Sentara Williamsburg Regional Medical Center
Community Health Needs Assessment
2016

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Sentara Williamsburg Regional Medical Center 2016 Community Health Needs Assessment

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I. INTRODUCTION

Sentara Williamsburg Regional Medical Center has conducted a community health needs assessment of the area that we serve. 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.

Our 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 report also includes findings from focus groups with community members on health issues and barriers to achieving good health.

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:

- Mental Health
- Heart Disease
- Substance Abuse
- Cancer

Our previous Community Health Needs Assessment also identified a number of health issues. An implementation strategy was developed to address these problems. The hospital 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.

Sentara Williamsburg Regional Medical Center works with a number of 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 Williamsburg Regional Medical Center (SWRMC)
2016 Community Health Needs Assessment

Community Description

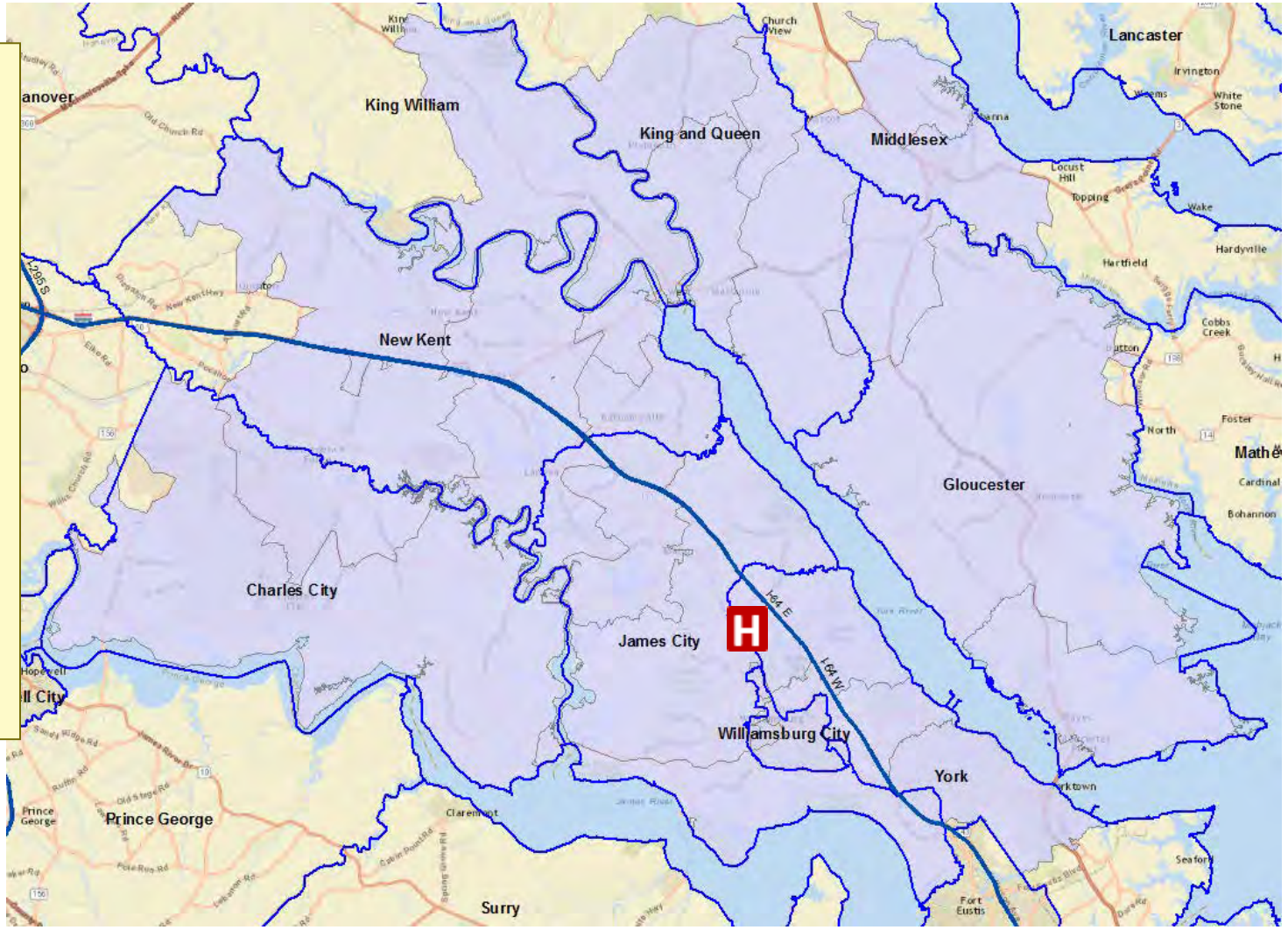
Community Description

Sentara Williamsburg Regional Medical Center Service Area

Sentara Williamsburg Regional Medical Center (SWRMC) serves residents of York, Williamsburg City, James City, Charles City, New Kent, King William, King and Queen, Middlesex, Gloucester, and adjoining areas. About 87% of the hospital's inpatients reside in the service area shaded on the map.

Key:

H SWRMC



Area-wide Key Demographic Characteristics

DEMOGRAPHIC CHARACTERISTICS	Selected Area	Virginia	USA
2010 Total Population	163,542	8,001,038	308,745,538
2016 Total Population	173,958	8,428,339	322,431,073
2021 Total Population	182,746	8,801,874	334,341,965
% Change 2016 - 2021	5.1%	4.4%	3.7%
Median Household Income	$68,736	$65,624	$55,720

POPULATION DISTRIBUTION	Age Distribution					
Age Group	2016	% of Total	2021	% of Total	Virginia 2016 % of Total	USA 2016 % of Total
0-14	27,420	15.8%	27,184	14.9%	18.5%	19.0%
15-17	6,478	3.7%	6,679	3.7%	3.8%	4.0%
18-24	18,694	10.7%	19,869	10.9%	10.0%	9.8%
25-34	18,912	10.9%	20,564	11.3%	13.6%	13.3%
35-54	42,312	24.3%	40,361	22.1%	26.8%	26.0%
55-64	24,768	14.2%	26,600	14.6%	12.9%	12.8%
65+	35,374	20.3%	41,489	22.7%	14.4%	15.1%
Total	**173,958**	**100.0%**	**182,746**	**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	4,001	3.3%	4.8%	5.8%
Some High School	6,611	5.4%	7.0%	7.8%
High School Degree	33,359	27.5%	25.0%	27.9%
Some College/Assoc. Degree	33,595	27.7%	27.3%	29.2%
Bachelor's Degree or Greater	43,800	36.1%	35.8%	29.4%
Total	**121,366**	**100.0%**	**100.0%**	**100.0%**

- **The area's 2016 total population is 173,958 with projected growth of 5.1% over the next five years.**
  - This expected rate of growth is greater than the Virginia and U.S. rates.
- **The median household income ($68,736)** is 5% higher than the state and 23% higher than the U.S. median income.
- **Population by age group:**
  - 21.6% of this population is age 18-34, which is a lower percent compared to Virginia (23.6%) and the U.S. (23.1%).
  - The 65+ age cohort (20.3%) is a much higher percent compared to Virginia (14.4%) and the U.S. (15.1%).
- **8.7% of the population age 25+ has only some high school education or less.**
  - This is less than Virginia (11.8%) and the U.S. (13.6%).

Area-wide Key Demographic Characteristics, Cont.

DEMOGRAPHIC CHARACTERISTICS					
	2016	2021	% Change	Virginia % Change	USA % Change
Total Male Population	84,711	88,988	5.0%	4.5%	3.8%
Total Female Population	89,247	93,758	5.1%	4.4%	3.6%
Females, Child Bearing Age (15-44)	31,215	32,636	4.6%	1.3%	1.5%

HOUSEHOLD INCOME DISTRIBUTION				
	Income Distribution			
2016 Household Income	HH Count	% of Total	Virginia % of Total	USA % of Total
<$15K	5,199	7.7%	9.6%	12.3%
$15-25K	4,738	7.0%	8.3%	10.4%
$25-50K	14,024	20.8%	20.8%	23.4%
$50-75K	13,153	19.5%	17.6%	17.6%
$75-100K	9,372	13.9%	12.6%	12.0%
Over $100K	21,052	31.2%	31.1%	24.3%
Total	**67,538**	**100.0%**	**100.0%**	**100.0%**

RACE/ETHNICITY				
	Race/Ethnicity Distribution			
Race/Ethnicity	2016 Pop	% of Total	Virginia % of Total	USA % of Total
White Non-Hispanic	128,715	74.0%	62.5%	61.3%
Black Non-Hispanic	26,447	15.2%	18.9%	12.3%
Hispanic	9,044	5.2%	9.2%	17.8%
Asian & Pacific Is. Non-Hispanic	3,895	2.2%	6.3%	5.4%
All Others	5,857	3.4%	3.1%	3.1%
Total	**173,958**	**100.0%**	**100.0%**	**100.0%**

- **The projected growth of Females, Child Bearing Age (15-44) is 4.6%, which is more than three times the state (1.3%) and the U.S. (1.5%).**
- **14.7% of the population has a household income below $25,000.**
  - This is lower than both Virginia (17.9%) and the U.S. (22.7%).
  - 200% of the current Federal Poverty Level for a family of four is $48,600.
- **15.2% of the population is Black Non-Hispanic, less than Virginia (18.9%) but higher than the U.S. (12.3%) rates.**
- **5.2% of the population is Hispanic, which is lower than both Virginia (9.2%) and the U.S. (17.8%).**

Key Demographic Data by ZIP Code

City, ZIP Code, & ZIP Name			Population and Age							
			2016 Population	Projected 2016-2021 % Change in Total Pop.	2016 % of Total Pop. that is age 65+	Projected 2016-2021 % Change in Pop. age 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
New Kent	23011	Bahramsville	1,034	5.3%	12.6%	29.2%	16.5%	6.4%	36.9%	-3.1%
Charles City	23030	Charles City	5,073	-0.2%	21.5%	14.1%	15.4%	-11.8%	29.8%	0.1%
Gloucester	23061	Gloucester	21,675	2.9%	18.0%	18.8%	20.0%	-3.3%	33.3%	1.5%
Gloucester	23062	Gloucester Point	2,246	-0.7%	21.5%	12.0%	18.2%	-1.7%	32.4%	-1.3%
Gloucester	23072	Hayes	11,550	1.7%	18.4%	16.4%	19.7%	-3.5%	33.4%	-0.3%
New Kent	23089	Lanexa	5,749	7.1%	17.7%	24.3%	20.3%	0.9%	32.3%	6.3%
King and Quee	23091	Little Plymouth	319	5.3%	23.5%	12.0%	18.8%	-1.7%	27.3%	25.0%
King and Quee	23108	Mascot	139	5.8%	20.9%	20.7%	20.1%	-7.1%	27.1%	31.6%
King and Quee	23110	Mattaponi	890	1.5%	21.6%	10.4%	19.8%	0.0%	29.5%	9.0%
New Kent	23124	New Kent	3,647	7.5%	15.3%	27.6%	21.9%	-2.6%	35.4%	4.3%
New Kent	23140	Providence Forge	5,576	6.8%	18.4%	23.4%	20.3%	4.2%	30.9%	4.0%
Middlesex	23149	Saluda	3,255	2.3%	21.2%	14.9%	17.3%	2.5%	30.5%	-2.7%
King and Quee	23156	Shacklefords	1,742	3.9%	22.5%	15.8%	17.7%	-5.5%	32.0%	7.1%
James City	23168	Toano	7,503	8.6%	15.3%	27.2%	23.8%	0.8%	34.7%	8.3%
Middlesex	23175	Urbanna	1,752	-2.0%	32.1%	6.9%	14.7%	-5.4%	23.3%	-0.5%
King William	23181	West Point	5,710	2.6%	17.3%	14.9%	22.5%	-1.9%	35.2%	2.1%
James City	23185	Williamsburg	47,410	4.5%	21.4%	14.4%	18.6%	-0.2%	37.5%	4.9%
Williamsburg	23186	College of W&M	2,276	7.8%	2.7%	27.4%	5.4%	9.7%	89.4%	5.3%
James City	23188	Upper York/James City	42,586	8.0%	24.2%	18.0%	19.9%	2.8%	32.6%	7.6%
York	23690	Yorktown	3,826	5.6%	12.0%	23.4%	24.9%	3.6%	40.5%	4.4%
		Total	**173,958**	**5.1%**	**20.3%**	**17.3%**	**19.5%**	**-0.1%**	**35.0%**	**4.6%**
		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 SWRMC service region are Toano and Upper York/James City; 3 ZIP codes are expected to decline over the next 5 years.
- Although the % of total population aged 65+ is greater than Virginia and U.S. overall, the population ranges from 2.7% near the College of William & Mary to 32% in Urbanna. 4 ZIP codes may have >25% growth.
- Toano has the highest portion of children < 18 years old. The pediatric population is expected to decline compared to growth in Virginia and the U.S. Declines are predicted across 11 ZIP codes in this service area.
- The female population of childbearing age (15-44) in this service area, although a smaller portion than Virginia and the U.S., is projected to grow at more than 3 times the rate. 5 ZIP codes may have a decline in this population.

Source: Truven/Market Expert

Key Demographic Data by ZIP Code

City, ZIP Code, & ZIP Name			Race and Ethnicity			Income and Education	
			2016 % of Pop.: Black, Non-Hispanic	2016 % of Pop.: Asian, Non-Hispanic	2016 % of Pop.: Hispanic Ethnicity (Any Race)	% of Households with Income Below $25,000	% of Pop age 25+ that did not Graduate from High School
New Kent	23011	Bahramsville	24.0%	1.0%	4.0%	9.7%	15.2%
Charles City	23030	Charles City	46.8%	0.7%	1.7%	20.9%	24.2%
Gloucester	23061	Gloucester	9.0%	1.0%	3.4%	16.7%	9.5%
Gloucester	23062	Gloucester Point	5.5%	0.9%	1.8%	11.1%	9.4%
Gloucester	23072	Hayes	6.3%	0.7%	3.8%	15.9%	11.7%
New Kent	23089	Lanexa	14.5%	1.2%	3.5%	12.2%	9.0%
King and Quee	23091	Little Plymouth	17.6%	0.6%	4.7%	13.5%	16.3%
King and Quee	23108	Mascot	15.8%	0.7%	4.3%	12.3%	15.2%
King and Quee	23110	Mattaponi	18.0%	0.9%	5.1%	14.3%	17.8%
New Kent	23124	New Kent	13.4%	1.0%	3.2%	11.1%	11.9%
New Kent	23140	Providence Forge	23.1%	1.3%	2.7%	13.8%	13.7%
Middlesex	23149	Saluda	18.6%	0.5%	2.9%	22.0%	11.5%
King and Quee	23156	Shacklefords	21.4%	0.8%	5.2%	13.9%	15.1%
James City	23168	Toano	15.5%	1.7%	6.1%	15.2%	8.7%
Middlesex	23175	Urbanna	25.8%	0.7%	2.1%	27.8%	13.0%
King William	23181	West Point	18.4%	1.3%	4.0%	15.4%	9.4%
James City	23185	Williamsburg	15.8%	3.2%	7.1%	15.2%	6.3%
Williamsburg	23186	College of W&M	12.1%	7.1%	8.0%	18.3%	4.6%
James City	23188	Upper York/James City	12.9%	3.0%	5.6%	11.2%	5.9%
York	23690	Yorktown	33.1%	2.9%	9.2%	23.8%	9.7%
		Total	**15.2%**	**2.2%**	**5.2%**	**14.7%**	**8.7%**
		Virginia	**18.9%**	**6.3%**	**9.2%**	**17.9%**	**11.8%**
		United States	**12.3%**	**5.4%**	**17.8%**	**22.7%**	**13.6%**

- The SWRMC service area overall has a lower portion of the population to the state that is Black, Non-Hispanic; 3 ZIP codes have much higher percentages than Virginia or the U.S.
- This area has a 71% smaller proportion of Hispanic population than the U.S. as a whole (5.2% vs 17.8%); the ZIP code with the largest % of Hispanic population is Yorktown.
- Overall, the SWRMC service area has a lower portion of households with income below $25K than either Virginia or the U.S., though 5 ZIP codes have a higher portion than the state.
- Overall, the SWRMC service area has a lower percent of population age 25+ that did not graduate high school than either Virginia or the U.S., though 7 ZIP codes have a higher portion than the state or U.S.

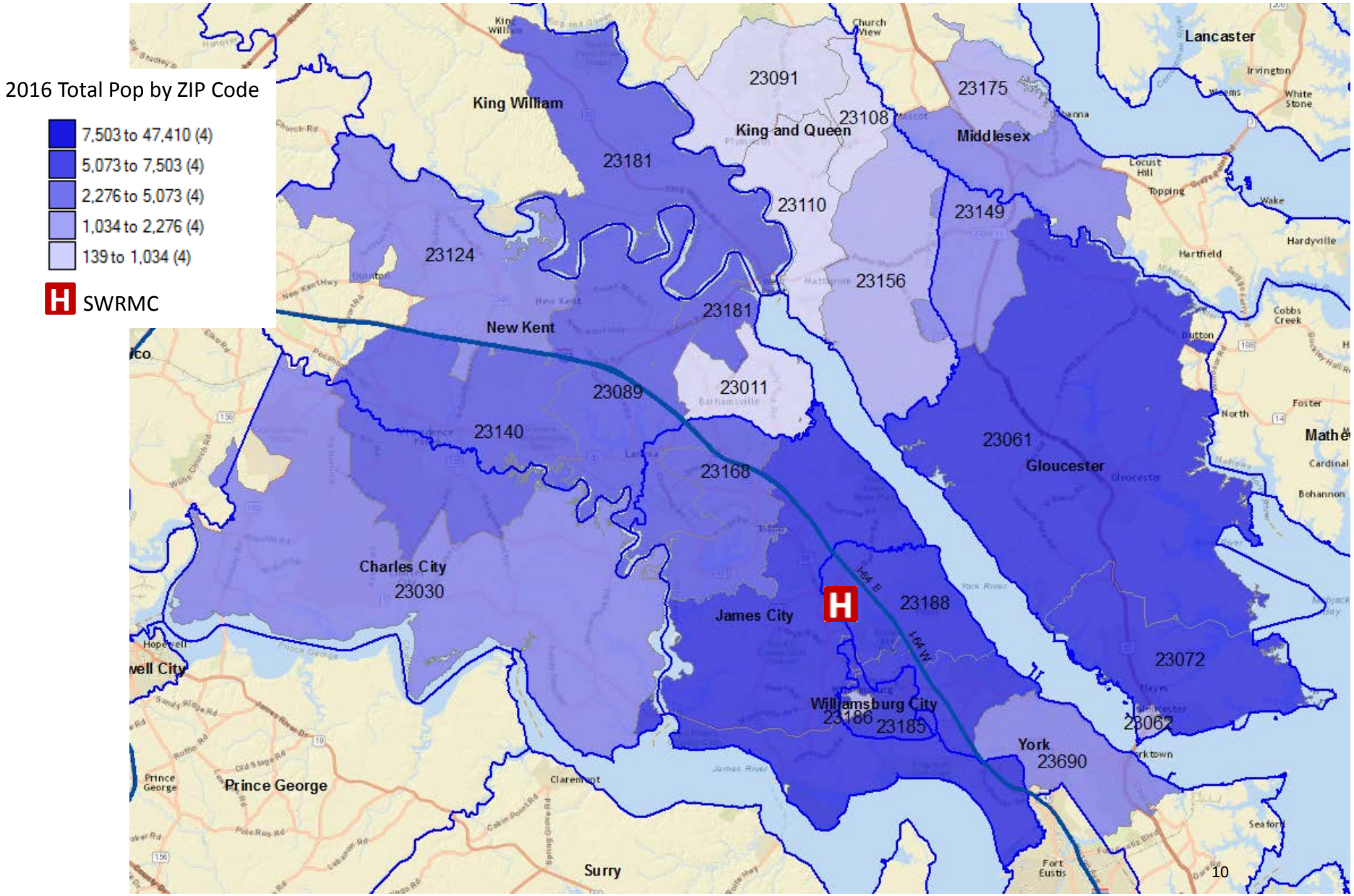
Source: Truven/Market Expert

Key Demographic Data by ZIP Code

City/County	ZIP Code	ZIP Name	Total Pop 2016	Total Pop 2021	% Change 2016-2021	2016 Pop Density / Sq Mile	% of Service Area Pop	% White NonHisp	% Black NonHisp	% Hispanic	% Asian NonHisp	% Other NonHisp
New Kent	23011	Bahramsville	1,034	1,089	5.3%	56	0.6%	68.8%	24.0%	4.0%	1.0%	2.3%
Charles City	23030	Charles City	5,073	5,061	-0.2%	34	2.9%	42.9%	46.8%	1.7%	0.7%	7.8%
Gloucester	23061	Gloucester	21,675	22,303	2.9%	133	12.5%	83.9%	9.0%	3.4%	1.0%	2.7%
Gloucester	23062	Gloucester Point	2,246	2,231	-0.7%	1548	1.3%	90.2%	5.5%	1.8%	0.9%	1.6%
Gloucester	23072	Hayes	11,550	11,747	1.7%	283	6.6%	86.3%	6.3%	3.8%	0.7%	2.9%
New Kent	23089	Lanexa	5,749	6,155	7.1%	93	3.3%	77.2%	14.5%	3.5%	1.2%	3.5%
King and Queen	23091	Little Plymouth	319	336	5.3%	11	0.2%	74.3%	17.6%	4.7%	0.6%	2.8%
King and Queen	23108	Mascot	139	147	5.8%	14	0.1%	75.5%	15.8%	4.3%	0.7%	3.6%
King and Queen	23110	Mattaponi	890	903	1.5%	39	0.5%	71.3%	18.0%	5.1%	0.9%	4.7%
New Kent	23124	New Kent	3,647	3,921	7.5%	64	2.1%	79.0%	13.4%	3.2%	1.0%	3.4%
New Kent	23140	Providence Forge	5,576	5,956	6.8%	79	3.2%	65.1%	23.1%	2.7%	1.3%	7.8%
Middlesex	23149	Saluda	3,255	3,331	2.3%	60	1.9%	74.9%	18.6%	2.9%	0.5%	3.0%
King and Queen	23156	Shacklefords	1,742	1,810	3.9%	37	1.0%	69.5%	21.4%	5.2%	0.8%	3.2%
James City	23168	Toano	7,503	8,146	8.6%	266	4.3%	73.2%	15.5%	6.1%	1.7%	3.5%
Middlesex	23175	Urbanna	1,752	1,717	-2.0%	122	1.0%	68.6%	25.8%	2.1%	0.7%	2.7%
King William	23181	West Point	5,710	5,861	2.6%	81	3.3%	72.5%	18.4%	4.0%	1.3%	3.8%
James City	23185	Williamsburg	47,410	49,555	4.5%	778	27.3%	70.7%	15.8%	7.1%	3.2%	3.2%
Williamsburg	23186	College of W&M	2,276	2,453	7.8%	2119	1.3%	68.7%	12.1%	8.0%	7.1%	4.1%
James City	23188	Upper York/James City	42,586	45,984	8.0%	430	24.5%	75.5%	12.9%	5.6%	3.0%	3.0%
York	23690	Yorktown	3,826	4,040	5.6%	150	2.2%	51.5%	33.1%	9.2%	2.9%	3.3%
Total SWRMC Service Area			173,958	182,746	5.1%	429	100%	74.0%	15.2%	5.2%	2.2%	3.4%
Virginia			8,428,339	8,801,874	4.4%	213.8	N/A	62.5%	18.9%	6.3%	9.2%	3.1%
USA			322,431,073	334,341,965	3.7%	91.4	N/A	61.3%	12.3%	5.4%	17.8%	3.1%

