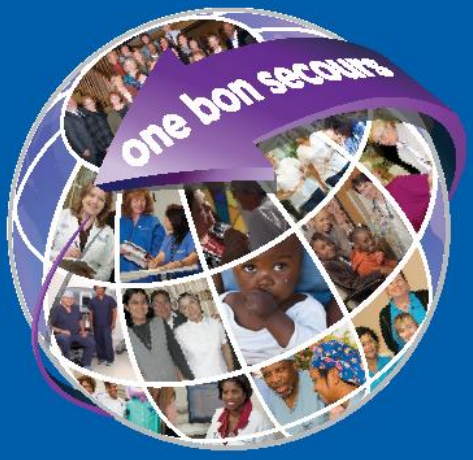
Community Health Needs Assessment

Bon Secours Richmond Health System

2016



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Acknowledgement

We are grateful for the significant contributions of Amina Shams, MPH in preparing and authoring this document, and of administrative resident Robert Tourek, MPH MBA in assisting her with the compilation of secondary data.

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http://www.bonsecours.com/about-us-community-health-needs-assessment.html

2013 Community Health Needs Assessment

Community Health Needs Assessments and corresponding Implementation Plans were prepared for facilities in the Bon Secours Richmond service area in 2013. The documents were made available to the public and posted online. Solicitation for public comments appeared as shown in in the table below. No comments were received.

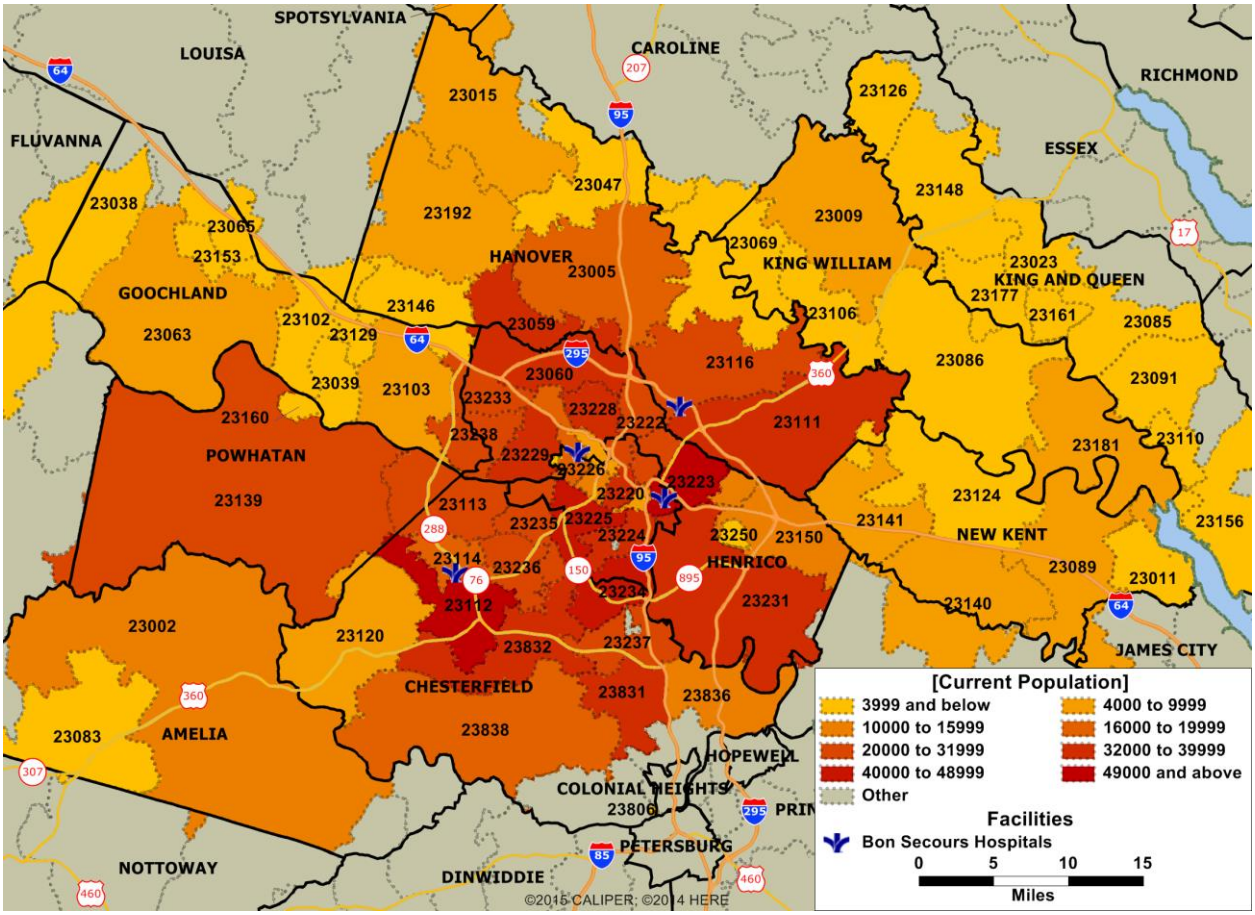
Publication	Date
Richmond Times Dispatch - Health Section	March 7 & 14, 2016
Style Weekly	March 9 & 16, 2016
Henrico Citizen	March 17, 2016
Mechanicsville Local	March 9 & 16, 2016
Herald Progress	March 10 & 17, 2016
Chesterfield Observer	March 9 & 16, 2016
Richmond Free Press	March 10 & 17, 2016

Service Area Description

This Community Health Needs Assessment (CHNA) was prepared for the Bon Secours Richmond Health System, a health system that includes multiple facilities serving the larger Richmond, Virginia metropolitan area.

The Mission of Bon Secours Health System is to bring compassion to health care and to be Good Help to Those in Need®, especially those who are poor and dying. As a system of caregivers, we commit ourselves to help bring people and communities to health and wholeness as part of the healing ministry of Jesus Christ and the Catholic Church.

Bon Secours Richmond Service Area & Population Density Map



Bon Secours Richmond Facilities Description

Bon Secours Richmond Health System serves the larger Richmond, Virginia metropolitan area and includes four hospital facilities whose service areas largely overlap. While the hospitals serve patients from many cities and counties, the majority of patients fall within the counties of Chesterfield, Henrico, Hanover and the City of Richmond. For the purpose of this CHNA, we refer to these as the **"Richmond Core Service Area."**

The Bon Secours Richmond Health System facilities are described below:

1) **Memorial Regional Medical Center** - Richmond Memorial Hospital (RMH) was chartered in 1947 in the Ginter Park Community to accommodate the shortage of hospital facilities after World War II. Since 1998, Memorial Regional Medical Center has provided a continuation of RMH's commitment and preserved its monumental importance. Memorial Regional Medical Center is an acute care facility licensed for 225 beds, serving residents primarily from the counties of Hanover, Henrico, King and Queen, King William and New Kent and Richmond City.

2) **Richmond Community Hospital** – In 1895, Richmond Community Hospital opened as the first facility in Richmond designed to serve African-American patients in historic Jackson Ward. Bon Secours Health System acquired the hospital, which by then had moved to the present location of 1500 N. 28th Street in historic Church Hill. Today, Bon Secours Richmond Community Hospital is an acute care facility licensed for 104 beds.

The Richmond Community Hospital service area extends through much of the Richmond metropolitan area, including downtown Richmond. It is uniquely located in Richmond's East End, an historic area of Richmond with great diversity and culture. The Richmond Community Hospital service area falls mostly in the City of Richmond and also serves residents primarily from the counties of Chesterfield, Hanover and Henrico.

3) **St. Francis Medical Center** - St. Francis Medical Center was completed in 2005 and is a state-of-the-art acute care facility licensed for 130 beds, serving residents primarily from the counties of Amelia, Chesterfield, Hanover, Henrico, Powhatan, and Richmond City.

The St. Francis Medical Center service area extends across much of central Virginia, including downtown Richmond, suburban communities of Chesterfield and Henrico counties and rural counties such as Powhatan and Amelia.

4) **St. Mary's Hospital** - St Mary's Hospital opened in 1966 with a unique vision for the time, allowing patients of all colors and religions to receive treatment there. Fifty years later, St. Mary's has grown into an acute care facility licensed for 391 beds. St. Mary's has over 3,000 full and part-time employees and more than 1,000 associated physicians.

The St. Mary's Hospital serves residents primarily from the counties of Chesterfield, Goochland, Hanover, Henrico, and Richmond City. While its core is based in the Richmond metropolitan area, its services reach into the surrounding rural counties.

Executive Summary

This CHNA examines qualitative input provided by community members coupled with quantitative data on health conditions in the area. Together, the information forms a snapshot of important areas of health concern. In order to obtain input from the community, three initiatives were advanced; a Community Health Needs Assessment Advisory Board was convened, an online survey was conducted and five community conversations were held. Quantitative data from various sources was collected and analyzed.

CHNA Advisory Board

The purpose of the CHNA Advisory Board was to support the process by engaging community members and providing feedback on the findings. All members of the CHNA Advisory Board have special knowledge of public health and underserved populations in the service area.

The CHNA Advisory Board members are:

Bon Secours Richmond CHNA Advisory Board Members		
Member	**Title**	**Organization**
Danny Avula, MD	Director	Richmond City Health Department
Julie Bilodeau	Executive Director	CrossOver Healthcare Ministry
Thomas Franck, MD	District Director	Chickahominy Health District
Sheryl Garland	Vice President, Health Policy & Community Relations	VCU Health System
Lynn McAteer	Vice President, Planning & Evaluations	Better Housing Coalition
Marcy Johnson	Vice President, Programs	United Methodist Family Services
Jim Beckner	Executive Director	Richmond Academy of Medicine

Online Survey

An online survey to assess community health needs was conducted as part of the CHNA process. Seven hundred fifty-nine (759) individuals responded. The survey was offered in Spanish and English. Sixty-five (65) individuals completed the survey in Spanish and 694 completed it in English. Individuals were asked to "Choose the top 5 priorities you think should be addressed in your community" from a list of 34 health concerns. Six hundred forty-eight (648) individuals completed that question. The top ten health priorities are listed below:

Survey Response (Spanish/English combined) – Top Health Priorities in the Community			
Rank	**Category**	**Number of Respondents**	**Percentage**
1	Mental Health	245	38%
2	Transportation	195	30%
3	Jobs with fair wages	186	29%
4	Access to health services	181	28%
5	Education	168	26%
6	Adult Obesity	158	24%
7	Homelessness	131	20%
8	Childhood Obesity	130	20%
9	Senior Health	125	19%
10	Housing	121	19%

Survey Response from Spanish Language Survey– Top Health Priorities in the Community			
Rank	**Category**	**Number of Respondents**	**Percentage**
1	Access to health services	28	46%
2	Persons whose primary language is not English	18	30%
3	Community Violence	17	28%
4	Dental Health	17	28%
5	Access to social services	16	26%
6	Jobs with fair wages	16	26%
7	Childhood Obesity	14	23%
8	Health Programs/Screenings	13	21%
9	Alcohol/Drug Abuse	12	20%
10	Adult Obesity	10	16%

Community Conversations

Five Community Conversations were held as part of the CHNA process in which 78 individuals participated from all of the core jurisdictions of Hanover, Henrico, Chesterfield and Richmond City. Overall, the racial and geographical diversity of the participants represented a healthy mix of the region's residents. The sample skewed towards wealthier participants with more education than the region overall. Residents with lower incomes often experience limitations of time and child care for attending community meetings.

The purpose of the conversation was to elicit feedback from community members about publically available health data describing health conditions in the service area, and to review the online survey results to further explore the findings. The top 10 health issues as identified from the survey results were presented to the attendees and they were asked to 1) rank the health issues according to which issues impacted them and the people close to them most and 2) rank the issues according to a community view, which issues should be addressed to improve the overall health of the region. The top 3 concerns identified were identical in both scenarios.

The Community Conversation attendees identified the top 3 priorities that need to be addressed as:

- Access to Health Services
- Education
- Jobs with Fair Wages.

The health issues and concerns identified in the study may be grouped into three major categories:

- Uninsured Access
- Medicare/Medicaid Access
- Mental Health
- Seniors
- Chronic Disease
- Infant Mortality

- Jobs with fair wages
- Families living in poverty
- Educational Disparity
- Transportation
- Housing
- Crime

- Adult Obesity
- Childhood Obesity
- Sexually Transmitted Infections
- Teen births

Prioritization Methodology for Community Needs

The CHNA Advisory Board evaluated the qualitative and quantitative information collected through the CHNA process using a Strategy Grid process. Board members were asked to categorize issues as high or low need in the community. They were also asked to determine the feasibility of the community's ability to make an impact on the issue. The results of the exercise are illustrated in the table below:

(high) Feasibility (low)	(low) Need (high)
Low Need/High Feasibility • Infant Mortality	**High Need/High Feasibility** • Access to Care/Uninsured • Access to Care/Medicaid & Medicare • Adult Obesity • Childhood Obesity • Jobs with Fair Wages • Education • Families Living in Poverty • Mental Health • Seniors
Low Need/Low Feasibility	**High Need/Low Feasibility** • Uninsured • Sexually Transmitted Infections • Teen Birth • Chronic Disease • Housing • Crime • Transportation

The CHNA quantitative and qualitative information plus the Advisory Board Strategy Grid results were shared with Bon Secours Richmond administration.

Bon Secours Richmond administration chose four needs to address:

- Uninsured Access to Care for individuals with chronic disease conditions
- Mental Health
- Education
- Transportation

An Implementation Plan to address these needs is being created by Bon Secours Richmond leadership with input and collaboration from community partners.

Quantitative Data Findings Summary

Data presented in the following sections reflects how the area served by Bon Secours Richmond Health System compares to Virginia overall and/or the nation. Some health issues and conditions that were identified by the community during qualitative data collection and those deviating from the state and/or national findings compared to the quantitative data are summarized below:

Health Care Accessibility/Uninsured – Access to health care services, particularly for those suffering from chronic disease, was identified as a key area of concern in the Richmond community through feedback from the survey and town hall meetings.

What the data shows:

- The data shows that the percentage of adults in the Richmond Core Service Area who reported that they could not see a doctor due to cost is in line with or lower than Virginia overall.[1]
- The data shows a much higher percentage of uninsured adults in the City of Richmond compared to the rest of the Core service area and Virginia overall.[2]

Percentage of adults who could not see a doctor in the past 12 months because of cost	
Virginia	12%
Chesterfield	8%
Hanover	6%
Henrico	12%
Richmond City	10%
Percentage uninsured adults	
Virginia	17%
Chesterfield	16%
Hanover	12%
Henrico	17%
Richmond City	23%
Percentage uninsured children	
Virginia	6%
Chesterfield	6%
Hanover	5%
Henrico	7%
Richmond City	6%

[1] Virginia Department of Health, Virginia Behavioral Risk Factor Surveillance System (BRFSS), www.vdh.virginia.gov/ofhs/brfss/tables.htm
[2] www.CountyHealthRankings.org

- In the U.S. overall, chronic diseases are the leading cause of death and disability, resulting in 7 out of 10 deaths. Heart disease, cancer, and stroke alone cause more than 50 percent of all deaths each year.[3]
- In 2012, 117 million Americans—almost 1 out of every 2 adults age 18 or older—had at least 1 chronic disease, including Heart disease, Arthritis, Diabetes, Asthma, Cancer and/or Chronic Obstructive Pulmonary Disease (COPD).[4]
- The Agency for Healthcare Research and Quality (AHRQ) identifies a defined set of conditions called Prevention Quality Indicators (PQIs) for which hospitalization should be avoidable with proper outpatient health care. High rates of hospitalization for these conditions indicate potential gaps in access to quality outpatient services for community residents. [5] The data shows that, compared to Virginia, Richmond City has higher rates of preventable hospitalizations (PQI rates) for chronic diseases including Heart Failure, Asthma and Diabetes.

Behavioral/Mental Health – Mental Health was reported as a key area of concern in the Richmond community through feedback from the survey and town hall meetings.

