Lake Ridge Ambulatory Surgery Center
Community Health Needs Assessment
2016

SENTARA®

Lake Ridge Ambulatory Surgery Center 2016 Community Health Needs Assessment

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I. INTRODUCTION

Lake Ridge Ambulatory Surgery Center is a licensed outpatient surgical hospital located in Woodbridge, Virginia. The ASC is partially owned by Sentara Northern Virginia Medical Center who has conducted a community health needs assessment of the area that we serve. That assessment, supplemented by information gathered by our ASC staff and physicians, is the basis for this report. The assessment provides us with a picture of the health status of the residents in our communities and provides us with information about health and health-related problems that impact health status.

The assessment includes a review of population characteristics such as age, educational level, and racial and ethnic composition because social factors are important determinants of health. The assessment also looks at risk factors like obesity and smoking and at health indicators such as infant mortality and preventable hospitalizations. Community input is important so the assessment also includes survey results from key stakeholders including public health, social services, service providers, and those who represent underserved populations.

The needs assessment identifies numerous health issues that our communities face. Considering factors such as size and scope of the health problem, the severity and intensity of the problem, the feasibility and effectiveness of possible interventions, health disparities associated with the need, the importance the community places on addressing the need, and consistency with our mission "to improve health every day", we have identified a number of priority health problems in our area to address in our implementation strategy:

- Nutrition/Physical Activity/Obesity
- Chronic Conditions including Diabetes
- Access to Healthcare

Our previous Community Health Needs Assessment also identified a number of health issues. An implementation strategy was developed to address these problems. The ASC has tracked progress on the implementation activities in order to evaluate the impact of these actions. The implementation progress report is available in the Appendix.

Lake Ridge ASC intends to work with Sentara Northern Virginia Medical Center and other community partners to address health needs. Information on available resources is available from sources like 2-1-1 Virginia and Sentara.com. Together, we will work to improve the health of the communities we serve.

Your input is important to us so that we can incorporate your feedback into our assessments. You may use our online feedback form available on the Sentara.com website. Thanks!

Sentara Northern Virginia Medical Center (SNVMC) 2016 Community Health Needs Assessment

Community Description

Community Description

Sentara Northern Virginia Medical Center

Sentara Northern Virginia Medical Center(SNVMC) serves residents of these counties and cities: Prince William County (Eastern), Lorton, and Stafford County. Approximately 88% of the hospital's inpatients reside in the service area depicted in the map.

H SNVMC

H Other Hospitals
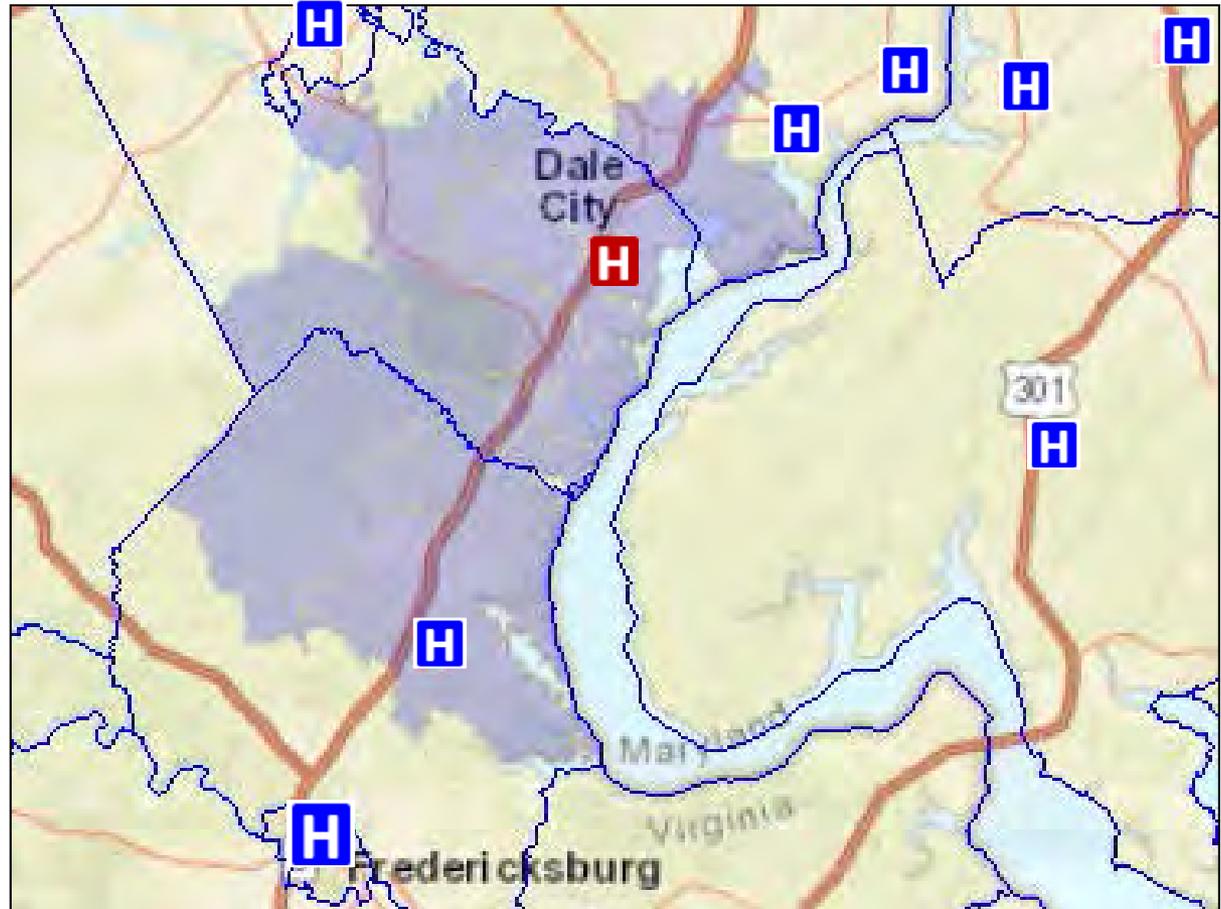
Area-wide Key Demographic Characteristics

DEMOGRAPHIC CHARACTERISTICS				
	Selected Area	Virginia	USA	
2010 Total Population	366,764	8,001,038	308,745,538	
2016 Total Population	408,420	8,428,339	322,431,073	
2021 Total Population	438,393	8,801,874	334,341,965	
% Change 2016 - 2021	7.3%	4.4%	3.7%	
Average Household Income	$120,268	$65,624	$77,135	

POPULATION DISTRIBUTION

	Age Distribution					
Age Group	2016	% of Total	2021	% of Total	Virginia 2016 % of Total	USA 2016 % of Total
0-14	91,344	22.4%	92,658	21.1%	18.5%	19.0%
15-17	18,754	4.6%	20,238	4.6%	3.8%	4.0%
18-24	40,748	10.0%	45,072	10.3%	10.0%	9.8%
25-34	56,342	13.8%	55,838	12.7%	13.6%	13.3%
35-54	119,871	29.3%	120,732	27.5%	26.8%	26.0%
55-64	47,495	11.6%	56,748	12.9%	12.9%	12.8%
65+	33,866	8.3%	47,107	10.7%	14.4%	15.1%
Total	408,420	100.0%	438,393	100.0%	100.0%	100.0%

EDUCATION LEVEL

	Education Level Distribution			
2016 Adult Education Level	Pop Age 25+	% of Total	Virginia 2016 % of Total	USA % of Total
Less than High School	9,608	3.7%	4.8%	5.8%
Some High School	14,277	5.5%	7.0%	7.8%
High School Degree	55,330	21.5%	25.0%	27.9%
Some College/Assoc. Degree	80,281	31.2%	27.3%	29.2%
Bachelor's Degree or Greater	98,078	38.1%	35.8%	29.4%
Total	257,574	100.0%	100.0%	100.0%

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- **The area's 2016 total population is 408,420 with projected growth of 7.3% over the next five years.**
  - This rate of growth is higher than Virginia (4.4%) and U.S. (3.7%) rates .

- **The median household income ($120,268) is** higher than the state and the U.S. median income.

- **Population by age group:**
  - 22.4% of this population is age 0-14, which is a greater percent compared to Virginia (18.5%) and the U.S. (19%).
  - The 65+ age cohort (8.3%) is a lower percent compared to Virginia (14.4%) and the U.S (15.1%).

- **9.2% of the population age 25+ has only some high school education or less.**
  - This is a lower percent compared to Virginia (11.8%) and the U.S. (13.6%).

Area-wide Key Demographic Characteristics, Cont.

- **The projected growth of females, child bearing age (15-44) is 2.9%**, which is higher than the state (1.3%) and the U.S. (1.5%).

- **7.2% of the population has a household income below $25,000.**
  - This is lower than Virginia (17.9%) and the U.S. (22.7%).
  - 200% of the current Federal Poverty Level for a family of four is $48,600.

- **20.5% of the population is Hispanic, 23.0% Black Non-Hispanic and 44.2% White Non-Hispanic.**
  - The percent of the Hispanic and Black non-Hispanic population is larger than that of Virginia and the U.S.

DEMOGRAPHIC CHARACTERISTICS					
	2016	2021	% Change	Virginia % Change	USA % Change
Total Male Population	202,900	217,633	7.3%	4.5%	3.8%
Total Female Population	205,520	220,760	7.4%	4.4%	3.6%
Females, Child Bearing Age (15-44)	86,240	88,746	2.9%	1.3%	1.5%

HOUSEHOLD INCOME DISTRIBUTION					
		Income Distribution			
2016 Household Income	HH Count	% of Total	USA % of Total	Virginia % of Total	USA % of Total
<$15K	4,546	3.4%	12.3%	9.6%	12.3%
$15-25K	5,092	3.8%	10.4%	8.3%	10.4%
$25-50K	18,553	14.0%	23.4%	20.8%	23.4%
$50-75K	22,526	17.0%	17.6%	17.6%	17.6%
$75-100K	19,499	14.7%	12.0%	12.6%	12.0%
Over $100K	62,302	47.0%	24.3%	31.1%	24.3%
Total	132,518	100.0%	100.0%	100.0%	100.0%

RACE/ETHNICITY					
		Race/Ethnicity Distribution			
Race/Ethnicity	2016 Pop	% of Total	USA % of Total	Virginia % of Total	USA % of Total
White Non-Hispanic	180,443	44.2%	61.3%	62.5%	61.3%
Black Non-Hispanic	93,891	23.0%	12.3%	18.9%	12.3%
Hispanic	83,874	20.5%	17.8%	9.2%	17.8%
Asian & Pacific Is. Non-Hispanic	31,858	7.8%	5.4%	6.3%	5.4%
All Others	18,354	4.5%	3.1%	3.1%	3.1%
Total	408,420	100.0%	100.0%	100.0%	100.0%

Source: Truven/Market Expert

Key Demographic Data by City and County

Area	Current Pop 2016	Projected 2016-2021 % Change in Total Pop	2016 % of Total Pop that is age 65+	Projected 2016-2021 % Change in Pop 65+	2016% of Total Pop that is age 0-17	Projected 2016-2021 % Change in Pop age 0-17	2016 % of Female Pop. That is age 15-44	Projected 2016-2021 % Change in Female Pop. age 15-44
				Population by Age				
Dumfries	35,500	8.3%	9.7%	18.5%	26.9%	2.9%	40.4%	3.9%
Manassas	28,096	7.4%	10.3%	24.5%	24.4%	-2.5%	36.2%	7.0%
Lorton	36,802	9.6%	8.7%	1.7%	26.9%	4.9%	40.6%	2.9%
Quantico	7,067	5.1%	1.0%	76.1%	27.1%	3.1%	56.1%	1.4%
Triangle	10,994	9.3%	7.1%	34.1%	28.9%	6.1%	44.1%	4.7%
Woodbridge	204,241	6.9%	8.3%	22.0%	27.4%	4.5%	43.0%	1.5%
Stafford	85,720	7.0%	7.7%	42.0%	26.7%	-2.4%	41.4%	4.6%
Total Service Area	408,420	7.3%	8.3%	19.5%	27.0%	2.5%	42.0%	2.9%
Virginia	8,428,339	4.4%	14.4%	20.2%	22.3%	2.0%	39.2%	1.3%
United States	322,431,073	3.7%	15.1%	17.6%	23.0%	0.9%	38.7%	1.5%

- The two highest projected growth areas in the SNVMC service region are Lorton (9.6%) and Woodbridge (9.3%); all other areas are expected to grow at a faster pace than Virginia and the U.S. in the next 5 years.
- The 65+ age cohort (8.3%) is a lower percent compared to Virginia (14.4%) and the U.S (15.1%). There are several areas expected to experience a higher change compared to Virginia (20.2%) and U.S.(17.6%).
- The pediatric population growth rate for the service region (2.5%) is expected to exceed state and national rates, with the Triangle expecting 6.1% growth, however two areas are projected to have declines.
- The female population of childbearing age (15-44) in Manassas , Stafford, and Triangle is projected to grow over 4.5% in the next five years. All areas within the service area for female population of childbearing age (15-44) is to have an expected growth above the Virginia state projections.
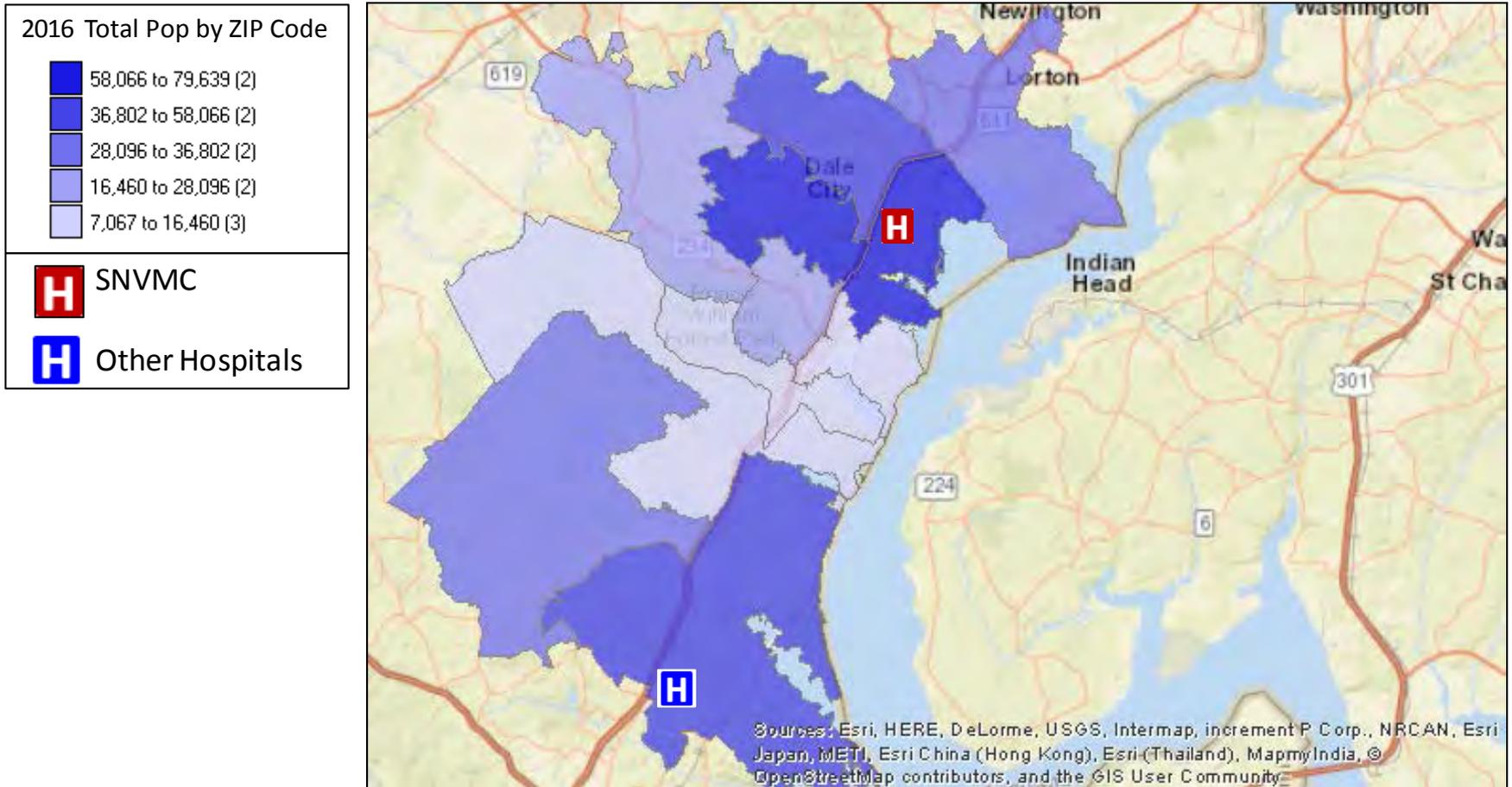
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Source: Truven/Market Expert

Key Demographic Data by City and County

Area	Race and Ethnicity			Income and Education	
	2016% of Pop.: Black, Non-Hisp	2016% of Pop.: Asian, Non-Hisp	2016% of Pop.: Hispanic Ethnicity (Any Race)	% of Households with Income below $25,000	25+ that did not Graduate from High School
Dumfries	31.1%	7.3%	14.1%	6.0%	7.8%
Manassas	11.0%	4.4%	10.0%	4.3%	5.9%
Lorton	21.4%	23.4%	14.0%	5.3%	6.1%
Quantico	8.8%	3.3%	13.3%	8.8%	2.6%
Triangle	38.2%	5.3%	22.6%	15.3%	9.1%
Woodbridge	25.3%	7.6%	27.3%	8.4%	11.9%
Stafford	17.8%	3.5%	13.6%	5.7%	6.5%
Total Service Area	23.0%	7.8%	20.5%	7.3%	9.3%
Virginia	18.9%	6.3%	9.2%	17.9%	11.8%
United States	12.3%	5.3%	17.8%	22.7%	13.6%