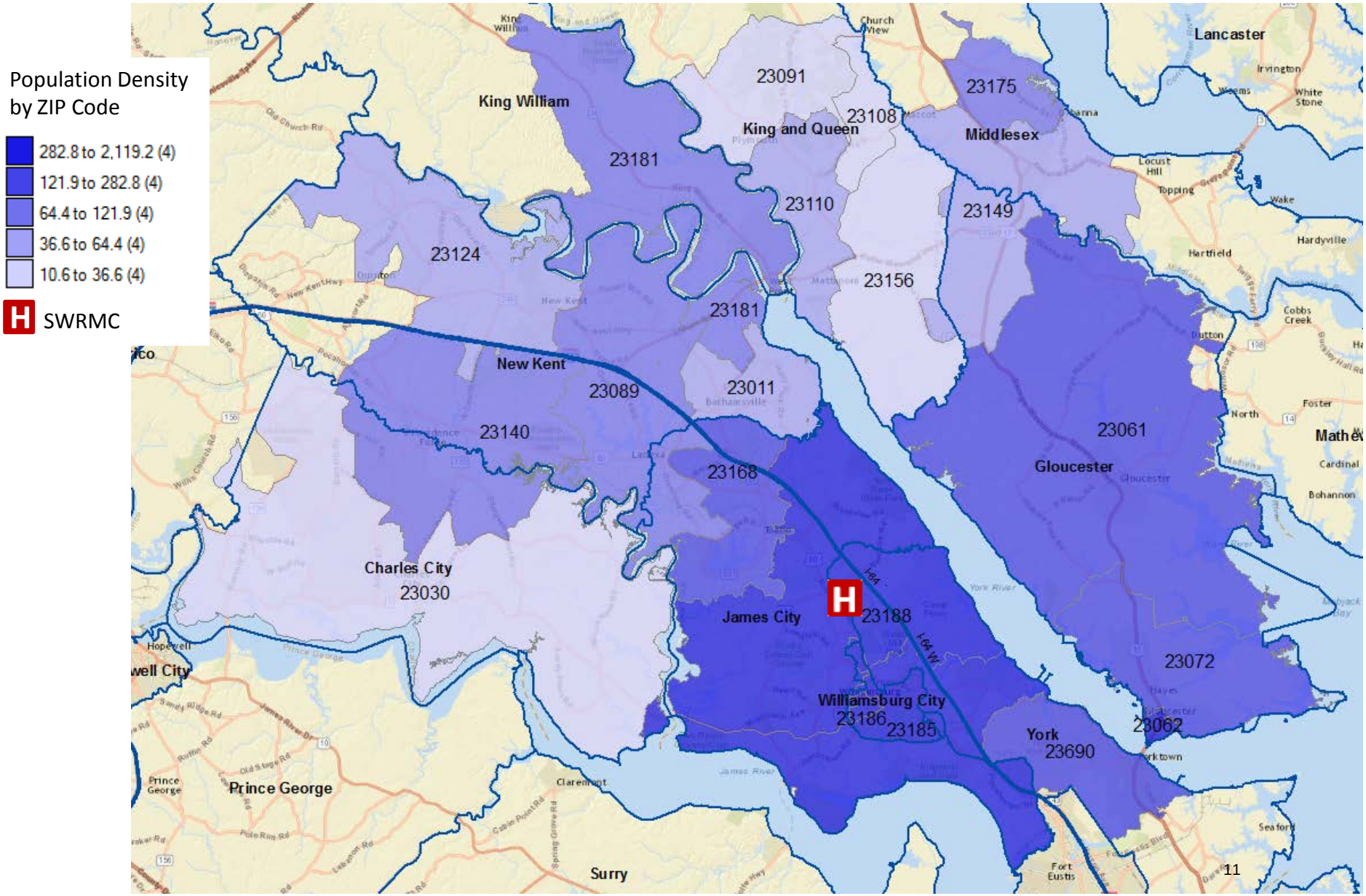
Source: Truven/Market Expert

2016 Total Population by ZIP Code



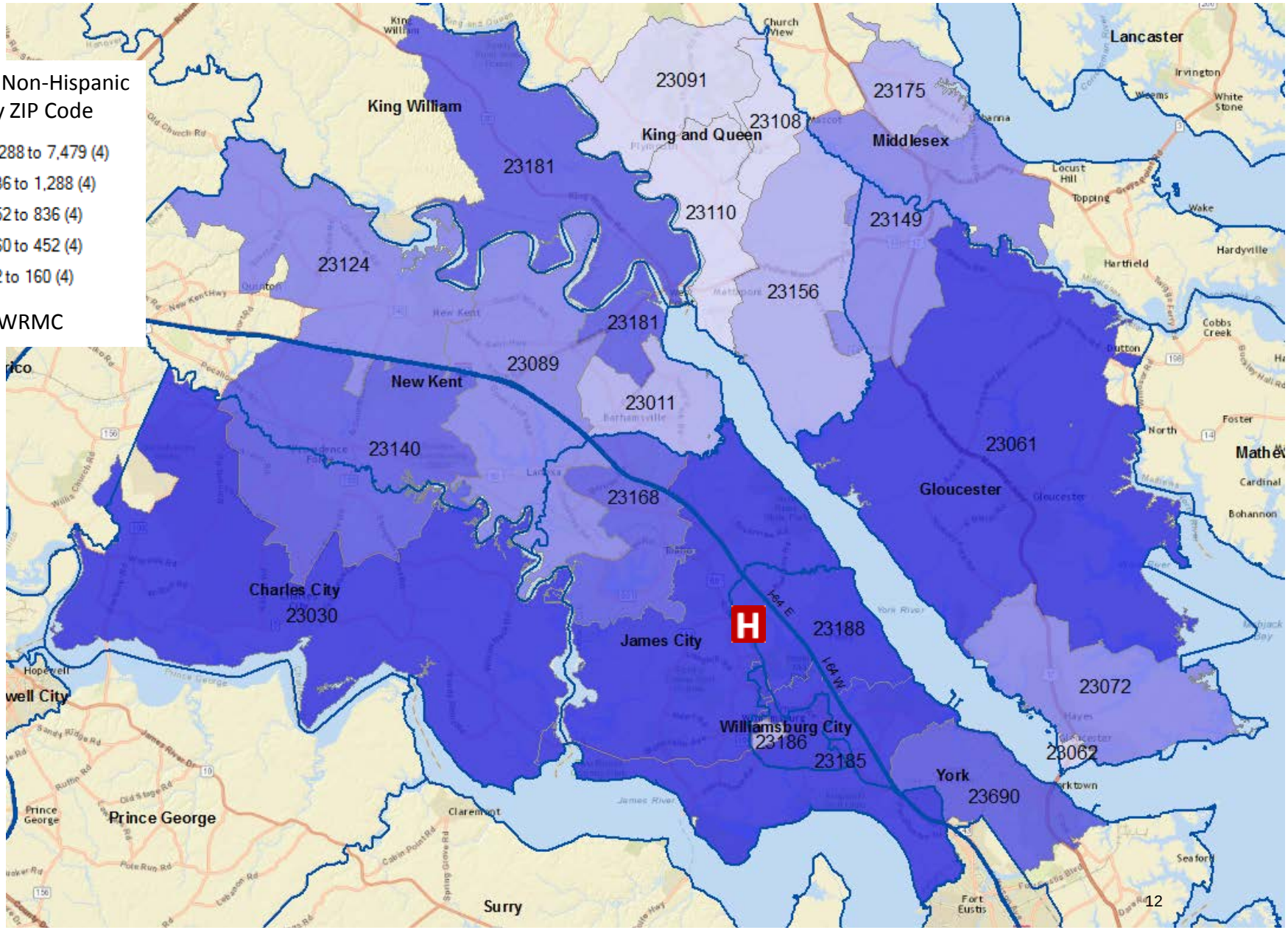
Source: Truven/Market Expert

2016 Population Density by ZIP Code



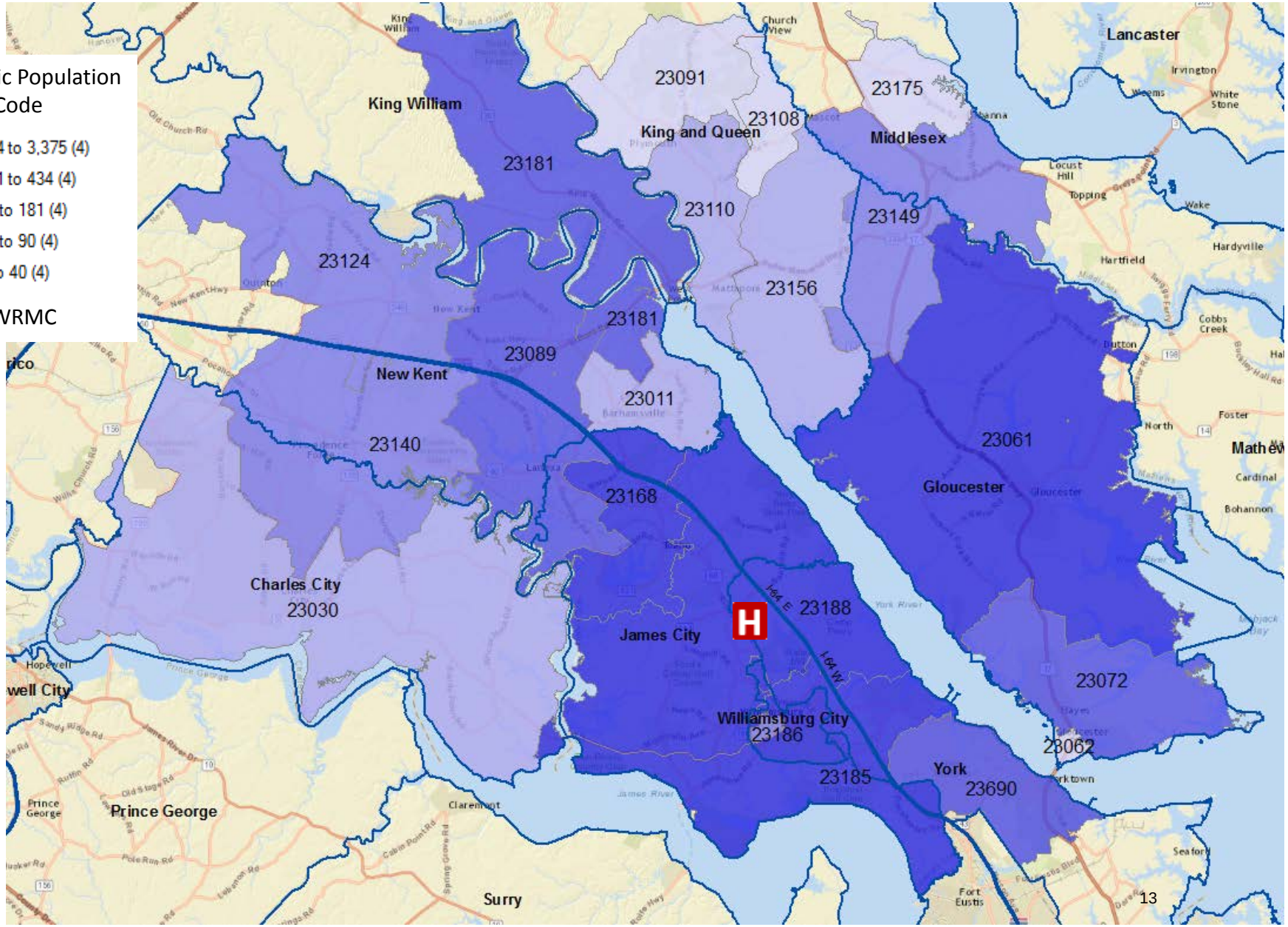
Source: Truven/Market Expert

2016 Black, Non-Hispanic Population by ZIP Code



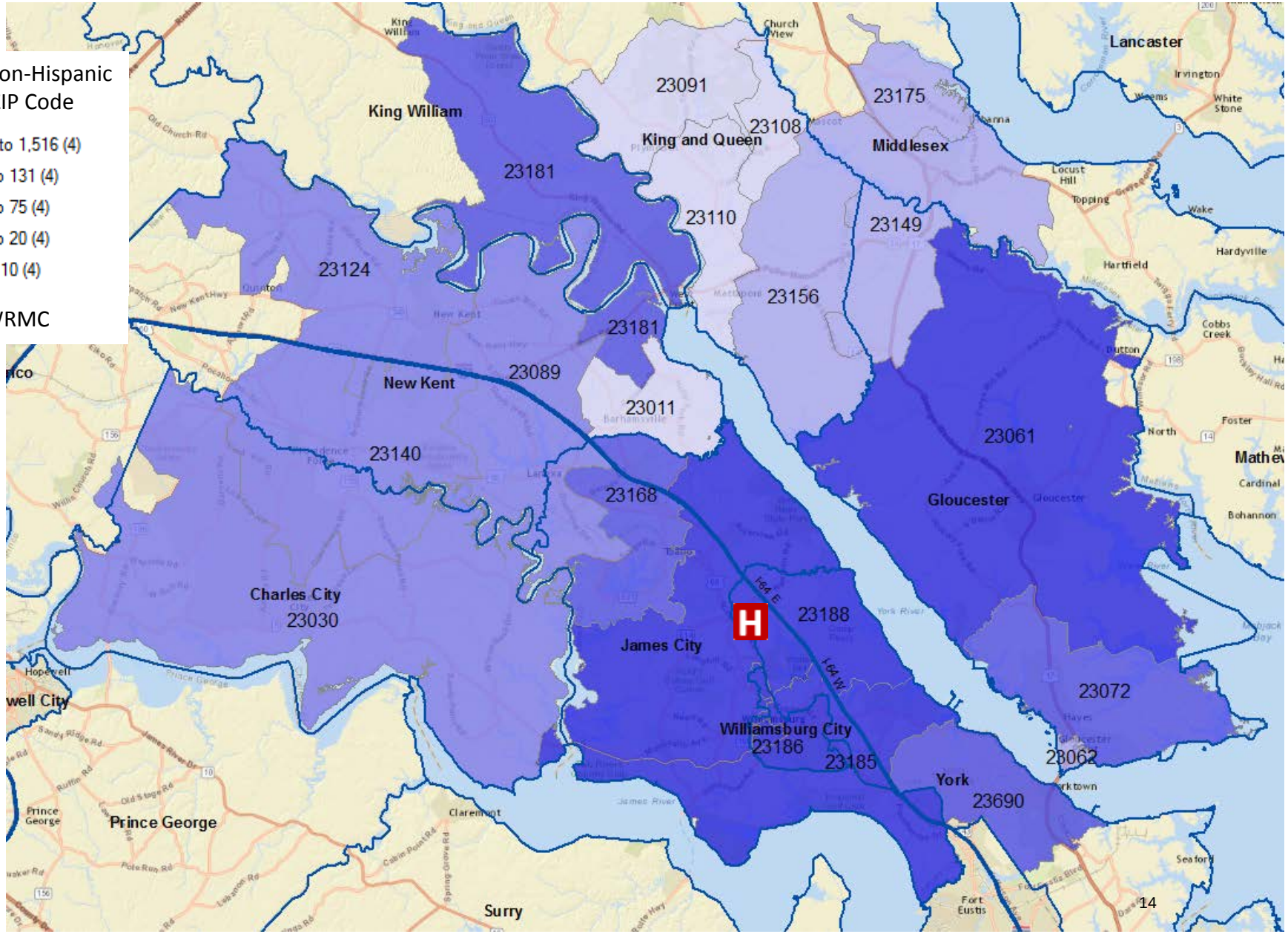
Source: Truven/Market Expert

2016 Hispanic Population by ZIP Code



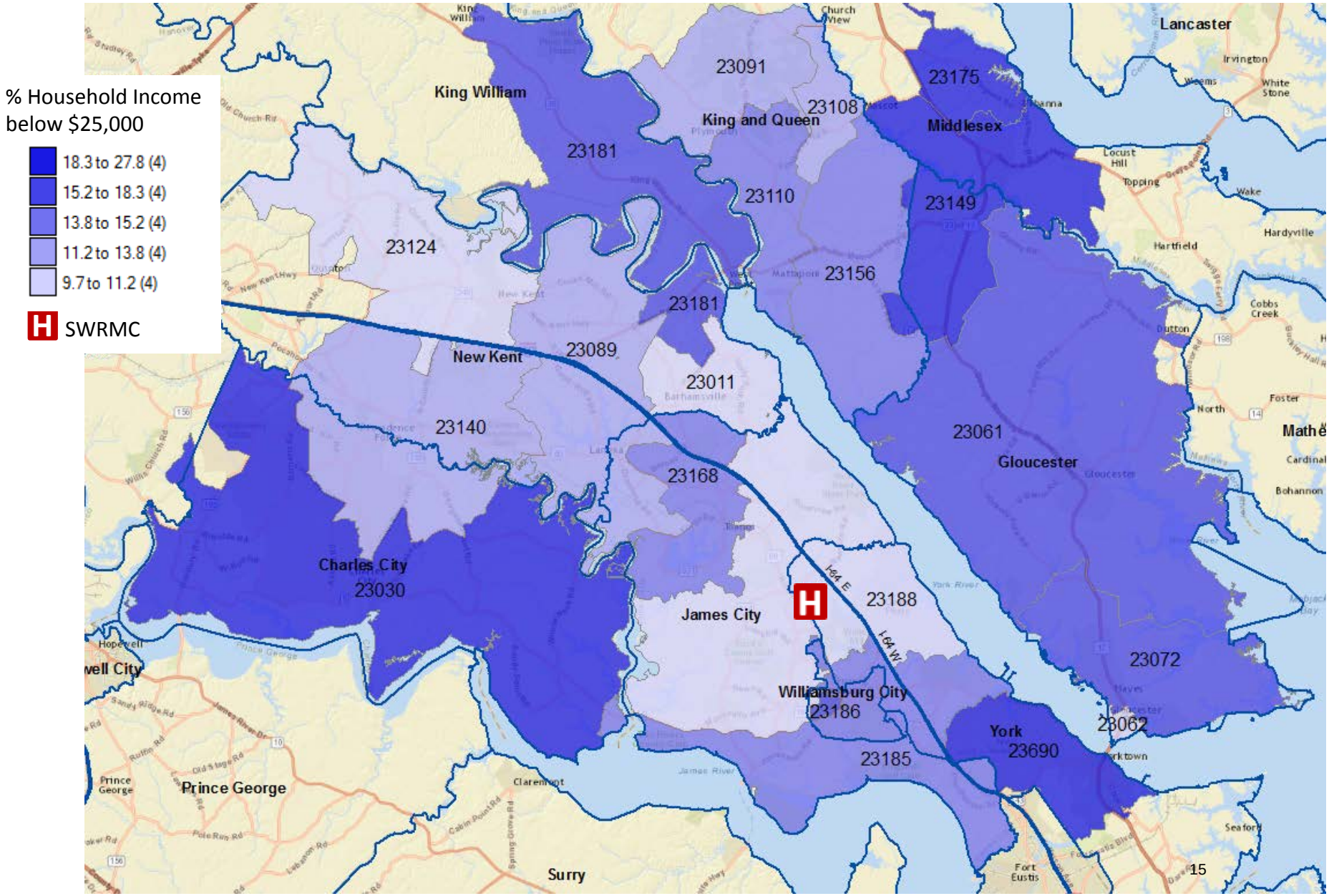
Source: Truven/Market Expert

2016 Asian, Non-Hispanic Population by ZIP Code



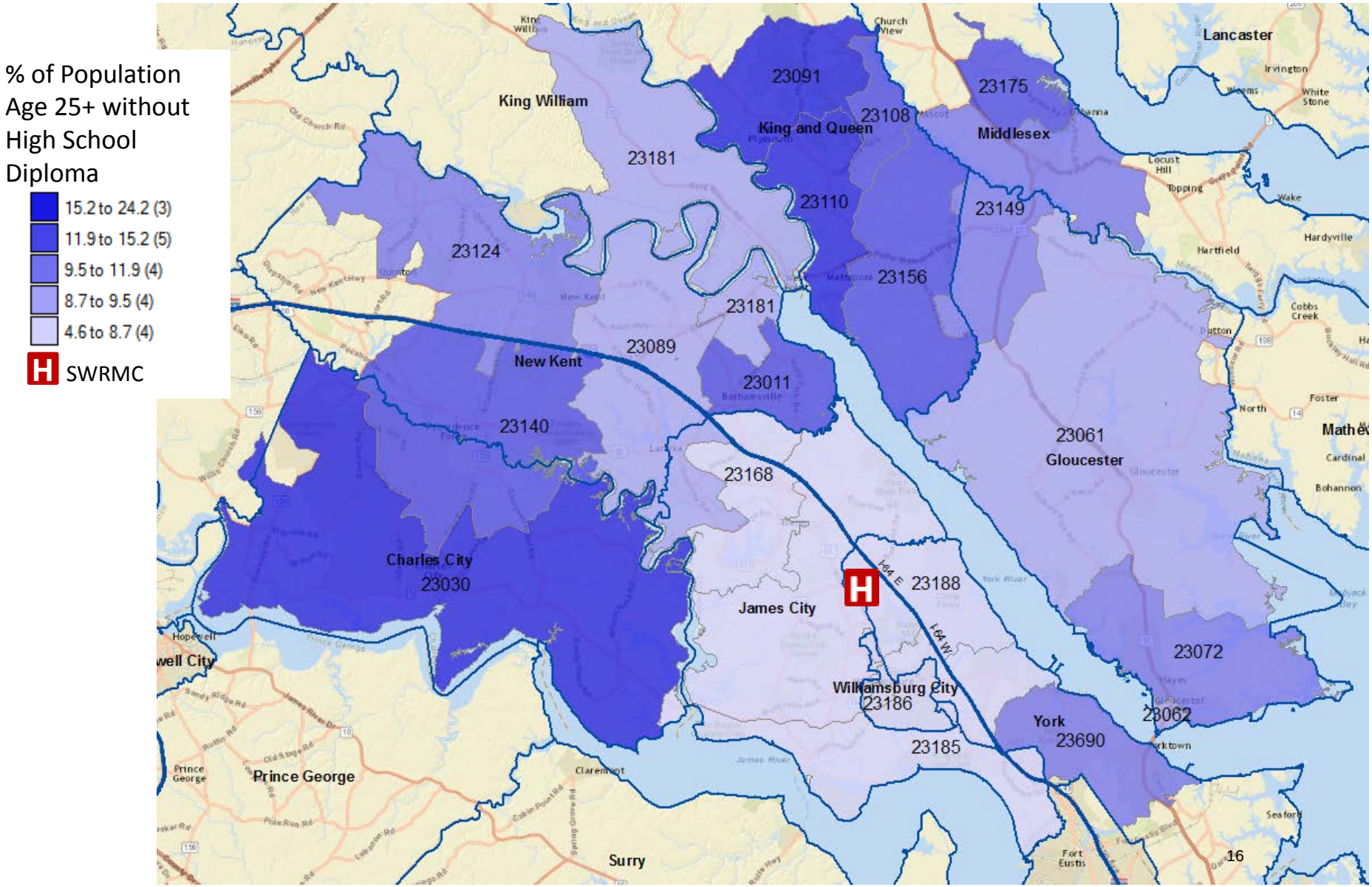
Source: Truven/Market Expert

2016 % of Households with Income below $25,000



Source: Truven/Market Expert

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



Source: Truven/Market Expert

ZIP Codes Included in SWRMC Service Area

City	ZIP	ZIP Common Name	State
New Kent	23011	Bahramsville	VA
Charles City	23030	Charles City	VA
Gloucester	23061	Gloucester	VA
Gloucester	23062	Gloucester Point	VA
Gloucester	23072	Hayes	VA
New Kent	23089	Lanexa	VA
King and Queen	23091	Little Plymouth	VA
King and Queen	23108	Mascot	VA
King and Queen	23110	Mattaponi	VA
New Kent	23124	New Kent	VA
New Kent	23140	Providence Forge	VA
Middlesex	23149	Saluda	VA
King and Queen	23156	Shacklefords	VA
James City	23168	Toano	VA
Middlesex	23175	Urbanna	VA
King William	23181	West Point	VA
James City	23185	Williamsburg	VA
Williamsburg	23186	College of W&M	VA
James City	23188	Upper York/James City	VA
York	23690	Yorktown	VA

Health Status Indicators Report

Prepared for Sentara Williamsburg Regional Medical Center

By Community Health Solutions

November 2016

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Introduction

This document presents a health status indicators report for Sentara Williamsburg Regional Medical Center. The report was commissioned by Sentara Healthcare and Sentara Williamsburg Regional Medical Center, and produced by Community Health Solutions. The study presents health status indicators for the Sentara Williamsburg Regional Medical Center service area of 20 zip codes, which fall within Charles City County, Gloucester County, James City County, King and Queen County, King William County, Middlesex County, New Kent County, Williamsburg City, and York County.