What the data shows:

- In Richmond, Chesterfield and Henrico Health Districts a higher percentage (19.6-21.4%) of respondents reported having depressive disorders than Virginia overall (16.5%).
- Chesterfield County reported poor mental health at a higher percentage than Virginia.[6]

Mental Health by Health District (2013)		
Health District	**% Respondents who have a depressive disorder**	**% Respondents who reported poor mental health**
Richmond	20.7%	13.7%
Chesterfield	21.4%	15.5%
Chickahominy	10.2%	11.1%
Henrico	19.6%	12.6%
Three Rivers	14.3%	10.5%
Piedmont	16.6%	14.3%
Virginia	16.5%	13.5%

[3] www.cdc.gov/chronicdisease/overview/index.htm
[4] www.cdc.gov/chronicdisease/overview/index.htm
[5] www.healthypeople.gov/2020/about/foundation-health-measures/General-Health-Status#chronic
[6] Virginia Department of Health, Virginia Behavioral Risk Factor Surveillance System (BRFSS), www.vdh.virginia.gov/ofhs/brfss/tables.htm

- The following table provides the suicide rate per 1,000 for the years 2003 and 2013. The data in the suicide rate table demonstrates a trend towards a slight increase in suicides across the core service area.[7]

Suicide Rate per 1,000, Richmond Core Service Area (2003 -2013)		
	2003	2013
Chesterfield	0.108	0.15
Hanover	0.106	0.155
Henrico	0.118	0.122
Richmond City	0.108	0.128
Virginia	0.108	0.122

- In the state of Virginia the rate of Mental Health Providers to every 100,000 residents is 138. Hanover County has a lower rate of Mental Health Providers.[8]

Education – Education was identified as a key area of concern in the Richmond community through feedback from the survey and town hall meetings.

What the data shows:

- While African Americans in Virginia overall and most core jurisdictions are reaching the Healthy People 2020 High School Graduation goal of 82.4% graduating, the African American population in the City of Richmond is falling below that goal.
- Hispanic populations across all jurisdictions are also falling below the Healthy People 2020 goal, with Hispanics in the City of Richmond and Henrico County doing most poorly.
- Additionally, while 83.4% of Richmond Core Service Area African Americans graduate High School, only 54.2% go on to attain higher education degrees. And, 74.4% of City of Richmond's African Americans graduate High School, only 41.9% go on to attain a higher education degree. Latinos have an even lower percentage of graduates going on to attain a higher education degree.[9]
- In 2014-2015, graduation rates improved in almost every Virginia region and the statewide average rose to 90.5 percent. Graduation rates continued to slightly improved in nearly every Virginia region in 2014-2015; The Northern (92.2%), Valley (91.6%) and Eastern (91.7%) regions performed better than Virginia overall.[10]

Transportation – Transportation was identified as a key area of concern in the Richmond community through feedback from the survey and town hall meetings.

[7] Virginia Department of Health, Virginia Behavioral Risk Factor Surveillance System (BRFSS), www.vdh.virginia.gov/ofhs/brfss/tables.htm
[8] www.CountyHealthRankings.org
[9] Virginia Department of Labor and Industry, www.doli.virginia.gov (2014)
[10] http://vaperforms.virginia.gov/indicators/education/hsGraduation.php

What the data shows:

- An absence of alternatives to automobile travel has a greater adverse effect on vulnerable populations including the poor, the elderly, people who have disabilities, and children. This immobility results in limited access to jobs, health care, social interactions, and healthy foods.[11]
- A Harvard University study by economist Raj Chetty found that individuals raised in communities that limit a child's physical, economic, and educational potential contributes to greater incidence of poor health and chronic disease. According to this study, transportation related factors proved to have a stronger relationship to upward social mobility than crime, elementary-school test scores, and single-parent households.[12]
- Long commute times are also associated with less upward social mobility.[13]

[11] http://www.cdc.gov/healthyplaces/transportation/access_strategy.htm
[12] http://philasocialinnovations.org/journal/articles/editorials/828-place-matters-how-u-s-department-of-transportation-secretary-anthony-foxx-is-challenging-the-narrative-of-transportation-policy-to-promote-opportunity-and-address-health
[13] http://www.equality-of-opportunity.org/index.php/executive-summaries

Access to Health Care Profile

This Access to Health Profile provides health service data gathered from publicly available sources. The 4 jurisdictions that make up the Richmond Core Service Area are Chesterfield, Hanover, Henrico and the City of Richmond.

When evaluating this data it is important to keep in mind there is a range of rural and urban areas in this service area. Hanover County has a much smaller volume of patients compared to the other jurisdictions with a population density of 212 people per square mile. Chesterfield County has a population density of 742 people per square mile, Henrico County has 1,285 people per square mile and in Richmond City there are 3,379 people per square mile.[14] More information about patient volume can be found in the 'Age Demographics and Projections' section of this document.

To summarize:

- All the Richmond Core Service Area jurisdictions have lower numbers of Primary Care Providers per 100,000 residents than Virginia overall.
- The rate of Primary Care Providers in the City of Richmond is less than the rate in Virginia overall, but the rate of Dental Care and Mental Health Care providers in the City of Richmond is higher than Virginia overall.
- According to the data, Hanover County demonstrates the lowest Provider to Resident ratios of all core jurisdictions.
- Many of the counties served by the Bon Secours Richmond Health System had a Medically Underserved Area (MUA) designation for at least a subsection of the jurisdiction in 2014.

[14] http://www.usa.com/virginia-state.htm

I. Provider to Residents Rates

Access to health care services is a key factor in the health of a community. A major contributing factor in health care accessibility is the burden of care placed on a provider. The following table depicts the rate of providers to residents in the four core jurisdictions that make up the Richmond Core Service Area. The rates for the state of Virginia are also given for comparison. This data table highlights a disparity in provider to resident rates between the four jurisdictions and across provider types.

Rate of Providers to Residents per 100,000 (2013)					
	Chesterfield	**Hanover**	**Henrico**	**Richmond City**	**Virginia**
Primary Care	89.9	71.5	100	101	124.4
Dental Care	69.0	55.3	65.9	122.4	59.9
Mental Health	128.5	40.8	231.3	250.8	138.1

In the state of Virginia there is a rate of approximately 124 Primary Care Providers (PCPs) for every 100,000 residents. As shown in the table above all 4 jurisdictions in the Richmond Core Service Area have lower rates of PCPs per 100,000 residents.

In the state of Virginia the rate of Dental Care Providers to every 100,000 residents is 60. Richmond City has double the rate of Dental Care Providers, while the other 3 core counties are in line with Virginia's rate.

In the state of Virginia the rate of Mental Health Providers to every 100,000 residents is 138. Hanover County has a significantly lower rate of Mental Health Providers. Henrico and Richmond City have much higher rates of Mental Health Care providers.[15]

II. Health Professional Shortage Area/Medically Underserved Area

The U.S. Health Resources and Services Administration (HRSA) defines a Health Professional Shortage Area (HPSA) designation as one that identifies a geographic area, population group or facility as having a shortage of primary care physicians.

As of 2014, localities in the Richmond Metro region that contained a primary care Health Professional Shortage Area (HPSA) included:[16]

[15] www.CountyHealthRankings.org
[16] http://bhpr.hrsa.gov/shortage/index.html

- Amelia
- Goochland
- Henrico
- King and Queen
- King William
- New Kent
- Richmond City

HRSA designates geographic areas or defined populations as 'medically underserved' based on the presence of particular health and socioeconomic risks in addition to provider shortages. The criteria for designation include too few primary care providers, high infant mortality, high poverty and/or high elderly population rates. As of 2014, the following counties in the service area had a Medically Underserved Area (MUA) designation for at least a subsection of the jurisdiction:[17]

- Amelia
- Chesterfield
- Goochland
- Henrico
- King and Queen
- King William
- New Kent
- Powhatan
- Richmond City

[17] http://bhpr.hrsa.gov/shortage/index.html

Demographics Data Profile

The health of a community is largely connected to the demographics and social aspects of its residents, which can be a useful indicator of health concerns. Demographic studies of a population are based on factors such as age, race, sex, economic status, education levels, and employment rates, among others. The physical environment in which individuals live, learn, work, play, and grow old also has a great impact on their health and quality of life. These cultural and environmental conditions are also known as 'Social Determinants of Health'.

A detailed summary of the demographics data for the Richmond Metro community is found in this section of the CHNA. Some key findings in the Richmond Metro community's demographics data include:

- The Richmond Core Service Area is 53% Caucasian and 30.7% African American. When the demographics of the City of Richmond are viewed alone, we find a much lower percentage of Caucasians (40%) and a much higher percentage of African Americans (49%) than the community overall. When we compare the racial distribution of our service area to the state of Virginia overall, which is only 19.7% African American, we find that the Richmond Core Service Area and particularly the City of Richmond have much higher percentages of African Americans.

- The population age distribution for the Richmond Core jurisdictions is similar to Virginia overall with the exception of the City of Richmond, which has a higher percentage of 19-64 year olds and lower percentages of children and older adults.

- Unemployment rates for Richmond Core Service Area residents mirrors unemployment rates in Virginia overall at around 5%. The U.S. and the City of Richmond both demonstrate slightly higher rates of unemployment at approximately 6%.[18]

- Median household incomes in the United States are less than those found in Virginia overall. The Richmond Core Service Area counties of Henrico, Hanover and Chesterfield all have higher median household incomes than the U.S. overall. In contrast, the City of Richmond has a much lower median household income ($39,249) as compared to the U.S. ($53,046) and Virginia overall ($63, 907).

[18] www.CountyHealthRankings.org

I. Race and Ethnicity Demographics

It has been well established that race and ethnicity are key factors in health disparities. For example, life expectancy, death rates and infant mortality rates are all less favorable among African American populations as compared to other ethnic populations. In 2009, African Americans in the United States had the highest mortality rates from heart disease and stroke as compared to any other ethnic group. Additionally, infants born to African Americans have the highest infant mortality rates, more than twice the rate for whites in 2008. While certain health indicators such as life expectancy and infant mortality have been slowly improving, many minority race groups still experience a disproportionately greater burden of preventable disease, death, and disability. [19]

In 2013, the population of African Americans in the United States was an estimated 45 million, or 13.2% of the total population. Virginia overall (19.70% African American), and particularly the Richmond Core Service Area (30.72% African American) both have higher percentages of African Americans than the nation overall. The distribution of the African American population in the core service area is not uniform across the four jurisdictions. In the City of Richmond nearly half the population identifies as African American, while Hanover County has a dramatically lower percentage at 9.12%.[20]

Population by Race/Ethnicity for the Four Core Jurisdictions in the Richmond Service Area, 2013								
Total Population	**White**	**African American**	**American Indian/ Alaskan Native**	**Asian**	**Native Hawaiian/ Pacific Islander**	**Other**	**Multi Racial**	**Hispanic**
Chesterfield								
320,430	69.5%	22.5%	0.3%	3.5%	0.04%	1.8%	2.4%	7.4%
Hanover								
100,328	86.6%	9.1%	0.3%	1.4%	0.02%	0.8%	1.8%	2.3%
Henrico								
311,314	59.7%	29.5%	0.3%	6.8%	0.03%	1.3%	2.4%	5.0%
Richmond City								
207,878	43.4%	49.2%	0.3%	2.3%	0.03%	1.4%	3.4%	6.2%

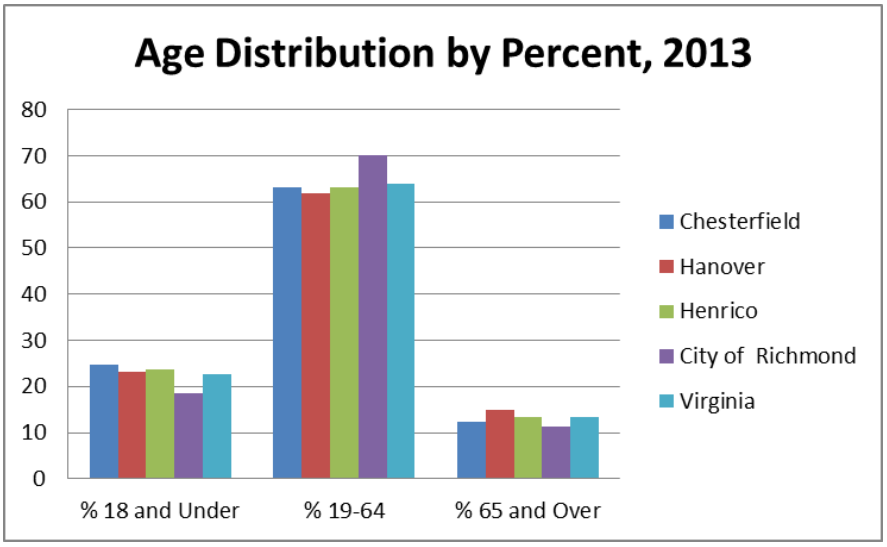
[19] minorityhealth.hhs.gov, HHS Disparities Action Plan

[20] www.CountyHealthRanking.org

II. Age Demographics and Projections

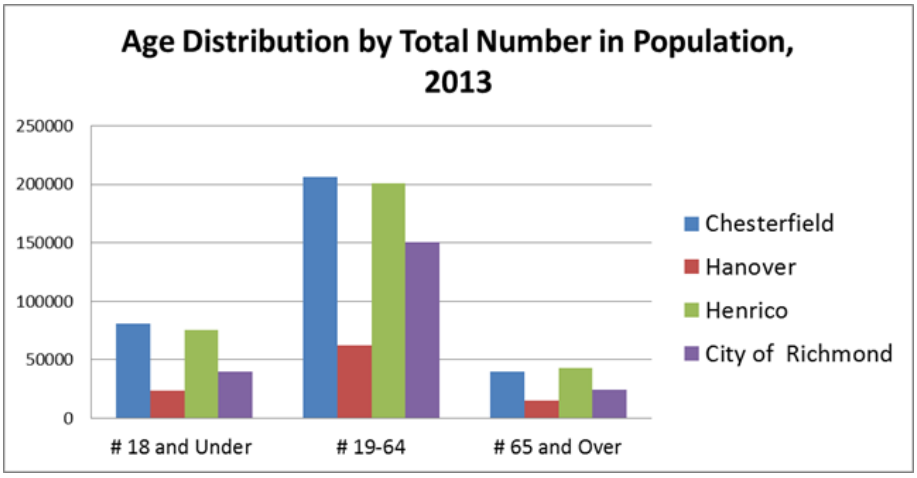
Older adults are at higher risk for developing chronic illnesses such as Diabetes Mellitus, Arthritis, Congestive Heart Failure and Dementia, and this proves to be a burden on the health care system. The first of the 'baby boomer generation' (adults born between 1946 and 1964) turned 65 in 2011 and this is resulting in an aging population nationwide. It is estimated that by the year 2030, 37 million older adults nationwide will be managing at least one chronic condition. Chronic conditions are the leading cause of death among older adults. Additionally, older adults experience higher rates of hospitalizations and low-quality care.[21]

The Richmond Core Service Area has a similar age distribution among its population when compared to Virginia overall. The City of Richmond alone shows a higher percentage of 19-64 year olds, and fewer older adults and children as compared to the other jurisdictions in the Richmond Core Service Area.



