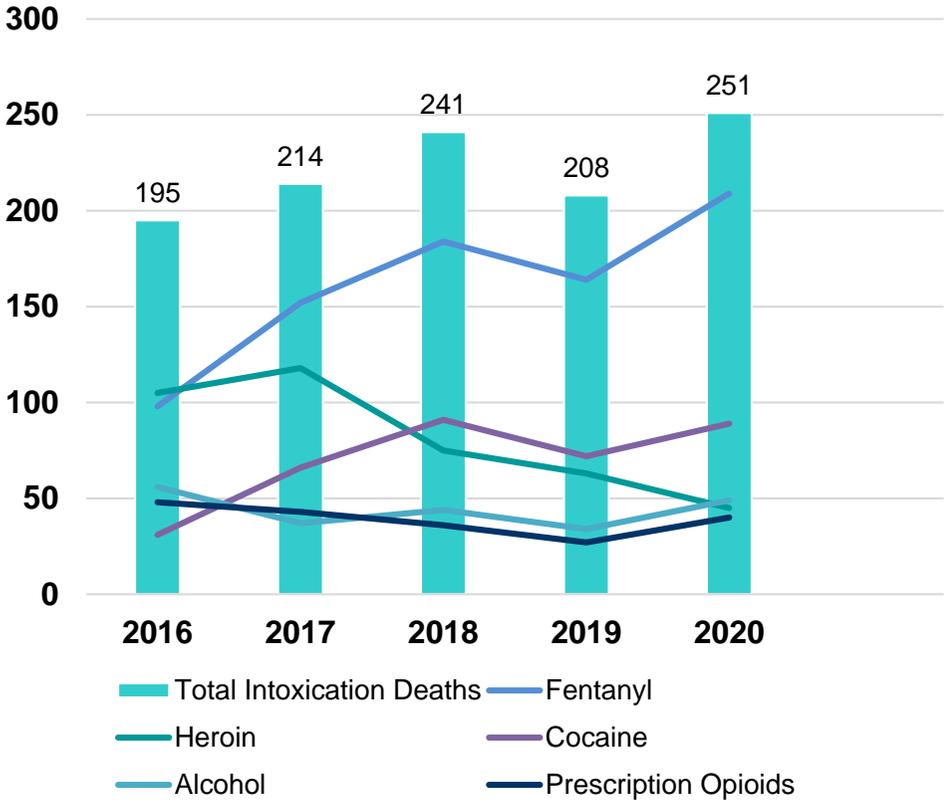
Alcohol, Tobacco, and Substance Use

Opioid and Other Drug Use

In 2020, there were 251 intoxication deaths in Anne Arundel County, a 29% increase from 2019. Fentanyl was involved in 83% of all intoxication deaths in 2020. Deaths involving fentanyl have increased 113% since 2016, and deaths involving cocaine have increased 187 percent. Deaths involving heroin, alcohol, and prescription opioids have all decreased since 2016.

Intoxication deaths involving more than one substance were common; 91% of cocaine-related deaths and 94% of the heroin-related deaths in Maryland also involved fentanyl.

Drug and Alcohol Related Intoxication Deaths, Anne Arundel County, 2016-2020



Data Note: People may have more than one substance in their system at the time of death. Other substances include Methadone (89 deaths), Oxycodone (78 deaths), Benzodiazepines (73 deaths), Phencyclidine (37 deaths), and Methamphetamine (7 deaths).
 Data Source: Unintentional Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2020, Maryland Vital Statistics Administration, Maryland Department of Health.

Tobacco Use

Tobacco use is the leading cause of preventable disease, disability and death in the United States. Tobacco increases the risk of cancer, heart disease, stroke, respiratory diseases and other health effects like Type 2 Diabetes and cataracts.

In 2020, 11% of Anne Arundel County residents reported using cigarettes. From 2016 to 2020, cigarette use in Anne Arundel County residents decreased 39% among women, and 7% among men.

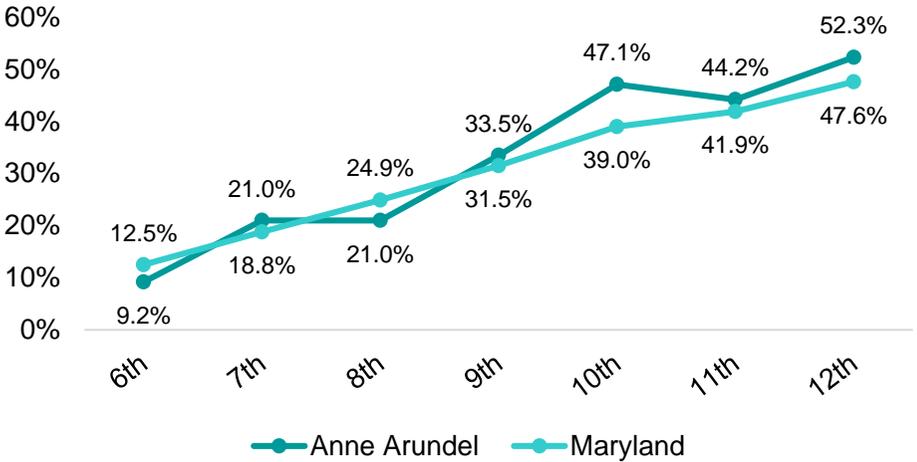
	2016	2017	2018	2019	2020
Current Cigarette Use, Women					
Anne Arundel	14.0%	17.0%	11.2%	16.2%	8.5%
Maryland	11.9%	11.9%	11.3%	11.3%	8.8%
Current Cigarette Use, Men					
Anne Arundel	14.5%	17.3%	13.9%	15.9%	13.5%
Maryland	15.6%	16.0%	14.0%	14.2%	13.2%

Electronic Cigarette Use

Electronic cigarettes or E-cigarettes are a type of Electronic Smoking Device (ESD). Teen ESD users are more likely to start smoking combustible tobacco products (e.g., cigarettes, cigars, hookahs) than teens who don't use ESDs.

In 2019, **52.3%** of county 12th graders have ever used an ESD and female students report higher rates of having ever used an ESD than male students in every grade level but 9th grade.

Percentage of Students Who Reported Ever Using an ESD by Grade, Anne Arundel County vs. Maryland, 2019



Data Source: 2018-2019 Maryland Youth Risk Behavior Survey, MDQuit.org

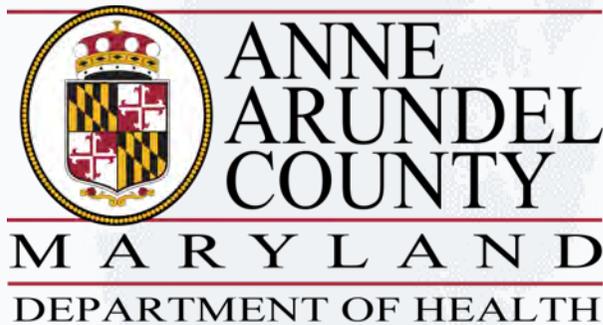
Contact Information

Compiled in 2022 by:

Office of Assessment of Planning
3 Harry S. Truman Parkway,
MS 3101 HD#17
Annapolis, MD 21401
410-222-4224
www.aahealth.org

Technical and editorial assistance provided by:

The Office of Communications



The services and facilities of the Anne Arundel County Department of Health are available to all without regard to race, color, religion, political affiliation or opinion, national origin, age, gender identity, sexual orientation or disability.