- The SNVMC service area overall has a higher percent of the population compared to the state and U.S. that is Black (Non-Hispanic), Asian (Non-Hispanic), and Hispanic ethnicity.
- Triangle (38.2%), Dumfries (31.1%), Woodbridge (25.3%) and Lorton are areas with higher percentage of Black (non-Hispanic) than the overall service area. Lorton has the highest percent of the Asian (Non-Hispanic) population larger than the overall service area. Woodbridge and Triangle's Hispanic populations (27.3% and 22.6% respectively) are higher than the overall service area.
- For households with income levels below $25,000, Triangle has the largest percent (15.3%) as compared to the overall service area, but lower than Virginia and the U.S.
- One out of the seven (7) areas within the SNVMC service area have a higher percent of population age 25 and older that did not graduate from High school than Virginia state.
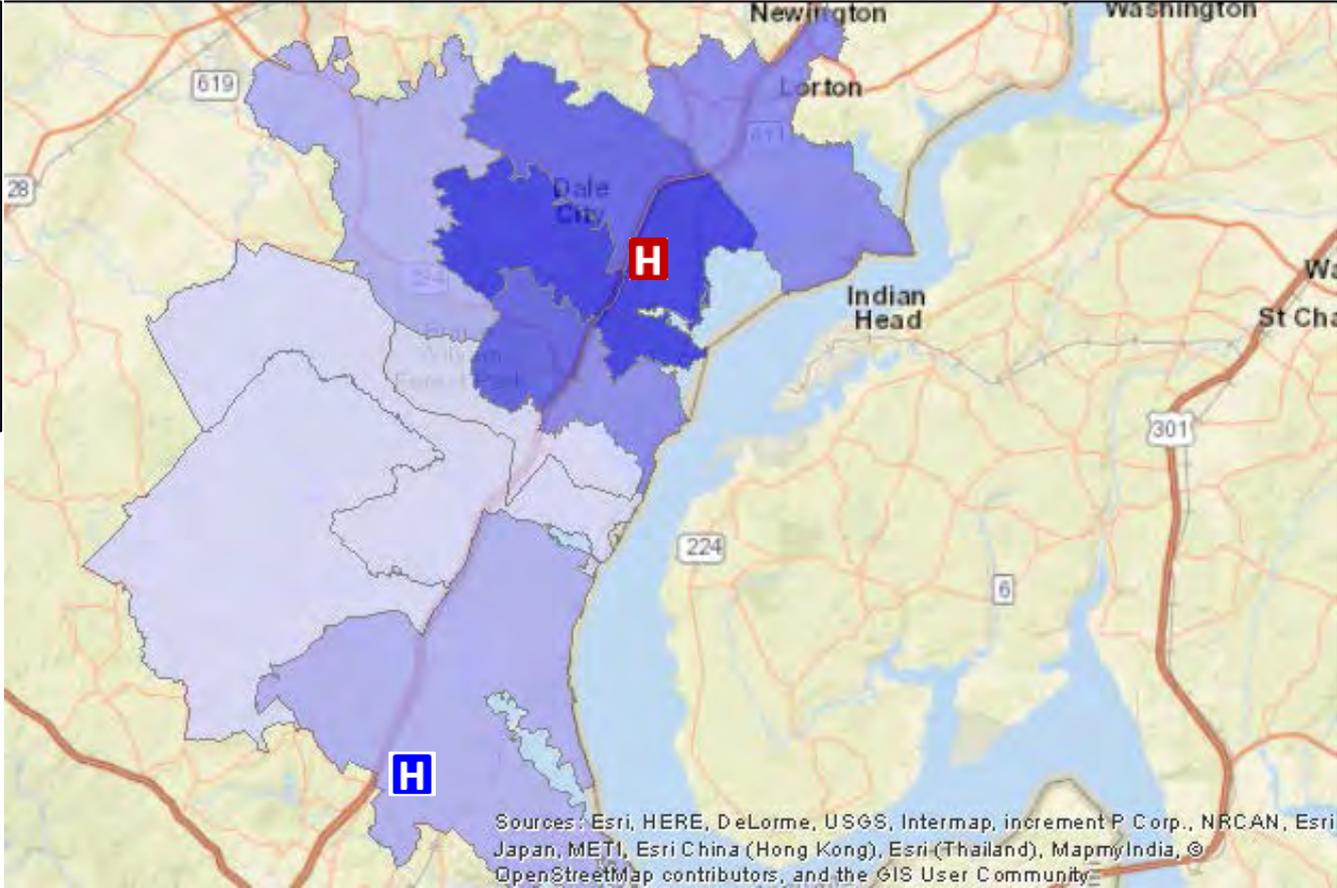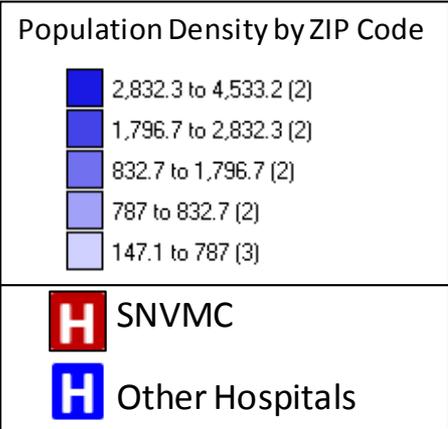
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Key Demographic Data by ZIP

County	Post Office	ZipCode	Total Population 2016	Total Population 2021	% Change 2016-2021	% of Pop 65+ 2016	% of Pop 65+ 2021	Pop Density / Sq Mile	% HH Below $25,000	% of Pop 25+ did not graduate from HS	% White NonHisp	% Black NonHisp	% Hispanic	% Asian NonHisp	% Other NonHisp	% of Service Area Pop
Prince William	Manassas	20112	28,096	30,174	7.4%	10.3%	14.0%	789	4.3%	5.9%	70.9%	11.0%	10.0%	4.3%	3.8%	6.9%
Prince William	Dumfries	22025	19,040	20,381	7.0%	13.2%	16.7%	1821	3.9%	4.6%	59.2%	19.9%	10.1%	5.9%	4.8%	4.7%
Prince William	Dumfries	22026	16,460	18,052	9.7%	5.7%	7.6%	1797	8.6%	11.8%	23.2%	44.1%	18.6%	8.5%	5.6%	4.0%
Fairfax	Lorton	22079	36,802	40,339	9.6%	8.6%	11.4%	1152	5.3%	6.1%	35.8%	21.4%	14.0%	23.3%	5.5%	9.0%
Prince William	Quantico	22134	7,067	7,428	5.1%	1.0%	1.3%	147	8.8%	2.6%	71.2%	8.8%	13.3%	2.9%	3.8%	1.7%
Prince William	Triangle	22172	10,994	12,016	9.3%	7.1%	8.9%	787	15.3%	9.1%	28.1%	38.2%	22.6%	5.2%	5.8%	2.7%
Prince William	Woodbridge	22191	66,536	72,827	9.5%	6.7%	8.4%	4155	10.2%	16.4%	25.3%	28.5%	33.7%	8.0%	4.4%	16.3%
Prince William	Woodbridge	22192	58,066	60,906	4.9%	10.6%	13.5%	2832	6.3%	7.3%	49.7%	20.7%	17.9%	7.1%	4.6%	14.2%
Prince William	Woodbridge	22193	79,639	84,509	6.1%	7.8%	10.1%	4533	8.6%	11.6%	33.0%	26.1%	28.9%	7.3%	4.7%	19.5%
Stafford	Stafford	22554	56,806	60,841	7.1%	7.7%	10.3%	833	5.3%	7.1%	60.8%	18.7%	12.8%	3.3%	4.4%	13.9%
Stafford	Stafford	22556	28,914	30,920	6.9%	7.8%	10.4%	426	6.5%	5.4%	60.8%	16.1%	15.2%	3.3%	4.5%	7.1%
Total Service Area			408,420	438,393	7.3%	8.3%	10.8%	1203	7.3%	9.3%	44.2%	23.0%	20.5%	7.6%	4.6%	
Virginia			8,428,339	8,801,874	4.4%	14.4%	16.6%	213.8	17.9%	11.8%	62.5%	18.9%	9.2%	6.3%	3.1%	
USA			322,431,073	334,341,965	3.7%	15.1%	17.1%	91.4	22.7%	13.6%	61.3%	12.3%	17.8%	5.4%	3.1%	

Source: Truven/Market Expert

2016 Total Population by ZIP Code

2016 Total Pop by ZIP Code
- 58,066 to 79,639 (2)
- 36,802 to 58,066 (2)
- 28,096 to 36,802 (2)
- 16,460 to 28,096 (2)
- 7,067 to 16,460 (3)

H SNVMC

H Other Hospitals

Source: Truven/Market Expert

2016 Population Density by ZIP Code

Population Density by ZIP Code

- 2,832.3 to 4,533.2 (2)
- 1,796.7 to 2,832.3 (2)
- 832.7 to 1,796.7 (2)
- 787 to 832.7 (2)
- 147.1 to 787 (3)

H SNVMC

H Other Hospitals

2016 Black, Non-Hispanic Population by ZIP Code

2016 Black, Non-Hispanic Pop by ZIP Code

- 12,005 to 20,758 (2)
- 7,891 to 12,005 (2)
- 4,656 to 7,891 (2)
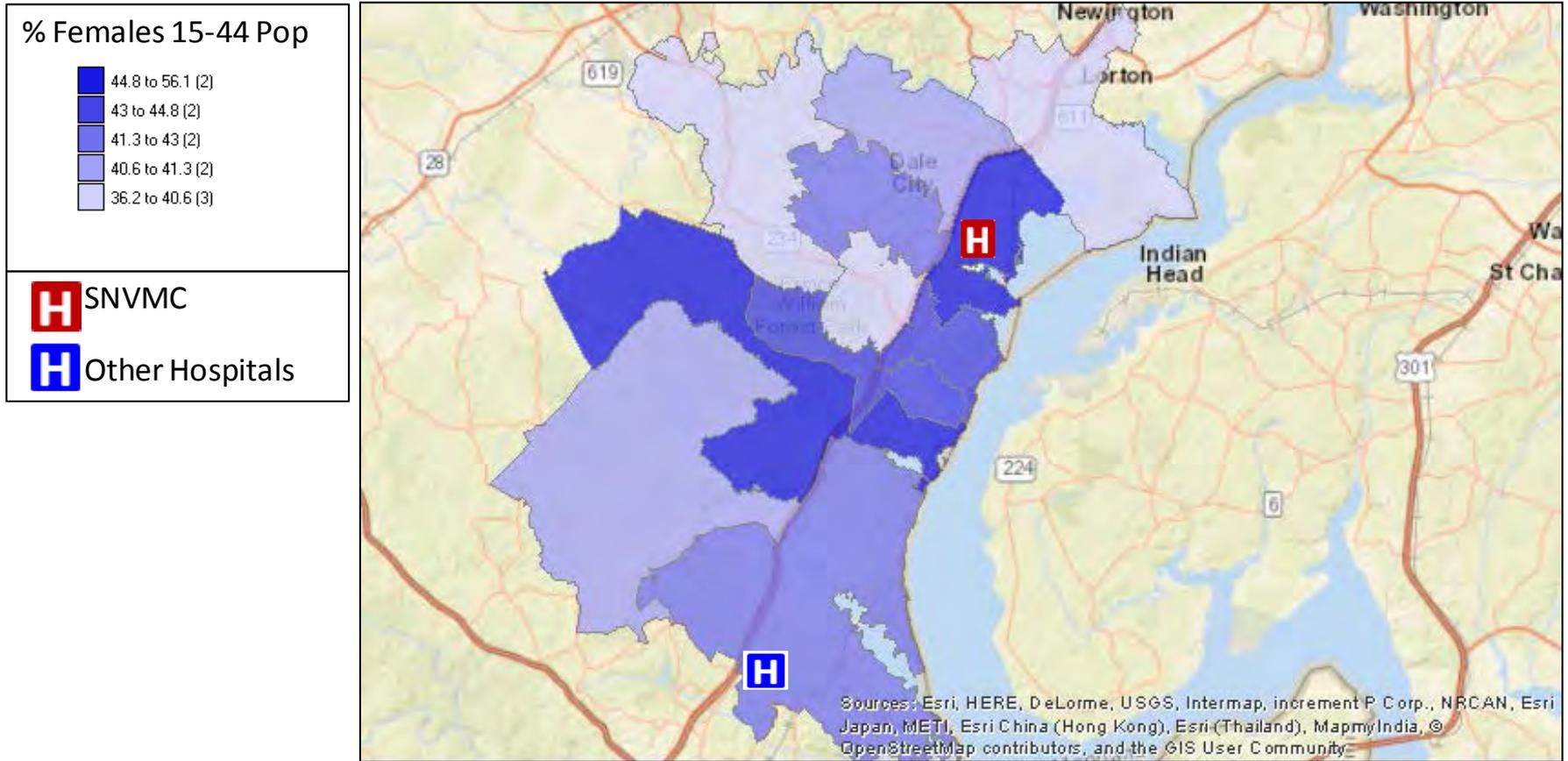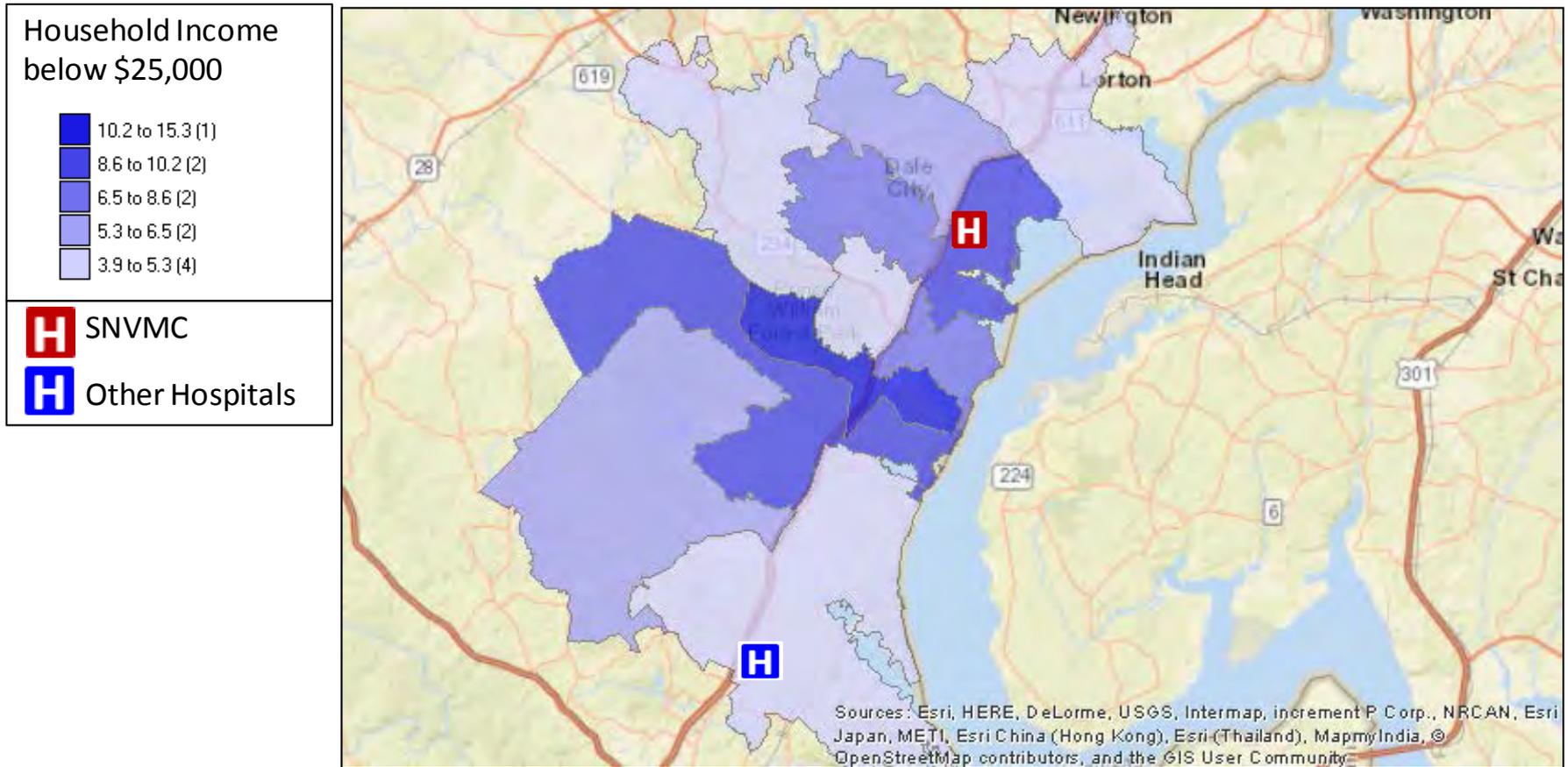- 3,795 to 4,656 (2)
- 624 to 3,795 (3)

H SNVMC

H Other Hospitals
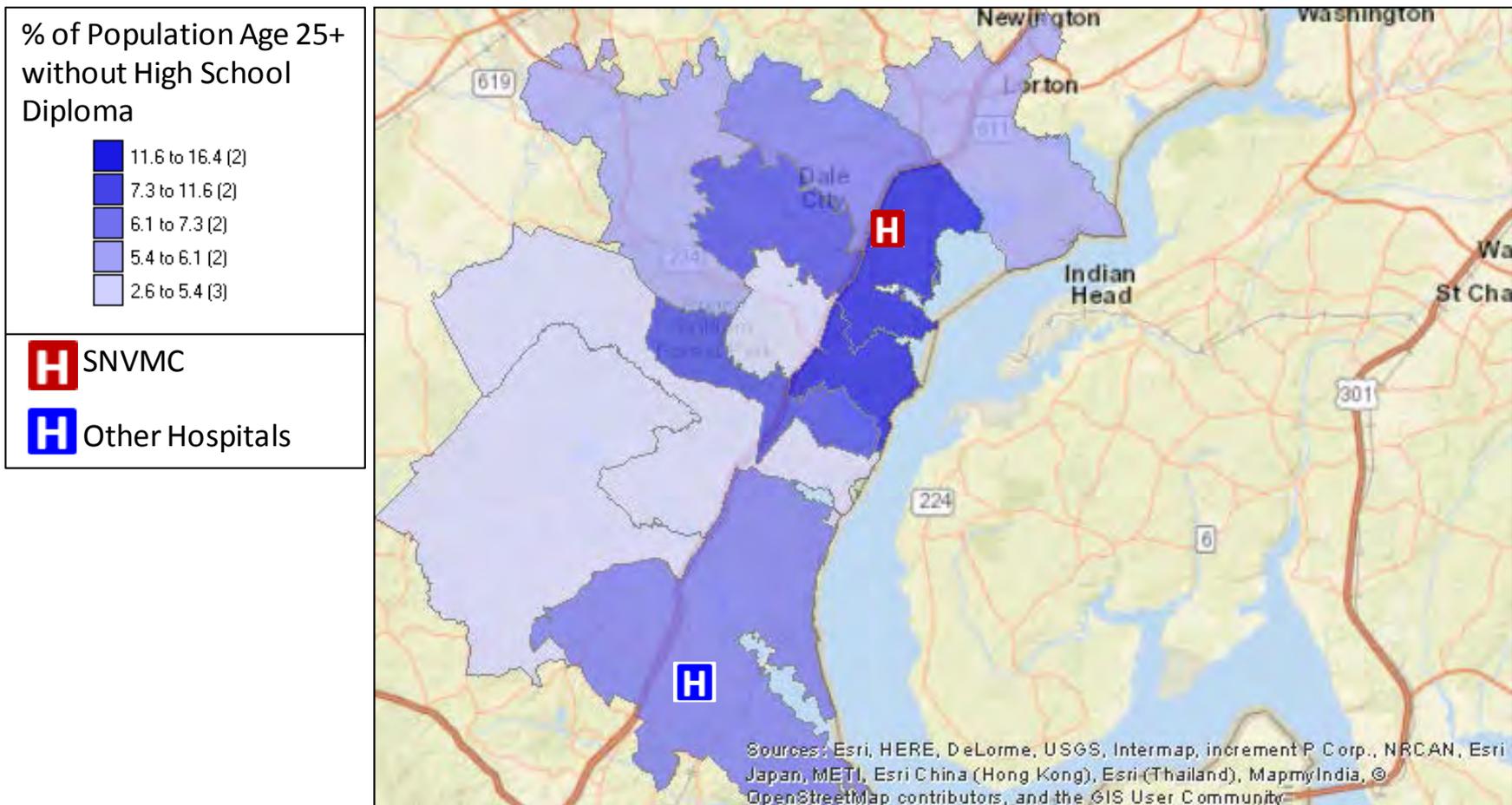
2016 Asian, Non-Hispanic Population
by ZIP Code

2016 Asian, Non-Hispanic
Pop by ZIP Code

- 5,418 to 8,607 (2)
- 1,966 to 5,418 (2)
- 1,236 to 1,966 (2)
- 1,021 to 1,236 (2)
- 236 to 1,021 (3)

H SNVMC

H Other Hospitals

2016 Hispanic Population by ZIP Code

2016 Hispanic Pop by ZIP Code

- 1,109 to 2,271 (2)
- 539 to 1,109 (2)
- 370 to 539 (2)
- 253 to 370 (2)
- 128 to 253 (3)

