COMMUNITY HEALTH ASSESSMENT

Henrico County, Virginia | 2017

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Message From the Henrico Health District Director

Thank you for reading the Henrico County 2017 Community Health Status Assessment (CHSA).

The publication of the CHSA marks the first official step toward a comprehensive Community Health Assessment conducted specific to Henrico County. The CHSA is one of four assessments that will comprise the Henrico County Community Health Assessment and will be the guide we use to implement a data and assessment driven Community Health Improvement Plan. The CHSA is full of interesting facts about Henrico County and our health status and provides context that helps bring more meaning to the numbers. We want this CHSA to facilitate thought, dialogue, and ultimately informed and coordinated action.

The CHSA was started from scratch and represents an enormous amount of work. It could not have been accomplished without the tremendous support of our community and dedicated colleagues as well as staff at the Henrico County Health Department. I would like to thank Paige Phillips Wesley, Community Health Assessment Planner, who took this project from the ground up and beyond and is the primary author of this report. Finally, we welcome and thank Henrico's first Population Health Manager, Deanna Krautner; her experience and guidance have already enriched our Community Health Assessment process and will move us forward through this exciting time.

A Community Health Assessment is a dynamic document and is not intended to sit on a shelf. Community Health Assessment is an iterative process that never ends. With the release of Henrico's first CHSA, we are committing to engaging with our community partners in an ongoing process of assessing and addressing health challenges and developing thoughtful and innovative solutions and plans to improve the health of all who reside in Henrico County.

Please enjoy our 2017 Community Health Status Assessment report.

Be Well,
Susan

Susan Fischer Davis, M.D.
Director, Henrico County Health District

Henrico County 2017 Community Health Assessment

Executive Summary

Public health is the practice of promoting health, preventing disease, and prolonging life in communities through communication and collaboration. Community Health Assessment (CHA), along with the Community Health Improvement Planning, is a powerful tool to collect data, customize information, and provide practical considerations for developing improvement plans toaddress health issues in a community.

The 2017 Henrico Health District CHA represents the collaborative efforts of representatives from the community in health, human services, mental health, education, public safety, private sector agencies and residents to identify health needs and will support the work to collectively determine strategies to address identified priority areas.

Consistent with the call to action of Virginia's Plan for Well-Being, these collaborative efforts happening in Henrico will help create and sustain conditions that support health and well-being. In August of 2016 a Community Health Advisory Team (CHAT) was brought together to plan for the facilitation of a Community Health Assessment. In October of 2016 the CHAT agreed to facilitate the National Association of County and City Health Officials' Mobilizing for Action through Planning and Partnerships (MAPP) framework. The four assessments in the process were completed from December 2016 through August 2017. The community health vision for Henrico is Healthy choices are embraced, promoted and prioritized for everyone in Henrico and the values include Collaboration. Inclusivity, Creativity, and Diversity.

This Community Health Assessment is a picture of Henrico County's current health and is meant to be a tool for stakeholders – health workers, community agencies, residents, and policy-makers. The CHA was created using both primary and secondary data sources. Primary qualitative data was obtained from community residents and stakeholders through surveys and documented group dialogues. Primary and secondary quantitative data for this report were collected from local, state, and national agencies and various surveillance systems. Major data sources include the Virginia Department of Health, Virginia Department of Education, Henrico County Police Department, Henrico Fire & Emergency Management Services, United States Census Bureau, and the United States Department of Health and Human Services.

Qualitative and quantitative analysis from the MAPP process yielded the following insights about Henrico's health (more detailed findings and supporting data can be found in the report):

Key Findings

1. Henrico's changing population creates challenges and opportunities for our health system.

Findings:
- Between 2010 and 2016 Henrico County experienced a 6.1% increase in population.
- Henrico County is an aging population. The number of people ages 65 and higher had the largest increase from 2010-2016.
- The number of refugee patients seen at the Henrico County Health Department grew 368% between 2012 and 2016.
- As of 2014, Henrico had the largest percent of total population, 14.5%, in the Central VA area speaking languages other than English.

2. Henrico experiences higher rates of poor birth outcomes than the state and surrounding counties.

Findings:
- While Henrico experiences better prenatal care than the state of Virginia the rate of late or no prenatal care has been trending upwards since 2011.
- Henrico experiences a higher rate of preterm and low birth weight babies than the state.
- In 2015 Henrico experienced its highest in Infant mortality rate between the years 2011 and 2015.
- While black infants experience higher mortality rates Henrico also has higher rates of unmarried black women giving birth.

3. Obesity, inactivity, and unhealthy food options increase the burden of chronic disease on Henrico residents.

Findings:
- Chronic diseases such as cancer, heart Disease, stroke and lower respiratory disease are the leading causes of death in Henrico.
- Residents rank obesity and good nutrition in their top areas of concern.
- Henrico adults over the age of 20 report no leisure-time physical activity at a higher rate than
- the state.
- Henrico County has less access to healthy foods compared to the state.

- Henrico experiences higher rates than the state for food insecure households.
- 68% of Henrico residents report are either overweight or obese.
- In Henrico County a higher percentage of residents' commute alone to work than the state percentage.
- Residents expressed interest in more public transportation and safe areas to walk or bike.

4. Mental Health issues impact families, friends, and the broader community.

Findings:
- Residents rank mental health issues such as depression, anxiety, and stress as one of their top areas of concern.
- Mental health concerns were noted as a force of change impacting health in Henrico.

5. Substance abuse

Findings:
- Residents seeking treatment through county services for opioid addiction has nearly tripled in the five-year time span.
- The number of drug overdose related deaths in Henrico County increased by more than 254% from 2006 to 2015.
- Opioid related deaths, specifically from heroin and/or fentanyl more than tripled from 2011 to 2015.
- Henrico exceeds the state rate for overdose deaths.

6. Opportunities for partnership and collaboration could impact local health outcomes.

Findings:
- Henrico's local public health system assessment revealed the lowest scoring essential service to be mobilizing partnerships.
- Documented concerns over access to timely data.
- The assessment also revealed opportunities for improved communication.
- There is documented interest in more varied cross-sector collaboration.
- Stakeholders expressed interest in collaboration to combine assessment and planning
- efforts.

7. Access to health services is a key topic that continues to be discussed in Henrico.

Findings:
- Average health care costs are higher in Henrico County than the average cost in the state.

- Stakeholders express concern over resident's lack of a medical home and noted challenges with referring for care.
- Stakeholders note increasing access to mental health services as one of their most important issues to improve health in Henrico.
- Henrico is and has been experiencing increased Fire/EMS Incident calls.

8. Henrico experiences health disparities.

Findings:
- Infant mortality disparities exist between races, with other races and blacks experiencing double and triple the infant mortality rate of whites.
- Cancer disparities exist between races with blacks experiencing a higher cancer rate for th all cancer rate and lung and prostate cancers.
- Life expectancy inequities are noted across Henrico. Life expectancy is lowest in the central part of the county and just east of Richmond City.
- Blacks experience more preventable hospital stays than whites.
- Males die of cancer at a much higher rate than females.web links, presentations to community groups, community and organizational newsletters, and personal invitations.

Objective, Purpose, and Methodology

The objective of this assessment is to establish a collective vision of where our county stands in order to create a more efficient and equitable system to address health disparities. The 2017 Community Health Status Assessment (CHSA) is intended to assist community members, health and social services providers, and elected officials in learning about health trends and disparities in our community, determining priorities among numerous health issues, prioritizing resources, and planning and taking action to equitably improve health in Henrico County.

The Community Health Assessment was developed using the National Association of County and City Health Officials' Mobilizing for Action through Planning and Partnerships (MAPP) framework. MAPP helps communities improve health and quality of life through strategic planning that spans the community and is driven by its residents. This assessment was made possible through the collaboration of many people, organizations, and entities that have an interest in

improving the health of Henrico County residents.

Participating in the MAPP process, community residents can develop a sense of ownership over strategies, resulting in more effective, innovative, and sustainable solutions to complex health problems. The MAPP process involves completion of four assessments that, when assembled together, are vital to improving community health:

- The Forces of Change Assessment identifies current external factors such as economic, political, social, and environmental issues that influence a community's health and quality of life.
- The Community Themes and Strengths Assessment allows an understanding of the issues that are important to county residents.
- The Local Public Health System Assessment illustrates strengths and areas of needed improvement in the public health system.
- The Community Health Status Assessment (CHSA) comprises a core list of reliable and recognized indicators of public health that are analyzed over time and, when possible, stratified by race/ethnicity, age group, and gender. The results of the MAPP process will be used to identify priority issues and develop community health improvement plans to address those issues.

The Henrico County Community Health Assessment Team will continue to meet and discuss next steps. After the results are shared and the opportunity for public comment is provided, the CHA team will engage additional community partners in the community health prioritization and planning processes.

Population Characteristics

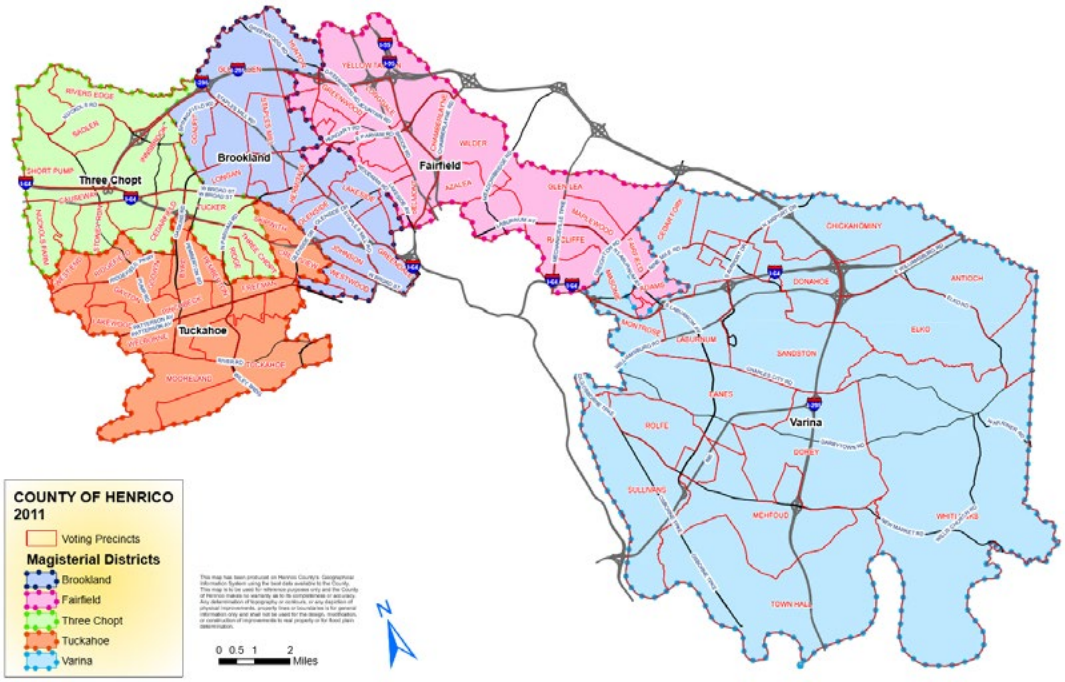
Geography

Henrico County spans beyond the eastern edge of the Richmond Metropolitan Area, near Malvern Hill, a Civil War battlefield site, all the way to the west in Short Pump. Henrico County is composed of five magisterial districts, including Tuckahoe, Three Chopt, Brookland, Fairfield, and Varina (map on next page) and covers 245 square miles.

Total Population and Growth

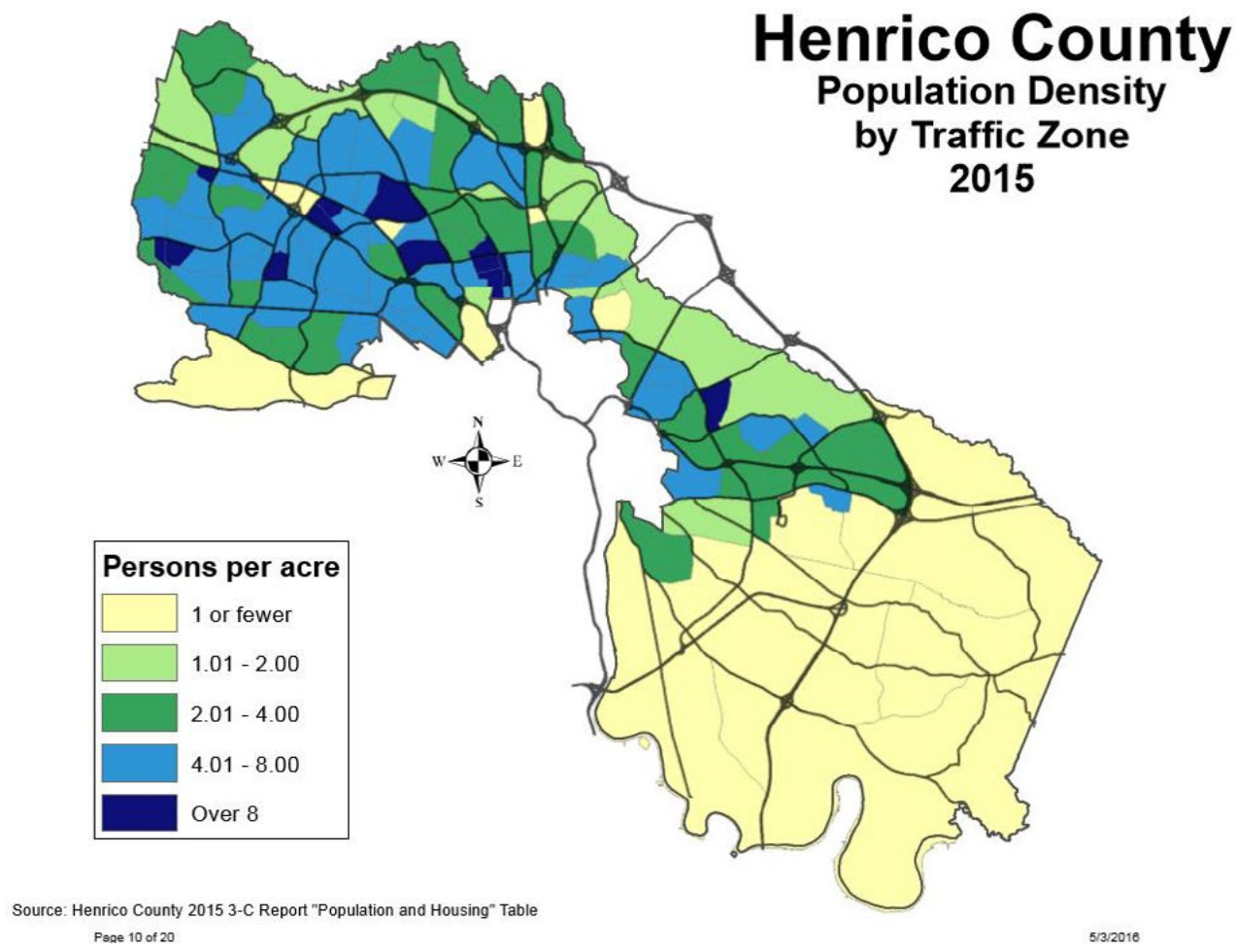
According to the U.S. Census Bureau, the percent change in population from 2010 to 2015 for Henrico County was an increase of 5.9%, with 325,155 residents in 2015. Henrico is the fifth largest county in Virginia, operating under the County Manager form of government since 1934.[1]

Figure 1. Map of Henrico by Magisterial District



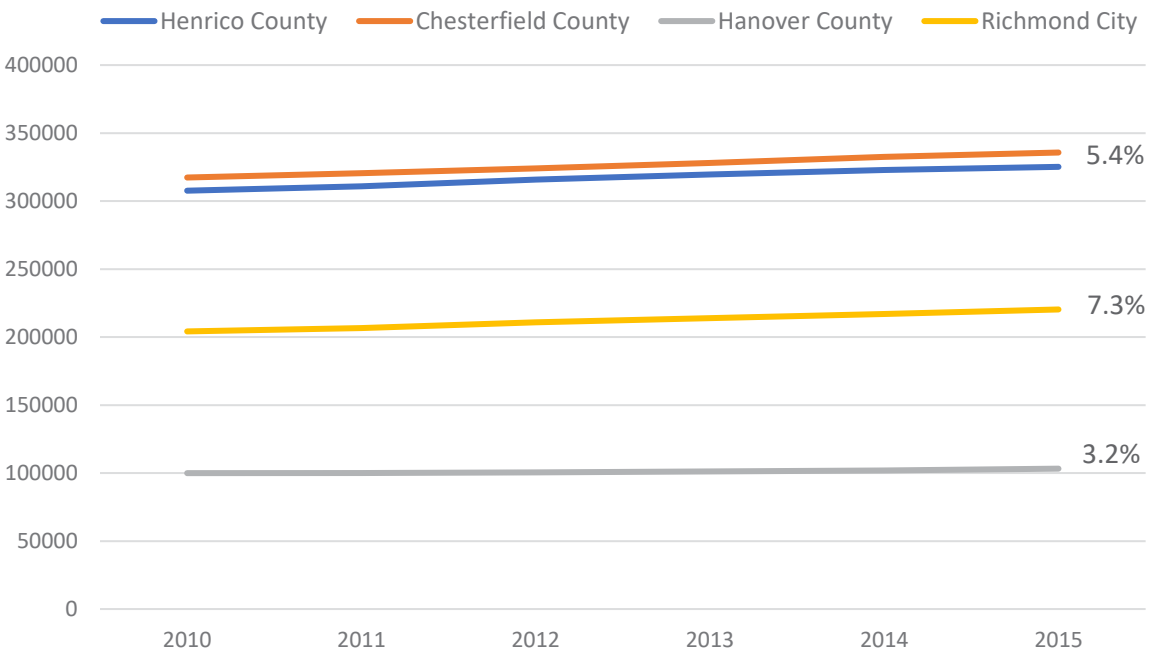
Source: Henrico County Planning Department

Figure 2. Map of Henrico County Population Density by Traffic Zone



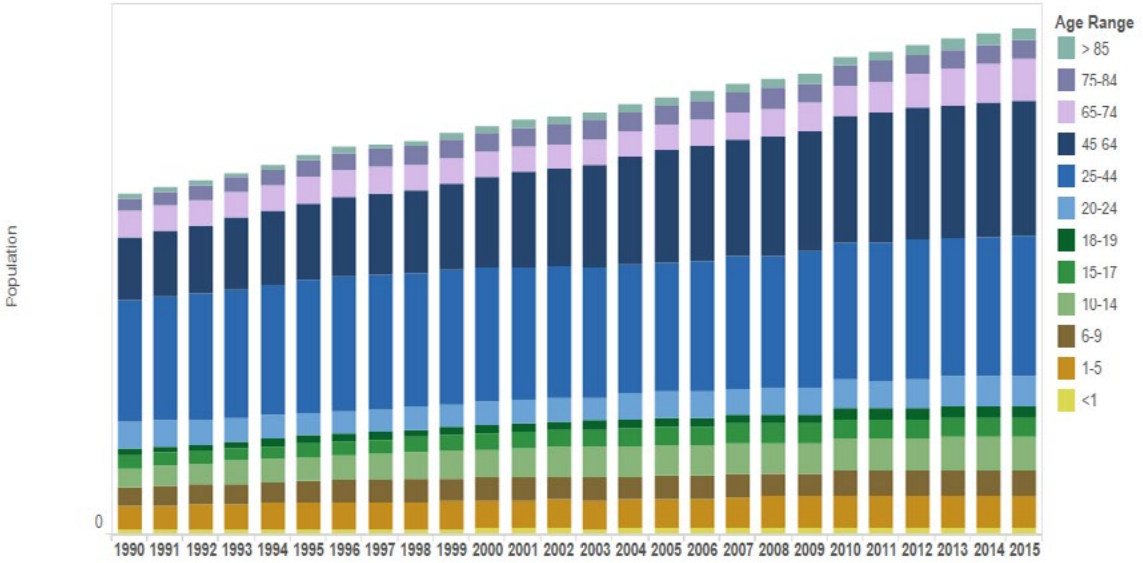
The map above shows the distribution of the population within the county. The most densely populated area lies to the far west in the Three Chopt district. The majority of Henrico residents are between the ages of 25 and 44 years with 52.8% being female and 47.2% male.

Figure 3. Population Growth, Comparing Neighborhoring Counties and City, 2010 - 2015



Age Distribution

Figure 4. Age Distribution-Henrico Health District, 1990-2015

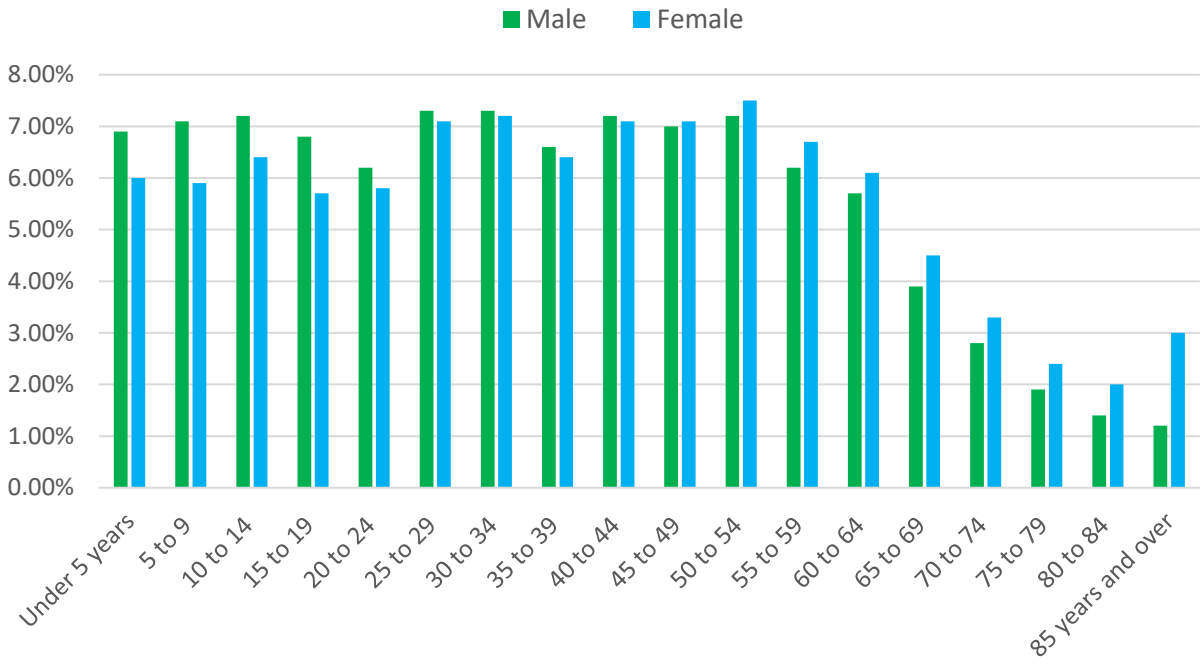


Source: National Center for Health Statistics

Henrico County is an aging population. The number of people ages 65 and higher had the sharpest increase from 2010-2015. The largest groups in the county from 2000-2015 were ages 25-44, comprising roughly 27% of the total population. Residents ages 45-64 constituted 25% of the population. The age group 6-9 experienced the slowest growth of all groups, increasing just 11% from 2000-2015.

Gender Distribution

Figure 5. Total Population by Gender, 2015

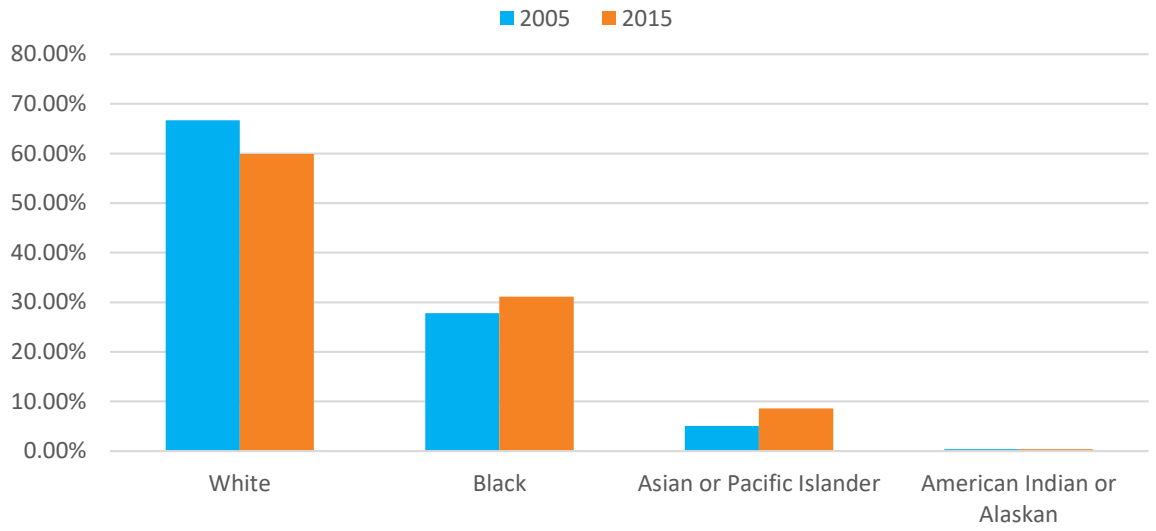


Source: Census Bureau. 2015 American Community Survey

Henrico varies slightly from the state in relation to the ratio of males to females. Henrico is 52.8% female verses the state of Virginia's 50.8% female population, and 47.2% male verses Virginia's 49.2% male population. Females ages 50 to 54 make up the largest percentage of the population, followed by males ages 25 to 34 years, as exhibited in the graph above.

Racial Distribution

Figure 6. Percentage Change in Population by Race, 2005 to 2015

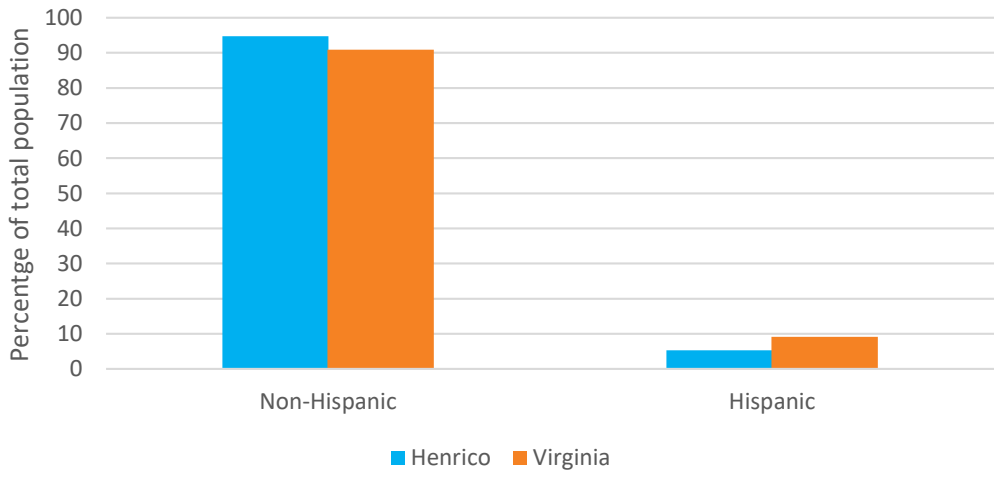


Source: National Center for Health Statistics

The largest race/ethnic group in the county was White non-Hispanic, which decreased from 66.7 in 2005 to 59.9% in 2015, which differs from the 2015 state percentage of 71.6%. Since the year 2005, the Black non-Hispanic population in Henrico has grown from 27.8% to 31.1% of the county population compared to the states 20.6%. Henrico has experienced a larger growth in the Asian or Pacific Islander population compared to the state from 2005 to 2015, growing from 5.1% to 8.6% compared to the states 7.1% of the population.

Ethnic Distribution

Figure 7. Ethnicity Distribution, Henrico vs. State



According to the American Community Survey estimates, Henrico County has a larger proportion of non-Hispanics compared to the state average (94.7% vs. 90.9%). Henrico County's Hispanic population proportion lags behind the state average (5.3% vs. 9.1%); however, the estimated Hispanic population has increased from 4.9% in 2010. The estimated state average also increased from 7.9% recorded in 2010.

Households and Families

According to 5-year (2011-2015) estimates produced by the American Community Survey (ACS), there were 124,600 households in Henrico County. Average household size in 2015 was 2.5 people per household. The most common household type in Henrico County was the family household, which accounted for almost two out of every three households (64%). Of other families, 8% are female householder families with no husband present with children under 18 years. Nonfamily households made up 36% of all households in Henrico County, Virginia. Most of the nonfamily households were people living alone, but some were composed of people living in households in which no one was related to the householder. In Henrico County 33% of all households have one or more people under the age of 18; 25% of all households have one or more people 65 years and over.

According to ACS data, the total amount of housing units available in Henrico County in 2015 was 134,346; however, only 124,589 of these units were occupied. This translates into an occupancy rate of 92.7% (and a vacancy rate of 7.3%). The majority of total housing units were classified as single unit (62.3%); multi-unit structures (33.7%) mobile homes (0.4%) were second and third respectively. The median number of rooms among all the housing units in Henrico County is 6.1; approximately 34.4% of all housing units in Henrico County have less than three bedrooms with 65.6% of all housing units having three or more bedrooms. Out of the 124,589 occupied housing units in the county, 78,341 were owner-occupied (62.9%) and 46,248 were renter-occupied (37.1%). Figures from the ACS estimated that among owner-occupied units, 75.4% still had an active mortgage.

In terms of costs associated with residence, owners with a mortgage had the highest average monthly cost ($1,533), followed by renters ($1,035), and concluding with non-mortgaged owners ($447). Housing cost-burdened families are described by the Department of Housing and Urban Development as those families who "pay more than 30% of their income for housing". Within Henrico County, approximately 30% of owners with mortgages, 10% of owners without mortgages and 48% of renters met the housing cost-burden threshold.

Another way of measuring household affordability is the Housing Affordability Index (HAI). In the fourth quarter of 2016, the Virginia Association of Realtors' HAI estimated that 36% of Henrico County

residents could afford to purchase the median-priced home ($265,000) in the county. The median monthly payment including taxes and insurance for the median-priced home was $1,421.[6]

Languages

Figure 8. Language Spoken at Home, Age 5 and Older

Language	Percent of Population	Number of People
English Only	85	298,491
Language other than English	15	44,118
Degree of spoken fluency with English if primarily speak another language (n=44,118)		
Speaks English “very well”	61	26,893
Speaks English less than “very well”	39	17,225
Language spoken at home if speak English less than “very well” (n=17,225)		
Asian/Pacific Islander	43	5,556
Indo-European	31	4,151
Spanish	45	5,942
Other	32	1,576

Source: 2015 American Community Survey 5-Year Estimates

Among people, at least five years old living in Henrico County, Virginia in 2011- 2015, 15% spoke a language other than English at home. Of those speaking a language other than English at home, 30% spoke Spanish and 70% spoke some other language; 39% reported that they did not speak English "very well".

Nativity and Foreign Born

According to the American Community Survey, an estimated 88 percent of the people living in Henrico County, Virginia in 2011-2015 were native residents of the United States and 57% of these residents

were living in the state in which they were born. An estimated 12% of the people living in Henrico County in 2011-2015 were foreign born. Of the foreign-born population, 46% were naturalized U.S. citizens, and 84% entered the country before the year 2010. An estimated 16% of the foreign born entered the country after 2009.

Foreign-born residents of Henrico County, Virginia come from different parts of the world. Henrico County is home to three refugee resettlement agencies that help resettle over 450 refugees to the area each year. Commonwealth Catholic Charities projects to serve 220 refugees in fiscal year (FY) 2017. International Refugee Committee projects to serve 109 refugees in FY 2017. Church World Services projects to serve 160 refugees in FY 2017. While all three organizations are currently serving individuals and families primarily from Afghanistan and Syria, they see clients from over 30 different countries around the world.[3]

Figure 9. Henrico Health Department Refugee Patients by Country of Origin

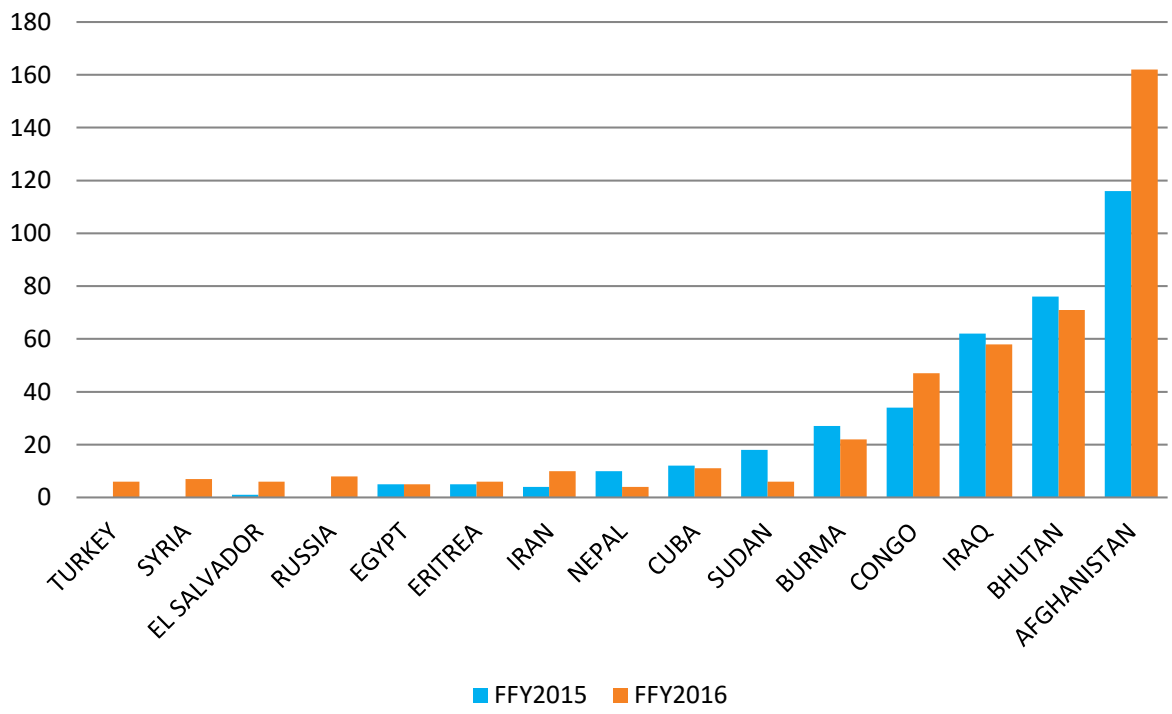
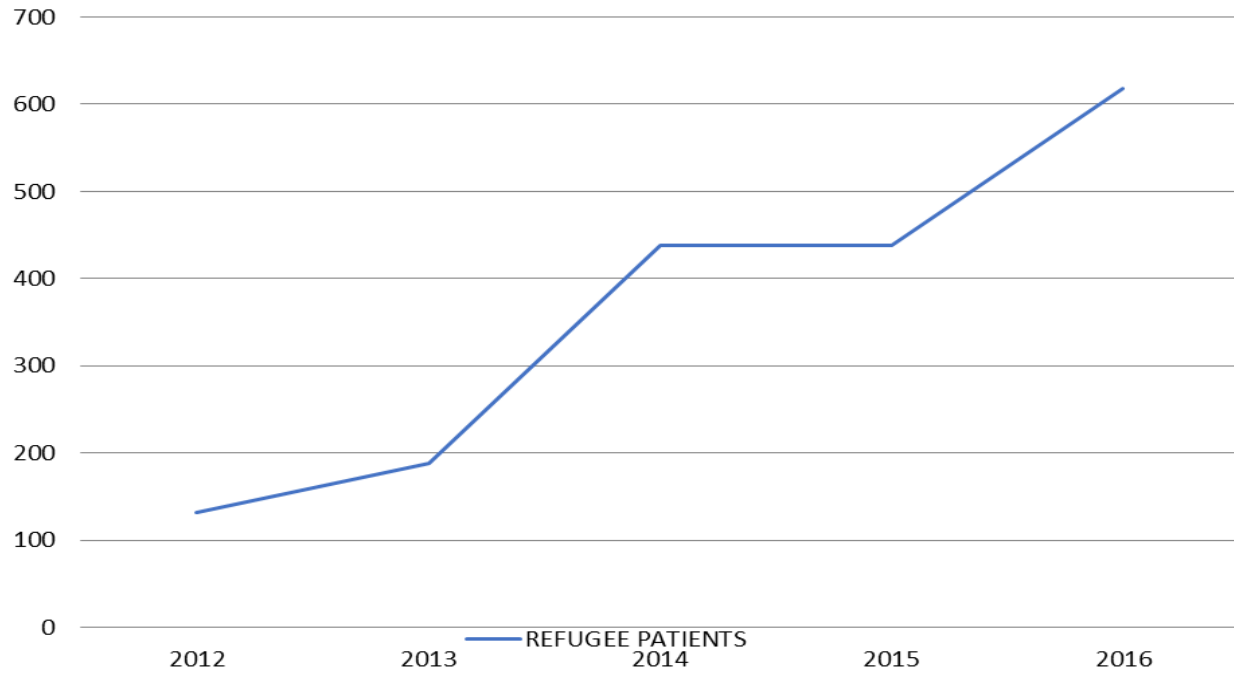


Figure 8 shows some of countries of origin and the number of refugees for Fiscal Years 2015 and 2016 that were served at the Henrico County Health Department (HCHD). The largest increase and largest proportion of the Refugee population seen at the HCHD were from Afghanistan. Henrico County Health Department (HCHD) provides health screening, referral, counseling, and education services for newly arrived refugees at their West Clinic.

