

Sentara Princess Anne Hospital Community Health Needs Assessment 2016



Sentara Princess Anne Hospital 2016 Community Health Needs Assessment

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I. INTRODUCTION

Sentara Princess Anne Hospital 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:

- Diabetes
- Obesity
- Heart Disease/Hypertension
- Cancer
- Aging Services

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 Princess Anne Hospital 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 Princess Anne Hospital (SPAH) 2016 Community Health Needs Assessment

Community Description

Community Description

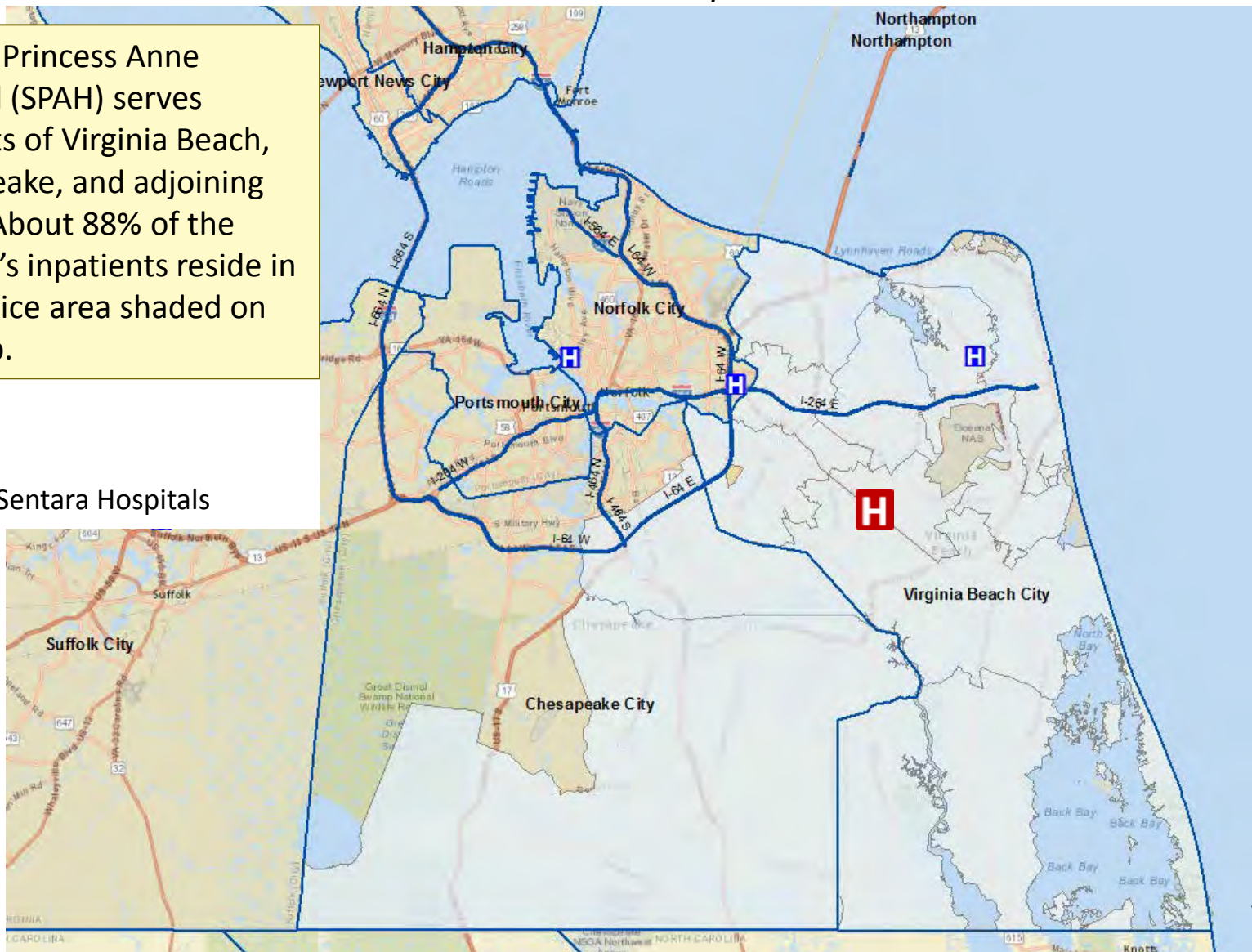
Sentara Princess Anne Hospital Service Area

Sentara Princess Anne Hospital (SPAH) serves residents of Virginia Beach, Chesapeake, and adjoining areas. About 88% of the hospital's inpatients reside in the service area shaded on the map.

Key:

 SPAH

 Other Sentara Hospitals



Area-wide Key Demographic Characteristics

DEMOGRAPHIC CHARACTERISTICS						
	Selected Area		Virginia	USA		
2010 Total Population	547,655		8,001,038	308,745,538		
2016 Total Population	574,556		8,428,339	322,431,073		
2021 Total Population	599,768		8,801,874	334,341,965		
% Change 2016 - 2021	4.4%		4.4%	3.7%		
Median Household Income	\$69,586		\$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	109,038	19.0%	111,095	18.5%	18.5%	19.0%
15-17	22,460	3.9%	23,222	3.9%	3.8%	4.0%
18-24	55,264	9.6%	54,465	9.1%	10.0%	9.8%
25-34	89,579	15.6%	86,546	14.4%	13.6%	13.3%
35-54	154,611	26.9%	158,250	26.4%	26.8%	26.0%
55-64	70,894	12.3%	77,513	12.9%	12.9%	12.8%
65+	72,710	12.7%	88,677	14.8%	14.4%	15.1%
Total	574,556	100.0%	599,768	100.0%	100.0%	100.0%
EDUCATION LEVEL						
Education Level Distribution						
2016 Adult Education Level	Pop Age 25+		Virginia 2016		USA	
	25+	% of Total	% of Total	% of Total		
Less than High School	5,502	1.4%	4.8%	5.8%		
Some High School	15,984	4.1%	7.0%	7.8%		
High School Degree	89,893	23.2%	25.0%	27.9%		
Some College/Assoc. Degree	144,010	37.1%	27.3%	29.2%		
Bachelor's Degree or Greater	132,405	34.1%	35.8%	29.4%		
Total	387,794	100.0%	100.0%	100.0%		