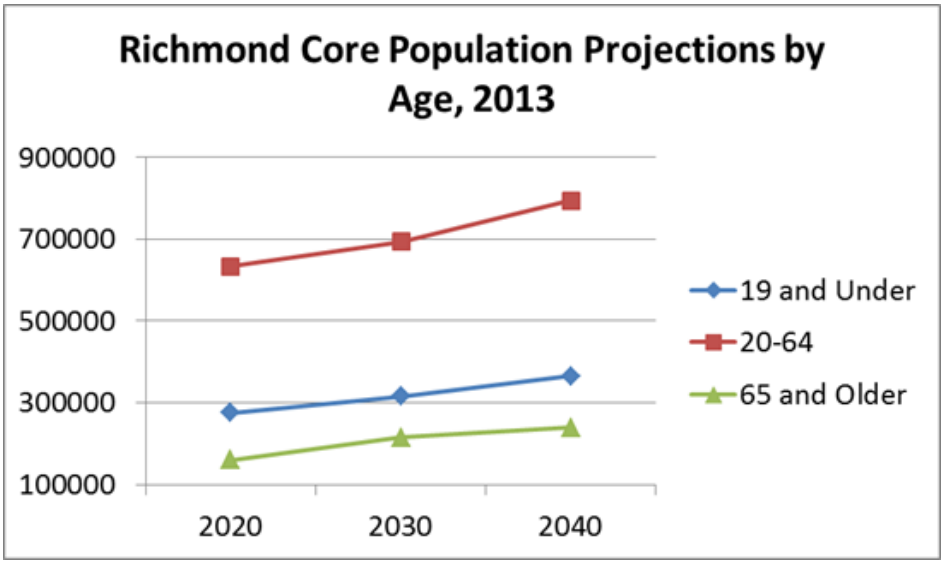
RICHMOND CORE Age Distribution by % in Population			
	% < 18 years old	% 19-64 years old	% > 65 years old
Chesterfield	25%	63%	12%
Hanover	23%	62%	15%
Henrico	24%	63%	13%
Richmond City	18%	70%	11%
Virginia	23%	64%	13%

[21] www.healthypeople.gov, Foundation Health Measures; General Health Status



RICHMOND CORE Age Distribution by # Totals in Population			
	#<18 years old	#19-64 years old	# >65 years old
Chesterfield	81,024	206,567	40,154
Hanover	23,543	62,570	15,217
Henrico	75,092	200,821	42,698
Richmond City	39,535	150,283	24,296

The graph below depicts the Richmond Core Service Area's projections by age. This graph indicates that the community's overall population will continue to steadily increase until 2040 with the slightly greater rate of growth in the 20-64 year old populations.



III. Income Demographics

It is well established that income level correlates with health status. An association exists between unemployment and mortality rates, especially for causes of death that are attributable to high stress (cardiovascular diseases, mental and behavioral disorders, suicide, and alcohol and tobacco consumption related illnesses).[22]

In 2014, unemployment rates for Richmond Core Service Area residents mirrored unemployment rates in Virginia overall at around 5%. The nation and the City of Richmond demonstrate slightly higher but similar rates of unemployment at around 6%. The gap between the unemployment rates in Virginia and the U.S. overall has gradually decreased over the past ten years. All unemployment is on a steep decline since 2010 with the City of Richmond doing particularly well in this area.

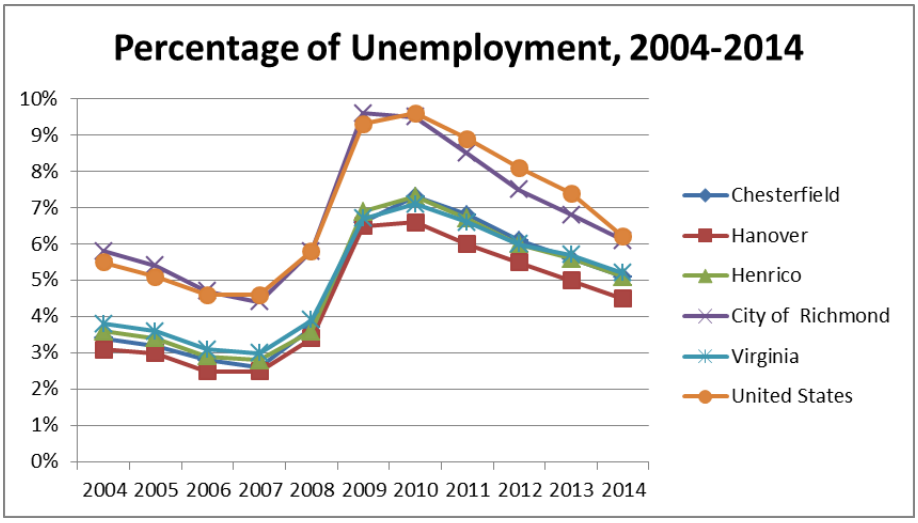
The percentage of unemployment over the past ten years is depicted in the graphics below:[23]

Percentage Unemployment Over Ten Years

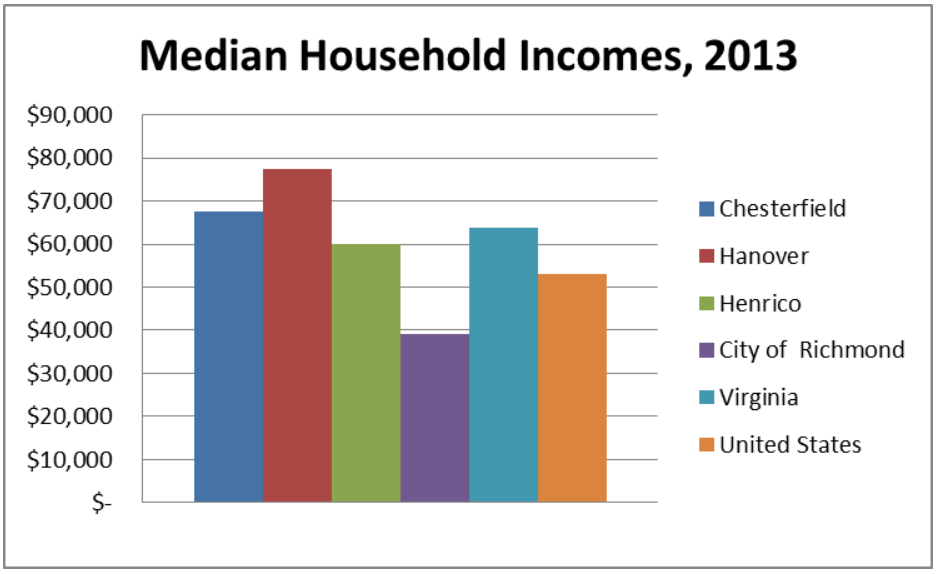
	Chesterfield	Hanover	Henrico	Richmond City	Virginia	United States
2004	3.4%	3.1%	3.6%	5.8%	3.8%	5.5%
2005	3.2%	3.0%	3.4%	5.4%	3.6%	5.1%
2006	2.8%	2.5%	2.9%	4.7%	3.1%	4.6%
2007	2.6%	2.5%	2.8%	4.4%	3.0%	4.6%
2008	3.7%	3.4%	3.6%	5.8%	3.9%	5.8%
2009	6.6%	6.5%	6.9%	9.6%	6.7%	9.3%
2010	7.3%	6.6%	7.3%	9.5%	7.1%	9.6%
2011	6.8%	6.0%	6.7%	8.5%	6.6%	8.9%
2012	6.1%	5.5%	6.0%	7.5%	6.0%	8.1%
2013	5.6%	5.0%	5.6%	6.8%	5.7%	7.4%
2014	5.1%	4.5%	5.1%	6.1%	5.2%	6.2%

[22] Backhans and Hemmingsson, 2011,Lundin et al., 2014, Garcy and Vagero, 2012, Browning and Heinesen, 2012,Montgomery et al., 2013, Davalos et al., 2012, Deb et al., 2011 and Strully, 2009

[23] Virginia Labor Market Information, www.VirginiaLMI.com



Henrico, Hanover, and Chesterfield all have lower percentages of unemployment than the United States, but align with the percentages unemployment found in Virginia overall. While the City of Richmond demonstrates a higher percentage of unemployment, it mirrors the rate found in the nation overall, and demonstrates a more dramatic trend line towards improvement than all the other core jurisdictions.[24]



The median household income for the City of Richmond ($39,249) is dramatically lower than the Virginia state average ($63,907). The median household income for the United States ($53,046) is

[24] www.CountyHealthRankings.org

lower than Virginia; the counties of Henrico and Chesterfield are aligned with Virginia in this area. Hanover County has a higher median household income than the other jurisdictions, the state of Virginia and the nation.

Median Household Income in Dollars, White and Black Households, USA and Virginia, 2009-2013										
	2009		2010		2011		2012		2013	
	White	Black	White	Black	White	Black	White	Black	White	Black
Chesterfield	$76,033	$58,802	$74,894	$59,676	$76,037	$62,508	$76,576	$60,349	$75,330	$63,407
Hanover	$78,923	$51,161	$78,377	$59,775	$79,531	$56,143	$79,570	$56,399	$78,490	$50,351
Henrico	$65,747	$47,959	$66,693	$46,636	$67,877	$47,255	$68,123	$47,223	$68,626	$46,139
Richmond City	$52,392	$28,057	$53,084	$28,621	$54,600	$28,536	$54,404	$29,038	$55,051	$29,575
Virginia	$65,252	$41,925	$66,357	$42,468	$68,367	$43,597	$68,751	$43,803	$68,977	$43,885
United States	$54,535	$43,385	$54,999	$41,038	$55,992	$43,223	$56,203	$39,821	$56,300	$40,281

Median household incomes for African American's, when compared to Caucasians, is lower in every jurisdiction. This finding mirrors the racial disparities in income found in the state and nation overall.[25]

[25] US Census Bureau. (2013). "Selected Economic Characteristics," 2009-2013 American Community Survey 5-Year Estimates. US Department of Commerce. Web.

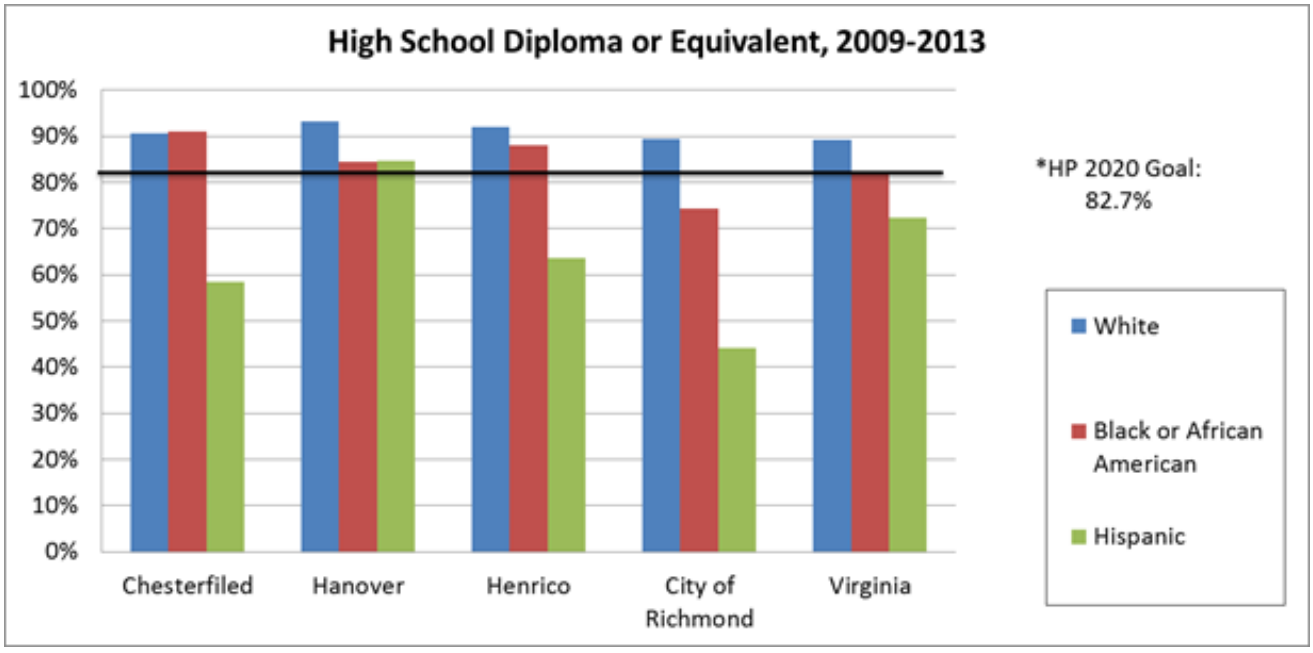
IV. Education Demographics

A direct correlation exists between low levels of education and high poverty rates. High poverty rates in turn have an adverse effect on a community's health outcomes.

The Healthy People 2020 goal for Education Level/Graduation Rates aims for at least 82.4% graduation rate for students attending public schools with a regular diploma 4 years after starting the 9th grade. While African Americans in Virginia overall are reaching the Healthy People 2020 High School Graduation goal, the African American population in the City of Richmond is falling below that goal. Hispanic populations across all jurisdictions are also falling below the Healthy People 2020 goal, with Hispanics in the City of Richmond and Henrico County doing most poorly.

In 2014-2015, graduation rates improved in almost every Virginia region and the statewide average rose to 90.5 percent.

The following graph measures how the Richmond Core Service Area and Virginia overall are doing in meeting the Healthy People 2020 education goal:



Educational Attainment in Virginia and Richmond Core Service Area by Race					
Race	**Less than High School**	**High School, GED, or Alternative**	**Some College or Associates Degree**	**Bachelor's Degree or Higher**	**Total Percentage w/High School degree, GED or Alternative**
Virginia					
White	10.7%	24.9%	26.7%	37.6%	89.2%
Black	17.9%	30.2%	31.3%	20.4%	81.9%
Latino	27.7%	24.1%	22.8%	22.7%	69.6%
Richmond Core Service Area					
White	8.8%	22.2%	26.2%	42.8%	91.2%
Black	16.5%	29.2%	32.7%	21.5%	83.4%
Latino	42.4%	23.9%	16.5%	17.1%	57.5%
Richmond City service area					
White	10.6%	14.2%	19.0%	56.3%	89.5%
Black	25.6%	32.5%	28.3%	13.6%	74.4%
Latino	55.6%	20.3%	10.5%	13.4%	44.2%

The percentage of African Americans graduating from High School, obtaining a GED or alternative in the Richmond Core Service Area is 83.4%. The percentage of African Americans graduating from High School in Virginia overall is only slightly lower, at 81.9%. The percentage of African Americans graduating from High School in the City of Richmond is much lower at 74.4%. Additionally, while 83.4% Richmond Core Service Area African Americans graduate High School, only 54.2% (32.7% + 21.5%) of African Americans in the Richmond Core Service Area go on to attain higher education degrees. And, 74.4% of the City of Richmond's African Americans graduate High School, only 41.9% of African Americans in the City of Richmond go on to attain a higher education degree.

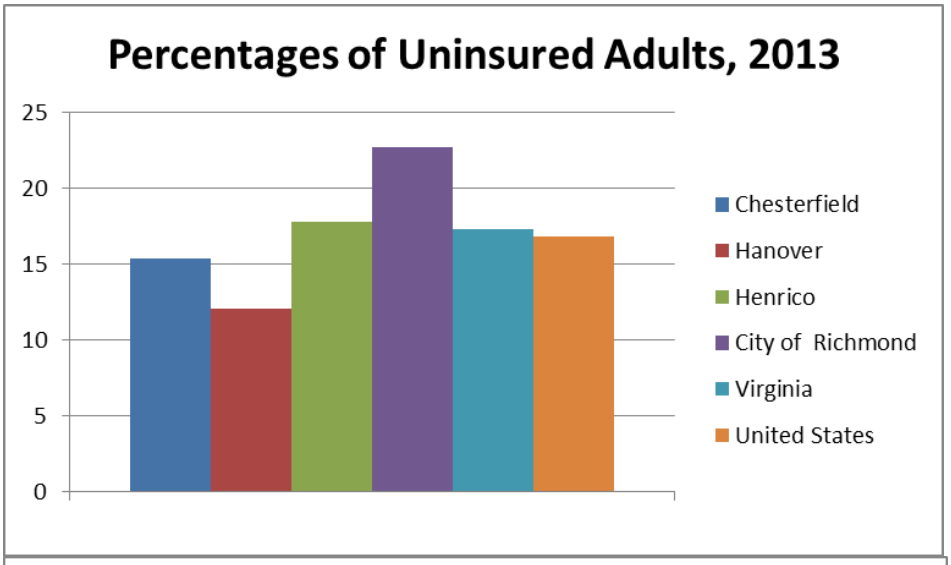
The percentage of Latinos graduating from High School in the Richmond Core Service Area is only 57.5%. The percentage of Latinos graduating from High School in Virginia overall is better, at 69.6%. The percentage of Latinos graduating from High School in the City of Richmond is much lower at 44.2%. Additionally, while 57.5% of the Richmond Core Service Area Latinos graduate High School, only 33.6% of Latinos in the Richmond Core Service Area attain higher education degrees. And, 44.2% of the City of Richmond's Latinos graduate High School only 23.9% of Latinos in the City of Richmond attain a higher education degree.