H SNVMC

H Other Hospitals
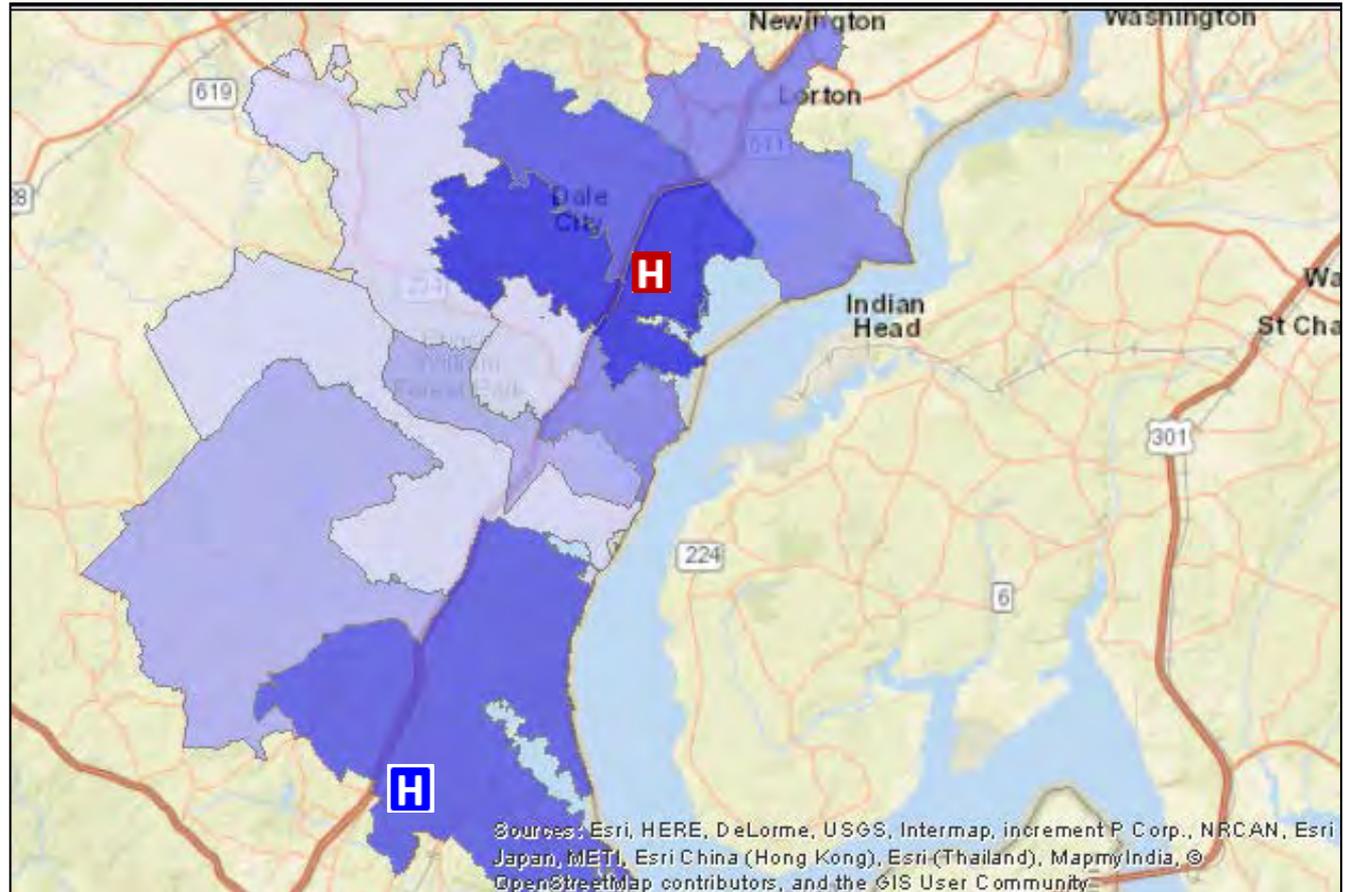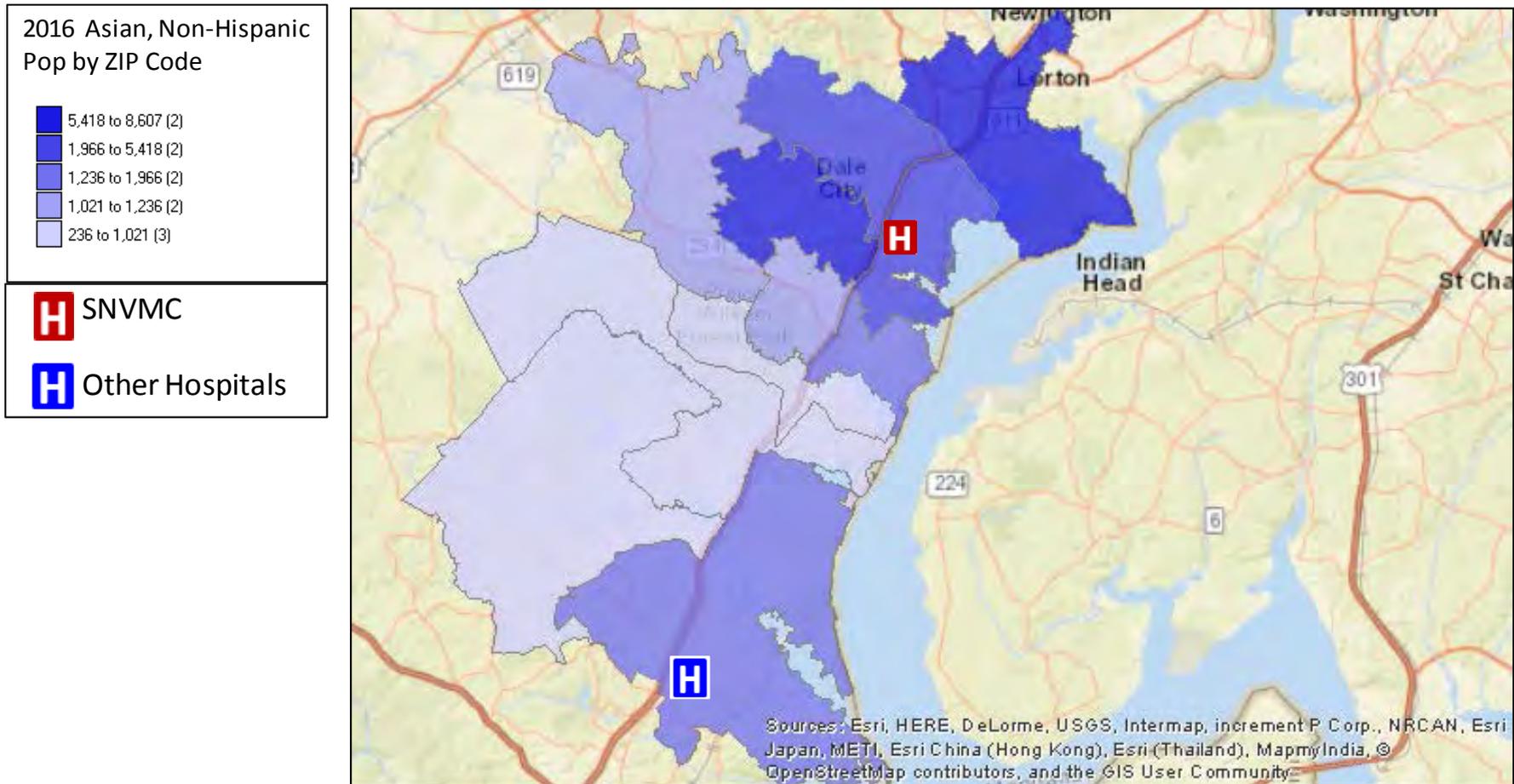
2016 % Females 15-44 Pop
Female Child Bearing Years

% Females 15-44 Pop

- 44.8 to 56.1 (2)
- 43 to 44.8 (2)
- 41.3 to 43 (2)
- 40.6 to 41.3 (2)
- 36.2 to 40.6 (3)

H SNVMC

H Other Hospitals

2016 % of Households with Income below $25,000

Legend:

Household Income below $25,000

- 10.2 to 15.3 (1)
- 8.6 to 10.2 (2)
- 6.5 to 8.6 (2)
- 5.3 to 6.5 (2)
- 3.9 to 5.3 (4)

H SNVMC
H Other Hospitals

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

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2016 % of Population Age 25+ without a High School Diploma

% of Population Age 25+ without High School Diploma

- 11.6 to 16.4 (2)
- 7.3 to 11.6 (2)
- 6.1 to 7.3 (2)
- 5.4 to 6.1 (2)
- 2.6 to 5.4 (3)

H SNVMC

H Other Hospitals

Source: Truven/Market Expert

ZIP Codes Included in SNVMC Area

Zip	Zip Common Name
20112	Manassas
22025	Dumfries
22026	Dumfries
22079	Lorton
22134	Quantico
22172	Triangle
22191	Woodbridge
22192	Woodbridge
22193	Woodbridge
22554	Stafford
22556	Stafford

Health Status Indicators Report
Prepared for Sentara Northern Virginia Medical Center
By Community Health Solutions
September 2016

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Introduction

This document presents a health status indicators report for Sentara Northern Virginia Medical Center. The report was commissioned by Sentara Healthcare and Sentara Northern Virginia Medical Center, and produced by Community Health Solutions. The study presents health status indicators for the Sentara Northern Virginia Medical Center service area of 11 zip codes, which fall within Fairfax, Prince William and Stafford counties.

The Study Region
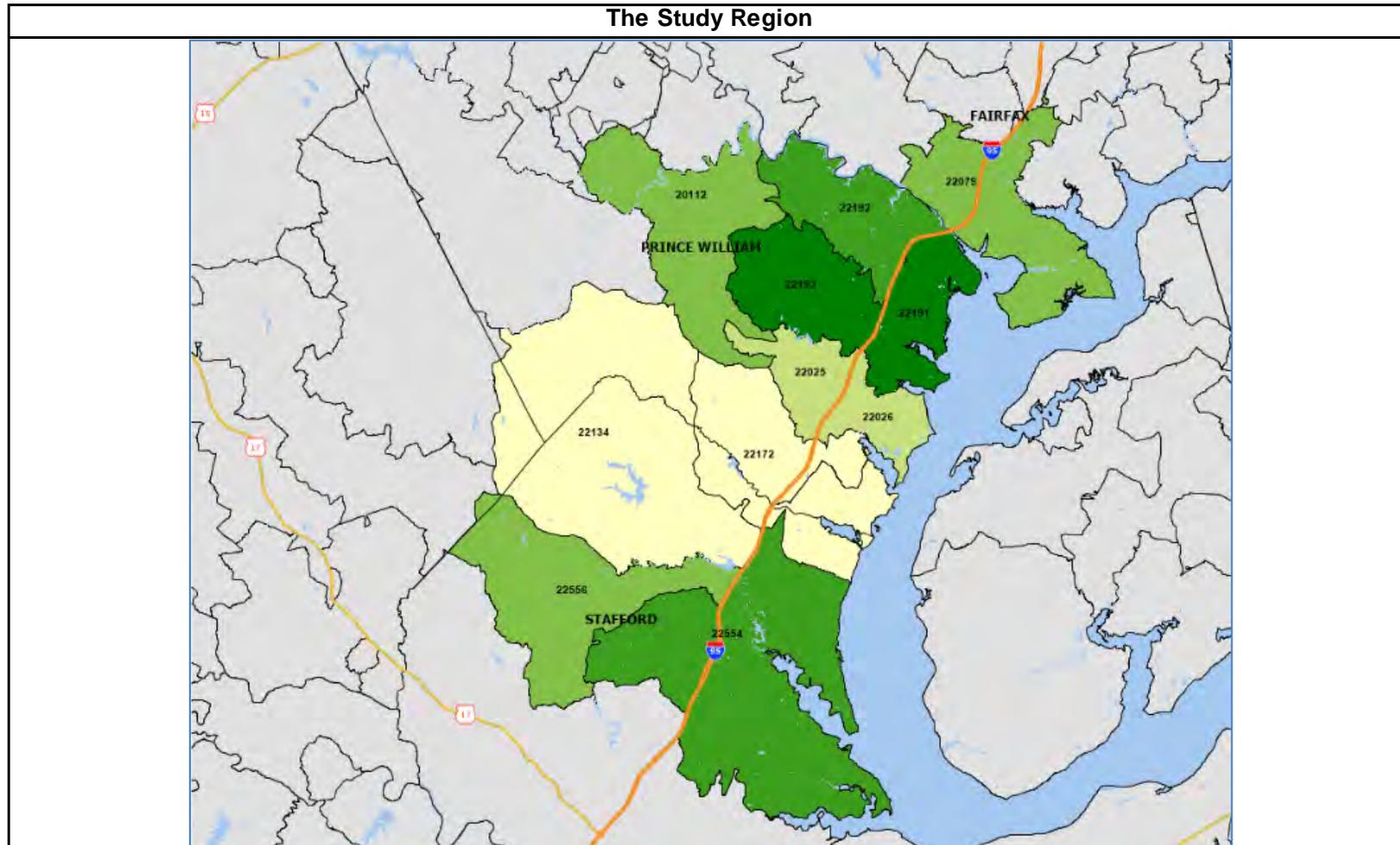
The study draws upon multiple data sources to present seven health indicator profiles in the following categories:

1. Mortality Profile
2. Maternal and Infant Health Profile
3. Preventable Hospitalization Profile
4. Behavioral Health Hospitalization Profile
5. Adult Health Risk Factor Profile
6. Youth Health Risk Factor Profile
7. Uninsured Profile

The profiles are presented in order in the following pages. Following the profiles, *Appendix A* presents a set of Zip Code-Level maps of selected indicators. *Appendix B* provides detail on the methods used to produce the indicators.

Study Approach

This document contains a wide array of community health indicators from multiple sources. By design, the profiles do not include every possible indicator of community health. The profiles are focused on a core set of indicators that provide broad insight into community health, and for which there were readily available data sources. The results of this profile can be used to evaluate community health status compared to the Commonwealth of Virginia overall. The results can also be helpful for determining the number of people affected by specific health concerns. The analysis objectives for this study included the following:

- Provide a snapshot analysis (for the most current year of data) for each indicator profile.
- Provide a trend analysis (for the 2011-2013 timeframe) of selected indicators as requested by Sentara Healthcare.
- Provide both counts and rates (where available) for all indicators. *Counts* refer to the number of cases of a particular health condition, such as the number of newborns with low birth weight. *Rates* refer to the number of cases per capita, such as the percent of all newborns with low birth weight. Counts are helpful for understanding the magnitude of need within a region, while rates are helpful for comparing health indicators across geographies with different population sizes (i.e. the study region vs. Virginia statewide).
- For the snapshot indicators, identify where the study region rates were better or worse (higher or lower, depending on the indicator), than the state rate. For this report, a study region rate within one percent of the state rate is considered comparable (no difference).
- For the trend indicators, identify where the study region trend differs from the state trend. For this report, a percent change of one percent is considered relatively stable (no change).
- This analysis was conducted at the zip code level. There are indicators (e.g. pregnancy indicators) and rate-calculation models (age adjustment) that are not available at this geographic level.

1. Mortality Profile

This profile presents indicators of death counts and rates for the local area compared to Virginia. The indicators are based on analysis of death record data provided by the Virginia Department of Health, and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.)

Mortality Snapshot (2013)

As shown in *Exhibit 1A*:
- In 2013 there were 1,507 deaths in the study region.
- The leading causes of death in the study region were Malignant Neoplasms (cancer), Heart Disease, Unintentional Injury, Cerebrovascular Disease (stroke), and Chronic Lower Respiratory Diseases.
- The death rates for the study region were lower (better) than the state rates for all deaths combined, and for all leading causes of death.

Mortality Trend – All Deaths (2011-2013)

- **Trend by Cause:** As shown in *Exhibit 1B,* from 2011 to 2013, study region rates:
  - Increased for all deaths combined, and for Heart Disease, Unintentional Injury, Chronic Lower Respiratory Diseases, Cerebrovascular Diseases (stroke), and Septicemia;
  - Declined for Diabetes; and
  - Remained relatively stable for Malignant Neoplasms (cancer).
  - Unlike the state, the study region rates increased for Heart Disease, Unintentional Injury, Chronic Lower Respiratory Diseases, and Cerebrovascular Disease (stroke).

- **Trend by Race/Ethnicity:** As shown in *Exhibit 1C,* from 2011 to 2013, study region counts:
  - Increased for all race/ethnic groups.
  - Unlike the state, the study region counts increased for the White population.

- **Trend by Sex:** As shown in *Exhibit 1D,* from 2011 to 2013, study region counts increased for the both female and male populations. The study region trend was consistent with the statewide trend.

Premature Death Trends (2011-2013)

- **Definition:** Consistent with conventions in the field, premature mortality can be defined as deaths that occur before age 75.
- **Leading Causes:** As shown in *Exhibit 1E*, over the 2011 to 2013 time period, roughly 59% of all deaths in the study region and 45% of deaths in Virginia as a whole could be classified as premature deaths.
- **Trend by Cause:** As shown in *Exhibit 1E*, from 2011-2013, premature death counts in the study region:
  - Increased for all premature deaths combined, and for Malignant Neoplasms (cancer), Heart Disease, and Unintentional Injury.
  - Unlike the state, the study region counts increased for Malignant Neoplasms (cancer) and Unintentional Injury.

- **Trend by Race/Ethnicity:** As shown in *Exhibit 1F,* from 2011 to 2013, premature death counts in the study region:
  - Increased for all race/ethnic groups.
  - Unlike the state, the study region counts increased for the Hispanic Ethnicity population.

- **Trend by Sex:** As shown in *Exhibit 1G*, from 2011 to 2013, the number of premature deaths in the study region increased for both the female and male populations. The study region trend was consistent with the statewide trend.

Exhibit 1A. Mortality Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Deaths by All Causes	62,309	1,507
Counts-Leading 14 Causes of Death		
Malignant Neoplasms, Deaths	14,348	375
Heart Disease, Deaths	13,543	274
Unintentional Injury, Deaths	2,794	84
Cerebrovascular Disease, Deaths	3,278	71
Chronic Lower Respiratory Diseases, Deaths	3,168	69
Septicemia, Deaths	1,464	54
Diabetes Mellitus, Deaths	1,618	44
Suicide, Deaths	1,047	38
Influenza and Pneumonia, Deaths	1,430	37
Nephritis and Nephrosis, Deaths	1,547	26
Alzheimer's Disease, Deaths	1,634	23
Chronic Liver Disease, Deaths	836	21
Parkinson's Disease, Deaths	549	16
Primary Hypertension and Renal Disease, Deaths	629	15
Crude Death Rates per 100,000 Population		
Deaths by All Causes	755.5	381.3
Malignant Neoplasms, Deaths	174.0	94.9
Heart Disease, Deaths	164.2	69.3
Unintentional Injury, Deaths	33.9	21.3
Cerebrovascular Disease, Deaths	39.7	18.0
Chronic Lower Respiratory Diseases, Deaths	38.4	17.5
Septicemia, Deaths	17.8	13.7
Diabetes Mellitus, Deaths	19.6	11.1
Suicide, Deaths	12.7	9.6
Influenza and Pneumonia, Deaths	17.3	9.4
Nephritis and Nephrosis, Deaths	18.8	--
Alzheimer's Disease, Deaths	19.8	--
Chronic Liver Disease, Deaths	10.1	--
Parkinson's Disease, Deaths	6.7	--
Primary Hypertension and Renal Disease, Deaths	7.6	--

Note: Rates are not calculated where n<30.

Note: Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.

Exhibit 1B. Mortality Trend (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	2011	2012	2013	Virginia	Study Region
All Deaths (Leading 10 Causes)					
Total Deaths (All Causes)	1,252	1,331	1,507	3%	20%
Malignant Neoplasms (Cancer)	360	360	375	1%	4%
Heart Disease	253	226	274	3%	8%
Unintentional Injury	69	93	84	2%	22%
Chronic Lower Respiratory Diseases	55	52	69	2%	25%
Cerebrovascular Disease (Stroke)	51	63	71	-1%	39%
Diabetes Mellitus	45	34	44	-1%	-2%
Septicemia	31	34	54	7%	74%
Nephritis and Nephrosis	29	28	26	9%	--
Influenza and Pneumonia	22	27	37	2%	--
Alzheimer's Disease	11	27	23	-9%	--
Crude Death Rates per 100,000 Population					
Total Deaths (All Causes)	328.9	344.6	381.3	2%	16%
Malignant Neoplasms (Cancer)	94.6	93.2	94.9	-1%	0%
Heart Disease	66.5	58.5	69.3	1%	4%
Unintentional Injury	18.1	24.1	21.3	1%	17%
Chronic Lower Respiratory Diseases	14.4	13.5	17.5	1%	21%
Cerebrovascular Disease (Stroke)	13.4	16.3	18.0	-3%	34%
Diabetes Mellitus	11.8	8.8	11.1	-2%	-6%
Septicemia	8.1	8.8	13.7	5%	68%
Nephritis and Nephrosis	--	--	--	7%	--
Influenza and Pneumonia	--	--	--	0%	--
Alzheimer's Disease	--	--	--	-10%	--

Note: Rates are not calculated where n<30. For this report, a percent change of one percent is considered relatively stable (no change).

Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.

Exhibit 1C. All Death Trend by Race/Ethnicity (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	2011	2012	2013	Virginia	Study Region
Asian	51	63	90	15%	76%
Black/African American	247	280	315	4%	28%
White	950	982	1093	1%	15%
Hispanic Ethnicity	78	73	94	8%	21%
Notes: Deaths with an Other/Unknown race were not included in the analysis. Hispanic is a classification of ethnicity; therefore, Hispanic individuals are also included in the race categories. For this report, a percent change of one percent is considered relatively stable (no change).					
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.					

Exhibit 1D. All Death Trend by Sex (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	2011	2012	2013	Virginia	Study Region
Female	610	666	767	3%	26%
Male	642	665	740	4%	15%
Notes: Deaths with an Other/Unknown sex were not included in the analysis.					
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.					