Figure 10. Number of Refugee Patients seen at HCHD, 2012-2016



Source: Webvision. HCHD RF Patient Counts CY 2012-2016

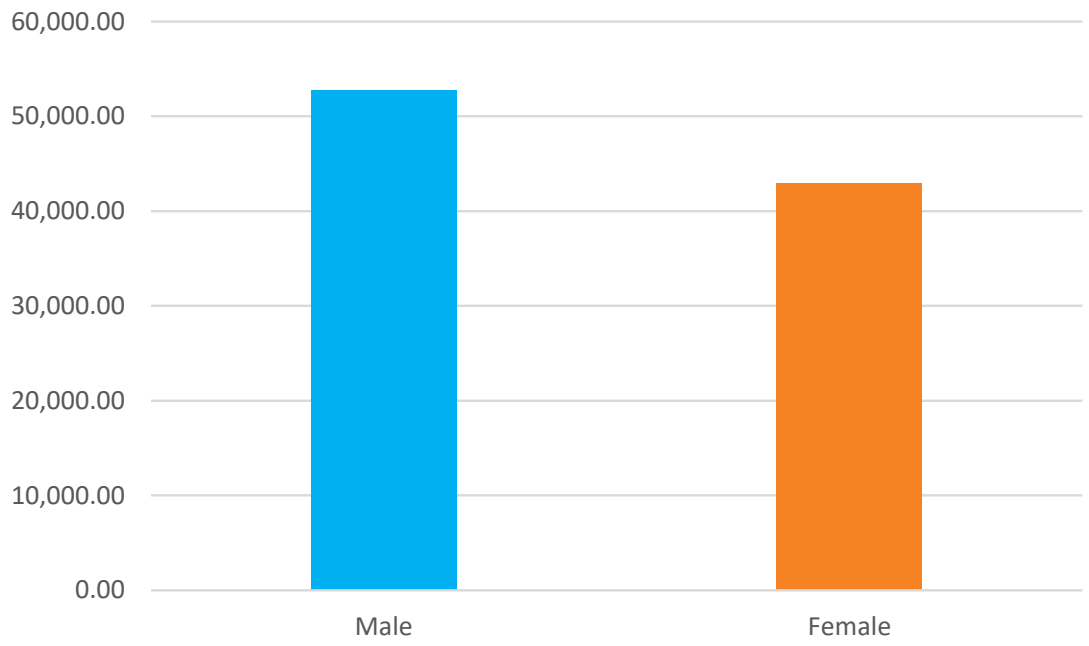
The number of refugee patients seen at HCHD (Figure 9) has grown from 132 patients seen in 2012 to 618 seen in 2016, a 368% growth. While there was a 41% growth between 2015 and 2016, the largest increase was seen between 2013 and 2014 with a 132% growth in the refugee population being seen at the HCHD.

Social Environment

Income and Employment

According to the American Community Survey estimates, Median Income is the amount where the income of half of the households falls above and half falls below. In 2015, the median household income in Henrico County was $61,934. This figure is slightly slower than the state median household income of $65,015.

Figure 11. Median Earnings for Full-Time Year-Round Workers by Sex, Henrico



There was a significant gender gap in regards to earnings among men and women. Men earn nearly $10,000 more than women in Henrico County ($45,572 vs. $36,282).

Fidure 12. Household Median Income by Race/Ethnicity, 2015

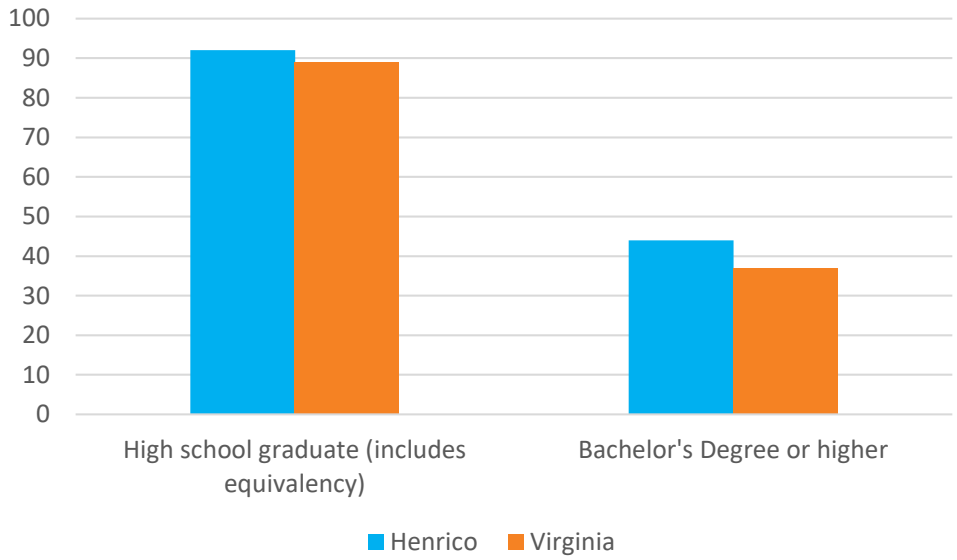
	Median income	Margin of error
White, not Hispanic or Latino	$69,574	+/-1,645
Black or African American	$46,090	+/-30,919
American Indian and Alaska Native	$69,310	+/-32,530
Asian	$98,286	+/-17,460
Native Hawaiian and Other Pacific I slander	$127,031	+/-103,924

Black or African American households had a median income nearly 34% lower than those who were white alone. The large margin of error listed for Black or African American, American Indian and Alaska Native, and Native Hawaiian and other Pacific Islander groups suggest that the data should be interpreted with caution for these groups.

Educational Attainment

The association between education and health is well known, large, and persistent. In the 10-year span from 2005-2015, Henrico's education level has increased slightly, for both high school graduates and advanced degrees.

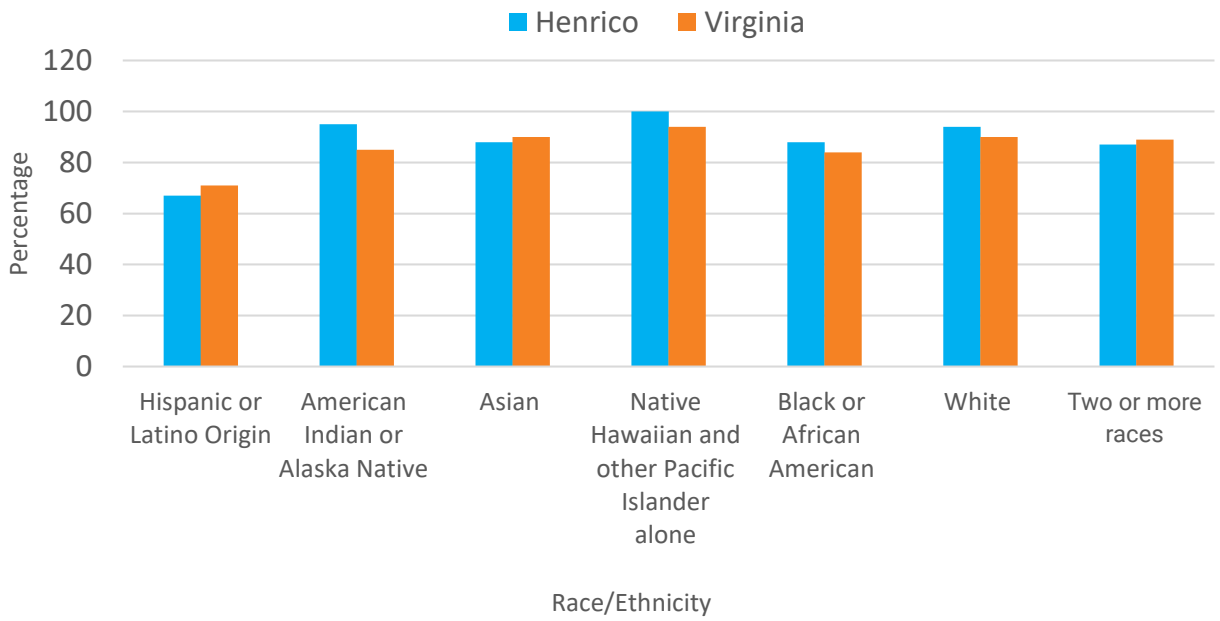
Figure 13. Educational Attainment, Henrico vs. State 2015



Source: American Community Survey 1-year estimates, 2015

In 2015, the majority of Henrico County adults over age 25 had a high school diploma or equivalent (92%), and 44% had a bachelor's degree or higher. The Virginia On-Time Graduation Rate expresses the percentage of students in a cohort who earned a Board of Education-approved diploma within four years of entering high school for the first time.[3] In 2016, Henrico County's On-Time Graduation Rate for all students was 91%, compared to 91.3% across Virginia. Black or African American, American Indian or Alaska Native, and Hispanic students had 3-10% lower rates of graduation relative to other reported racial/ethnic groups.

Figure 14. Percent of Total Population, High School Graduate or Higher by Race/Ethnicity, Henrico vs. State 2015



Source: American Community Survey 1-year estimates, 2015

Disparities between race/ethnicity are noted as it relates to educational attainment. Hispanic or Latino, Asian, and Black or African American students in Henrico County had lower rates of graduation relative to other reported racial/ethnic groups. In addition, Henrico students who have Hispanic or Latino origin and students who are Asian attain high school and college education at a lower rate compared to the state average.

School Quality Profiles were developed by the State Board of Education to more effectively communicate to parents and the public about the performance of Virginia's public schools and the factors that impact student learning and achievement. The Full Accredited Schools measure displays the percentage of schools meeting or exceeding Virginia's minimum expectations for student achievement in English, mathematics, science, and history/social science.

Figure 13. Virginia Department of Education School Quality Profiles, Henrico, 2016-2017

When compared to the State Snapshot, Henrico fell 1-3% below Virginia's overall scores for Reading, Math, and Science Proficiency, but continued to improve in these three areas over the last 3 years.

Poverty

Federal Poverty Guidelines state that a family of four with an annual household income of $24,600 or less is at 100% of Federal Poverty Level.

Figure 15. Percentage of People (All Ages) Living in Poverty 2005-2015

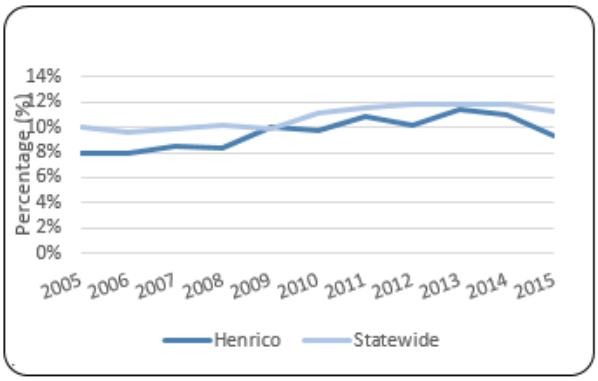


Figure 16. Percentage of All Ages Living in Poverty

Poverty Rate (%)	Henrico		Statewide	
	All ages	Children	All ages	Children
2005	7.9%	10.3%	10.0%	13.3%
2006	7.9%	10.2%	9.6%	12.3%
2007	8.5%	11.8%	9.9%	12.9%
2008	8.4%	11.5%	10.2%	13.6%
2009	10.0%	12.7%	9.9%	14.0%
2010	9.8%	13.4%	11.1%	14.6%
2011	10.8%	14.9%	11.6%	15.6%
2012	10.1%	13.6%	11.8%	15.5%
2013	11.3%	14.6%	11.7%	15.7%
2014	11.0%	17.2%	11.8%	15.9%
2015	9.3%	13.0%	17.1%	11.2%

In Henrico County, 9.3% of all residents and 13% of children (under age 18) lived below 100% of the Federal Poverty Level in 2015. Statewide, 11.2% of all Virginia residents and 15% of children (under age 18) lived below 100% of the Federal Poverty Level. In 2015, Henrico had more children living in poverty than statewide at 13% versus 11.2%.

Assistance Benefits

Since 2014 Henrico experienced a drop in the number of households receiving benefit assistance overall however there has been a consistent increase in Medicaid since 2010.

Figure 17. Households Receiving Benefit Assistance, 2010-2016

	Benefit Program[1]			Energy Assistance (EA)[2]			
Households (Cases) Served	SNAP	TANF	Medicaid	Fuel	Cooling	Crisis	Child Care[3]
2010	17,705	2,779	23,197	NA	NA	NA	NA
2011	20,583	2,873	24,646	NA	NA	NA	NA
2012	22,430	2,760	26,257	NA	NA	NA	NA
2013	23,611	2,452	27,064	3,983	2,239	309	NA
2014	23,261	2,188	27,773	3,456	1,956	317	1,135
2015	21,858	1,957	28,708	3,619	1,184	335	1,067
2016	20,855	1,701	29,282	3,206	1,234	306	1,029

1 Source: VDSS ADAPT Data Mart (SNAP and TANF counts); MMIS Data Mart (Medicaid counts). Represent unduplicated cases. 2 Source: Energy Assistance Case (Household) Counts Agency Summary Reports. 3 Source: VaCMS (represent "families"; data not available prior to 2014).

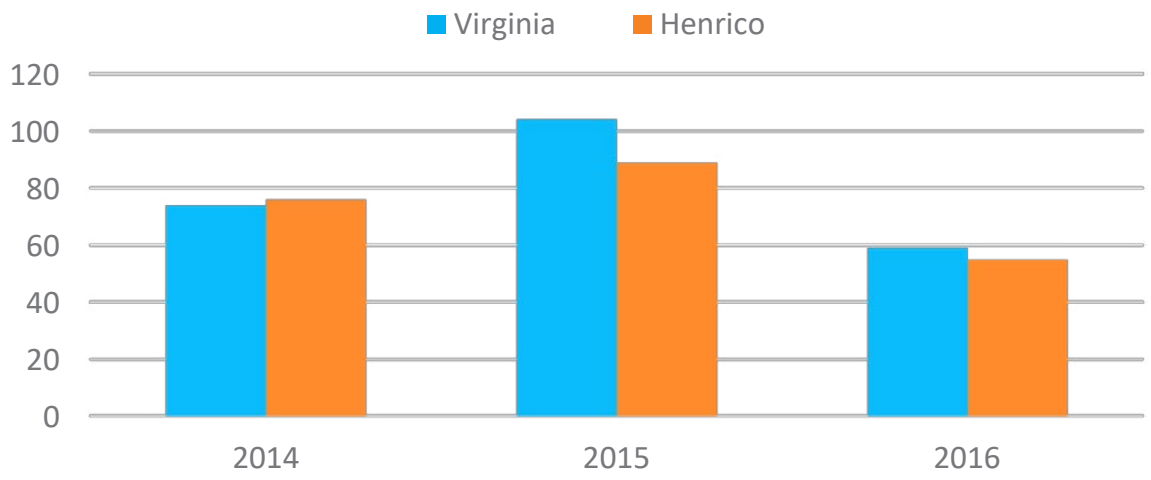
Food Insecurity

According to estimates from the U.S. hunger relief organization Feeding America, there were about 42,020 people in Henrico County in 2014, or 13.3% of the population, who were without reliable access to a sufficient quantity of affordable, nutritious food. Approximately 47% of these individuals were below 185% of the poverty line, and therefore likely eligible for federal nutrition assistance such as WIC, Supplemental Nutrition Assistance Program, or free school meals.

WIC (Women, Infants, and Children)

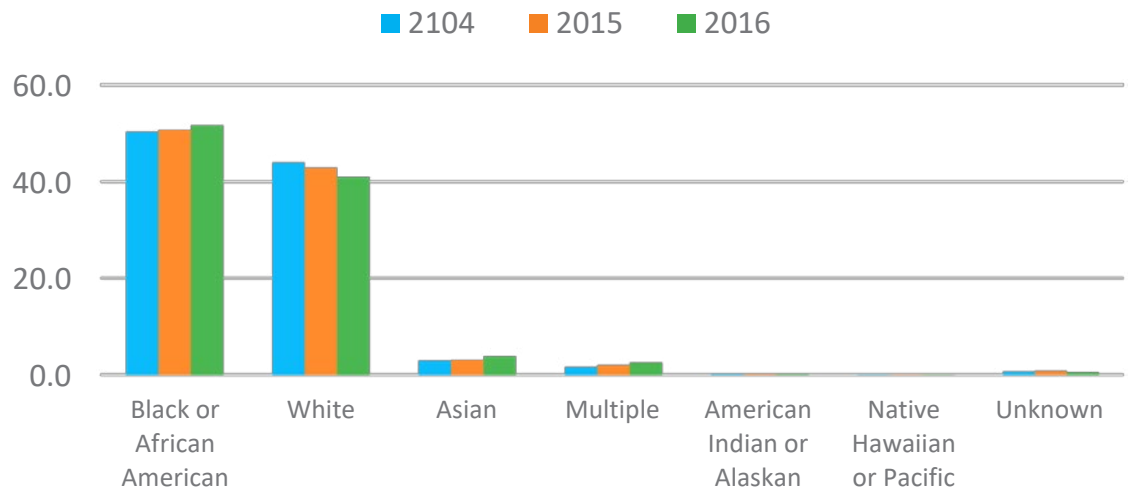
The Virginia WIC Program is a federally funded health and nutrition program for women, infants, and children. WIC helps families stay healthy and eat right during times of important growth; issuing funds for healthy supplemental foods, providing nutrition education, and making referrals to other health, welfare, and social services. Participants must meet income guidelines and be pregnant, new mothers, infants, or children under age five.

Figure 18. Annual % of Eligible clients who are enrolled in WIC



The graph above shows the percentage of eligible county and state residents who actually enrolled in the WIC program for years 2014-2016. In 2014, both VA state and Henrico county WIC enrollments were over 60% and almost matched in number. While both state and county enrollments went up in year 2015, VA state enrollment surpassed Henrico County by over 10%, nearly reaching 100%. The number of eligible clients who enrolled in WIC in 2016 dropped below 60% for both state and county.

Figure 19. Race of WIC participants



The chart above breaks down the percentage of WIC participants by race for years 2014-2016. The largest group of WIC participants was African American and the number slightly increased each consecutive year. The next largest group was whites and the WIC participation numbers slightly decreased from 2014-2016. Growth in the percentage of WIC participants who are Black or Asian is consistent with observed increases in these populations over the past decade. However, in 2015, only

31% of Henrico's population was Black or African American, though this group made up nearly 51% of WIC participation for Henrico County.

SNAP/Food Stamps

Formerly known as Food Stamps, the federal Supplemental Nutrition Assistance Program (SNAP), helps low income individuals and families by providing economic benefits to communities.[6] SNAP can be used like cash to buy eligible food items from authorized retailers. A SNAP account is established for eligible households and automatic deposits are made in the account each month. In 2015, 14.8% of the total population for Henrico County received SNAP benefits. This is the smallest number of SNAP clients since 2012.[7]

Free Lunch Program

The federally assisted National School Lunch Program has been providing nutritionally balanced lunches to children at no cost since 1946.[8] Families who meet the income eligibility requirements or who receive SNAP benefits can apply through their children's school to receive free or reduce cost meals. The lunches help students meet their basic nutritional requirements when their families may not be able to consistently provide a balanced diet. The Virginia Department of Education reports that during the 2015-2016 school year, 41% of Henrico County students were eligible to participate in the program versus 42% statewide.

Homelessness

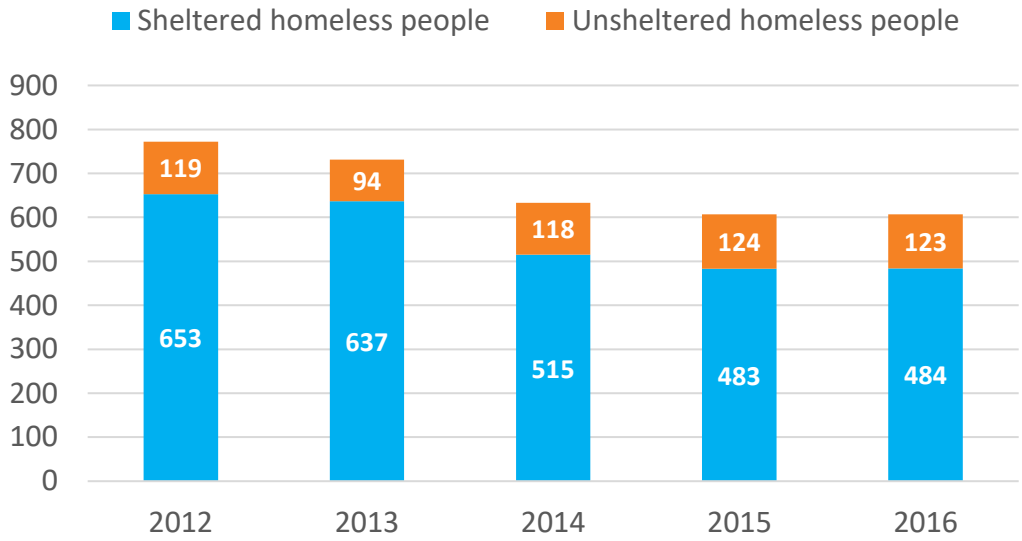
According to the National Alliance to End Homelessness, commonly cited reasons for becoming homeless are poverty, lack of affordable housing, and financial catastrophe such as job loss or overwhelming debt.[10] A lack of affordable health care, mental illness, domestic violence, and addiction are other major factors that can contribute to homelessness.

The homeless population is calculated by surveying both sheltered and unsheltered homeless people using a Point in Time (PIT) count. A PIT count is a snapshot in time reflecting those persons identified as homeless for one night and it is not an absolute number. The number of sheltered homeless is collected every year. Though traditionally completed every two years, starting in 2017 the number of unsheltered homeless people will also be surveyed annually.

Homeward is the planning and coordinating organization for homeless services in the greater Richmond region, which includes Henrico County and other neighboring counties and the city of

Richmond. In July 2016, Homeward reported that 63% of the Richmond region's surveyed homeless were currently being treated for a mental health problem, and about 55% had substance abuse problems, with the majority in recovery. It was estimated that 21% of homeless adults were veterans and 9% had children living with them. Additionally, 26% of Henrico County's 2016 adult homeless population had been homeless three or more times during the past three years.

Figure 20. Point in Time counts of homeless individuals, including those sheltered and unsheltered



Crime

A high level of crime affects a community's feelings of physical safety and compromises its psychological well-being. Exposure to crime and violence has been shown to increase stress, which may exacerbate hypertension and other stress-related disorders and may contribute to obesity. High crime rates may also deter residents from healthy activities such as exercising outdoors.

In Henrico County, simple assault, vandalism, and shoplifting crimes remained the most common type of crimes from 2014 to 2015. The overall rate of violent crime dropped about 20% from 2011 to 2015, but there was an increase in reported rape and murder cases from 2014 to 2015. This increase was seen in the Fairfield, Varina, and Three Chopt districts.[11]

Abuse

Abuse may consist of physical, sexual, or emotional abuse. Child abuse and neglect can have enduring physical, intellectual and psychological repercussions into adolescence and adulthood. All types of child abuse and neglect have long- lasting effects throughout life, damaging a child's sense of self, ability to have healthy relationships and ability to function at home, at work, and at school.

During State Fiscal Year (SFY) 2016, there were 3.866 children reported as possible victims of abuse or neglect with 1,303 accepted by social services.

There were 177 children in founded investigations and 128 children involved in unfounded investigations. There were 982 children involved in reports that received a family assessment. This means that a Child Protective Services worker completed a family services needs assessment with these families and developed a written safety plan and provided or arranged for services, if needed. In the state fiscal year for 2016, Henrico received 1,123 reports of adult abuse. For all Virginia adult cases of abuse 56% were self-neglect followed by 18% neglect cases, 11% financial exploitation, 6% physical, and 5% mental abuse.

Figure 21. Subjects of Adult Protective Services, 2016

	Total Reports	Race*				Age Group (years)		
		White	Black	Other	Unknown	18-60	61+	Unknown
Adult subjects of APS Reports (2016)	**1,123**	**580**	**339**	**14**	**190**	**290**	**822**	**11**

* Hispanic origin not reported. Race and age may be undercounted or overcounted

Source: Adult Services Adult Protective Services (ASAPS) system.

Children in Foster Care

Foster care is intended to provide temporary, safe living arrangements and therapeutic services for children who cannot remain safely at home due to child maltreatment or for children whose parents are unable to provide adequate care. The foster care system aims to safely reunify children with their parents or secure another permanent home, such as through adoption. However, many children spend years in foster homes or group homes, often moving multiple times. These children are at increased risk for a variety of emotional, physical, behavioral, and academic problems.

The Virginia Department of Social Services reported that 100 Henrico County children were in foster care at the end of federal fiscal year 2016 (9/30/2016). This number was consistent in years 2014 and 2015. About 34% of those children were between the ages of 1 and 5 years. Henrico County has the second largest population of children in foster care next to Richmond City.

Vulnerable Populations

Per data from the 2015 American Community Survey, 10.3% of Henrico County residents were classified as having at least one disability, slightly lower than the state average of 11.5%. Per the 2015 Behavioral Risk Factor Surveillance System (BRFSS), the percentage of individuals who were limited in activities due to physical or mental health issues was slightly higher in Henrico County (20.2%) than at the state level (19.0%). Henrico's percentage of those experiencing poor physical or mental health has decreased from being 23.6% in the combined 2013/2014 data compared to the states' 18.5%.[13]

Social Associations

According to the 2017 County Health Rankings, Henrico has 11.2 membership associations per 10,000 people compared to the state rate of 11.2.[14] Associations include organizations such as civic, business, sports, religious and professional that help increase social trust in a community and can impact support social and health. Top performers in the nation have a rate of 22.1 per 10,000 people.

Sources

1. U.S. Census Bureau, Population Division
2. Refugee Dialogue Meeting June 2, 2017.
3. Virginia Department of Education
4. Bureau of Labor Statistics
5. U S Census Bureau. Small Area Income and Poverty Estimates (SAIPE). American Community Survey.
6. USDA Supplemental Nutrition Program (SNAP)
7. Henrico County Social Services
8. USDA National School Lunch Program
9. Housing Virginia and SOURCEBOOK.
10. PIT DATA (2016) HomewardVA.
11. National Alliance to End Homelessness
12. Henrico County Police Department
13. Virginia Department of Health
14. 2017 County Health Rankings

Health Behaviors

This section of the CHSA reports data that pertain to behaviors and lifestyle choices that may contribute to being a protective or risk factor for chronic diseases. These include overweight and obesity, nutrition behaviors, physical activity, and smoking. Much of the illness, suffering, and early death related to chronic diseases can be attributed to four modifiable health behaviors:

- Poor nutrition
- Lack of physical activity
- Tobacco use
- Excessive alcohol consumption
- Immunizations and Screenings

Weight and Nutrition

Obesity and being overweight are major contributors to many preventable causes of death, and on average, higher body-weights are associated with higher death rates. Good nutrition substantially contributes to the burden of preventable illnesses and premature death. Of primary concern is the under- consumption of vegetables, fruits, and grain products that are high in vitamins and minerals, carbohydrates, and other substances that are important to good health.

Figure 22. Percentage of Overweight/Obese Adults (BMI >25)

			Gender (Henrico residents)	
Year	State (VA)	Henrico County	Male	Female
2011	63.3%	NA	69.6%	56.9%
2012	63.6%	63.1%	69.7%	57.5%
2013	64.0%	67.3%	69.8%	58.0%
2014	64.7%	64.3%	69.6%	59.7%
2015	61.4%	68.1%	NA	NA

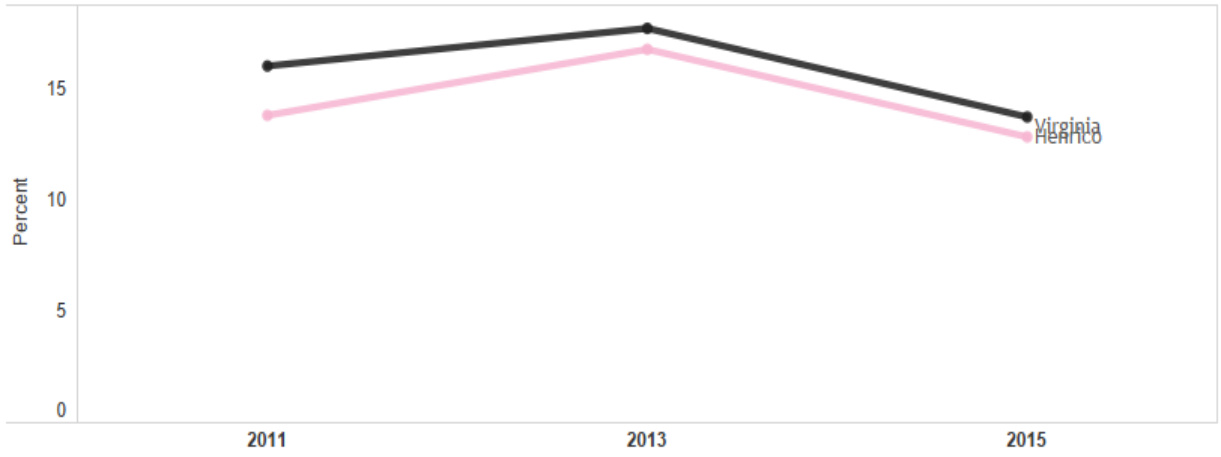
Source: VDH. Division of Policy and Examination. BRFSS.

The table above represents the percentage of adults in Virginia and Henrico who reported being overweight or obese (BMI > 25) in years 2011-2015. Overall, the state of Virginia reported having a higher percentage of overweight or obese adults in all years except 2013 and 2015, where Henrico reported 67.3% and 68.1% of adults were overweight or obese. Virginia was at 64%. A larger percentage of males versus females reported being overweight or obese in 2011-2014.

Fruits and Vegetables

An increased consumption of fruits and vegetables has been linked to reduced risk of overweight/ obesity and consistent weight management. According to the 2015 BRFSS, adults in Henrico are consuming fruits and vegetables less often than in 2013.

Figure 23. Adults who consume fruits and vegetables 5+ times a day

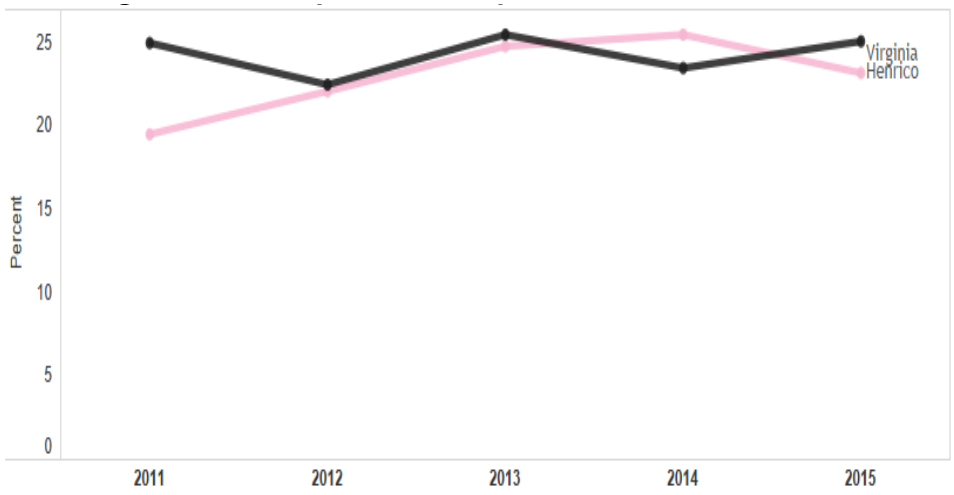


Source: VDH. Division of Policy and Evaluation. BRFSS.

Physical Activity

Being physically active is one of the most important steps that Americans can take to improve their health. The 2008 Physical Activity Guidelines for Americans recommends that adults participate in at least two hours and 30 minutes (150 minutes) a week of moderate-intensity aerobic physical activity and at least two or more times a week of muscle-strengthening activities for health benefits. People who are physically active generally live longer and have a lower risk for heart disease, stroke, Type 2 diabetes, depression, some cancers, and obesity. Regular physical activity is associated with lower death rates for adults, even when only moderate levels are performed.