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- The area's 2016 total population is 574,556 with projected growth of 4.4% over the next five years.
 - This expected rate of growth is the same as Virginia and greater than the U.S rate.
- The median household income (\$69,586) is 6% higher than the state and 25% higher than the US median income.
- Population by age group:
 - 15.6% of this population is age 25-34, which is a greater percent compared to Virginia (13.6%) and the U.S. (13.3%).
 - The 65+ age cohort (12.7%) is a lower percent compared to Virginia (14.4%) and the U.S (15.1%).
- 5.5% of the population age 25+ has only some high school education or less.
 - This is less than half of 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	282,709	295,504	4.5%	4.5%	3.8%
Total Female Population	291,847	304,264	4.3%	4.4%	3.6%
Females, Child Bearing Age (15-44)	118,246	119,475	1.0%	1.3%	1.5%
HOUSEHOLD INCOME DISTRIBUTION					
Income Distribution					
2016 Household Income	HH Count	Virginia % of Total		USA % of Total	
<\$15K	14,528	6.7%	9.6%	12.3%	
\$15-25K	13,051	6.0%	8.3%	10.4%	
\$25-50K	46,171	21.2%	20.8%	23.4%	
\$50-75K	45,892	21.1%	17.6%	17.6%	
\$75-100K	31,938	14.7%	12.6%	12.0%	
Over \$100K	66,317	30.4%	31.1%	24.3%	
Total	217,897	100.0%	100.0%	100.0%	
RACE/ETHNICITY					
Race/Ethnicity Distribution					
Race/Ethnicity	2016 Pop	Virginia % of Total		USA % of Total	
White Non-Hispanic	364,296	63.4%	62.5%	61.3%	
Black Non-Hispanic	107,617	18.7%	18.9%	12.3%	
Hispanic	43,548	7.6%	9.2%	17.8%	
Asian & Pacific Is. Non-Hispanic	35,655	6.2%	6.3%	5.4%	
All Others	23,440	4.1%	3.1%	3.1%	
Total	574,556	100.0%	100.0%	100.0%	
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- The projected growth of Females, Child Bearing Age (15-44) is 1.0%, which is lower than the state (1.3%) and the U.S. (1.5%).
- 12.7% 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.
- 7.6% 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

ZIP Code & 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
23320 Greenbrier	57,367	8.0%	12.4%	27.8%	23.3%	7.7%	41.2%	2.2%
23322 Fentress	64,555	5.1%	11.8%	33.0%	21.6%	-8.2%	36.7%	5.8%
23451 Oceanfront	43,896	4.5%	16.7%	18.1%	20.1%	5.6%	39.1%	1.6%
23452 Little Neck	60,012	1.7%	13.5%	13.2%	23.2%	2.0%	40.9%	-0.9%
23453 Green Run	37,558	3.8%	7.7%	31.6%	27.3%	0.9%	44.5%	-1.1%
23454 Hilltop	62,589	3.9%	12.3%	19.6%	23.1%	1.7%	40.7%	0.8%
23455 Bayside	51,566	3.8%	15.5%	15.1%	20.7%	5.5%	39.6%	0.9%
23456 Princess Anne	55,680	5.9%	10.9%	34.5%	23.9%	-0.9%	38.6%	2.2%
23457 Back Bay	4,384	4.5%	16.7%	24.5%	18.6%	-1.7%	33.7%	3.2%
23462 Witchduck	62,361	4.0%	11.4%	15.0%	24.3%	6.8%	44.8%	-0.5%
23464 Kempsville	74,588	3.4%	13.4%	20.9%	22.6%	2.0%	40.2%	0.0%
Total	574,556	4.4%	12.7%	22.0%	22.9%	2.1%	40.5%	1.0%
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 SPAH service region are Greenbrier and Princess Anne; 5 ZIP codes are expected to grow more than Virginia and the U.S. in the next 5 years.
- Although the % of total population aged 65+ is lower than Virginia and U.S. overall, the 65+ growth rate in this area is expected to exceed state and national rates; 3 ZIP codes may have >30% growth.
- The pediatric population is expected to grow at twice the national rate (2.1% vs 0.9%), although 3 ZIP codes are predicted to have declines.
- The female population of childbearing age (15-44) in this service area is projected to grow by 1.0%, with 3 ZIP codes in Virginia Beach experiencing a decline.

Key Demographic Data by ZIP Code

ZIP Code & 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
23320	Greenbrier	29.5%	5.9%	6.7%	12.6%	5.2%
23322	Fentress	10.3%	2.9%	4.0%	7.8%	6.0%
23451	Oceanfront	9.3%	2.1%	7.6%	17.6%	4.0%
23452	Little Neck	18.5%	4.8%	9.4%	13.2%	7.0%
23453	Green Run	27.1%	11.3%	10.7%	11.6%	5.1%
23454	Hilltop	11.2%	3.8%	7.9%	15.0%	4.4%
23455	Bayside	14.7%	5.6%	7.7%	12.8%	5.1%
23456	Princess Anne	15.1%	9.1%	7.0%	6.2%	4.0%
23457	Back Bay	4.2%	1.2%	3.0%	9.9%	8.6%
23462	Witchduck	29.8%	6.0%	9.3%	15.2%	7.7%
23464	Kempsville	22.8%	11.0%	7.2%	12.5%	5.9%
Total		18.7%	6.2%	7.6%	12.7%	5.5%
Virginia		18.9%	6.3%	9.2%	17.9%	11.8%
United States		12.3%	5.4%	17.8%	22.7%	13.6%

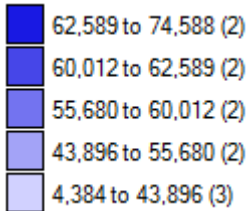
- The SPAH service area overall has a similar portion of the population to the state that is Black, Non-Hispanic; 4 ZIP codes across Chesapeake and Virginia Beach have much higher percentages than Virginia or the U.S.
- This area has a 57% smaller proportion of Hispanic population than the U.S. as a whole (7.6% vs 17.8%); the ZIP code with the largest % of Hispanic population is Green Run in Virginia Beach.
- Every ZIP code in the SPAH service area has a lower percent of households with income below \$25K than either Virginia or the U.S.
- Every ZIP code in the SPAH service area has a much lower percent of population age 25+ that did not graduate high school than either Virginia or the U.S.

Key Demographic Data by ZIP Code

City/County	ZIP Code	ZIP Name	Total Population 2016	Total Population 2021	% Change 2016-2021	2016 Pop Density / Sq Mile	% of Service Area Pop	% White NonHisp	% Black NonHisp	% Hispanic	% Asian NonHisp	% Other NonHisp
Chesapeake	23320	Greenbrier	57,367	61,952	8.0%	1696	10.0%	53.8%	29.5%	6.7%	5.9%	4.1%
Chesapeake	23322	Fentress	64,555	67,821	5.1%	343	11.2%	79.9%	10.3%	4.0%	2.9%	2.8%
Virginia Beach	23451	Oceanfront	43,896	45,890	4.5%	2092	7.6%	77.8%	9.3%	7.6%	2.1%	3.3%
Virginia Beach	23452	Little Neck	60,012	61,054	1.7%	3577	10.4%	62.9%	18.5%	9.4%	4.8%	4.5%
Virginia Beach	23453	Green Run	37,558	38,999	3.8%	3942	6.5%	45.7%	27.1%	10.7%	11.3%	5.2%
Virginia Beach	23454	Hilltop	62,589	65,023	3.9%	2547	10.9%	73.1%	11.2%	7.9%	3.8%	4.1%
Virginia Beach	23455	Bayside	51,566	53,533	3.8%	2619	9.0%	68.3%	14.7%	7.7%	5.6%	3.7%
Virginia Beach	23456	Princess Anne	55,680	58,970	5.9%	867	9.7%	64.7%	15.1%	7.0%	9.1%	4.2%
Virginia Beach	23457	Back Bay	4,384	4,581	4.5%	67	0.8%	89.6%	4.2%	3.0%	1.2%	2.0%
Virginia Beach	23462	Witchduck	62,361	64,850	4.0%	5477	10.9%	50.1%	29.8%	9.3%	6.0%	4.8%
Virginia Beach	23464	Kempsville	74,588	77,095	3.4%	4354	13.0%	54.5%	22.8%	7.2%	11.0%	4.4%
Total SPAH Service Area			574,556	599,768	4.4%	2756	100.0%	63.4%	18.7%	7.6%	6.2%	4.1%
Virginia			8,428,339	8,801,874	4.4%	213.8		62.5%	18.9%	6.3%	9.2%	3.1%
USA			322,431,073	334,341,965	3.7%	91.4		61.3%	12.3%	5.4%	17.8%	3.1%