Exhibit 1E. Leading Causes – Premature Death Trend (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	2011	2012	2013	Virginia	Study Region
Premature Deaths (Leading 10 Causes)					
Total Premature Deaths (All Causes)	737	790	886	4%	20%
Malignant Neoplasms	259	260	273	0%	5%
Heart Disease	121	119	126	6%	4%
Unintentional Injury	55	71	68	-2%	24%
Diabetes	32	22	29	-1%	--
Chronic Lower Respiratory Diseases	23	21	33	1%	--
Suicide	23	35	38	0%	--
Cerebrovascular Diseases	20	34	32	5%	--
Septicemia	15	18	28	11%	--
Nephritis and Nephrosis	13	12	16	16%	--
Chronic Liver Disease	12	16	17	21%	--
Note: Rates and/or percent change are not calculated where n<30. For this report, a percent change of one percent is considered relatively stable (no change).					
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.					

Exhibit 1F. Premature Mortality Trend by Race/Ethnicity (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	2011	2012	2013	Virginia	Study Region
Asian	35	42	57	3%	63%
Black/African American	168	200	228	3%	36%
White	530	544	597	2%	13%
Hispanic Ethnicity	57	48	68	0%	19%
Notes: Deaths with an Other/Unknown race were not included in the analysis. Hispanic is a classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.					
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.					

Exhibit 1G. Premature Mortality Trend by Sex (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	2011	2012	2013	Virginia	Study Region
Female	301	327	388	3%	29%
Male	436	463	498	4%	14%
Notes: Deaths with an Other/Unknown sex were not included in the analysis.					
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.					

2. Maternal and Infant Health Profile

This profile presents indicators of maternal and infant health for the local area compared to Virginia. The indicators are based on analysis of birth record data provided by the Virginia Department of Health, and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.)

Maternal and Infant Health Snapshot (2013)

- As shown in *Exhibit 2A,* in 2013 there were 5,812 live births in the study region. Among the live births were 427 low weight births, 949 late prenatal care births, 1,713 non-marital births, and 238 births to teens.
- The study region had higher rates than Virginia as a whole for live births overall, births without early prenatal care, and births to teens age 18-19.

Maternal and Infant Health Trend (2011-2013)

- **Select Birth Indicators**. As shown in *Exhibit 2B*, from 2011 to 2013, the study region rates/percentages:
  - Declined for non-marital births; and
  - Remained relatively stable for total live births and low birth weight.
  - Unlike the state, the study region rates declined for non-marital births.
  - Unlike the state, the study region rates remained relatively stable for total live births.

- **Teenage Births Trend by Age Group**. As shown in *Exhibit 2C*, from 2011 to 2013, the study region counts declined for births to teens of all ages. The study region trend was consistent with the statewide trend.

- **Teenage Births Trend Race/Ethnicity**. As shown in *Exhibit 2D,* from 2011 to 2013, the study region counts:
  - Declined for Black/African American and White teen births; and
  - Increased for Hispanic Ethnicity teen births.
  - Unlike the state, the study region counts increased for the Hispanic Ethnicity teen births.

Exhibit 2A. Maternal and Infant Health Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Total Live Births	101,977	5,812
Low Weight Births (under 2,500 grams / 5 lb. 8 oz.)	8,178	427
Late Prenatal Care (No Prenatal Care in First 13 Weeks)	13,435	949
Non-Marital Births	35,289	1,713
Live Births to Teens Age 10-19	5,316	238
Live Births to Teens Age 18-19	4,073	189
Live Births to Teens Age 15-17	1,208	46
Live Births to Teens Age <15	35	3
Rates		
Live Birth Rate per 1,000 Population	12.3	14.7
Low Weight Births pct. of Total Live Births	8%	7%
Late Prenatal Care (No Prenatal Care in First 13 Weeks) pct. of Total Live Births	13%	16%
Non-Marital Births pct. of Total Live Births	35%	29%
Teenage (age 10-19) Live Birth Rate per 1,000 Teenage Female Population (age 10-19)	10.3	8.2
Teenage (age 18-19) Live Birth Rate per 1,000 Teenage Female Population (age 18-19)	36.4	39.1
Teenage (age 15-17) Live Birth Rate per 1,000 Teenage Female Population (age 15-17)	8.0	5.0
Teenage (age <15) Live Birth Rate per 1,000 Teenage Female Population (age <15)	0.1	0.2

Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B.

Exhibit 2B. Select Birth Indicators Trend (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Total Live Births	5,677	5,741	5,812	-1%	2%
Low Weight Births	443	405	427	0%	-4%
Non Marital Births	1,725	1,765	1,713	-3%	-1%
Rates	**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Total Live Births (per 1,000 population)	14.9	14.9	14.7	-3%	-1%
Low Weight (as a percent of Total Live Births)	8%	7%	7%	0%	-1%
Non Marital Births (as a percent of Total Live Births)	30%	31%	29%	-1%	-3%
Note: For this report, a percent change of one percent is considered relatively stable (no change).					
Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B.					

Exhibit 2C. Teenage Births Trend by Age (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts		**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Age	Total Teenage Live Births	281	294	238	-19%	-15%
	18-19	204	203	189	-15%	-7%
	15-17	77	88	46	-29%	-40%
	<15	0	3	3	-39%	--
Note: Percent change is not calculated where n<30. Births with unknown age were not included in the analysis.						
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.						

Exhibit 2D. Teenage Births Trend by Race/Ethnicity (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts		**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Teenage (Age 10-19) Live Births						
Race	Black/African American	93	92	58	-23%	-38%
	White	180	163	129	-26%	-28%
Ethnicity	Hispanic Ethnicity	98	95	116	-5%	18%
Note: Percent change is not calculated where n<30. Births with an Other/Unknown race were not included in the analysis. Hispanic is classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.						
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.						

3. Preventable Hospitalization Profile

The Agency for Healthcare Research and Quality (AHRQ) defines a set of conditions (called Prevention Quality Indicators, or 'PQIs') for which hospitalization should be avoidable with proper outpatient health care. This profile presents indicators of preventable hospitalizations based on PQI definitions for the study region compared to Virginia. High rates of hospitalization for these conditions indicate potential gaps in access to quality outpatient services for community residents. The indicators are based on analysis of hospital discharge data provided by the Virginia Health Information (VHI), and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.) The analysis includes records of discharges of Virginia residents from Virginia hospitals excluding state and federal facilities.

Preventable Hospitalization Snapshot (2013)

As shown in *Exhibit 3A*:

- In 2013, there were 1,286 PQI hospital discharges from Virginia hospitals for residents of the study region.
- The leading PQI diagnoses in the study region were COPD or Asthma in Older Adults (age 40+), Congestive Heart Failure, Bacterial Pneumonia, Urinary Tract Infection, and Diabetes.
- The PQI discharge rates for the study region were lower (better) than the Virginia rates for all PQI diagnoses.

Preventable Hospitalization Trend (2011-2013)

- **By Leading Diagnoses.** As shown in *Exhibit 3B,* from 2011 to 2013, study region rates:
  - Declined for all PQI diagnoses.
  - Unlike the state, the study region rates declined for Diabetes.

- **By Age Group**. As shown in *Exhibit 3C,* from 2011 to 2013, study region rates declined for all age groups. The study region trend was consistent with the statewide trend.

- **By Race/Ethnicity**. As shown in *Exhibit 3D*, from 2011 to 2013, study region rates declined for all race/ethnic groups. The study region trend was consistent with the statewide trend.

- **By Payer.** As shown in *Exhibit 3E*, from 2011 to 2013, study region counts:
  - Declined for all payer groups.
  - Unlike the state, the study region counts declined for the Medicare and Self-Pay/Uninsured populations.

Exhibit 3A. Preventable Hospitalization Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Total PQI Discharges (see note)	76,860	1,286
COPD or Asthma In Older Adults, PQI Discharges	16,026	281
Congestive Heart Failure, PQI Discharges	18,239	234
Bacterial Pneumonia, PQI Discharges	11,867	213
Urinary Tract Infection, PQI Discharges	8,452	177
Diabetes, PQI Discharges	9,938	173
Dehydration, PQI Discharges	7,743	123
Perforated Appendix, PQI Discharges	1,189	55
Hypertension, PQI Discharges	2,768	44
Asthma in Younger Adults, PQI Discharges	444	22
Angina, PQI Discharges	941	11
Crude Rates per 100,000 Population		
Total PQI Discharges (see note)	932.0	325.4
COPD or Asthma In Older Adults, PQI Discharges	194.3	71.1
Congestive Heart Failure, PQI Discharges	221.2	59.2
Bacterial Pneumonia, PQI Discharges	143.9	53.9
Urinary Tract Infection, PQI Discharges	102.5	44.8
Diabetes, PQI Discharges	120.5	43.8
Dehydration, PQI Discharges	93.9	31.1
Perforated Appendix, PQI Discharges	14.4	13.9
Hypertension, PQI Discharges	33.6	11.1
Asthma in Younger Adults, PQI Discharges	5.4	--
Angina, PQI Discharges	11.4	--

Note: The sum of the individual diagnoses may differ slightly from the Total Discharges figure for technical reasons. Rates and/or percent change are not calculated where n<30.

Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.

Exhibit 3B. Preventable Hospitalization Trend by Diagnosis (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Total PQI Discharges	2,401	1,283	1,286	-6%	-46%
COPD or Asthma In Older Adults (age 40+), PQI Discharges	482	265	281	-20%	-42%
Congestive Heart Failure, PQI Discharges	481	271	234	-8%	-51%
Bacterial Pneumonia, PQI Discharges	384	217	213	-29%	-45%
Diabetes, PQI Discharges	335	154	173	-2%	-48%
Urinary Tract Infection, PQI Discharges	308	143	177	-22%	-43%
Crude Rates per 100,000 Population					
Total PQI Discharges	630.7	332.2	325.4	-5%	-48%
COPD or Asthma In Older Adults (age 40+), PQI Discharges	126.6	68.6	71.1	-5%	-44%
Congestive Heart Failure, PQI Discharges	126.3	70.2	59.2	-28%	-53%
Bacterial Pneumonia, PQI Discharges	100.9	56.2	53.9	-30%	-47%
Diabetes, PQI Discharges	88.0	39.9	43.8	12%	-50%
Urinary Tract Infection, PQI Discharges	80.9	37.0	44.8	-21%	-45%

Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.

Exhibit 3C. Preventable Hospitalization Trend by Age Group (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts (Total PQI Discharges)		**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Age	Adults Age 18-29	145	72	82	-23%	-43%
	Adults Age 30-44	275	139	126	-21%	-54%
	Adults Age 45-64	747	440	460	-18%	-38%
	Seniors Age 65+	1,234	632	618	-20%	-50%
Crude Rates per 100,000 Population						
Age	Adults Age 18-29	232.1	114.2	125.2	-24%	-46%
	Adults Age 30-44	314.8	161.9	140.3	-21%	-55%
	Adults Age 45-64	755.5	422.6	443.8	-19%	-41%
	Seniors Age 65+	5,381.6	2,430.9	2,425.1	-23%	-55%
Note: PQI Discharges with an unknown age were not included in the analysis.						
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.						

Exhibit 3D. Preventable Hospitalization Trend by Race/Ethnicity (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts (Total PQI Discharges)					**Virginia**	**Study Region**
Race	Asian	47	34	33	-11%	-30%
	Black/African American	651	326	348	-16%	-47%
	White	1,410	782	790	-22%	-44%
Ethnicity	Hispanic Ethnicity	142	58	48	-30%	-66%
Crude Rates per 100,000 Population						
Race	Asian	175.3	121.7	114.2	-24%	-35%
	Black/African American	720.5	355.1	361.8	-21%	-50%
	White	662.0	363.6	362.9	-19%	-45%
Ethnicity	Hispanic Ethnicity	197.0	82.0	64.8	-23%	-67%
Note: Rates and/or percent change are not calculated where n<30. PQI Discharges with an Other/Unknown race were not included in the analysis. Hispanic is classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.						
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.						

Exhibit 3E. Preventable Hospitalization Trend by Payer (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts (Total PQI Discharges)					**Virginia**	**Study Region**
Payer	Medicare	1,319	681	670	2%	-49%
	Medicaid	186	83	101	-6%	-46%
	Private	454	296	259	-12%	-43%
	Self-Pay/Uninsured	151	66	67	2%	-56%
Note: PQI Discharges with an unknown payer were not included in the analysis. Enrollment data were not available to calculate rates.						
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.						

4. Behavioral Health Hospitalization Profile

Behavioral health is another important indicator of community health status. The indicators in this Behavioral Health Hospitalization Profile are based on analysis of hospital discharge data provided by Virginia Health Information (VHI), and demographic data from Alteryx, Inc. (see Appendix B for details on methods.) The analysis includes records of discharges of adult Virginia residents from Virginia hospitals excluding state and federal facilities.

Behavioral Health Hospitalization Snapshot (2013)
As shown in *Exhibit 4A*:

- In 2013, there were 2,256 behavioral health (BH) discharges for residents of the study region.
- The leading diagnoses for behavioral health hospitalization in the study region were Affective Psychoses, Alcoholic Psychoses, Schizophrenic Disorders, Other Nonorganic Psychoses, and Depressive Disorder-Not Elsewhere Classified.
- The BH discharge rates for the study region were higher than the state rates for Alcoholic Psychoses and Other Nonorganic Psychoses.

Behavioral Hospitalization Trend (2011-2013)

- **By Leading Diagnoses.** As shown in *Exhibit 4B*, from 2011 to 2013, study region rates:
  - Increased for Total BH Discharges (all BH diagnoses combined), Affective Psychoses, Schizophrenic Disorders, and Alcoholic Psychoses.
  - Unlike the state, the study region rates increased for Total BH Discharges (all diagnoses combined), Affective Psychoses, and Schizophrenic Disorders.

- **By Age Group**. As shown in *Exhibit 4C*, from 2011 to 2013, study region rates:
  - Increased for residents age 0-64; and
  - Remained relatively stable for residents age 65+.
  - Unlike the state, the study region rates increased for the 0-17 and 18-29 age groups.
  - Unlike the state, the study region rate remained relatively stable for residents age 65+.

- **By Sex.** As shown in *Exhibit 4D*, from 2011 to 2013, study region rates:
  - Increased for female and male residents.
  - Unlike the state, the study region rate increased for female residents.

- **By Race/Ethnicity.** As shown in *Exhibit 4E*, from 2011 to 2013, study region rates:
  - Increased for all race/ethnic populations.
  - Unlike the state, the study region rates increased for the Black/African American and Hispanic Ethnicity populations.

- **By Payer.** As shown in *Exhibit 4F*, from 2011 to 2013, study region counts:
  - Increased for all payer groups.
  - Unlike the state, the study region counts increased for the Private Insurance population.

Exhibit 4A. Behavioral Health Hospitalization Snapshot (2013)

Indicator	Virginia	Study Region
Counts-BH Discharges		
Total BH Diagnoses	60,600	2,256
Counts-Leading 14 BH Diagnoses		
Affective Psychoses	26,709	1,129
Alcoholic Psychoses	4,037	223
Schizophrenic Disorders	8,136	204
Other Nonorganic Psychoses	2,133	109
Depressive Disorder, Not Elsewhere Classified	3,503	91
Alcohol Dependence Syndrome	2,391	88
Drug Psychoses	2,121	64
Senility Without Mention Of Psychosis	1,688	57
Adjustment Reaction	2,271	54
Symptoms Involving Head or Neck	933	40
Drug Dependence	816	38
Altered Mental Status	1,000	33
Neurotic Disorders	1,207	33
Non Dependent Abuse of Drugs	600	25
Crude Rates Per 100,000 Population		
All Diagnoses	734.8	570.8
Affective Psychoses	323.9	285.7
Alcoholic Psychoses	49.0	56.4
Schizophrenic Disorders	98.7	51.6
Other Nonorganic Psychoses	25.9	27.6
Depressive Disorder, Not Elsewhere Classified	42.5	23.0
Alcohol Dependence Syndrome	29.0	22.3
Drug Psychoses	25.7	16.2
Senility Without Mention of Psychosis	20.5	14.4
Adjustment Reaction	27.5	13.7
Symptoms Involving Head or Neck	11.3	10.1
Drug Dependence	9.9	9.6
Altered Mental Status	12.1	8.4
Neurotic Disorders	14.6	8.4
Non Dependent Abuse of Drugs	7.3	--
Other Organic Psychotic Conditions-Chronic	9.6	--

Note: Rates are not calculated where n<30.

Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.

Exhibit 4B. Behavioral Health Hospitalization Trend by Leading Diagnoses (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Total BH Discharges (All Diagnoses)	1,911	1,960	2,256	3%	18%
Affective Psychoses	1,017	994	1,129	-2%	11%
Schizophrenic Disorders	180	180	204	1%	13%
Alcoholic Psychoses	172	175	223	23%	30%
Crude Rates per 100,000 Population					
Total BH Discharges (All Diagnoses)	501.9	507.5	570.8	1%	14%
Affective Psychoses	267.1	257.4	285.7	-3%	7%
Schizophrenic Disorders	47.3	46.6	51.6	0%	9%
Alcoholic Psychoses	45.2	45.3	56.4	21%	25%
Note: For this report, a percent change of one percent is considered relatively stable (no change).					
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.					

Exhibit 4C. Behavioral Health Hospitalization Trend by Age (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
		2011	2012	2013	Virginia	Study Region
Counts						
Age	Children Age 0-17	364	364	406	-2%	12%
	Adults Age 18-29	523	524	643	10%	23%
	Adults Age 30-44	453	470	518	2%	14%
	Adults Age 45-64	459	473	563	3%	23%
	Seniors Age 65+	112	129	126	-4%	13%
Crude Rates per 100,000 Population						
Age	Children Age 0-17	333.7	339.5	366.6	-3%	10%
	Adults Age 18-29	837.1	831.4	981.9	-2%	17%
	Adults Age 30-44	518.6	547.4	576.6	8%	11%
	Adults Age 45-64	464.2	454.3	543.2	2%	17%
	Seniors Age 65+	488.4	496.2	494.4	3%	1%
Note: Discharges with an unknown age were not included in the analysis. For this report, a percent change of one percent is considered relatively stable (no change).						
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.						

Exhibit 4D. Behavioral Health Hospitalization Trend by Sex (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts		**2011**	**2012**	**2013**	**Virginia**	**Study Region**
All BH Discharges						
Sex	Female	1,021	1,072	1,177	0%	15%
	Male	890	888	1,079	5%	21%
Crude Rates per 100,000 Population						
Sex	Female	536.3	551.2	591.6	-1%	10%
	Male	467.6	463.1	549.8	5%	18%
Note: Discharges with an Other/Unknown sex were not included in the analysis. See details in Appendix B. For this report, a percent change of one percent is considered relatively stable (no change).						
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.						

Exhibit 4E. Behavioral Health Hospitalization Trend by Race/Ethnicity (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts		**2011**	**2012**	**2013**	**Virginia**	**Study Region**
All BH Discharges						
Race	Asian	40	50	62	15%	55%
	Black/African American	449	495	491	0%	9%
	White	1,170	1,149	1,343	1%	15%
Ethnicity	Hispanic Ethnicity	140	138	148	-3%	6%
Crude Rates per 100,000 Population						
Race	Asian	149.2	178.9	214.6	8%	44%
	Black/African American	496.9	539.2	510.5	-1%	3%
	White	549.3	534.2	617.0	2%	12%
Ethnicity	Hispanic Ethnicity	194.3	195.0	199.9	-4%	3%
Note: Rates and/or percent change are not calculated where n<30. Discharges with an Other/Unknown race were not included in the analysis. Hispanic is classification of ethnicity; therefore, Hispanic individuals are also included in the race categories. For this report, a percent change of one percent is considered relatively stable (no change).						
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.						

Exhibit 4F. Behavioral Health Hospitalization Trend by Payer (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts		**2011**	**2012**	**2013**	**Virginia**	**Study Region**
All BH Discharges						
Payer	Medicare	249	297	313	5%	26%
	Medicaid	234	205	244	9%	4%
	Private	1,158	1,207	1,324	-3%	14%
	Self-Pay/Uninsured	199	208	361	15%	81%
Note: Discharges with an Other/Unknown payer were not included in the analysis. Enrollment data were not available to calculate rates.						
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.						

5. Adult Health Risk Factor Profile

This profile presents indicators of adult health risks for adults age 18+ based on analysis of data from the Virginia Behavioral Risk Factor Surveillance Survey and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.) Please note that all indicators in this profile are estimates, and therefore subject to estimation error.