The Study Region by Zip Code

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 section 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 1,493 deaths in the study region.
- The leading causes of death in the study region were Malignant Neoplasms (cancer), Heart Disease, Cerebrovascular Disease (stroke), Chronic Lower Respiratory Diseases and Unintentional Injury.
- The death rates for the study region were higher (worse) than the state rates for all deaths combined; and specifically for Malignant Neoplasms (cancer), Heart Disease, Cerebrovascular Diseases (stroke), Chronic Lower Respiratory Diseases, Unintentional Injury, Alzheimer's Disease and Diabetes.

Mortality Trend – All Deaths (2011-2013)

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

- **Trend by Race/Ethnicity:** As shown in *Exhibit 1C,* from 2011 to 2013, the study region counts:
    - Increased for the White population and
    - Declined for the Black/African American population.
    - Unlike the state, study region deaths declined for Black/African American population, and increased for the White population.

- **Trend by Sex:** As shown in *Exhibit 1D,* from 2011 to 2013, the study region counts:
    - Increased for the female population and
    - Remained relatively stable for the male population.
    - Unlike the state, study region deaths remained relatively stable for the male population.

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*, there were 607 premature deaths in 2013. From the 2011 to 2013 time period, roughly 41% 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, study region premature death counts:
    - Increased for Heart Disease;
    - Declined for Malignant Neoplasms (cancer) and Unintentional Injury; and
    - Remained stable for all premature deaths combined.
    - Unlike the state, study region counts remained relatively stable for all premature deaths combined, and declined for Malignant Neoplasms (cancer).

- **Trend by Race/Ethnicity:** As shown in *Exhibit 1F,* from 2011 to 2013, the study region premature death counts:
    - Increased for the White population and
    - Declined for the Black/African American population.
    - Unlike the state, study region counts decreased for the Black/African American population.

- **Trend by Sex:** As shown in *Exhibit 1G*, from 2011 to 2013, the study region premature death counts:
    - Increased for the female population and
    - Remained relatively stable for the male population.
    - Unlike the state, study region counts declined for the male population.

Exhibit 1A. Mortality Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Deaths by All Causes	62,309	1,493
Counts-Leading 14 Causes of Death		
Malignant Neoplasms, Deaths	14,348	384
Heart Disease, Deaths	13,543	324
Cerebrovascular Diseases, Deaths	3,278	73
Chronic Lower Respiratory Diseases, Deaths	3,168	73
Unintentional Injury, Deaths	2,794	58
Alzheimer's Disease, Deaths	1,634	52
Diabetes Mellitus, Deaths	1,618	37
Nephritis and Nephrosis, Deaths	1,547	28
Septicemia, Deaths	1,464	26
Influenza and Pneumonia, Deaths	1,430	27
Chronic Liver Disease, Deaths	836	25
Parkinson's Disease, Deaths	549	18
Suicide, Deaths	1,047	14
Primary Hypertension and Renal Disease, Deaths	629	13
Crude Death Rates per 100,000 Population		
Deaths by All Causes	755.5	887.7
Malignant Neoplasms, Deaths	174.0	228.3
Heart Disease, Deaths	164.2	192.6
Cerebrovascular Diseases, Deaths	39.7	43.4
Chronic Lower Respiratory Diseases, Deaths	38.4	43.4
Unintentional Injury, Deaths	33.9	34.5
Alzheimer's Disease, Deaths	19.8	30.9
Diabetes Mellitus, Deaths	19.6	22.0
Nephritis and Nephrosis, Deaths	18.8	--
Septicemia, Deaths	17.8	--
Influenza and Pneumonia, Deaths	17.3	--
Chronic Liver Disease, Deaths	10.1	--
Parkinson's Disease, Deaths	6.7	--
Suicide, Deaths	12.7	--
Primary Hypertension and Renal Disease, Deaths	7.6	--

Note: Rates and/or percent change are not calculated where n<30.

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)	1,424	1,406	1,493	3%	5%
Malignant Neoplasms (Cancer)	374	341	384	1%	3%
Heart Disease	319	300	324	3%	2%
Cerebrovascular Diseases (Stroke)	73	100	73	-1%	0%
Unintentional Injury	73	58	58	2%	-21%
Chronic Lower Respiratory Diseases	62	67	73	2%	18%
Alzheimer's Disease	51	48	52	-9%	2%
Diabetes Mellitus	39	30	37	-1%	-5%
Influenza and Pneumonia	22	27	27	2%	23%
Septicemia	22	16	26	7%	18%
Nephritis and Nephrosis	19	24	28	9%	47%
Crude Death Rates per 100,000 Population					
Total Deaths (All Causes)	852.5	845.4	887.7	2%	4%
Malignant Neoplasms (Cancer)	223.9	205.0	228.3	-1%	2%
Heart Disease	191.0	180.4	192.6	1%	1%
Cerebrovascular Diseases (Stroke)	43.7	60.1	43.4	-3%	-1%
Unintentional Injury	43.7	34.9	34.5	1%	-21%
Chronic Lower Respiratory Diseases	37.1	40.3	43.4	1%	17%
Alzheimer's Disease	30.5	28.9	30.9	-10%	1%
Diabetes Mellitus	23.3	18.0	22.0	-2%	-6%
Influenza and Pneumonia	--	--	--	0%	--
Septicemia	--	--	--	5%	--
Nephritis and Nephrosis	--	--	--	7%	--

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

Indicator	Study Region			% Change (2011-2013)	
Counts	**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Asian	10	8	11	15%	--
Black/African American	269	247	260	4%	-3%
White	1,131	1,147	1,213	1%	7%
Hispanic Ethnicity	14	10	20	8%	--
Notes: Deaths with 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. 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 1D. All Death Trend by Sex (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Female	697	676	774	3%	11%
Male	727	730	719	4%	-1%
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)	599	573	607	4%	1%
Malignant Neoplasms	220	193	210	0%	-5%
Heart Disease	91	96	101	6%	11%
Unintentional Injury	49	40	41	-2%	-16%
Suicide	32	31	12	0%	--
Diabetes	18	14	20	-1%	--
Chronic Lower Respiratory Diseases	16	20	22	1%	--
Cerebrovascular Diseases	15	21	22	5%	--
Chronic Liver Disease	13	12	22	21%	--
Septicemia	10	6	17	11%	--
Nephritis and Nephrosis	5	5	10	16%	--
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	7	4	7	3%	--
Black/African American	146	117	132	3%	-10%
White	442	450	465	2%	5%
Hispanic Ethnicity	10	6	15	0%	--
Notes: Deaths with 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. 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 1G. Premature Mortality Trend by Sex (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
Counts	**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Female	232	225	259	3%	12%
Male	367	348	348	4%	-5%
Notes: Deaths with Other/Unknown sex 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 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 1,540 live births in the study region. Among the live births were 132 low weight births, 223 late prenatal care births, 543 non-marital births, and 91 births to teens.
- The study region had lower rates (worse) than Virginia as a whole for live births overall, and for births to teens.

Maternal and Infant Health Trend (2011-2013)

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

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

- **Teenage Births Trend Race/Ethnicity**. As shown in *Exhibit 2D,* from 2011 to 2013 there was an increase in the number of births to White teens. Unlike the state, study region births to White teens increased.

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

Indicator	Virginia	Study Region
Counts		
Total Live Births	101,977	1,540
Low Weight Births (under 2,500 grams / 5 lb. 8 oz.)	8,178	132
Late Prenatal Care (No Prenatal Care in First 13 Weeks)	13,435	223
Non-Marital Births	35,289	543
Live Births to Teens Age 10-19	5,316	91
Live Births to Teens Age 18-19	4,073	72
Live Births to Teens Age 15-17	1,208	19
Live Births to Teens Age <15	35	0
Rates		
Live Birth Rate per 1,000 Population	12.3	9.2
Low Weight Births pct. of Total Live Births	8%	9%
Late Prenatal Care (No Prenatal Care in First 13 Weeks) pct. of Total Live Births	13%	14%
Non-Marital Births pct. of Total Live Births	35%	35%
Teenage (age 10-19) Live Birth Rate per 1,000 Teenage Female Population (age 10-19)	10.3	8.4
Teenage (age 18-19) Live Birth Rate per 1,000 Teenage Female Population (age 18-19)	36.4	26.0
Teenage (age 15-17) Live Birth Rate per 1,000 Teenage Female Population (age 15-17)	8.0	6.1
Teenage (age <15) Live Birth Rate per 1,000 Teenage Female Population (age <15)	0.1	0.0
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	1,530	1,503	1,540	-1%	1%
Low Weight Births	90	106	132	0%	47%
Non Marital Births	544	564	543	-3%	0%
Rates	**2011**	**2012**	**2013**	**Virginia**	**Study Region**
Total Live Births (per 1,000 population)	916.0	903.7	915.6	-3%	0%
Low Weight (as a percent of Total Live Births)	6%	7%	9%	0%	3%
Non Marital Births (as a percent of Total Live Births)	36%	38%	35%	-1%	-1%
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 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**
Teenage (Age 10-19) Live Births						
Age	Total Teenage Live Births	99	88	91	-19%	-8%
	18-19	75	63	72	-15%	-4%
	15-17	22	24	19	-29%	--
	<15	2	1	0	-39%	--
Note: Rates and/or percent change are not calculated where n<30. Births with Other/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 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	39	19	22	-23%	--
	White	55	59	57	-26%	4%
Ethnicity	Hispanic Ethnicity	4	5	6	-5%	--
Note: Rates and/or percent change are not calculated where n<30. Births with 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.						

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

Preventable Hospitalization Trend (2011-2013)

- **By Leading Diagnoses.** As shown in *Exhibit 3B,* from 2011 to 2013, the study region rates:
  - Increased for Congestive Heart Failure, COPD or Asthma in Older Adults (age 40+) and Diabetes;
  - Declined for Bacterial Pneumonia, and Urinary Tract Infection; and
  - Remained relatively stable for Total PQIs.
  - Unlike state, the study region rates increased for Congestive Heart Failure, COPD or Asthma in Older Adults (age 40+), and Diabetes.
  - Unlike the state, the study region rate remained relatively stable for Total PQIs.

- **By Age Group**. As shown in *Exhibit 3C,* from 2011 to 2013, the study region rates:
  - Increased for age 45+ population, and
  - Declined for the age 30-44 population.
  - Unlike the state, the study region rate increased for the 45+ population.

- **By Race/Ethnicity**. As shown in *Exhibit 3D*, from 2011 to 2013, the study region rates declined for the Black/African American and White populations. The study region trends were consistent with the statewide trends.

- **By Payer.** As shown in *Exhibit 3E*, from 2011 to 2013, the study region counts:
  - Increased for the Medicare and Self-Pay/Uninsured populations; and
  - Declined for the Private Insurance population.
  - Unlike the state, the study region counts increased for the Self-Pay/Uninsured population.

Exhibit 3A. Preventable Hospitalization Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Total PQI Discharges (see note)	76,860	863
Congestive Heart Failure	18,239	229
COPD or Asthma In Older Adults (age 40+)	16,026	165
Bacterial Pneumonia	11,867	155
Diabetes	9,938	105
Urinary Tract Infection	8,452	86
Dehydration	7,743	81
Hypertension	2,768	24
Perforated Appendix	1,189	11
Angina	941	9
Asthma in Younger Adults (age 18-39)	444	4
Crude Rates per 100,000 Population		
Total PQI Discharges (see note)	932.0	513.1
Congestive Heart Failure	221.2	136.2
COPD or Asthma In Older Adults (age 40+)	194.3	98.1
Bacterial Pneumonia	143.9	92.2
Diabetes	120.5	62.4
Urinary Tract Infection	102.5	51.1
Dehydration	93.9	48.2
Hypertension	33.6	--
Perforated Appendix	14.4	--
Angina	11.4	--
Asthma in Younger Adults (age 18-39)	5.4	--

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**
All PQI Discharges (see note)	859	812	863	-6%	0%
Congestive Heart Failure	201	201	229	-8%	14%
Bacterial Pneumonia	171	169	155	-29%	-9%
COPD or Asthma In Older Adults (age 40+)	140	147	165	-20%	18%
Urinary Tract Infection	94	92	86	-22%	-9%
Diabetes	87	85	105	-2%	21%
Crude Rates per 100,000 Population					
All PQI Discharges (see note)	514.3	488.2	513.1	-7%	0%
Congestive Heart Failure	120.3	120.9	136.2	-9%	13%
Bacterial Pneumonia	102.4	101.6	92.2	-30%	-10%
COPD or Asthma In Older Adults (age 40+)	83.8	88.4	98.1	-21%	17%
Urinary Tract Infection	56.3	55.3	51.1	-23%	-9%
Diabetes	52.1	51.1	62.4	0%	20%

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. 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 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	26	28	29	-23%	--
	Adults Age 30-44	74	51	35	-21%	-53%
	Adults Age 45-64	244	239	255	-18%	5%
	Seniors Age 65+	515	494	544	-20%	6%
Crude Rates per 100,000 Population						
Age	Adults Age 18-29	--	--	--	-24%	--
	Adults Age 30-44	259.2	184.9	124.4	-21%	-52%
	Adults Age 45-64	499.5	490.6	519.5	-19%	4%
	Seniors Age 65+	1,784.5	1,632.5	1,820.1	-23%	2%

Note: PQI Discharges with an unknown age were not included in the analysis. 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. 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 3D. Preventable Hospitalization Trend by Race/Ethnicity (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts (Total PQI Discharges)					**Virginia**	**Study Region**
Race	Asian	2	0	2	-11%	--
	Black/African American	207	183	200	-16%	-3%
	White	620	581	610	-22%	-2%
Ethnicity	Hispanic Ethnicity	8	3	1	-30%	--
Crude Rates per 100,000 Population						
Race	Asian	--	--	--	-24%	--
	Black/African American	786.6	704.8	745.5	-21%	-5%
	White	478.5	449.6	469.9	-19%	-2%
Ethnicity	Hispanic Ethnicity	--	--	--	-23%	--

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. The sum of the individual diagnoses may differ slightly from the Total Discharges figure for technical reasons. 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 3E. Preventable Hospitalization Trend by Payer (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts (Total PQI Discharges)					**Virginia**	**Study Region**
Payer	Medicare	577	545	594	2%	3%
	Medicaid	28	20	21	-6%	--
	Private	139	148	130	-12%	-6%
	Self-Pay/Uninsured	59	58	65	2%	10%

Note: PQI Discharges with unknown payer were not included in the analysis. Enrollment data were not available to calculate rates. 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. 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.

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.

Due to the lack of reporting on the part of a regional child/adolescent psychiatric hospital, the analysis in this profile does not include data for residents age 0-17. Additionally, 2011-2013 data were not available from one Williamsburg regional facility which provides services for patients 18+.

Behavioral Health Hospitalization Snapshot-Age 18+ (2013)

As shown in *Exhibit 4A*:

- In 2013 there were 552 behavioral health (BH) discharges for residents of the study region.
- The leading diagnoses for behavioral health hospitalization in the study region were Affective Psychoses, Schizophrenic Disorders, Alcoholic Psychoses, Depressive Disorder, and Drug Psychoses.
- The BH discharge rates for the study region were lower than the statewide rates for all behavioral health diagnoses.

Behavioral Hospitalization Trend-age 18+ (2011-2013)

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

- **By Age Group**. As shown in *Exhibit 4C*, from 2011 to 2013 from 2011 to 2013, the study region rates declined for all age groups. Unlike the state, the study region rates declined for the age 30+ population.

- **By Sex.** As shown in *Exhibit 4D*, from 2011 to 2013, the study region rates declined for both the female and male population. Unlike the state, the study region rate declined for the male population.

- **By Race/Ethnicity.** As shown in *Exhibit 4E*, from 2011 to 2013, the study region rates declined for Black/African American and White populations. Unlike the state, the study region rates declined for the Black/African American and White populations.

- **By Payer.** As shown in *Exhibit 4F*, from 2011 to 2013 the study region counts:
  - Increased for the Self-Pay/Uninsured population;
  - Declined for the Medicare and Private Insurance populations; and
  - Remained relatively stable for the Medicaid population.
  - Unlike state, the study region counts declined for the Medicare population, and remained relatively stable for Medicaid population.

Exhibit 4A. Behavioral Health Hospitalization Snapshot-Age 18+ (2013)

Indicator	Virginia	Study Region
Counts-BH Discharges		
Total BH Diagnoses	53,638	552
Counts-Leading 14 BH Diagnoses		
Affective Psychoses	22,078	168
Schizophrenic Disorders	8,064	111
Alcoholic Psychoses	4,033	44
Depressive Disorder, Not Elsewhere Classified	2,608	32
Drug Psychoses	2,102	25
Altered Mental Status	976	20
Symptoms Involving Head or Neck	883	17
Adjustment Reaction	2,031	15
Other Nonorganic Psychoses	1,951	15
Neurotic Disorders	982	15
Alcohol Dependence Syndrome	2,388	14
Other Organic Psychotic Conditions-Chronic	795	14
Non Dependent Abuse of Drugs	575	4
Drug Dependence	810	3
Note: Data for residents age 0-17 are not included. See details in Appendix B.		
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 4A. Behavioral Health Hospitalization Snapshot-Age 18+ (2013)- Continued

Indicator	Virginia	Study Region
Crude Rates Per 100,000 Population		
All Diagnoses	650.4	328.2
Affective Psychoses	267.7	99.9
Schizophrenic Disorders	97.8	66.0
Alcoholic Psychoses	48.9	26.2
Depressive Disorder, Not Elsewhere Classified	31.6	19.0
Drug Psychoses	25.5	--
Altered Mental Status	11.8	--
Symptoms Involving Head or Neck	10.7	--
Adjustment Reaction	24.6	--
Other Nonorganic Psychoses	23.7	--
Neurotic Disorders	11.9	--
Alcohol Dependence Syndrome	29.0	--
Other Organic Psychotic Conditions-Chronic	9.6	--
Non Dependent Abuse of Drugs	7.0	--
Drug Dependence	9.8	--
Note: Rates and/or percent change are not calculated where n<30. Data for residents age 0-17 are not included. See details in Appendix B.		
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-Age 18+ (2011-2013)

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Total BH Discharges (All Diagnoses)	779	753	552	3%	-29%
Affective Psychoses	276	259	168	-1%	-39%
Schizophrenic Disorders	117	106	111	1%	-5%
Alcoholic Psychoses	62	50	44	23%	-29%
Crude Rates per 100,000 Population					
Total BH Discharges (All Diagnoses)	466.4	452.7	328.2	2%	-30%
Affective Psychoses	165.2	155.7	99.9	2%	-40%
Schizophrenic Disorders	70.0	63.7	66.0	0%	-6%
Alcoholic Psychoses	37.1	30.1	26.2	21%	-30%

Note: Data for residents age 0-17 are not included. See details in Appendix B. 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 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)	
Counts		2011	2012	2013	Virginia	Study Region
All BH Discharges						
Age	Adults Age 18-29	168	170	106	10%	-37%
	Adults Age 30-44	171	177	143	2%	-16%
	Adults Age 45-64	284	238	195	3%	-31%
	Seniors Age 65+	156	168	108	-4%	-31%
Crude Rates per 100,000 Population						
Age	Adults Age 18-29	640.1	646.3	391.4	-2%	-39%
	Adults Age 30-44	598.9	641.8	508.3	8%	-15%
	Adults Age 45-64	581.4	488.6	397.3	2%	-32%
	Seniors Age 65+	540.6	555.2	361.3	3%	-33%

Note: Data for residents age 0-17 are not included. See details in Appendix B. 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 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-Age 18+ (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts		**2011**	**2012**	**2013**	**Virginia**	**Study Region**
All BH Discharges						
Sex	Female	427	409	295	-1%	-31%
	Male	352	344	257	8%	-27%
Crude Rates per 100,000 Population						
Sex	Female	494.9	479.0	341.7	-2%	-31%
	Male	435.8	425.0	313.9	7%	-28%
Note: Data for residents age 0-17 are not included. See details in Appendix B. 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 4E. Behavioral Health Hospitalization Trend by Race/Ethnicity-Age 18+ (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts		**2011**	**2012**	**2013**	**Virginia**	**Study Region**
All BH Discharges						
Race	Asian	4	4	5	14%	--
	Black/African American	130	145	116	2%	-11%
	White	626	566	407	2%	-35%
Ethnicity	Hispanic Ethnicity	7	9	2	-6%	--
Crude Rates per 100,000 Population						
Race	Asian	--	--	--	6%	--
	Black/African American	494.0	558.4	432.4	0%	-12%
	White	483.1	438.0	313.5	2%	-35%
Ethnicity	Hispanic Ethnicity	--	--	--	-7%	--
Note: Rates and/or percent change are not calculated where n<30. Data for residents age 0-17 are not included. 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 4F. Behavioral Health Hospitalization Trend by Payer-Age 18+ (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
Counts		**2011**	**2012**	**2013**	**Virginia**	**Study Region**
All BH Discharges						
Payer	Medicare	287	284	208	5%	-28%
	Medicaid	61	73	61	12%	0%
	Private	347	298	181	-2%	-48%
	Self-Pay/Uninsured	81	98	102	14%	26%
Note: Data for residents age 0-17 are not included. See details in Appendix B. Enrollment data were not available to calculate rates. 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.						