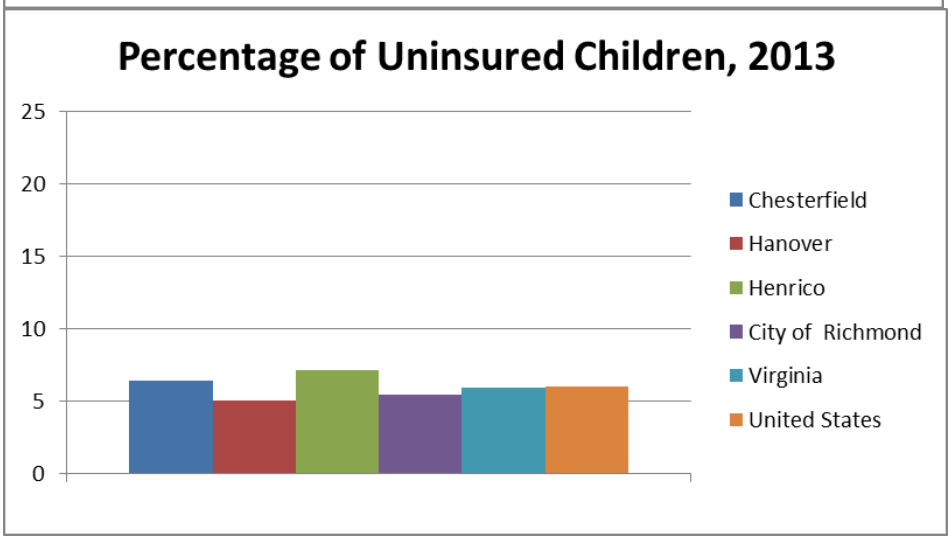
The data shows a high percentage of Caucasians in the City of Richmond attaining a Bachelor's degree or higher at 56.3%. This data is reflective of the multiple academic institutions present in the City of Richmond and students who are enrolled in those institutions residing in the city.[26]

[26] Virginia Department of Labor and Industry, www.doli.virginia.gov (2014)

V. Uninsured Population

Research shows that high rates of health insurance coverage positively impact a community's overall health status. Access to health care services improves quality of life, school and work productivity and overall mortality rates.[27] The Healthy People 2020 goal for Health Insurance aims for 100% of the population to have some form of health insurance coverage. Compared to Virginia, the percentage of uninsured adults is highest in the City of Richmond and lowest in Hanover County. The percentages of uninsured children show a much lower degree of variance.[28]





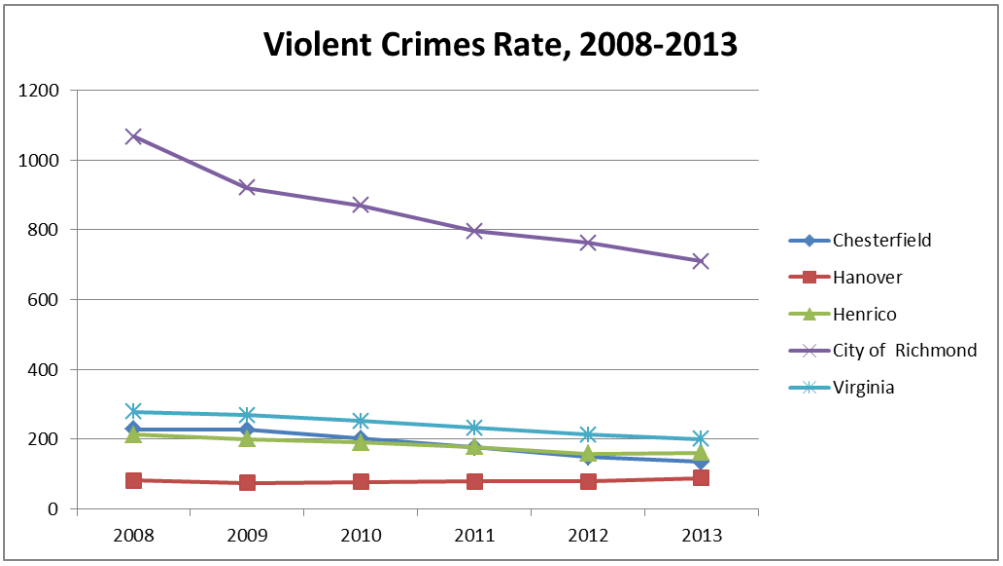
[27] www.healthypeople.gov, Access to Health Services
[28] www.CountyHealthRankings.org

VI. Violence and Crime

Violent crimes are defined as physical offenses and confrontations between individuals, including homicide, forcible rape, robbery, and aggravated assault. High levels of violent crime result in feelings of being unsafe and may deter people from engaging in healthy behaviors such as exercising outdoors. A culture of high violence and crime has also demonstrated increased stress levels, and results in higher prevalence of hypertension and other stress-related disorders in the community. Chronic stress exposure caused by high levels of violence and crime in a community will likely increase prevalence of psychosocial stress related illnesses such as upper respiratory illness and asthma.[29]

The violent crime rate for the City of Richmond is much higher than the other core jurisdictions and Virginia overall. The City of Richmond's crime rate has been steadily and consistently declining, while the other jurisdictions do not show a significant change in violent crime rates.

The following graph depicts the Richmond Core Service Area and Virginia's violent crime rate over a five-year period:[30]



It is pertinent to explore the violent crimes rate further in terms of race due to the dramatically disproportionate rate of African Americans as victims of homicide. In the City of Richmond 90% of the 39 homicide victims in 2015 were African American. This trend held true for the suburban counties of Henrico and Chesterfield also, where collectively 31 of the 32 homicide victims in 2015 were African American. The state of Virginia overall's percentage of homicide victims that were

[29] www.healthypeople.gov, Injury and Violence Prevention
[30] www.CountyHealthRankings.org

African American was much lower at 53%, which was in line with the national percentage. This is all while African Americans account for only around 13% of the nation's population and 19% of the state of Virginia's population.[31]

[31] http://www.richmond.com/news/local/crime/article_842e9a4a-281a-52de-a2c0-332b8e109717.html

VII. Opportunity for Living a Healthy Lifestyle

Consumption of unhealthy foods, lack of exercise opportunities and other negative health cultures, has an adverse impact on a community. The burden on the United States health-care system due to obesity-related health care costs ranges from $147 billion to nearly $210 billion annually. The loss in productivity due to job absenteeism costs an additional $4 billion each year. Increased access to exercise opportunities and healthy foods is a critical prevention strategy to alleviate this economic burden.[32]

Low levels of physical activity are correlated with several disease conditions such as Obesity, Type 2 Diabetes, Cancer, Stroke, Hypertension, Cardiovascular Disease, and Premature Mortality. The physical activity goal set by Healthy People 2020 states that no more than 32.6% of the adult population (20+) will report that they engaged in no leisure-time physical activity.

The Food Environment Index, Physical inactivity and Food insecurity for the Richmond Core Service Area is consistent with the data reported for Virginia. Access to exercise is lower in all three counties when compared to Virginia. The following table details the data findings:[33]

Measure and Definition of Measure	Virginia	Chesterfield	Hanover	Henrico	City of Richmond
Food Environment Index Factors that contribute to a healthy food environment, 0 (worst) to 10 (best)	8.3	8.4	9.1	7.9	5.8
Physical inactivity Percentage of adults aged 20 and over reporting no leisure-time physical activity HP2020 Goal – 32.6%	22%	20%	22%	22%	22%
Access to exercise Percentage of population with adequate access to locations for physical activity	81%	80%	78%	94%	88%
Food Insecurity Percentage of population who lack adequate access to food	12%	10%	8%	13%	21%

[32] www.stateofobesity.org/healthcare-costs-obesity

[33] www.CountyHealthRankings.org

VIII. Social Indicators of Health Related to Children

To understand the health needs and attitudes towards health in a community it is imperative to study the social indicators of health related to children.

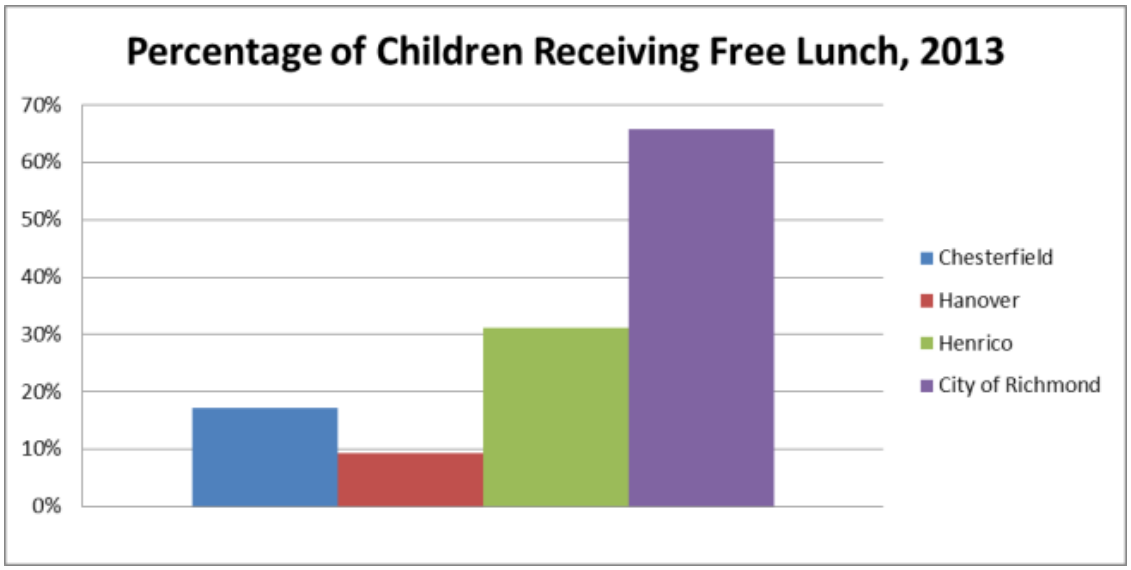
The percentage of children in single parent households in the City of Richmond is more than double the percentage in Virginia overall. The percentage of children living in poverty in the City of Richmond is more than double the percentage found in Virginia overall, and any of the other core service area jurisdictions. The percentage of children eligible for a free lunch in the City of Richmond is around 65%. Henrico, Hanover and Chesterfield Counties all have less than half that percentage. The data indicates that the children in the City of Richmond are a vulnerable population and at a higher risk for development of future health problems.

The following graph and tables provide risk factor data specific to children (persons under 18 years old) in the Richmond Core Service Area:[34]

Social Indicators of Health Related to Children		
	% Single Parent Households – % children that live in a household headed by a single parent (2015)	**%Children in Poverty –** % children under 18 living in a family with income below the poverty threshold (2014)
Virginia	30%	16%
Chesterfield	28%	11%
Hanover	20%	8%
Henrico	35%	17%
City of Richmond	63%	39%

[34] www.CountyHealthRankings.org

The following bar graph depicts the percentage of children eligible for a free school lunch:



IX. Other Health Behaviors and Social Determinants of Health

Additional health behaviors and social determinants of health have been identified and well established as key contributors to the overall health of a community. Adult Smoking, Adult Obesity and Excessive Drinking are indicators with national goals from the Center of Disease Control and Prevention (CDC) Healthy People 2020 initiative as indicated in the following table.

Data regarding Health Behaviors and Social Determinants in the Richmond Core Service Area is provided in the following table: [35]

Health Behaviors/Social Determinants in the Richmond Metro community (2016)					
Measure and Definition	**Virginia**	**Chesterfield**	**Hanover**	**Henrico**	**City of Richmond**
Adult smoking Percentage of adults who are smokers **(HP 2020 Goal 12%)**	20%	17%	15%	16%	24%
Adult obesity Percentage of adults that report a BMI of 30 or more **(HP 2020 Goal 30.5%)**	27%	27%	27%	28%	30%
Excessive drinking Percentage of adults reporting binge or heavy drinking **(HP 2020 Goal 24.4%)**	17%	16%	18%	16%	18%
Alcohol-impaired driving deaths Percentage of driving deaths with alcohol involvement	31%	43%	30%	31%	33%
Sexually transmitted infections Number of newly diagnosed chlamydia cases per 100,000 population	407	370.8	185.8	426.8	1,164.5
Teen births Number of births per 1,000 female population ages 15-19	27	18	14	23	43

[35] www.CountyHealthRankings.org

Health Conditions and Disease Data Profile

The Health Conditions and Disease Data Profile for the Richmond Core Service Area is found in this section of the CHNA. This data provides a quantitative profile of the community based on a wide array of community health indicators, compiling and analyzing data from multiple sources. This CHNA focuses on health indicators for which data sources were readily available and whenever possible provides comparison to the state of Virginia overall, the nation, and the Healthy People 2020 goals.

The results of this data profile are helpful in determining the percentages and number of people affected by specific health concerns, specifically looking at prevalence and mortality rates for various diseases.

I. Overall Mortality Data

Healthy People 2020 objectives define mortality rate goals per 100,000 populations for a number of health problems.

A selection of the Healthy People 2020 mortality targets is as follows:

Healthy People 2020 Mortality Targets	
Overall Cancer	161.4 deaths per 100,000 population
Breast (female) Cancer	20.7 deaths per 100,000 females
Lung Cancer	45.5 deaths per 100,000 population
Prostate Cancer	21.8 deaths per 100,000 males
Colon (colorectal) Cancer	14.5 deaths per 100,000 population
Heart Disease	103.4 deaths per 100,000 population
Stroke	34.8 deaths per 100,000 population
Diabetes	66.6 deaths per 100,000 population
Infant	6.0 infant deaths per 1000 live births
Neonatal Deaths (28 days)	4.1 neonatal deaths per 1000 live births
Drug Related	11.3 drug-induced deaths per 100,000; 13.2 poisoning deaths per 100,000
Violence	5.5 homicides per 100,000 population
Injuries	Unintentional Injuries: 36.4 deaths per 100,000

In 2013, the Richmond Core Service Area had a total of 5,011 deaths attributable to the leading 8 causes of mortality in the region as listed in the following table. Cancer and Heart Disease are the leading causes of death in the Richmond community and account for more than half of all deaths in the community.