- As shown in *Exhibit 5*, substantial numbers of adults have lifestyle health risks related to nutrition, weight, physical inactivity, tobacco and alcohol. For example,
    - An estimated 224,172 adults age 18+ (78%) are not meeting the guidelines for fruit and vegetable intake,
    - An estimated 166,055 adults age 18+ (58%) are overweight or obese, and
    - An estimated 142,461 adults age 18+ (50%) are not meeting recommendations for physical activity.

Exhibit 5. Adult Health Risk Factor Profile (2014 Estimates)

Indicator		Virginia	Study Region
Estimates-Counts			
Estimated Adults age 18+		6,393,583	287,478
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	5,114,866	224,172
	Overweight or Obese	3,964,021	166,055
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	3,068,920	142,461
	At-risk for Binge Drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	1,150,845	65,652
	Smoker	1,214,781	61,139
Chronic Conditions	High Cholesterol (was checked, and told by a doctor or other health professional it was high)	2,237,754	101,792
	High Blood Pressure (told by a doctor or other health professional)	1,918,075	79,233
	Arthritis (told by a doctor or other health professional)	1,534,460	60,798
	Diabetes (told by a doctor or other health professional)	575,422	27,219
General Health Status	Limited in any Activities because of Physical, Mental or Emotional Problems	1,214,781	49,419
	Fair or Poor Health Status	1,022,973	47,299
Estimates-Rates			
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	80%	78%
	Overweight or Obese	62%	58%
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	48%	50%
	At-risk for Binge Drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	18%	23%
	Smoker	19%	21%
Chronic Conditions	High Cholesterol (was checked, and told by a doctor or other health professional it was high)	35%	35%
	High Blood Pressure (told by a doctor or other health professional)	30%	28%
	Arthritis (told by a doctor or other health professional)	24%	21%
	Diabetes (told by a doctor or other health professional)	9%	9%
General Health Status	Limited in any Activities because of Physical, Mental or Emotional Problems	19%	17%
	Fair or Poor Health Status	16%	16%

Note: State-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended.

Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See Appendix B. Data Sources for details.

6. Youth Health Risk Factor Profile

This profile presents estimates of health risks for youth age 10-14 and 14-19. The indicators in this profile are estimates based on analysis of data from the Virginia Youth Risk Behavioral Surveillance System from the Centers for Disease Control (2013) and demographic data from Alteryx, Inc. (see *Appendix B* for details on methods.) Please note that all indicators in this profile are estimates, and therefore subject to estimation error.

- As shown in *Exhibit 6,* substantial numbers of youth have lifestyle health risks related to nutrition, weight, alcohol, mental health, physical inactivity, and tobacco. For example,
    - Only an estimated 3,010 youth age 14-19 (9%) and 3,725 youth age 10-14 (25%) met the guidelines for fruit and vegetable intake;
    - An estimated 10,164 youth age 14-19 (29%) are overweight or obese; and
    - An estimated 20,344 youth age 14-19 (58%) and 10,065 youth age 10-14 (67%) did not meet the guidelines for physical activity.

Exhibit 6. Youth Health Risk Factor Profile (2014 Estimates)

Indicator	Virginia	Study Region
Counts (Estimates)		
High School Youth Age 14-19		
Total Estimated High School Youth Age 14-19	*654,462*	*35,311*
Met Guidelines for Fruit and Vegetable Intake	54,707	3,010
Overweight or Obese	179,050	10,164
Not Meeting Recommendations for Physical Activity in the Past Week	363,586	20,344
Used Tobacco in the Past 30 Days	118,572	6,467
Had at least One Drink of Alcohol At least One Day in the Past 30 Days	178,173	9,230
Felt Sad or Hopeless (almost every day for two or more weeks in a row so that they stopped doing some usual activities)	165,270	9,164
Middle School Youth Age 10-14		
Total Estimated Middle School Youth Age 10-14	*523,850*	*15,027*
Met Guidelines for Fruit and Vegetable Intake	125,285	3,725
Not Meeting Recommendations for Physical Activity in the Past Week	345,407	10,065
Used Tobacco in the Past 30 Days	19,192	352
Rates (Percent Estimates)		
High School Youth Age 14-19		
Met Guidelines for Fruit and Vegetable Intake	8%	9%
Overweight or Obese	27%	29%
Not Meeting Recommendations for Physical Activity in the Past Week	56%	58%
Used Tobacco in the Past 30 Days	18%	18%
Had at least One Drink of Alcohol At least One Day in the Past 30 Days	27%	26%
Felt Sad or Hopeless (almost every day for two or more weeks in a row so that they stopped doing some usual activities)	25%	26%
Middle School Youth Age 10-14		
Met Guidelines for Fruit and Vegetable Intake	24%	25%
Not Meeting Recommendations for Physical Activity in the Past Week	66%	67%
Used Tobacco in the Past 30 Days	4%	2%
Note: State-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended.		
Source: Estimates produced by Community Health Solutions using Youth Risk Behavioral Surveillance System data and local demographic estimates from Alteryx, Inc. See Appendix B. Data Sources for details.		

7. Uninsured Profile

This profile presents estimates of the uninsured population within the 0-64 age group. The indicators in this profile are estimates based on analysis of data from the U.S. Census Bureau Small Area Health Insurance Estimates and demographic estimates from Alteryx, Inc. (see *Appendix B* for details on methods.) Please note that all indicators in this profile are subject to estimation error.

- As shown in Exhibit 7:
    - At any given point in 2014, an estimated 53,119 residents of the study region were uninsured.
    - The estimated number of uninsured children age 0-18 in the study region was 8,704. Among uninsured children, it is estimated that 50% have family income below 200 percent of the federal poverty level, possibly making them income-eligible for coverage through the state Medicaid or FAMIS program.
    - The estimated number of uninsured adults age 19-64 in the study region was 44,415. Among uninsured adults, it is estimated that 54% have family income below 200 percent of the federal poverty level.

Exhibit 7. Uninsured Profile (2014 Estimates)

Indicator	Virginia	Study Region
Estimated Uninsured Counts*		
Uninsured Nonelderly Age 0-64	1,013,561	53,119
Uninsured Children Age 0-18	120,105	8,704
Uninsured Children Age 0-18 <=138% FPL	38,955	2,823
Uninsured Children Age 0-18 <=200% FPL	60,293	4,369
Uninsured Children Age 0-18 <=250% FPL	74,045	5,366
Uninsured Children Age 0-18 <=400% FPL	98,441	7,134
Uninsured Children Age 0-18 138-400% FPL	59,485	4,311
Uninsured Adults Age 19-64	893,456	44,415
Uninsured Adults Age 19-64 <=138% FPL	327,185	16,265
Uninsured Adults Age 19-64 <=200% FPL	479,797	23,851
Uninsured Adults Age 19-64 <=250% FPL	578,328	28,750
Uninsured Adults Age 19-64 <=400% FPL	749,463	37,257
Uninsured Adults Age 19-64 138-400% FPL	422,276	20,992
Estimated Uninsured Percent		
Uninsured Children Percent	6%	7%
Uninsured Adults Percent	17%	17%

Note: Federal poverty level (FPL) categories are cumulative. State-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended.

Source: Estimates produced by Community Health Solutions using U.S. Census Bureau Small Area Health Insurance Estimates (2013) and local demographic estimates from Alteryx, Inc. See Appendix B for details on methods.
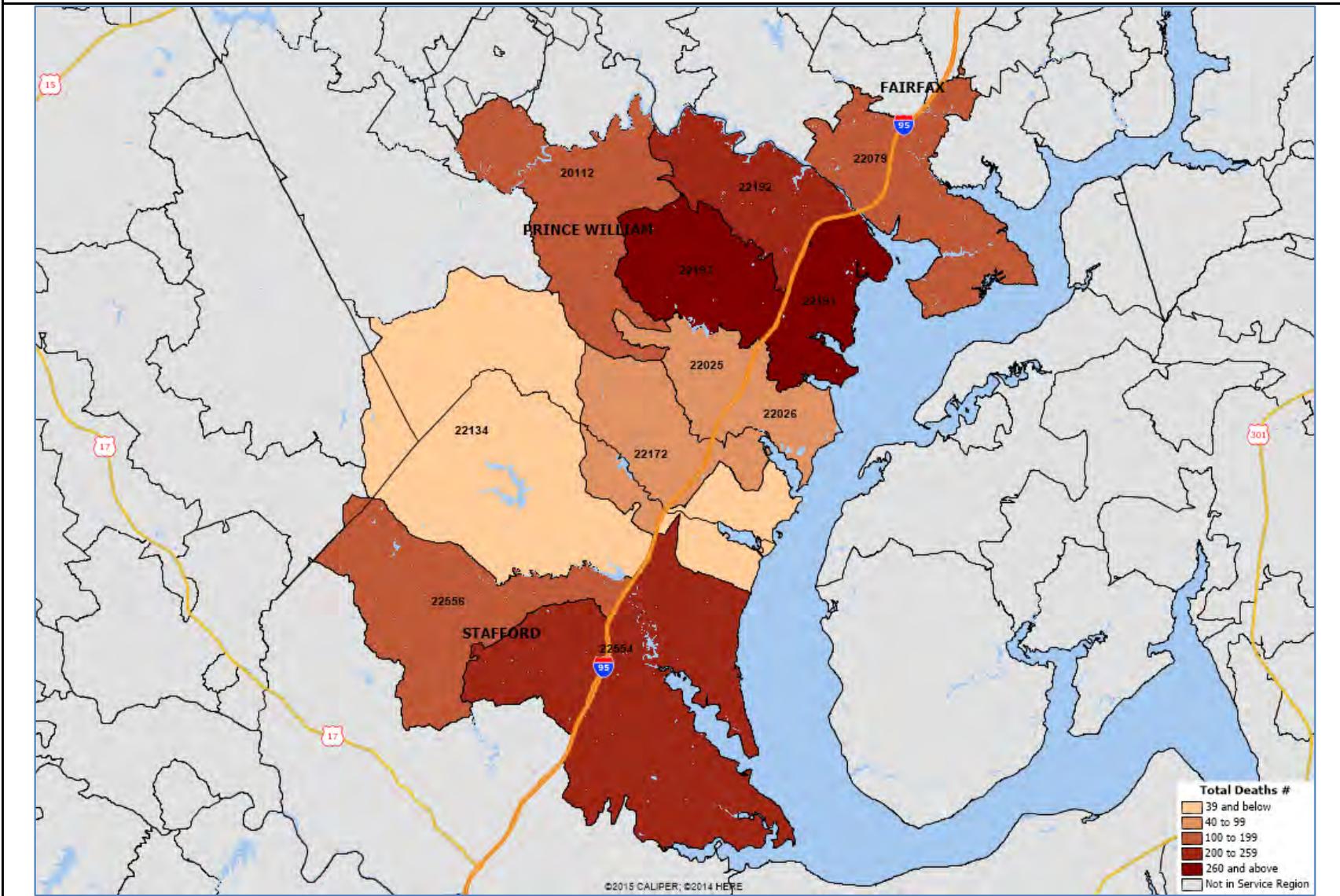
APPENDIX A: Zip Code-Level Maps

The Zip Code-Level maps in this section illustrate the geographic distribution of the zip code-level study region on key health status indicators. Following the maps is a table with the underlying data. The maps in this section include the following for 2013/2014:

1.	Total Deaths, 2013	9.	Estimated Adult Age 18+ Smokers, 2014
2.	Heart Disease Deaths, 2013	10.	Estimated Adults Age 18+ with No Dental Visit in the Last Year, 2014
3.	Cerebrovascular Disease (Stroke) Deaths, 2013	11.	Estimated Adults Age 18+ with Diabetes, 2014
4.	Malignant Neoplasms (Cancer) Deaths, 2013	12.	Estimated Adults Age 18+ who are Overweight or Obese, 2014
5.	Total Live Births, 2013	13.	Estimated High School-aged Youth (age 14-19) who are Overweight or Obese, 2014
6.	Total Teenage Live Births (age<18), 2013	14.	Estimated Uninsured Children Age 0-18, 2014
7.	Total Prevention Quality Indicator Hospitalization Discharges, 2013	15.	Estimated Uninsured Adults, Age 19-64, 2014
8.	Total Behavioral Health Hospitalization Discharges, 2013	Map Table	

Technical Notes

1. The maps and data include 11 zip codes, as identified by Sentara Northern Virginia Medical Center, which fall within Fairfax, Prince William and Stafford counties. It is important to note that zip code boundaries do not automatically align with city/county boundaries, and there are some zip codes that extend beyond the county boundaries.

2. The maps show counts rather than rates. Rates are not mapped at the zip code-level because in some zip codes the population is too small to support rate-based comparisons.

3. Data are presented in natural breaks.

4. Zip Code-Level Study Region zip codes with zero values are noted.

Map 1: Total Deaths, 2013

Total Deaths #
- 39 and below
- 40 to 99
- 100 to 199
- 200 to 259
- 260 and above
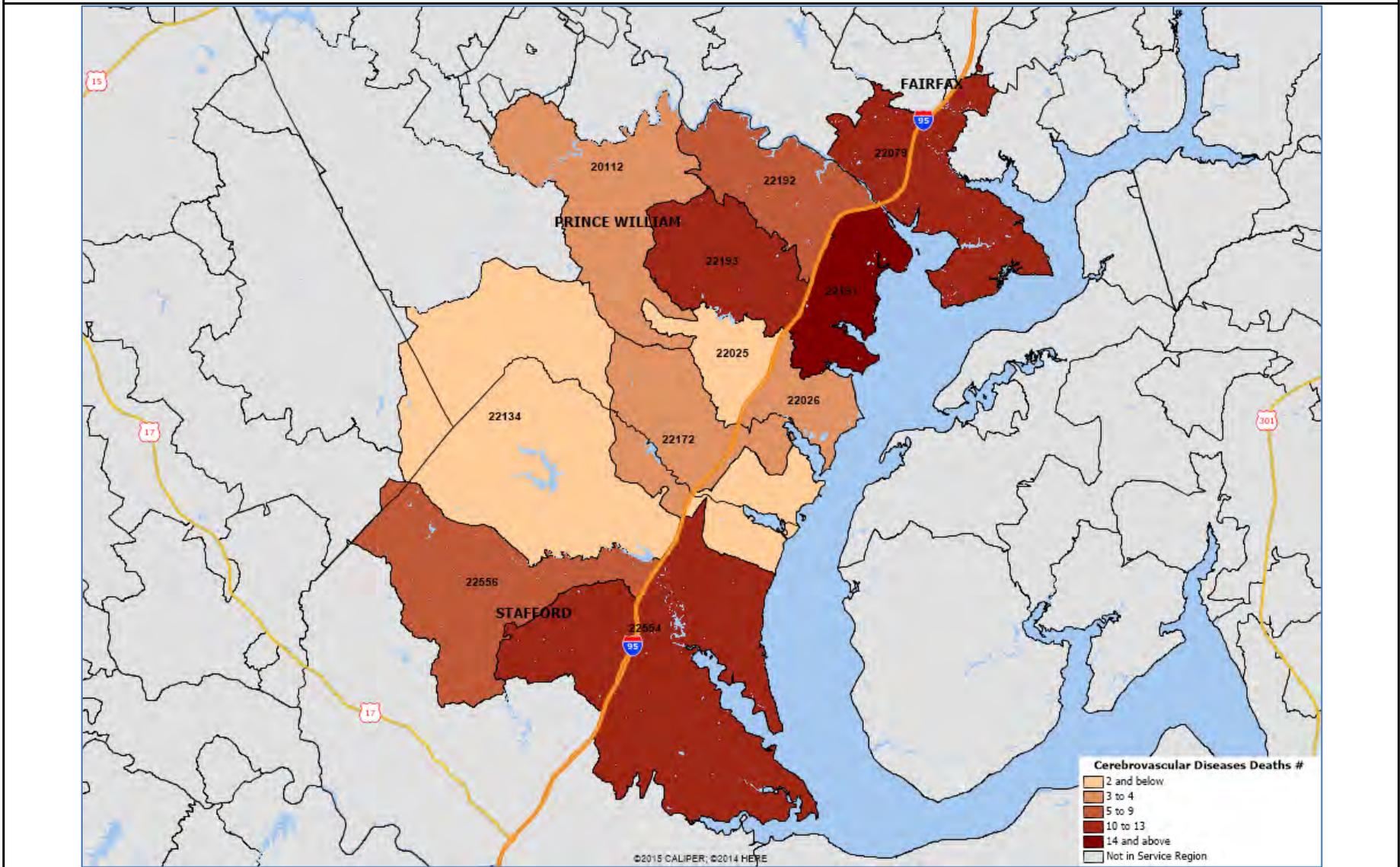- Not in Service Region