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 108,245 adults age 18+ (80%) are not meeting the guidelines for fruit and vegetable intake;
    - An estimated 84,583 adults age 18+ (63%) are overweight or obese;
    - An estimated 65,149 adults age 18+ (48%) are not meeting recommendations for physical activity;
    - An estimated 39,791 adults age 18+ (29%) have high blood pressure; and
    - An estimated 14,313 adults age 18+ (11%) have diabetes.

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

Indicator		Virginia	Study Region
Estimates-Counts			
Estimated Adults age 18+		6,393,583	134,998
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	5,114,866	108,245
	Overweight or Obese	3,964,021	84,583
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	3,068,920	65,149
	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	24,436
	Smoker	1,214,781	23,094
Chronic Conditions	High Cholesterol (was checked, and told by a doctor or other health professional it was high)	2,237,754	48,620
	High Blood Pressure (told by a doctor or other health professional)	1,918,075	39,791
	Arthritis (told by a doctor or other health professional)	1,534,460	31,675
	Diabetes (told by a doctor or other health professional)	575,422	14,313
General Health Status	Limited in any Activities because of Physical, Mental or Emotional Problems	1,214,781	26,056
	Fair or Poor Health Status	1,022,973	22,244
Estimates-Rates			
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	80%	80%
	Overweight or Obese	62%	63%
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	48%	48%
	At-risk for Binge Drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	18%	18%
	Smoker	19%	17%
Chronic Conditions	High Cholesterol (was checked, and told by a doctor or other health professional it was high)	35%	36%
	High Blood Pressure (told by a doctor or other health professional)	30%	29%
	Arthritis (told by a doctor or other health professional)	24%	23%
	Diabetes (told by a doctor or other health professional)	9%	11%
General Health Status	Limited in any Activities because of Physical, Mental or Emotional Problems	19%	19%
	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 1,150 youth age 14-19 (8%) and 1,141 youth age 10-14 (23%) met the guidelines for fruit and vegetable intake;
    - An estimated 3,710 youth age 14-19 (27%) are overweight or obese;
    - An estimated 7,579 youth age 14-19 (54%) and 3,171 youth age 10-14 (65%) did not meet the guidelines for physical activity;
    - An estimated 2,575 youth age 14-19 (18%) and 112 youth age 10-14 (2%) used tobacco in the past month; and
    - An estimated 3,522 youth age 14-19 (25%) felt sad or hopeless almost every day at least two weeks in a row.

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	13,981
Met Guidelines for Fruit and Vegetable Intake	54,707	1,150
Overweight or Obese	179,050	3,710
Not Meeting Recommendations for Physical Activity in the Past Week	363,586	7,579
Used Tobacco in the Past 30 Days	118,572	2,575
Had at least One Drink of Alcohol At least One Day in the Past 30 Days	178,173	3,951
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	3,522
Middle School Youth Age 10-14		
Total Estimated Middle School Youth Age 10-14	523,850	4,889
Met Guidelines for Fruit and Vegetable Intake	125,285	1,141
Not Meeting Recommendations for Physical Activity in the Past Week	345,407	3,171
Used Tobacco in the Past 30 Days	19,192	112
Rates (Percent Estimates)		
High School Youth Age 14-19		
Met Guidelines for Fruit and Vegetable Intake	8%	8%
Overweight or Obese	27%	27%
Not Meeting Recommendations for Physical Activity in the Past Week	56%	54%
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%	28%
Felt Sad or Hopeless (almost every day for two or more weeks in a row so that they stopped doing some usual activities)	25%	25%
Middle School Youth Age 10-14		
Met Guidelines for Fruit and Vegetable Intake	24%	23%
Not Meeting Recommendations for Physical Activity in the Past Week	66%	65%
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 20,648 residents of the study region were uninsured.
- The estimated number of uninsured children age 0-18 was 2,669 in the study region. Among uninsured children, it is estimated that 1,340 (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 was 17,979 in the study region. Among uninsured adults, it is estimated that 9,655 (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	20,648
Uninsured Children Age 0-18	120,105	2,669
Uninsured Children Age 0-18 <=138% FPL	38,955	866
Uninsured Children Age 0-18 <=200% FPL	60,293	1,340
Uninsured Children Age 0-18 <=250% FPL	74,045	1,645
Uninsured Children Age 0-18 <=400% FPL	98,441	2,187
Uninsured Children Age 0-18 138-400% FPL	59,485	1,322
Uninsured Adults Age 19-64	893,456	17,979
Uninsured Adults Age 19-64 <=138% FPL	327,185	6,584
Uninsured Adults Age 19-64 <=200% FPL	479,797	9,655
Uninsured Adults Age 19-64 <=250% FPL	578,328	11,638
Uninsured Adults Age 19-64 <=400% FPL	749,463	15,082
Uninsured Adults Age 19-64 138-400% FPL	422,276	8,498
Estimated Uninsured Percent		
Uninsured Children Percent	6%	7%
Uninsured Adults Percent	17%	18%

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. 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	

Technical Notes

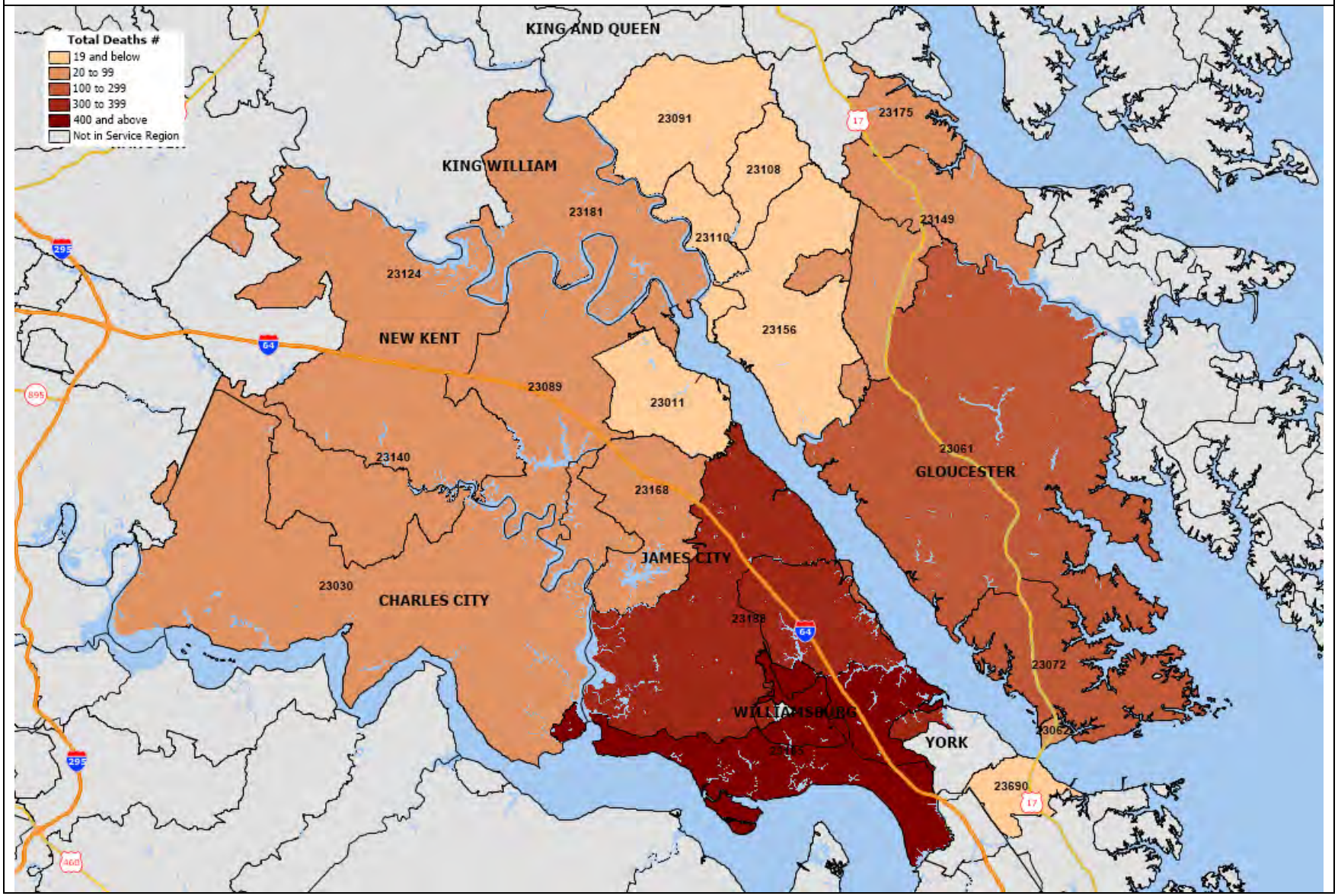
1. The maps and data include 20 zip codes, as identified by Sentara Williamsburg Regional Medical Center, which fall within Charles City County, Gloucester County, James City County, King and Queen County, King William County, Middlesex County, New Kent County, Williamsburg City, and York County. It 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. Also, not all zip codes were identified by Sentara Williamsburg Regional Medical Center as part of the study region.

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.

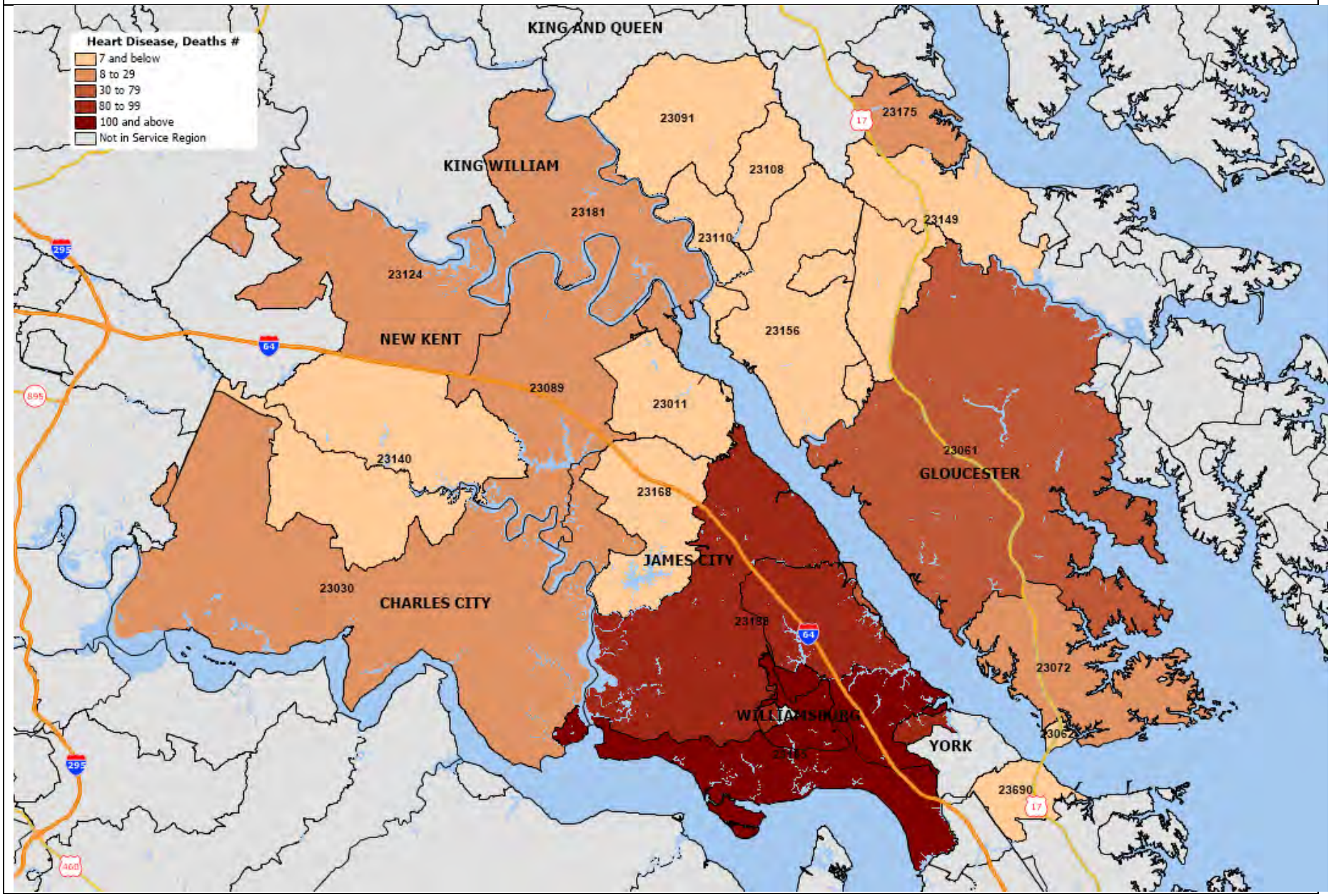
4. Zip Code-Level Study Region zip codes with zero values are noted.

Map 1: Total Deaths, 2013



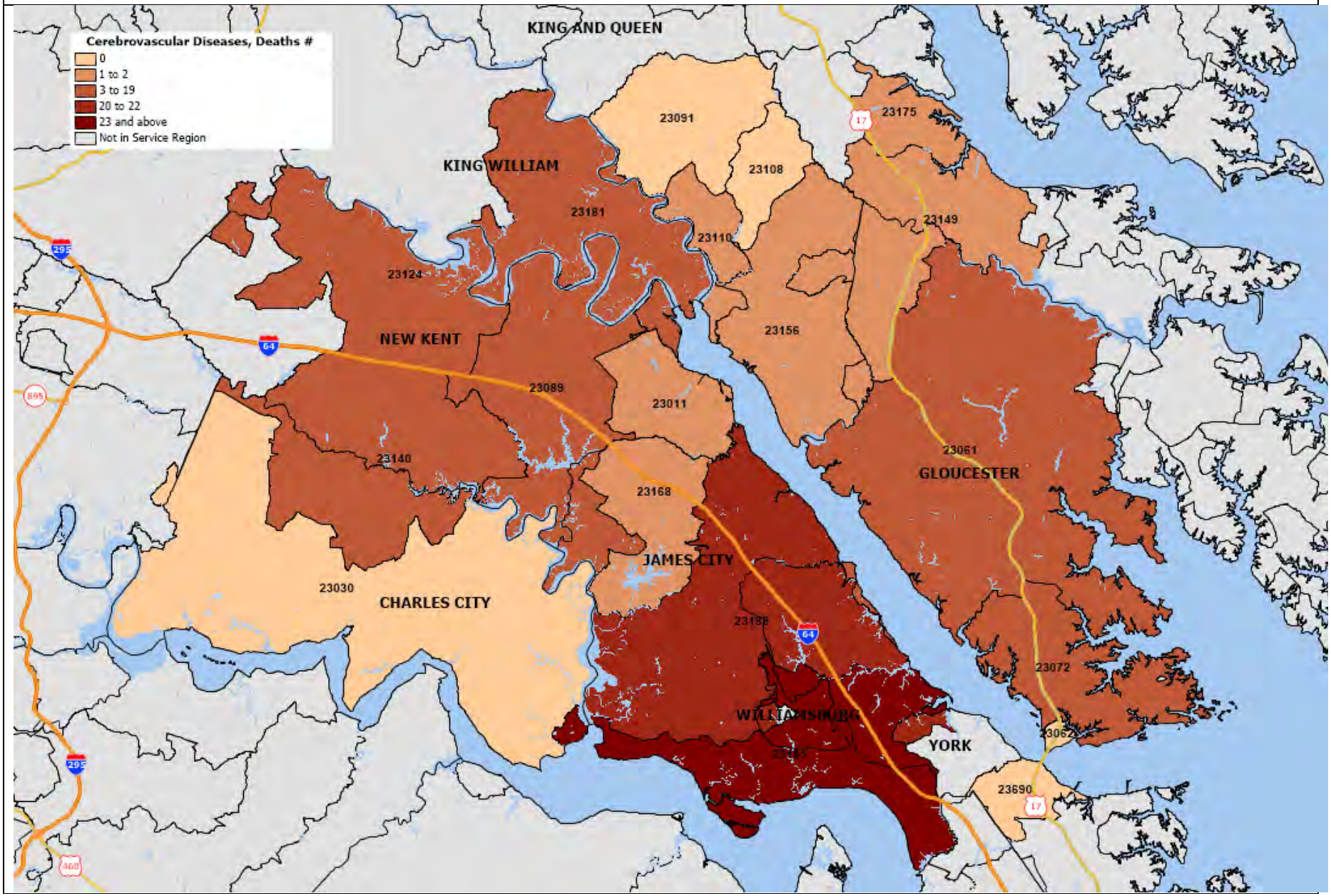
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in *Appendix B*.

Map 2: Heart Disease Deaths, 2013



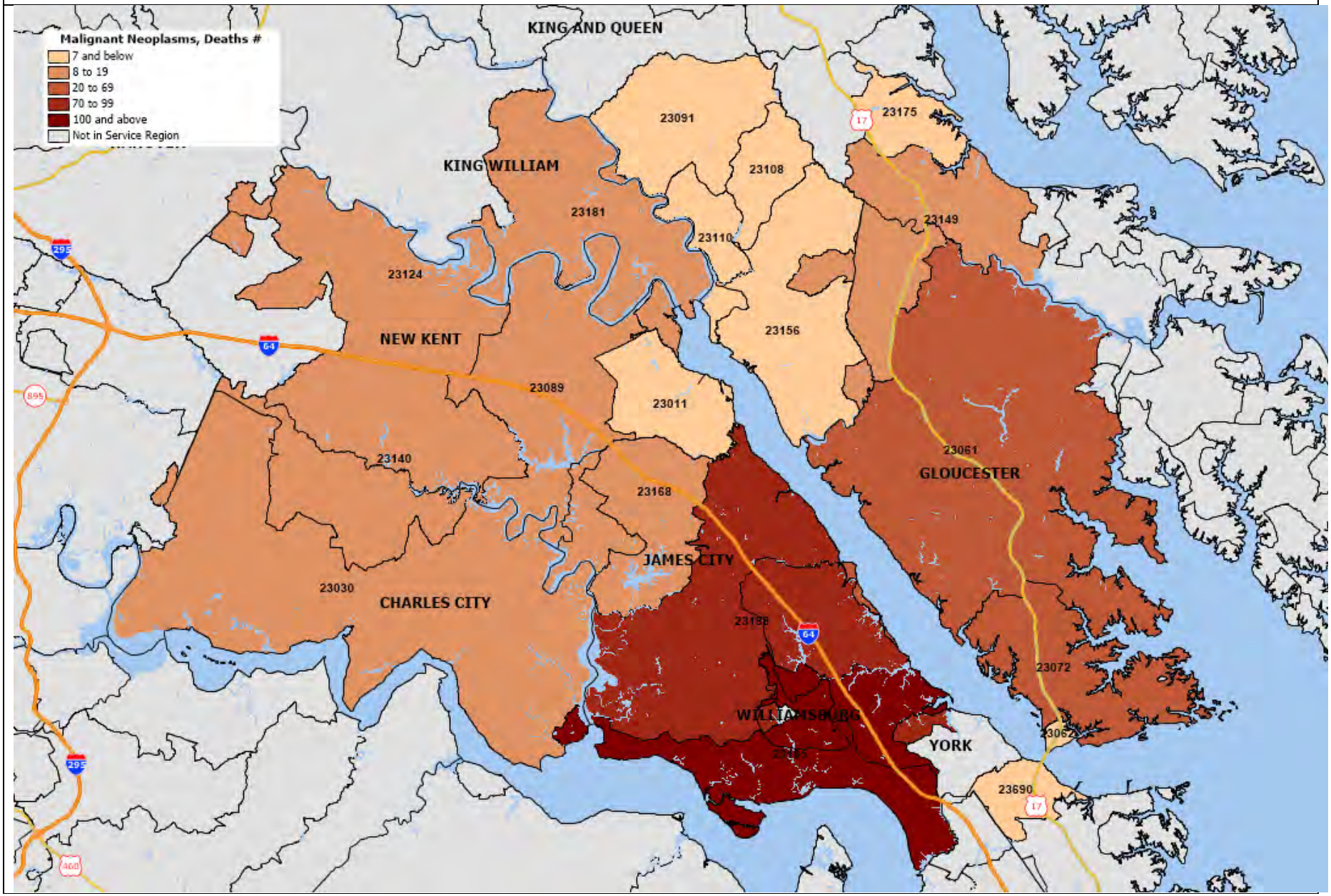
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in *Appendix B*. Notes: There were no reported heart disease deaths for zip codes 23108, 23110 and 23186.

Map 3: Cerebrovascular Disease (Stroke) Deaths, 2013



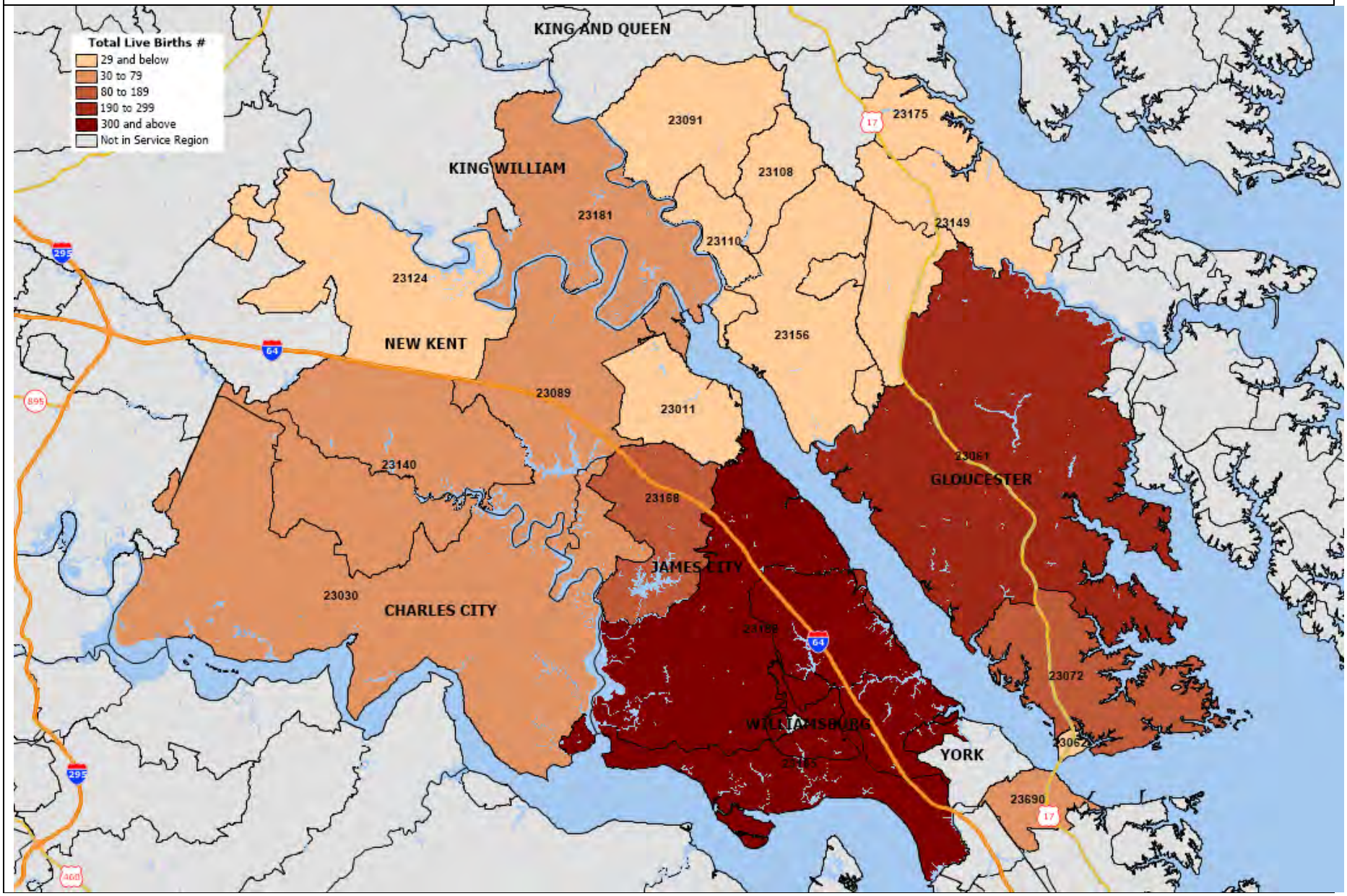
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in *Appendix B*. Notes: There were no reported stroke deaths for zip codes 23030, 23062, 23091, 23108 and 23690.