Figure 24. No Physical Activity in the Past Month, Adults

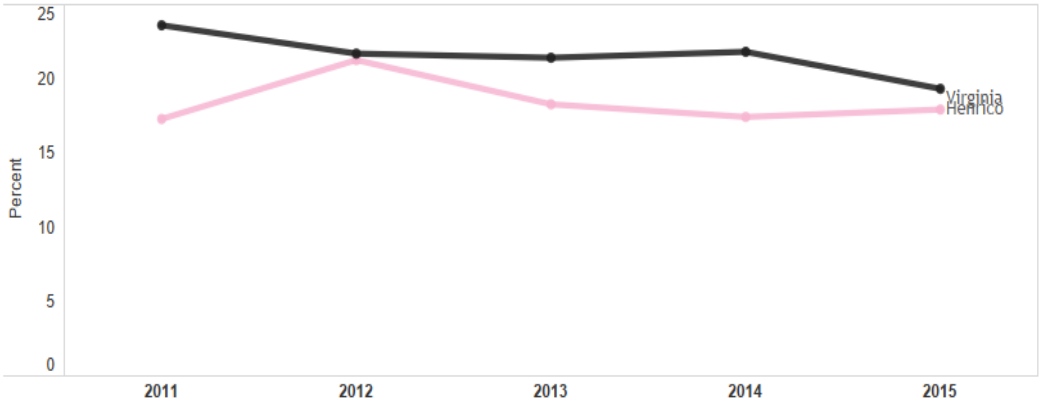


The graph above shows the trend of percentage of adults 18 years of age and older that did not participate in any physical activities or exercises in the past month. Physical activity excludes that which is a part of a normal workday. From years 2011 to 2014, there was an increasing trend of the amount of people who were not physically active in the past month for Henrico County, but this trend began to decline from years 2014 to 2015. In 2015, 23.2% of adults reported not participating in physical activity in the past month. It should also be noted that in 2013, 25.1% of women reported being sedentary over 19.6% of men.

Smoking

Tobacco is the agent most responsible for avoidable illness and death in America today. According to the Centers for Disease Control and Prevention, tobacco use brings premature death to almost half a million Americans each year, and it contributes to profound disability and pain in many others. The World Health Organization (WHO) states that approximately one-third of all tobacco users in this country will die prematurely due to the effects of using tobacco. Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-smokers, which can cause or exacerbate a wide range of adverse health effects such as cancer, respiratory infections, and asthma.

Figure 25. Any Tobacco Use Trend- Adults



Source: VDH. Division of Policy and Evaluation. BRFSS

In Henrico County, 17.9% of adults reported smoking in the period from 2013 to 2015, according to the BRFSS. This compares to the 2015 national rate of 17.2% and the Virginia rate of 20.9%. Any tobacco use includes adults 18 years and older who have smoked 100 cigarettes in their lifetime and now smoke every day or somedays or use chewing tobacco, snuff, or snus. Henrico County still has work to do to meet the Healthy People 2020 national health target, which is to reduce the proportion of adults who smoke to 12%.

Figure 26. Virginia Tobacco Users by Demographic, 2014

Age	18 to 24	**26.2%**
	25 to 34	**27.2%**
	35 to 44	**25.6%**
	45 to 54	**24.1%**
	55 to 64	**18.6%**
	65 or older	**11.0%**
Gender	Male	**27.0%**
	Female	**17.1%**

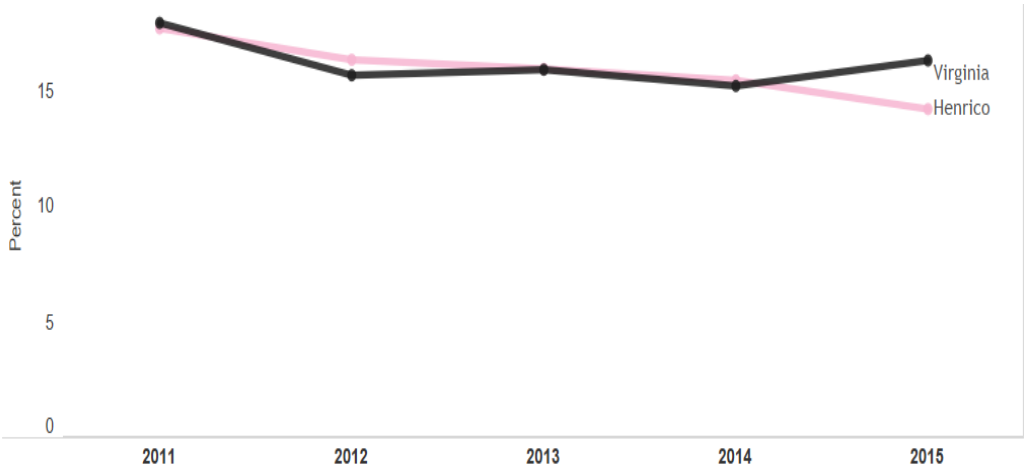
The table above represents the percentage of current adult tobacco users by demographics in Virginia for year 2014. Tobacco users include those who are smokers and those who use chewing tobacco, snuff, or snus (pouches). According to the information provided, the age group 25 to 34 has the highest number of adults who currently use tobacco (27.2%) while more males use tobacco compared to females, 27% to 17.1%.

Alcohol Abuse

Drinking alcohol has immediate effects that can increase the risk of many harmful health conditions. According to the Centers for Disease Control and Prevention, excessive alcohol use, either in the form of heavy drinking (drinking more than 15 drinks per week on average for men or more than 8 drinks per week on average for women), or binge drinking (drinking more than 5 drinks during a single occasion for men or more than 4 drinks during a single occasion for women), can lead to increased risk of health problems such as liver disease or unintentional injuries. According to the Centers for Disease Control and Prevention, there are approximately 88,000 deaths attributable to excessive alcohol use each year in the United States. Additionally, the National Council on Alcoholism and Drug Dependencies cites excessive alcohol use as the third leading lifestyle-related cause of death for the nation.

Select indicators about alcohol abuse follow.

Figure 27. Percentage of Adults who Binge Drink



Source: VDH. Division of Policy and Evaluation. BRFSS.

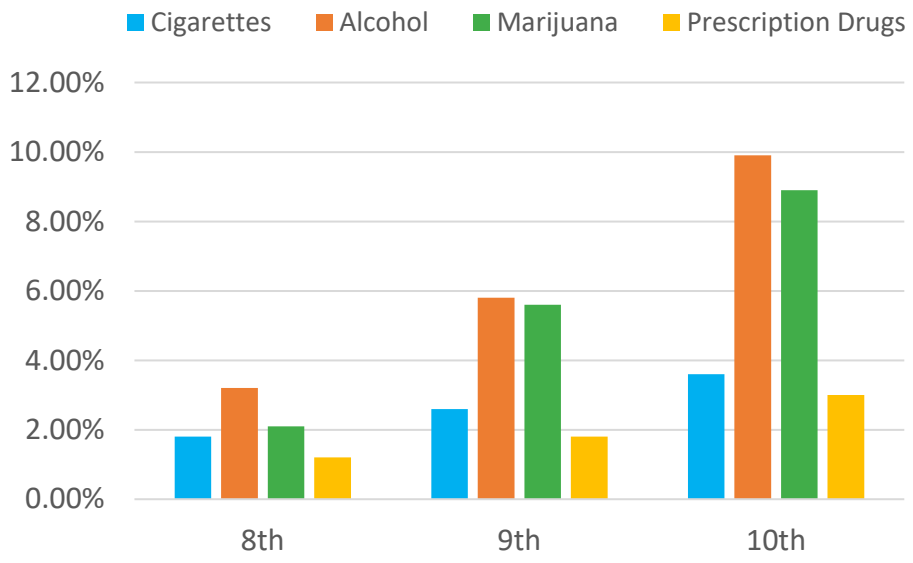
The graph above shows the trend of percentage of adults 18 years of age and older who reported binge drinking in the past month for years 2011 to 2015. Binge drinkers are males having five or more drinks on one occasion or females having four or more drinks on one occasion. From years 2011 to 2015, there was a steady decreasing trend of the amount of people binge drinking for Henrico County compared to the state increasing trend from years 2014 to 2015.

Youth Tobacco and Alcohol Consumption

Henrico County Public Schools, in collaboration with Henrico Mental Health and Developmental Services (CSB), conducted the Pride Student Survey for Grades 6-12 for the school year 2016-2017. This nationwide questionnaire gathers data on substance abuse, bullying harassment, and other risk and protective factor items.

The chart below shows the breakdown of grade levels of tobacco and alcohol consumption among youth for the school year 2016-2017. The highest group of students who smoked cigarettes in the past 30 days was in the 11th grade while students in the 10th grade consumed more alcohol than any other grade. Grades 6 and 8th and 9-12th consumed more alcohol than cigarettes during within the last 30 days. There were 3,239 students surveyed.

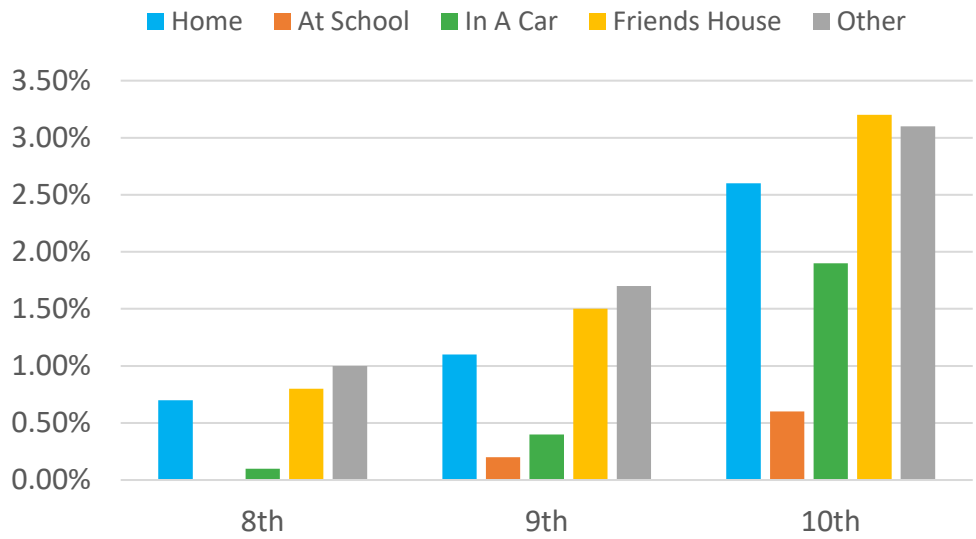
Figure 28. Youth Tobacco, Alcohol, and Drug Consumption in the Past 30 days, 2016-2017



Source: Pride Survey. Henrico County Public Schools.

The table/graph above shows the breakdown of grade levels of drug consumption among youth for the school year 2016-2017. The largest group of students who smoked marijuana in the past 30 days was in the 10th grade while students in the 10th grade consumed more alcohol than any other grade. Grades 6-8th and 9-12th consumed more alcohol than the other drugs within the last 30 days.

Figure 29. Where Students Use Drugs



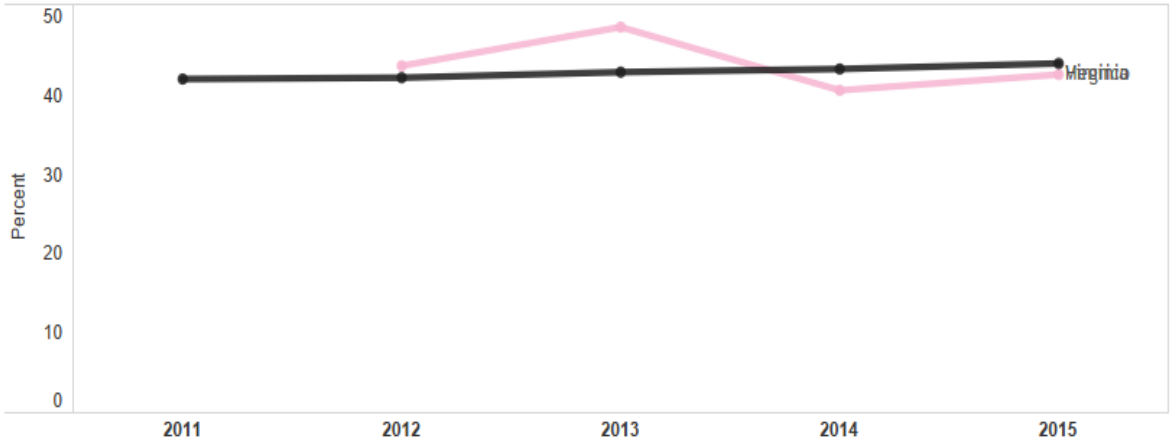
Source: Pride Survey, Henrico County Public Schools

The preceding charts show the breakdown of grade levels by when and where students use drugs for the school year 2016-2017. The data show that students used primarily at home and "other" places, with almost 10% of the 12th grade group using drugs at home. The data also shows that students participated in drug use mainly after school and on the weekend.

Flu Vaccination in Past 12 Months

From 2014 to 2015, the Behavioral Risk Factor Surveillance System (BRFSS) survey asked respondents if they received a seasonal flu vaccination in the past 12 months. To support Virginia's Plan for Well-Being Aim 3 and meet the Healthy People 2020 national health target, an additional one-fourth of Henrico residents will need to receive their seasonal influenza vaccine. Influenza is a serious disease that can lead to hospitalization and death. The strains and severity of flu varies from season to season, and individuals respond to the illness in different ways. The Centers for Disease Control and Prevention reports that from 1976 to 2007, estimates of flu deaths in the U.S. ranged from 3,000 to 49,000 per year.

Figure 30. Residents who had a flu vaccine in past 12 months, Henrico and Virginia



Source: VDH. Division of Policy and Evaluation. BRFSS.

The above graph represents the trend of residents who had a flu vaccine in the past 12 months for years 2012 to 2015 for both Virginia and Henrico County. Henrico County shows rates increased from years 2012 to 2013, but quickly dropped the following year and increased again from year 2014 to 2015. Compared to the county, the state of Virginia showed a slow increase of people who received a flu vaccine in the past 12 months for years 2012 to 2015.

Morbidity

Disease morbidity relates to the prevalence or occurrence of illness or injury in a population. A person can have several co-morbidities simultaneously. Morbidities can range from Alzheimer's disease to cancer to traumatic brain injury. Morbidities are not deaths. Prevalence is a measure often used to determine the level of morbidity in a population. Prevalence is calculated by dividing the number of individuals with a defined disease by the total population at a given point in time.

Quality of Life

A greater focus has shifted to the quality of life affecting health status. Quality of life indicators measure the influences that social and environmental resources and conditions can have on population health outcomes. Examples of these include access to social, emotional, and economic supports, safe neighborhoods, available and accessible healthy foods, adequate local emergency/ health services, and safe and affordable housing. Focusing on quality of life indicators can help bridge the boundaries between social, mental, and medical health outcomes and the services that support them.

Figure 31. Quality of Life - Morbidity, Henrico verses Virginia

Henrico County	2013	2014	2015	2016	2017	County Trendline	Virginia 2013	2014	2015	2016	2017	Top US Performers
Health Outcomes												
Quality of Life - Morbidity												
Poor or fair health	10%	11%	11%	14%	13%		14%	14%	14%	17%	15%	12%
Poor physical health	2.9	2.8	2.8	3.2	3.0		3.2	3.2	3.2	3.5	3.2	3.0
Poor mental health	2.9	2.6	2.6	3.2	3.2		3.1	3.1	3.1	3.3	3.3	3.0
Low birthweight	9.2%	9.2%	9.1%	9.0%	9.0%		8.3%	8.3%	8.3%	8.0%	8.0%	6.0%

Source: County Health Rankings

Health Status of Henrico County

The World Health Organization (WHO) defines health as "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity." Physical, mental, and social health and wellness is measured using standard indicators that describe:

- The health of a population – life expectancy, mortality, disease incidence or prevalence, or otherstates of health;
- Determinants of health – including health behaviors, health risk factors, physical environments, and socioeconomic environments; and
- Health care access, cost, quality, and patient use.

Health status reporting historically has included measures such as blood pressure, height and weight, serum cholesterol, pulmonary function, and physical fitness. Today, an important shift in perspective focuses increasing attention on the ability to function in day-to-day life, highlighting functionality, biomedical status, fitness, and psychosocial status.

General Health Status

In addition to measuring how long people live, it is important to also include measures that consider how healthy people are while they are alive. Self-reported health status is a widely used measure of quality of life that helps characterize the burden of disabilities and chronic diseases in a population.

Figure 32. Reported general health status for Adults (percent)

Health status	2012	2013	2014
Excellent	32	32	39
Very Good	36	39	31
Good	24	19	19
Fair	6*	8	10*
Poor	2*	2*	1*

* Statistically unstable rates, interpret with caution

Source: BRFSS

The 2014 Behavioral Risk Factor Surveillance Survey (BRFSS) found that 70% of Henrico County adult respondents reported excellent or very good health. About 11% of Henrico adults reported fair or poor health. This is lower than the statewide rate of 18% of adults reporting fair or poor health. Additionally, 23.6% of adults reported poor physical and mental health kept them from doing usual activities such as self-care, work, or recreation during the past 30 days. This was higher than 18.5%

adults across Virginia experiencing the same.

Chronic Disease

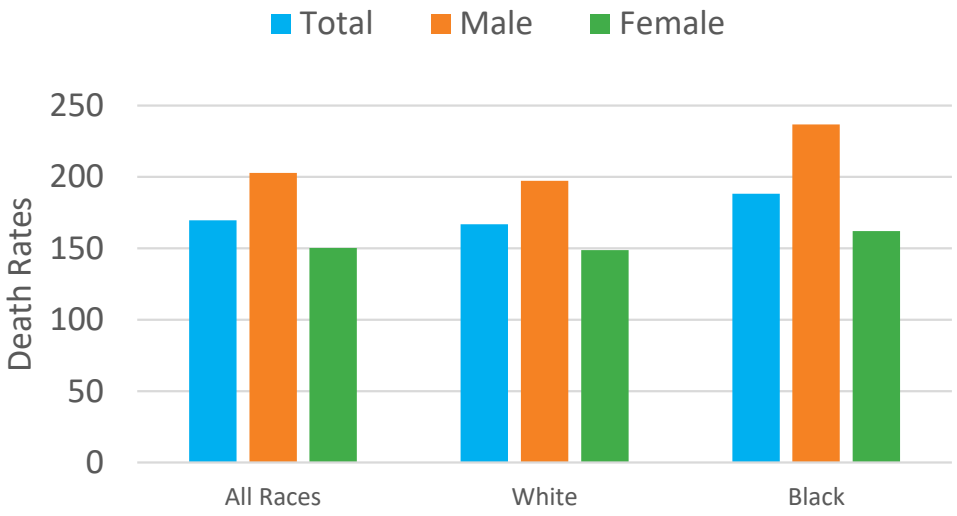
Chronic diseases and conditions such as heart disease, stroke, cancer, type 2 diabetes, obesity, and arthritis are among the most common, costly, and preventable of all health problems. Chronic diseases are responsible for 7 of 10 deaths each year, and the Centers for Disease Control and Prevention reports that treating people with chronic conditions accounts for 86% of our nation's health care costs.

Health risk behaviors are unhealthy behaviors that can be changed. Just four health risk behaviors - lack of exercise or physical activity, tobacco use, poor nutrition, and excessive alcohol consumption - cause much of the illness, suffering, and early death related to chronic diseases.

Cancer Incidence

The number of new cases of cancer (cancer incidence) is 454.8 per 100,000 men and women per year (based on 2008-2012 cases).[1]

Figure 33. Cancer Mortality Rates for Henrico. 2008-2012

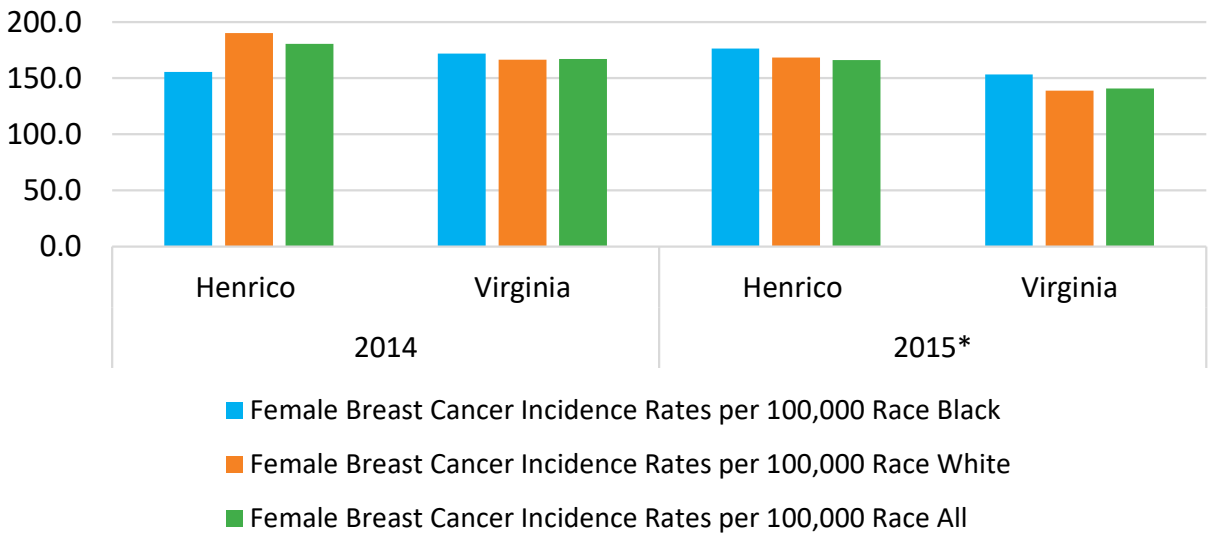


The preceding chart shows the death rates of Henrico County residents broken down by race and gender. According to the data above, males and blacks have higher death rates than females and whites, respectively. More black males die compared to white males and the same remains for black females versus black males. Overall, black males and females die more than white males and females.

Female Breast Cancer

Breast cancer is a leading cause of cancer death among women in the U.S. According to the American Cancer Society, about 1 in 8 women will develop breast cancer and about 1 in 36 women will die from breast cancer. Breast cancer is associated with increased age, hereditary factors, obesity, and alcohol use.

Figure 34. Female Breast Cancer Incidence Rates per 100,000



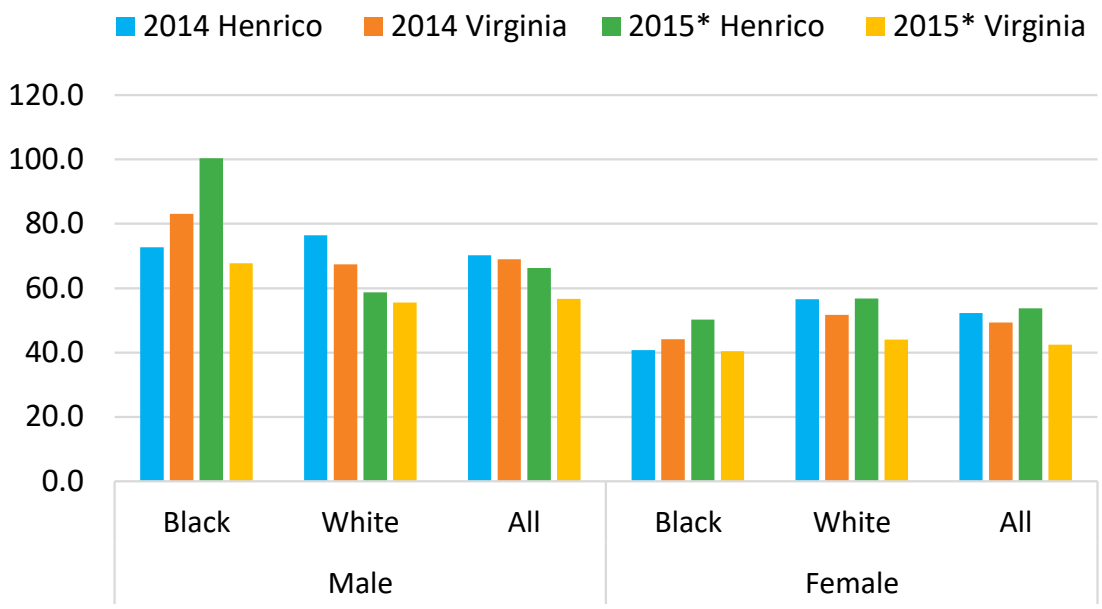
*2015 data are provisional and subject to change following National Program of Cancer Registries (NPCR) submission for 2017.

This chart depicts the incidence of female breast cancer in both Virginia and Henrico County for years 2014-2015. While the number of white females in Henrico County with breast cancer dropped from year to year, the number of black females went up. However the black female rate for the state of Virginia went down. Overall, there was a decrease of breast cancer for all races for both county and state between years 2014 and 2015.

Lung Cancer

According to the American Lunch Association, more people die from lung cancer actually than any other type of cancer. The greatest risk factor for lung cancer is duration and quantity of smoking.

Figure 35. Lung Cancer Incidence Rates per 100,000

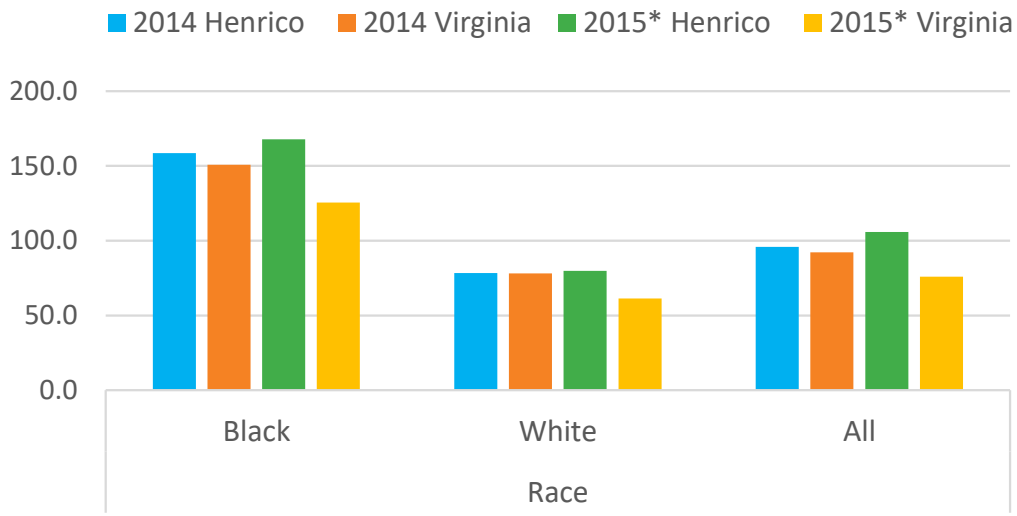


From 2014 to 2015, lung cancer incidence rates for black male and females increased, while rates for white males decreased and females stayed about the same. The overall rate of males in the county decreased and the female rate slightly increased. For the state of Virginia, all males and females (black, white, all races) decreased in lung cancer incidence.

Prostate Cancer

Prostate cancer is the leading cause of cancer death among men in the U.S. The greatest risk factors for prostate cancer are age and race, with men over the age of 65 and men of African American decent possessing the highest incidence rates of prostate cancer in the U.S.

Figure 36. Prostate Cancer Incidence Rates by Race, per 100,000



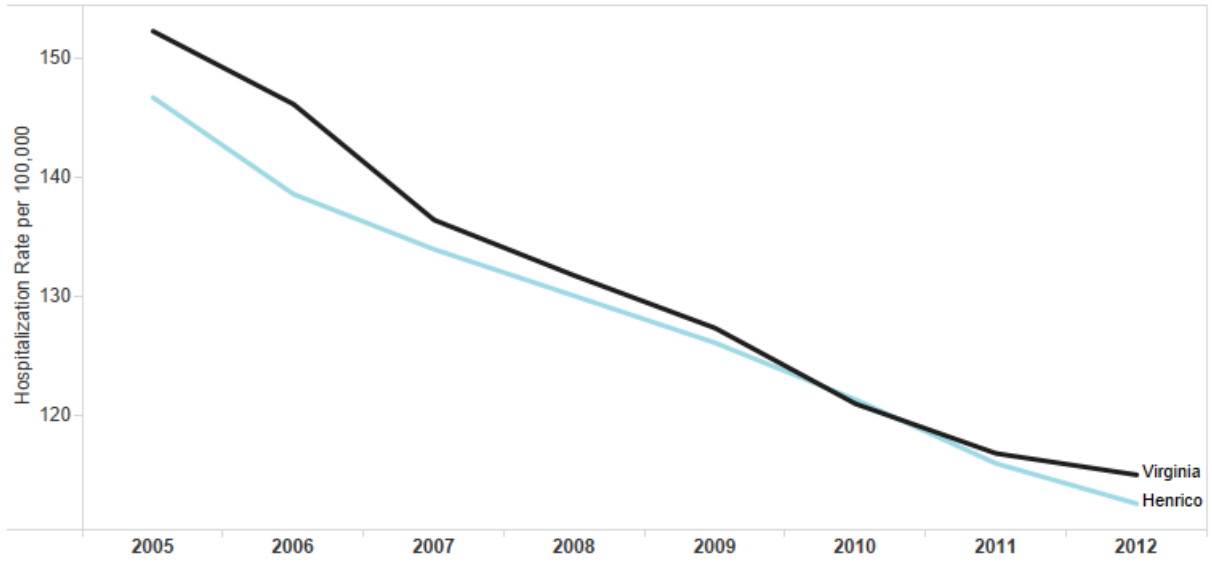
Source: VDH. Virginia Cancer Registry, 2014-2015. *2015 data are provisional and subject to change following National Program of Cancer Registries (NPCR) submission for 2017.

The preceding chart shows the rate of prostate cancer incidence for years 2014 and 2015 in Henrico County and statewide. There was a decreasing trend of prostate cancer for black, white, and all races in the state of Virginia for the 2 consecutive years. However, Henrico County showed an increasing trend for black and all races while the rate for white males stayed about the same.

Heart Disease

Heart disease is a term that encompasses a variety of different diseases affecting the heart. Not only is heart disease one of the leading causes of death in women, but it is the leading cause of death in the United States overall. There are many modifiable risk factors for heart disease including tobacco smoking, obesity, sedentary lifestyle, and high levels of low-density lipoprotein in blood serum.

Figure 37. Heart Disease Hospitalization Rate Trend- 3-year rolling rate



Source: Virginia Inpatient Hospitalization and Virginia Health Information

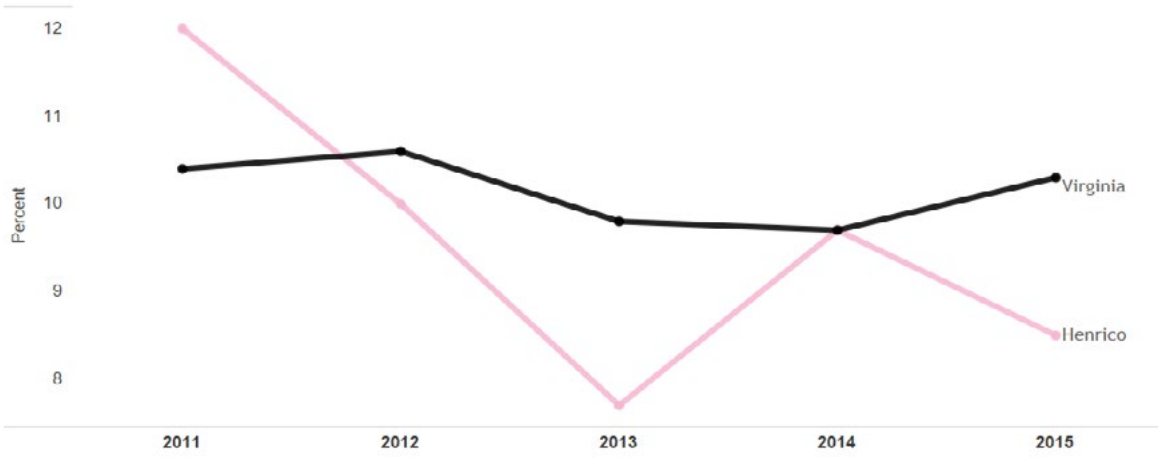
Hospital discharges due to heart disease steadily decreased from 2005 to 2012 in both Henrico and Virginia. Henrico continues to have fewer hospitalizations due to heart disease compared to Richmond City, Chesterfield, and Virginia overall.

Diabetes

Diabetes is a leading cause of death in the United States. According to the Centers for Disease Control and Prevention (CDC), more than 25 million people have diabetes, including both diagnosed and undiagnosed cases. This disease can have a harmful effect on most of the organ systems in the human body; it is a frequent cause of end-stage renal disease, non-traumatic lower-extremity amputation, and a leading cause of blindness among working age adults.

Persons with diabetes are also at increased risk for ischemic heart disease, neuropathy, and stroke. According to the CDC, the direct medical expenditures attributable to diabetes are over $116 billion. Diabetes disproportionately affects minority populations and the elderly, and its incidence is likely to increase as minority populations grow and the U.S. population ages.

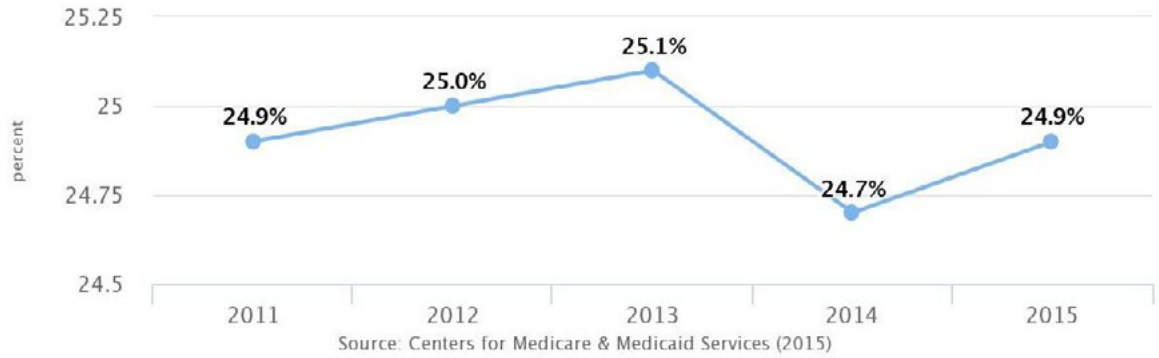
Figure 38. Percentage of adults who have been diagnosed with diabetes



Source: VDH. Division of Policy and Examination. BRFSS.

The graph above displays the trend lines for adults diagnosed with diabetes in Virginia and Henrico from 2011 to 2015. According to the 2015 BRFSS, 8.5% of adults were diagnosed with diabetes; this is continuously less than Virginia and surrounding counties and cities.

Figure 39. Percent of Medicare Population with Diabetes, Henrico



Source: Centers for Medicare & Medicaid Services (2015)

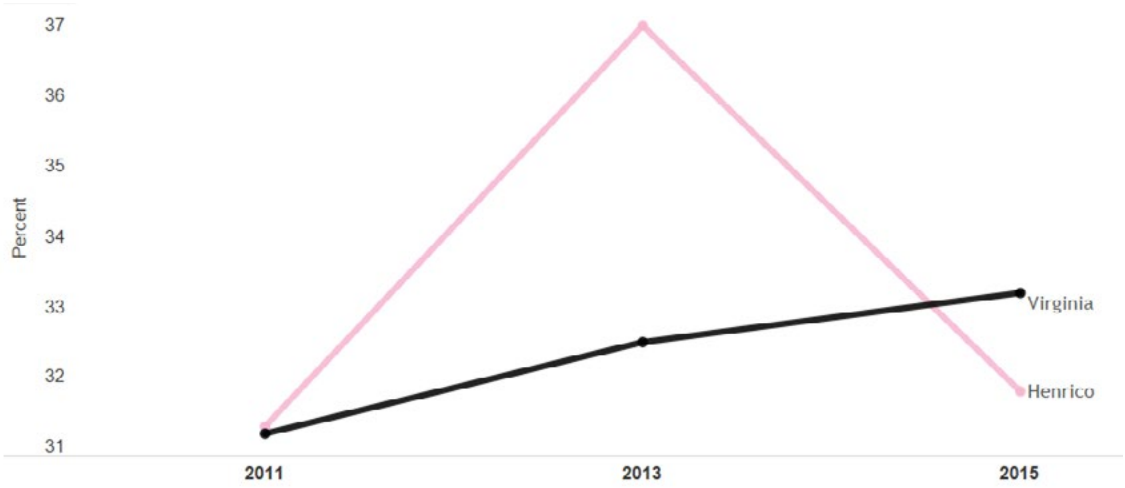
The percentage of Medicare beneficiaries with diabetes has remained steady over the last 5 years, peaking in 2013 at 25.1%. This is lower than surrounding counties and Richmond City. In 2014, 88.2% of diabetic Medicare patients ages 65-75 had a blood sugar (HbA1c) test in the last year.[1]

Hypertension

High blood pressure is the number one modifiable risk factor for stroke. In addition to stroke, high blood pressure also contributes to heart attacks, heart failure, kidney failure, and atherosclerosis. The higher your blood pressure, the greater your risk of heart attack, heart failure, stroke, and kidney disease.