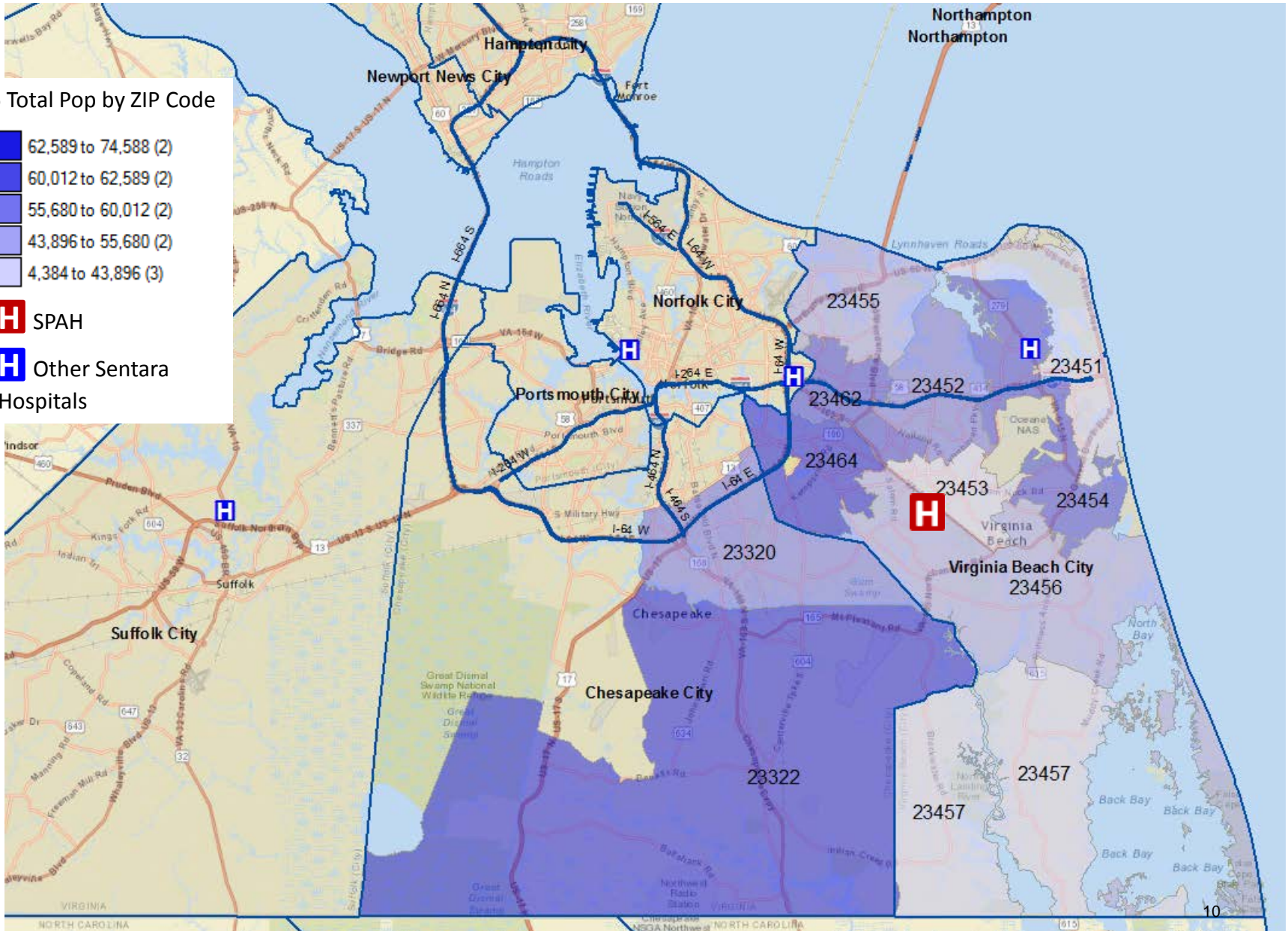
2016 Total Population by ZIP Code

2016 Total Pop by ZIP Code



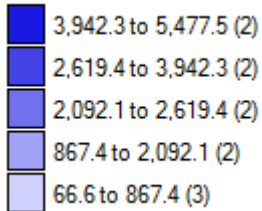
SPAH

Other Sentara Hospitals



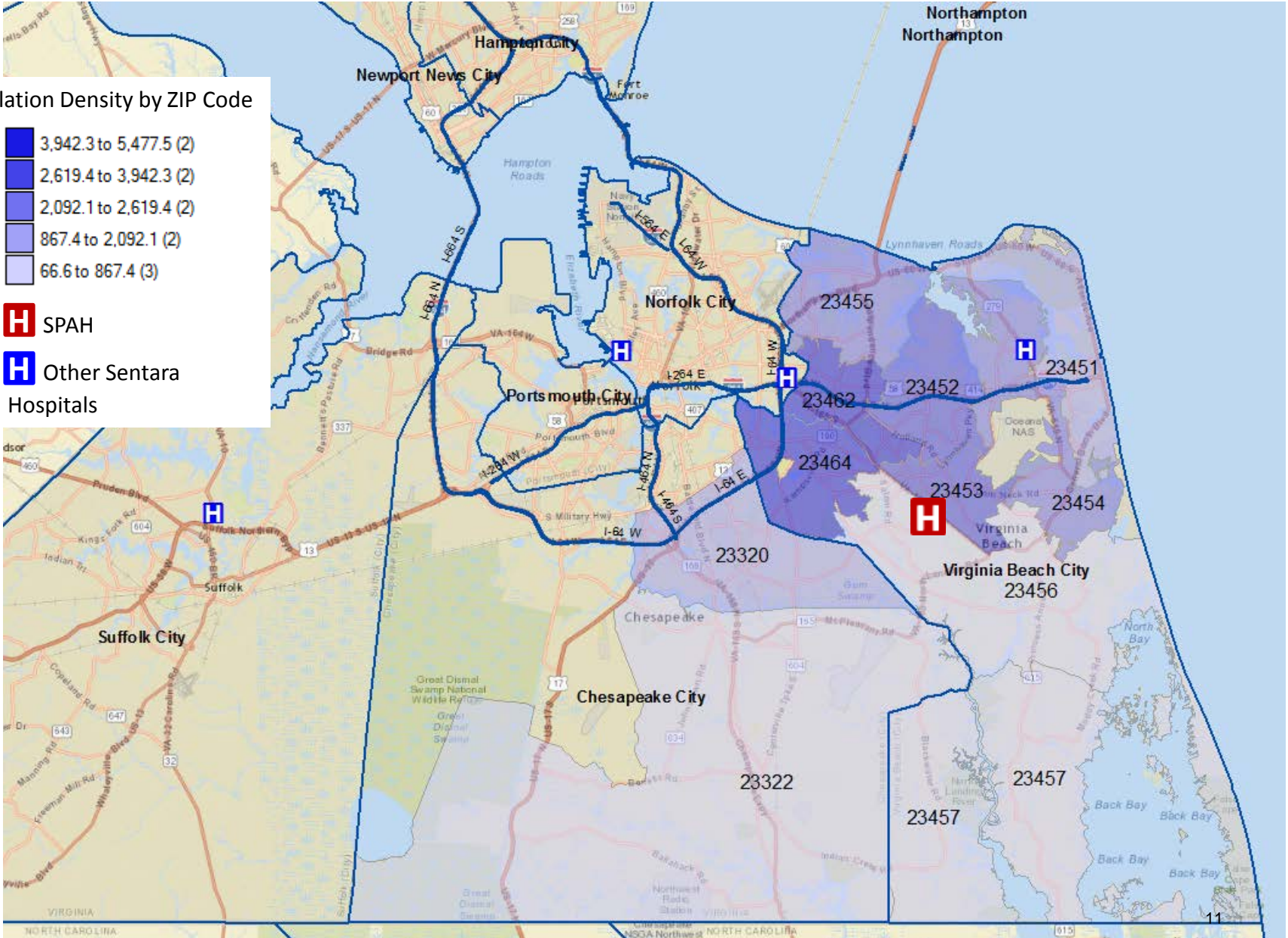
2016 Population Density by ZIP Code