Map 4: Malignant Neoplasms (Cancer) Deaths, 2013



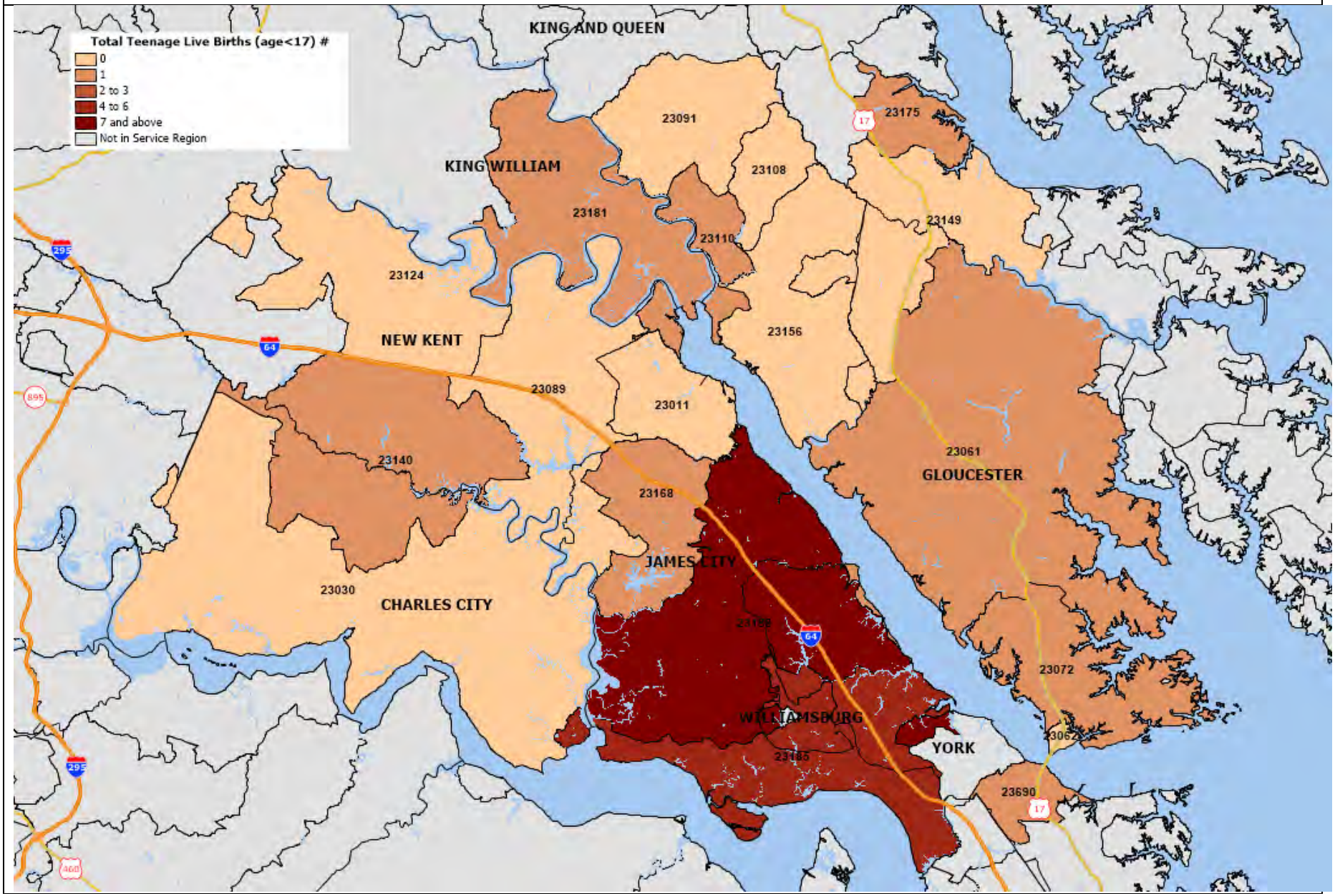
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in *Appendix B*. Notes: There were no reported cancer deaths for zip code 23186.

Map 5: Total Live Births, 2013



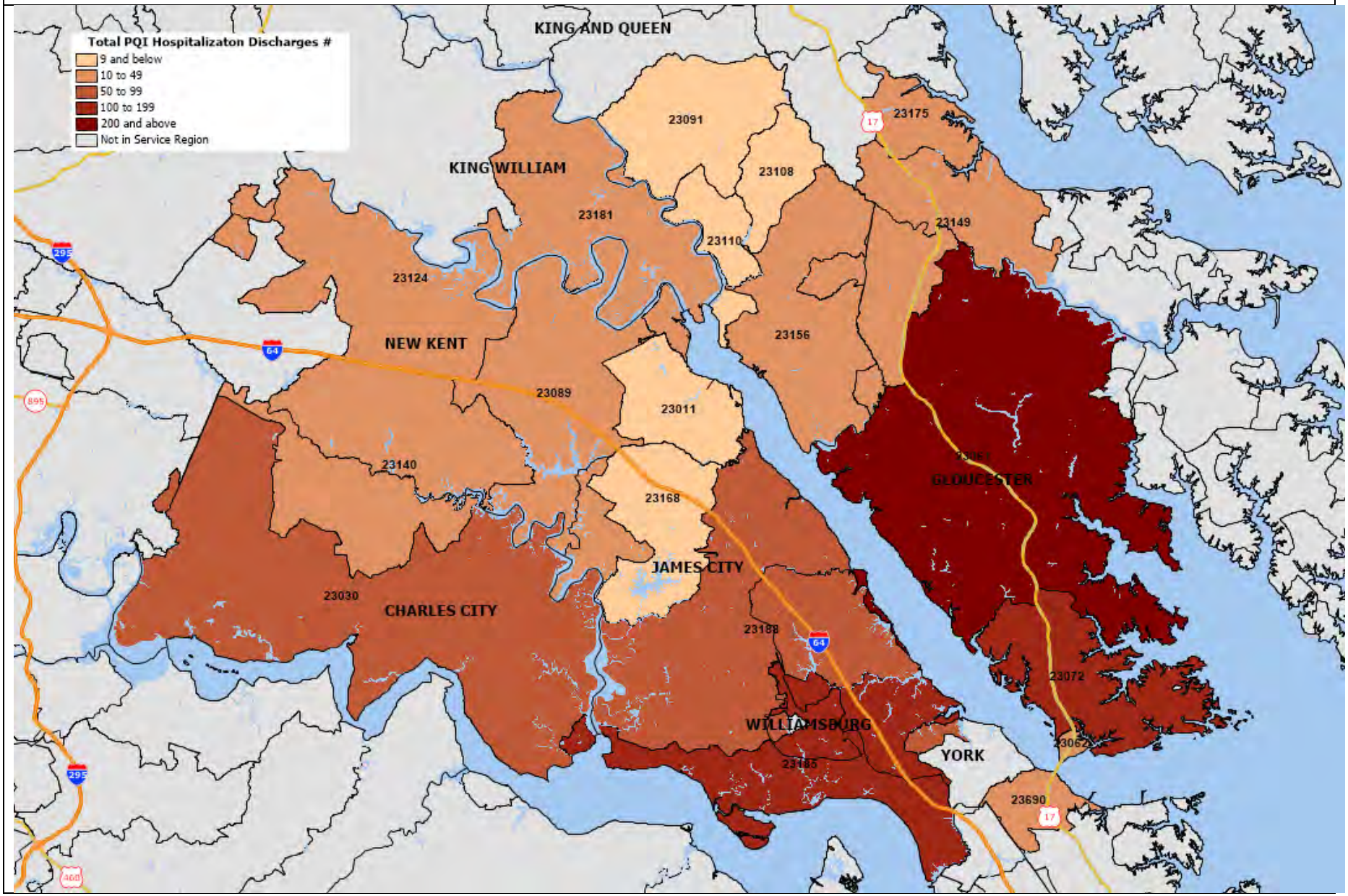
Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in *Appendix B*. Notes: There were no reported live births for zip code 23108.

Map 6: Total Teenage Live Births (age <18), 2013



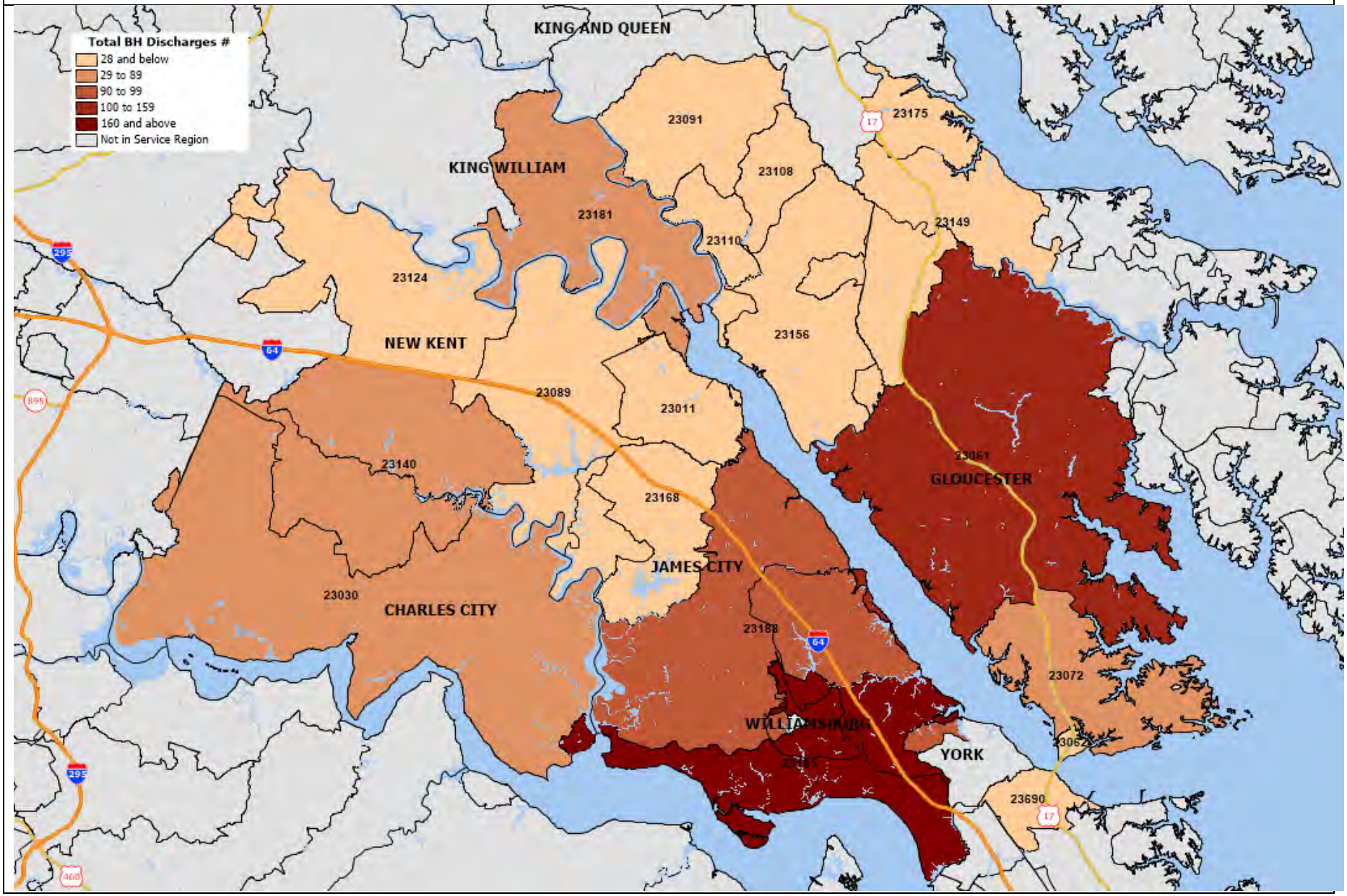
Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in *Appendix B*. Notes: There were no reported teenage live births for zip codes 23011, 23030, 23062, 23089, 23091, 23108, 23124, 23149, 23156 and 23186.

Map 7: Total Prevention Quality Indicator (PQI) Hospitalization Discharges, 2013



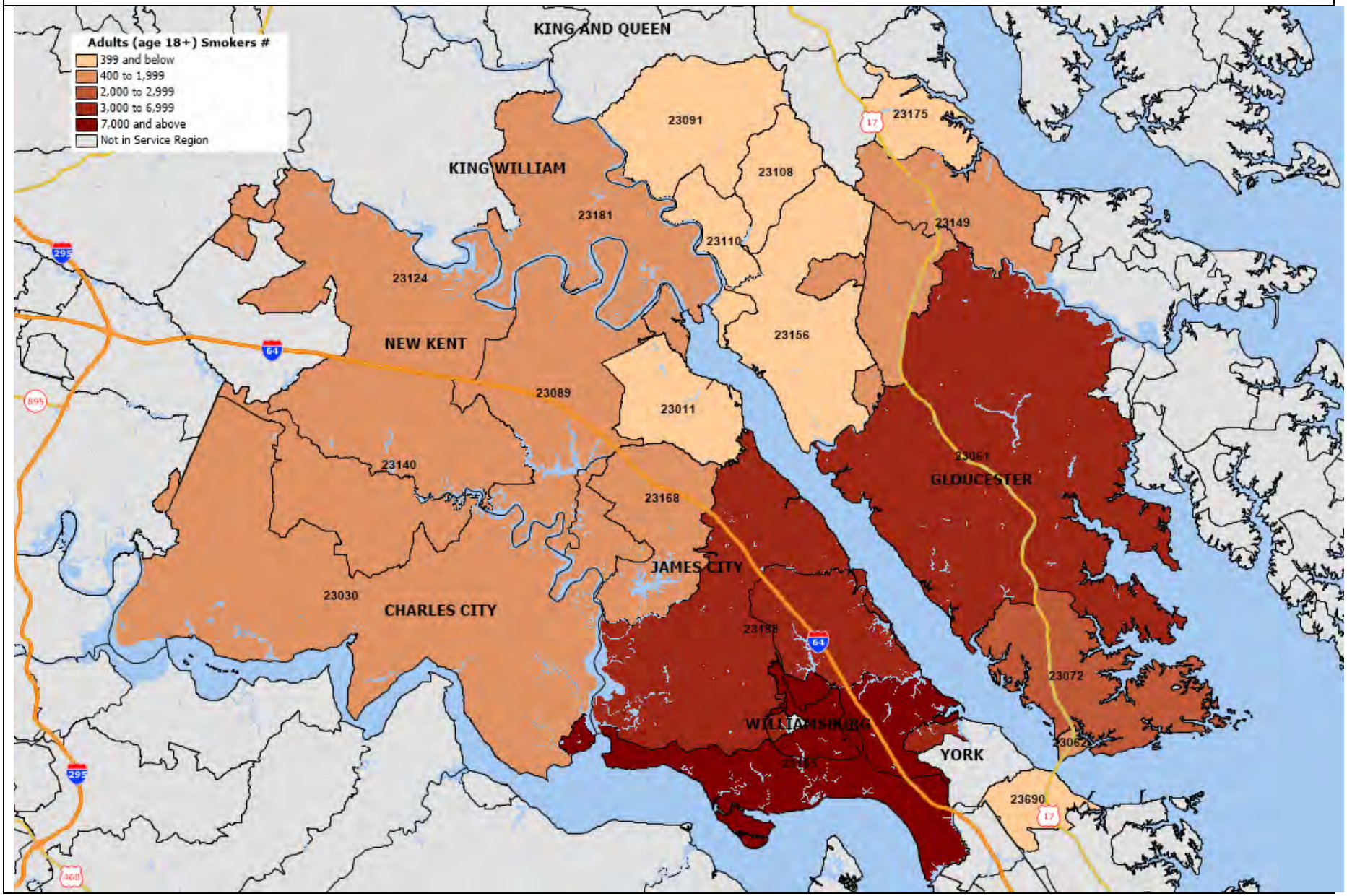
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in *Appendix B*.

Map 8: Total Behavioral Health (BH) Hospitalization Discharges, 2013



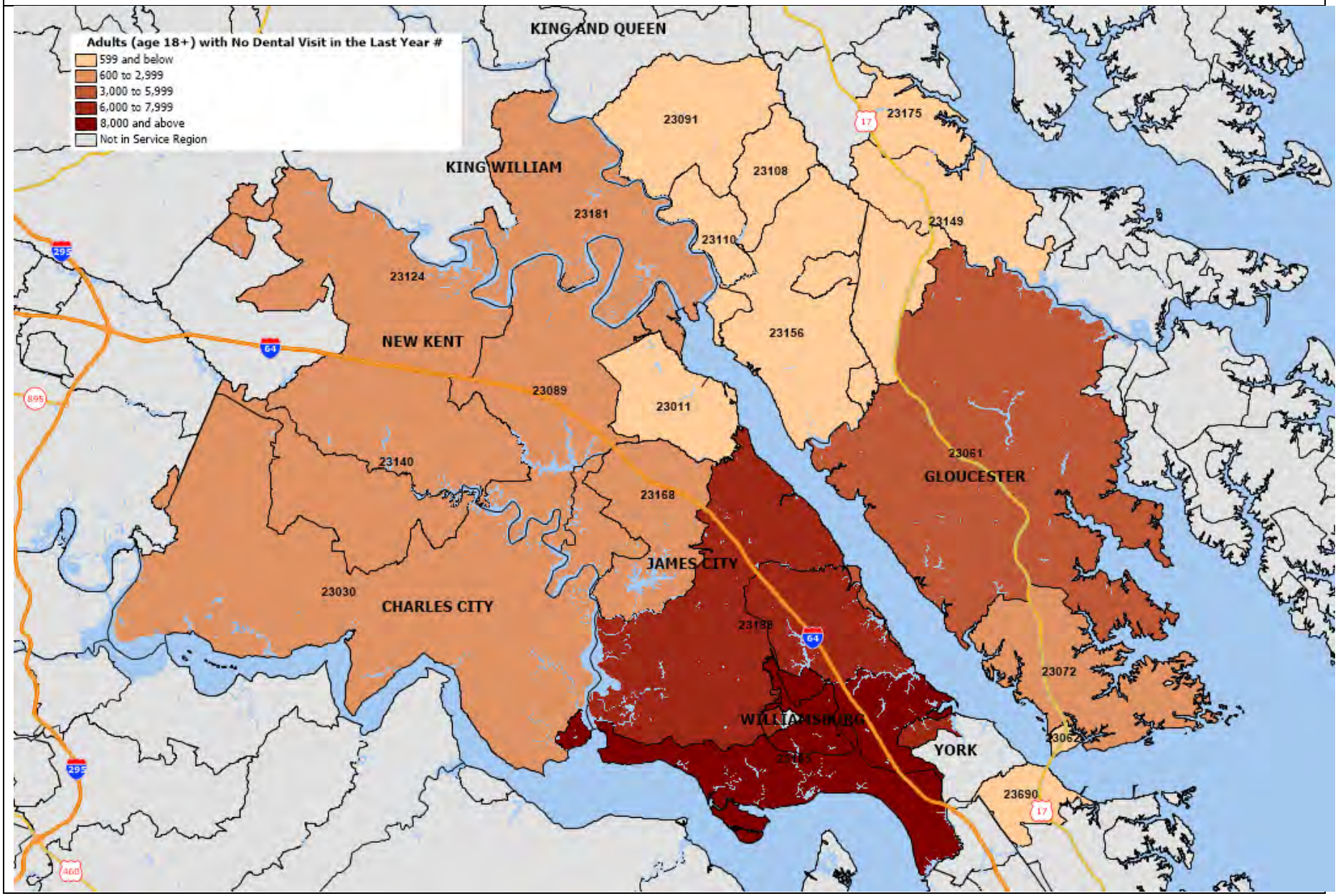
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in *Appendix B*. Notes: There were no reported BH hospitalization discharges for zip code 23091.

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



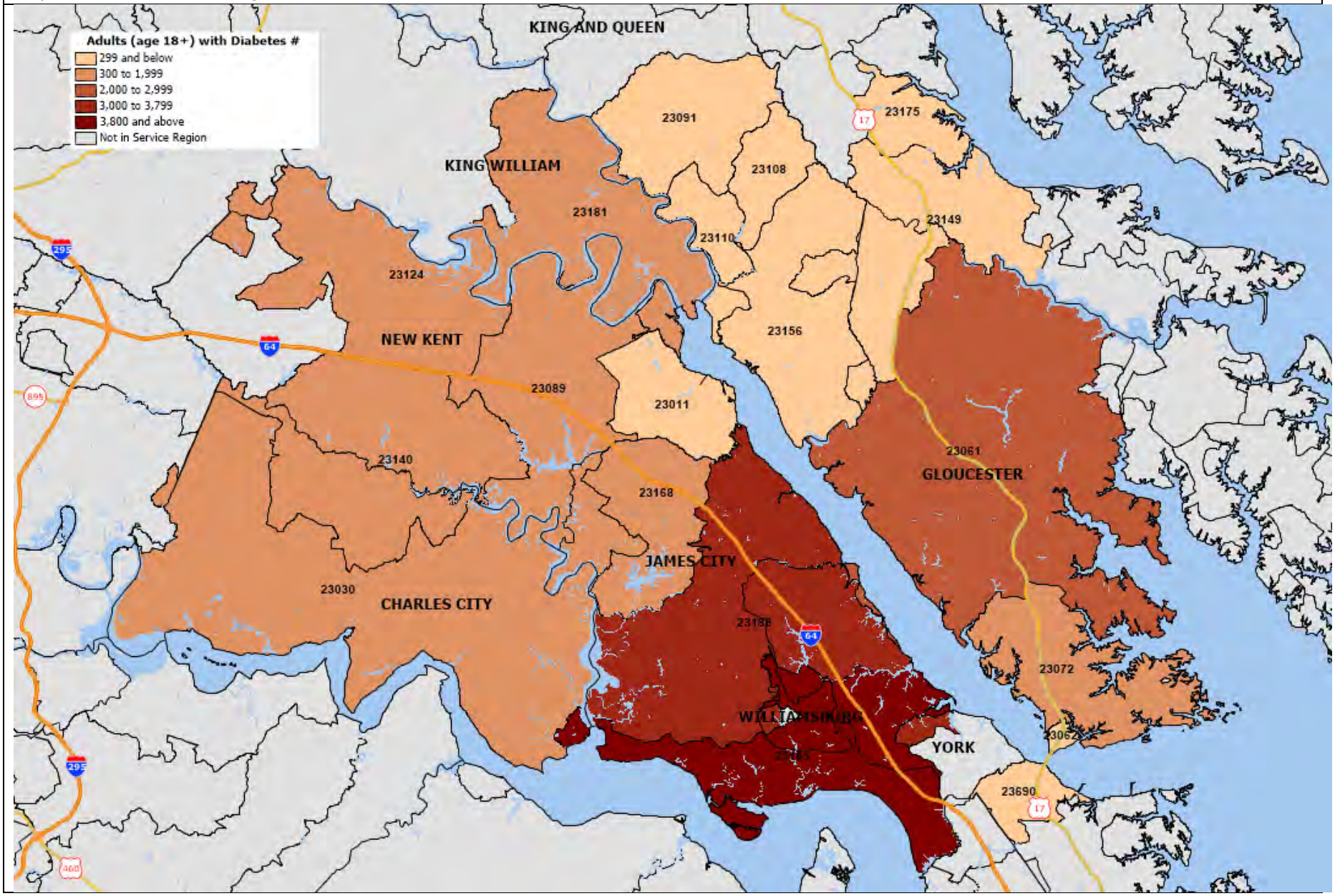
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in *Appendix B*.