In the United States, 1 in 3 adults has high blood pressure, and nearly one-third of these people are not aware that they have it. The only way to tell if you have high blood pressure is to have your blood pressure checked. Blood pressure can be controlled through lifestyle changes, including eating a heart-healthy diet, limiting alcohol, avoiding tobacco, controlling your weight, and staying physically active.

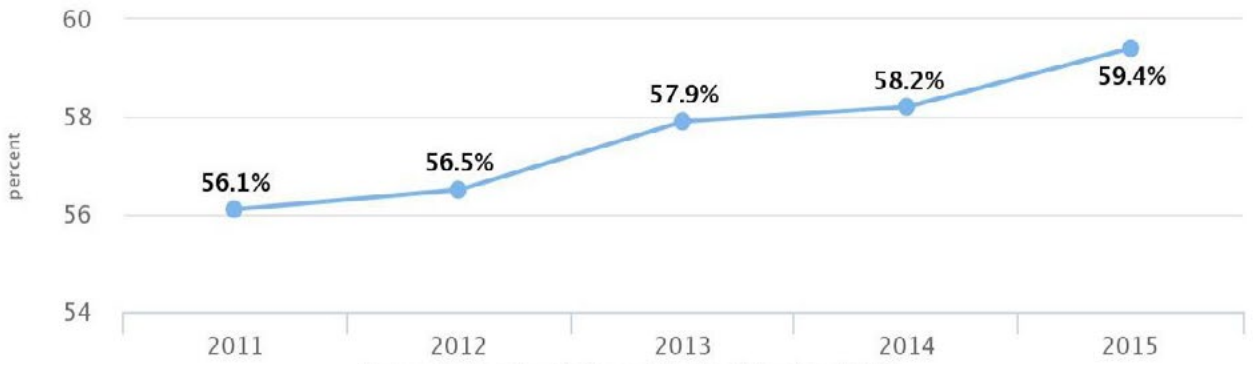
Figure 40. Percentage of adults diagnosed with high blood pressure



Source: VDH. Division of Policy and Examination. BRFSS.

The percentage of adults diagnosed with high blood pressure significantly decreased from 2013 to 2015. The Healthy People 2020 national health target is to reduce the proportion of adults aged 18 years and older with high blood pressure to 26.9%. In order to meet the 2020 goal and decrease the probability of stroke and other cardiac trauma, Henrico residents must take charge in managing and preventing hypertension.

Figure 41. Hypertension: Medicare Population - Change over Time, Henrico



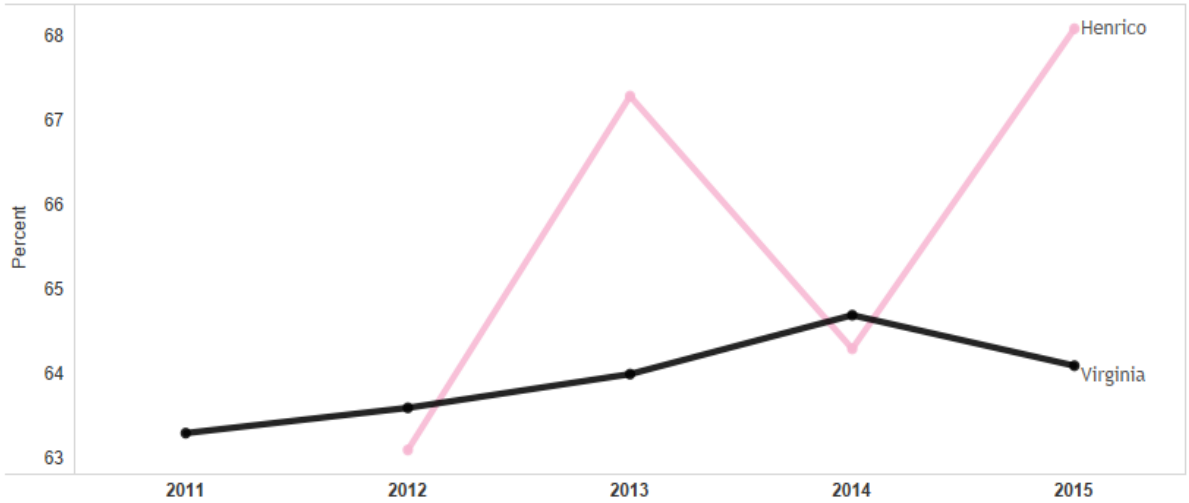
Source: Centers for Medicare & Medicaid Services (2015)

The percentage of Medicare beneficiaries who were treated for hypertension has steadily increased over the last five years. This is higher than surrounding counties and Richmond City.

Obesity

The percentage of obese adults is an indicator of the overall health and lifestyle of a community. Obesity increases the risk of many diseases and health conditions, including heart disease, type 2 diabetes, cancer, hypertension, stroke, liver and gallbladder disease, respiratory problems, and osteoarthritis. Losing weight and maintaining a healthy weight help to prevent and control these diseases. Being obese also carries significant economic costs due to increased healthcare spending and lost earnings.

Figure 42. Overweight or Obese Trend- Henrico verses Virginia



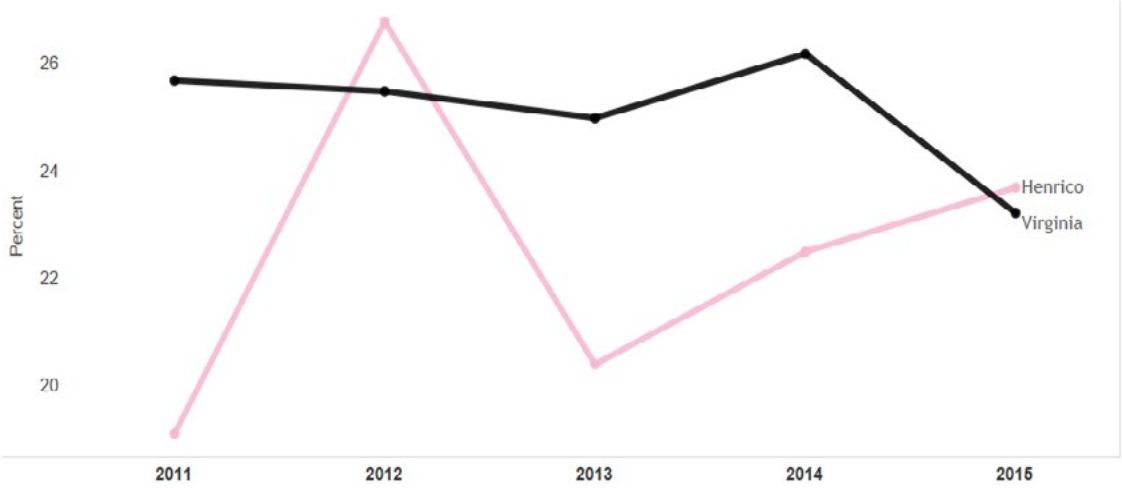
Source: VDH. Division of Policy and Examination. BRFSS.

According to the BRFSS, the percentage of adults who had a BMI of 25 or greater, increased from 64% in 21014 to 68% in 2015. This was 4% higher than adults in Virginia overall. Of the 64% of adults in 2014, 26% were obese, or had a BMI greater than 30.

Arthritis

Arthritis is a collection of conditions and disorders of the joints, bones, muscles, cartilage, and other connective tissues. According to the Arthritis Foundation, more than 50 million adults have doctor-diagnosed arthritis, and arthritis is the number 1 cause of disability in the U.S. Two common types of arthritis are Osteoarthritis (OA) and Rheumatoid Arthritis (RA).

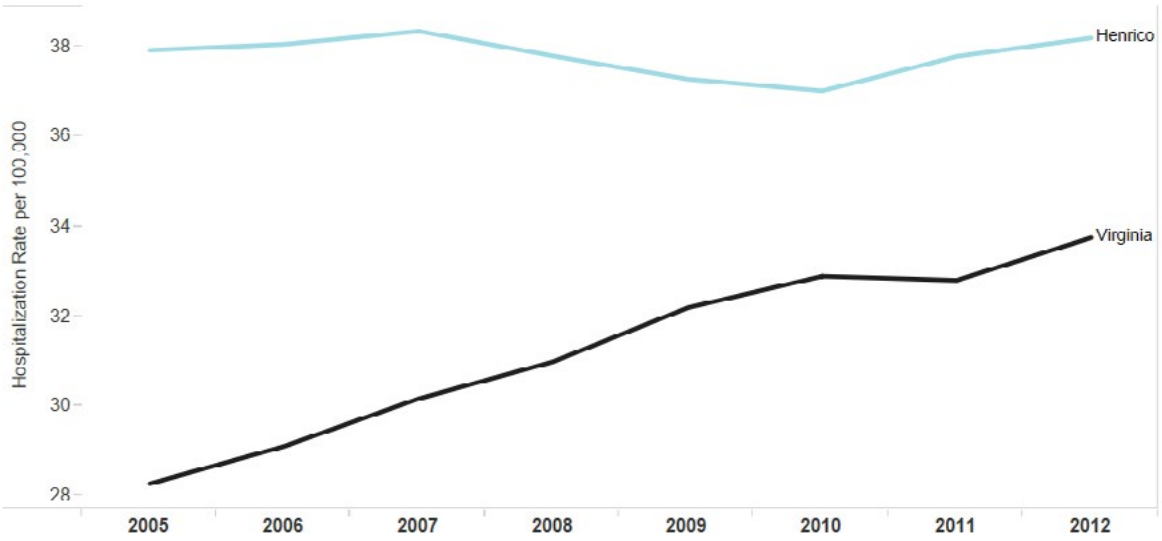
Figure 43. Arthritis Trend - Henrico and Virginia



Source: VDH. Division of Policy and Evaluation. BRFSS.

Arthritis prevalence among Henrico adults has steadily been increasing since 2013. In 2015, 23.7% of BRFSS respondents stated they had been diagnosed with some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.

Figure 44. Arthritis Hospitalization Rate Trend, Henrico and Virginia*



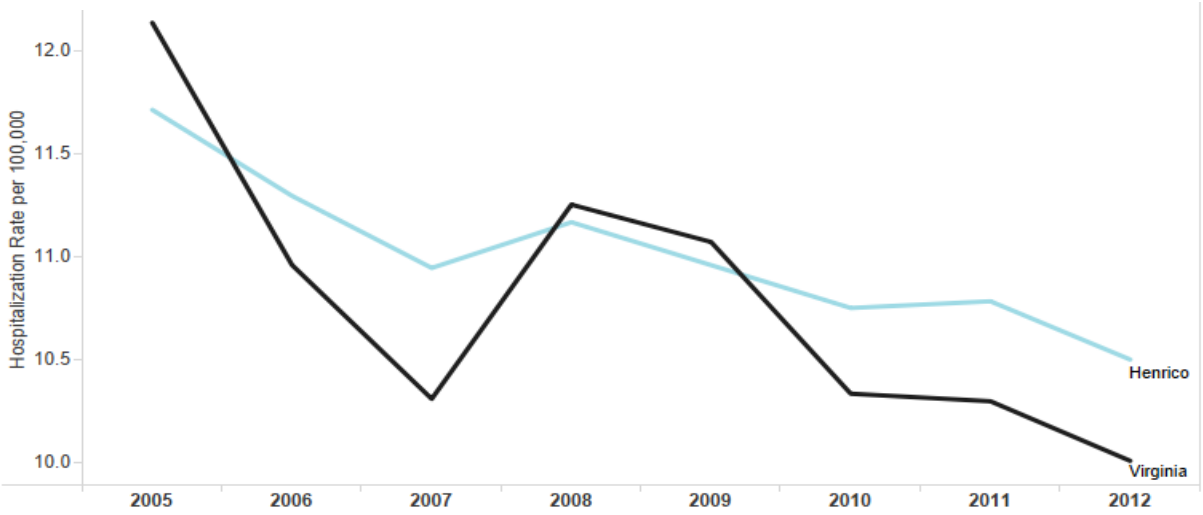
*3-Year rolling rate
Source: VDH. Division of Policy and Examination. BRFSS.

The graph above includes only hospitalizations due to OA of all body regions. There were steadily more hospital discharges due to OA in Henrico than Richmond City and across Virginia from 2005 to 2012.

Asthma in Adults

Asthma is a condition in which a person's air passages become inflamed, and the narrowing of the respiratory passages makes it difficult to breathe. Asthma is one of the most common long-term diseases of children, but it also affects millions of adults nationwide. Symptoms can include tightness in the chest, coughing, and wheezing. These symptoms are often brought on by exposure to inhaled allergens, such as dust, pollen, mold, cigarette smoke, and animal dander, or by exertion and stress. Reducing exposure to poor housing conditions, traffic pollution, secondhand smoke and other factors impacting air quality can help prevent asthma and asthma attacks.

Figure 45. Asthma Hospitalization Rate Trend, Henrico and Virginia*



Source: VDH. Division of Policy and Examination. BRFSS. *3-Year rolling rate

Hospitalizations due to asthma steadily decreased from 2005 to 2012; however, rates were higher in Henrico than Virginia. In 2012, the three- year rolling rate (per 100,000) for asthma hospitalizations was 10.5 versus 10.0 in Virginia. According to the 2014 BRFSS, the number of adults with asthma in Henrico was 10.5%, a decrease from 2011 which was 14.6%.

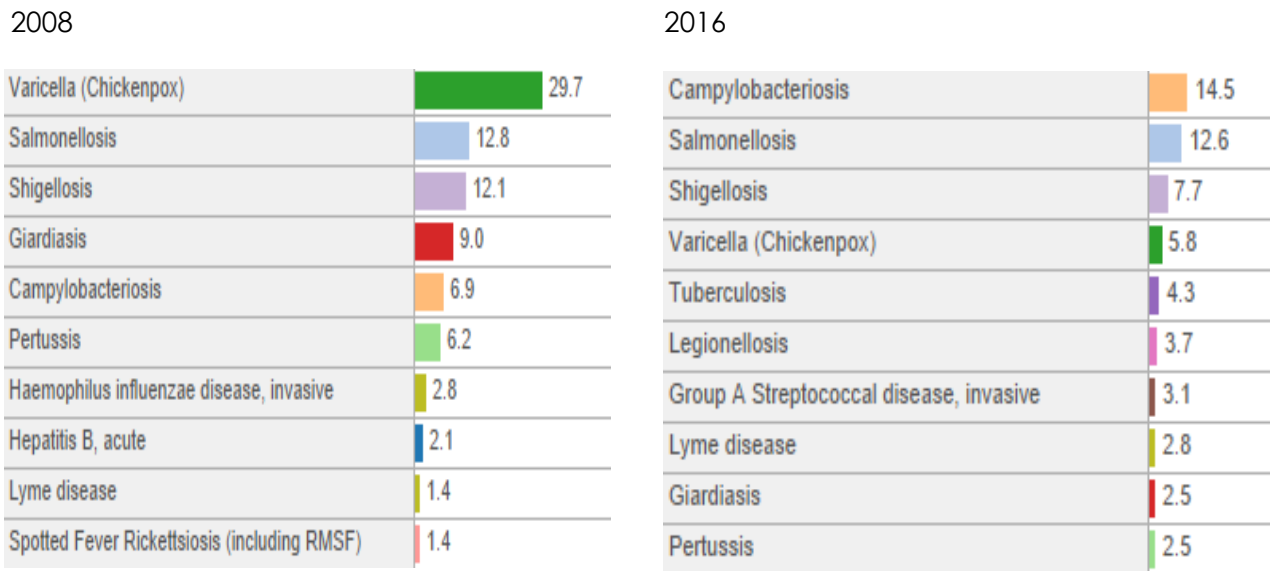
Communicable Disease

Communicable diseases are illnesses that can be transmitted from person to person or animal to person. Health care providers are required by law to report certain communicable diseases to the Virginia Department of Health. This information is essential for monitoring disease in the community, for ensuring appropriate treatment and monitoring of cases and evaluation of people who may have been exposed.

While many communicable diseases have been eradicated or greatly diminished in the United States (such as polio and smallpox), disparities are still apparent in the more prevalent infectious diseases such as sexually transmitted diseases, whooping cough, and tuberculosis.

The following pages include data indicators about select communicable diseases.

Figure 46. Top 10 Reportable Communicable Diseases by Incidence Rate per 100,000, Henrico*



Source: Virginia Electronic Disease Surveillance System. *Excludes STI and HIV, Chronic Hepatitis

Enteric and Foodborne Disease

Campylobacteriosis

Campylobacteriosis is a gastrointestinal disease caused by a type of bacteria called Campylobacter. Illness usually occurs two to five days after exposure to Campylobacter and lasts about a week. The illness is usually mild and some people with campylobacteriosis have no symptoms at all. However, in some persons with compromised immune systems, it can cause a serious, life- threatening infection. The diagnosis is usually made when a laboratory finds Campylobacter in the stool of an infected person.

In 2016, there were 47 cases of Campylobacteriosis reported to Henrico County Health Department. This was higher than all counties and Richmond City in the Central Virginia region.

Salmonellosis

Salmonellosis is an infection with Salmonella, a type of bacteria that live in the intestines of some animals. The bacteria are shed in the feces and cause diarrheal illness in people when contaminated raw or undercooked foods are consumed. It is the second most common gastrointestinal infections reported in Henrico County, and there are likely many more unreported cases in people who did not

seek medical care. Some persons, especially the elderly, infants, and those with weakened immune systems, may develop complications that require hospitalization

In 2016, Henrico had 41 cases of Salmonellosis. This was the second highest compared to all counties and Richmond City in the Central Virginia region.

Shigellosis

Shigella infection (Shigellosis) is also bacteria that can be passed through direct contact with stool. Children between the ages of 2 and 4 are most likely to get shigella infection. In 2016, Henrico had 25 cases of Shigellosis. This was higher than all counties and Richmond City in the Central Virginia region.

Tuberculosis

Tuberculosis (TB) is a bacterial disease that usually afflicts the lungs, although other parts of the body can also be affected. TB bacteria are spread through the air when a person with untreated pulmonary TB coughs or sneezes. Prolonged exposure to a person with untreated TB is usually necessary for infection to occur. In 9 out of 10 exposed people, the immune system halts the spread of the infection and the infected person does not become sick or spread disease to others. However, the bacilli remain dormant and can be activated if the immune system becomes severely weakened by HIV, diabetes, chemotherapy cancer treatments, or other causes.

From 2013 to 2016, there was a moderate increase in the total number of TB cases in Henrico County; ranging from 6 to 14 cases.

Hepatitis B and C

Hepatitis B and C are serious liver infections caused by the hepatitis B (HBV) and hepatitis C (HCV) viruses. Some people develop chronic Hepatitis B (lasting more than 6 months), which can increase risk of developing liver failure, cancer, or cirrhosis. Most people infected with hepatitis B as adults recover fully; infants and children and more likely to develop chronic hepatitis B. A vaccine can prevent it but there is no cure one an individual becomes infected.

Hepatitis C is also a blood-borne virus. Today, most people become infected with the hepatitis C virus by sharing needles or other equipment to inject drugs. For some people hepatitis C is a short-term illness but for most people who become infected with hepatitis C, it become long term, chronic.

Figure 46. Hepatitis B Incidence Rates

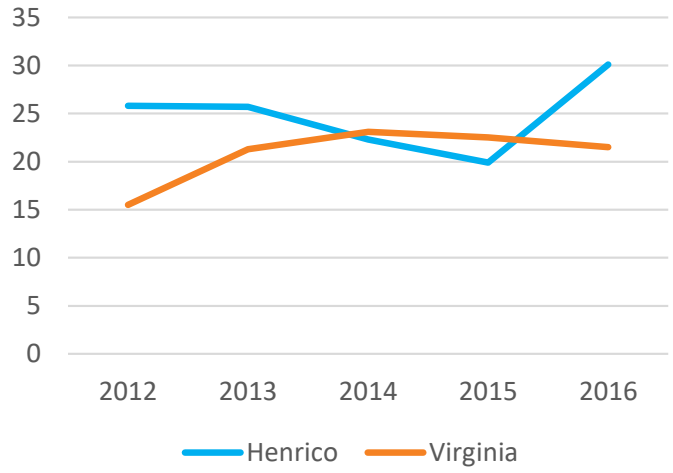
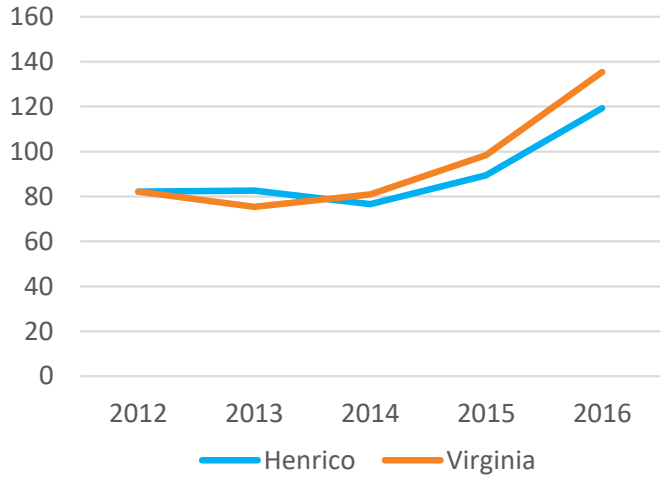


Figure 48. Hepatitis C Incidence Rates



Source: Virginia Electronic Disease Surveillance System (VEDSS)

Incidence rates for chronic Hepatitis B and C have been increasing since 2015. Henrico surpassed the state rate in 2016 at 30.1 per 100,000 population. There was a significant increase in hepatitis C rates from 2014 to 2016 in both Henrico and statewide. This could be related to the opioid epidemic our nation is facing.

Sexually Transmitted Infections

Sexually Transmitted Infections (STI) are transmitted from one person to another primarily through sexual contact. Some STIs can be cured and some STIs cannot be cured. For those STIs that cannot be cured, there are medicines to manage the symptoms.

Chlamydia

Chlamydia is caused by the bacterium *Chlamydia trachomatis*. Although symptoms of chlamydia are usually mild or absent, serious complications that cause irreversible damage, including infertility, can occur "silently" before a woman ever recognizes an infection. Rates of chlamydia were highest among young people, particularly 15-24 year old's.

Chlamydia is the most prevalent STI in the county. While also having the second highest incidence rate compared to surrounding counties and Richmond City. Chlamydia rates for Henrico have been higher than Virginia overall in the last 10 years.

Figure 49. Chlamydia Rate Trend

Source: VDH. Division of Disease Prevention.

Henrico has continuously had higher rates of chlamydia compared to surrounding counties and Virginia. In 2015, Henrico had a chlamydia incidence rate of 512.9 per 100,000.

Gonorrhea

Gonorrhea is an STI caused by Neisseria gonorrhoeae. It is typically asymptomatic, but easy to treat. However, gonorrhea has developed resistance to antibiotics over the years, complicating treatment. Left untreated, gonorrhea can cause serious and permanent health problems in both women and men. In women, gonorrhea is a common cause of pelvic inflammatory disease. In 2015, rates of gonorrhea were highest among young people, particularly those under age 29.

Figure 50. Gonorrhea Incidence Rate - Change over Time, Henrico

Source: VDH. Division of Disease Prevention.

Henrico has continuously had higher rates of chlamydia compared to surrounding counties and Virginia. In 2015, Henrico has 512.9 cases of chlamydia per 100,000.

Syphilis

Syphilis is an STI caused by a bacterium. According to the CDC, after reaching an all-time low in 2000, cases of primary and secondary (infectious) syphilis are on the rise in the United States, particularly among men having sex with men. New cases of primary and secondary syphilis in men having sex with men are often characterized by co-infection with HIV. In addition, syphilis can also be passed from mother to infant during pregnancy causing a disease called congenital syphilis.

Figure 51. Total Early Syphilis Incidence Rate- Change over Time, Henrico

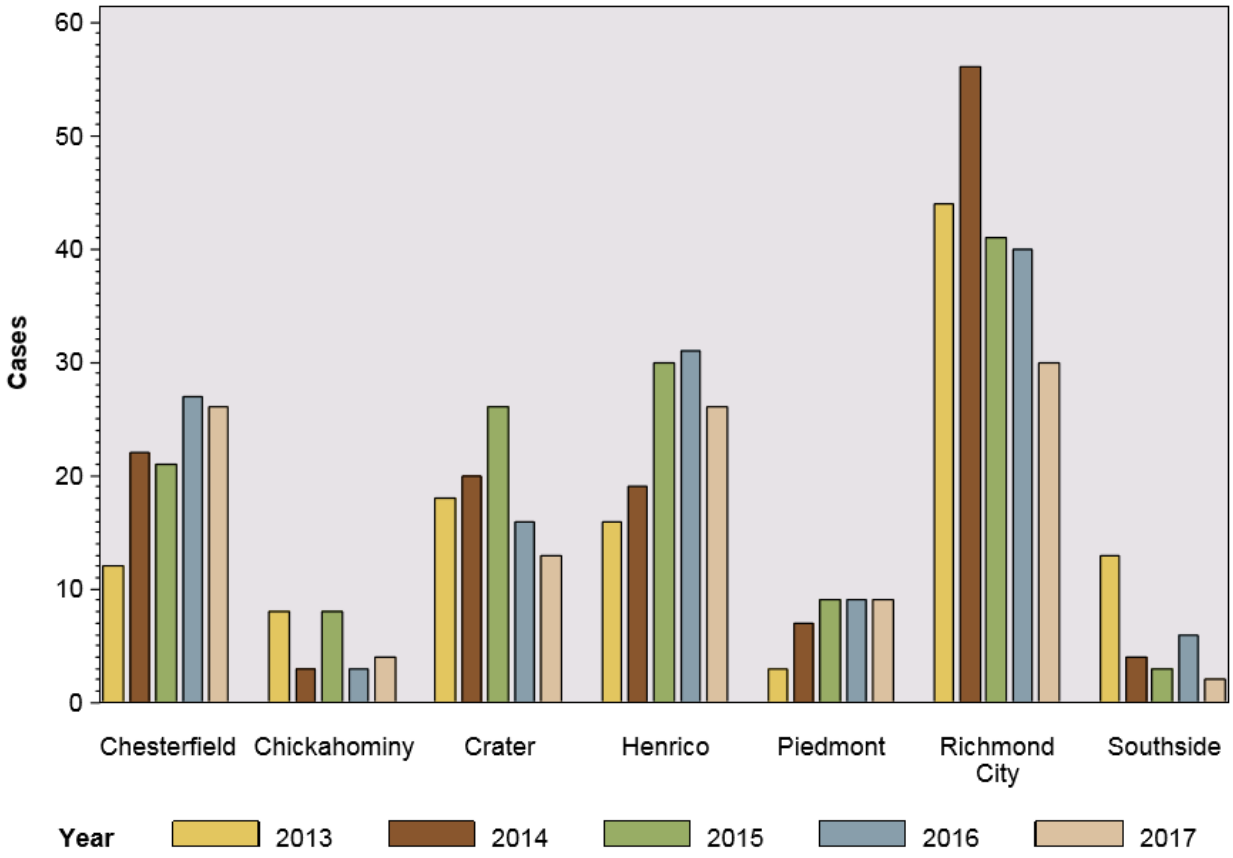
Source: VDH. Division of Disease Prevention.

From 2006 to 2015, Henrico County has generally had a higher incidence rate of total early syphilis (TES) than Virginia overall. Except in 2006, 2007, and 2015, when Virginia spiked higher in TES rates at 10.3 over Henrico's 9.6 per 100,000.

Human Immunodeficiency Virus

The human immunodeficiency virus (HIV) damages the immune system, leading infected individuals to develop acquired immunodeficiency syndrome (AIDS), a chronic and potentially life-threatening condition. People infected with HIV may develop mild infections or chronic symptoms like fever, fatigue, shortness of breath, and weight loss. If left untreated, HIV typically progresses to AIDS in about 10 years, at which point the immune system is weakened to the point of being unable to fight infections. Men who have sex with men (all races), African Americans, and Hispanics/Latinos are disproportionately affected by HIV.

Figure 52. 2013-2017 YTD HIV Disease Diagnoses in the Central Region



Source: VDH. Division of Disease Prevention.

The chart above represents the total number diagnosed cases of HIV in Henrico and the surrounding health districts. In 2016, Henrico had 30 total diagnosed HIV cases, the second highest in the Central region and has steadily increased since 2013.

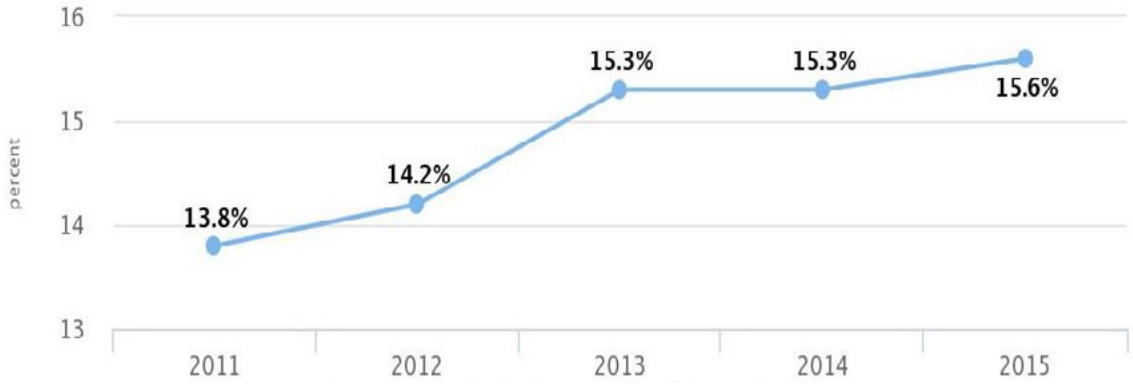
Mental Health

The US Department of Health and Human Services defines mental health as a state of successful performance of mental function that results in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity. Mental disorders are characterized by alterations in thinking, mood, or behavior (or some combination of these), which are associated with distress or impaired functioning and may cause disability, pain, or death.
Nearly 1 in 25 (10 million) adults in America live with a serious mental illness.[3]

Depression

Depression is the leading cause of disability worldwide and is a major contributor to the global burden of disease.[3] Rates vary widely by region - the poorest areas often have the highest rates of mental illness, and also often have the fewest licensed mental health professionals to provide treatment. According to the 2014 BRFSS, 17.1% of adults in Henrico County were diagnosed with depression (major, dysthymia, or minor depression). This number falls below reported percentages in Richmond City and Virginia overall.

Figure 53. Percentage of Medicare beneficiaries who were treated for depression



Source: Centers for Medicare & Medicaid Services (2015)

Opioid Prescription and Abuse

Approximately 10.2 million adults have co-occurring mental health and addiction disorders.[3] Our nation is in the midst of an unprecedented opioid epidemic. Drug overdose is the leading cause of

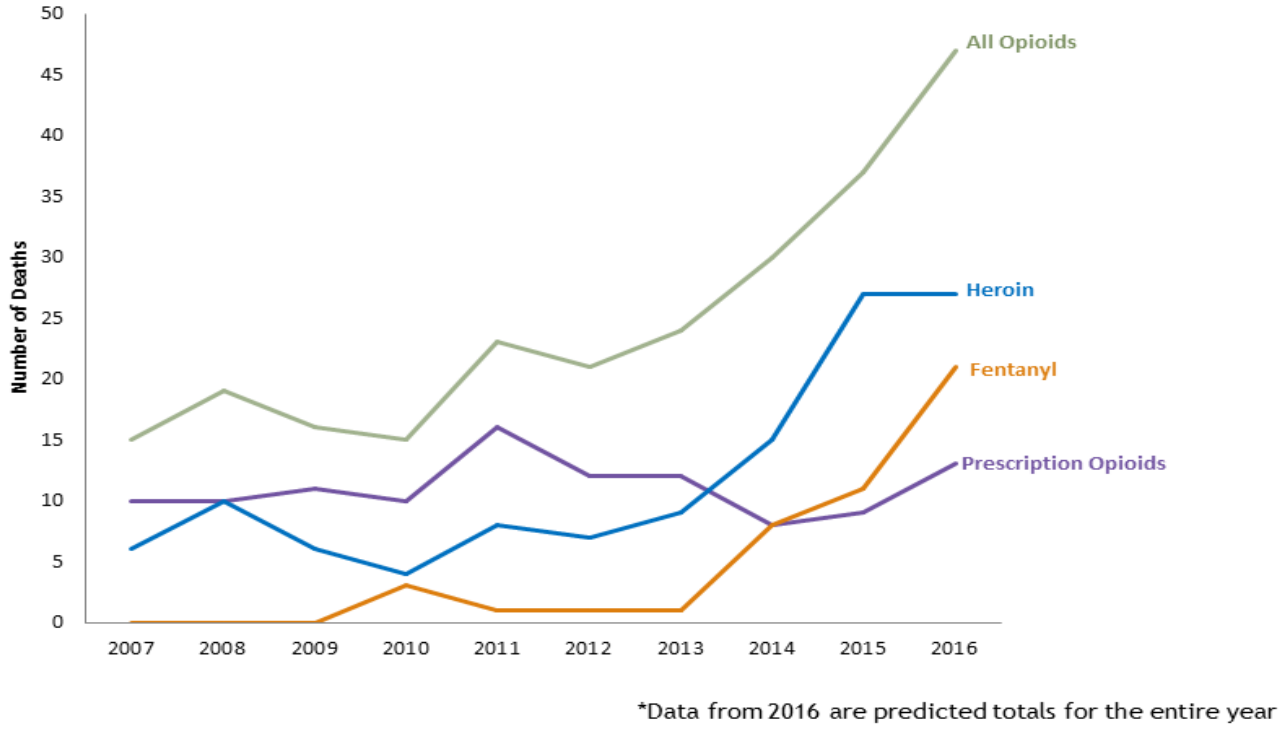
accidental death in the US, with 52,404 lethal drug overdoses in 2015. Opioid addiction is driving this epidemic, with 20,101 overdose deaths related to prescription pain relievers, and 12,990 overdose deaths related to heroin in 2015.[4]

Prevention, treatment, research, and effective responses to rapidly reverse opioid overdoses are critical to fighting the epidemic—a top priority for the U.S. Department of Health and Human Services (HHS). Thoughtfulness is essential when considering interventions, as efforts should be focused on the reduction of overuse and abuse of prescription opioids while ensuring patients with pain are treated safely and effectively.