Population Density by ZIP Code



SPAH

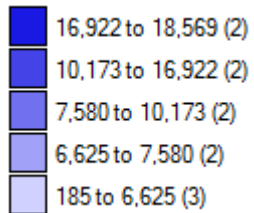
Other Sentara Hospitals



Source: Truven/Market Expert

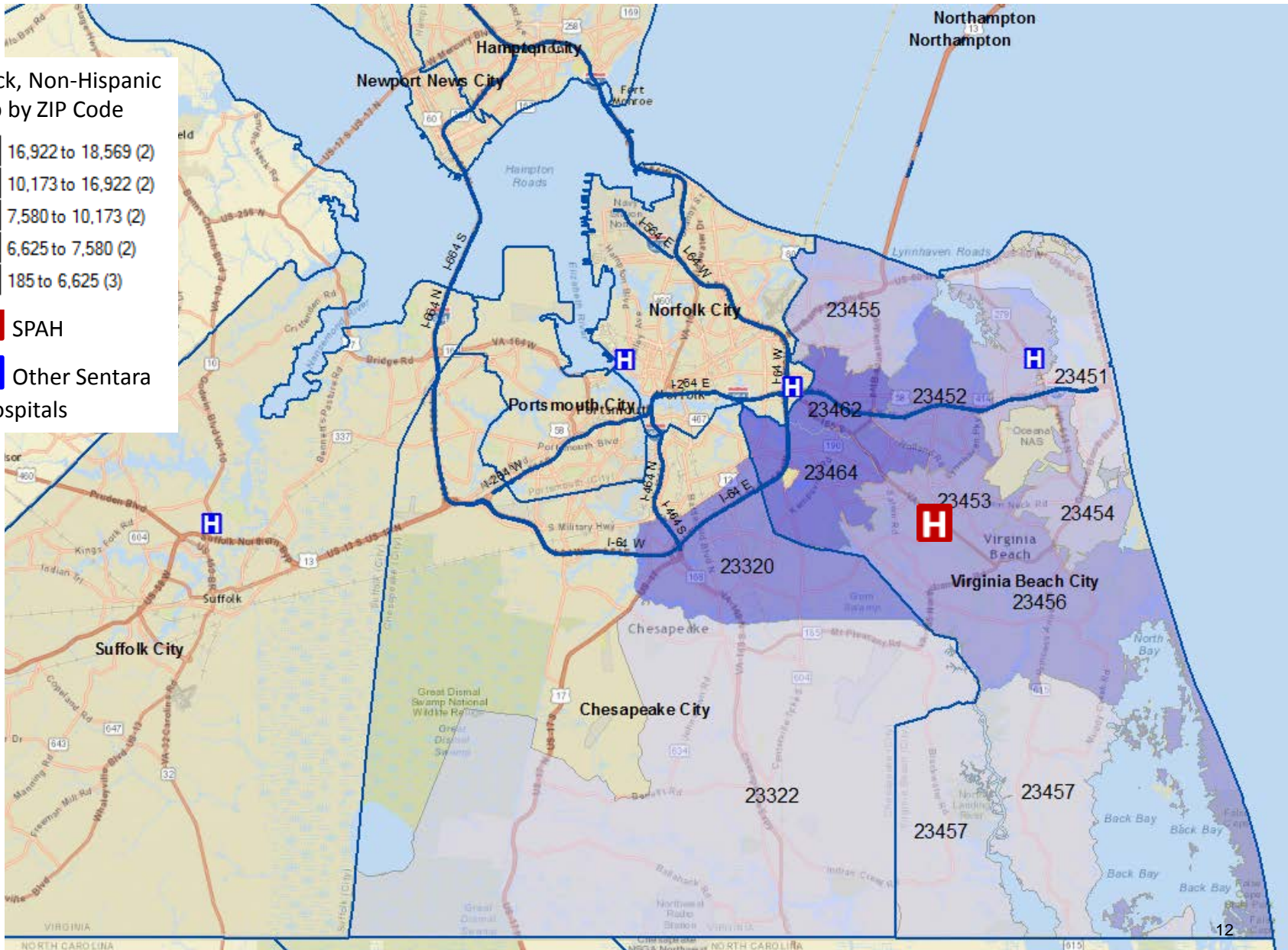
2016 Black, Non-Hispanic Population by ZIP Code