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Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.
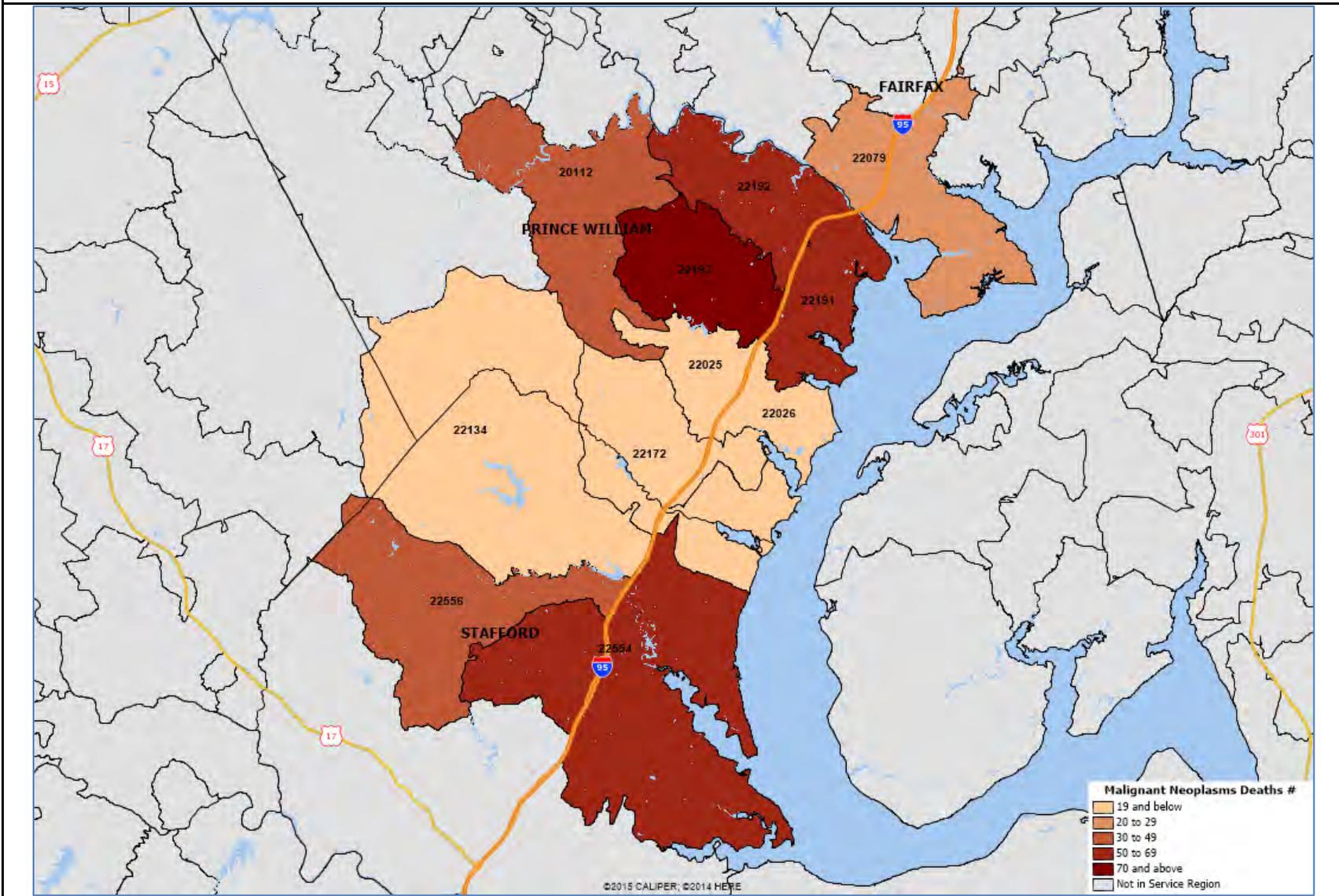
Map 2: Heart Disease Deaths, 2013
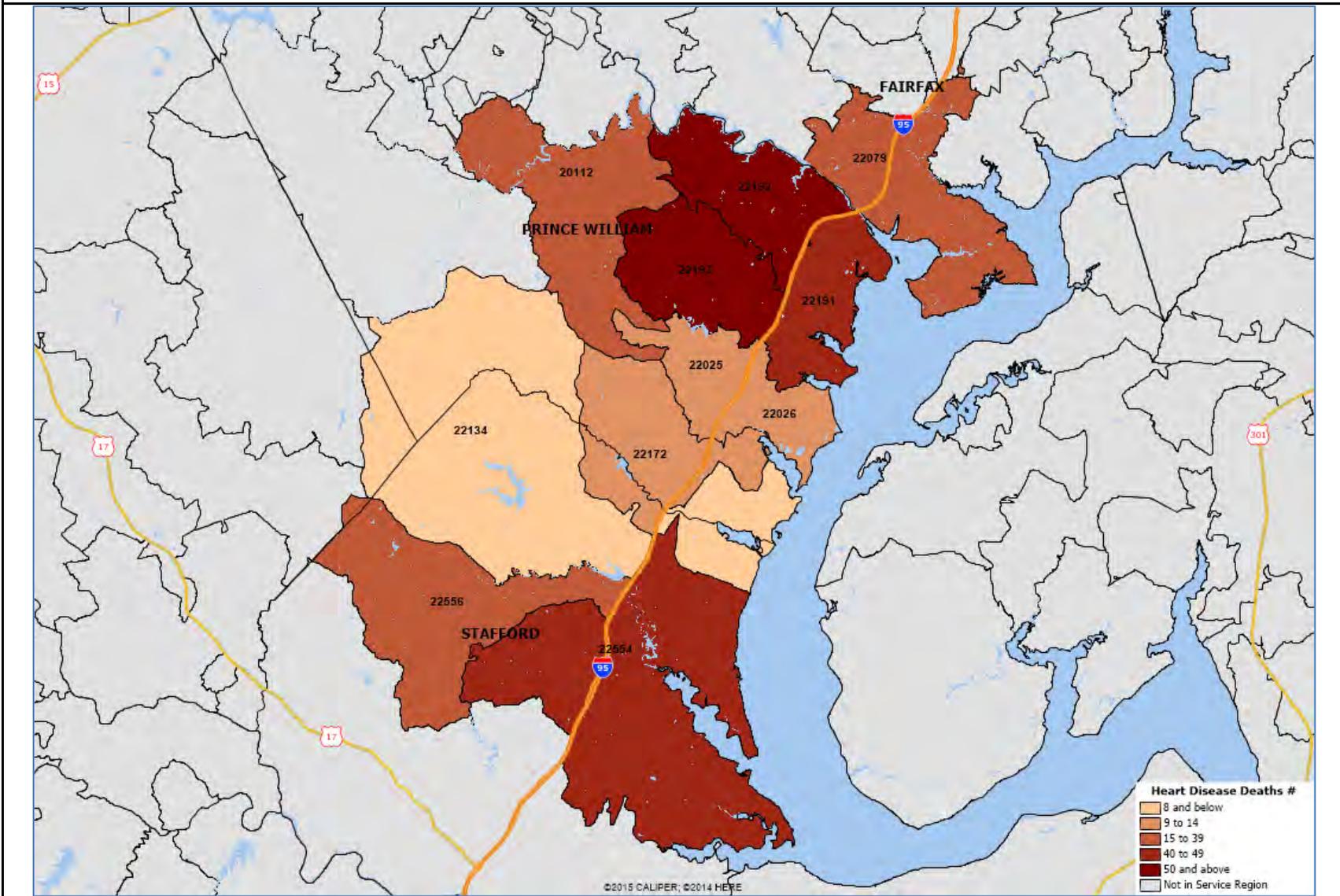
Heart Disease Deaths #
- 8 and below
- 9 to 14
- 15 to 39
- 40 to 49
- 50 and above
- Not in Service Region

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Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B. Notes: There were no reported heart disease deaths for zip code 22134.
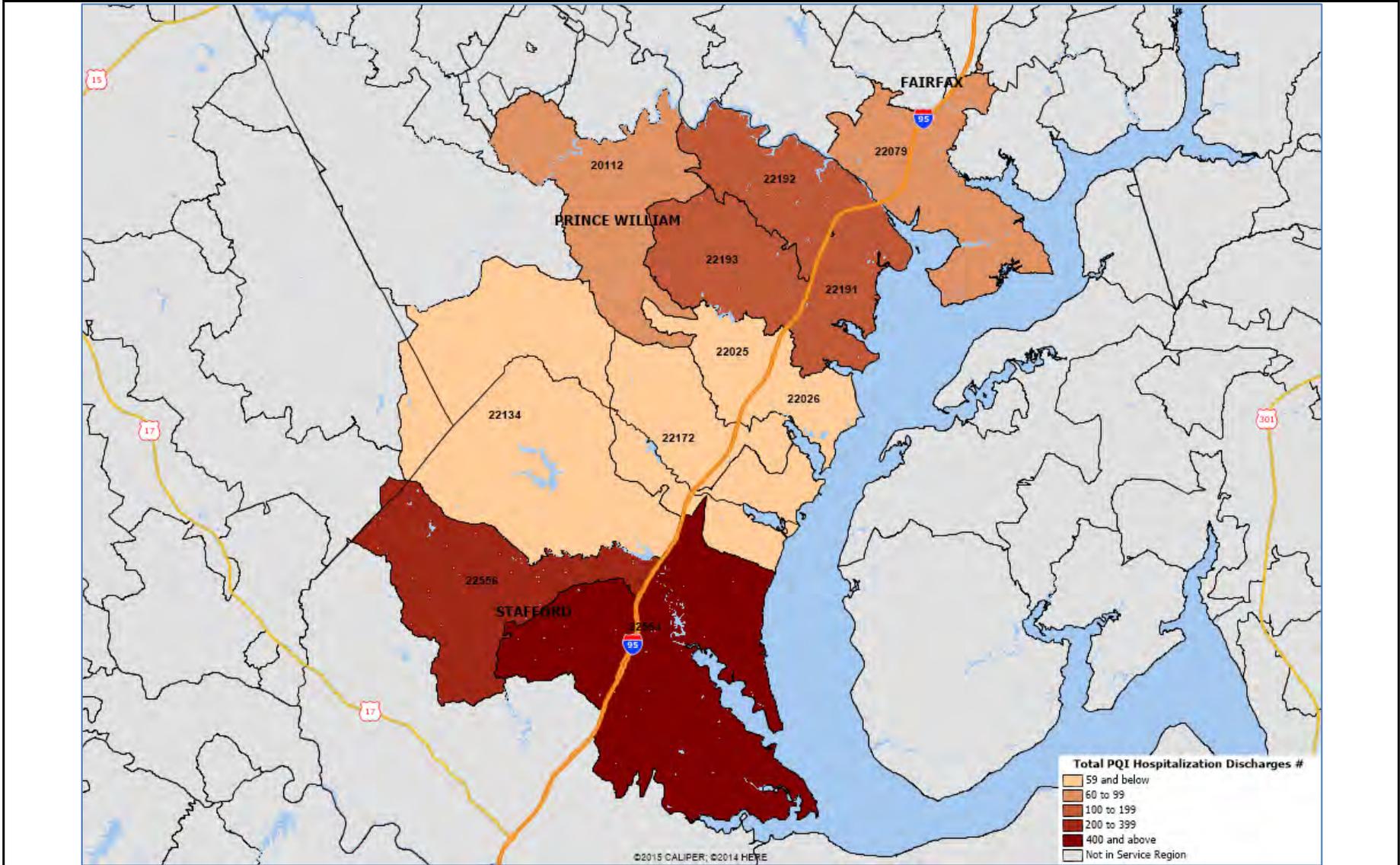
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.

Map 4: Malignant Neoplasms (Cancer) Deaths, 2013

Malignant Neoplasms Deaths #
- 19 and below
- 20 to 29
- 30 to 49
- 50 to 69
- 70 and above
- Not in Service Region

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Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B. Notes: There were no reported cancer deaths for zip code 22134.
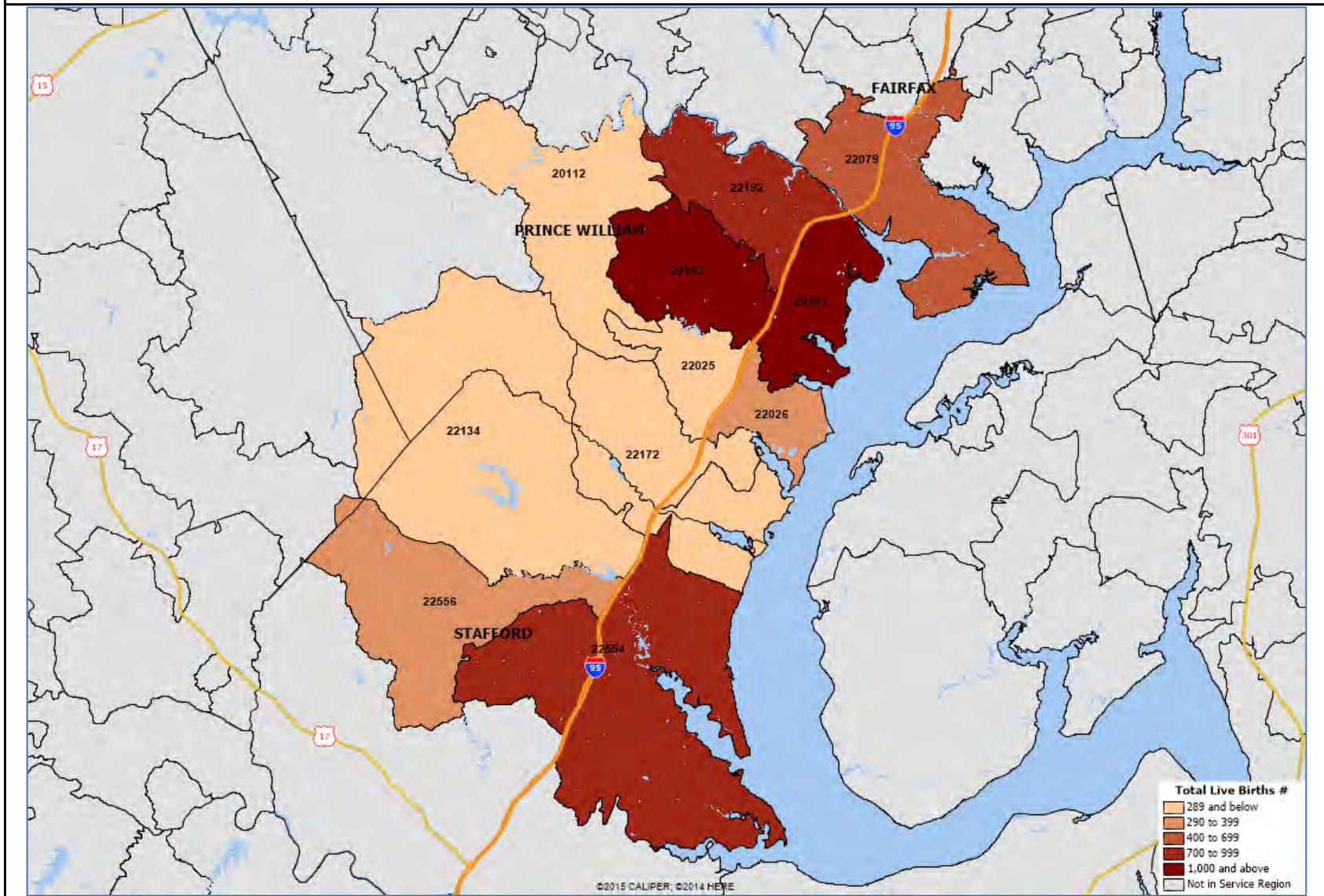
Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B.

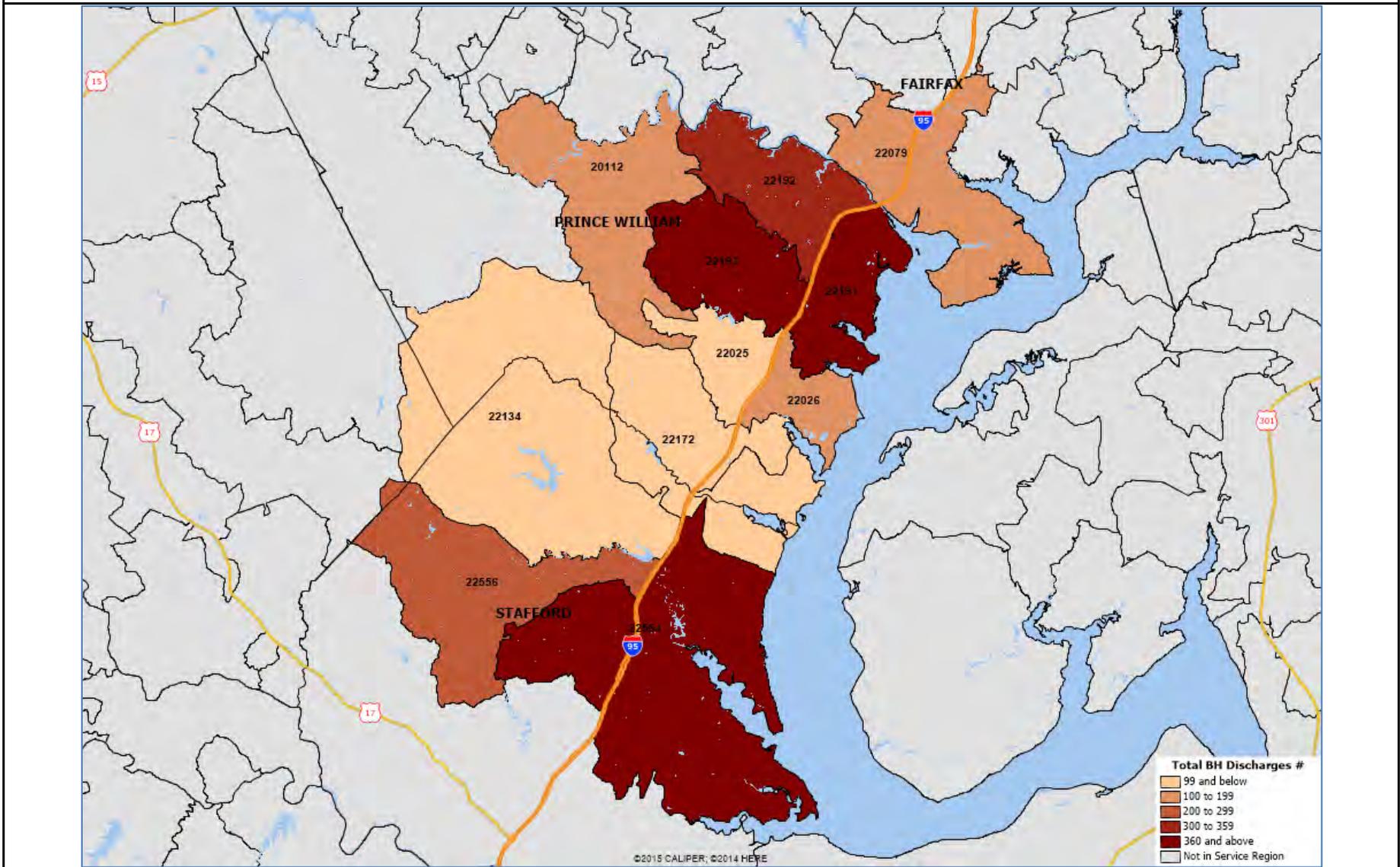Map 6: Total Teenage Live Births (age <18), 2013
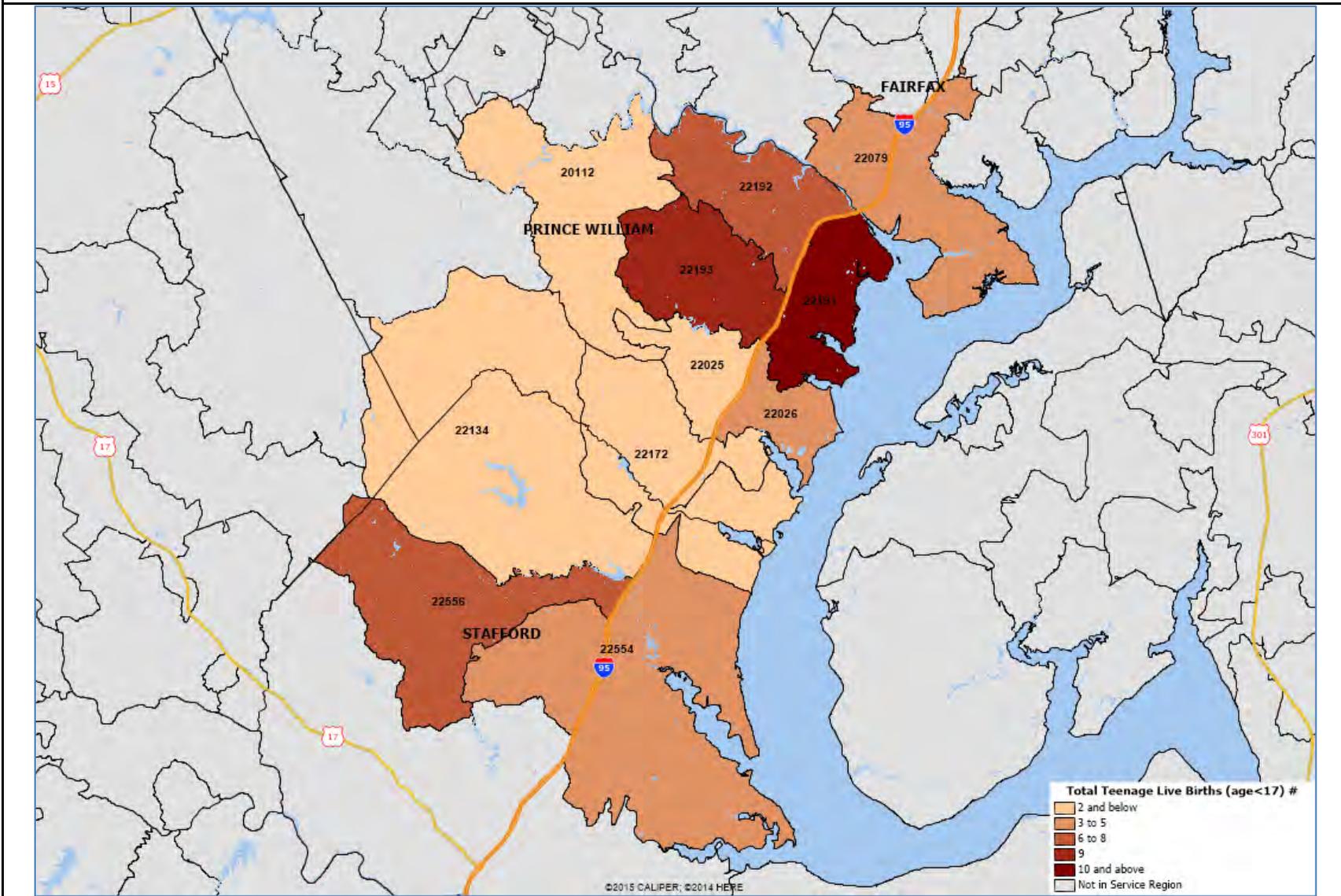
Total Teenage Live Births (age<17) #
2 and below
3 to 5
6 to 8
9
10 and above
Not in Service Region

Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B. Notes: There were no reported teenage live births for zip codes 22025, 22134 and 22172.
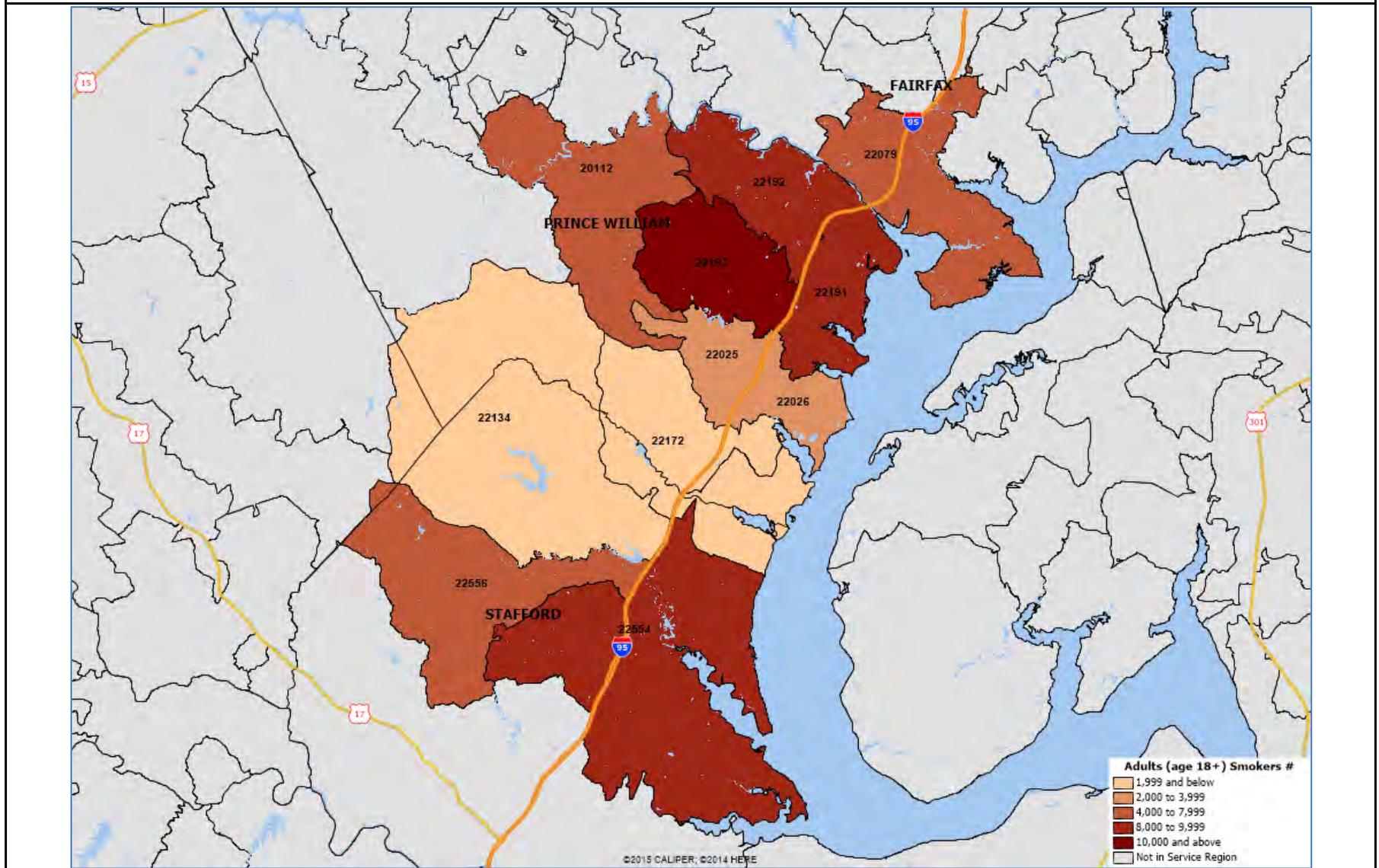
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.