On November 21, 2016 Governor McAuliffe issued a News Release stating that State Health Commissioner Marissa Levine has declared Virginia's opioid abuse crisis a Public Health Emergency in the Commonwealth.

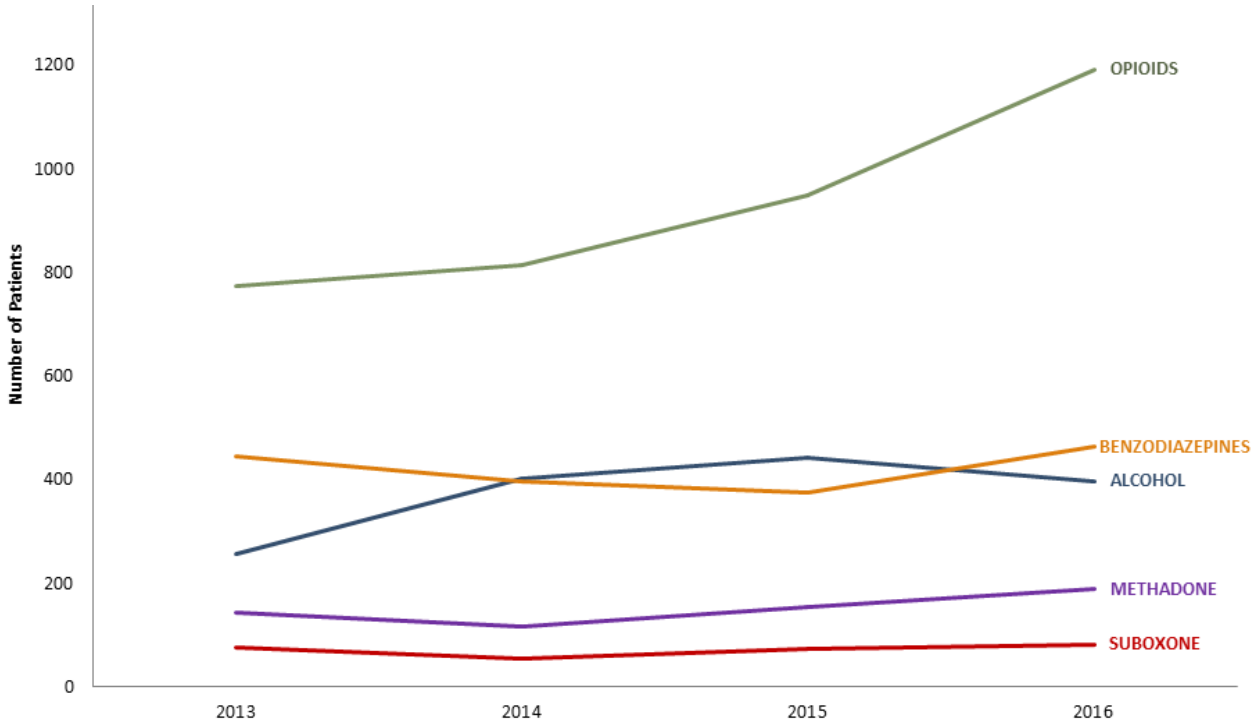
In Virginia, deaths involving all opioids (prescription, fentanyl, and heroin) have increased 110% from 2007 to 2016. Although the number of deaths due to prescription opioids was relatively stable in the last 10 years, between 2015 and 2016 there was a 44% increase. Death by opioid overdose also appears to be largely accidental in our community.

Figure 54. Overdose Deaths Involving Opioids Virginia, 2007-2016



Source: VDH. Office of Chief Medical Examiner.

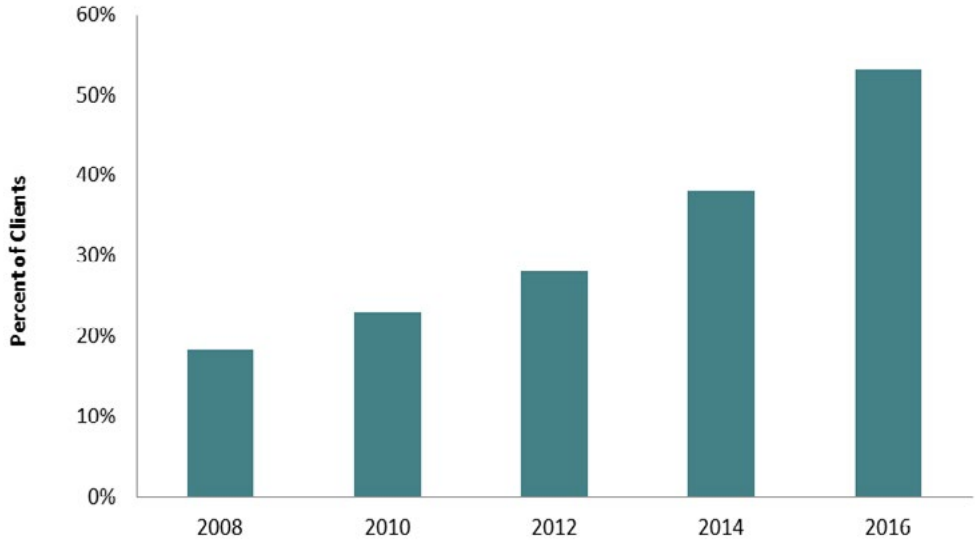
Figure 55. Individuals Undergoing Detoxification by Substance, Henrico Sheriff's Office, 2013-2016



The graphs on the preceding page illustrate some of the impact of the opioid epidemic among those who are struggling with an opioid use disorder as well as the impact on organizations trying to help. These data from the Sheriff's Office provide a summary of individuals undergoing detoxification by substance in Henrico jails. For all years, the number of opioid detoxifications was higher than for any other substance, reaching 1,192 in 2016. These data refer to individuals, not to visits. For example, 1,192 individuals went through detoxification for opioids through the Henrico jails in 2016.

Total Detox Visits for 2016 = 2,325
Total Opiate Detox Visits for 2016 = 1,192

Figure 56. Percent of Clients Presenting for Treatment with Opioid Addiction, Henrico Mental Health and Developmental Services, 2008-2016



The number of clients presenting for treatment with opioid addiction at Henrico Mental Health and Developmental Services (MHDS) nearly tripled in the five-year time span.

Bullying and Harassment

Henrico County Public Schools (HCPS) implemented a Bullying/Harassment policy in their Code of Conduct. HCPS takes bullying seriously; each situation is investigated uniquely, and therefore one case may warrant a more serious consequence than others. Persistent bullying can cause significant and long-term problems, not only for the victims and their families, but also for the perpetrators. Of the 45 public schools in Henrico County, 27 have implemented Positive Behavior Interventions and Supports (PBIS). PBIS is a framework or approach for assisting school personnel in adopting and organizing evidence-based behavioral interventions into an integrated continuum that enhances academic and social behavior outcomes for all students.

In addition, all schools have access to Silence Hurts which is an anonymous reporting system that students and families can use to report bullying or other behaviors that require attention by administration. This is a wonderful resource and works to link students with a counselor and other trusted adults to address the issue and ensures the safety of our students. I have copied Regina Brown, our Director of School Counseling. The counselors provide education, support and intervention to assist students.

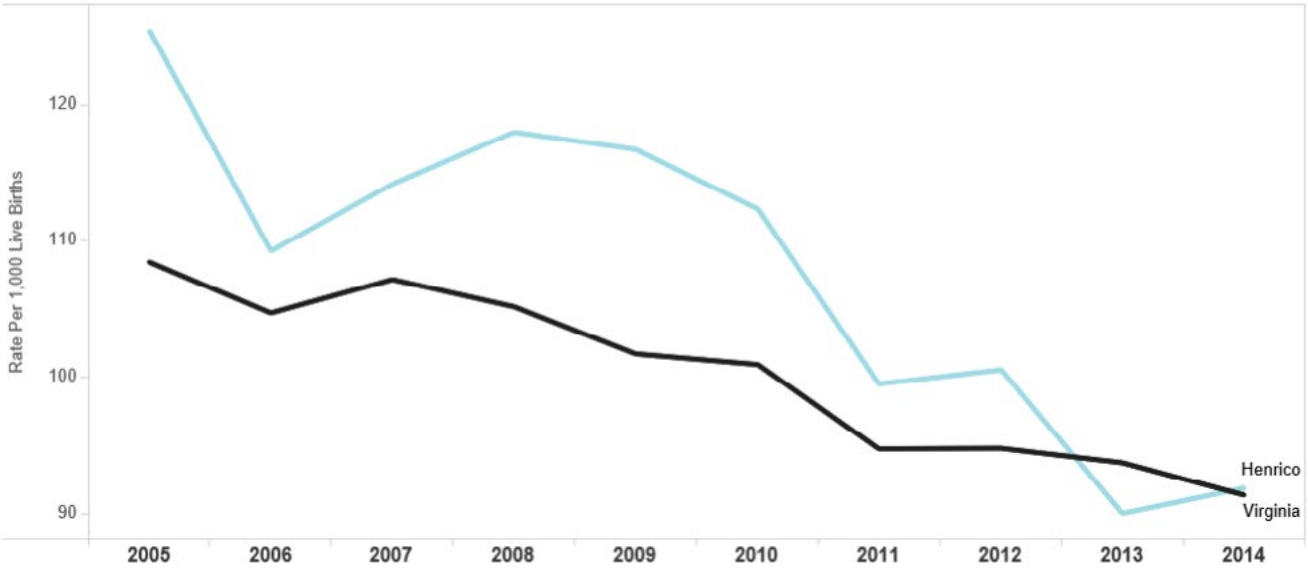
Maternal and Child Health

Among women of child-bearing age, their health behaviors during pre-conception and pregnancy can have a dramatic effect on the health outcomes of their children.

Infants Born Preterm

Infants born preterm, before 37 weeks' gestation, contribute to infant mortality rates in Henrico. With the exception of 2013, Henrico's preterm rate per 1,000 live births has been consistently higher than Virginia's.

Figure 57. Infants Born Preterm Rate Trend, Henrico verses Virginia



Source: Virginia Vital Records and Health Statistics Electronic Birth Certificate.

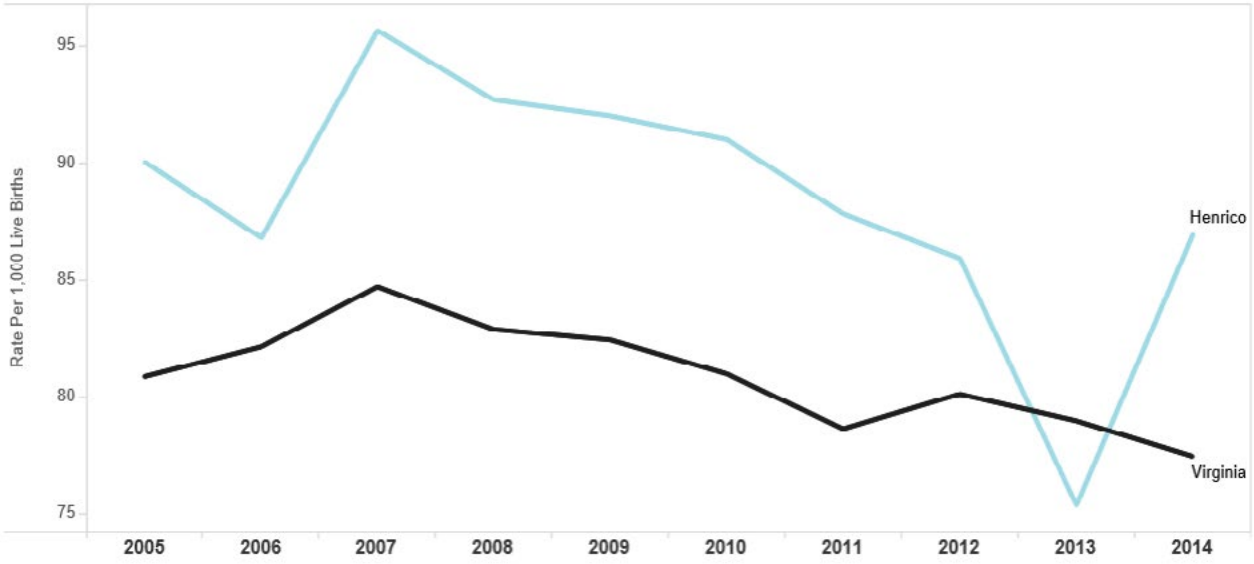
The preterm birth rate in 2014 for Henrico was 91.8 compared to the state rate of 91.3 per 1,000 live births. Henrico preterm birth rates have been trending down since 2005. Henrico has seen higher rates of preterm birth than Virginia in the same time period, with the exception of 2013.

Infants with Low Birth Weight

Preterm birth is closely linked to low birth weight - infants weighing less than 2,500 grams. Globally, low birth weight infants have a 20 times higher risk of death than heavier infants. Similar to preterm

births, with the exception of 2013, the rate of infants born with low birth weight in Henrico has been consistently higher than Virginia's overall rate.

Figure 58. Infants with Low Birth Weight Trend, Henrico verses Virginia



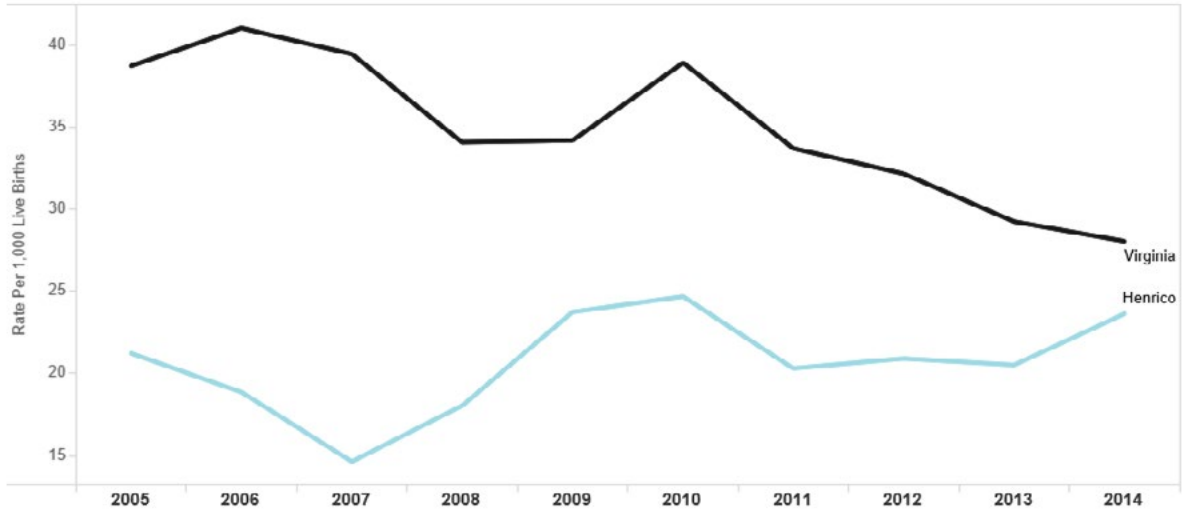
Source: Virginia Vital Records and Health Statistics Electronic Birth Certificate.

The low birth weight rate in 2014 for Henrico was 86.9 compared to the state rate of 77.5. Henrico has seen higher rates of low birth weight than Virginia in the same time period, with the exception of 2013.

Late or No Prenatal Care

Prenatal care refers to the medical care that women receive during pregnancy. To achieve the greatest benefit for both the mother and the baby, it is recommended that women begin prenatal care visits in the first trimester or as soon as pregnancy is suspected or confirmed. Henrico has experienced consistently better rates of prenatal care than Virginia during 2005-2014.

Figure 59. Late/No Prenatal Care Rate Trend, Henrico verses Virginia



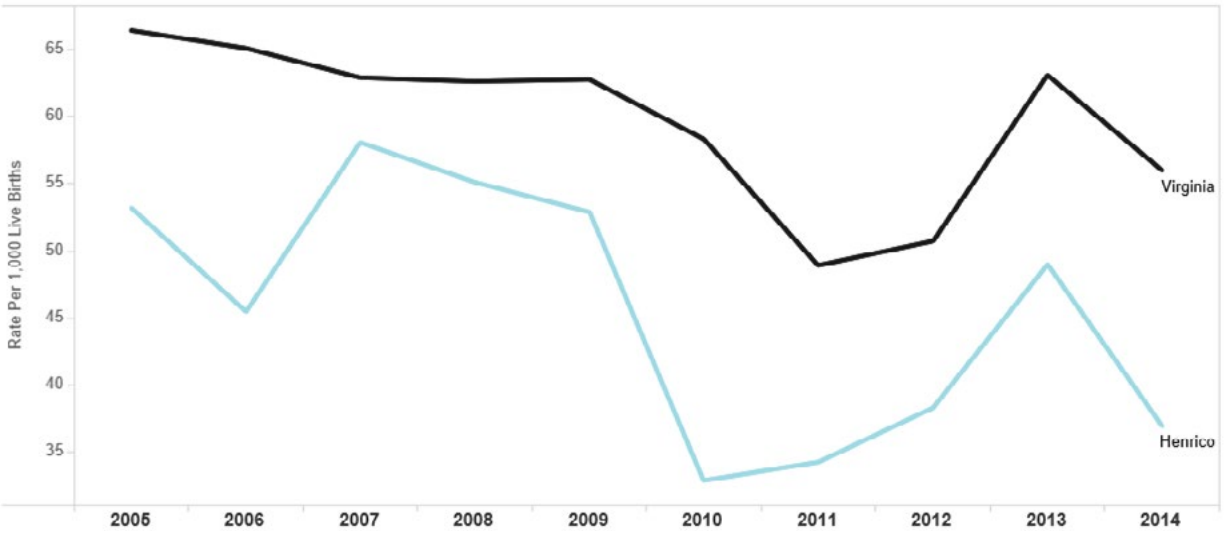
Source: Virginia Vital Records and Health Statistics Electronic Birth Certificate.

The rate of late (starting in 3rd trimester) or no prenatal care for Henrico in 2014 was 23.6 compared to the state rate of 28. Henrico has experienced varied 1- year rates of late or no prenatal care since 2005 with a lower rate of 14.6 in 2007 and a higher rate of 23.6 in 2014. Henrico has been trending upward in the rate of late or no prenatal care since 2011.

Maternal Smoking

Behavioral factors such as using tobacco while pregnant can influence infant health (preterm, low birth weight, and survival) which in turn can lead to infant mortality. Henrico's maternal smoking rates continue to be lower than Virginia's, 36.9 per 1,000 live births verses 56, respectively for 2014.

Figure 60. Maternal Smoking Rate Trend, Henrico verses Virginia



Source: Virginia Vital Records and Health Statistics Electronic Birth Certificate.

The maternal smoking rate in 2014 for Henrico was 36.9 compared to the state rate of 56 per 1,000 live births. Since 2005 the highest rate was seen on 2007 at 58 and the lowest was 32.9 in 2010. Since 2010, rates increased to 49 in 2013 with the drop to 36.9 experienced in 2014.

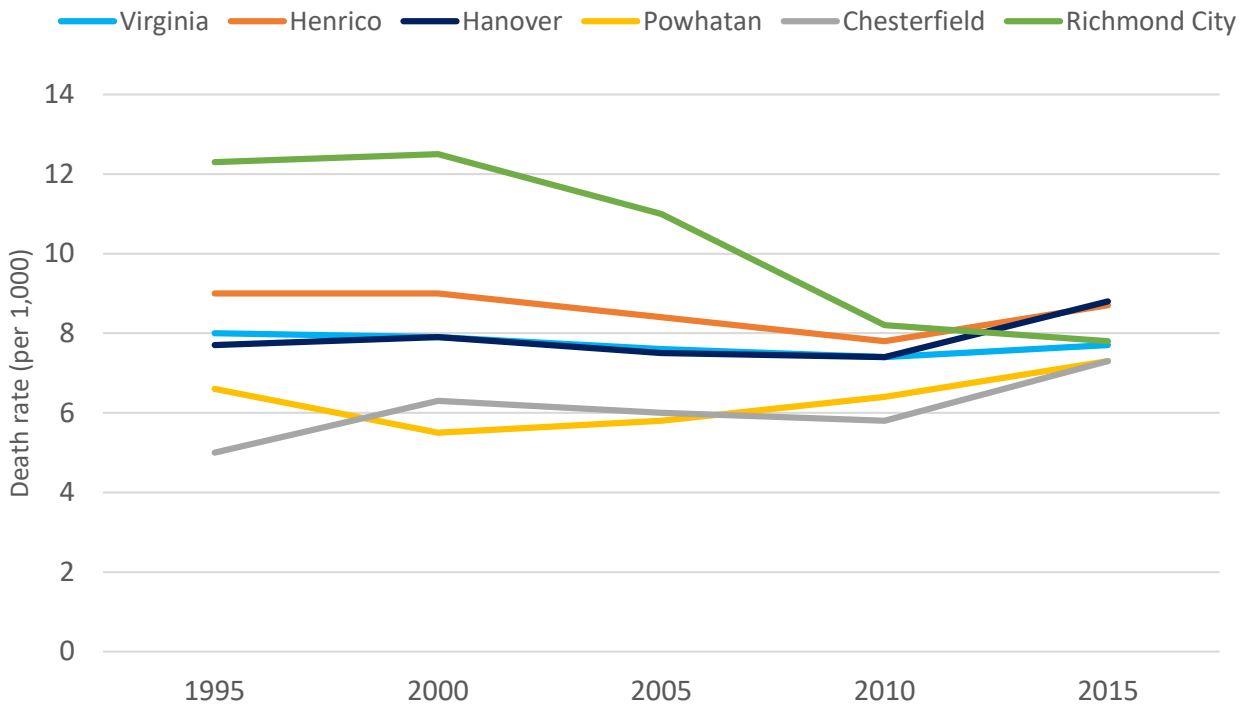
Sources

1. National Institute of Health (NIH). National Cancer Institute.
2. The Dartmouth Atlas of Health Care. General Atlas Rates. http://www.dartmouthatlas.org/tools/downloads.aspx Accessed August 2016.
3. National Institute of Mental Health. www.nimh.nih.gov
4. Rudd RA, Seth P, David F, Scholl L. Increases in Drug and Opioid-Involved Overdose Deaths — United States, 2010–2015. MMWR Morb Mortal Wkly Rep 2016;65:1445–1452. DOI: http://dx.doi.org/10.15585/mmwr.mm655051e1

Mortality

Adult/adolescent mortality rates, measures of premature mortality (years of potential life lost – YPLL), and child/infant mortality rates can be used to measure disease burden on a community. Overall mortality rate can reflect the health and well-being of a population along with the quality of healthcare available in the area.

Figure 61. Death rate by place of residence, 5-year increments



Source: VDH Division of Health Statistics Query. Data tables.

The graph above shows the death rate trend for Henrico County, Virginia, and surrounding counties and city. The death rate for Henrico has experienced a slight incline and across Virginia in the last five years. In 2015, Henrico County had 8.7 deaths per 1,000 residents, which was the third highest in resident total deaths, 2,831, across Virginia.[1]

Leading Causes of Death

Figure 62. Top 10 Leading Causes of Death in 2015, Henrico vs. Virginia

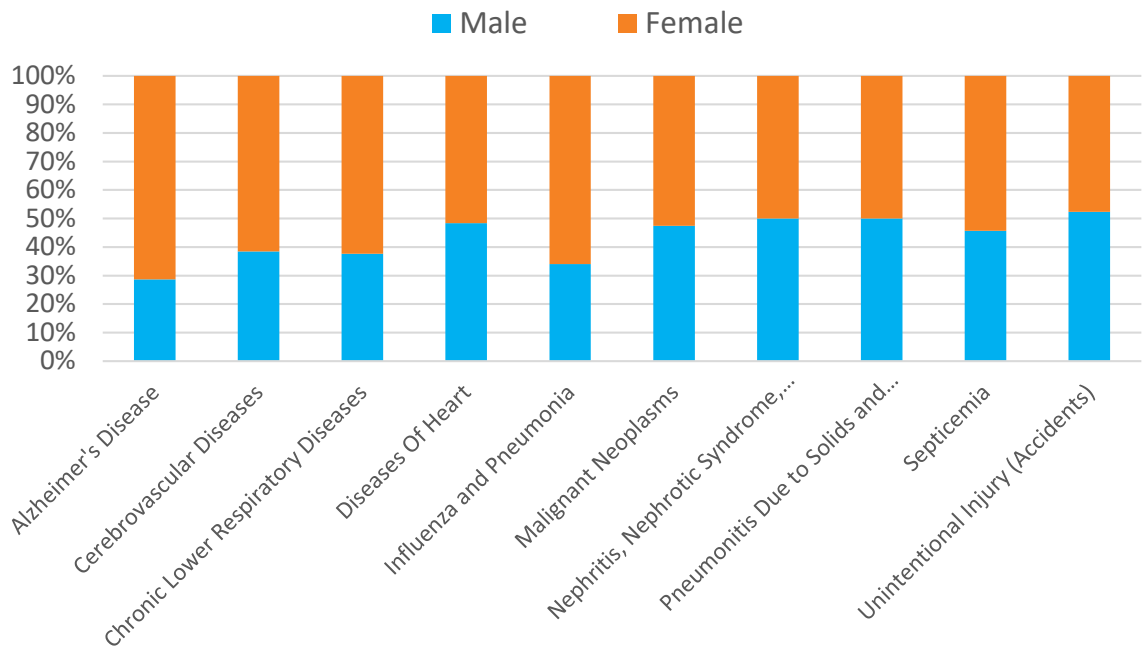
Cause of Death	Overall % Total Deaths Henrico County, VA	Overall % Total Deaths Virginia
Cancer	22.1 (n=584)	23.2 (n=14.646)
Heart Disease	21.5 (n=568)	21.8 (n=13,784)
Cerebrovascular Disease	5.4 (n=143)	5.1 (n=3,202)
Chronic Lower Respiratory Disease	5.2 (n=138)	4.9 (n=3,096)
Alzheimer's Disease	4.1 (n=108)	2.8 (n=1,765)
Unintentional Injury (Accidents)	4.0 (n=105)	4.9 (n=3,070)
Influenza and Pneumonia	3.3 (n=88)	2.4 (n=1,490)
Kidney Disease	2.6 (n=70)	2.4 (n=1,542)
Septicemia	1.7 (n=46)	2.1 (n=1,336)
Pneumonitis Due to Solids and Liquids	0.8 (n=22)	0.9 (n=558)

Where highlighted orange, proportion for Henrico County compares unfavorably to state proportion.
Where highlighted green, proportion for Henrico County compares favorable to state proportion.

Source: VDH Division of Health Statistics

Cancer and heart disease are the leading causes of death in both Henrico County and the state of Virginia. Henrico County fares better than state average in five out 10 leading causes of death (cancer, heart disease, unintentional injuries, Septicemia, Pneumonitis). In comparison to the state, Henrico County ranks worse in five out of the top 10 leading causes of death (stroke, chronic lower respiratory disease, Alzheimer's Disease, Influenza/Pneumonia, and kidney disease).

Figure 63. Percentage of Total Deaths by Cause 2014, Male /Female



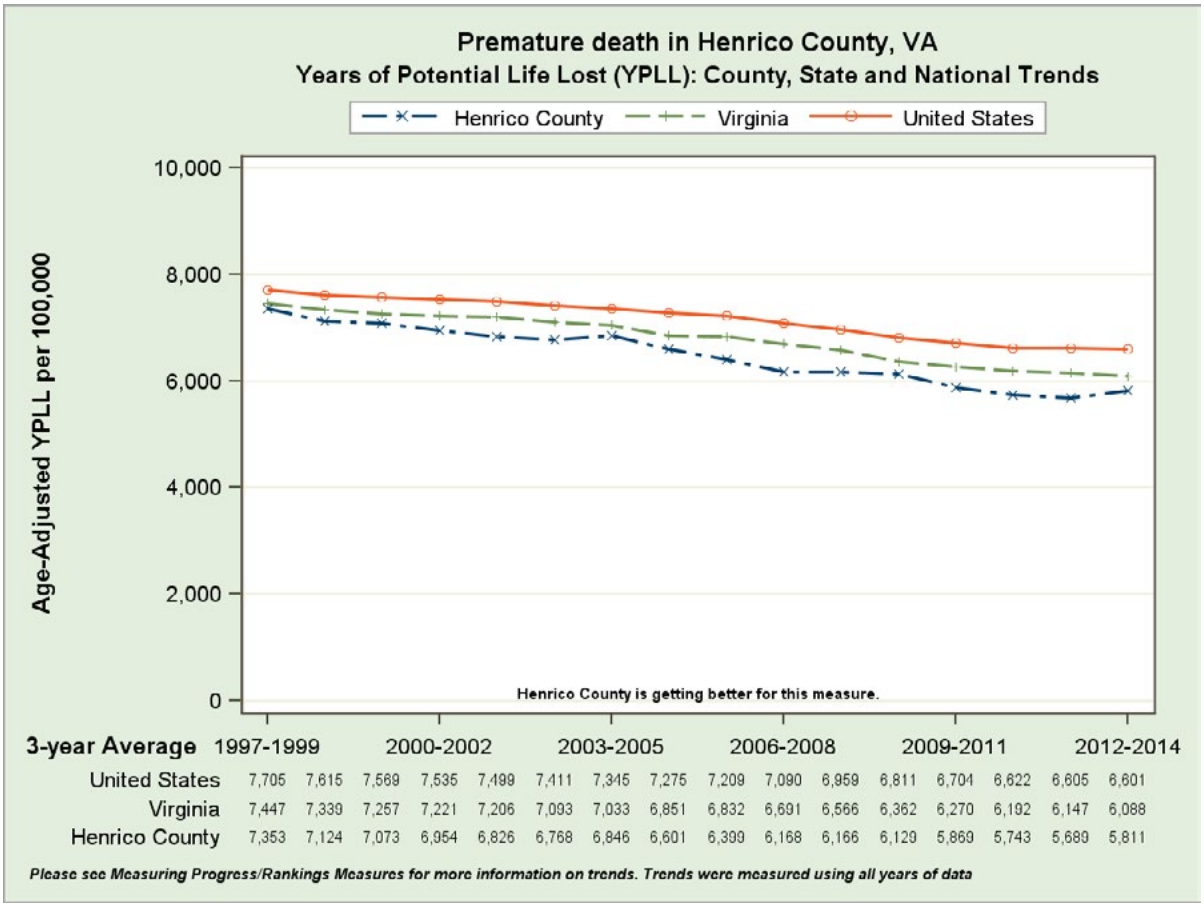
Source: VDH Division of Health Statistics Query. Data tables.

When we compare males to females (Figure 3), females in Henrico are experiencing deaths from Alzheimer's, Cerebrovascular and Chronic Lower Respiratory Diseases, and Influenza/Pneumonia more than males. All other noted causes of death have similar percentages between men and women.

Premature Death

Premature death refers to the years of potential life lost before age 75 (YPLL-75). Every death occurring before the age of 75 contributes to the total number of years of potential life lost. Measuring premature mortality, rather than overall mortality, reflects attention on deaths that could have been prevented.

Figure 64. Premature death

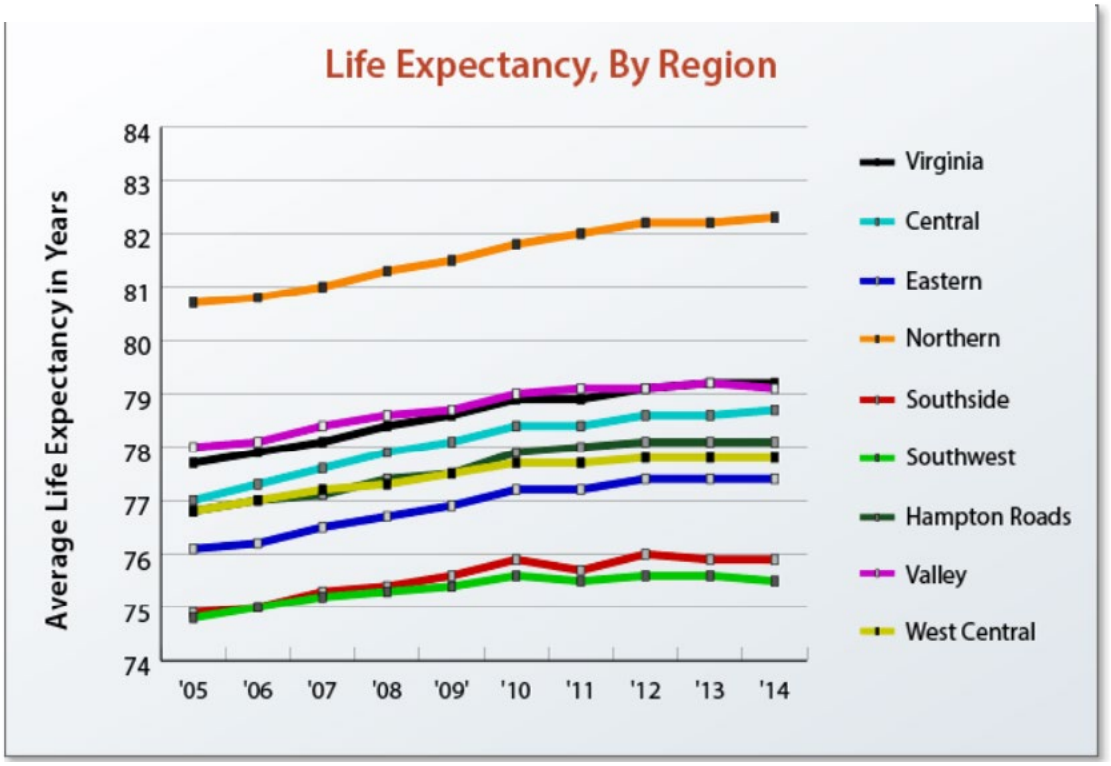


Source: The Robert Wood Johnson Foundation County Health Rankings, extracted 8/3/2017

Life Expectancy

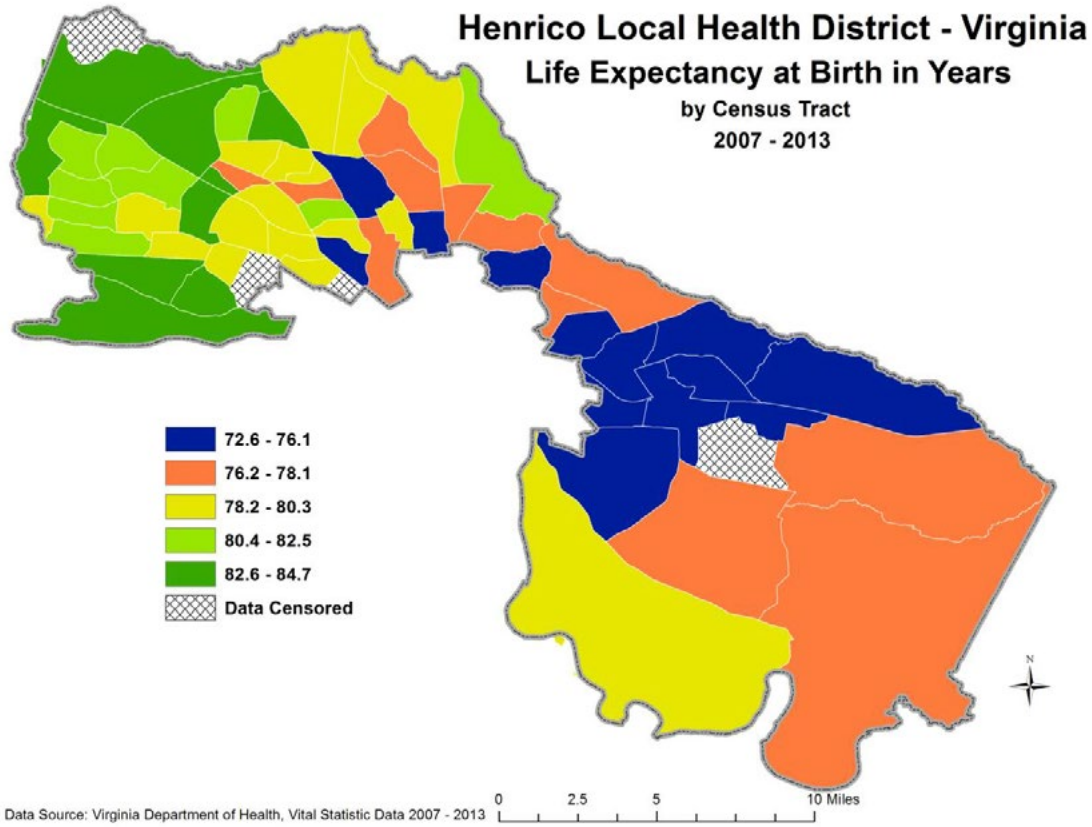
The Centers for Disease Control and Prevention (CDC) reported that in 2014, the average life expectancy at birth was 78.8 years in the United States. According to VDH's Division of Health Statistics, life expectancy at birth for Virginian was 77.48 – 79.8 years for men and 82.01 years for women. Life expectancy regional data below shows that the Central Virginia region, which includes Henrico County, had the third highest life expectancy in 2014.