The following table provides the number of deaths attributable to each of the top 8 causes of death for each county:

Burden of Disease – Number of Deaths Attributed to Top 8 Causes (2013)					
	Chesterfield	Hanover	Henrico	City of Richmond	Virginia
1. Cancer	522	209	599	396	14,348
2. Diseases of the Heart	435	179	550	458	13,543
3. Stroke	108	46	145	117	3,278
4. CLRD *	104	48	148	83	3,168
5. Unintentional Injury	95	38	109	81	2,794
6. Alzheimer's Disease	62	27	104	39	1,634
7. Diabetes	42	18	68	47	1,618
8. Suicide	50	18	40	26	1,047
Total # Deaths from Top 8	1,418	583	1,763	1,247	41,430

** Chronic Lower Respiratory Disease*

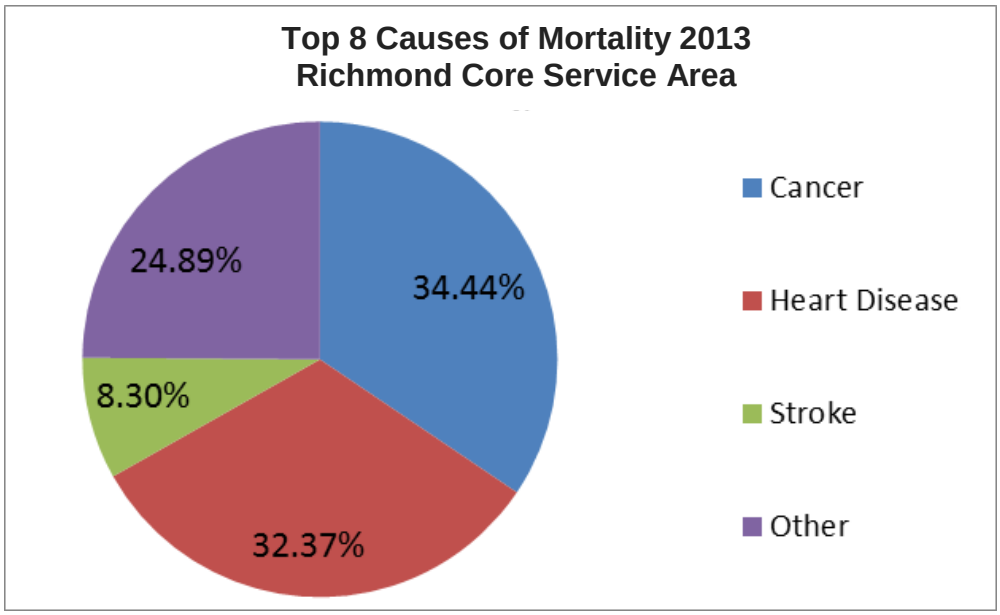
The table below shows percentages of deaths attributable to each of the top causes of death. The table shows Cancer as the leading cause of death in Chesterfield, Hanover and Henrico Counties, and Heart Disease as the leading cause of death in the City of Richmond. The mortality percentages for the remaining 7 causes of death are in line with the statewide mortality rates.[36]

Burden of Disease – Percentages of Death Attributed to Top 8 Causes (2013)					
	Chesterfield	**Hanover**	**Henrico**	**Richmond**	**Virginia**
Cancer	36.8%	35.9%	34.0%	31.8%	34.6%
Heart Disease	30.7%	30.7%	31.2%	36.7%	32.7%
Stroke	7.6%	7.9%	8.2%	9.4%	7.9%
CLRD*	7.3%	8.2%	8.4%	6.7%	7.7%
Injury	6.7%	6.5%	6.2%	6.5%	6.7%
Alzheimer's	4.4%	4.6%	6.0%	3.1%	3.9%
Diabetes	3.0%	3.1%	3.9%	3.8%	3.9%
Suicide	3.5%	3.0%	2.3%	2.1%	2.5%

** Chronic Lower Respiratory Disease*

[36] VDH Annual Report Chapter 7-35, www.vdh.virginia.gov/healthstats/stats.htm

The following graph provides a depiction of the 'Burden of Disease for the Top 8 Causes of Mortality' in the Richmond Core Service Area. Cancer, Heart Disease and Stroke are the top 3 causes of mortality. The "Other" category depicts the burden of disease for the remaining top 5 causes (Chronic Lower Respiratory Disease, Injury, Alzheimer's, Diabetes and Suicide):



* Other = CLRD, Injury, Alzheimer's, Diabetes and Suicide

II. Preventable Hospitalizations

Preventable hospitalizations are hospitalizations that could have been avoided had appropriate outpatient care been available and/or provided. The Agency for Healthcare Research and Quality (AHRQ) identifies a defined set of conditions called Prevention Quality Indicators (PQIs) for which hospitalization should be avoidable with proper outpatient health care. High rates of hospitalization for these conditions indicate potential gaps in access to quality outpatient services for community residents.

Furthermore, communities have a limited capacity to adequately capture prevalence for chronic conditions such as Coronary Heart Disease, Diabetes, Asthma, etc. The PQI data helps serve as a proxy to estimate the prevalence of these chronic conditions in a population.

Compared to Virginia, Richmond City has higher PQI rates for Heart Failure, Asthma and Diabetes.

The following table displays the top PQI Hospital Indicators in the study region:[37]

PQI Hospitalization # Discharges & Rates per 1,000 for Selected (Principal) Diagnoses, 2013					
	Chesterfield	**Hanover**	**Henrico**	**Richmond City**	**Virginia**
Heart Failure	717 discharges 2.2 per 1,000	237 discharges 2.3 per 1,000	619 discharges 1.9 per 1,000	720 discharges 3.5 per 1000	21,512 discharges 2.6 per 1,000
Asthma	398 discharges 1.2 per 1000	62 discharges 0.6 per 1000	363 discharges 1.1 per 1000	689 discharges 3.4 per 1000	8,546 discharges 1.0 per 1000
Diabetes	484 discharges 1.5 per 1,000	142 discharges 1.4 per 1,000	489 discharges 1.5 per 1,000	616 discharges 3.0 per 1000	12,972 discharges 1.6 per 1,000
Pneumonia	534 discharges 1.6 per 1,000	170 discharges 1.6 per 1,000	659 discharges 2.1 per 1,000	485 discharges 2.4 per 1000	19,433 discharges 2.4 per 1,000
Urinary Infection	462 discharges 1.4 per 1,000	116 discharge 1.1 per 1,000	490 discharges 1.5 per 1,000	355 discharges 1.7 per 1000	11,986 discharges 1.5 per 1,000

[37] Virginia Health Information, vhi.org/MONAHRQ

III. Cancer

Cancer is the leading cause of death in the Richmond Core Service Area, followed by Heart Disease. In the Richmond Core Service Area, Lung Cancer causes the greatest number of deaths (52%) followed by Breast Cancer. Cancer has been identified as the second leading cause of death nationwide, with Heart Disease being the number one killer. In the Richmond Core community, Cancer is the number one killer followed by Heart Disease.

All jurisdictions in the Richmond Core Service Area have a higher mortality rate for Overall Cancer than the Healthy People 2020 goal of 161.4 per 100,000. The incidence rates for all core counties is higher than Virginia overall.

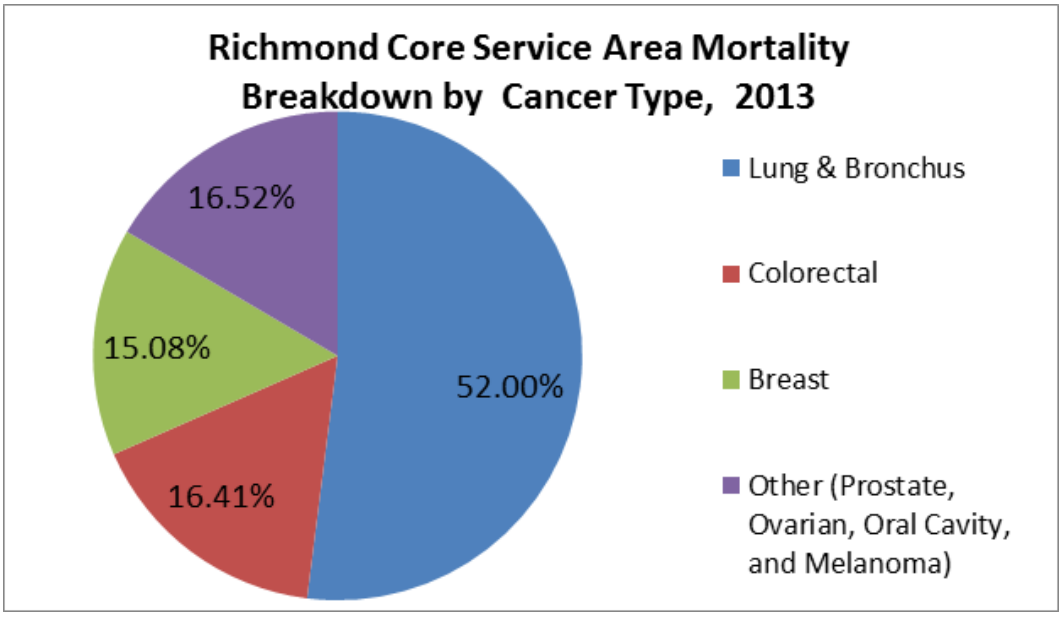
The following table illustrates Cancer Incidence (2008-2012)[38] and Cancer Mortality (2008-2012)[39] for Richmond Core jurisdictions compared to Virginia:

Overall Cancer Data – Incidence and Mortality Counts and Rates per 100,000				
	Incidence		Mortality	
	Count	Rate per 100,000	Count	Rate per 100,000
Chesterfield	1,557	497.0	2,414	180.9
Henrico	1,459	444.7	2,768	169.7
Hanover	568	496.6	889	162.5
Richmond	948	475.4	2,031	190.6
Virginia	183,855	443.9	70,400	172.5

[38] Virginia Cancer Registry, http://statecancerprofiles.cancer.gov/incidencerates/index.php?stateFIPS=51&cancer=001&race=00&sex=0&age=001&year=0&type=incd&sortVariableName=rate&sortOrder=desc#results

[39] Virginia Department of Health Division of Health Statistics, http://www.vdh.virginia.gov/HealthStats/stats.htm

The following pie graph illustrates the percentage of Cancer mortality associated with various types of Cancer:



The following table breaks down the five-year total incidence rate per 100,000 by cancer type:[40]

Five-year total Incidence Rate per 100,000 by Cancer Type (2008-2012)					
	Chesterfield	**Hanover**	**Henrico**	**Richmond**	**Virginia**
Lung/Bronchus	72.6	75.9	60.2	76.7	63.6
Breast (Female)	138.2	140.1	135.9	125.8	124.6
Prostate	176.5	141.8	163.4	165.8	126.3
Colorectal	41.3	51.3	38.4	44.1	38.3
Ovarian	10.1	13.6	11.2	7.9	11.8
Melanoma	19.9	19.1	15.9	11.7	14.4
Oral Cavity	11	11.4	10.9	12.7	11.0
Cervical	6.2	-	5.8	6.5	6.3

- number is too small to report

The following table provides the five-year total mortality rate per 100,000 by cancer type. The boxes highlighted in green indicate that the Healthy People 2020 goal has been met. Cancer rates are falling or are stable for all cancer types in all areas. All jurisdictions show Lung, Prostate and Colorectal Cancer rates to be falling.[41]

Five-year total Mortality Rate per 100,000 by Cancer Type (2008-2012) with Trend information.					
	Chesterfield	**Hanover**	**Henrico**	**Richmond**	**Virginia**
Lung/Bronchus **HP 2020 Goal – 45.5**	48.5 (falling)	51.7 (falling)	47.6 (falling)	61.3 (falling)	48.6 (falling)
Breast (Female) **HP 2020 Goal – 20.6**	21.7 (stable)	22.4 (stable)	26.6 (falling)	28.3 (falling)	22.8 (falling)
Prostate (Male) **HP 2020 Goal – 21.2**	21.4 (falling)	18.8 (falling)	18.8 (falling)	28.5 (falling)	22.7 (falling)
Colorectal **HP 2020 Goal – 14.5**	14.0 (falling)	14.4 (falling)	15.9 (falling)	19.6 (falling)	15.1 (falling)
Ovarian (Female) **No HP 2020 Goal**	8.4 (stable)	8.7 (stable)	10.0 (stable)	6.3 (stable)	8.0 (falling)
Melanoma **HP 2020 Goal – 2.4**	3.6 (stable)	-	2.9 (stable)	1.7 (stable)	2.9 (stable)
Oral Cavity **HP 2020 Goal – 2.3**	1.9 (stable)	-	2.0 (stable)	3.0 (falling)	2.3 (stable)
Cervical (Female) **HP 2020 Goal – 2.2**	-	-	2.4	-	1.9 (falling)

[40] http://statecancerprofiles.cancer.gov/quick-profiles/index.php?statename=virginia#t=2
[41] http://statecancerprofiles.cancer.gov/quick-profiles/index.php?statename=virginia#t=4

The most noteworthy mortality rate deviation involves Lung Cancer in the City of Richmond, which has a higher (61.3) mortality rate than all other core jurisdictions (47.6 – 51.7). It should also be noted that the **Five-year total Incidence Rate per 100,000** data table indicates that while there is a high a degree of variance in the mortality rates associated with Lung Cancer, the incidence rates are very similar to Chesterfield and Hanover.

IV. Heart Disease and Stroke

Heart disease is the leading cause of death in the United States and globally. In 2013, nearly 801,000 deaths in the United States resulted from heart disease, stroke and other cardiovascular diseases. In other words, one out of every three deaths in the United States in 2013 could be attributed to these causes. [42] Stroke is the second leading cause of death globally, and the third leading cause of death in the United States. In 2010 alone, the United States incurred more than $500 billion in health care expenditures and related expenses as a result of heart disease and stroke. Stroke is also a leading cause of disability in the United States.

In 2013, of the 62,309 deaths from all causes in Virginia, around 13,500 deaths resulted from heart disease, and about 3,300 deaths were due to stroke. This is equivalent to a rate of 164 deaths per 100,000 for heart disease and 39.7 deaths per 100,000 for stroke. Virginia does not meet the Healthy People 2020 goal for either area.

Healthy People 2020 Heart Disease & Stroke Mortality Goals	
Heart Disease	103.4 deaths per 100,000 population
Stroke	34.8 deaths per 100,000 population

The leading modifiable (controllable) risk factors for heart disease and stroke are:

- High blood pressure
- High cholesterol
- Cigarette smoking
- Diabetes
- Poor diet and physical inactivity
- Overweight and obesity[43]

Percentage of Deaths Resulting from Top 8 Causes of Death Attributable to Heart Disease and Stroke (2013)					
	Chesterfield	**Hanover**	**Henrico**	**Richmond**	**Virginia**
Heart Disease	30.7%	30.7%	31.2%	36.7%	32.7%
Stroke	7.6%	7.9%	8.2%	9.4%	7.9%

[42] http://www.heart.org/idc/groups/ahamah-public/@wcm/@sop/@smd/documents/downloadable/ucm_480086.pdf

[43] http://www.healthypeople.gov/2020/topics-objectives/topic/heart-disease-and-stroke

V. Obesity and Diabetes

Obesity is a measure defined as the percentage of adults aged 20 and older who have a body mass index (BMI) equal to or greater than 30. The obesity target set by Healthy People 2020 is that no more than 25% of the population is obese.

Healthy People 2020 Obesity & Diabetes Goals	
Adult Obesity	Less than 25% of population
New Diabetes Diagnosis	Fewer than 7.2 new cases per 1,000

28% of Virginia residents are considered obese. All 4 core jurisdictions are in line with Virginia overall for this health measure, with 25-29% of adults being obese. None of the jurisdictions meet the Healthy People 2020 goal for this health measure.

Healthy People 2020 identified a goal to reduce new cases of diagnosed diabetes to 7.2 new cases per 1,000. There is currently no available data source to accurately capture the new diagnosis at the county level for comparison.

VI. Mental Health Disorders

Mental health disorders are health conditions characterized by alterations in thinking, mood, and/or behavior that are associated with distress and/or impaired functioning. Mental health disorders contribute to a number of health problems, including disability, pain and death. Mental health and physical health are closely connected. Mental illnesses, such as depression and anxiety, affect people's ability to participate in health-promoting behaviors.

According to the National Institute of Mental Health (NIMH), an estimated 13 million American adults (approximately 1 in 17) have a seriously debilitating mental illness. Mental health disorders are the leading cause of disability in the United States, accounting for 25 percent of all years of life lost to disability and premature mortality.

The Mental Health Data available through the Virginia Department of Health is collected according to health districts. The table below defines which health districts are aligned with each of the county in the Bon Secours Richmond Service Area.