Black, Non-Hispanic Pop by ZIP Code



SPAH

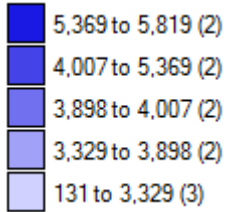
Other Sentara Hospitals



Source: Truven/Market Expert

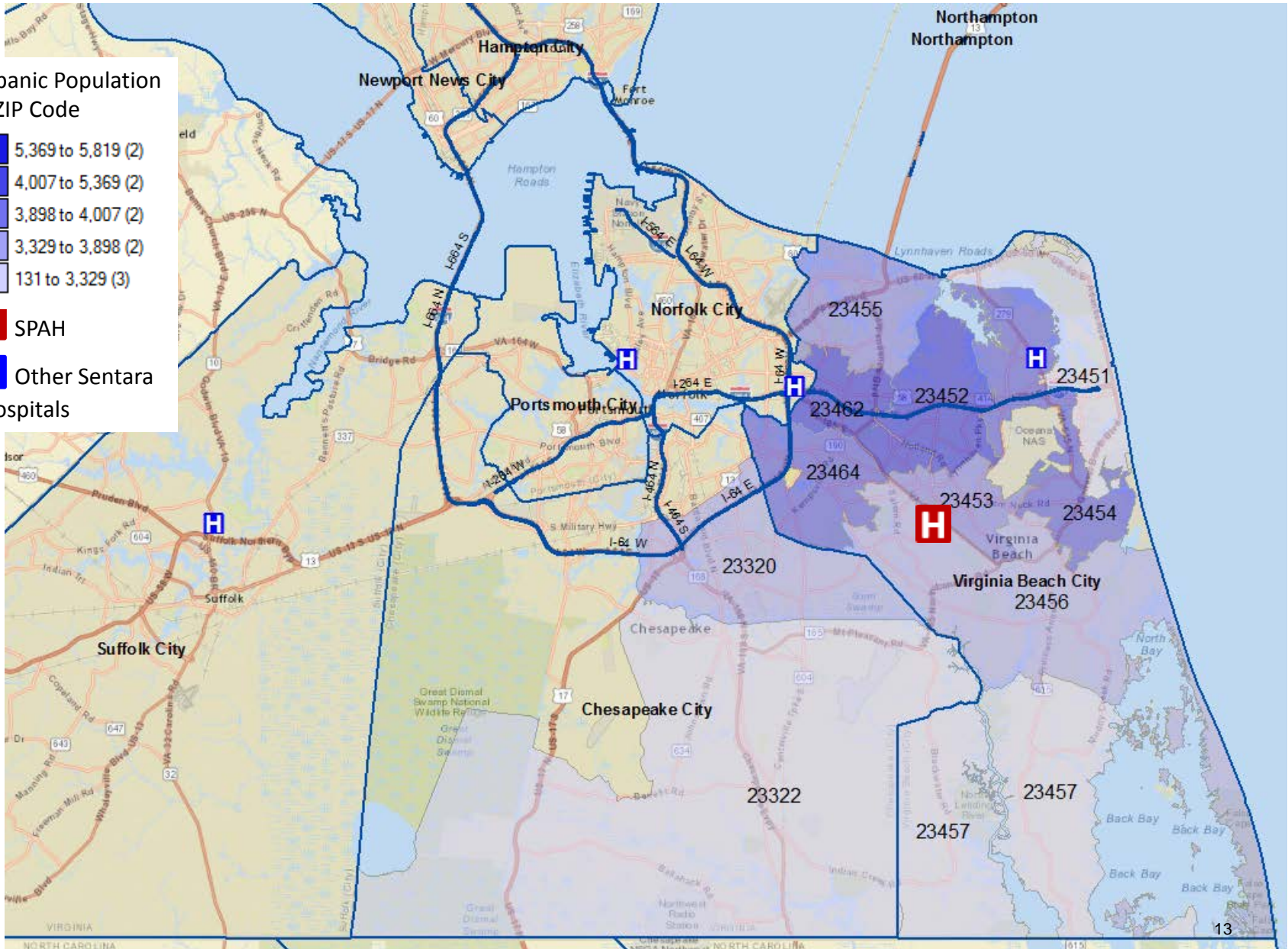
2016 Hispanic Population by ZIP Code

Hispanic Population by ZIP Code



SPAH

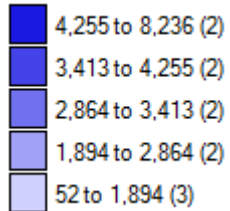
Other Sentara Hospitals



Source: Truven/Market Expert

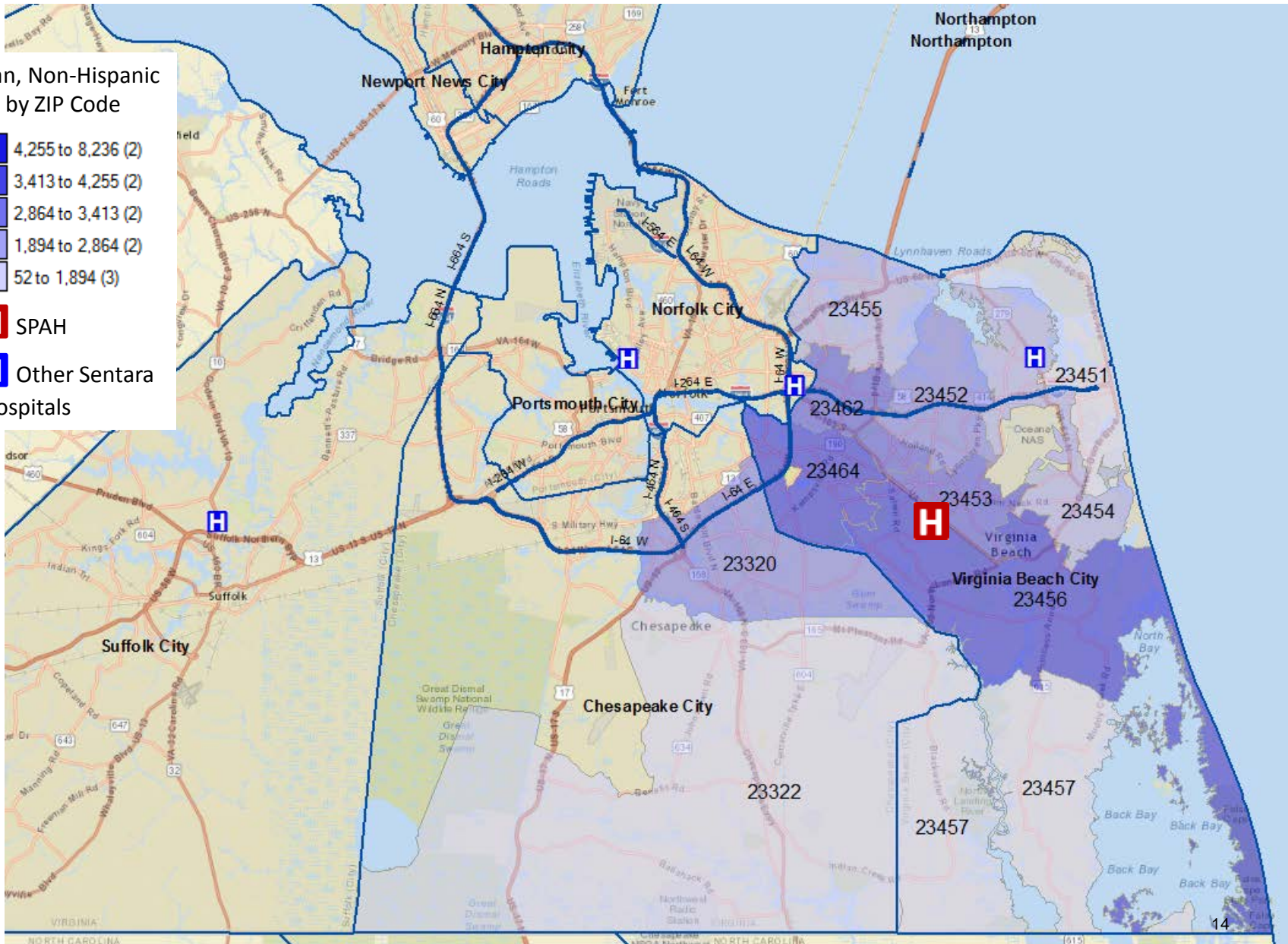
2016 Asian, Non-Hispanic Population by ZIP Code