Figure 65. Average Life Expectancy in Years, Virginia Regions



Source: Virginia Performs. *Henrico County is included in the Central Region

Figure 66. Life Expectancy at Birth in Years, Henrico Health District

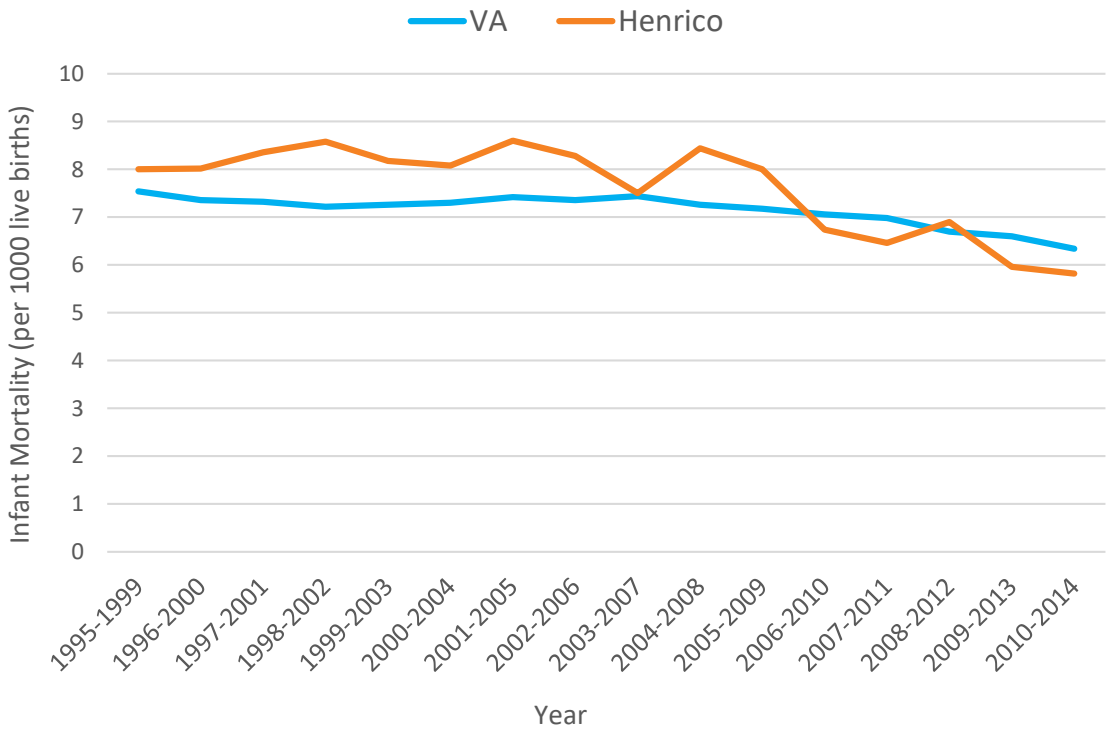


When looking at Henrico County specifically, life expectancy at birth ranges from 72.6 to 84.7 years. Life expectancy is lowest in the central part of the county and just east of Richmond City. Life expectancy is highest in the far west.

Infant Mortality

Infant mortality is the death of a child that occurs in the first year of life (between 0-364 days). Infant mortality is a key measure of population health.

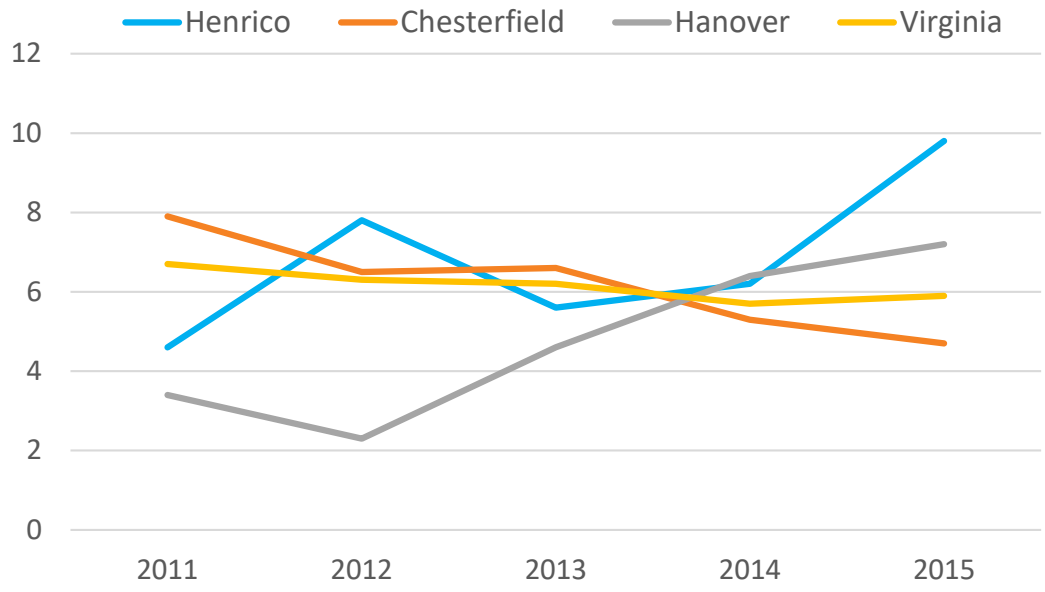
Figure 67. Five-Year Infant Mortality Rates, Henrico verses Virginia, 1995-2014



Source: VDH Division of Health Statistics Query. Data tables.

For Henrico County, the five-year rolling rates provide a better overview of what is occurring in the county, over time. When examining rates over time, the infant mortality rate (IMR) in Henrico County has experienced small spikes but has been trending downward overall since 2004. The most recent 2010-2014 rate per 1,000 live births for Henrico Infant deaths is 5.8, which falls below the state rate of 6.3. This is the lowest five-year rate noted since 1996-2000. Low birth weight/prematurity, preconception/inter-conception health, unsafe sleep practices and social determinants are all factors that can affect infant mortality.

Figure 68. Infant Mortality Rates, 2011-2015

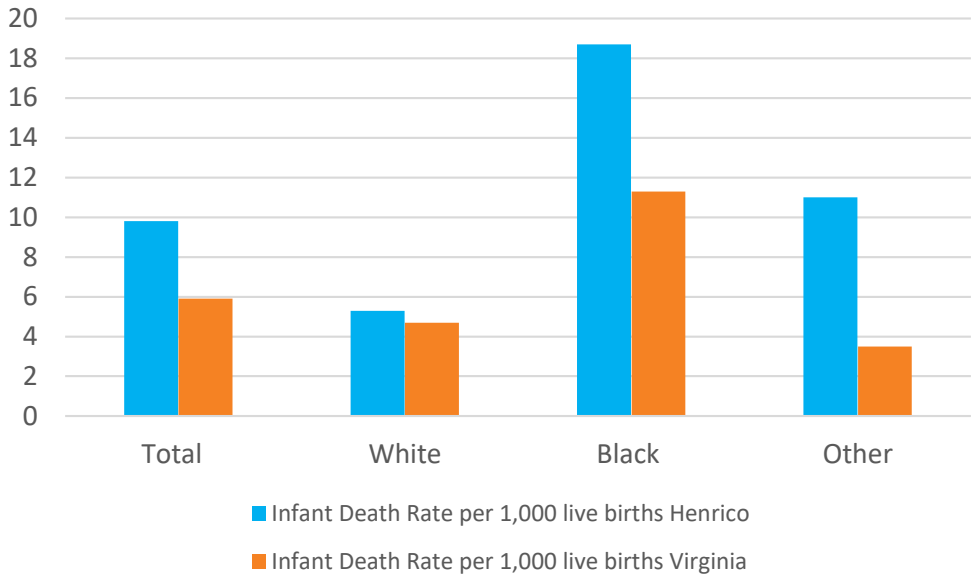


Source: VDH. Health Statistics. Infant Deaths.

While the Infant death five-year rate through 2014 is downward trending for 2015, Henrico experienced a higher rate, increasing to 9.8 compared to the state rate of 5.9. Surrounding counties of Chesterfield and Hanover also experienced lower rates than Henrico at 5.9 and 7.2 respectively.

The infant mortality rate in Henrico County has ranged from 4.6 to 9.8 infant deaths per 1,000 live births between 2011-2015. The lowest IMR of 4.6 occurred during 2011 with 2015 experiencing the highest rate at 9.8. During 2011-2015, 135 infants died before their first birthday.

Figure 69. Infant Death Rates by Race 2015, Henrico versus Virginia



Source: VDH Division of Health Statistics Query. Data tables.

When we look at race differences in infant mortality, we see significant disparities with other races experiencing double the infant mortality rate, with blacks at triple that of whites. In 2015, Henrico's infant death rate was 9.8 overall. Whites had a rate of 5.3, other races 11, and blacks 18.7. In addition, Henrico experienced higher rates in all races when compared to the state of Virginia.

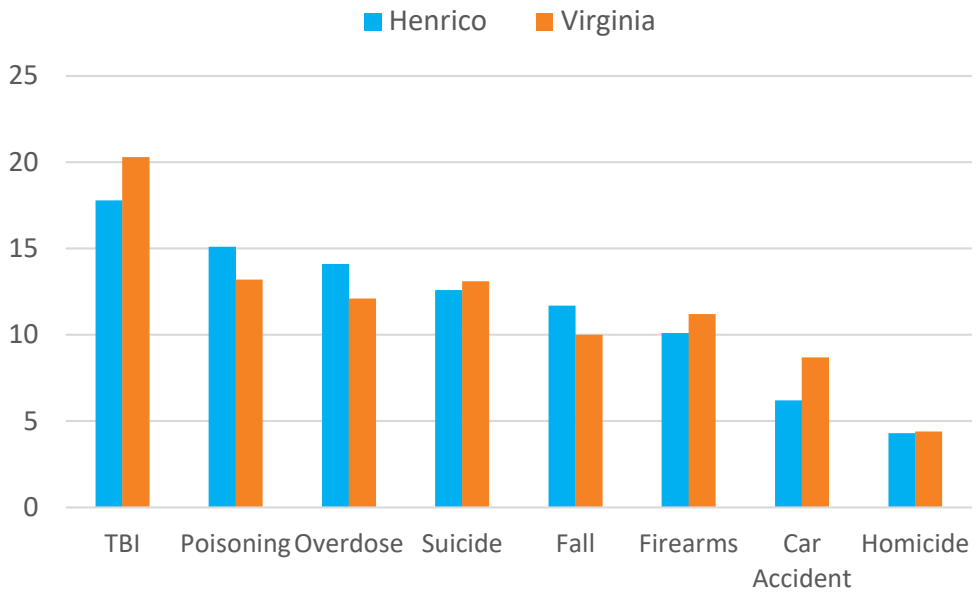
Injury and Violence Deaths

Injuries are the leading cause of death for Americans ages one to 44 and a leading cause of disability for all ages, regardless of sex, race/ethnicity, or socioeconomic status. Nationally, more than 180,000 people die from injuries each year, and approximately one in 10 sustains a nonfatal injury serious enough to be treated in a hospital emergency department.

Unintentional injury deaths result from a variety of causes such as motor vehicle traffic crashes, falls, firearms, drownings, suffocations, bites, stings, sports/recreational activities, natural disasters, fires or burns, and poisonings. In Henrico County in 2015, the most common unintentional injury deaths were traumatic brain injury, poisoning, and drug overdose.

Intentional injuries include homicide and suicide. In 2015, suicide in Henrico County occurred at a higher rate than homicide.

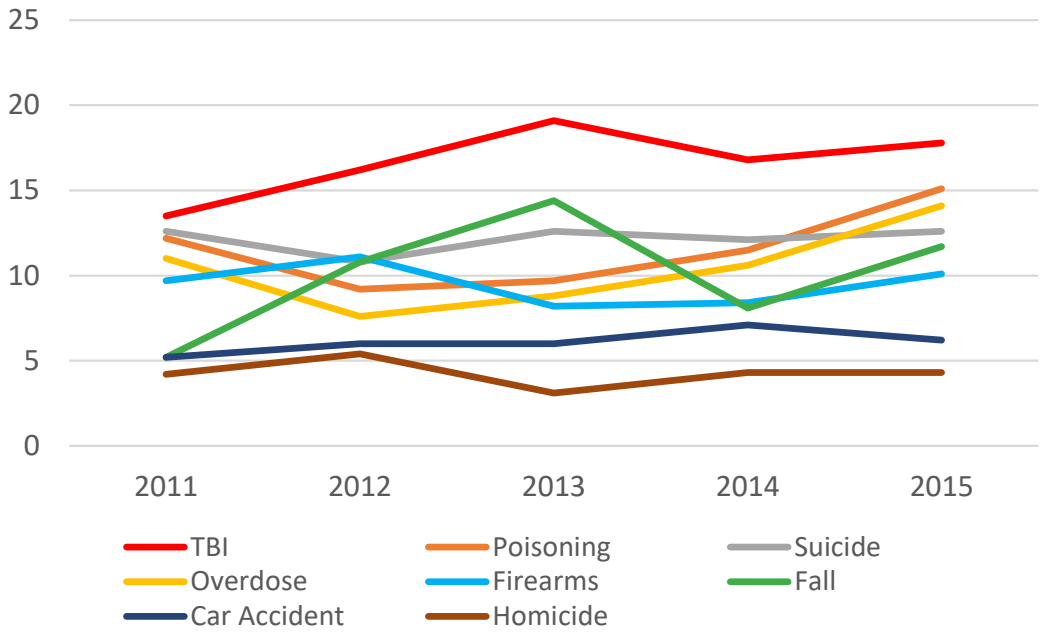
Figure 69. Injury and Violence Death Rates, 2015 Henrico verses Virginia



Source: VDH Division of Health Statistics Query. Data tables.

In 2015, the top five deaths from injuries were due to traumatic brain injuries, poisoning, drug overdoses, suicide, and falls. The top death rate for Henrico was caused by traumatic brain injuries at 17.8 per 100,000 per population, which falls below the state rate of 20.3. Henrico injury death rates for poisoning (15.1 vs. 13.2), drug overdose (14.1 vs. 12.1) and falls (11.7 vs. 10) all exceed the state rates.

Figure 70. Henrico Injury and Violence Trends, 2011-2015



Source: VDH Division of Health Statistics Query. Data tables.

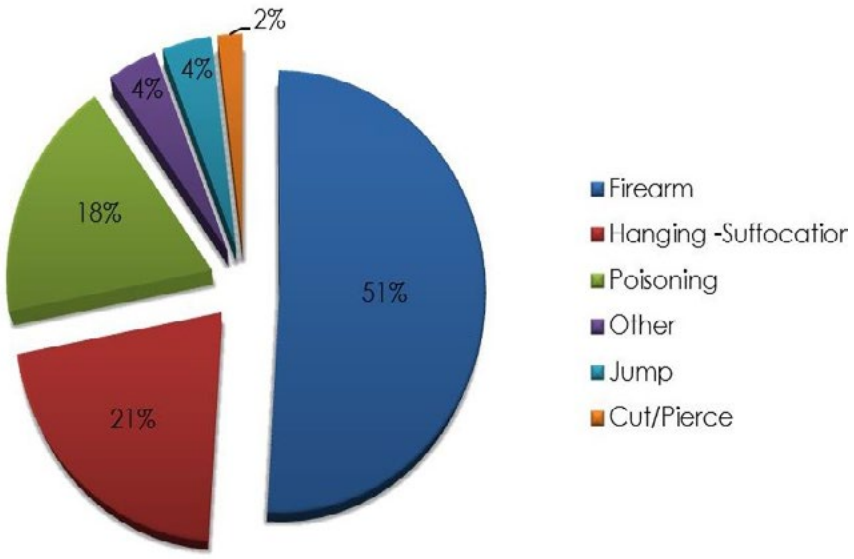
When we look at the 2011-2015 trends in injury deaths, both poisoning and overdose deaths, after a drop from 2011 to 2012, have experienced upward trending since that time. Poisoning death rate experienced a low in 2012 at 9.2 and has increased annually to reach 15.1 in 2015. Drug overdose rates have grown from a rate of 7.6 in 2012 to 14.1 in 2015. Henrico's suicide death rate has remained stable from 2011 to 2015 ranging from a low of 10.8 in 2012 and high of 12.6 in both 2011 and 2015.

Suicide

Suicide is a serious public health problem that can have lasting harmful effects on individuals, families, and communities. Its causes are complex and determined by multiple factors. The goal of suicide prevention is to reduce risk factors and increase resilience, or protective factors. Ideally, prevention addresses all levels of influence: individual, relationship, community, and societal. Effective prevention strategies are needed to promote awareness of suicide and encourage a commitment to social change (should add citation here).

- In the 10-year period from 2004 to 2014, the total number of suicides in Henrico County increased from 25 to 39.
- The average suicide rate was 11.3 per 100,000, ranging from 9 to 14 per 100,000.

Figure 71. Suicide rate by mechanism

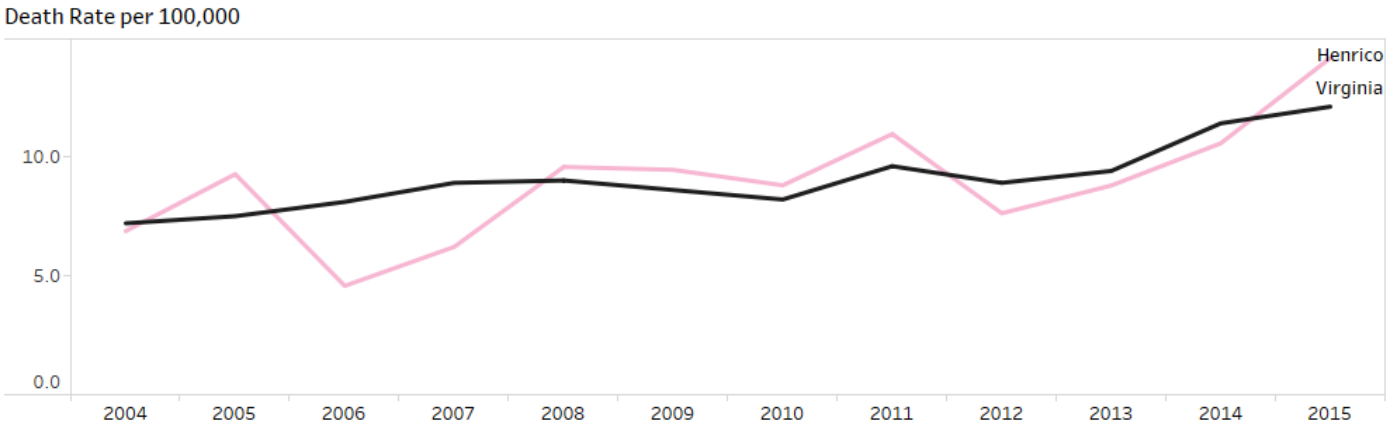


- Among Henrico County residents, from 1991-2013, the most common suicide mechanism was use of firearm (415, 51%).
- The second most common mechanism was hanging/suffocation (169, 21%) followed by poisoning (148, 18%).
- Among Henrico County residents, from 1991 to 2013, men were more likely to die by suicide with a firearm than women (56% versus 40%).
- Women were more likely than males to die by suicide via poison than men (37% versus 13%).

Drug Related Deaths

Drug overdose deaths are the leading cause of injury death in the U.S., with over 100 drug overdose deaths occurring every day. Drug overdose deaths are the third most leading cause of injury death in Henrico. According to VDH Virginia Health Information data, from 2014 to 2015 drug overdose deaths had the sharpest increase in death rate than any type of injury death.

Figure 72. Drug Overdose Death Rate Trend - Henrico verses Virginia



- The number of drug overdose related deaths in Henrico County increased by more than 300% from 2006 to 2015
- Opioid related deaths, specifically from heroin and/or fentanyl more than tripled from 2011 to 2015

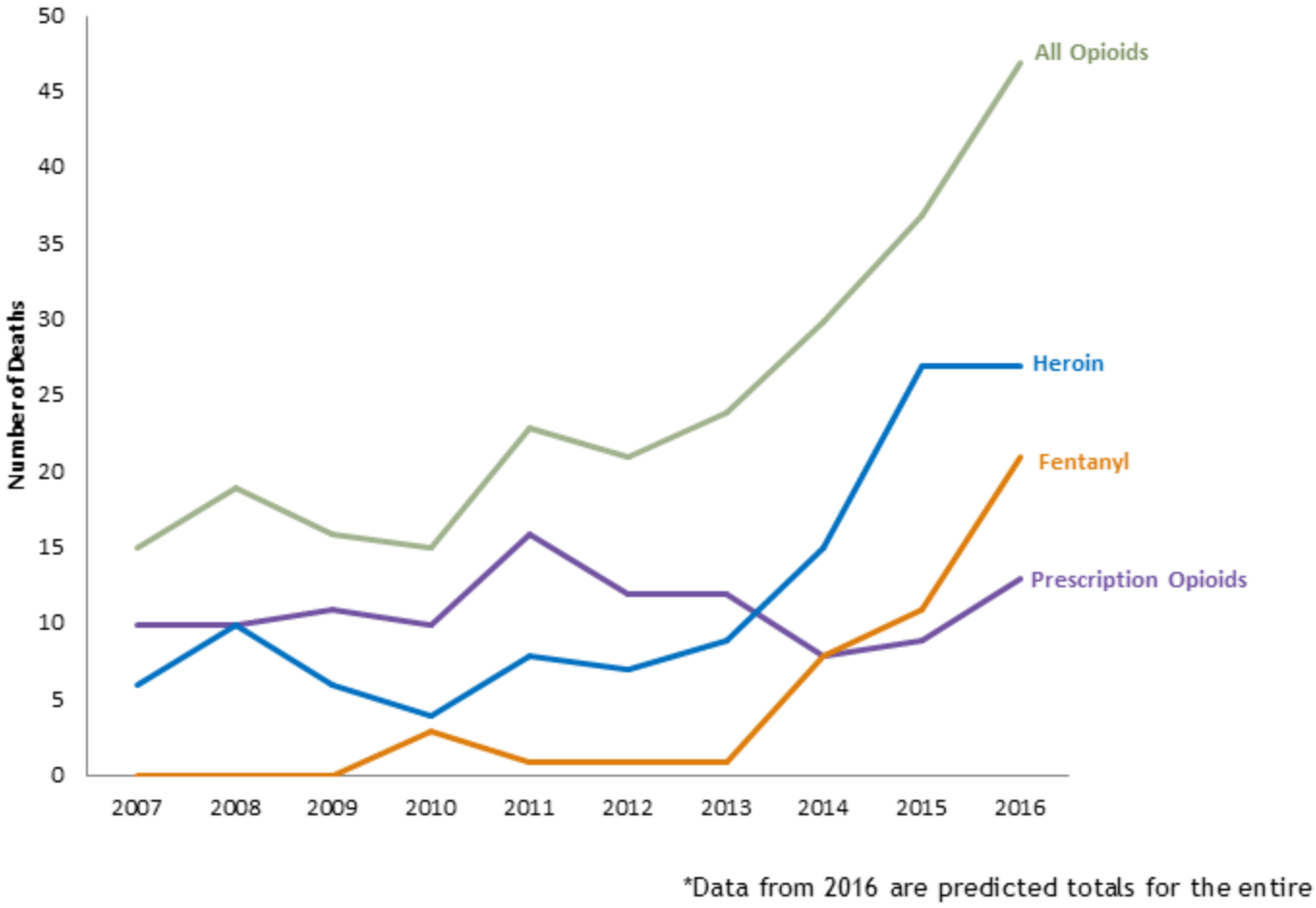
Opioid-Related Deaths

Ninety-one Americans die every day from an opioid overdose. According to the CDC, there were 33,091 opioid overdose deaths in 2015, a 16% increase from 2014. This is likely driven by heroin and illicitly manufactured fentanyl. Rates of overdose deaths involving heroin and fentanyl have been

increasing across all demographics, particularly highest among 25 to 44 year old white non-Hispanic males.

In 2016, 47 opioid overdose deaths occurred in Henrico County, a 27% increase from 2015. Nearly one person dies each week from an opioid overdose.[1]

Figure 73. Overdose Deaths Involving Opioids, Henrico County, 2007-2016



*Data from 2016 are predicted totals for the entire

In Henrico, from 2007 to 2016, the number of deaths involving opioids increased from 15 to 47, or 213%. From 2010, when fentanyl was first noted in Henrico Office of Chief Medical Examiner (OCME) data, to 2016, deaths due to fentanyl and heroin increased by about 600%. Although the number of deaths due to prescription opioids was relatively stable in the last 10 years, between 2015 and 2016 there was a 44% increase. The 27% increase from 2015 to 2016 is driven largely by increased in deaths involving fentanyl. The number of deaths from fentanyl increased by 91%. From 2010 to 2016, the number of deaths involving heroin increased from 4 to 27, or 575%.

Sources:

1. VDH Division of Health Statistics
2. The Robert Wood Johnson Foundation County Health Rankings & Roadmaps
3. Virginia Department of Health. Office of the Chief Medical Examiner.

Health Care Access and Resources

Access to quality and timely health care is critical for everyone. Health care access encompasses much more than insurance coverage for health care services. Access includes physical access to medical appointments, attitudes of providers, accessible transportation, health promotion programs, and health information.

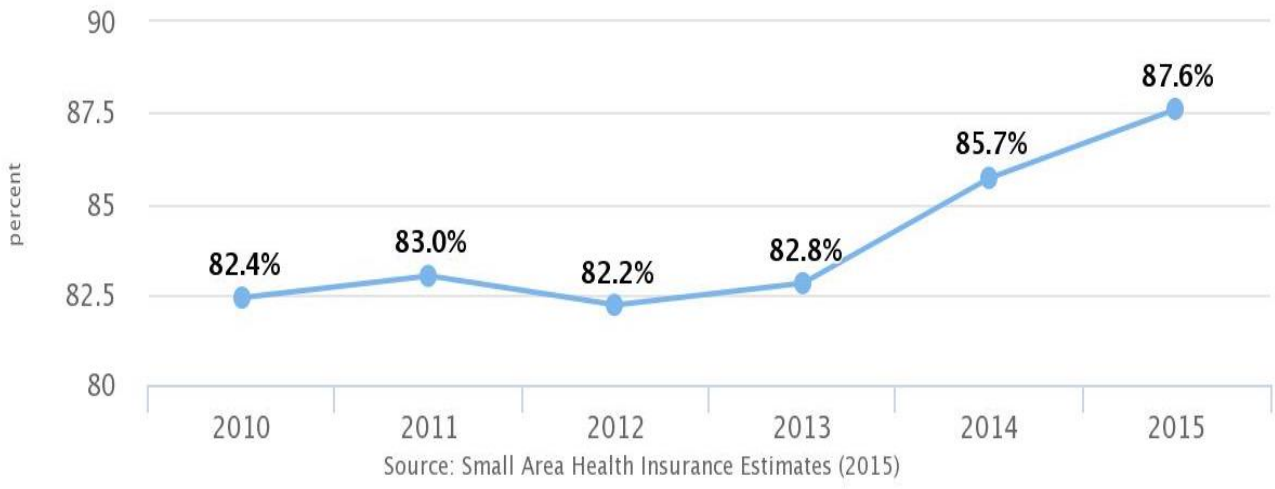
The following pages include select data indicators about health care access and utilization, including insurance status, usual source of health care, immunizations, and child oral health.

Adults with Health Insurance

The Healthy People 2020 national health target aims for all persons to have health insurance. In 2015, 87.6% of adults in Henrico County had health insurance coverage. From 2010 to 2015, the percentage of adults with health insurance increased by 5.4%. While the number of insured has increased, Henrico continues to have a lower percentage than several surrounding counties.

Medical costs in the United States are very high, so people without health insurance may not be able to afford medical treatment or prescription drugs. They are also less likely to get routine checkups and screenings, so if they do become ill they will not seek treatment until the condition is more advanced and therefore more difficult and costly to treat. Fortunately, this number of uninsured is growing smaller.

Figure 74. Adults with Health Insurance - Change over Time, Henrico

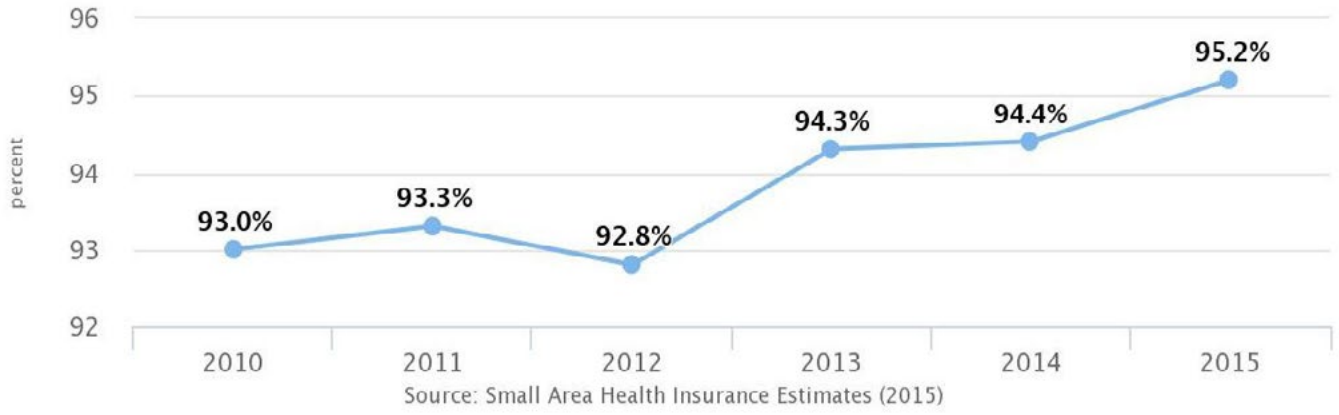


Children with Health Insurance

Health insurance for children is particularly important. To stay healthy, children require regular checkups, dental and vision care, and medical attention for illness and injury. Children with health insurance are more likely to have better health throughout their childhood and adolescence. They are more likely to receive required immunizations, fall ill less frequently, obtain necessary treatment when they do get sick, and perform better at school. Having health insurance lowers barriers to accessing care, which is likely to prevent the development of more serious illnesses. This is not only of benefit to the child but also helps lower overall family health costs.

The trendline below shows that the number of children with health insurance is steadily increasing.

Figure 75. Children with Health Insurance - Change over Time, Henrico



Health care resource utilization is a factor that may be used to determine if an area (or a specific population within an area) is underserved, or if community medical services should be realigned with community needs. Health care resource utilization also refers to consumer use of health care resources and services, and reflects the way patients interact with health care providers. Patterns of utilization tell a story about the health status of the population and availability of resources.

Health Care Provider Availability

Access to primary care providers increases the likelihood that community members will have routine checkups and screenings. Moreover, those with access to primary care are more likely to know where to go for treatment in acute situations.

Communities that lack a sufficient number of primary care providers typically have members who delay necessary care when sick and conditions can become more severe and complicated.

Figure 76. Ratio of population to provider, 2017

Type	Henrico County	Virginia
Primary Care Physician	1,010:1	1,320:1
Dentist	1,440:1	1,530:1
Mental Health Provider	450:1	730:1

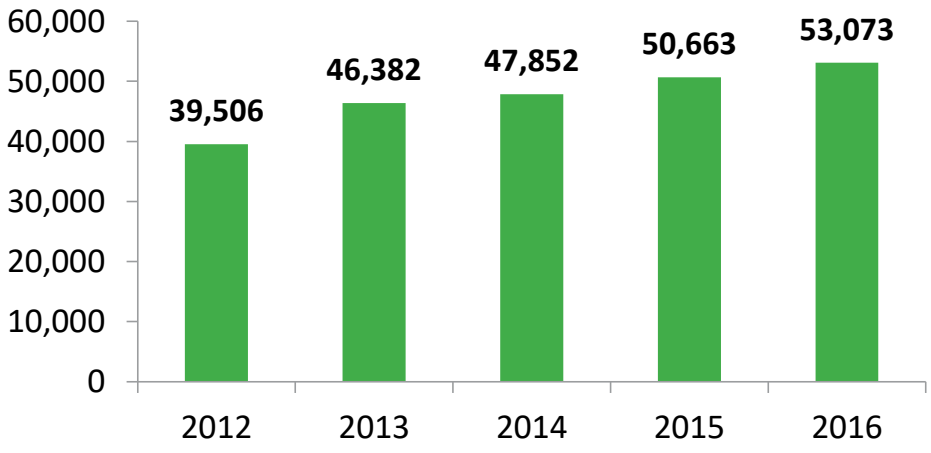
Source: County Health Rankings

The table above displays the ratio of population to providers in Henrico County and Virginia. In 2017, Henrico County had fewer persons per provider than Virginia overall. These numbers have remained steady over the last five years.

Medicaid Enrollment and Expenditures

The Virginia Department of Medical Assistance Services reported that as of September 2015, Henrico County ranked 7th among Virginia counties and cities in Medicaid enrollment. In September 2016, the agency determined that 53,073 residents were being served with Medicaid benefits in Henrico County. The leading expenditure for the Medicaid population in Virginia and Henrico is for disabled individuals between the age of 45 and 64.[1]

Figure 77. Medicaid Clients by State FY - Henrico County



Source: Benefit Programs, ADAPT (Data Warehouse, Client Cross- Program Locality Yearly Analysis

Hospital, Fire, and Emergency Medical Services (EMS)

There are three acute-care hospitals located in Henrico County, including a Level II Trauma Center, Level III neonatal intensive care unit (NICU), two ST- Elevation Myocardial Infarction (a type of heart attack) Receiving Centers, and all three hospitals are designated Stroke Receiving Centers. These hospitals include Bon Secours St. Mary's Hospital (391 beds), HCA Henrico Doctors' (340 beds), and HCA Parham Doctors' Hospitals (200 beds).