Richmond Service Area County	Health District
Amelia	Piedmont
Chesterfield	Chesterfield
Goochland	Chickahominy
Hanover	Chickahominy
Henrico	Henrico
King and Queen	Three Rivers
King William	Three Rivers
New Kent	Chickahominy
Powhatan	Chesterfield
Richmond City	Richmond

The following table provides data that helps determine the burden of Mental Health disorders in the study region. Respondents were asked: “Have you ever been told that you have a depressive disorder, including depression, major depression, dysthymia, or minor depression?” and “During the past 30 days, how many days was your mental health not good?” The percentage given is those that responded 8-30 days:[44]

Mental Health by Health District (2013)		
Health District	**% Respondents who have a depressive disorder**	**% Respondents who reported poor mental health**
Richmond	20.7%	13.7%
Chesterfield	21.4%	15.5%
Chickahominy	10.2%	11.1%
Henrico	19.6%	12.6%
Three Rivers	14.3%	10.5%
Piedmont	16.6%	14.3%
Virginia	16.5%	13.5%

The following table provides the suicide rate per 1,000 for the years 2003 and 2013. The data in this table demonstrates a trend towards a slight increase in suicides across the core service area.[45]

Suicide Rate per 1,000, Richmond Core Service Area (2003 -2013)		
	2003	**2013**
Chesterfield	0.108	0.15
Hanover	0.106	0.155
Henrico	0.118	0.122
Richmond City	0.108	0.128
Virginia	0.108	0.122

Another area of data that should be analyzed in relation to Mental Health is deaths related to drug overdose. The United States is experiencing an epidemic of drug overdose deaths. Since 2002, the rate of drug overdose deaths has increased by 79 percent nationwide, with a 200 percent increase in deaths involving opioids (opioid pain relievers and heroin) since 2000.[46]

[44] Virginia Department of Health, Virginia Behavioral Risk Factor Surveillance System (BRFSS), www.vdh.virginia.gov/ofhs/brfss/tables.htm
[45] Virginia Department of Health, Virginia Behavioral Risk Factor Surveillance System (BRFSS), www.vdh.virginia.gov/ofhs/brfss/tables.htm
[46] www.CountyHealthRankings.org

Drug overdoses, known as Drug Poisoning Deaths, are the number of deaths due to drug poisoning per 100,000 population. They include accidental, intentional, and of undetermined poisoning by and exposure to various classifications of drugs.[47]

Drug related deaths per 100,000, Richmond Core Service Area (2014)	
	2014
Chesterfield	7
Hanover	5
Henrico	8
Richmond City	14
Virginia	8

VII. Oral Health

The Richmond Core Service Area demonstrates similar access to dental care and oral health status for both adults and children. The Richmond Core Service Area performs at the same level as Virginia overall for this health measure.

The following table provides data regarding the Oral Health status of all counties in the Bon Secours Richmond service area:[48]

Oral Health by Locality, Youth and Adult, Richmond Service Area, 2013				
	% of adults who lack access to dental care*	% of youth (0-17) who lack access to dental care*	% of youth (0-17) who have one or more cavities in permanent teeth	% of youth with teeth in fair or poor condition
Amelia	14%	20%	18%	5%
Chesterfield	23%	21%	19%	6%
Goochland	22%	20%	17%	5%
Hanover	23%	20%	16%	5%
Henrico	22%	20%	19%	6%
King and Queen	19%	20%	19%	6%
King William	21%	20%	17%	5%
New Kent	22%	20%	17%	5%
Powhatan	24%	20%	16%	5%
Richmond City	21%	20%	22%	6%
Virginia	22%	21%	18%	6%

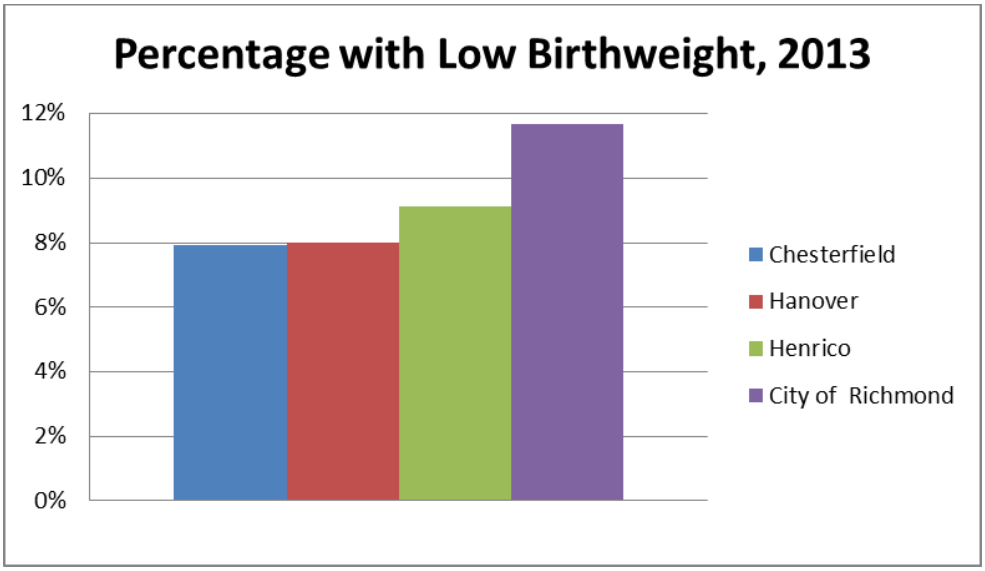
* Lack of access means they have had no dental appointment in past year

[47] www.CountyHealthRankings.org
[48] Virginia Atlas of Community Health (2013)

VIII. Maternal and Infant Health

Low Birth Weight is defined as a live birth in which the infant weighs less than 2500 grams. The Healthy People 2020 objective for this health indicator states that less than 7.8% of the live infant births should be reporting low birth weight. In Virginia, overall the percentage is 8.3%. None of the four core jurisdictions in the Richmond Core Service Area meet the Healthy People 2020 goal for this indicator.

The following graph depicts the Low Birth Weight data for the Richmond Core Service Area:[49]



The following table breaks down the low birth weights by race to demonstrate the racial disparity present for this health indicator. As the data shows African Americans fare worse for this Health Indictor:

Low Birth Weight by Race Rate per 100,000(2013)				
	Total	**White**	**Black**	**Other**
Richmond City	10.5	5.8	13.4	8.8
Henrico	7.6	5.7	11.8	7.1
Chesterfield	8.3	6.8	12.3	9.2
Hanover	7.4	6.6	14.3	8.1
Virginia	8.0	6.6	12.4	7.9

Infant Mortality data provided in the table below also give insight into the health status of the community. The data breaks down the infant mortality rate by race to demonstrate the racial

[49] www.CountyHealthRankings.org

disparity present for this health indicator. As the data shows African Americans fare worse for this health indictor:[50]

Infant Mortality Rate (under 28 days) per 1000 live births, Total and By Race (2013)				
	Total	**White**	**Black**	**Other**
Richmond City	8.1	8.3	8.5	4.4
Henrico	3.3	1.4	7.3	3.2
Chesterfield	5.3	4.4	10.4	-
Hanover	3.4	4.0	-	-
Virginia	4.4	3.6	8.6	1.7

- number is too small to report

IX. Environmental Health

The Environmental Health status of a community impacts quality of life, length of life and health disparities. A negative environmental health status in a community could adversely impact the control and prevention of disease, injury, and disability related to the interactions between people and their environment.

The following table provides environmental health data for all counties in the Bon Secours Richmond service area. The water violation information in Goochland County merits further investigation.[51]

County Health Data Environmental Health by Locality, Richmond Service Area				
	Percentage of population with adequate access to locations for physical activity (2013)	**Average daily density of fine particulate matter in micrograms/cubic meter -PM2.5 (2011)**	**Percentage of population potentially exposed to water exceeding a violation limit during past year (FY2013-2014)**	**Percentage of households facing severe housing problems* (2007-2011)**
Amelia	30%	12.5	0%	19%
Chesterfield	80%	12.4	0%	12%
Goochland	66%	12.6	11%	11%
Hanover	78%	12.5	0%	10%
Henrico	94%	12.4	0%	15%
King and Queen	24%	12.3	0%	16%
King William	47%	12.4	0%	12%
New Kent	51%	12.3	2%	10%
Powhatan	64%	12.5	0%	10%
Richmond City	28%	12.4	0%	11%
Virginia	81%	12.7	2%	15%

*Severe housing problems is defined as having at least one of the following four conditions present: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities.

[50] http://www.vdh.virginia.gov/HealthStats/documents/2010/pdfs/EarlyInfDeath13.pdf

[51] www.CountyHealthRankings.org

Community Insight Profile

I. Results of the Community Survey and Community Conversations

Community input was obtained for the purpose of this CHNA. Insight regarding health concerns was gathered through an online survey and five community conversations. When seeking to improve health conditions, it is imperative to consider residents' perceptions regarding their community. This participation and involvement not only provides an opportunity for community engagement early on, but also leads to improved buy-in from the community when programs are developed to address the health needs found. The collection of data through direct response from community conversations and the online survey allows for an analysis of how the publicly available quantitative data, aligns with the community's own perceptions of their health status.

Survey respondents were asked to review a list of 34 common community health issues. The list of issues draws from the topics of Healthy People 2020, with some variations and refinements. The survey asked respondents to "Choose the top 5 priorities you think should be addressed in your community." Respondents were also asked to identify any additional health concerns not found on the list. A copy of the survey may be found in the Appendix of this CHNA.

The top 10 health priorities identified through this survey question are listed below:

Survey Response – Top Health Priorities in the Community			
Rank	**Category**	**Number of Respondents**	**Percentage**
1	Mental Health	245	38%
2	Transportation	195	30%
3	Jobs with fair wages	186	29%
4	Access to health services	181	28%
5	Education	168	26%
6	Adult Obesity	158	24%
7	Homelessness	131	20%
8	Childhood Obesity	130	20%
9	Senior Health	125	19%
10	Housing	121	19%

Community Conversations were held in which 78 individuals participated from all of the core jurisdictions of Hanover, Henrico, Chesterfield and Richmond City. The top 10 health issues as identified from the survey results were presented to the attendees and they were asked to 1) rank the health issues according to which issues impacted them and the people close to them most and 2) rank the issues according to a community view, which issues should be addressed to improve the overall health of the region.

The Community Conversation attendees identified the top 3 priorities that need to be addressed as:

- Access to Health Services
- Education
- Jobs with Fair Wages.

Identified Needs

Community Conversations were held during the month of January in 2016 at Linwood Holton Elementary School (January 6th), Crossover Clinic West (January 7th), Pumunkey Regional Library (January 9th), the East District Family Resource Center (January 11th) and Sacred Heart Center (January 13th). Based on the collective secondary data analysis, the community survey findings, and the input from the community dialogues, the identified needs of the Richmond Core Service Area can be grouped into three broad categories:

- Uninsured Access
- Medicare/Medicaid Access
- Mental Health
- Seniors
- Chronic Disease
- Infant Mortality

- Jobs with fair wages
- Families living in poverty
- Educational Disparity
- Transportation
- Housing
- Crime

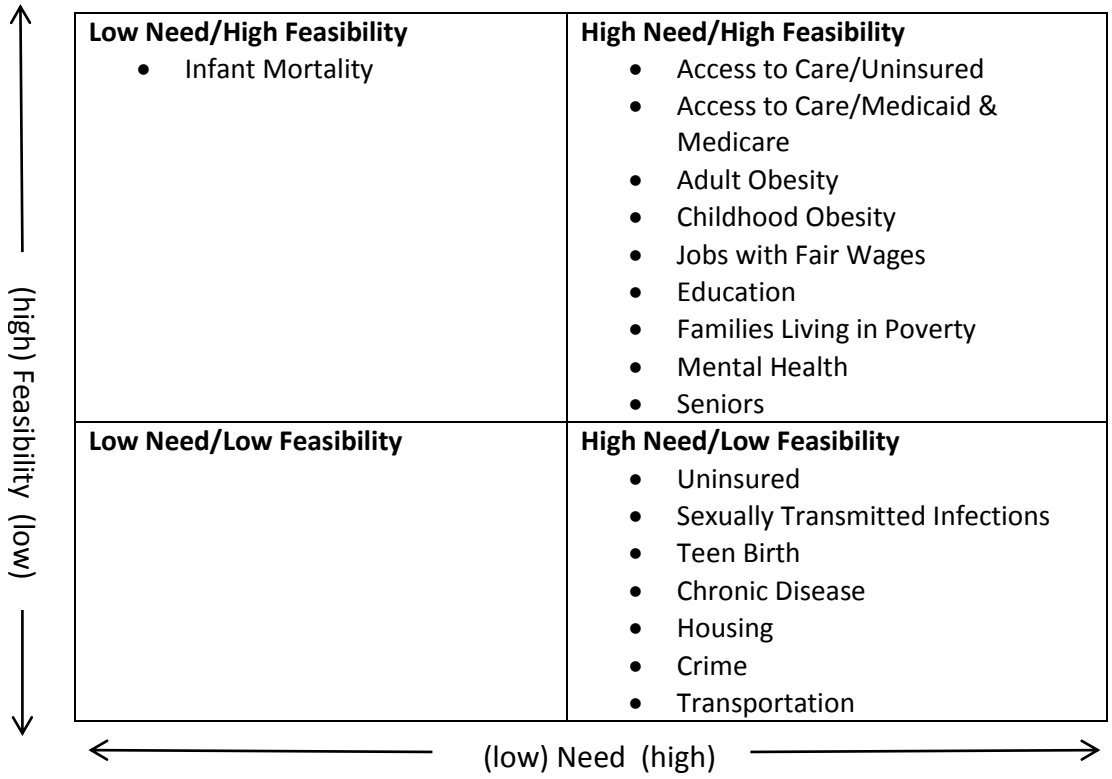
- Adult Obesity
- Childhood Obesity
- Sexually Transmitted Infections
- Teen births

Prioritization Process

I. Methodology for Prioritization

The Community Health Needs Advisory Board met on November 12, 2015 and January 5, 2016. The Community Health Needs Advisory Board held a facilitated prioritization meeting on March 30, 2016.

The Richmond Core Service Area Advisory Board used the "Strategy Grid" process to delineate greatest needs and ability to impact (feasibility). The results of the strategy grid are as follows:



II. Prioritization Results

The Strategy Grid assessment, input from the community, data evaluation and discussion among internal leaders about which priorities were feasible for implementation led to a finalized list of 4 actionable priorities –

1) Uninsured Access to Care for individuals with chronic disease conditions
2) Mental Health
3) Education
4) Transportation.

An Implementation Plan is being developed to address the identified needs.

III. Resources Available to Meet Identified Needs

Bon Secours is committed to advancing this work and making an impact on community health. True impact comes when strategic partnerships are formed and collaborations are built that can achieve greater results collectively. Bon Secours is committed to forming relationships to build a healthier community and building capacity in other nonprofits through sponsorship and volunteerism. The list below provides names and descriptions of existing resources available within Bon Secours and within the community it serves to meet identified needs.