Total BH Discharges #
- 99 and below
- 100 to 199
- 200 to 299
- 300 to 359
- 360 and above
- Not in Service Region

Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.

Map 9: Estimated Adults Age 18+ Smokers, 2014-Estimates

Adults (age 18+) Smokers #
- 1,999 and below
- 2,000 to 3,999
- 4,000 to 7,999
- 8,000 to 9,999
- 10,000 and above
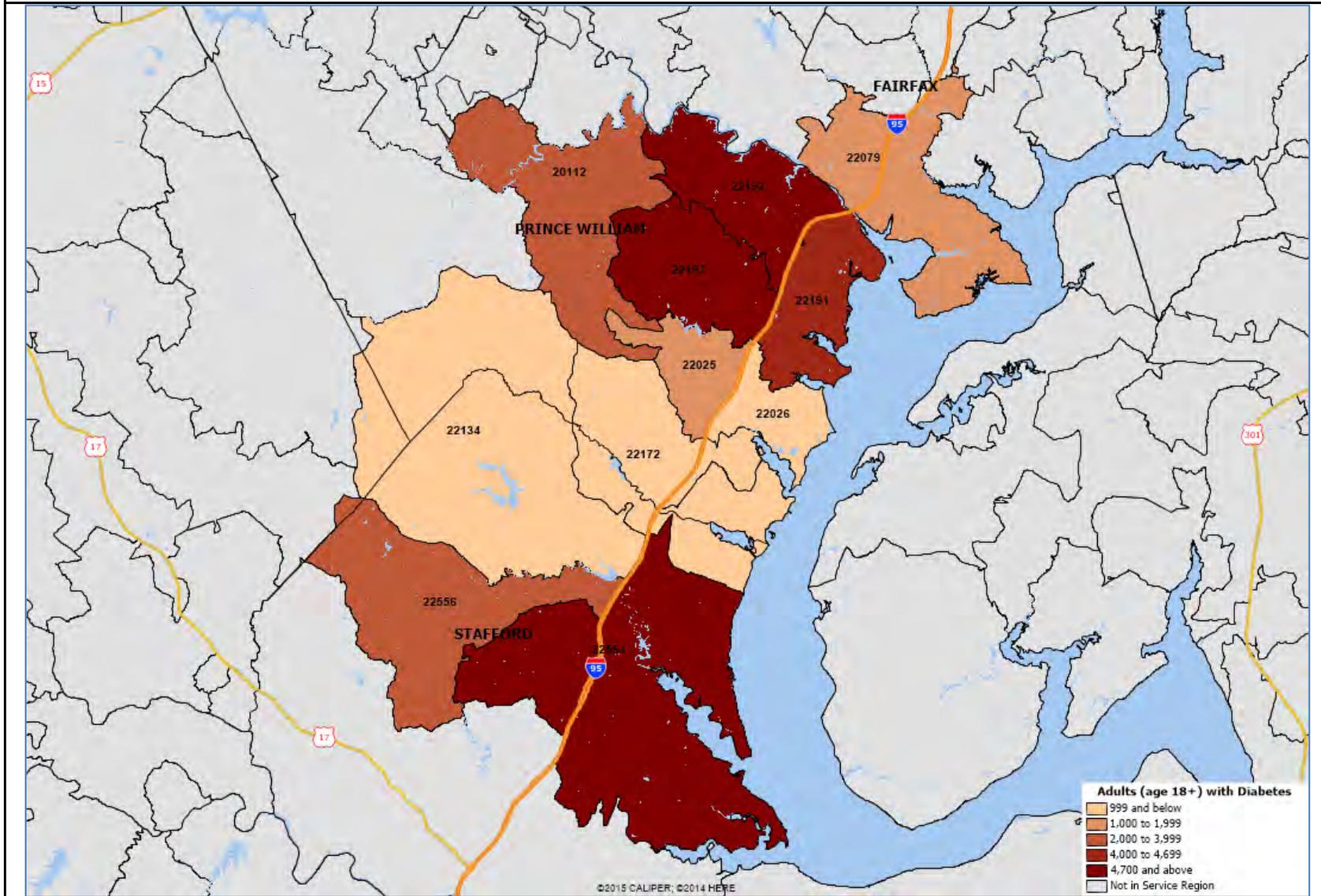- Not in Service Region

Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in Appendix B.

Map 10: Estimated Adults Age 18+ with No Dental Visit in the Last Year, 2014-Estimates
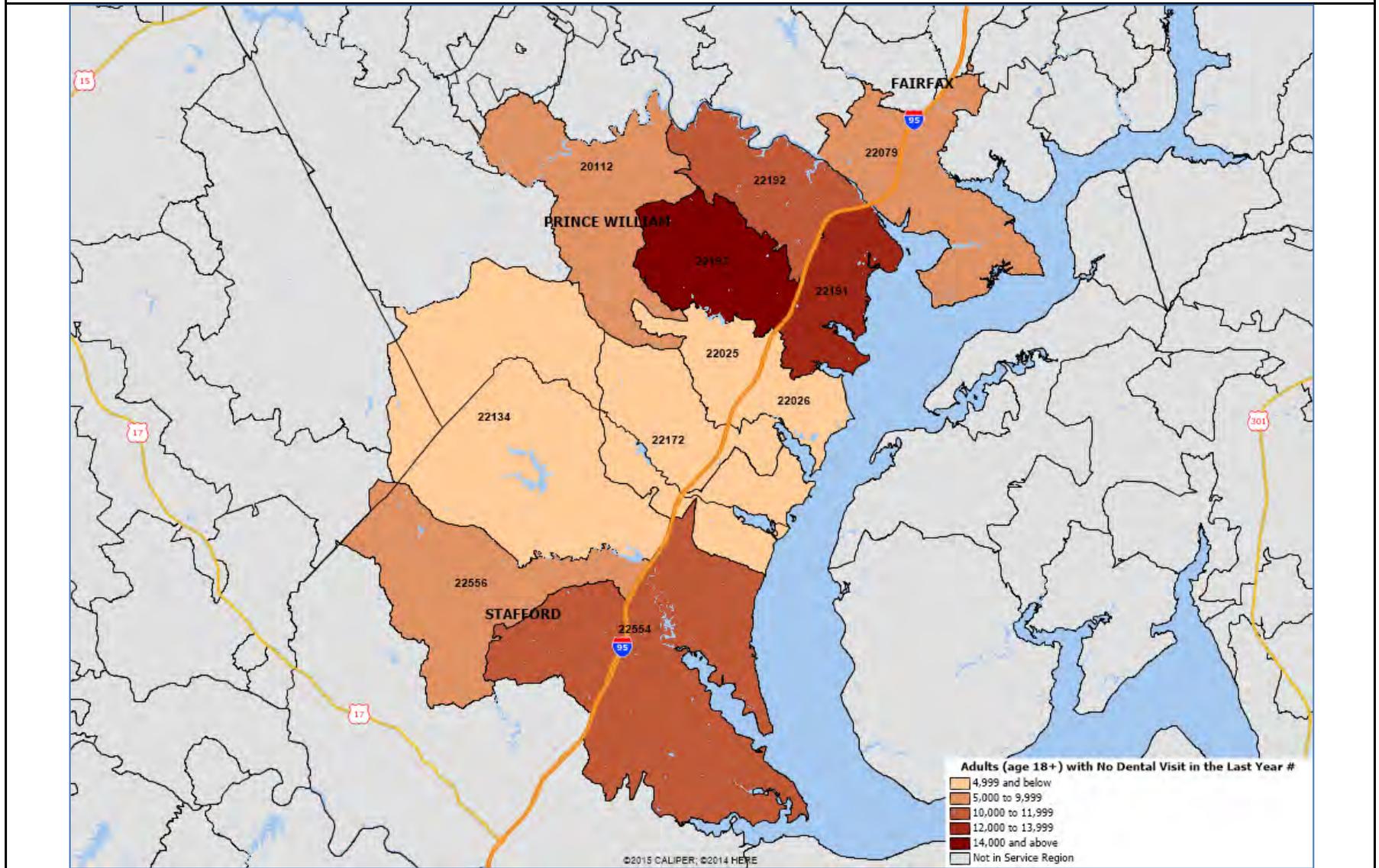
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in Appendix B.

Map 11: Estimated Adults Age 18+ with Diabetes, 2014 -Estimates

Adults (age 18+) with Diabetes
- 999 and below
- 1,000 to 1,999
- 2,000 to 3,999
- 4,000 to 4,699
- 4,700 and above
- Not in Service Region
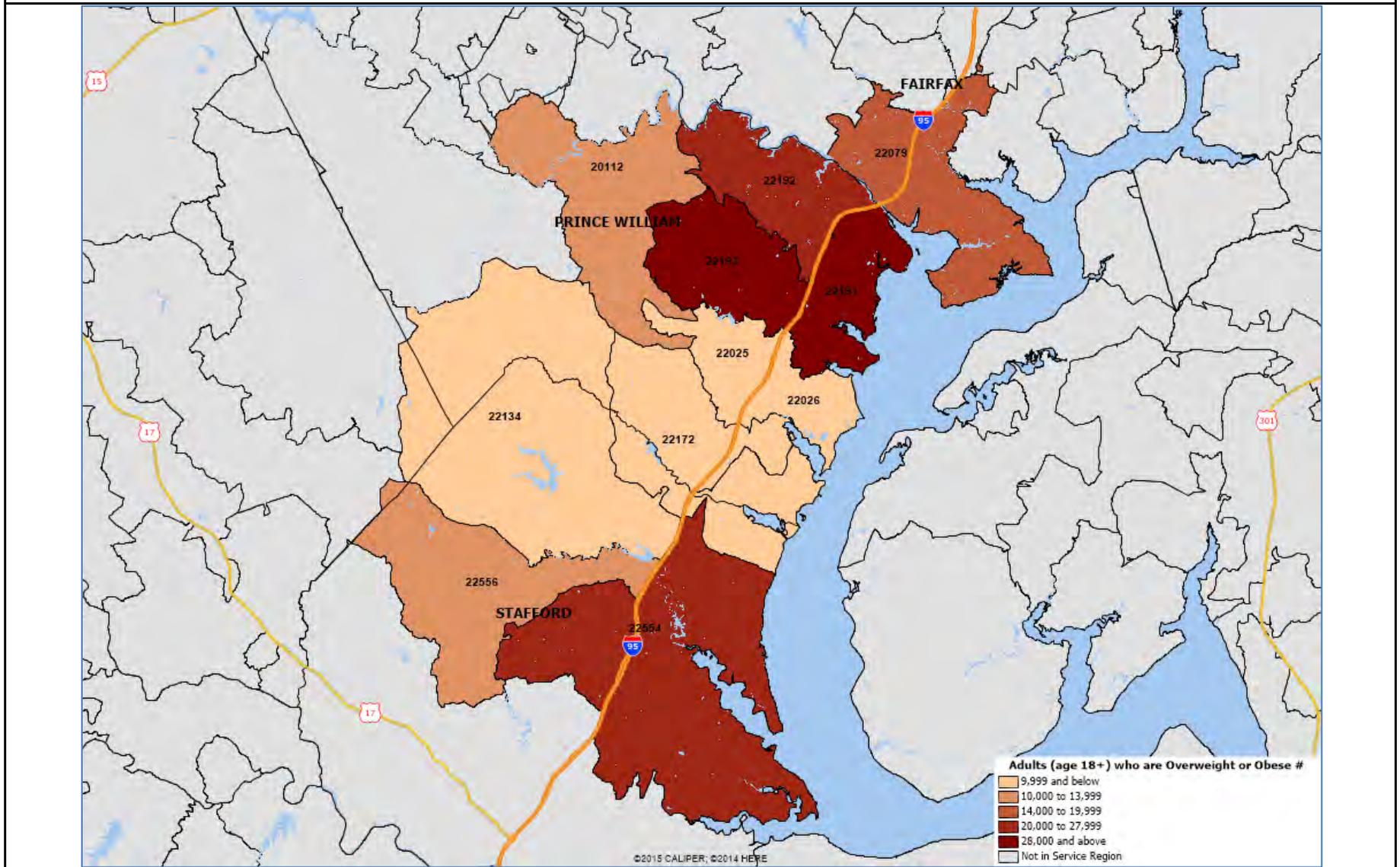
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Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in Appendix B.

FAIRFAX

22079

20112

22192

PRINCE WILLIAM

22193

22191

22025

22026

22134

22172

301

22556

STAFFORD

22554

95

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Adults (age 18+) who are Overweight or Obese #
- 9,999 and below
- 10,000 to 13,999
- 14,000 to 19,999
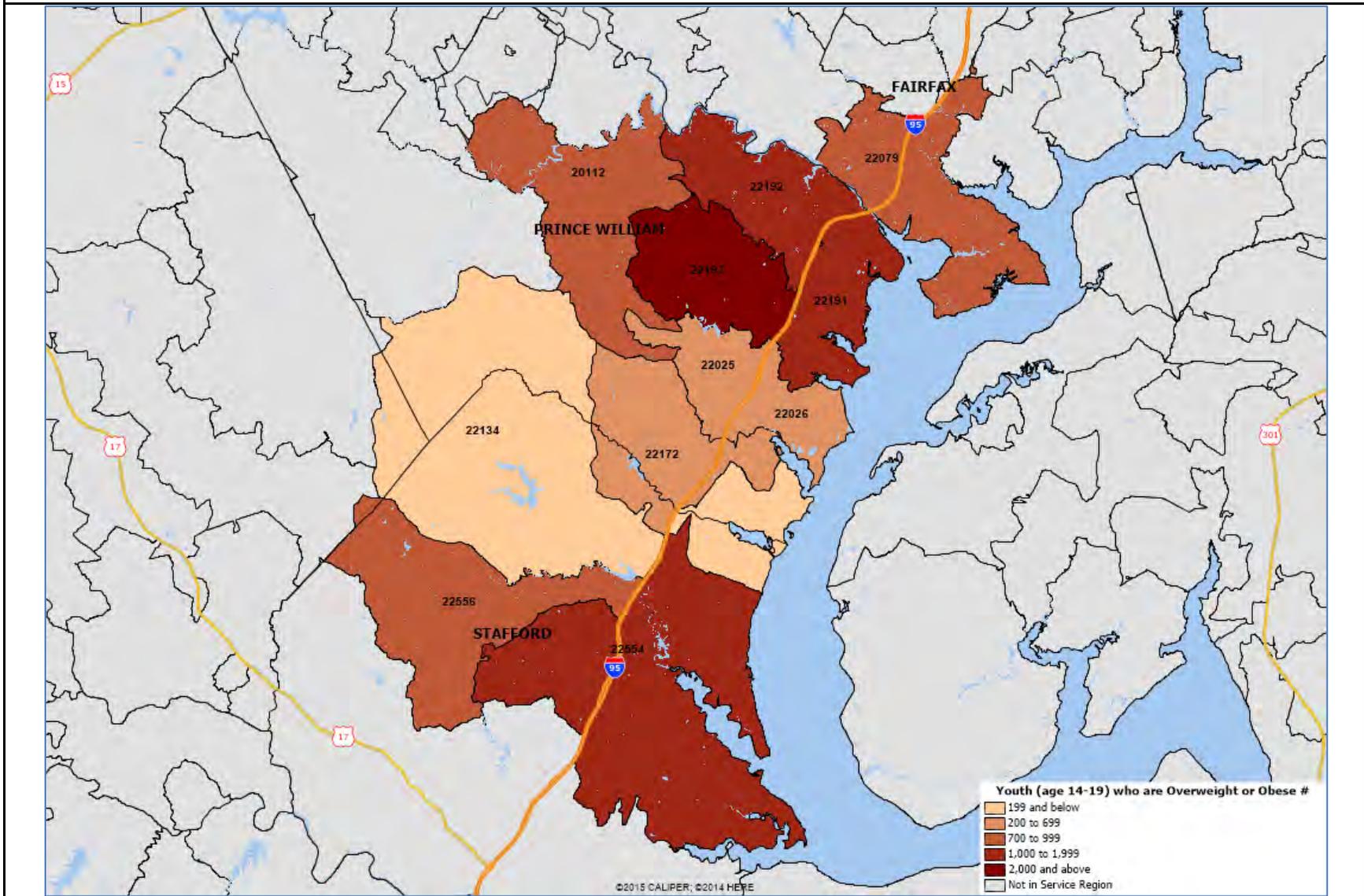- 20,000 to 27,999
- 28,000 and above
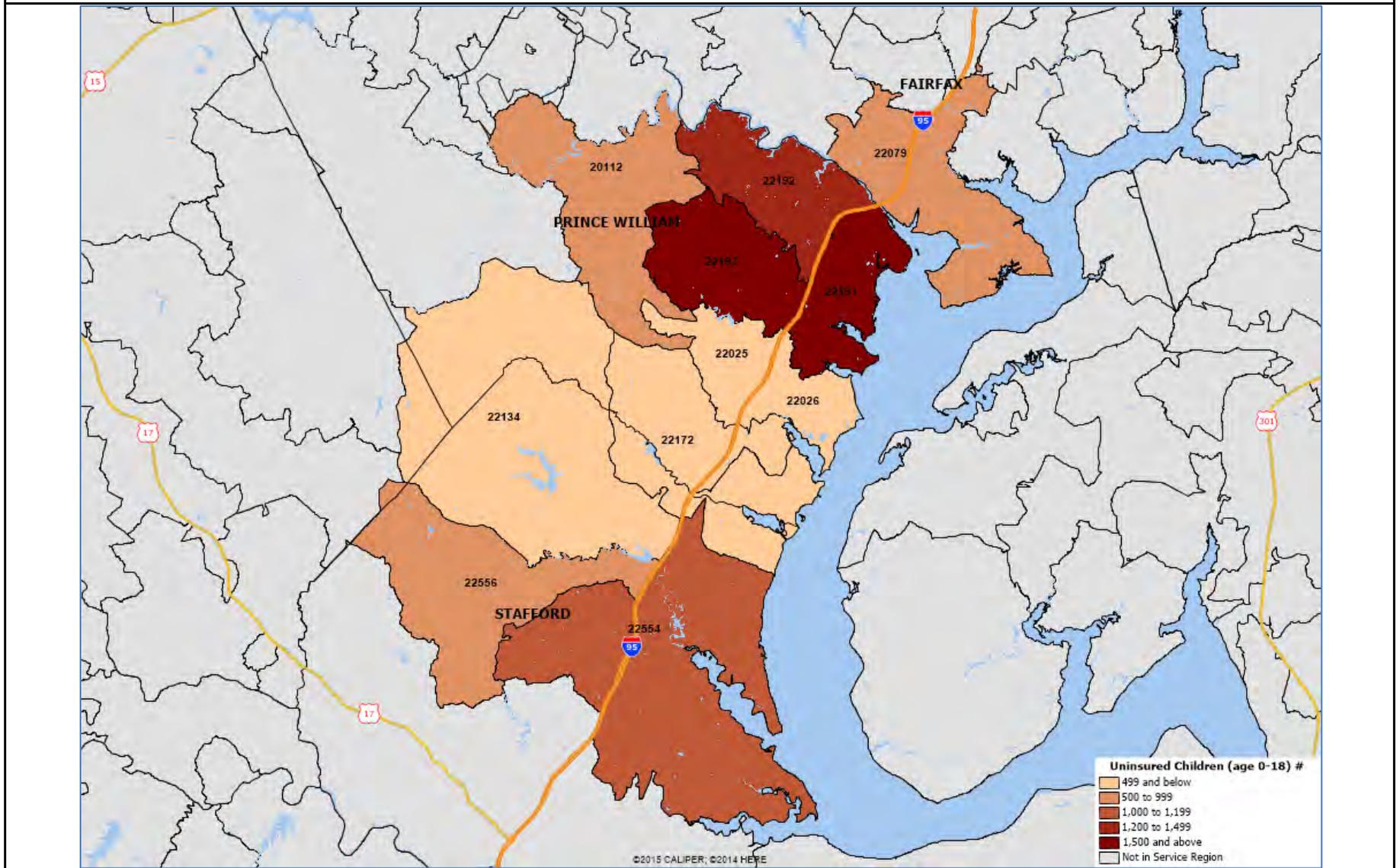- Not in Service Region

Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See Appendix B.