Currently, there are a total of 22 Firehouses that serve the western, northern, and eastern part of Henrico County, which, in total, house 15 Advanced Life Support ambulances.

The total number of EMS and Rescue calls in Henrico County steadily increased from 2011-2015 while the number of structure fires decreased.

Table 78. Henrico County Division of Fire, 2015 Statistics

Incidet Type	Incident
Rescue & EMS Incidents	33,314
Good Intent Call	4,117
False Alarms & False Calls	3,036
Service Call	2,049
Hazardous Conditions	1,139
Fire	773
Special Incident Type	118
Overpressure Explosion, Overheat	67
Severe Weather & Natural Disaster	27
Total	**44,640**

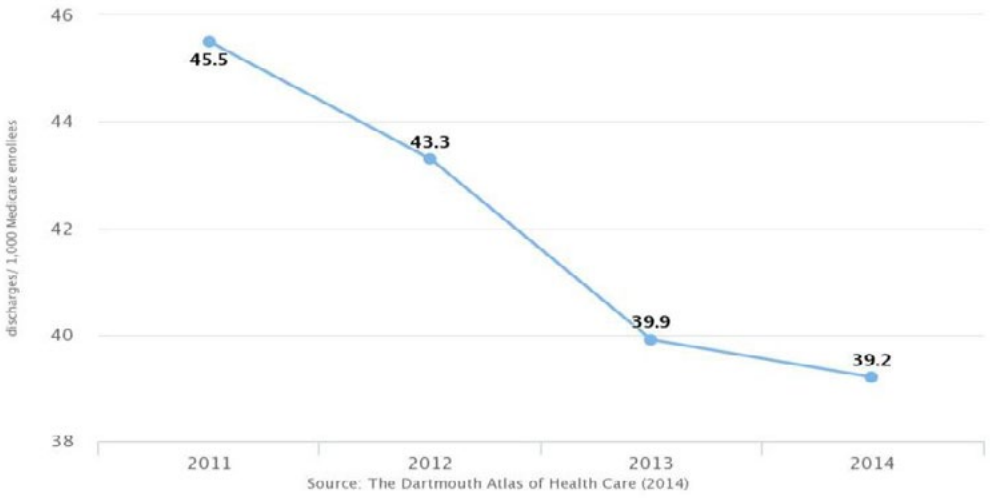
Source: RedNMX (NFIRS Data Program)

Preventable Hospital Stays

The measure of preventable hospitalizations in a community indicates the quality and accessibility of primary health care services available. If the quality of care in the outpatient setting is poor, then people may be more likely to overuse the hospital as a main source of care and be hospitalized unnecessarily. An area with a higher density of primary care providers usually has lower rates of hospitalization for ambulatory care-sensitive conditions.

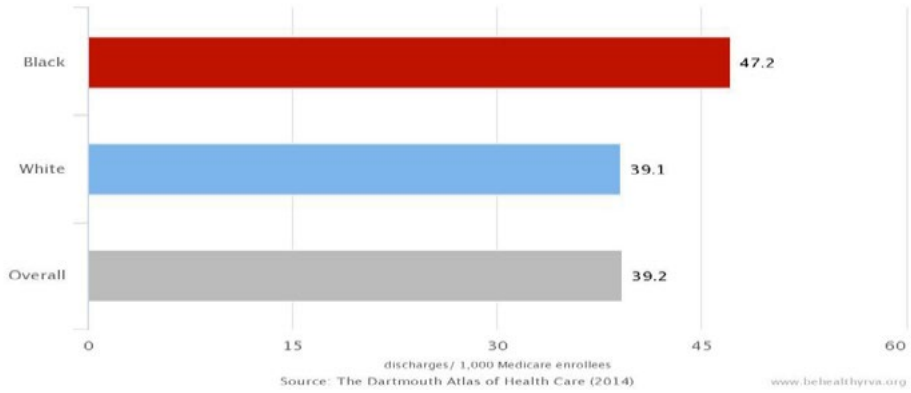
The indicator below shows the hospital discharge rate for ambulatory care- sensitive conditions (ACSC) per 1,000 Medicare enrollees. The discharge rate has steadily declined for Henrico County Medicare enrollees from years 2011 to 2014.

Figure 79. Preventable Hospital Stays: Medicare Population, Henrico



However, Figure 80 below shows a disparity between white and black Medicare enrollees in regards to preventable hospital stays with blacks experiencing a high discharge rate than whites.

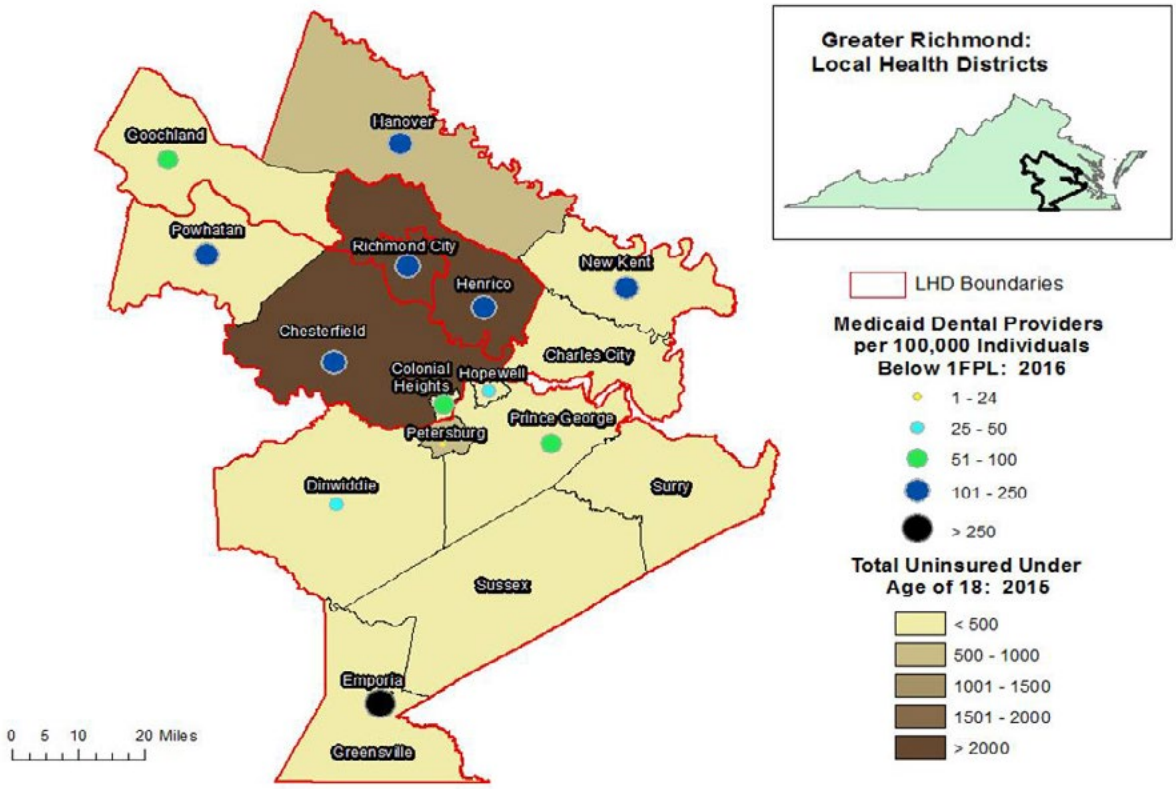
Figure 80. Preventable Hospital Stays: Medicare Population by Race/Ethnicity



Child Oral Health

VDH has five Health Planning Regions. For the purpose of oral health data, Henrico County is included in Region 4- Central. Region 4 includes Chesterfield, Chickahominy, Crater, Henrico, Piedmont, Pittsylvania/Danville, Richmond City, and Southside Health Districts.

Figure 81. Medicaid Dental Providers by Total Number of Uninsured Children under Age 18



Source: Virginia Oral Health Coalition

Henrico has more than 2,000 uninsured children under age 18 and 101 to 250 Medicaid Dental Providers per 100,000 individuals

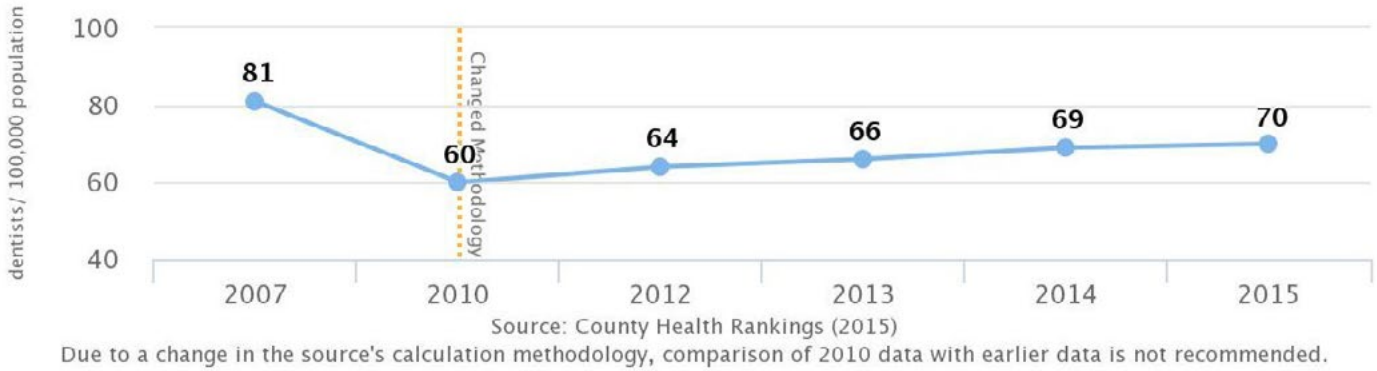
Adult Oral Health

Oral health has been shown to impact overall health and well-being. According to the Centers for Disease Control and Prevention, nearly one-third of all adults in the United States have untreated tooth decay, or tooth caries, and one in seven adults ages 35 to 44 years old has periodontal (gum) disease.

Tooth decay is the most prevalent chronic infectious disease affecting children in the U.S., and impacts more than a quarter of children ages 2 to 5 and more than half of children ages 12 to

15. Given these serious health consequences, it is important to maintain good oral health. It is recommended that adults and children see a dentist on a regular basis. Professional dental care helps to maintain the overall health of the teeth and mouth, and provides for early detection of pre-cancerous or cancerous lesions. People living in areas with low rates of dentists may have difficulty accessing the dental care they need.

Figure 82. Dentist Rate - Change over time, Henrico



Virginia Oral Health Coalition Report Card – Findings for Central Virginia

- ***26% of adults aged 18+ in Central Virginia reported being in immediate need of dental care*** in 2014, compared to 19% of adults aged 18+ in Virginia
- ***30% of adults aged 18+ in Central Virginia reported putting off dental care due to cost*** in 2014, compared to 17% of adults aged 18+ overall in Virginia
- ***15% of adults aged 18+ in Central Virginia reported inability to work or do regular activities due to dental pain*** in 2014, compared to 11% of adults aged 18+ overall in Virginia
- ***15% of adults aged 18+ in Central Virginia reported inability to sleep due to dental pain*** in 2014, compared to 12% of adults aged 18+ overall in Virginia
- ***70% of adults aged 18+ in Central Virginia reported having a dental visit in the past year*** in 2015, compared to 73% of adults aged 18+ overall in Virginia
- ***37% of adults aged 18+ in Central Virginia reported being in need of a dental cleaning*** in 2014, compared to 42% of adults aged 18+ in Virginia

Source: http://www.vaoralhealth.org/Portals/0/Regional%20Report%20Card/RVA- Ptrsbg/Central%20Region%20Oral%20Health%20Data%20Summary%20051817.pdf

Sources:

1. Virginia Department of Medical Assistance Services. 2016 Virginia Medicaid and CHIP Databook. http://www.dmas.virginia.gov/Content_atchs/atchs/2016%20DMAS% 20Data%20Book%20PRINT.pdf

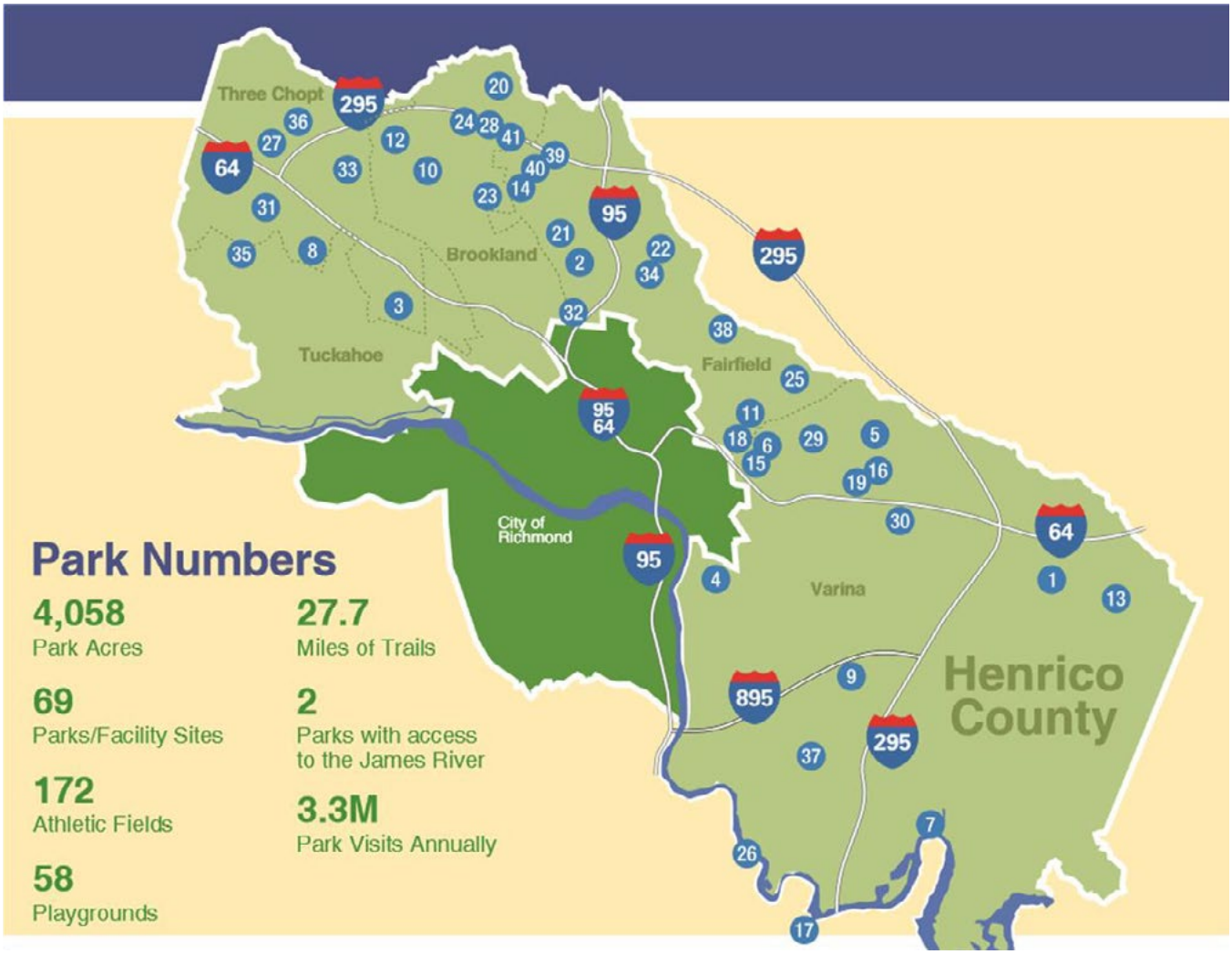
Environment

The physical environment also affects a community's health. A safe, clean environment that provides access to health food and recreational opportunities is important to maintaining and improving health. There are a variety of natural and built environmental health indicators that can impact health at the county level. The follow profile reports on domains such as park and food access, air and water quality, transportation, and housing issues.

Parks and Open Spaces

The availability of parks can have important public health benefits, including increased physical activity, reduced obesity, and chronic disease, as well as mental health and environmental impacts. Regular physical activity, even at moderate levels (i.e., walking), has profound health benefits, protecting against heart disease, depression, diabetes, stroke, and many types of cancer. Because of these health benefits, physical activity can improve quality of life, increase productivity, and reduce health care costs.

Figure 83. Henrico County Recreation and Parks, Fast Facts



Open spaces such as parks, gardens, creeks, museums, and trails are found across Henrico County's 254 square miles. The county maintains 69 parks and facility sites totaling 4,058 acres, 27.7 miles of trails, and 2 parks with access to the James River, 172 athletic fields, and 58 playgrounds. In fiscal year 2016, there were over 970 recreation programs offered and about 19,500 program enrollments. According to the 2017 County Health Rankings, Henrico's access to physical activity falls well above the average percentage for the state. Access to exercise opportunities measures the percentage of individuals in a county who live reasonably close to a location for physical activity. Individuals who: reside in a census block within a half mile of a park or in urban census blocks: reside within one mile of a recreational facility or in rural census blocks: reside within three miles of a recreational facility are considered to have adequate access for opportunities for physical activity. The percentage of Henrico Residents having access to exercise opportunities is 94% compared to the state's 81%. According to the Health Indicators Report accessed at Community Commons, that analyses US Census data and county business patterns to determine a rate for access to recreation and fitness facilities, Henrico's

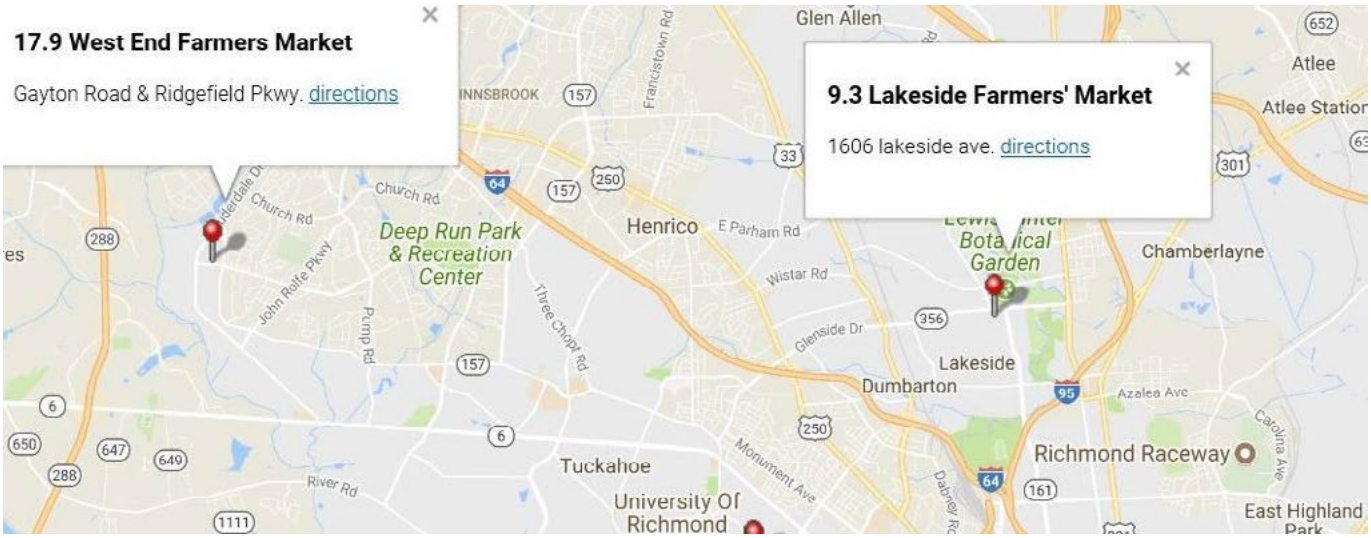
rate per 100,000 populations is 17.92 compared to the state rate of 17.92.

Food Access

Many elements of our food environment can impact the health of a community. Aspects such as the cost, distance, and availability of healthy food options can create poor health outcomes. The Robert Wood Johnson Foundation calculates an index ranging from 0-10 based on indicators of limited access to healthy foods accounting for low-income populations that do not live close to a grocery store and food insecurity measures that estimate the percentage of the population that did not have access to a reliable source of food during the past year.

According the 2107 County Health Rankings Henrico's Food Environment Index of 7.8 falls below the state index of 8.4.

According to the U.S. hunger relief organization Feeding America's, Map the Meal Gap, there were about 42,020 people, or 13.3% of the population, who were without reliable access to a sufficient quantity of affordable, nutritious food in 2015. This percentage peeks above the average for the state of Virginia at 11.2%. Map the Meal Gap also looks at changes in how much additional money is needed each week to meet individuals' food needs, or the food budget shortfall. In 2015, food-insecure households across the nation reported needing an additional $17.38 per person per week, on average, to meet their food needs. Feeding America estimated the value of Henrico County's meal gap at $22,343,000. According to the Health Indicators Report accessed at Community Commons, 39% of Henrico's census tracts are in food deserts impacting an estimated 151,718 people. There are food deserts located in Western, Central, and Eastern parts of the county. Human Services benefits such as SNAP and WIC can be found in the Social Characteristics section.The presence of a farmers' market can decrease prices of healthy foods and lead to more availability of fresh foods for residents. The distribution of farmers' markets in Henrico is limited to two located in the far West End and Central part of the county. See map below.



Physical Environment

According to the 2017 County Health Rankings, Henrico ranked 21st out of 133 Counties across the state for the physical environment indicators assessed by the Robert Wood Johnson Foundation. This is an improvement from Henrico's 34th place ranking the previous year. The health factors assessed in this area include measure of air and water quality as well as housing and transit.

Air Quality

There is a relationship between elevated air pollution, particularly fine particulate matter and ozone, and compromised health. Negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects, according to Pope, et. al. (1995).Particulate matter is the average daily density of fine particulate matter in micrograms per cubic meter and is defined as particles of air pollutants with a diameter less than 2.5 micrometers. These particles can be directly emitted from sources such as forest fires, or they can form when gases emitted from various industries and vehicles react in the air. While this measure estimates the average annual concentration of fine particulate pollution in the county, it can miss important fluctuations in air quality, local patterns (such as concentrations near roads and other major sources), and other pollutants such as ozone, etc.

Figure 84. Annual average particulate matter (PM 2.5 24 hr. avg. (µg/m³, LC), 2011 - 2015

	Micrograms per cubic meter				
	2011	2012	2013	2014	2015
Henrico County	23.2	19.1	19.3	15.7	17.2

Source: Virginia Department of Environmental Quality

The US EPA Environmental Public Health Tracking Network reports the annual average concentration of fine particulate matter in the air. The current annual fine particle standard is 15 micrograms per cubic meter (µg/m³), which refers to the density of particles in the air. Concentrations at or above 15 µg/m³ are considered potentially harmful.

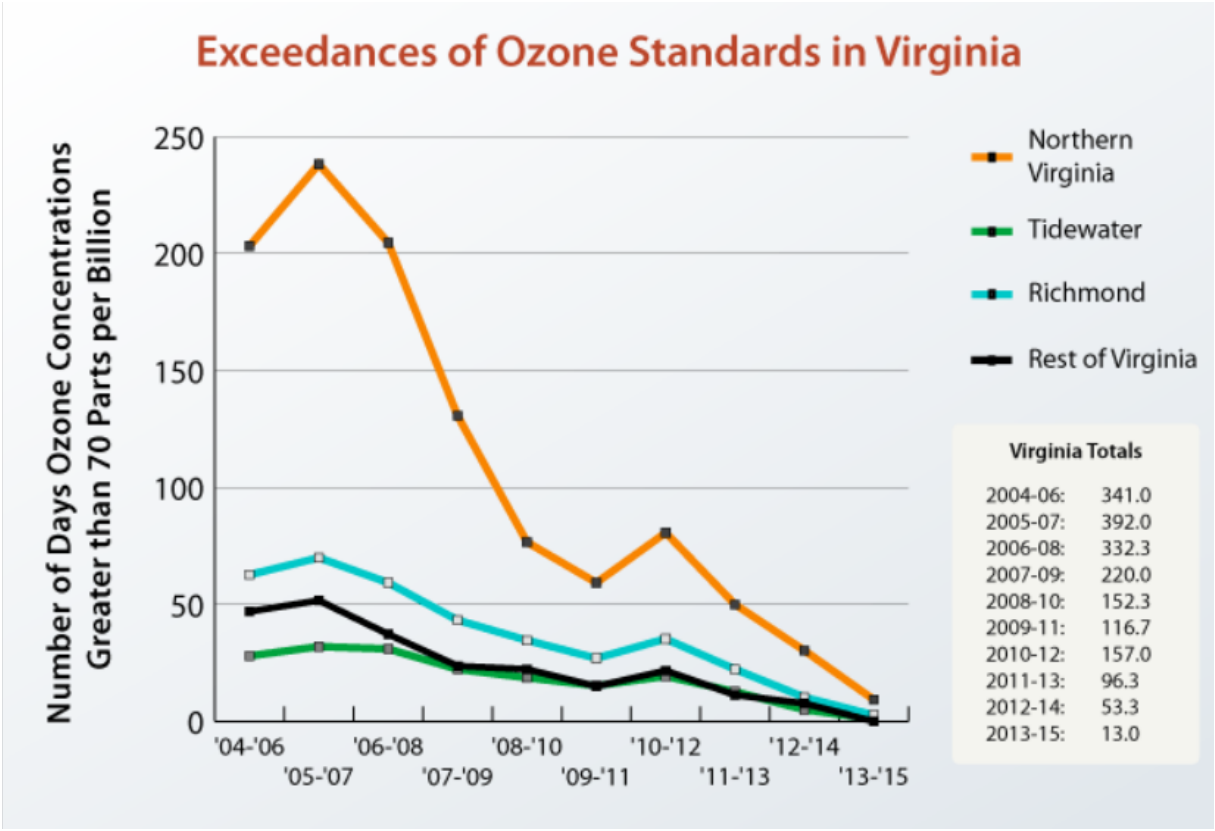
Figure 85. Number of Ozone Exceedance Days

	Number of days				
	2011	2012	2013	2014	2015
Henrico County	12	8	0	0	3

Source: Virginia Department of Environmental Quality

Ozone concentrations are also tracked. The above data reflects the number of exceedance days when daily maximum eight-hour average ozone concentrations were greater than 75 parts per billion (ppb). As of 2015, there were 3.22 days where ozone concentrations were alarming, or 0.88% of days per year exceeded the emission standard of 75 ppb. This was slightly higher than Virginia overall which had 2.88 days, or 0.76% days per year.

Figure 86. Number of Days in a Year Exceeding Ozone Standards, VA



Source: Virginia Performs

Virginia has also significantly reduced the number of days when the federal ozone standard has been exceeded -- dropping from 341 days per 3-year average in 2004-06 to just 13 days across 2013-15. Among Virginia's regions, the highly congested Northern region continues to have the poorest air quality, with an average of 9.3 days exceeding the ozone standard over that same 2013-15 period.

Transportation

Commuting

Transportation is an economic and social factor that influences people's health and the health of a community. According to the 2015 American Community Survey, the majority of workers in Henrico County commuted alone by automobile (83%) verses the states 78%. In Henrico less than 1% walked to work verses the states 2/3%, less than 1% used public transportation such as bus or railroad verses the states 4.6%, and less than 1% rode a bicycle, motorcycle, or taxicab compared to the states 1.6%. About 4.5% of the Henrico County employed population worked from home similar to the state. The average travel time to work for Henrico commuters was 21minutes falling shorter than the state average at 28 minutes.

According to the 2017 County Health Rankings, the percentage of Henrico Residents having a long commute to work alone is only 21% compared to the state's 38%.

Public Transportation

Greater Richmond Transit Company (GRTC) Transit System provides transportation services to the Richmond, VA area and parts of Chesterfield and Henrico counties. These ADA accessible transports include fixed route and express route bus service, specialized services such as CARE and C-VAN, and RideFinders. GRTC operates a fleet of 150 transit vehicles, which include both buses and cutaway vans, traveling over 40 routes within the City of Richmond and Henrico County. GRTC buses are also equipped with easy to use front-mounted bicycle racks so cyclists can load their bicycle onto a bus and catch a ride. According to GRTC in fiscal year 2016 Henrico's Express ridership 5.73% over the previous year and the majority of riders in Henrico utilize the day pass options for the transit system.

Housing

Housing can also play an important role as a determinant for health. Homes built before 1978 are more likely to contain lead based paint and therefore increase risks for young children. Although the majority of housing built in Henrico was built after 1980, 14.9% was built between 1970 and 1979 and 32.4% was built earlier than 1970. According to the Virginia Department of Health, Interim 2016 reports show that there were 78 confirmed elevated blood lead level cases in children under 72 months of age. In 2015, the rate per 100,000 of 0-15 years with elevated blood levels was 19.4 compared to the state at 13.6.

Although the EPA and CDC have recognized there is no safe level of lead exposure follow up is initiated when the elevated blood lead level is 5 micrograms per deciliter, µg/Dl, or higher.

Water Quality

Recent studies estimate that contaminants in drinking water sicken 1.1 million people in the United States each year. Ensuring the safety of drinking water is important to prevent illness, birth defects, and death for those with compromised immune systems. A number of other health problems have been associated with contaminated water, including nausea, lung and skin irritation, cancer, kidney, liver, and nervous system damage.According to the Virginia Department of Environmental Quality, there were no radioactive, biological, inorganic, volatile organic or synthetic organic contaminant violations specific to Henrico County community public water systems between the years 2013 and 2015.

Keep Henrico Beautiful was organized in 1980 to improve the environmental quality of Henrico County through the development of a comprehensive education program to reduce litter and littering. The County Board of Supervisors appoints members and the committee is comprised of citizen Volunteers representing the five magisterial districts. Keep Henrico Beautiful offers County residents of all ages litter prevention and recycling programs, environmental education resources and volunteer opportunities.

COMMUNITY THEMES AND STRENGTHS ASSESSMENT

Overview

The Henrico Health District Community Health Advisory Team (CHAT) is a coalition of community members, community-based organizations, businesses, and government entities that are working together to improve community health. The CHAT is conducting a community-wide strategic planning process called Mobilizing for Action through Planning and Partnerships (MAPP) to identify and address public health issues in Henrico County.

A comprehensive assessment process is critical to the success of the MAPP initiative. The **Community Themes and Strengths Assessment (CTSA)** is one of four distinct assessments included as part of the MAPP that provide an overall picture of the health of the community. The CTSA focused on gathering the thoughts, opinions, and perceptions of community members to develop a meaningful understanding of the issues they feel are important.

The CTSA was conducted between March 2017 and May 2017 by a diverse group of key community stakeholders. This assessment helped to answer the questions:

- **What are the most important health related issues in our community?**
- **When thinking about health, what are the greatest strengths in our community?**
- **What would help us achieve optimum physical, mental, cultural, social, spiritual, and economic health?**

The CTSA utilized the following data collection methods: a community survey, a stakeholder survey, and one-on-one interviews. Feedback regarding quality of life in the community and community assets are gathered as part of this process, as well. In this way, the CTSA serves as a vital part of a community health assessment process.

Key Findings

Strengths:

- Local 24-hour police, fire, and rescue services
- Safe, open areas to walk or bike
- Access to churches and places of worship
- Programs and activities for youth (outside of school)
- Low violence (domestic, elder, youth)
- Good jobs and stable economy
- Sense of community and friendship
- Arts and cultural events
- Access to health care and health education

Concerns:

- Mental Health (Depression, Anxiety, Stress)
- Drug and Alcohol Abuse
- Public Transportation
- Homelessness
- Access to affordable, healthy foods
- Access to affordable housing for everyone

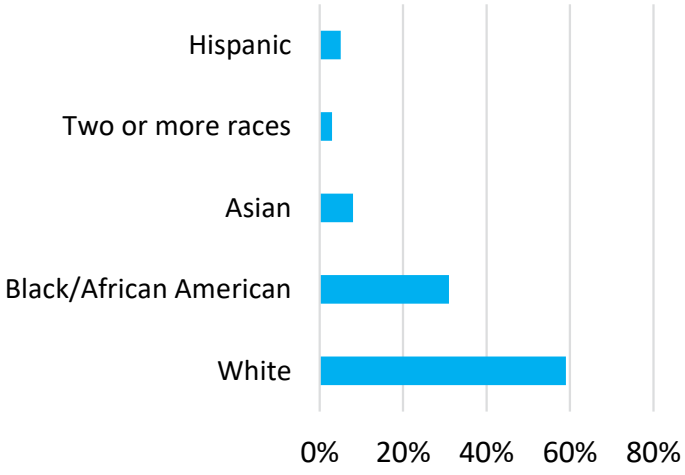
Survey Response Demographics

Sample Size required for target population: 384

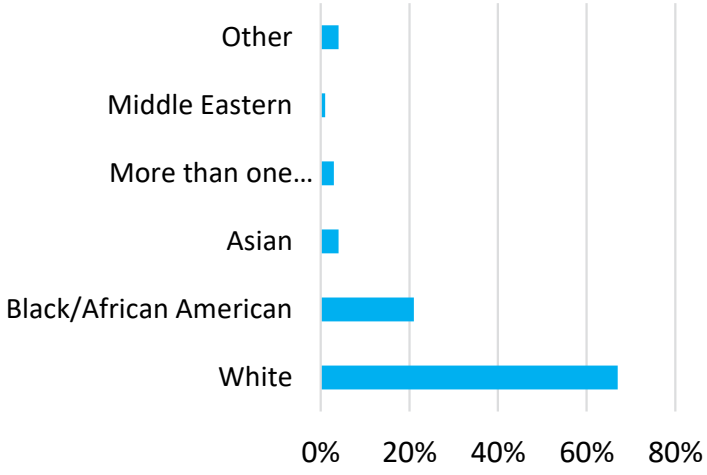
Henrico 2015 Census Demographics | **Population: 325,155**
Community Survey Sample | **Survey Responses: 1,343**

Race/Ethnicity

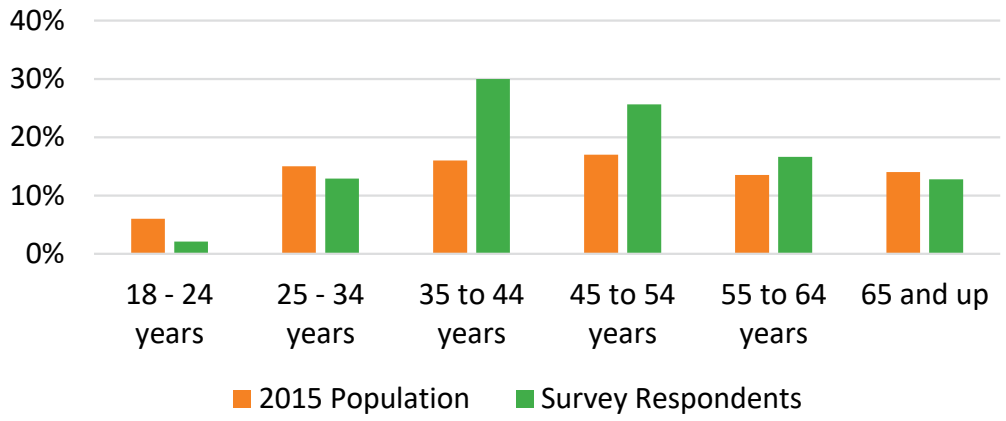
2015 Census Demographics



Community Survey Sample

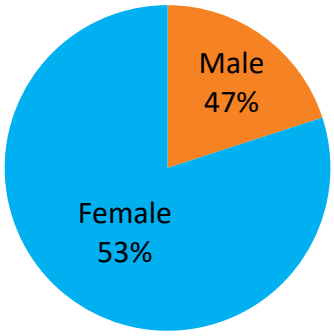


Age

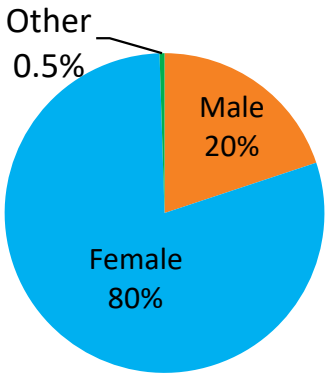


Gender

2015 Census Demographics

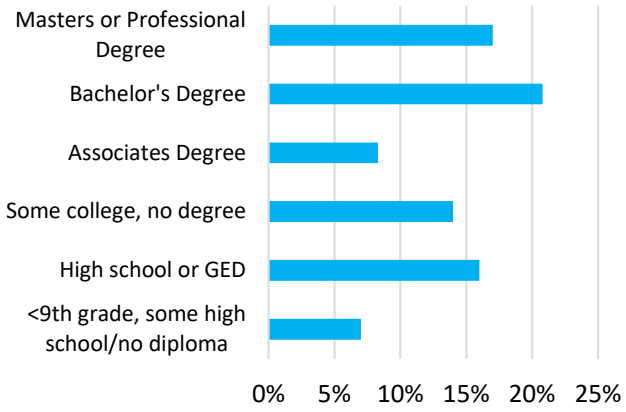


Community Survey Sample

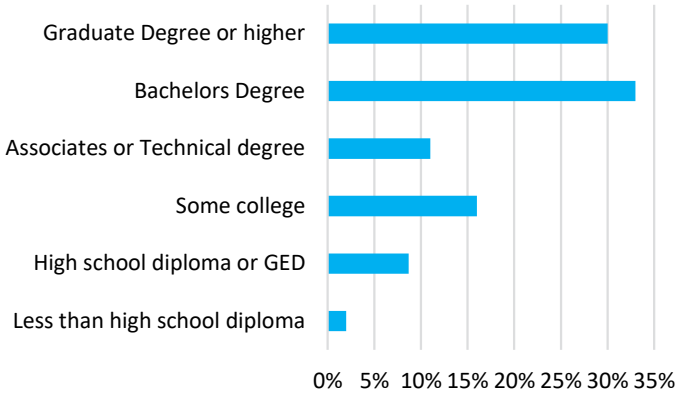


Education

2015 Census Demographics



Community Survey Sample



The charts above and on the preceding page display Henrico County census demographics as compared to the community survey sample results. In comparison with Henrico County census demographics, the survey sample closely represents the majority of Henrico County residents. Similarities between the survey sample and the population exist within multiple categories, including race/ethnicity, age, and education. The community survey elicited 1,343 responses in total. Overall, the survey sample included more female respondents (79.6%) compared to the 53% living in Henrico County. Also, over half of survey respondents were White (67%), which is similar to the composition of Henrico County at 59%.