Map 10: Estimated Adults Age 18+ with No Dental Visit in the Last Year, 2014-Estimates



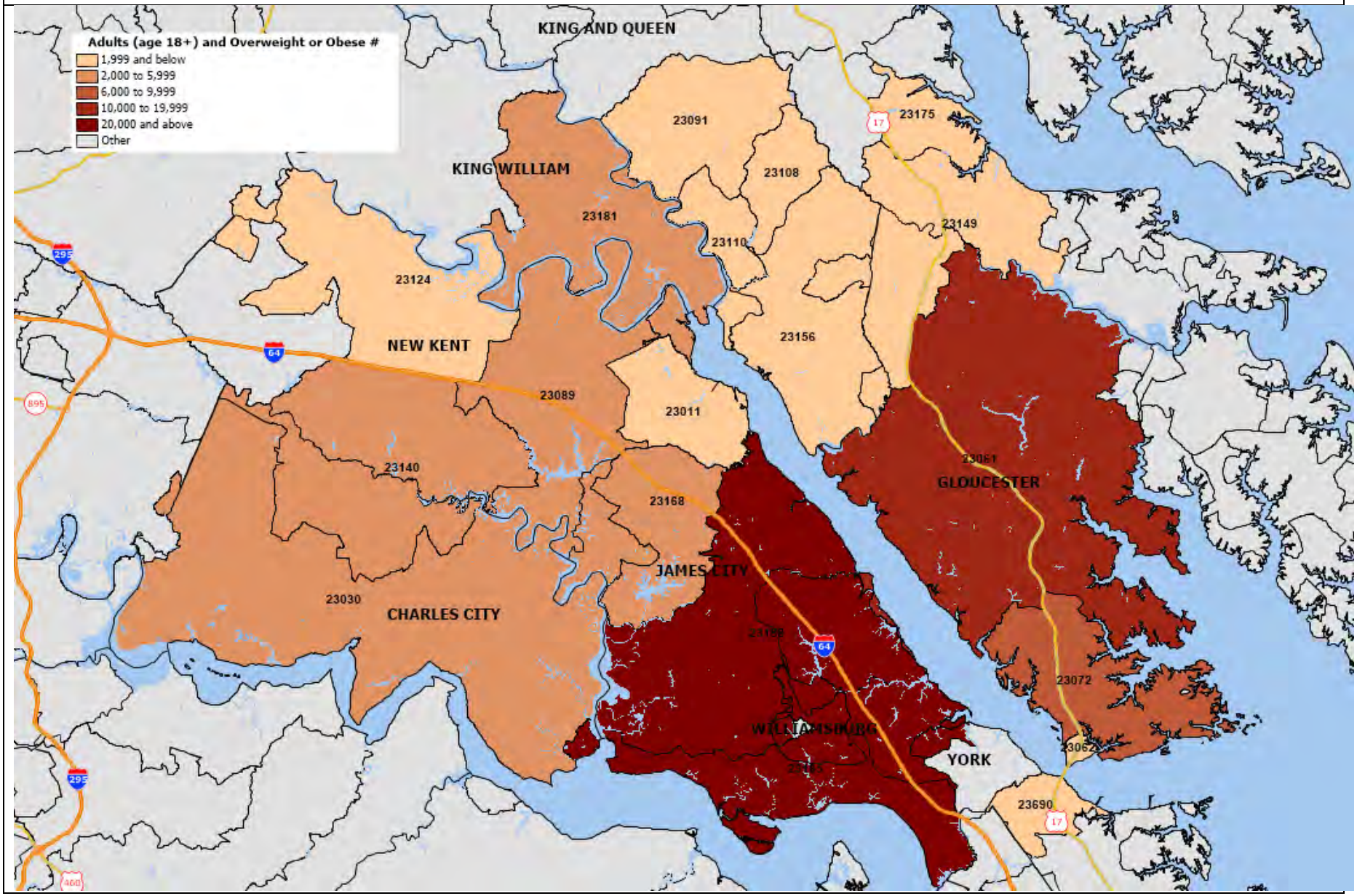
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in *Appendix B*.

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



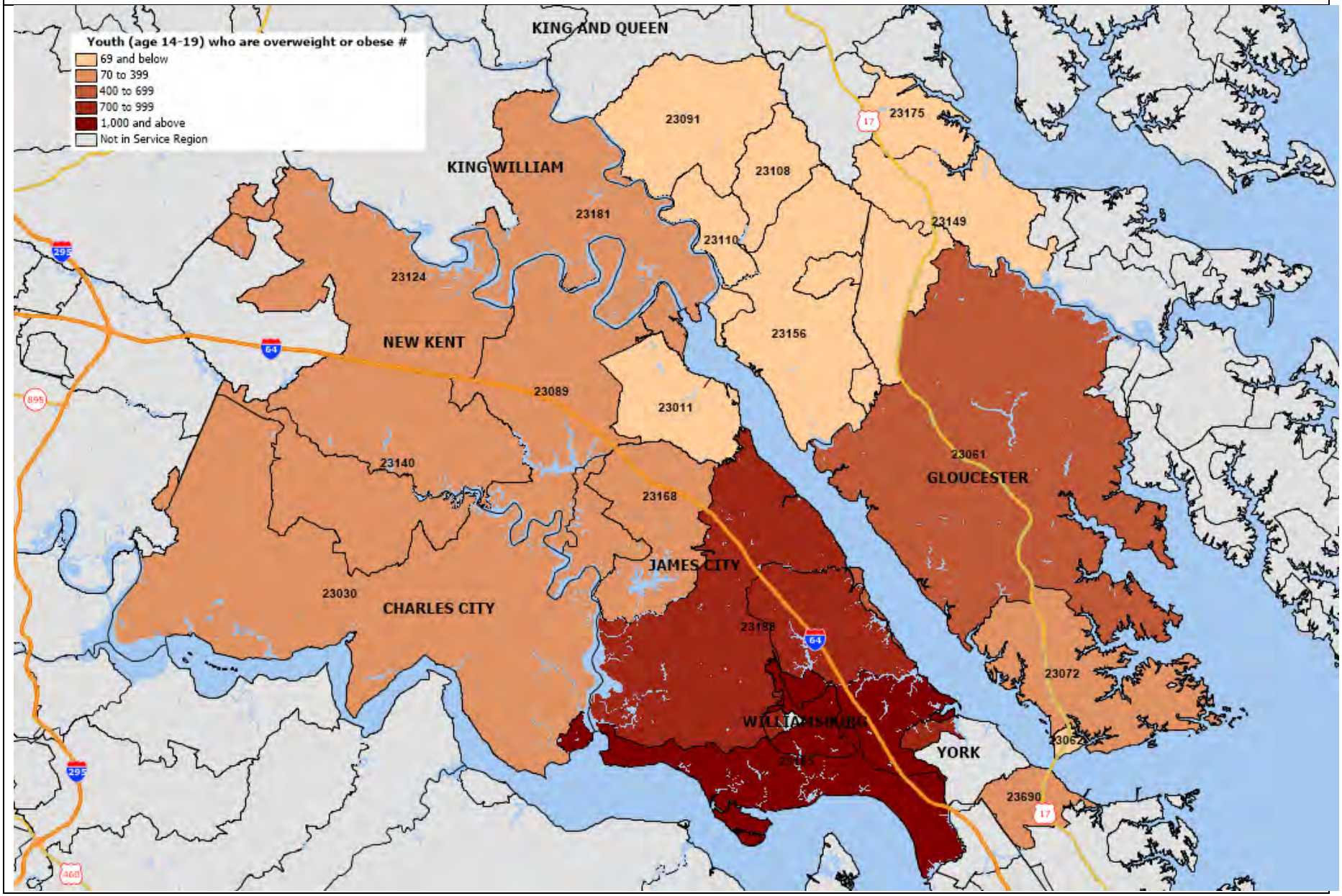
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in *Appendix B*.

Map 12: Estimated Adults Age 18+ who are Overweight or Obese, 2014-Estimates



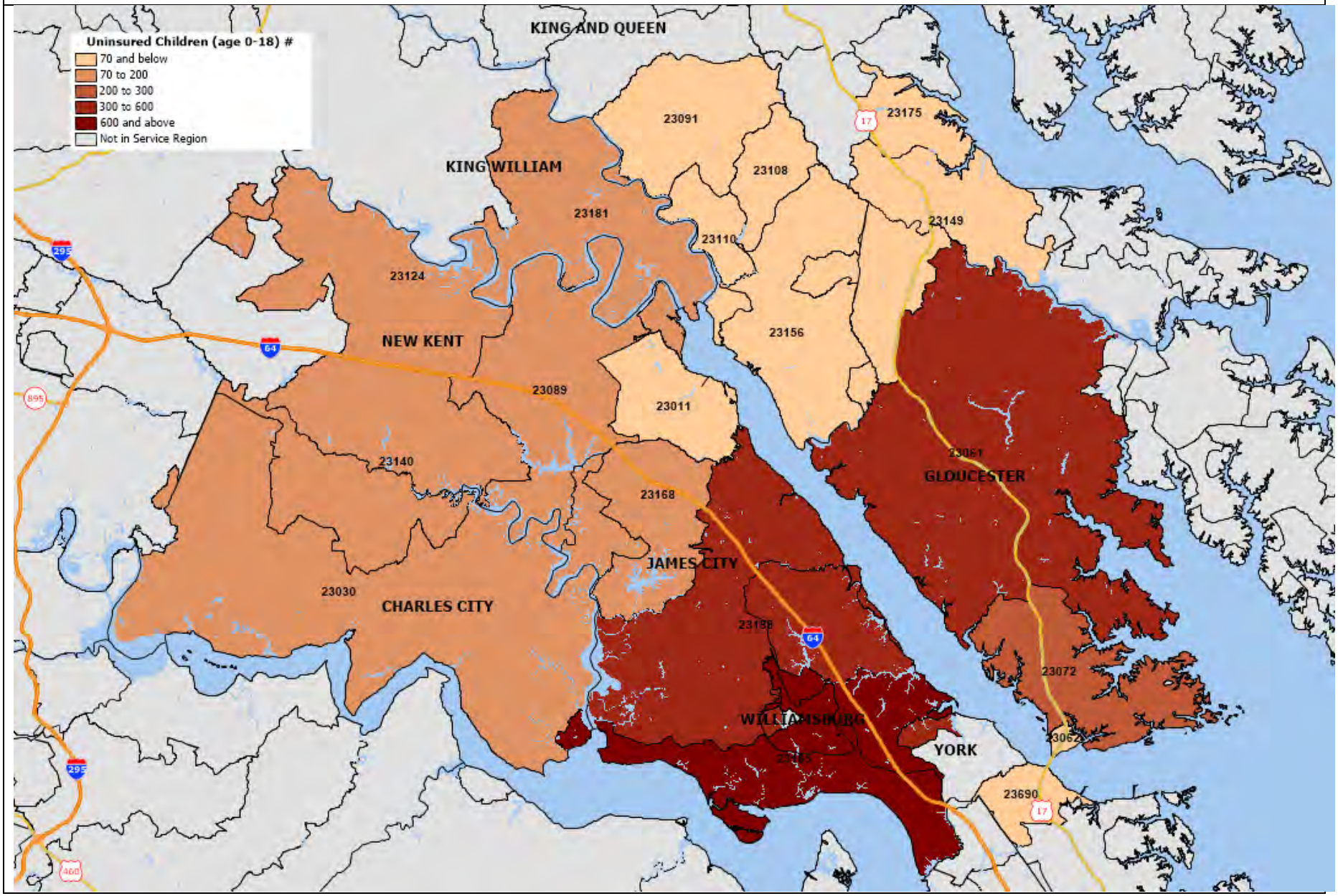
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See *Appendix B*.

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



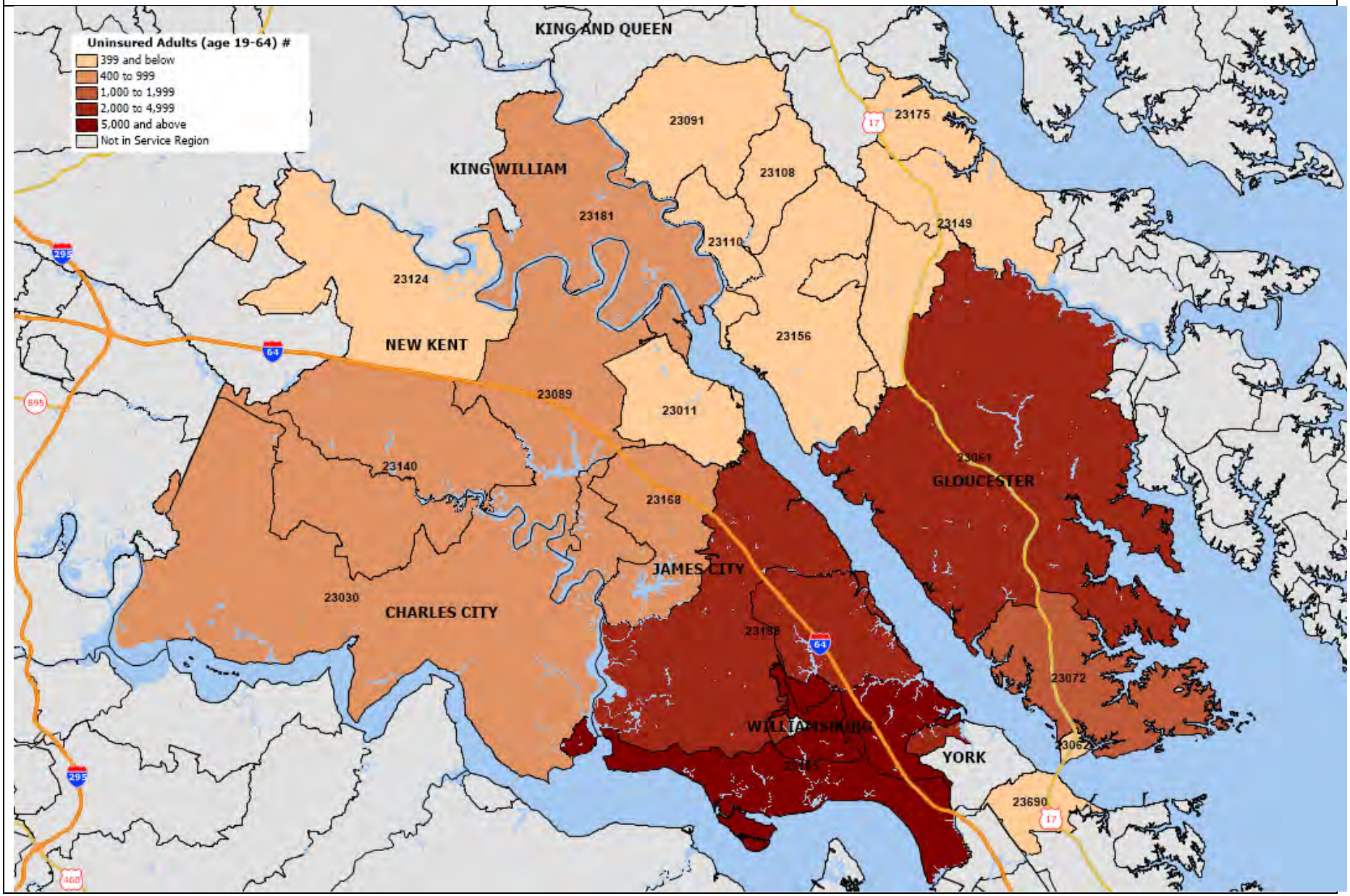
Source: Estimates produced by Community Health Solutions using Virginia Youth Risk Behavioral Surveillance System data and local demographic estimates from Alteryx, Inc. See *Appendix B*. Data Sources for details.

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



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



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: Data Sources

Section	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 adult Virginia residents from Virginia hospitals excluding state and federal facilities. Due to the lack of reporting on the part of a regional child/adolescent psychiatric hospital, the analysis in this profile does not include data for residents age 0-17. Additionally, 2011-2013 data were not available from one Williamsburg regional facility which provides services for patients 18+. *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.*

Section	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 Survey Results

Prepared for Sentara Williamsburg Medical Center

By Community Health Solutions

August 2016

Community Survey Results

This report presents the results of a *Community Survey* commissioned by Sentara Williamsburg Regional Medical Center (Sentara WRMC). The survey is part of Sentara WRMC's 2016 Community Health Needs Assessment project. The survey was conducted jointly by Riverside Health System and Sentara Healthcare in an effort to obtain community input for the study. The *Community Survey* was conducted with a broad-based group of community stakeholders. The survey participants were asked to provide their viewpoints on:

- Important health concerns in the community;
- Significant service gaps in the community;
- Vulnerable/at-risk populations in the community;
- Vulnerable/at-risk geographic regions in the community;
- Existing health assets within the community;
- Health assets needed in the community; and
- Additional ideas or suggestions for improving community health.

The community stakeholder list included representatives from public health, education, social services, business, local government and local civic organizations, among others. Riverside Health System and Sentara Healthcare staff conducted outreach for community input via email, through personal phone calls, and in-person at local events and meetings. An email survey request was sent to 922 unduplicated community stakeholders, and a total of 100 stakeholders in the Sentara WRMC service area submitted a response (although not every respondent answered every question). The respondents provided rich insights about community health in the study region. The survey results are summarized in the report, and detailed, open-ended responses are provided in *Appendix A*.

1. Survey Respondents by Organization

As shown in *Exhibit 1* on the following page, survey respondents were asked to provide the name of their organization.

Exhibit 1. Survey Respondents by Organization	
What is the name of your organization?	
Note: A count is provided for organizations with multiple survey respondents.	
Angels of Mercy Medical Clinic	Peninsula Metropolitan YMCA
Auxiliary of Sentara Williamsburg Regional Medical Center (5)	Peninsula Youth Hockey Association
Avalon Center	Riverside Doctors Hospital Williamsburg - Board Member
Bay Rivers Telehealth Alliance	Respite Care of Williamsburg United Methodist Church
Beyond Boobs!	Retired (5)
Brentwood Pediatrics	Riverside Health System (2)
Catholic Charities of Eastern Virginia	Riverside House Calls Practice
Celebrate Healthcare LLC	Riverside Medical Group
Center for Weight Loss Success	Riverside Program of All-Inclusive Care for the Elderly
Charles City Sheriff Office	Second Chances Comprehensive Services LLC
City of Williamsburg	Sentara Healthcare
College of William and Mary	Sentara Patient Family Advisory Council (2)
Colonial Behavioral Health (3)	Sentara Williamsburg Regional Medical Center (4)
Community Free Clinic of Newport News	Spring Arbor of Williamsburg
Doctor's Hospital Board	Tidewater Diagnostic Imaging
Foundation for Rehabilitation and Endowment	TPGM (Tidewater Physicians Multispecialty Group ??)
Gloucester County Community Education	United Way of Greater Williamsburg
Gloucester-Mathews Care Clinic	United Way of the Virginia Peninsula (2)
Grove Christian Outreach Center	VersAbility Resources
Hampton Roads Neurosurgical and Spine Specialists	Village Events, Ltd.
Healing Music	Virginia Peninsula Chamber of Commerce
Homeowner	Virginia Peninsula Foodbank
Hospice House and Support Care of Williamsburg (2)	Volunteer (2)
Independent Consultant	West Point (Town of)
International Black Women's Congress	West Point Police Department
James City County	Williamsburg Area Faith in Action
James City County Board of Supervisors	Williamsburg Community Foundation
James City County Police Department	Williamsburg Dept. of Human Services
James City County Social Services	Williamsburg Emergency Physicians (2)
King William Sheriff's Office	Williamsburg Health Foundation (4)
Middlesex County	Williamsburg Landing, Inc.
New Kent Children's Services Act	Williamsburg-James City County Public Schools
Newport News Fire Department	Williamsburg-James City County School Board
PAFAC - Sentara Williamsburg	Williamsburg Health Foundation
PBMares Wealth Management (2)	York County (2)
Peninsula Agency on Aging (3)	York County Board of Supervisors (2)
Peninsula Health District	

2. Community Health Concerns

Survey respondents were asked to review a list of common community health issues. The list of issues draws from the topics in *Healthy People 2020* with some refinements. The survey asked respondents to identify from the list what they view as important health concerns in the community. Respondents were also invited to identify additional issues not already defined on the list. *Exhibit 2* provides summary results, including open-ended responses.

Exhibit 2
Important Community Health Concerns Identified by Survey Respondents

Note: 96 of the 100 respondents answered this question. When interpreting the survey results, please note that although the relative number of responses received for each item is instructive, it is not a definitive measure of the relative importance of one issue compared to another.