Map 13: Estimated High School-aged Youth (age 14-19) who are Overweight or Obese, 2014-Estimates

Youth (age 14-19) who are Overweight or Obese #
- 199 and below
- 200 to 699
- 700 to 999
- 1,000 to 1,999
- 2,000 and above
- Not in Service Region

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Source: Estimates produced by Community Health Solutions using Virginia Youth Risk Behavioral Surveillance System data and local demographic estimates from Alteryx, Inc. See Appendix B. Data Sources for details.

Map 14: Estimated Uninsured Children, Age 0-18, 2014-Estimates

Uninsured Children (age 0-18) #
- 499 and below
- 500 to 999
- 1,000 to 1,199
- 1,200 to 1,499
- 1,500 and above
- Not in Service Region

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Source: Estimates of uninsured are based on Community Health Solutions analysis of U.S. Census Bureau Small Area Health Insurance Estimates (2013) and demographic data from Alteryx, Inc. See Appendix B. Data Sources for details.

Map 15: Estimated Uninsured Adults, Age 19-64, 2014 -Estimates

Uninsured Adults (age 19-64) #
- 2,999 and below
- 3,000 to 3,999
- 4,000 to 6,999
- 7,000 to 8,999
- 9,000 and above
- Not in Service Region

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Source: Estimates of uninsured are based on Community Health Solutions analysis of U.S. Census Bureau Small Area. Health Insurance Estimates (2013) and demographic data from Alteryx, Inc. See Appendix B. Data Sources for details.

APPENDIX B: Health Status Indicators Data Sources

Profile	Source
Important Note on Data Sources	The data used to produce the health status indicators in this report were obtained from public or commercial sources as indicated throughout this appendix. Community Health Solutions cannot, and does not guarantee the accuracy of these data sources.
1) Mortality Profile (also Appendix A. Maps 1-4)	Community Health Solutions analysis of Virginia Department of Health death record data (2011-2013). Locality-Level counts and rates were obtained from the Virginia Department of Health. The combined study region counts and rates were produced by Community Health Solutions.
2) Maternal and Infant Health Profile (also Appendix A. Maps 5-6)	Community Health Solutions analysis of Virginia Department of Health death record data (2011-2013). Locality-Level counts and rates were obtained from the Virginia Department of Health. The combined study region counts and rates were produced by Community Health Solutions.
3) Preventable Hospitalization Profile (also Appendix A. Map 7) 4) Behavioral Health Hospitalization Profile (also Appendix A. Map 8)	Community Health Solutions analysis of hospital discharge data from the Virginia Health Information (VHI) 2011-013 datasets and demographic estimates from Alteryx, Inc. (2011-2013). Data include discharges for Virginia residents from Virginia hospitals reporting to Virginia Health Information, Inc.) The analysis includes records of discharges of Virginia residents from Virginia hospitals excluding state and federal facilities. **Preventable Hospitalizations**. The prevention quality indicator (PQI) definitions are based on definitions published by the Agency for Healthcare Research and Quality (AHRQ). The definitions are detailed in their specification of ICD-9 diagnosis codes and procedure codes. Not every hospital admission for congestive heart failure, bacterial pneumonia, etc. is included in the PQI definition; only those meeting the detailed specifications. Low birth weight is one of the PQI indicators, but for the purpose of this report, low birth weight is included in the Maternal and Infant Health Profile. Also, there are four diabetes-related PQI indicators which have been combined into one for the report. Within the Exhibits, the *All PQI Discharges* figures are based on an AHRQ methodology that counts a hospital discharge with multiple PQI diagnoses as one discharge. By comparison, the figures for individual discharges do include a small number of cases in which a single hospital discharge with more than one PQI diagnosis would be counted more than once. Also, AHRQ refined their method to exclude the perforated appendix PQI from its list, but this diagnosis is included in the data used for this study. As a result of these methodological factors, the sum of the individual PQI discharges may be slightly different than the total for All PQI Discharges. These differences or on the order of less than one percent. For more information on the AHRQ methodology, visit the AHRQ website at http://www.qualityindicators.ahrq.gov/modules/pqi_resources.aspx. **Behavioral Health Hospitalizations-** Behavioral health data reported are based on the patient's primary diagnosis. The analysis includes records of discharges of Virginia residents from Virginia hospitals excluding state and federal facilities. *NOTE: Virginia Health Information (VHI) requires the following statement to be included in all reports utilizing its data: VHI has provided non-confidential patient level information used in this report which was compiled in accordance with Virginia law. VHI has no authority to independently verify this data. By accepting this report the requester agrees to assume all risks that may be associated with or arise from the use of inaccurately submitted data. VHI edits data received and is responsible for the accuracy of assembling this information, but does not represent that the subsequent use of this data was appropriate or endorse or support any conclusions or inferences that may be drawn from the use of this data.*

Profile	Source
5) Adult Health Risk Factor Profile (also Appendix A. Maps 9-12)	Estimates of chronic disease and risk behaviors for adults 18+ were produced by Community Health Solutions using: • A multi-year dataset (2006-2010) from the Virginia Behavioral Risk Factor Surveillance System (BRFSS). For more information on BRFSS visit: http://www.cdc.gov/brfss/about/index.htm • Local demographic estimates from Alteryx, Inc. (2014) Estimates are used when there are no primary sources of data available at the local level. The estimates are for planning purposes only and are not guaranteed for accuracy. The statistical model to produce the local estimates was developed by Community Health Solutions. In this model, state-level data were used to predict local counts and rates, with adjustments for local demographics. Consequently, differences between local rates and state rates may reflect estimation error rather than valid differences. Therefore, state-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. Likewise, it is not possible to calculate the statistical significance of differences between local rates and state rates.
6) Youth Health Risk Factor Profile (also Appendix A. Map 13)	Estimates of risk behaviors for youth age 14-19 and 10-14 were produced by Community Health Solutions using: • Data from the Virginia Youth Risk Behavioral Surveillance System from the Centers for Disease Control (2013). For more information on YRBSS visit: http://www.cdc.gov/HealthyYouth/yrbs/index.htm • Local demographic estimates from Alteryx, Inc. (2014). Estimates are used when there are no primary sources of data available at the local level. The estimates are for planning purposes only and are not guaranteed for accuracy. The statistical model to produce the local estimates was developed by Community Health Solutions. In this model, state-level data were used to predict local counts and rates, with adjustments for local demographics. Consequently, differences between local rates and state rates may reflect estimation error rather than valid differences. Therefore, state-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. Likewise, it is not possible to calculate the statistical significance of differences between local rates and state rates.
7) Uninsured Profile (also Appendix A. Maps 14-15)	Estimates of uninsured nonelderly age 0-64 were produced by Community Health Solutions using: • U.S. Census Bureau Small Area Health Insurance Estimates (2013). For more information, visit: http://www.census.gov/did/www/sahie/data/index.html. • Local demographic estimates from Alteryx, Inc. (2014) Estimates are used when there are no primary sources of data available at the local level. The estimates are for planning purposes only and are not guaranteed for accuracy. The statistical model to produce the local estimates was developed by Community Health Solutions. In this model, prior year locality-level rates were used to predict current year counts and rates, with adjustments for local demographics. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. Likewise, it is not possible to calculate the statistical significance of differences between local rates and state rates. Additionally, populations in group living quarters (e.g. colleges) and undocumented populations may not be adequately addressed in this model.

Community Insight

The Community Healthcare Coalition of Greater Prince William conducted a survey of key community stakeholders. The results, based on 52 respondents, are included below.

Leader Survey Data

Organization (*Self-Reported*)
ACTS
ACTS
ACTS
City of Manassas
City of Manassas Park
City of Manassas Park Fire & Rescue Department
Concordia Lutheran Church
CSB
CSB, PWB
Department of Social Services
Falcon Promotions and Print Solutions
George Mason University
George Mason University - MAP
Kaiser Permanente
Lloyd F. Moss free Clinic
Manassas City Dept. of Social Services
Manassas Park Department of Social Services
Manassas Park Schools
Northern Virginia Family Service
Novant Auxiliary volunteer
Novant Health
Novant Health Auxiliary

| |
|---|
| Novant Health Haymarket and Prince William Medical Centers |
| Novant Health Prince William OB/GYN and Novant Health Prince William Medical Center |
| Novant Health Systems |
| Novant Health UVA Health Prince William Medical Center |
| Novant Health UVA Health System |
| Novant Prince William Health System |
| Pet Therapy |
| PHF |
| Potomac Health Foundation |
| Potomac Health Foundation |
| Prince William Area Agency on Aging |
| Prince William County Department of Social Services |
| Prince William County Public Schools |
| Prince William County Public Schools Head Start VPI |
| Prince William Health District |
| Prince William Hospital |
| Prince William Soccer, Inc. |
| PWC CSB |
| PWC Dept. of Fire & Rescue |
| QMT Windchimes |
| Retired |
| Sentara Healthcare |
| Sentara Healthcare |
| Sentara Northern Virginia Med Center |
| Sentara NVMC |
| SNVMC |
| STAFFORD DEPARTMENT OF SOCIAL SERVICES |
| The Arc of Greater Prince William/INSIGHT, Inc. |
| the bone bbq |
| Volunteer @ Novant Health Haymarket Medical Center |

Important Community Health Problems – Leader Survey		
Public Health Topic	**Frequency**	**Percentage**
Cost of healthcare	35	67%
Lack of Exercise	35	67%
Obesity	35	67%
Mental Health Conditions	32	62%
Substance Abuse – Prescription Drugs	28	54%
Substance Abuse – Illegal Drugs	27	52%
Aging issues	24	46%
Diabetes	24	46%
Availability of health care	22	42%
Domestic Violence	22	42%
Distracted Driving	21	40%
High Blood Pressure	21	40%
Access to healthy	20	38%
Dental care/oral health	20	38%

Heart Disease	20	38%
Suicide	20	38%
Cancer	18	35%
Infant Death	17	33%
Chronic pain	15	29%
Disability issues – Intellectual/Developmental	15	29%
Alcohol use/abuse	14	27%
Gang Involvement	14	27%
Child abuse/neglect	13	25%
Autism	11	21%
Stroke	11	21%
Alzheimer's Disease	10	19%
Asthma	9	17%
Elder Abuse/ Neglect	9	17%
Lyme Disease	9	17%
Prenatal and pregnancy care	9	17%

Teen Pregnancy	9	17%
Tobacco Use	9	17%
Bullying	8	15%
Disability Issues – Physical	8	15%
Not Getting Shots to Prevent Disease	8	15%
School graduation rates	8	15%
Family Planning	6	12%
Influenza	6	12%
Racism	6	12%
Sexually transmitted disease	6	12%
Injuries	5	10%
Motor Vehicle Accidents	4	8%
Orthopedic Problems	4	8%
Renal (kidney disease	4	8%
Air pollution	3	6%
HIV/AIDS	3	6%

Restaurant food safety	3	6%
Environmental Quality	2	4%
Respiratory lung disease	2	4%
Swimming pool safety	2	4%
Infectious Diseases	1	2%
Neurological Disorders	1	2%
West Nile Virus	1	2%

Important Community Health Problems - Leader Survey
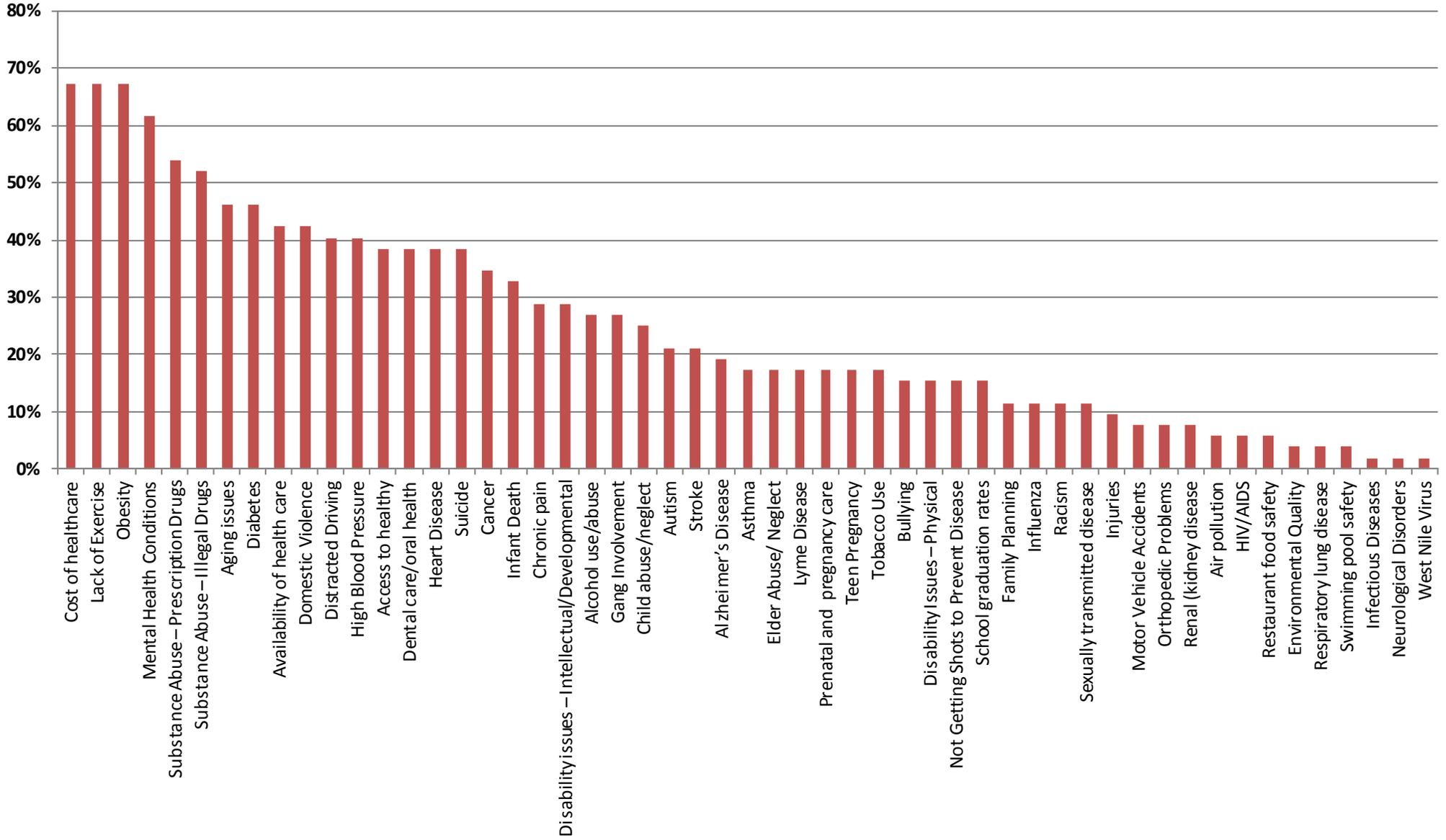
Community Health Services in Need of Strengthening – Leader Survey

	Frequency	Percentage
Behavioral Health Services (including mental health, substance abuse and intellectual disability)	40	77%
Health care coverage	29	56%
Homeless Services	24	46%
Patient self-management services	23	44%
Early intervention service for children	22	42%
Health promotion and prevention services	22	42%
Dental care/oral health services	20	38%
Domestic violence services	20	38%
Chronic Disease services	18	35%
Aging Services	17	33%
Transportation	15	29%
Cancer services	14	27%
Chronic pain management services	14	27%
Food Safety Net	14	27%

Social services	14	27%
Long term care services	13	25%
Home health services	12	23%
Hospice services	12	23%
Job/ vocational retraining	12	23%
Primary health care services	12	23%
Public health services	10	19%
Maternal, infant & child health services	9	17%
Specialty medical care	9	17%
Family planning services	8	15%
School health services	6	12%
Hospital services	5	10%
Pharmacy services	5	10%
Workplace health and safety services	5	10%
Physical rehabilitation	3	6%
Environmental health services	2	4%

V. APPENDIX

An evaluation of the progress toward the implementation strategies is included in the following pages.

Sentara Community Health Needs Assessment Implementation Strategy

2016 Year-End Progress Report

Hospital: Lake Ridge Surgery Center

Quarter (please indicate): ☐ First Quarter   ☐ Second Quarter   ☐ Third Quarter   X Year End

In support of Sentara's 2014 goal to "demonstrate community benefit in the communities we serve", Sentara will measure the progress toward the community health needs assessment implementation strategies selected by each hospital on a quarterly basis.

To complete this quarterly progress report, the health problems and implementation strategies can be pasted into this document from the hospital's existing Three Year Implementation Strategy document. The quarterly progress should be identified in the third column below.

The quarterly report should include only _key_ actions taken during the quarter; the report does not need to include all activities. Where possible the actions should be quantified, with outcomes measurements if available.

Health Problem	Implementation Strategy	Progress
Problem #1: Obesity	• Collaborate and engage local community stakeholders in efforts to **improve healthy lifestyle behaviors** with specific focus on **nutrition** and **physical activity,** directing patients to**:** 　○ Virginia Cooperative Extension 　○ Local Farmer's Markets 　○ Food Markets in local area: 　　▪ Wegman's, TODOS, Whole Foods	• We provided our patients and families with printed information concerning community health and wellness programs offered in the local area • We refer patients with high BP, diabetes and a history of sleep apnea back to their Primary Care Physicians for further evaluation.
Problem #2: Diabetes	• Collaborate with the: 　○ Area Free Clinic	• We have collaborated with the area Free Clinic for the past three years • Better align patient and goals

| Problem #3:

Uninsured and Underinsured | • Continue to work with the Free Clinic and the physician offices to provide Financial Assistance to the community | • We have worked with the families and patients in the local area offering both free health care and/or greatly discounted health care.
• We have worked with the PWFC to assist with access to healthcare providers in the local area.
• We have assisted the PWFC with recruitment of physicians who weren't seeing these patients gain access to the offices for appointment and later surgery. |