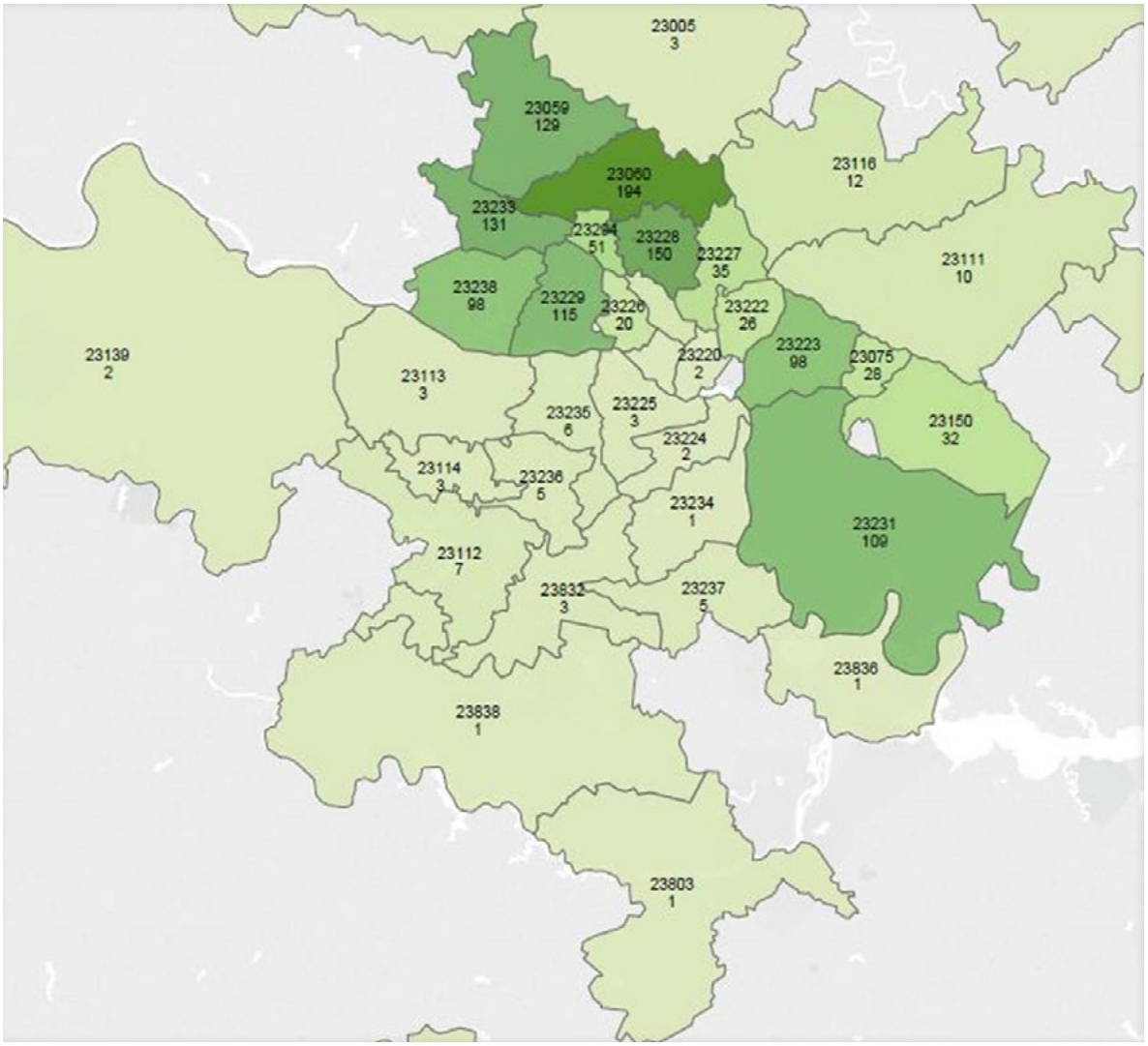
Middle-aged respondents were more prominent in the survey sample, as collectively 55.6% of the sample was between 35-54 years of age, while only 33% of Henrico County residents are between 35-54 years of age. Furthermore, the survey sample included nearly double the number of respondents that reported having a Master's or professional degree (30%) as compared to the county census (17%), which included a lower representation of respondents with such degrees. In contrast, a lower percentage of survey respondents reported a high school degree or GED (8.7%) as their highest level of education completed, in comparison to the county census respondents (16%).

The survey was made available online in English as well as in hard copy in English, Spanish, and Arabic. The total number of surveys completed in each language were as follows: 1,297 English, 47 Spanish, 14 Arabic.

Survey Response by Zip Code

Survey responses were recorded from nearly every zip code in Henrico County. The zip code with the highest survey participation was 23060, in Glen Allen, with 14.6% of respondents. Collectively, Richmond residents (still physically located in Henrico County) comprised of 35.5% of survey respondents (across 8 zip codes). The second largest number of respondents (11.4%) resided in the 23228 zip code in Lakeside. Residents from Highland Springs and Sandston comprised 9% of responses collectively, while Regency residents accounted for 8.6%.

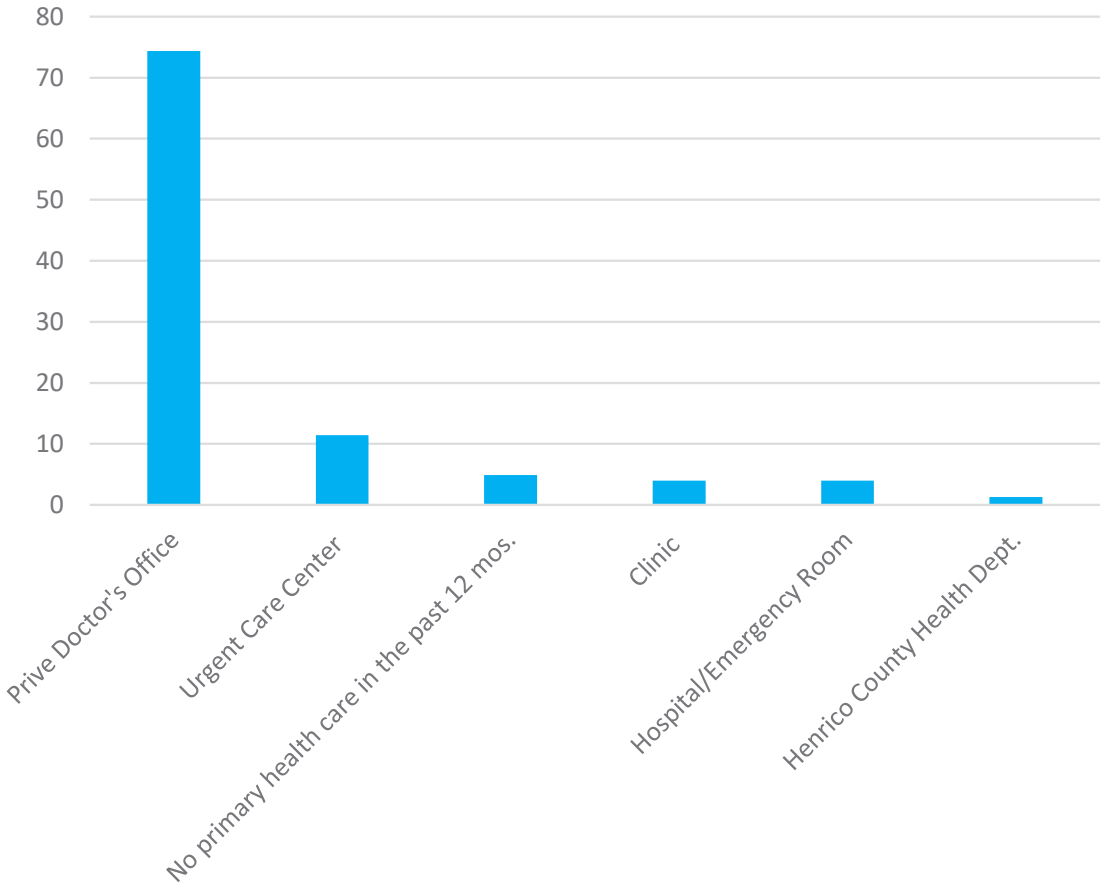
Figure 87. Survey Responses by Zip Code



Primary Health Care Provider

Survey respondents were asked where they go most often for primary health care. With respect to primary care services such as routine check-ups, respondents visit a variety of locations. Within the last year, 74.4% received health care from a doctor's office, 11.4% visited an Urgent Care Center (e.g., Patient First, BetterMed, Concentra), 4.9% have not received primary health care in the last 12 months, 4% visited the hospital emergency rooms, 4% visited a Clinic, such as Crossover Ministry, Daily Planet, or Health Brigade, and 1.3% visited Henrico County Health Department. These results are displayed in the chart below.

Figure 88. Percent of Survey Respondents Primary Health Care Provider



Health Care Coverage

Most respondents surveyed reported having individual health insurance or health insurance through their employer (77%); however, many other residents utilize Medicare (12%) and Medicaid (2%). Seven percentof respondents have no insurance and pay out-of-pocket for health care. About two percent of respondents have insurance through the Veterans Administration.

Factors that Affect Health in Henrico County

When asked “How satisfied are you with the factors that affect health in your community?”, survey respondents were “satisfied” or “neutral” with each factor listed below. However, many respondents were “dissatisfied” with transportation services (31%) and access to safe and open areas to walk or bike (27%) in Henrico County.

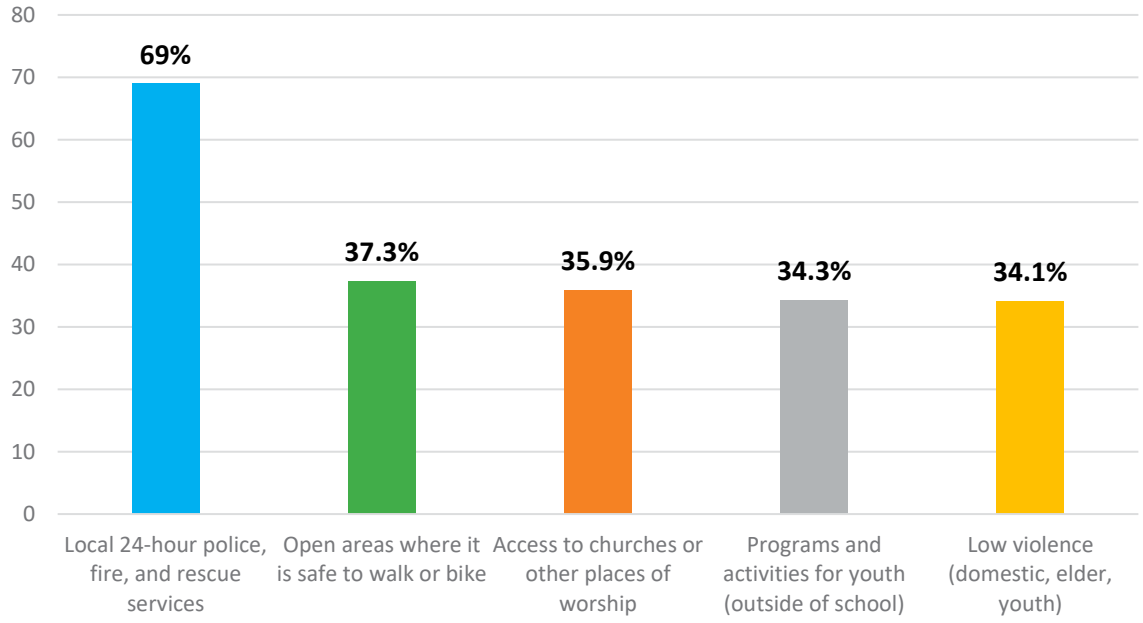
Figure 89. Survey Response to Factors that Affect Health

Factor	Majority* of respondents were:
Public Safety	Satisfied
Environment (air, water, trash)	Satisfied
Education	Satisfied
Safe & open areas to walk or bike	Satisfied
Opportunities to interact with others	Satisfied
Access to fresh fruits & vegetables	Satisfied
Transportation services	Neutral
Child care options	Neutral
Chronic Disease prevention & education	Neutral
Access to affordable dental care	Satisfied & Neutral

*Majority = The most responses were selected for that option on Likert Scale.

What are the greatest STRENGTHS in your community?

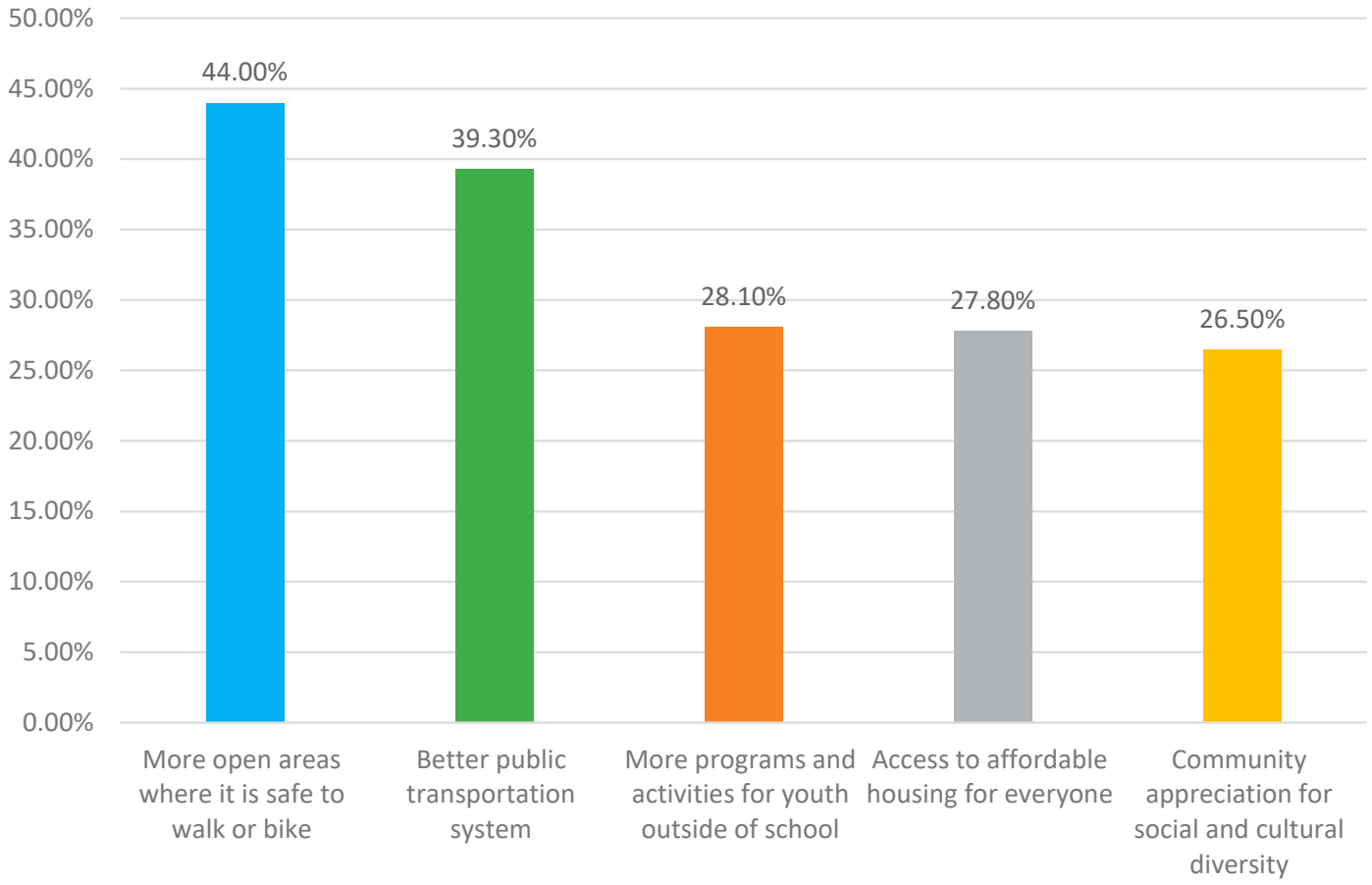
Survey respondents were asked to select up to 5 strengths



The chart above represents the percentages of survey respondents who chose each option. While the top five community strengths chosen by respondents are shown above, there were a total of 20 options to choose from. The top ten greatest strengths also included good jobs and stable economy, access to healthy affordable foods, a sense of community and friendship, arts and cultural events, as well as access to health care and health education.

The five strengths selected the least were: public transportation, support and services for people with disabilities, support and services for people whose primary language is not English, support for Veterans, and homeless services. See Appendix A for complete question and response options.

What would most improve the quality of life in your community?
Survey respondents were asked to select up to 5

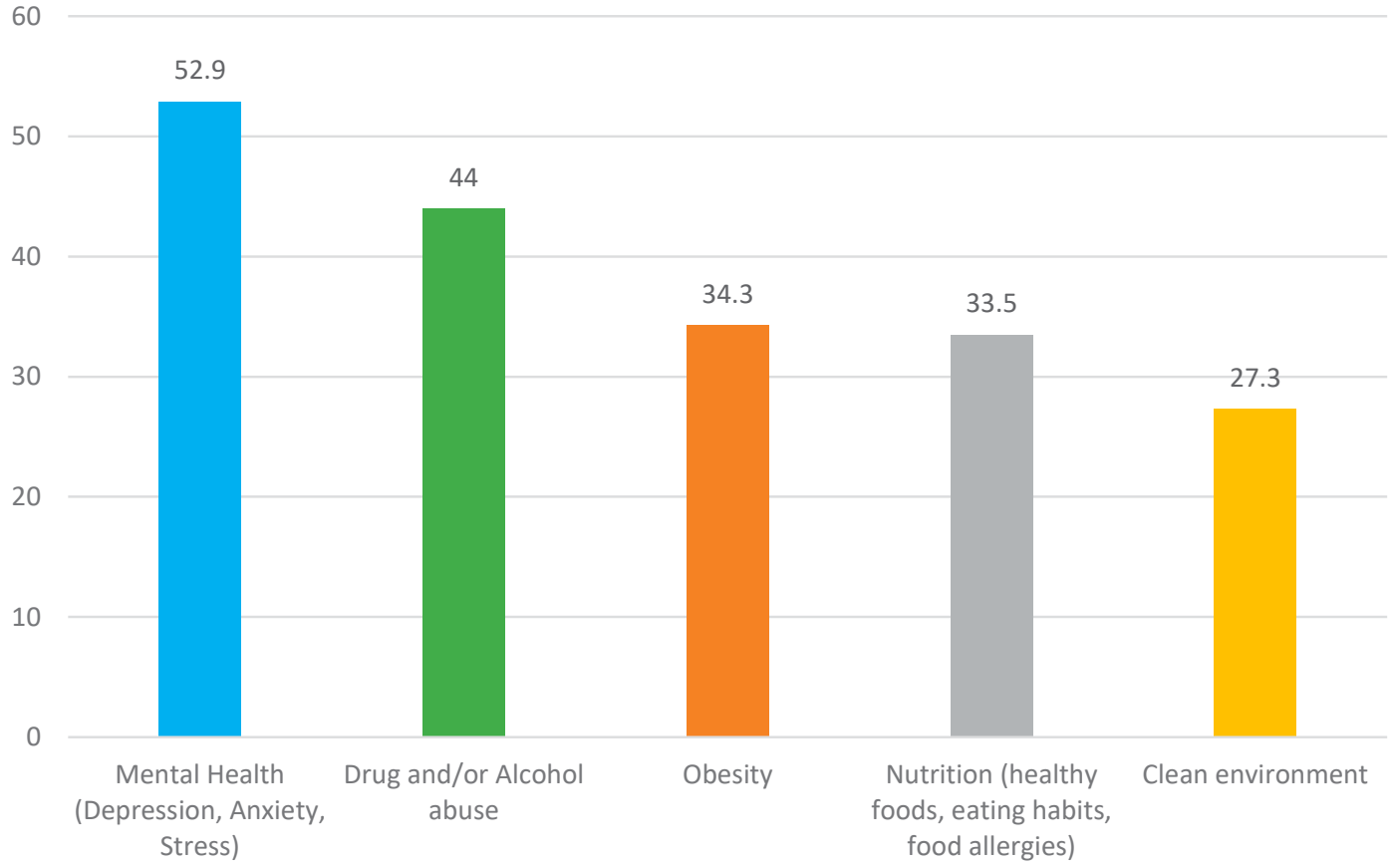


The chart above represents the percentage of total survey respondents for each option. While the top five areas which would improve quality of life in the community are shown above, there were a total of 18 options from which to choose. The top ten improvement areas also included an end to homelessness access to affordable, healthy foods; support and services for everyone needing help in

times of crisis; living in a cleaner environment; more jobs and a stable economy.

The five improvement areas selected the least were: access to health care and health education; more drug and alcohol support services; more programs and activities for seniors; better preparation for emergencies; and improved local 24-hour police, fire and rescue services. See Appendix A for complete question and response options.

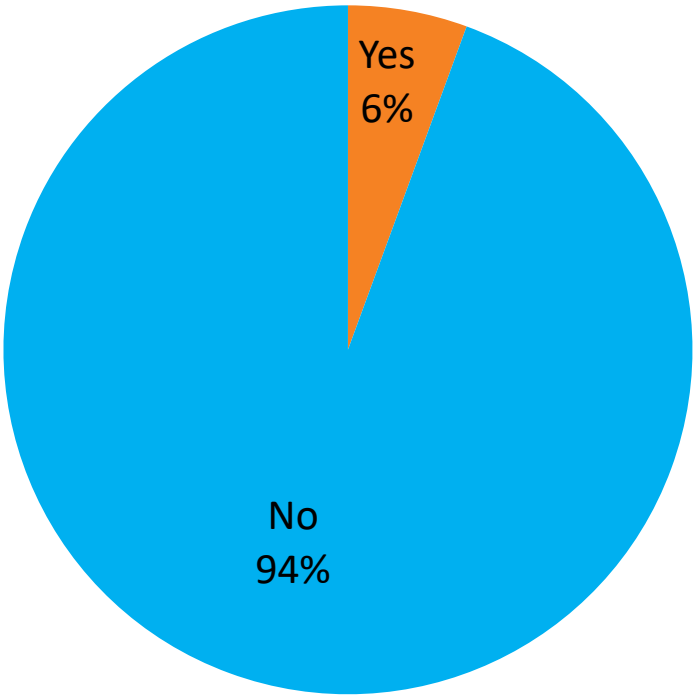
Please select up to five (5) health related issues you are most concerned with in your community.



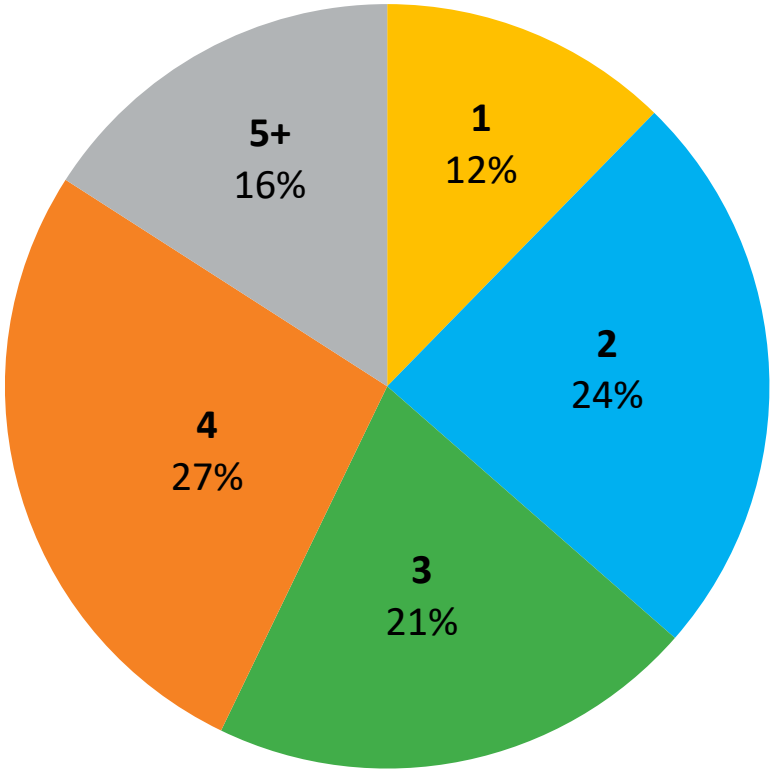
The chart above represents the percentage of survey respondents for each option. While the top five health related issues with which community members are most concerned are shown above, there were a total of 22 options from which to choose. The top ten issues of concern also included: physical inactivity in schools; child abuse/neglect; chronic disease (heart disease, diabetes, high blood pressure); homelessness; and aging.

The five issues of concern that was selected the least were: immunizations, tobacco use, Asthma, accidental injuries, and sexually transmitted infections (STI). See Appendix A for complete question and response options.

Are you Hispanic or Latino?



How many people including yourself live in your household?



How would you like to be involved in improving your community?

Conclusion

In summary, this survey elicited 1,343 responses from the community, with respondents answering questions related to their perceptions of their quality of life, social issues, health issues, and access to health care in their community. The following themes (listed below) were identified by survey respondents as perceived issues that need to be addressed in Henrico County. These themes will be used to guide future strategic planning in the MAPP process and will inform Henrico County initiatives.

Perceived Issues in Henrico County:

- Mental Health (Depression, Anxiety, Stress)
- Drug and Alcohol Abuse
- Obesity
- Access to healthy foods
- Poor nutrition habits
- Environment (Water, Sewer, Trash)
- Physical Inactivity in Schools
- Child Abuse and Neglect
- Chronic Disease (Heart, Diabetes, High Blood Pressure)
- Lack of transportation services
- Safe and Open Areas to Walk or Bike

Acknowledgements

Thank you to our community partner organizations who helped promote, distribute, and collect survey responses!

Bon Secours Richmond Health System
Crossover Healthcare Ministry
Henrico County Recreation and Parks
Henrico County Manger's Office
Henrico County Public Schools
Henrico Citizen
University of Richmond
Housing Families First
Henrico County Social Services
Henrico County Health Department
Virginia Department of Aging and Rehabilitative Services
Henrico Area Mental Health and Developmental Services
HCA Capital Division
ReEstablish Richmond

APPENDIX A: Complete Survey - English

Henrico County's
Community Themes and Strengths Survey

The Henrico Community Health Assessment Team needs your help to better understand health and quality of life from a resident's perspective! The intent of this anonymous survey is to identify our community's strengths, as well as issues needing more attention.

When responding to survey questions, think of "community" as the place where you spend the most time *living, working, playing, and/or worshipping*.

Response Key: ( ) = one response allowed [ ] = multiple responses allowed

1. *What is your zip code? **_____

2. *Are you a Henrico County resident?*

( ) Yes ( ) No

3. *What is your age? **

( ) 18-24 years
( ) 25-34 years
( ) 35-44 years
( ) 45-54 years
( ) 55-64 years
( ) 65+ years

5. *What are the greatest STRENGTHS in your community?*

*Please select up to five (5). **

[ ] Access to affordable housing

[ ] Access to mental health services

[ ] Access to health care and health education

[ ] Local 24-hour police, fire, and rescue services

[ ] Programs and activities for youth (outside of school)

[ ] Programs and activities for seniors

[ ] Arts and cultural events

[ ] Good jobs and stable economy

[ ] Open areas where it is safe to walk or bike

[ ] Access to healthy, affordable foods

[ ] Homeless services

[ ] Public transportation

[ ] Low violence (domestic, elder, youth)

[ ] Support and services during emergencies

[ ] Sense of community and friendship

[ ] Access to churches or other places of worship

[ ] Support and services for people whose primary language is not English

[ ] Support for Veterans

[ ] Support and services for people with disabilities

[ ] Other: _____

6. *What would most improve the quality of life in your community?*

*Please select up to five (5) areas where Henrico should focus its attention and resources. **

[ ] More open areas where it is safe to walk or bike

[ ] Access to affordable housing for everyone

[ ] Access to health care and health education

[ ] Greater access to arts and cultural events

[ ] Improved local 24-hour police, fire and rescue services

[ ] Better preparation for emergencies

[ ] Community appreciation for social and cultural diversity

[ ] Living in a cleaner environment

[ ] Access to affordable, healthy foods

[ ] More jobs and a stable economy

[ ] More programs and activities for youth outside of school

[ ] Better public transportation system

[ ] Support and services for everyone needing help during times of stress and crisis

[ ] An end to homelessness

[ ] More programs and activities for seniors

[ ] More opportunities to interact with others

[ ] More drug and alcohol support services

[ ] Other: _____

7. Please select up to five (5) health related issues you are most concerned with in your community. *

[ ] Mental health (depression, anxiety, stress)

[ ] Clean environment

[ ] Drug and/or alcohol abuse

[ ] Nutrition (healthy foods and eating habits, food allergies)

[ ] Infectious disease (illnesses that can spread around such as flu or tuberculosis)

[ ] Obesity

[ ] Aging

[ ] Chronic disease (heart disease, diabetes, high blood pressure)

[ ] Immunizations (getting a vaccine or shot to prevent certain types of illnesses)

[ ] Dental health (healthy teeth and gums)

[ ] Tobacco use

[ ] Sexually transmitted infections

[ ] Accidental injuries

[ ] Child abuse/neglect

[ ] Cancer

[ ] Motor vehicle crash injuries

[ ] End of life care (nursing homes, hospice, respite)

[ ] Asthma

[ ] Respiratory/lung disease (COPD, emphysema)

[ ] Social isolation

[ ] Physical inactivity in schools

[ ] Homelessness

[ ] Other: _____

8. *How satisfied are you with the following factors that affect health in your community?*

	Very Dis-satisfied	Dis-satisfied	Neutral	Satisfied	Very Satisfied
Public safety	( )	( )	( )	( )	( )
Access to affordable dental care	( )	( )	( )	( )	( )
Environment (ex. air, water, trash)	( )	( )	( )	( )	( )
Education	( )	( )	( )	( )	( )
Chronic disease prevention and education (diabetes, heart disease, stroke)	( )	( )	( )	( )	( )
Safe and open areas to walk or bike	( )	( )	( )	( )	( )
Opportunities to interact with others	( )	( )	( )	( )	( )
Transportation services	( )	( )	( )	( )	( )
Child care options	( )	( )	( )	( )	( )
Access to fresh fruits and vegetables	( )	( )	( )	( )	( )

9. *Within the past year, where did you go most often for primary health care?*
(This includes a routine check-up, not an exam for a specific injury, illness, or condition)

( ) Hospital/Emergency Room

( ) Private Doctor's office

( ) Henrico County Health Department

( ) Clinic (Care-A-Van, Cross-Over Ministry, Daily Planet, Health Brigade)

( ) Urgent Care Center (Patient First, Better Med, Concentra)

( ) I have not received primary health care in the past 12 months.

10. *I pay for health care services through:*

( ) Private Insurance (Individual, exchange, or through employer)

( ) VA Benefits

( ) Indian Health Services

( ) Medicare
( ) Medicaid
( ) Uninsured
( ) Pay cash

Please answer the following questions about yourself so that we can better understand how members of our diverse community feel about the topics listed above.

11. What gender do you most closely identify with? *

( ) Male ( ) Female ( ) Other

12. Which one of these groups would you say best represents your race/ethnicity?

( ) White or Caucasian
( ) Asian or Pacific Islander
( ) Black or African American
( ) Middle Eastern
( ) More than one race/ethnicity
( ) Other

13. Are you Hispanic or Latino?

( ) Yes ( ) No

14. What is your highest level of education completed?

( ) Less than high school diploma
( ) High school diploma or GED
( ) Some college
( ) Associates or Technical degree
( ) Bachelor's degree
( ) Graduate degree or higher

15. How many people including yourself live in your household?

( ) 1 ( ) 2 ( ) 3 ( ) 4 ( ) 5+

16. How would you like to be involved in improving your community?

_____

_____

APPENDIX B: Henrico CHAT Stakeholder Survey
November 2016

APPENDIX C: Survey Results Infographic