Answer Options	Response Percent	Response Count
Mental Health - Behavioral Health Conditions (e.g. depression, anxiety, etc.)	76%	73
High Blood Pressure / Hypertension	70%	67
Dementia / Alzheimer's Disease	69%	66
Heart Disease	68%	65
Obesity	65%	62
Diabetes	63%	60
Substance Abuse (prescription or illegal drugs)	61%	59
Cancer	58%	56
Alcohol Use	49%	47
Stroke	49%	47
Accidents / Injuries	44%	42
Chronic Pain	42%	40
Respiratory Diseases (e.g. asthma, COPD, etc.)	41%	39
Violence – Domestic Violence	41%	39
Infant and Child Health	36%	35
Tobacco Use	36%	35
Dental / Oral Health Care	35%	34
Orthopedic Problems	34%	33
Arthritis	33%	32
Hunger	32%	31
Prenatal and Pregnancy Care	30%	29
Violence – Other than domestic violence	28%	27
Intellectual/Developmental Disabilities	27%	26
Bullying	25%	24
Environmental Health (e.g. pollution, mosquito control, water quality, etc.)	25%	24
Neurological Conditions (e.g. seizures, multiple sclerosis, traumatic brain injury, etc.)	25%	24
Renal (kidney) Disease	25%	24
Physical Disabilities	22%	21
Drowning / Water Safety	19%	18
Infectious Diseases	19%	18
Autism	18%	17
Teen Pregnancy	16%	15
Sexually Transmitted Diseases	15%	14
HIV/AIDS	14%	13
Other Health Problems (see the following page)	17%	16

Continued

Exhibit 2 Important Community Health Concerns Identified by Survey Respondents (continued)	
Response #	**Other Health Concerns (Open-Ended Reponses)**
1	• Access to specialty care • Uninsured
2	• All are important to those who are facing them; gaining access to services to address these needs is the challenge.
3	• Diseases of the aging are prevalent in this area due to everyday influx of retirees.
4	• Frail elders in unsafe situations, negligence, and poor nutrition. • Keeping elder persons in their home with community support.
5	• Geriatric outpatient services • Comprehensive pain management to include psych services
6	• Issues associated with aging-social isolation, unable to drive to doctor appointments
7	• Lack of adequate gerontology resources, including physicians. One third of the population in our geographic area, will be seniors within the next 3 years. There are not adequate sources to help them at this time, particularly for low-income seniors. Families who are caretakers also need more support and help.
8	• Opiate and heroin addiction
9	• The growing danger of antibiotic resistant bacteria. • The items selected are health issues that seem to be more prevalent. An aging population and growing numbers of obese individuals raises concerns and incidences of all the other health issues occurring.
10	• Sexual abuse is not listed; it is a serious health problem. • Homeless and those with no ID's have a serious problem getting help.
11	• Sexual assault both on college campus and off. We have seen a very big increase in clients in the last two years.
12	• The general conditions of seniors; particularly the “old old”.
13	• The jurisdictions of Greater Williamsburg are in need of valid and easy-to-understand education regarding mental health. The community at-large would benefit from information on the high prevalence of mental health disorders which would help de-stigmatize the issue, and give people resources on where to turn for help. Also, due to the shortage among the mental health workforce, there is a need for additional training for primary care providers, at all credential levels, to be able to identify, diagnose, treat, and/or make referrals for their patients needing mental health care.
14	• They are all important and usually interrelated, so it's difficult to isolate any one of the above. For example, poor diet and lack of proper nutrition is an issue here, as opposed to "hunger" outright, and, as you are aware, has many side effects.
15	• Health concerns faced by people with disabilities
16	• Williamsburg is primarily split between retired, aging population with associated health risks for later and life and young, emerging adults at the college that are more accident prone and under stress.

3. Community Service Gaps

Survey respondents were asked to review a list of community services that are typically important for addressing the health needs of a community. Respondents were asked to identify from the list any services they think need strengthening in terms of availability, access, or quality. Respondents were also invited to identify additional service gaps not already defined on the list. *Exhibit 3* provides summary results, including open-ended responses.

Exhibit 3
Important Community Service Gaps Identified by Survey Respondents

Note: 97 of the 100 respondents answered this question. When interpreting the survey results, please note that although the relative number of responses received for each item is instructive, it is not a definitive measure of the relative importance of one issue compared to another.

Answer Options	Response Percent	Response Count
Aging Services	68%	66
Care Coordination and Transitions of Care	59%	57
Mental Heath - Behavioral Health Services	59%	57
Health Care Insurance Coverage	53%	51
Services for Vulnerable Populations (e.g. uninsured/underinsured, migrant workers, homeless, etc.)	53%	51
Services for Caregivers	48%	47
Long Term Care Services	46%	45
Health Promotion and Prevention Services	45%	44
Transportation Services	45%	44
Chronic Disease Services (e.g. diabetes, high blood pressure, etc.)	43%	42
Substance Abuse Services	41%	40
Self-Management Services (e.g. nutrition, exercise, taking medications)	40%	39
Home Health Services	39%	38
Chronic Pain Management Services	32%	31
Dental / Oral Health Care Services	32%	31
Food Safety Net (e.g. food bank, community gardens, school lunches, etc.)	31%	30
Cancer Services (e.g. screening, diagnosis, treatment, etc.)	29%	28
Social Services	28%	27
Veterans Services	26%	25
Early Intervention Services for Children	23%	22
Domestic Violence Services	22%	21
Primary Care Medical Services	22%	21
Specialty Care Medical Services (cardiologists, oncologists, etc.)	22%	21
Public Health Services	21%	20
Intellectual/Developmental Disabilities Services	20%	19
School Health Services	15%	15
Hospice Services	14%	14
Maternal, Infant and Child Health Services	14%	14
Hospital Services (e.g. inpatient, outpatient, emergency care, etc.)	12%	12
Physical Rehabilitation	12%	12
Public Safety Services	11%	11

Continued

Exhibit 3
Important Community Service Gaps Identified by Survey Respondents

Note: 97 of the 100 respondents answered this question. When interpreting the survey results, please note that although the relative number of responses received for each item is instructive, it is not a definitive measure of the relative importance of one issue compared to another.

Answer Options	Response Percent	Response Count
Environmental Health Services	9%	9
Family Planning Services	8%	8
Pharmacy Services	6%	6
Workplace Health and Safety Services	4%	4
Other Services (see responses below)	10%	10

Response #	Other Service Gaps (Open-Ended Reponses)
1	• Access to services through remote technology • Palliative Care • patient care navigation and advocacy
2	• Affordable, accessible adult day programs
3	• Co-factor of poverty, access to care and health disparities
4	• Companion care that is affordable for those who do not qualify for Medicaid but are still considered low income.
5	• If one does not have an ID, getting the services I checked off are almost impossible to get.
6	• Lack of adequate financial resources for the services listed directly impact availability and access.
7	• Many of these are in place, concerns are with affordability and quality of services provided.
8	• MAT- Medication Assisted Treatment for individuals who are chemically dependent particularly in the area of opioids and alcohol.
9	• The Health Care Insurance coverage needs fixing, since a lot of people still "fall through the cracks", are not covered properly, and have high deductibles and monthly premium costs. • A number of seniors, who are solely on Social Security, cannot afford Assisted Living, etc. at $5,000 a month, and must age in place in their own apartment.
10	• When I was caring for my mother, there was no agency to draw blood once she had completed her home nursing services.

4. Vulnerable/At-Risk Populations or Geographic Regions in the Community

Survey respondents were asked if there are particular populations within the community who are vulnerable/at-risk for health concerns or difficulties obtaining health services. Respondents were also asked if there are particular neighborhoods or geographic regions within the community where residents may be vulnerable/at-risk for health concerns or difficulties obtaining health services. *Exhibit 4* provides summary results. Please see *Appendix A, Exhibits A1 and A2* for detailed responses.

Exhibit 4
Vulnerable/At Risk Populations Identified by Survey Respondents

Respondents identified vulnerable/at risk populations within the following categories (displayed in alphabetical order, not by rank/percent). See Appendix A, Exhibit A1 for 61 detailed responses.	*Respondents identified vulnerable/at-risk populations residing within the following places (displayed in alphabetical order, not by rank/percent). See Appendix A, Exhibit A2 for 34 detailed responses.*
• Children • Disabled • Elderly • Ethnic/Racial Minorities • Homeless • Low Income • Residents with Behavioral Health Conditions (mental health and substance abuse) • Residents without Transportation • Residents who have been Victims of Violence • Uninsured/Underinsured • Unemployed/Underemployed • Veterans	• City of Hampton • City of Newport News • City of Williamsburg • Gloucester County • James City County • King and Queen County • King William County • New Kent County • York County • Areas with Lower Socioeconomic Status • Middle Peninsula • Northern Neck

5. Health Assets in the Community

Survey respondents were asked to identify health assets within the community that promote a culture of health. Respondents were also asked to identify health assets that the community needs, but may be lacking. *Exhibit 5* provides summary results. Please see *Appendix A, Exhibits A3 and A4* for detailed responses.

Exhibit 5
Health Assets in the Community as Identified by Survey Respondents

Respondents identified existing assets that promote a culture of health in the following categories (displayed in alphabetical order, not by rank/percent). See Appendix A, Exhibit A3 for 65 detailed responses.	*Respondents identified assets that the community needs, but may be lacking, in the following categories (displayed in alphabetical order, not by rank/percent). See Appendix A, Exhibit A4 for 47 detailed responses.*
• Biking and Walking Trails • Community Organizations • Community Volunteers • Faith-Based Organizations • Free and Charitable Clinics • Hospitals and Health Systems • Natural Environment • Recreational Facilities • Safety Net Organizations	• Access to Safe Parks and Recreation Facilities • Behavioral Health Services (Mental Health and Substance Abuse) • Community Services for Seniors • Community Services for Low Income Residents • Health Care Services for Seniors • Health Care Services for Low Income Residents • Primary Medical Care Services • Safe, affordable Housing • Specialty Medical Services • Transportation Services

6. Additional Ideas and Suggestions

Survey respondents were invited to share any additional ideas or suggestions for improving community health. Thirty-one respondents offered ideas and suggestions related to improving access to services, coordinating services, using community health workers, crime prevention, creating educational opportunities, providing extracurricular activities, addressing transportation problems, addressing disparities, targeting resources to populations in need, expanding the health workforce, policy development, and community collaboration. *Appendix A, Exhibit A5* provides a detailed listing of the 31 responses.

Appendix A. Detailed Community Survey Responses

Exhibit A1. Vulnerable/At-Risk Populations in the Community

Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.

	Are there particular populations within the community who are vulnerable or at risk for health problems or difficulties? obtaining health services?
1	• African American
2	• The low income population and those who do not speak English well are particularly vulnerable. • The biggest issue seems to be transportation to any kind of health services. • The low income population is also particularly vulnerable because of poor eating habits, resulting in obesity, high blood pressure, and diabetes. It is difficult to afford nutritious food when you can barely afford food of any kind.
3	• Single, unattached adults with various health, mental health and/or substance abuse histories, with low incomes and poor work histories as a result are in a "catch 22" situation they cannot get out of.
4	• The uninsured and the under-insured who delay or avoid health care due to lack of funds. • The homeless (there are probably more than we realize).
5	• Aging • Low income residents
6	• Aging • People with substance/alcohol use disorders and behavioral health issues • Working poor • Rural families • Veterans
7	• Both the direct victim and the children who witness domestic violence are at risk for long term health issues. • Sexual assault victims should have access to an advocate and a specialized sexual assault nurse examiner when they are brought to the emergency room and should not be further traumatized by asking them to go to another city.
8	• Both the uninsured and underinsured • The elderly on fixed incomes
9	• Children living in poverty, especially those who have parents working multiple jobs and/or with behavioral health problems. Child poverty is growing in this region.
10	• Co-occurring serious mental illness and mental health and/or substance use disorder; especially those who earn too much money to qualify for Medicaid but not enough to pay for their own insurance. • I am quite concerned what will happen to the individuals who are currently covered under GAP insurance when the pilot project ends.
11	• Dental services for nursing home residents is unobtainable due to lack of facilities that can accommodate wheelchairs and lack of payment. • Psych services for pain management has been lacking for years in this area. • Outpatient geriatric primary care; many primary care practices are not equipped to handle geriatric patients and geriatric syndromes. They don't have the time, training and expertise for this population.
12	• Elderly • Children
13	• Frail elders who have no family or unreliable family to support them. Especially persons with chronic disease, who have visual and cognitive impairment. Medication management is a huge area of difficulty for these persons.

Exhibit A1. Vulnerable/At-Risk Populations in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Are there particular populations within the community who are vulnerable or at risk for health problems or difficulties? obtaining health services?	
14	• Geriatrics in assisted living with mental health concerns
15	• Homeless families
16	• Homeless population, human sex trafficked females. The City of Williamsburg and James City County refuse to accept they exist and the uninsured/underinsured.
17	• Ignorant
18	• Indigents • Individuals with no insurance or poor plans • Geriatrics
19	• Individuals in a poverty situation
20	• Individuals that don't qualify for services but don't make enough money to afford quality care and services.
21	• Low income
22	• Low income • Elderly
23	• Low income elderly • Immigrant service workers
24	• Low income populations-both elderly and transient • Uninsured residents
25	• Low income single parent families • Low income elderly
26	• Low income teenagers
27	• Low income • Disabled • Homeless • Kinship (people caring for other people's children) providers
28	• Low income • Seniors with limited income • Single adults with no children • Mobile home dwellers • Families living in hotels
29	• Low income • Uneducated • Mentally disabled(ill) population
30	• Lower income • Elderly populations • Those who speak a foreign language are most vulnerable to not getting services they need or understanding what they need to do to take care of their health needs at home.
31	• Low-income • Seasonally employed persons face significant challenges to securing affordable health insurance and therefore preventive health care including mental health care

Exhibit A1. Vulnerable/At-Risk Populations in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Are there particular populations within the community who are vulnerable or at risk for health problems or difficulties? obtaining health services?	
32	• Many older individuals are in need of safe, affordable housing and lack transportation resources to enable them to access health care. • Health care providers also need to become more aware of the importance of social determinants in achieving successful health outcomes long term.
33	• Many patients that are Medicaid eligible fail to renew their services causing lapses in insurances. Others are unaware of Medicaid transportation services and miss appointments. Medicaid transportation requires that participants give 5 days' notice prior to appointment. This poses a problem if a patient is sick and needs a same day appointment. These patients tend to use emergency rooms or urgent care services, as they are unable to get transportation during normal business hours. • Medicaid adolescents are at increased risk for anxiety and depression. Much of this is linked to family social situations (i.e. homelessness, poverty, lack of food and necessary resources).
34	• Mental health • Elderly • Disabled
35	• Most people - but especially the working poor - need affordable health care • Everyone needs well-coordinated, prevention focused health care. I'm told we spend 17% of GDP on healthcare in the USA for mediocre outcomes. That is unacceptable.
36	• My closest geographic area is Williamsburg/James City County. Within that group I think we need more attention to reasonably priced senior living quarters • Medial help • Exercise facilities • Hospice care
37	• People living in poverty-especially children • Seniors living alone
38	• People who are isolated and/or dealing with depression are more likely to have bad health outcomes, yet they are difficult to reach. Services for managing depression, especially in the elderly, are difficult to find.
39	• People with disabilities face inadequate access to dental care and transportation challenges in accessing health care.
40	• People without access to regular health services including people who are: o Unemployed or under-employed; having few or no transportation resources o living in low-income environmentally unsafe housing o limited literacy (including English speakers) o A number of vulnerable people fall into more than one of these categories.
41	• Residents living at or below the poverty level.
42	• Seniors • Lower income
43	• Seniors-especially those who no longer drive [and] have no family nearby
44	• Seniors-particularly low-income
45	• The homeless • The elderly
46	• The low income areas are particularly vulnerable.

Exhibit A1. Vulnerable/At-Risk Populations in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Are there particular populations within the community who are vulnerable or at risk for health problems or difficulties? obtaining health services?	
47	• The metro system in our area is poor. This means that individual would have a difficult time getting back and forth to doctor appointments.
48	• The poor elderly
49	• The poor-especially those without access to transportation
50	• The under-employed/unemployed • Homeless • Minority immigrant population • Dementia / Alzheimer patients without a family support group
51	• The underinsured and uninsured
52	• The very elderly or very poor
53	• There are homeless people who don't seem to get enough services. This could be because there are too many homeless.
54	• Transportation and access to services is a concern in our area due to lack of available providers.
55	• Uninsured and underinsured. usually in the lower social-economic levels
56	• Underinsured and uninsured
57	• Underinsured but employed and unable to obtain reasonably affordable insurance • Homeless individuals • Certain elderly populations
58	• Uninsured working poor • Elderly low mid income • Developmentally delayed adults • Multiple handicap adults
59	• Urban areas that have residents that fall into the Medicaid gap.
60	• Veterans • Behavioral health • Substance abuse
61	• Young women with cancer especially breast cancer

Exhibit A2. Vulnerable/At-Risk Regions in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Are there particular neighborhoods or geographic regions within the community where the resident population may vulnerable or at risk for health problems or difficulties obtaining health services?	
1	• "Grove Area" within James City County seems to have large needs • Several trailer parks which do not have access to public transportation
2	• All of New Kent is rural. We need more services within the community and not have to travel to Williamsburg or Richmond.
3	• All of the very low economic census tracts in Hampton, James City County, Williamsburg and Newport News
4	• All the lower SES neighborhoods
5	• Any of our woods have so many homeless, low budget hotels
6	• Any place where the population is impoverished
7	• Assisted Living Communities
8	• Both Charles City and New Kent Counties served by Sentara
9	• Census tracts: 502.4, 505, 506 Lackey area of York County Census tract: 801.2 in Grove area of James City County Census tracts: 3702 and 3703 in City of Williamsburg
10	• Eastern part of James City County- Grove • Western part of James City County-Toano • Hotel dwellers throughout Williamsburg and James City County
11	• Grove
12	• Grove Community
13	• Grove • Lackey • Centerville Road • Toano Lanes
14	• Grove • Chickahominy Road • Other low income areas
15	• Grove
16	• Grove • Lackey • Other pockets in our community with concentrated poor
17	• Grove • Lackey • Chickahominy Road • Centerville Road • Any place in the James City or York Counties that have limited access to public transportation
18	• It varies, but there are lower socio-economic areas that are more impacted with more serious and chronic health issues for a number of reasons.
19	• Lackey • Grove

Exhibit A2. Vulnerable/At-Risk Regions in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Are there particular neighborhoods or geographic regions within the community where the resident population may vulnerable or at risk for health problems or difficulties obtaining health services?	
20	• Low income seniors in any neighborhood throughout the region. Perception that in some neighborhoods all are wealthy, but that's not accurate. There are needy seniors in all areas. • Some areas definitely have concentrations of low income populations o Grove area o Chickahominy Haven
21	• Lower income areas
22	• Maybe in the Grove Community
23	• More rural zip codes in James City County and New Kent counties • Low-income neighborhoods including Grove and Lackey
24	• Rural areas with less supports
25	• Poverty is spread around greater Williamsburg, but it is concentrated in the multifamily complexes and depressed neighborhoods.
26	• Remote and rural areas of the Middle Peninsula and Northern Neck
27	• Gloucester County
28	• Grove area of James City County (and upper Newport News) • Lackey area of York County • Williamsburg/JCC areas that must depend on public transportation. The buses stop too early and don't go far enough for them to obtain some needed health services.
29	• The areas that are underserved tend to be those with lower socioeconomic status.
30	• The metro system in our area is poor. This means that individual would have a difficult time getting back and forth to doctor appointments.
31	• The northeast area of the City of Williamsburg (Merrimac Trail) • The Grove area of James City County
32	• The poorer communities: o The Grove in James City County o East End in Newport News o North End in York
33	• Upper end of Williamsburg (Toano, Charles City, West Point, King William, King and Queen)
34	• Gloucester

Exhibit A3. Health Assets in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Think of health assets as people, institutions, programs, built resources (e.g. walking trails), or natural resources (e.g. beaches) that promote a culture of health. In your view, what are the most important health assets within the community?	
1	• Programs that provide useful information on health issues (diabetes, hypertension, dementia, etc.) • Less expensive facilities for regular exercise activities
2	• Three health networks
3	• AA • Al Anon • Capital Trail • Freedom Park
4	• Accessibility to resources
5	• Any walking or biking trail
6	• Built and Natural resources • Programs (obesity, diabetic management)
7	• Church • People
8	• Clean air and water • Recreational opportunities
9	• Clinics that serve the uninsured/underinsured for an affordable cost
10	• Colonial trail • Recreation centers
11	• Community Health Foundation • Parks and Recreation facilities- parks, trails, facilities in James City County • Community pools • Jamestown Beach • VA Cooperative Extension programs • Groups like Beyond Boobs!, Erase the Need • Nonprofit community organizations
12	• County and community parks, nature trails, public beaches and water access • Agencies such as Parks, Recreation and Tourism/YMCA/Wellness Centers, etc. • Adequately funded Health Department • Community Services Board for mental health
13	• Duke of Gloucester Street and Historic Jamestown for safe walking • Nature trails • Bike lanes • Swimming pools • Beaches
14	• For the low income population, the most needed/important health assets are the institutions and the people who work/volunteer there. • Our community has the highest level of food insecurity in the state of Virginia, which tells me that our poverty rate is very high. These individuals can't be concerned with walking trails and beaches when they have other more important needs (health assets) not being met.

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Think of health assets as people, institutions, programs, built resources (e.g. walking trails), or natural resources (e.g. beaches) that promote a culture of health. In your view, what are the most important health assets within the community?	
15	• Free clinics • Great hospitals • Nonprofit health organizations (CDR, Beyond Boobs! Bacon Street, the four free clinics) • Cancer medical professionals and facilities • YMCAs and Rec centers
16	• Health departments
17	• Hospitals • Hospice Care • Walking Trails
18	• In general, we have good medical providers. • We also have access to many public parks and recreation activities that promote wellness.
19	• James City County Parks and Recreation including their many parks, walking trails, and Rec Connect program. • Williamsburg Area Faith in Action is a wonderful health asset for our elderly population providing needed transportation services and respite care. • Williamsburg Health Foundation is a tremendous health asset for the Greater Williamsburg community providing more than $4 million a year in grants to agencies and programs like Olde Towne Medical Center and the School Health Initiative Program.
20	• Local hospitals • Easy access to nearby medical centers, community amenities such as Rec centers and parks • High quality physicians • Community support through local nonprofits of health care access (e.g., Olde Towne Medical, Williamsburg Health Foundation, etc.)
21	• Local hospitals • Free clinics • Human service programs that address and support health and mental health issues
22	• Local medical offices, parks and recreation (programs that are administered for the elderly)
23	• Local Parks and Rec programs • Area health systems • AAA's • Local food bank
24	• Medical specialists to serve a growing aging population • Walking and biking trails
25	• Mental health agencies that can provide care to those within the home.
26	• Network of Care website: wmbgcares.org • Strong network of safety-net healthcare clinics, but are only serving approximately one-third of people with no health insurance.
27	• Gosnold Park, Old Sentara Fitness trail. These are great resources within the community that can be utilized by residents to promote fitness and leisurely fun.

Exhibit A3. Health Assets in the Community	
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Think of health assets as people, institutions, programs, built resources (e.g. walking trails), or natural resources (e.g. beaches) that promote a culture of health. In your view, what are the most important health assets within the community?	
28	• Noland • Sidewalks • Street lights • Green spaces
29	• Noland Trail • Matteson Trail
30	• Open areas • Walking trails etc.
31	• Open, recreational spaces • Bike trails
32	• Our Sentara Williamsburg Hospital cares for all the people in the hospital as well as in the community. Many programs promoted within the hospital are for the community and their health.
33	• Outdoor recreation opportunities • Public and private gyms • Community centers
34	• Parks
35	• Parks • Beaches
36	• Parks • Capital trail • Williamsburg James City County Recreational Center
37	• Parks • Wellness centers • Beaches • Libraries • Churches who house peer support groups or other community health activities
38	• Peninsula Agency on Aging's programs, especially Eastern Virginia Care Transitions Program, Chronic Disease Self-Management, Matter of Balance. • For youth-the SHIP programs • Easier access to safe biking routes, share the road enforcement
39	• Preventive health education • Nutrition education • Culture of wellness. • Unfortunately, if you are not in the "well" group and are older, then the services become more scarce.
40	• Primary care for all, and especially for those with chronic conditions, that is affordable, prevention focused, and well-coordinated.
41	• Primary care, acute care, emergency care and specialty care readily available and accessible. • Schools, parks, trails and organizations that promote a culture of health and provide access to and motivational incentives for healthy lifestyles.