Asian, Non-Hispanic Pop by ZIP Code



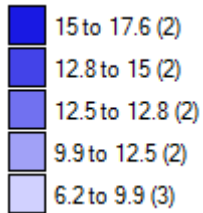
SPAH

Other Sentara Hospitals



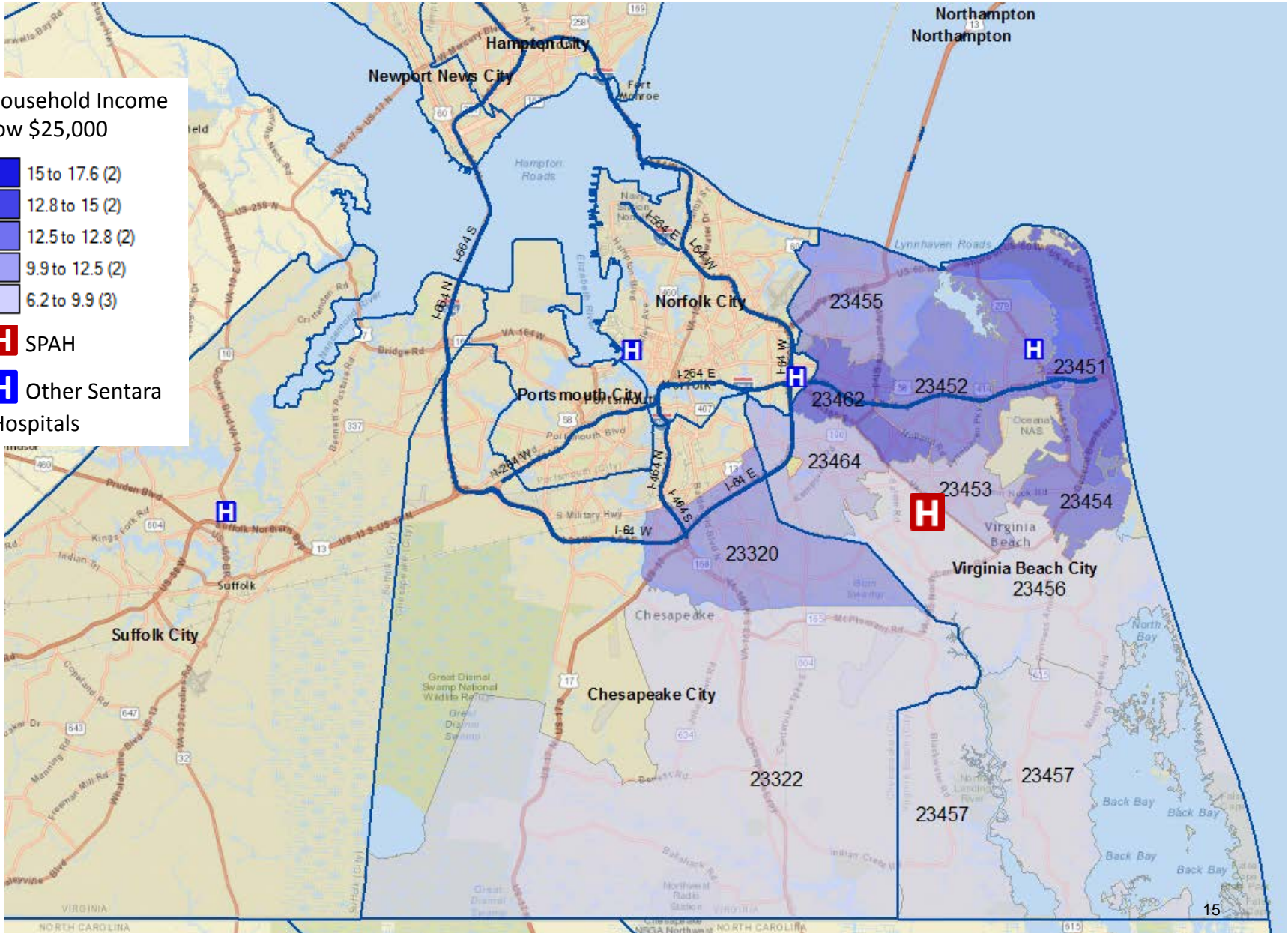
2016 % of Households with Income below \$25,000

% Household Income below \$25,000



SPAH

Other Sentara Hospitals



ZIP Codes Included in SPAH Service Area

ZIP Code	City/County	ZIP Code Name
23320	Chesapeake	Greenbrier
23322	Chesapeake	Fentress
23451	Virginia Beach	Oceanfront
23452	Virginia Beach	Little Neck
23453	Virginia Beach	Green Run
23454	Virginia Beach	Hilltop
23455	Virginia Beach	Bayside
23456	Virginia Beach	Princess Anne
23457	Virginia Beach	Back Bay
23462	Virginia Beach	Witchduck
23464	Virginia Beach	Kempsville

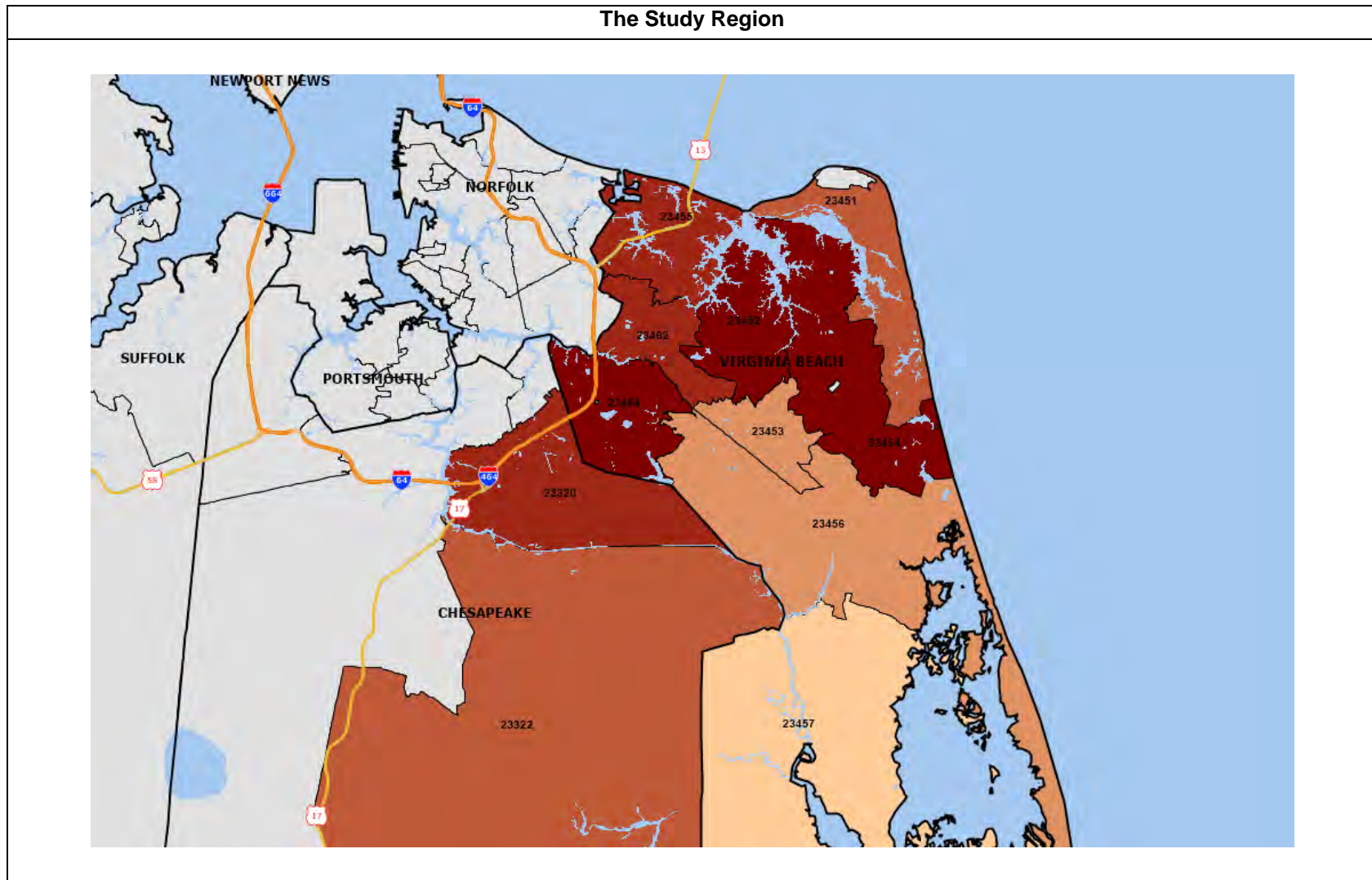
Health Status Indicators Report
Prepared for Sentara Princess Anne Hospital
By Community Health Solutions
July 2016