Access to Care for the Uninsured with Chronic Disease Conditions

i. Access Now -*Volunteer Specialty network for free clinic patients.*
ii. Bon Secours Care-A-Van - *Improves access to health care services for the uninsured through mobile health clinics that provide free, primary, urgent, and preventative health care. Nutrition and chronic disease management consultation are also provided. Serves uninsured and vulnerable populations in a 60-mile radius of City of Richmond.*
iii. Bon Secours Community Nutrition Services - *Improves community health, particularly in vulnerable communities, through nutrition counseling, healthy eating classes, and advocacy for food access. Serves communities within a 60-mile radius of the City of Richmond.*
iv. Bon Secours Diabetes Treatment Center - *Enables persons with diabetes to achieve long-term control of their blood sugar and reduce the possibility of developing diabetic complications. Serves adults and children with diabetes, gestational diabetes, and their families.*
v. Bon Secours St. Joseph's Outreach Clinic - *Increases access to care for uninsured and underinsured patients. Nutrition and chronic disease management consultation are also*

provided. Serves Medicaid and Medicare patients, Spanish-speaking patients and working uninsured in 60-mile radius of Richmond.

vi. Creighton Court Resource Center - *Partnership with Richmond City Health Department and Richmond Redevelopment & Housing Authority to deliver health screenings, checkups, health education, nutrition, parenting classes, budget management and community resource information to an underserved community.*

vii. Crossover Clinic Community Pharmacy - *Provides medication to area uninsured free clinic patients without charge*

viii. Chesterfield County Health Department, Chickahominy Health Department, Goochland County Health Department, Henrico County Health Department, Richmond City Health District - *Support of programs addressing the needs of vulnerable populations – includes prevention and access.*

ix. Federally Qualified Health Centers (2) - Capital Area Health Network (CAHN) and Daily Planet: *Improving access to care for underserved populations.*

x. Free Clinics (8) - *CrossOver Health Ministry, Fan Free Clinic, Goochland Clinic, Center for High Blood Pressure, Hanover Interfaith Clinics (3), Free Clinic of Powhatan. Provide primary care services to the uninsured.*

xi. Heart Aware - *Focuses on prevention and early detection of heart disease by providing health lectures health screenings, healthy cooking and physical activity demonstrations. Primarily serves adults over 30 years of age in Central Virginia.*

xii. Medical Society of Virginia - *Medication assistance program for uninsured patients.*

xiii. Seventh District Health and Wellness Initiative - *Seeks to connect each East End resident to a medical home and reduce obesity through nutrition education and physical activity opportunities.*

xiv. Shalom Farms - *Grow healthy produce distributed to underserved communities. Provide learning opportunities for children and adults, on growing food, overcoming barriers to cooking and eating nutritionally.*

xv. Tricycle Gardens - *Improves healthy food access through urban agriculture, education and urban farm stands; Partnership has an emphasis on Richmond's East End.*

xvi. Virginia Asthma Coalition - *Organizations and individuals devoted to reducing the morbidity and mortality associated with asthma; Partnership has an emphasis on Richmond's East End.*

xvii. Virginia Healthcare Foundation - *Promotes and funds local public-private partnerships that increase access to primary health care services for medically underserved and uninsured Virginians.*

Behavioral/Mental Health

i. Bon Secours Bereavement Center - *Provides support services for those suffering loss. Serves the community at large.*
ii. Bon Secours Richmond Cullather Brain Tumor Quality of Life Center - *Provides supports and education to patients with brain tumors and their families. Serves the community at large.*
iii. Challenge Discovery - *Provides bullying prevention and substance abuse counseling; Partnership has an emphasis on Richmond's East End.*
iv. Child Savers - *Mental health services for children; Partnership has an emphasis on Richmond's East End.*
v. Comfort Zone Camp - *Comfort Zone Camp is a nonprofit 501(c)3 bereavement camp that transforms the lives of children who have experienced the death of a parent, sibling, or primary caregiver.*
vi. Commonwealth Catholic Charities - *Provides social services, immigration services and financial services to the community at large.*
vii. Family Lifeline - *A home visiting program seeking to enhance family functioning through intensive case management with Community Health Nurse, Outreach Worker, and Mental Health Clinicians providing support, access to healthcare and medical services, as well as mental health assessment.*
viii. Hanover Safe Place - *Provides services to victims of sexual or domestic violence and promotes violence prevention*.
ix. Healing Place - *Provides substance abuse rehab for homeless men.*
x. Hilliard House - *Assists homeless women and their children to build their capacity to live productively within the community.*
xi. Virginia Supportive Housing - *Provides permanent housing to the homeless.*
xii. Voices for Children - *Statewide, privately funded, non-partisan policy research and practices that improve the lives of children*.
xiii. Richmond Behavioral Health Authority - *Provides services in four major behavioral health areas: Mental Health; Intellectual Disabilities; Substance Use Disorders; and Access, Emergency & Medical Services.*
xiv. United Methodist Family Services (UMFS) - *Offers a network of flexible community-based services. Mentoring, community respite, visitation, community-based clinical support and parent coaching are just a few of the formal and informal offerings to support at-risk families.*
xv. Stop Child Abuse Now (SCAN) - *SCAN's mission is to prevent and treat child abuse and neglect throughout the Greater Richmond area by protecting children, promoting positive parenting, strengthening families and creating a community that values and cares for its children.*

xvi. Safe Harbor - *Offers comprehensive services for survivors of sexual and/or intimate partner violence including: 24-hour helpline, children/youth services, community education and training, counseling, court advocacy, emergency shelter, and hospital accompaniment. Our team collaborates with survivors to provide support, education and referral information to help survivors meet their goals.*

Education

i. Armstrong Priorities Freshman Academy - *Armstrong Priorities Freshman Academy will identify entering ninth grade students at Armstrong High School below grade level and will provide instruction in math and English to bring them up to grade level by the tenth grade.*
ii. Anna Julia Cooper School - *Faith-based middle school in Richmond's East End, serving youth with limited resources.*
iii. Capital Region Collaboration - *a collaborative effort between government, business, and the community to identify and implement regional priorities that will enhance the quality of life in the Richmond Region.*
iv. Church Hill Activities & Tutoring (CHAT) - *CHAT is a system of integrated programs that empower aspiring youth to break cycles of poverty and reach their goals.*
v. Commonwealth Parenting - *Resource for parenting education.*
vi. Excel VCU - *Literacy efforts for children; Partnership has an emphasis on Richmond's East End*.
vii. Faison School for Autism - *School addressing the unique learning needs of children diagnosed with autism*.
viii. Friends Association - *Provides quality childcare and development in an underserved part of Richmond; Partnership has an emphasis on Richmond's East End.*
ix. GRASP - *Our goal is to ensure that every student has an equal opportunity for continuing education after high school, regardless of financial or social circumstances.*
x. The Hanover Center for Trades and Technology - *strives to create effective partnerships among students, parents, staff, and the community that enables students to become workplace ready and develop into life-long learners prepared to succeed in a competitive and ever-changing world.*
xi. Henrico County Public Schools Career & Technical Education - *Students who complete CTE programs are prepared for successful transition into postsecondary education and work. Opportunities are available for students to earn college credits through selected courses and to prepare for licensure and/or industry certifications related to their programs of study.*
xii. Higher Achievement - *Rigorous afterschool and summer academic programs aimed to close the opportunity gap for middle school youth in at-risk communities*.

xiii. Partnership for Non-Profit Excellence - *Develops the capacity of nonprofits through education, information sharing and civic engagement.*

xiv. Peter Paul Development Center - *A community center in Richmond's East End with child, youth, and adult services, including a Senior Center Adult Day Care; Partnership has an emphasis on Richmond's East End*.

xv. Richmond Cycling Corps - *Changes lives and encourages physical activity of youth living in public housing, via cycling; Partnership has an emphasis on Richmond's East End*.

xvi. Reach Out and Read - *Preparing America's youngest children to succeed in school by partnering with doctors to prescribe books and encourage families to reach together.*

xvii. Sacred Heart Center - *Sacred Heart Center offers many programs to the Latino community including English as a Second Language, GED Prep in Spanish, Plaza Comunitaria – Spanish Literacy, Citizenship, Pasitos Exitosos: First Steps to Success – a bilingual school-readiness program, College & Career Bound, Cielito Lindo summer camp, Latino Leadership Institute and more.*

xviii. Salvation Army Boys and Girls Club - *The Club emphasizes life-skills training and serves more than 500 members with a daily participation of 150; Partnership has an emphasis on Richmond's East End.*

xix. Science Museum of Virginia - *Promotes Science, Technology, Engineering, Math and Healthcare (STEMH) career interests within the region.*

xx. School Superintendents - *For Richmond Public Schools, Chesterfield County, Hanover County, Goochland and Henrico.*

xxi. Virginia Literacy Foundation - *Provides funding and technical support to private, volunteer literacy organizations throughout Virginia via challenge grants, training and direct consultation*.

xxii. United Way of Greater Richmond & Petersburg - *Through coalition building, regional leadership, program investments, and fundraising, United Way mobilizes the caring power of our community to advance the common good. We focus on the building blocks of a good life, including education.*

xxiii. YMCA - *Youth development and physical activity programing.*

xxiv. YWCA - *Community support services.*

Transportation

i. Capital Region Collaboration - *A collaborative effort between government, business, and the community to identify and implement regional priorities that will enhance the quality of life in the Richmond Region.*

ii. Coalition for Smart Transit - *The RVA Coalition for Smart Transit was organized to be an independent and city wide advocacy and education organization on mass transit issues. How we get around our city is everyone's business and you should have a voice.*

iii. GRTC CARE - *Provides curb-to-curb public transportation to disabled individuals who may not be reasonably able to use the GRTC fixed route bus.*

iv. Greater Richmond Transit Authority - *Serves the City of Richmond and Henrico County. They have 186 buses and 40 routes.*

v. Shepherd's Center of Chesterfield - *An interfaith ministry of senior volunteering to improve the lives of other seniors, including medical transportation services.*

vi. Richmond Metropolitan Transportation Authority - *The mission of the RMTA is to build and operate a variety of public facilities and offer public services, especially transportation related, within the Richmond metropolitan area, each of which is operated and financed primarily by user fees.*

vii. Richmond Rapid Transit - *RVA Rapid Transit's mission is to connect all people of the Richmond region as we educate, organize, and advocate for the design, construction, and operation of a first-class metro-area rapid transit system.*

viii. RideFinders - *RideFinders offers real-time ridematching with interested commuters in your area that share similar work locations and hours*

ix. Partnership for Smarter Growth - *An organization focused on educating and engaging the communities in the Richmond region to work together to improve our quality of life by guiding where and how we grow, including transportation services.*

x. Supervisors - *For the Counties of Chesterfield, Hanover, Henrico and Goochland.*

Needs Not Addressed

Access to care for Medicaid and Medicare beneficiaries, adult and childhood obesity, jobs with fair wages, families living in poverty and Seniors were identified as high needs in the community. The CHNA Advisory Board also identified these needs as having high feasibility meaning there was sufficient community support to make an impact.

During the Community Conversations, older adults with Medicare shared they had challenges finding community physicians who accepted Medicare patients. This is being addressed by Bon

Secours Richmond Health System that includes Bon Secours Medical Group and VCU Health in that they accept Medicaid and Medicare patients.

Adult and childhood obesity are being addressed in the community by multiple organizations including Active RVA, City of Richmond's Corner Store initiative, Faces of Hope, Fit 4 Kids, the Seventh District Health and Wellness Initiative, Shalom Farms, Sports Backers/Richmond Strikers, Tricycle Gardens, Virginia Recreation and Parks and the YMCA.

Jobs with Fair Wages is being addressed by the City of Richmond Community Wealth Building, Goodwill, Richmond Technical Center, Chesterfield Career and Technical Center, The Hanover Center for Trades and Technology, Henrico County Public Schools Career and Technical Education, United Way of Greater Richmond & Petersburg.

A family living in poverty is a multi-factorial issue which may be impacted through enhanced education and transportation, both areas of focus for the 2016 CHNA. Organizations presently engaged in breaking the cycle of poverty include Area Congregations Together in Service, Better Housing Coalition, Capital Region Collaboration, City of Richmond Community Wealth Building, Commonwealth Catholic Charities, Local Initiative Support Corporation (LISC), Peter Paul Development Center, Richmond Cycling Corps, Richmond Hill, Richmond Redevelopment and Housing Authority, Salvation Army Boys and Girls Club.

The needs of the older adult population in the greater metro Richmond area or Seniors are being addressed by Circle Center Adult Day Services, Old Dominion Partnership, Peter Paul Development Center, Rebuilding Together Richmond, Senior Connections, Senior Navigator and Shepherd's Center of Chesterfield.

2013 Community Health Needs Assessment Impact

In 2013, the Bon Secours Richmond Health System hospitals which include Memorial Regional Medical Center, Richmond Community Hospital, Saint Francis Medical Center and St. Mary's Hospital conducted a Community Health Needs Assessments. From these assessments, the significant health needs of the community were identified and categorized into three broad areas including **Health Promotion and Prevention, Access to Health Care** and **Support Services.** A corresponding CHNA Implementation Plan was developed to impact the needs in each category. The results of the Implementation Plan from September 1, 2013 through February 28, 2016 are shared below.

Health Promotion and Prevention

Adult & Childhood Obesity

- Launched the Class-A-Roll, a mobile learning kitchen. Conducted 142 outreach activities which engaged over 5,600 people.
- Partnered with the 31st Street Baptist Church's Urban Farm to double the value of Supplemental Nutrition Assistance Program (SNAP) dollars when used to purchase produce.
- Provided fresh produce to corner stores in Richmond's East End food desert in collaboration with the City of Richmond and other community partners.

Cancer Early Detection & Screening

- The Every Woman's Life program provided free breast and cervical cancer screenings to 2,037 low income women.
- Financial support is provided annually to Crossover Clinic, Fan Free Clinic, Free Clinic of Powhatan, Goochland Free Clinic and the Richmond Area High Blood Pressure Center. These clinics provide primary care services including cancer detection and diagnostic screenings to low income, uninsured patients.
- Financial and in-kind support is provided to the 7th District's Health & Wellness program, Healthy U. One focus of Healthy U is cancer prevention.

Chronic Disease Prevention

- Diabetes Treatment Center is in partnership with Bon Secours Richmond Health System to engage with all diabetic patients, regardless of their ability to pay.
- Bon Secours supports the 7th District Health & Wellness Train-the-Trainer initiative which educates East End church representatives on chronic disease prevention.
- Asthma education is provided to children and their families through CARMA, Controlling Asthma in the Richmond Metropolitan Area. Total encounters exceeded 7,000.

Heart Disease & Stroke Prevention

- 3,618 cardiac wellness assessments were conducted through Heart Aware.
- Over 500 nutritional consults were conducted to uninsured Care-A-Van and St. Joseph's Outreach Clinic patients.

Access to Health Care

Heart Disease & Stroke Treatment

- Free clinic patients requiring treatment for heart disease and stroke may access care through Access Now, a consortium of specialty physicians in the metro Richmond area. Additionally, outpatient diagnostic services and inpatient care is available via Access Now.
- Uninsured patients may receive services free or at a reduced rate by applying for the Bon Secours Financial Assistance program.

Uninsured Adults & Children

- Over $350,000 in financial support was been provided to area free clinics.
- In-kind specialty physician visits, diagnostic testing and inpatient care has been provided to uninsured residents of the metro Richmond area through Access Now. Financial support of $225,000 was also provided.
- Lab tests valued at over $1 million dollars have been provided to area uninsured free clinic patients.
- Funding is provided to the Medical Society of Virginia to support pharmacy assistance enrollment.
- Care-A-Van and St. Joseph's Outreach Clinic have provided over 45,000 patient visits to uninsured and/or low income patients.
- Financial support is provided to the Daily Plant's respite program for homeless patients discharged from area hospitals. The Daily Planet is a federally qualified health center.

Support Services

Maternal health

- The Bon Secours Healthy Beginnings program provides education and case management for low income women. Services include pregnancy tests, Medicaid enrollment, parenting classes as well as referrals to over 15 community services. One hundred eighty two (182) families have been served.
- One hundred eighty-four (184) classes were conducted by community partners on pregnancy, infant care, child development and parenting. 431 adults attended.
- Referrals for prenatal care services for low income women are provided to Crossover Clinic, local health departments and Bon Secours Medical Group practices.

Behavioral Health

- A bi-lingual LCSW is available to uninsured Care-A-Van patients on-site or at St. Joseph's Outreach Center through a partnership with a local FQHC.
- Financial support is provided to community partners engaged in mental health programs including ChildSavers, Stop Child Abuse Now (SCAN), Comfort Zone Camp, Full Circle Grief, Hanover Domestic Violence Task Force, the Healing Place, Henrico CASA, NAMI, Southside Center for Violence Prevention and St. Joseph's Villa.

Aging Adults

- Bon Secours provides funding to multiple organizations engaged in providing housing to low income seniors, particularly in Richmond's East End. Funding also supports home repairs to facilitate aging in place.
- Partnerships to support aging adults include Senior Connections, Senior Navigator, the Greater Richmond YMCA, St. Francis Home and Senior Center of Greater Richmond.

Appendix

Additional information regarding the CHNA process and data findings is available in this Appendix.

Interviews with people with special knowledge of the community were conducted. They included Tinh Duc Phan, a representative of the Asian community to enhance understanding of the needs of Asian residents and Thelma Bland Watson, Executive Director of Senior Connections to further our knowledge of the needs of older adults.

An executive leader with Henrico CASA reached out to Bon Secours via email. Henrico CASA is an advocacy agency representing abused and neglected children. Lack of transportation, shortage of mental health services available to the uninsured and underinsured and limited residential pediatric mental health facilities were identified as issues that should be addressed in our community.