Exhibit A3. Health Assets in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Think of health assets as people, institutions, programs, built resources (e.g. walking trails), or natural resources (e.g. beaches) that promote a culture of health. In your view, what are the most important health assets within the community?	
42	• Professionals • Hospitals • Clinics • Natural environment
43	• Quality Care (Riverside/Sentara)
44	• Quality hospital systems • Public parks/beaches • Foodbank • CINCH
45	• Riverside Health System • Riverside and Sentara Wellness Centers • YMCA • Noland Trail
46	• Shelters for the vulnerable, including domestic violence victims and homeless
47	• Sidewalks so people can walk, not the trails, they lead nowhere!
48	• The elderly tend to be uninsured or not insured enough. They tend to not seek medical care because of out of the pocket expense until they are so sick that someone else has to make the decisions for them.
49	• The Hospitals on the Peninsula are extremely important. • In addition, the community park systems are of great value. • The YMA and various Fitness Centers also provide great service.
50	• The people-we have many residents with time, talents and treasures that can come along side those with needs and provide a hand up.
51	• The two health systems • The senior living communities
52	• There are numerous organizations, both public and private, along with faith-based communities who are addressing these issues. • It would help to develop a better community health strategy that maximizes every entity's potential. I know that the Williamsburg Health Foundation is working on this.
53	• This area being strong in a senior population, I think we need more available places for assisted living that are affordable. • More educational programs for seniors
54	• Trails for walking, bicycling, etc.
55	• Trails- James City County in particular has outstanding biking/walking trails. • There are many parks as well.
56	• Two hospitals • Old Towne Med Center • Health provider volunteers
57	• Two hospitals • Miles of bike trails

Exhibit A3. Health Assets in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Think of health assets as people, institutions, programs, built resources (e.g. walking trails), or natural resources (e.g. beaches) that promote a culture of health. In your view, what are the most important health assets within the community?	
	• Several good parks for those who can get there • Recent efforts to install sidewalks • Network of safety net clinics and a relatively strong group of non-profits focused on health and human services
58	• Variety of medical and specialty services • Two hospitals • Emergency mental health services • Child development resources • Social services • Olde Towne Medical Center • Jamestown Beach • James City County Recreation Center • Walking trails
59	• Walking and biking trails • Organized activities that are close to neighborhoods that may help mitigate isolation among the elderly and those dealing with depression.
60	• Walking trail and cost effective programs at the James City County Rec. Center • Walking trails all over town • Colonial Williamsburg is a lovely place to walk • Many senior programs at the library • Programs offered by Sentara Williamsburg Regional Medical Center
61	• Water access- boat ramp, canoe/kayak launch and trails
62	• We live in beautiful communities but people are fearful to use the many trails or natural areas due to crime. • We have the Noland Trail that seems to be safe but if you live in the Southeast, the beach is beautiful but crime, gangs etc. create a climate that affects safety. When growing up we were able to go anywhere and feel safe. Not the case anymore.
63	• Wellness Centers • Athletic programs associated with educational facilities at all levels • Chronic disease self-management programs
64	• YMCA and similar facilities
65	• YMCA, James City County Recreation and parks • Olde Towne Medical Center • SHIP in schools

Exhibit A4. Health Assets Needed in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Are there any health assets that the community needs, but may be lacking?	
1	• A better system of walking, running, biking trails
2	• Access to child psychiatrists, mental health and support groups for teens and caregivers
3	• Access to gyms and practice time for public school student athletes
4	• Access to specialty care and transportation is a barrier.
5	• Adequate transportation to access resources • Access to safe, affordable, housing
6	• Affordable fitness centers, especially low cost options for seniors at the rec centers that allow them access to all programs during less busy times
7	• Affordable public transportation with a set schedule and routes • Additional access to safety-net healthcare and the means to publicize this • Health insurance that would become available through the state expanding Medicaid
8	• All need a better job at getting their message out to the public.
9	• Better access to mental health care for children and low-income populations
10	• Better transportation • More dental health availability • More specialty health services • More translators at health providers for those who do not speak English well
11	• Boys and Girls clubs to provide afterschool homework assistance. These such programs used to offer after school snacks and evening meals. These programs help to fill the gaps and helped to strengthen select children's positive surroundings. Tutoring programs and programs that provide free internet access to children could help at risk children increase chances of school and lifetime success.
12	• Care related transportation • Even greater support of chronic conditions and preventive care
13	• Colonial Services Behavioral Health program is overwhelmed and insufficient.
14	• Community center to include in-ground pool, outdoor/indoor playing fields and meeting/classroom facilities
15	• Efficient public transportation • Food access in the several food deserts • Safe and affordable housing
16	• Elderly care specifically assisted living, home health care options, and long term [care]
17	• Free or reasonable cost health clinics • More walking trails
18	• Homeless services are minimal
19	• I don't like making broad statements, but a large part of the issue is lack of affordability and lack of access to the right kind of services.
20	• Long term health care in the home
21	• Lower cost to access the community rec centers. Indigent people cannot afford to go to any type of gym.
22	• Maybe more walking trails

Exhibit A4. Health Assets Needed in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Are there any health assets that the community needs, but may be lacking?	
23	• Mental health (improving)
24	• Mental health services and professionals are in too short supply
25	• Mental Health services needs to be strengthened to include substance abuse aspects.
26	• More bike paths • Funding for all the nonprofits doing health related work • Older citizen's health activities like Thai Chi classes, etc. in the parks
27	• More eye surgeons • Affordable facilities for indoor exercise and work out equipment
28	• More Medicaid Waivers so people with disabilities have resources to access services • Handicapped Transportation to access health assets • Respite care • Dentists qualified and willing to treat people with disabilities and accept Medicaid • Autism-specific care and supports • More choices of insurance companies to ensure competition
29	• More neighborhood clinics
30	• Neighborhood parks and fields for playing
31	• One of our elderly patients was just informed by a dermatologist that the soonest his skin condition could be evaluated was in 2017 (more than 7 months from now). • There are still many parts of Williamsburg, York County and James City County that lack safe biking paths along roads.
32	• Pedestrian friendly environments which encourage people to walk to work, shop, entertainment • Lack of pedestrian amenities encourage use of cars for short travel distances.
33	• Psychiatry for all ages, inpatient and outpatient. Counselors cannot prescribe and prescribing providers are hard to find and, unfortunately many prescribing providers have English as a second language so can be hard for the elderly and patients with their own limited English proficiency to understand.
34	• Safe Exercise areas in the troubled communities like the southeast. Only now is there a grocery store due to open in a month. • Safe walking areas that allow residents to walk without fear
35	• Sidewalks and bike travel corridors in Williamsburg/ James City County • Access to health care services through schools in rural areas • Prenatal and maternity care in the Middle Peninsula, Northern Neck and Eastern Shore • Affordable and timely Alcohol, substance abuse treatment and prevention and behavioral health services • Care navigation and case management for all who desire it regardless of disease state, age or insurance status
36	• Sidewalks • Streetlights • Bike paths
37	• Specialized senior services • Clinical care centers, e.g., physician offices devoted to the care of seniors

Exhibit A4. Health Assets Needed in the Community	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Are there any health assets that the community needs, but may be lacking?	
38	• Support for the elder population. Persons who are challenged to leave their home, have impairment in hearing and vision and understanding of the many medications and chronic diseases that they face daily.
39	• The lack of mental health services is a serious problem
40	• There are none too few. Parks and recs are expanding and in the process of building a new park. • The Health department and Community Services board need more funding and support.
41	• Transportation • Advocacy for the very elderly and weak patients
42	• Transportation. Very difficult for those without cars to easily get to grocery stores and health care facilities. I tried using WATA and it was almost impossible.
43	• We can always use more doctors, but most of the health needs can be met here.
44	• We would benefit from more specialists in certain areas to avoid delays in care, especially neurology and pain management.
45	• Williamsburg and surrounding counties have no affordable access to gyms of any kind. In particular, the JCC REC Center and YMCA are not affordable for lower SES families. • There are abundant instructional/educational classes for kids but again for many families they are way too expensive. • There is very little help for children struggling academically and most needy kids cannot afford private tutors.
46	• Agencies are out there but more community partnerships are needed.
47	• York County doesn't have bus services to transport individuals to doctor appointment or other activities.

Exhibit A5. Additional Ideas and Suggestions	
Note: The survey was conducted on a regional basis for multiple communities that fall within the Peninsula region. Survey respondents were asked to provide their perspective based on where they live, work, or both. This Exhibit lists verbatim responses from those who reported that they live or work within the Sentara Williamsburg Regional Medical Center study region (although in some cases, respondents also identified communities beyond the study region within their comments). See Appendix B for details.	
Optional: Please use the space below to share any additional ideas or suggestions for improving community health.	
1	• Access to specialty care • Transportation issues and congested traffic is a barrier to care.
2	• Additional crime prevention to lower the number of individuals who are killed or injured through gun violence. It seems to be getting worse.
3	• Affordable extracurricular activities for children especially in the summer • Increased educational opportunities • Affordable gym membership for needy families
4	• As long as the population knows there is good quality care here, there should be good health here. The competition between two health systems doesn't help make it easy for everyone to choose the best doctor and or facility. I expect better care at Sentara when it is larger and better equipped. Keeping our healthcare local is the best thing we can do for our community.
5	• Better coordination of home health follow-up services, integrated medical records
6	• Community health workers
7	• Community partnership and fellowship
8	• Consider taking the resources to where the people are instead of the people having to come to the resources
9	• Doctors and their staffs should work for their patients
10	• Engage the public sector, the educational community, and the business community at a higher level to encourage collaboration to address the social determinants.
11	• Find a way to end competition between two health systems and combine resources to provide better coverage for both facilities in this area.
12	• Form a coalition or task force on Health and Wellness for region
13	• Have free or people can volunteer their time in exchange for use of the rec centers.
14	• Having our community leaders filter health concerns/needs in their policy making decisions, because all decisions have an impact on our health. Some more than others.
15	• I believe I have made my point that the frail elder population does not have a presence or voice in the community. Services for this group who cannot leave their home is very limited.
16	• I would encourage health systems to promote population health by striking a balance between clinical care and utilization of non-clinical supports and services.
17	• It isn't until every part of the community, be they health organizations working together, business, government, employers, and community volunteer organizations, etc. come together with a defined strategy and coordinated role for everyone that we will see a major change in how we approach this subject.
18	• More accessible bike paths and walking trails in James City County to encourage people to bicycle or walk to their places of work, school, church, and play. We live in a beautiful part of the country and should encourage residents to get out and walk instead of driving.
19	• More health education resources
20	• More resources are needed to support residents that are economically marginalized, particularly around general health care and dental services.
21	• Need to be prepared for rapidly growing older senior population (those 75 and older).
22	• On the whole I think our community has plenty of facilities. The problem is getting the aging to use them, or to ask for help in finding them.

Exhibit A5. Additional Ideas and Suggestions	
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Optional: Please use the space below to share any additional ideas or suggestions for improving community health.	
23	• Place greater resources (and advocate for reimbursement mechanisms) that support health education (nutrition and physical activity support), self-management support (particularly for the prevention and management of prediabetes, diabetes, obesity, and heart disease), disease prevention, and health promotion.
24	• Politicians need to invest more heavily in early childhood education services to make them available to all children regardless of ability to pay. Additionally, parents that lack the ability to parent effectively should have parenting classes more readily available.
25	• Programs to assist low income members of the community
26	• Support for emergency preparedness • Emerging disease such as Zika
27	• The knowledge and skill level among health care workers with regard to advance care planning is poor, and this is reflected in the low percentage of residents with advance directives; it is also evident in those who receive unwanted aggressive treatments at the end of life, or the patients/families with unrealistic expectations at the end of life.
28	• There are still many disparities within the communities. We need to address the racial divide in a serious way so that when diverse members of the community show up in the ER's they are not treated as drug seekers when they are ill or ignored for whatever reason. Sickle cell anemia is a condition that causes severe pain, yet patients with this disease report they are treated poorly because they are profiled as drug seekers. We all are products of our environments and we hold certain beliefs that affect the way we view each other. We need more open dialogue to learn about each other and know what it feels like to walk in each other's shoes. The profiling affects the poor most often and we must advocate for all. Thanks for the opportunity to share my views.
29	• This community needs more specialty physicians or physician's assistants. Otherwise there are plenty of opportunities to lead a healthy lifestyle in this community where we have lived and worked for 40 years.
30	• We have the resources in our community we just need more collaboration.
31	• We need more care facilities after surgery for rehab that are not connected to aging facilities or ill patients.

Appendix B: Data Sources

Section	Source
Part I. Community Survey Results	
1) Community Survey results as shown throughout Part 1.	Community Survey results are based on Community Health Solutions (CHS) analysis of *Community Survey* responses submitted by community stakeholders. The survey was conducted as follows: Riverside Health System and Sentara Healthcare worked collaboratively to conduct a joint community stakeholder survey for the following Peninsula region facilities: • Riverside Doctors' Hospital Williamsburg; • Sentara Careplex Hospital; • Sentara Williamsburg Regional Medical Center; and • Four Riverside Peninsula market facilities (Riverside Hampton Roads Specialty Center, Riverside Regional Medical Center, Riverside Behavioral Health Center, and Riverside Rehabilitation Institute). The two health systems collaborated on survey-related communications, and developed the survey instrument with technical support from CHS. Each system developed its own survey recipient list. The recipient lists were combined, and an email survey request was sent to 922 unduplicated community stakeholders on April 25, 2016. To enable assignment of responses to a particular facility's report, survey respondents were asked to identify the localities where they lived, worked, or both. A follow-up email request was sent on May 12, 2016. Additionally, Riverside Health System and Sentara Healthcare conducted outreach for community input via email, personal phone calls, and in-person at local events and meetings. The survey was closed on May 18, 2016, and a total of 163 survey responses were received.

Community Focus Group Session Findings

In addition to the online Community Stakeholder Survey for community insight, Sentara Williamsburg Regional Medical Center carried out a series of more in-depth Community Focus Groups to obtain greater insight from diverse stakeholders.

Focus groups were often drawn from existing hospital and community groups or sought from other populations in the community, including representatives of underserved communities and consumers of services. The questions below were utilized at each focus group sessions.

- What are the most serious health problems in our community?
- Who/what groups of individuals are most impacted by these problems?
- What keeps people from being healthy? In other words, what are the barriers to achieving good health?
- What is being done in our community to improve health and to reduce the barriers? What resources exist in the community?
- What more can be done to improve health, particularly for those individuals and groups most in need?

Five (5) focus group sessions were held in 2 month(s) during 2016. The number of participants ranged from 5-12. When possible, representatives from the health department and other local hospitals were invited to attend the sessions.

1. Community Dialogue at Grove Christian Outreach Center- held jointly by the Peninsula Health System District with Bon Secours Mary Immaculate Hospital and Riverside Health System
2. Emergency Medical Services Partners
3. Lactation Support Group
4. Sentara Outpatient Wound Healing Center- patients and families
5. EMS/Fire Staff and Administration with Williamsburg City Fire Department

A brief summary of the key findings for each topic is presented below.

Topic	Key Findings
What are the most serious health problems in our community?	Heart disease, diabetes, and issues related to age ranked high in the focus groups as leading serious health problems. Mental Health/substance abuse and noncompliance with medications were also noted as concerning issues.
Who/what groups of individuals are most impacted by these problems?	The elderly, minorities, and low-income families

What keeps people from being healthy? In other words, what are the barriers to achieving good health?	Lack of or poor insurance/high co-pays; access to transportation; lack of knowledge/poor judgement regarding lifestyle.
What is being done in our community to improve health and reduce barriers? What resources exist in the community?	EMS "Paramedicine"- assisting elderly with issues; Old Town Medical Center (clinic for uninsured or underinsured); availability of physicians and services to assist all ages; availability of Human Services RN within the city; health information being made available on on-line/social media. Development of Safe Kids Coalition has potential to improve health within the community.
What more can be done to improve health, particularly for those individuals and groups most in need?	More availability of transportation was noted in at least 3 of the focus groups as an opportunity to improve health. Also frequently mentioned were added services for the elderly. Education with focus on prevention and additional attention to mental health issues. Consider partnerships with the College of William and Mary to provide specific education, particularly with regards to alcohol usage.

V. APPENDIX

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

Sentara Community Health Needs Assessment Implementation Strategy

2015 Year End Report

Hospital: Sentara Williamsburg Regional Medical Center

Quarter (please indicate): ☐ First Quarter ☐Second Quarter ☐Third Quarter ☒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	Three Year Implementation Strategies	Progress
Senior Services	Continue participation on the Senior Services Coalition, a collaborative organization focused on improving the needs of seniors.	• Sentara Living has monthly meetings and speakers at SWRMC where a RN is provided for BP checks • Donation of calendars, health and wellness literature to 8 senior groups • Partnering with Brookdale to assist in smooth patient transitions • Orthopedic Joint Replacement group – free pedometers, total of 425 • Co-hosted the Health and Business of Aging Conf on Jan 30, 2015 • Hosted a Family Caregiver lunch and learn series in partnership with TNCC in Feb and March • Promoted Advanced Care Planning in April 2015 • Achieved NICHE designation in April 2015 • Participated in Hampton Roads Coalition of Agencies and AARP Senior Spring Conf in April 2015 • Nutrition presentations at Senior Center of York and Parker View Apts/Bay Aging

Health Problem	Three Year Implementation Strategies	Progress
		• 64 participants in health screening for Senior Center of York • Dr. Kean presented at the Stroke Conference at JCC Rec Center in May 2015 • Free flu clinic to Seniors
Uninsured/Underinsured	Support the HEAL program Outreach and support for local Clinics through the Williamsburg Community Health Foundation	• 5 Community Health Screenings for total cholesterol, BP, BMI, counseling by RNs, health and wellness info given as well as info about local resources. • Sponsored free PAP clinic at OTMC in January 2015 • Provided tobacco cessation kits, quit for life and live well after stroke kits to Angels of Mercy Clinic. • Auxiliary's Free Mammogram/Bone Density program served 285 patients • Hosted 5 HEAL groups totaling 42 participants. • OP Pharmacy provided approximately 70 prescriptions at no cost to indigent patients upon discharge from the hospital totaling $14765.00 in meds. • Continued support for the Erase the Need program supporting over 360 people per month. • Continued support for the Food4Kids backpack program serving over 350 students per week. • Provided taxi and bus vouchers for discharged patients totaling $9,100.00 in services. • Continued support of 4 local free clinics: Olde Towne Medical Center, Lackey Free Clinic, Angels for Mercy, and Gloucester-Mathews Free Clinic. • Support of the FREE foundation by providing office space. • Sponsored over 40 angels with the Salvation Army Angel Tree program.
Behavioral Health/substance abuse	Continue Project Search Work collaboratively with the Pavilion to place appropriate patients in step program.	• Continue to house and support Project Search program on 5th floor of hospital • Participation in the Colonial Behavioral Health Planning Group Mtgs • Monthly meetings with key leaders at The Pavilion at Williamsburg Place to facilitate smooth patient transfers.
Cancer		• Tobacco Cessation resource literature provided at 10 community events.

Health Problem	Three Year Implementation Strategies	Progress
		• Tobacco Cessation kits available via 1-800-SENTARA • Tobacco Cessation class offered free quarterly. • "Cancer tips" literature provided at community events • Presentation to Sentara Living on Cancer screenings and guidelines • Women's Imaging attended Health Fair at Ferguson in January 2015 and received over 75 requests for 3D mammogram appointments. • SWRMC Auxiliary's Unique Boutique served 78 people. • Dr. Lindy Dunn presented on Breast Cancer at 5 community events. • Sponsored Karene O'Hare Walk for Ovarian Cancer in September 2015. • Hosted a Be the Match Bone Marrow Donor Drive in November 2015.
Diabetes	Provide certified nutritionist to host grocery store tours for diabetic patients, educating them on health food selections. Participate in Chronic Care Collaborative.	• ADA "Are you at risk for Type 2 Diabetes?" paper test given during community health screenings as well as information on nutrition and exercise. • How to prevent Type 2 Diabetes information provided at screenings. • Diabetes Self-Management Training by the Health Education Center to community members and their families. Offers variety of individual and group classes that promote the development of diabetes self-management and knowledge. RD and CDE work with patient's physician to assess the client's needs. • Provide a diabetes manager for the Chronic Care Collaborative. • Grocery Store tours provided quarterly for the Diabetes support group. • Diabetes and Nutrition presentation for the Peninsula Agency on Aging – Parkview Apts.
Patient Self-Management		• 15 Blood pressure clinics held in the community, stroke awareness information provided as well as "Managing Your Blood Pressure" literature. • Participation with Chronic Care Collaborative to help identify the

Health Problem	Three Year Implementation Strategies	Progress
		patients of the local free clinics and refer them back for follow up care. Referrals to OTMC within 1-2 days. • Presentation by Dr. Vernon Francis on Cardiac Medicine in Williamsburg. Over 40 community members attended. • Presentation by Dr. Das on Heart Health in October 2015 to 40 community members. • Community presentation on Sentara MyChart in November 2015. • Free flu clinic
Obesity – Adult & Child		• Pedometers provided to Ortho Joint Replacement group monthly • Pedometers available to community via 1-800-SENTARA • 3 Healthy Eating Presentations to the community • Presentation to the community at JCC Rec Center – "New Year, New You – Tips for Weight Loss in the New Year" on January 28th. • Presentation to Mount Calvary Church – "Top Tips for Healthy Eating" on March 21st. • Presentation at the YMCA – "Top Tips for Healthy Eating" on March 31st. • Registered Dietitian provided a display and gave a nutrition presentation for 40 6th graders at a local school • LPGA Jr. Healthy Start Breakfast – provided nutrition display and gave a presentation to over 50 children and parents • Supported JCC Family Fest Fun Run – 40 participants. • Info on Healthy Eating and youth diabetes provided at Children's Health Expo – June 2015 • Healthy Eating Presentation to local church by RD
Youth Programs		• Participate in Health Explorers program • Participate in STEM • Opening of new Pediatric Unit on March 9th. SWRMC is only hospital with pediatric beds on the peninsula. • Hosted the Health Occupations Student Association retreat on March 14th. Five

Health Problem	Three Year Implementation Strategies	Progress
		staff members volunteered as judges to assist with student activities. • Participated in March of Dimes walk in May 2015 • Hosted the Boule Scholars Medical Explorers Post #757 in May 2015, offering multiple activities in the surgical svcs dept. • Presentation by Dr. Rose Santos on pediatric safety for grandparents; Olivia Bada from Williamsburgfamilies.com presented on kid-safe activities in Williamsburg • Welcomed over 150 children and their families to the 1st Annual Children's Health Expo on June 27th • Hosted Camp Scrubs in July 2015 for middle school students interested in medical careers. • Participated in the United Way Day of Caring with over 40 volunteers at the Girl Scout's Camp Skimino. • Participated in the 3rd annual Community Baby Shower held by CDR in July 2015 supporting over 50 local families. • Hosted and sponsored Sleighbell 5K benefitting local SHIPP program for youth.