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Introduction

This document presents a health status indicators report for Sentara Princess Anne Hospital. The report was commissioned by Sentara Healthcare and Sentara Princess Anne Hospital, and produced by Community Health Solutions. The study presents health status indicators for the Sentara Princess Anne Hospital service area of 11 zip codes, all of which fall within the cities of Chesapeake and Virginia Beach.



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

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

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

Study Approach

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

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

1. Mortality Profile

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

Mortality Snapshot (2013)

As shown in *Exhibit 1A*:

- In 2013 there were 3,697 deaths in the study region.
- The leading causes of death in the study region were Malignant Neoplasms (cancer), Heart Disease, Cerebrovascular Disease (stroke), Unintentional Injury and Chronic Lower Respiratory Disease.
- The death rates for the study region were lower (better) than the state rates for all deaths combined, and for all leading causes of death.

Mortality Trend – All Deaths (2011-2013)

- **Trend by Cause:** As shown in *Exhibit 1B*, from 2011 to 2013, study region rates:
 - Increased for all deaths combined, and for Malignant Neoplasms (cancer), Heart Disease, Cerebrovascular Diseases (stroke), Diabetes, and Nephritis and Nephrosis;
 - Declined for Chronic Lower Respiratory Disease, Alzheimer’s Disease, and Septicemia; and
 - Remained relatively stable for Unintentional Injury; and Influenza and Pneumonia.
 - Unlike the state, the study region rates increased for Malignant Neoplasms (cancer), Heart Disease, Cerebrovascular Diseases (stroke), and Diabetes.
 - Unlike the state, the study region rates declined for Chronic Lower Respiratory Disease and Septicemia.
- **Trend by Race/Ethnicity:** As shown in *Exhibit 1C*, from 2011 to 2013, study region counts:
 - Increased for the Black/African American and White populations;
 - Declined for the Asian population; and
 - Remained relatively stable for the Hispanic Ethnicity population.
 - Unlike the state, the study region counts for the Asian population declined.
 - Unlike the state, the study region counts for the White population increased.
 - Unlike the state, the study region counts for the Hispanic Ethnicity population remained relatively stable.
- **Trend by Sex:** As shown in *Exhibit 1D*, from 2011 to 2013, study counts increased for both the female and male populations. The study region trends were consistent with the statewide trends.

Premature Death Trends (2011-2013)

- **Definition:** Consistent with conventions in the field, premature mortality can be defined as deaths that occur before age 75.
- **Leading Causes:** As shown in *Exhibit 1E*, over the 2011 to 2013 time period, roughly 44% of all deaths could be classified as premature deaths.

- **Trend by Cause:** As shown in *Exhibit 1E*, from 2011-2013, study region premature death counts:
 - Increased for all premature deaths combined, and for Malignant Neoplasms (cancer), Heart Disease, Cerebrovascular Diseases (stroke), Chronic Liver Disease, and Nephritis and Nephrosis;
 - Declined for Suicide, Chronic Lower Respiratory Disease, Diabetes, and Septicemia; and
 - Remained relatively stable for Unintentional Injury.
 - Unlike the state, the study region counts increased for Malignant Neoplasms (cancer).
 - Unlike the state, the study region counts declined for Suicide, Chronic Lower Respiratory Disease, and Septicemia.
 - Unlike the state, the study region counts remained relatively stable for Unintentional Injury.

- **Trend by Race/Ethnicity:** As shown in *Exhibit 1F*, from 2011 to 2013, study region premature death counts:
 - Increased for the White population;
 - Declined for the Asian and Hispanic Ethnicity populations; and
 - Remained relatively stable for Black/African American population.
 - Unlike the state, the study region counts declined for the Asian and Hispanic Ethnicity populations.
 - Unlike the state, the study region counts remained relatively stable for the Black/African American population.

- **Trend by Sex:** As shown in *Exhibit 1G*, from 2011 to 2013, study rates increased for both the female and male populations. The study region trends were consistent with the statewide trends.

Exhibit 1A. Mortality Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Deaths by All Causes	62,309	3,697
Counts-Leading 14 Causes of Death		
Malignant Neoplasms	14,348	911
Heart Disease	13,543	763
Cerebrovascular Diseases	3,278	186
Unintentional Injury	2,794	175
Chronic Lower Respiratory Diseases	3,168	170
Diabetes Mellitus	1,618	101
Nephritis and Nephrosis	1,547	92
Alzheimer's Disease	1,634	88
Septicemia	1,464	85
Influenza and Pneumonia	1,430	74
Suicide	1,047	61
Chronic Liver Disease	836	49
Parkinson's Disease	549	30
Primary Hypertension and Renal Disease	629	24
Crude Death Rates per 100,000 Population		
Deaths by All Causes	755.5	653.5
Malignant Neoplasms	174	161.0
Heart Disease	164.2	134.9
Cerebrovascular Diseases	39.7	32.9
Unintentional Injury	33.9	30.9
Chronic Lower Respiratory Diseases	38.4	30.0
Diabetes Mellitus	19.6	17.9
Nephritis and Nephrosis	18.8	16.3
Alzheimer's Disease	19.8	15.6
Septicemia	17.8	15.0
Influenza and Pneumonia	17.3	13.1
Suicide	12.7	10.8
Chronic Liver Disease	10.1	8.7
Parkinson's Disease	6.7	5.3
Primary Hypertension and Renal Disease	7.6	--