The online survey provided to the community is below:

Dear Community Partner,

Bon Secours Richmond Health System, in collaboration with our community partners, is conducting a Community Health Needs Assessment. As part of the study, we are collecting information from a variety of people, including community leaders, residents, and policy makers. This information will be used to determine the greatest health related needs in our community.

We are asking you to provide your opinions on issues facing our community. This survey will be shared with the public, but no information collected from this survey will be used to identify you.

On behalf of Bon Secours Richmond Health System and our community partners, we thank you in advance for assisting with this effort.

Please click NEXT to begin!

David M. Belde, Sr. Vice President, Mission Services
Bon Secours Richmond Health System Inc.
One Monument Avenue Building
413 Stuart Circle; Suite 210
Richmond, VA 23220
Fax 804-213-0949

Defining Community

Think of "community" as the place where you spend the most time living, working, playing, and/or worshiping.

My Community

* 1. How would you rate your overall health?

Excellent	Very Good	Fair	Poor	Very Poor
○	○	○	○	○

* 2. How would you rate the overall health of your community?

Very healthy	Healthy	Neutral	Unhealthy	Very unhealthy
○	○	○	○	○

* 3. How would you rate the overall quality of life in your community?

Very good	Good	Somewhat good	Bad	Very bad
○	○	○	○	○

* 4. I can help make my community a better place to live.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
○	○	○	○	○

* 5. My community is a HEALTHY place to live because

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
it is a clean environment.	○	○	○	○	○
I can get healthy foods.	○	○	○	○	○
there are good places to play.	○	○	○	○	○
it is a good place to walk and bike.	○	○	○	○	○
there are good places to get health care.	○	○	○	○	○
there are good places to get dental care.	○	○	○	○	○
there are good health programs offered.	○	○	○	○	○
I can get affordable health insurance.	○	○	○	○	○

* 6. My community is STRONG in providing

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
good housing options.	○	○	○	○	○
good education.	○	○	○	○	○
transportation services.	○	○	○	○	○
child care options.	○	○	○	○	○
jobs with fair wages.	○	○	○	○	○

Community Support and Services

* 7. My community has good support and services for the following groups of people

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Aging adults	○	○	○	○	○
Children and families	○	○	○	○	○
Teens	○	○	○	○	○
Racial and ethnic minorities	○	○	○	○	○
Veterans	○	○	○	○	○
People whose primary language is not English	○	○	○	○	○
LGBTQ individuals (Lesbian, Gay, Bi-sexual, Transgender, and Questioning)	○	○	○	○	○
People with disabilities	○	○	○	○	○
People who are homeless	○	○	○	○	○
People with mental illness	○	○	○	○	○
People with chronic disease*	○	○	○	○	○
People with drug/alcohol addiction	○	○	○	○	○
Victims of domestic abuse	○	○	○	○	○
Victims of violent crime (ex. assault, rape, robbery, etc.)	○	○	○	○	○

*Chronic disease is defined as sickness lasting 3 months or more. Chronic diseases cannot be cured by medication, nor do they just disappear. (Ex: Asthma, Chronic Obstructive Pulmonary Disease "COPD," Diabetes, etc).

* 8. I get the social and emotional support I need

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
from my family.					
from my friends.					
at my church.					
from my community.					

* 9. The following HEALTH PROGRAMS exists and meet the needs of my community for the following diseases/conditions:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Alcohol/Drug Abuse					
Asthma					
Cancer					
COPD					
Dental Health					
Diabetes					
Heart Disease & Stroke					
Hypertension					
Infant Care					
Mental Health					
Overweight/Obesity					
Prenatal Care					
Sexually Transmitted Infections (STIs)					
Tobacco Use					
Violence/Abuse					

Other (please specify)

Health and Well Being

* 10. Does your community

	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
teach you about regular check ups, screenings, and immunizations (e.g. flu shots)	○	○	○	○	○
have enough parks, play areas, community and wellness centers	○	○	○	○	○
have access to fresh fruits and vegetables through farmer's markets, corner stores, or grocery stores	○	○	○	○	○
provide resources to end tobacco use	○	○	○	○	○

Health Literacy

11. When I visit my doctor, I understand

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
what the doctor tells me,	○	○	○	○	○
the hand-outs the doctor gives me.	○	○	○	○	○

Community Safety

* 12. My community is a safe place to live.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
○	○	○	○	○

* 13. My community is a safe place to live because

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
there is safe housing.	○	○	○	○	○
there are safe places to play.	○	○	○	○	○
there are safe places to work.	○	○	○	○	○
there are safe schools.	○	○	○	○	○
there is good street lighting.	○	○	○	○	○
there are safe roads and sidewalks.	○	○	○	○	○
there are safe ways to get to where I need to go (transportation).	○	○	○	○	○
there are good fire/safety/emergency services.	○	○	○	○	○

Community Priorities

* 14. Please choose the TOP 5 priorities you think should be addressed in your community.

- [ ] Access to social services (i.e. SNAP, WIC, etc.)
- [ ] Access to health services
- [ ] Adult obesity
- [ ] Alcohol/Drug Abuse
- [ ] Asthma
- [ ] Cancer
- [ ] Child abuse/neglect
- [ ] Childhood obesity
- [ ] Community violence (ex: assault, rape, robbery, etc)
- [ ] Crime (ex. drugs, prostitution, theft, etc.)
- [ ] Dental Health
- [ ] Other (please specify)

- [ ] Diabetes
- [ ] Domestic abuse
- [ ] Education
- [ ] The environment
- [ ] Health programs/screenings
- [ ] Heart Disease & Stroke
- [ ] Homelessness
- [ ] Housing
- [ ] Infant Health
- [ ] Jobs with fair wages
- [ ] LGBTQ individuals (Lesbian, Gay, Bi-sexual, Transgender & Questioning)

- [ ] Mental health
- [ ] People whose primary language is not English
- [ ] People with disabilities
- [ ] Places to play
- [ ] Race/ethnic relations
- [ ] Teen pregnancy
- [ ] Tobacco use
- [ ] Transportation services
- [ ] Safety
- [ ] Senior health
- [ ] Sexually transmitted infections including HIV/AIDS

Technology and Health

15. Where do you access the internet (ex. email, web, Facebook, etc.) most often? Check one.

- ◯ I do not have access to the internet
- ◯ Friend's home
- ◯ Home computer/tablet
- ◯ Library
- ◯ Mobile Phone
- ◯ School
- ◯ Work
- ◯ Other (please specify)

Demographics

* 16. Please choose your gender.

- ◯ Male
- ◯ Female

* 17. Please choose your age group.

- ◯ 18-24 years
- ◯ 25-39 years
- ◯ 40-54 years
- ◯ 55-64 years
- ◯ 65-79 years
- ◯ 80+ years

* 18. Please choose the race below that best represents you.

- ◯ American Indian/Alaska Native
- ◯ Asian
- ◯ Black/African American
- ◯ Native Hawaiian/Other Pacific Islander
- ◯ White/Caucasian
- ◯ More than one race

Other race (please specify)

* 19. Please choose the ethnicity below that best represents you.

- ◯ Hispanic/Latino
- ◯ Non-Hispanic/Latino

* 20. What is your living situation?

- ◯ I own my home
- ◯ I rent my home
- ◯ I live with family and/or friends
- ◯ I live in temporary housing (hotel, motel, shelter, transitional housing)
- ◯ Other (please specify)

* 21. Including you, how many people live in your home?

- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5 or more

* 22. I am:

- ○ Married
- ○ Partner relationship
- ○ Divorced/Separated
- ○ Widowed
- ○ Single

* 23. I pay for health services through:

- ○ Private Insurance (e.g. Individual, exchange plan, or through employer)
- ○ Medicare
- ○ Medicaid
- ○ VA Benefits
- ○ Indian Health Services
- ○ Uninsured
- ○ Pay Cash

* 24. I am

- ☐ Working, full-time
- ☐ Working, part-time
- ☐ Not working, looking for work
- ☐ Not working, NOT looking for work
- ☐ Retired
- ☐ Disabled, not able to work
- ☐ A student, working
- ☐ A student, not working

* 25. What is the highest grade or year of school you completed?

- Less than High School Graduate
- High School Diploma or GED
- Some College
- Two-year degree
- Four-year degree or higher

26. What is your average household income?

- $0 - $24,999
- $25,000 - $49,999
- $50,000 - $74,999
- $75,000 - $99,999
- $100,000 and up

* 27. Please provide the following information. It will be used for research purposes only. (Keep in mind you will NOT be identified in any way with your answers.)

Neighborhood:

City

State: -- select state --

ZIP:

28. Please use the space below to share any ideas to help Bon Secours Richmond Health System and our community partners achieve its mission "to bring compassion to health care and to be good help to those in need, especially those who are poor and dying."

THANK YOU!

The education profile for the overall Richmond Core Service Area and the City of Richmond alone is provided in the document. The education breakdown for other counties in the core service area is shown below:

Virginia				
	Less than High School Diploma	High School Graduate, GED, or Alternative	Some College or Associate's Degree	Bachelor's Degree or Higher
White	10.69%	24.97%	26.72%	37.61%
Black or African	17.98%	30.21%	31.39%	20.43%
Hispanic or Latino	27.68%	24.14%	22.77%	22.66%
Richmond Core Four				
White	8.78%	22.28%	26.16%	42.78%
Black or African	16.52%	29.24%	32.71%	21.53%
Hispanic or Latino	42.44%	23.90%	16.54%	17.12%
Chesterfield				
White	9.41%	24.53%	28.06%	38.00%
Black or African	8.91%	23.52%	37.40%	30.17%
Hispanic or Latino	41.62%	24.37%	17.19%	16.83%
Hanover				
White	6.81%	27.88%	29.25%	36.05%
Black or African	15.64%	28.93%	27.93%	27.50%
Hispanic or Latino	15.35%	32.12%	27.24%	25.29%
Henrico				
White	8.06%	21.07%	25.98%	44.88%
Black or African	11.94%	29.79%	34.77%	23.50%
Hispanic or Latino	36.34%	25.09%	19.10%	19.47%
City of Richmond				
White	10.57%	14.14%	19.01%	56.29%
Black or African	25.62%	32.50%	28.29%	13.59%
Hispanic or Latino	55.81%	20.26%	10.49%	13.44%

The unemployment profile for the overall Richmond Core Service Area and the City of Richmond alone is provided in the document. The unemployment breakdown for other counties in the service area is shown below:

Percent unemployed over 10 years

	Amelia	Chesterfield	Goochland	Powhatan	Hanover	King and Queen	King William	New Kent	Henrico	City of Richmond	Virginia	United States
2004	3.6%	3.4%	3.4%	3.0%	3.1%	3.9%	3.0%	3.5%	3.6%	5.8%	3.8%	5.5%
2005	3.5%	3.2%	3.0%	2.9%	3.0%	4.0%	5.6%	3.3%	3.4%	5.4%	3.6%	5.1%
2006	3.0%	2.8%	2.5%	2.6%	2.5%	3.4%	2.8%	2.8%	2.9%	4.7%	3.1%	4.6%
2007	2.8%	2.6%	2.4%	2.4%	2.5%	3.5%	2.7%	2.7%	2.8%	4.4%	3.0%	4.6%
2008	4.5%	3.7%	3.3%	3.4%	3.4%	4.6%	3.7%	3.6%	3.6%	5.8%	3.9%	5.8%
2009	7.7%	6.6%	6.5%	6.3%	6.5%	8.0%	7.0%	7.0%	6.9%	9.6%	6.7%	9.3%
2010	5.0%	7.3%	7.2%	7.1%	6.6%	8.1%	7.5%	7.2%	7.3%	9.5%	7.1%	9.6%
2011	7.5%	6.8%	63.0%	6.2%	6.0%	7.4%	6.9%	6.4%	6.7%	8.5%	6.6%	8.9%
2012	6.5%	6.1%	5.6%	5.6%	5.5%	6.6%	6.3%	5.6%	6.0%	7.5%	6.0%	8.1%
2013	5.9%	5.6%	5.1%	5.1%	5.0%	6.1%	5.6%	5.1%	5.6%	6.8%	5.7%	7.4%
2014	5.3%	5.1%	4.7%	4.5%	4.5%	5.8%	5.2%	4.5%	5.1%	6.1%	5.2%	6.2%

Percent unemployment over 1 year

	Amelia	Chesterfield	Goochland	Powhatan	Hanover	King and Queen	King William	New Kent	Henrico	City of Richmond	Virginia	United States
Sep. 2014	5.1%	5.0%	4.8%	4.5%	4.4%	5.6%	5.0%	4.4%	4.9%	6.0%	5.0%	5.7%
Oct. 2014	4.7%	4.7%	4.5%	4.2%	4.2%	5.1%	4.6%	4.0%	4.6%	5.5%	4.7%	5.5%
Nov. 2014	4.7%	4.5%	4.2%	4.1%	4.0%	5.3%	4.6%	4.0%	4.5%	5.4%	4.6%	5.5%
Dec. 2014	4.5%	4.4%	4.0%	3.9%	3.9%	5.3%	4.6%	3.9%	4.4%	5.3%	4.5%	5.4%
Jan. 2015	5.4%	4.7%	4.6%	4.3%	4.2%	5.8%	5.1%	4.2%	4.7%	5.7%	4.9%	6.1%
Feb. 2015	5.4%	4.9%	4.7%	4.6%	4.4%	5.9%	5.1%	4.4%	4.8%	5.8%	5.0%	5.8%
Mar. 2015	5.0%	4.7%	4.7%	4.4%	4.2%	5.6%	4.9%	4.4%	4.8%	5.7%	4.9%	5.6%
Apr. 2015	4.4%	4.4%	4.2%	4.2%	4.0%	5.0%	4.3%	4.0%	4.5%	5.4%	4.5%	5.1%
May 2015	4.9%	4.9%	4.7%	4.5%	4.4%	5.2%	4.7%	4.3%	4.9%	5.9%	5.0%	5.3%
Jun. 2015	4.9%	5.0%	4.7%	4.6%	4.5%	5.2%	4.6%	4.4%	4.9%	6.0%	5.0%	5.5%
Jul. 2015	5.1%	4.7%	4.4%	4.2%	4.2%	5.1%	4.4%	4.1%	4.7%	5.8%	4.7%	5.6%
Aug. 2015	4.3%	4.3%	4.1%	3.9%	38.0%	5.0%	4.1%	3.8%	4.3%	5.4%	4.3%	5.2%
Sep. 2015	4.2%	4.2%	4.2%	3.8%	3.7%	4.6%	4.1%	3.7%	4.1%	5.1%	4.1%	4.9%

The mortality profile for the overall Richmond Core Service Area and the City of Richmond alone is provided in the document. The percentage of mortality due to one of the top 8 causes is broken down for other counties in the service area as shown below:

	Amelia	Chesterfield	Goochland	Powhatan	Hanover	King and Queen	King William	New Kent	Henrico	City of Richmond	Virginia
Malignant Neoplasms	36.25%	36.81%	33.33%	38.82%	35.85%	25.58%	35.37%	38.83%	33.98%	31.76%	34.63%
Diseases of the Heart	35.00%	30.68%	34.03%	26.32%	30.70%	39.53%	24.39%	31.07%	31.20%	36.73%	32.69%
Cerebrovascular Disease	12.50%	7.62%	9.03%	5.92%	7.89%	6.98%	9.76%	6.80%	8.22%	9.38%	7.91%
Chronic Lower Respiratory Disease	3.75%	7.33%	5.56%	8.55%	8.23%	11.63%	7.32%	8.74%	8.39%	6.66%	7.65%
Unintentional Injury	10.00%	6.70%	2.08%	7.24%	6.52%	2.33%	12.20%	1.94%	6.18%	6.50%	6.74%
Alzheimer's Disease	1.25%	4.37%	9.03%	5.26%	4.63%	9.30%	4.88%	3.88%	5.90%	3.13%	3.94%
Diabetes Mellitus	1.25%	2.96%	2.08%	4.61%	3.09%	4.65%	2.44%	5.83%	3.86%	3.77%	3.91%
Suicide	0.00%	3.53%	4.86%	3.29%	3.09%	0.00%	3.66%	2.91%	2.27%	2.09%	2.53%