Note: Rates 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)	
	2011	2012	2013	Virginia	Study Region
All Deaths (Leading 10 Causes)					
Total Deaths (All Causes)	3,448	3,523	3,697	3%	7%
Malignant Neoplasms (Cancer)	792	889	911	1%	15%
Heart Disease	710	759	763	3%	7%
Chronic Lower Respiratory Disease	183	193	170	2%	-7%
Unintentional Injury	170	137	175	2%	3%
Cerebrovascular Disease (Stroke)	157	166	186	-1%	18%
Alzheimer's Disease	127	94	88	-9%	-31%
Diabetes Mellitus	90	93	101	-1%	12%
Septicemia	86	66	85	7%	-1%
Nephritis and Nephrosis	83	81	92	9%	11%
Influenza and Pneumonia	71	52	74	2%	4%
Crude Death Rates per 100,000 Population					
Total Deaths (All Causes)	631.2	635.6	653.5	2%	4%
Malignant Neoplasms (Cancer)	145.0	160.4	161.0	-1%	11%
Heart Disease	130.0	136.9	134.9	1%	4%
Chronic Lower Respiratory Disease	33.5	34.8	30.0	1%	-10%
Unintentional Injury	31.1	24.7	30.9	1%	-1%
Cerebrovascular Disease (Stroke)	28.7	29.9	32.9	-3%	14%
Alzheimer's Disease	23.3	17.0	15.6	-10%	-33%
Diabetes Mellitus	16.5	16.8	17.9	-2%	8%
Septicemia	15.7	11.9	15.0	5%	-5%
Nephritis and Nephrosis	15.2	14.6	16.3	7%	7%
Influenza and Pneumonia	13.0	9.4	13.1	0%	1%

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)	
	2011	2012	2013	Virginia	Study Region
Counts					
Asian	112	107	98	15%	-13%
Black/African American	589	580	628	4%	7%
White	2,731	2,827	2,930	1%	7%
Hispanic Ethnicity	61	52	61	8%	0%
<i>Notes: Deaths with an Other/Unknown race were not included in the analysis. Hispanic is a classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

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

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Female	1,806	1,846	1,910	3%	6%
Male	1,642	1,677	1,787	4%	9%
<i>Notes: Deaths with an Other/Unknown sex were not included in the analysis.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

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

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Premature Deaths (Leading 10 Causes)					
Total Premature Deaths (All Causes)	1,517	1,539	1,613	4%	6%
Malignant Neoplasms	449	495	526	0%	17%
Heart Disease	251	282	270	6%	8%
Unintentional Injury	117	92	117	-2%	0%
Suicide	73	65	57	0%	-22%
Chronic Lower Respiratory Diseases	58	69	47	1%	-19%
Cerebrovascular Diseases	52	51	64	5%	23%
Diabetes	50	43	49	-1%	-2%
Septicemia	36	33	32	11%	-11%
Chronic Liver Disease	32	44	43	21%	34%
Nephritis and Nephrosis	26	30	35	16%	35%
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

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

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Asian	61	60	55	3%	-10%
Black/African American	369	347	365	3%	-1%
White	1,077	1,127	1,163	2%	8%
Hispanic Ethnicity	37	27	30	0%	-19%
<i>Notes: Deaths with an Other/Unknown race were not included in the analysis. Hispanic is a classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

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

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Female	676	660	690	3%	2%
Male	841	879	923	4%	10%
<i>Notes: Deaths with an Other/Unknown sex were not included in the analysis.</i>					
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>					

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 7,290 live births in the study region. Among the live births were 519 low weight births, 829 late prenatal care births, 2,183 non-marital births, and 278 births to teens.
- The study region had lower (better) rates than Virginia for births without prenatal care, non-marital births, and teen births.

Maternal and Infant Health Trend (2011-2013)

- **Select Birth Indicators.** As shown in *Exhibit 2B*, from 2011 to 2013, the study region rates/percentages:
 - Declined for total live births and low weight births; and
 - Remained relatively stable for non-marital births.
 - Unlike the state, the study region percentage for low weight births declined.
- **Teenage Births Trend by Age Group.** As shown in *Exhibit 2C*, from 2011 to 2013, there was a decline in the number of study region births to teens in all age groups. 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 a decline in the number of study region births to teens in all race/ethnic groups. The study region trends were consistent with the statewide trends.

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

Indicator	Virginia	Study Region
Counts		
Total Live Births	101,977	7,290
Low Weight Births (under 2,500 grams / 5 lb. 8 oz.)	8,178	519
Late Prenatal Care (No Prenatal Care in First 13 Weeks)	13,435	829
Non-Marital Births	35,289	2,183
Live Births to Teens Age 10-19	5,316	278
Live Births to Teens Age 18-19	4,073	227
Live Births to Teens Age 15-17	1,208	49
Live Births to Teens Age <15	35	2
Rates		
Live Birth Rate per 1,000 Population	12.3	12.9
Low Weight Births pct. of Total Live Births	8%	7%
Late Prenatal Care (No Prenatal Care in First 13 Weeks) pct. of Total Live Births	13%	11%
Non-Marital Births pct. of Total Live Births	35%	30%
Teenage (age 10-19) Live Birth Rate per 1,000 Teenage Female Population (age 10-19)	10.3	7.6
Teenage (age 18-19) Live Birth Rate per 1,000 Teenage Female Population (age 18-19)	36.4	35.8
Teenage (age 15-17) Live Birth Rate per 1,000 Teenage Female Population (age 15-17)	8.0	4.1
Teenage (age <15) Live Birth Rate per 1,000 Teenage Female Population (age <15)	0.1	0.1
<i>Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B.</i>		

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

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Total Live Births	7,465	7,579	7,290	-1%	-2%
Low Weight Births	595	632	519	0%	-13%
Non Marital Births	2,269	2,356	2,183	-3%	-4%
Rates	2011	2012	2013	Virginia	Study Region
Total Live Births (per 1,000 population)	13.7	13.7	12.9	-3%	-6%
Low Weight (as a percent of Total Live Births)	8%	8%	7%	0%	-11%
Non Marital Births (as a percent of Total Live Births)	30%	31%	30%	-1%	-1%

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)		
	2011	2012	2013	Virginia	Study Region	
Counts						
Teenage (Age 10-19) Live Births						
Total Teenage Live Births	363	367	278	-19%	-23%	
Age	18-19	277	284	227	-15%	-18%
	15-17	84	81	49	-29%	-42%
	<15	2	2	2	-39%	--

Note: Percent change is not calculated where n<30. Births with unknown age were not included in the analysis.

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

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

Indicator		Study Region			% Change (2011-2013)	
		2011	2012	2013	Virginia	Study Region
Teenage (Age 10-19) Live Births						
Race	Black/African American	144	135	105	-23%	-27%
	White	187	187	130	-26%	-30%
Ethnicity	Hispanic Ethnicity	35	31	28	-5%	--
<p><i>Note: Percent change is not calculated where n<30. Births with an Other/Unknown race were not included in the analysis. Hispanic is classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.</i></p>						
<p><i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i></p>						

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 5,020 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 higher (worse) than the Virginia rates for Congestive Heart Failure, Bacterial Pneumonia, Perforated Appendix, and Asthma in Younger Adults (age 18-39).

Preventable Hospitalization Trend (2011-2013)

- **By Leading Diagnoses.** As shown in *Exhibit 3B*, from 2011 to 2013, study region rates:
 - Increased for Congestive Heart Failure;
 - Declined for Total PQIs, Bacterial Pneumonia, Diabetes and Urinary Tract Infection; and
 - Remained relatively stable for COPD or Asthma in Older Adults (age 40+).
 - Unlike the state, the study region rate increased for Congestive Heart Failure.
 - Unlike the state, the study region rates declined for Bacterial Pneumonia and Diabetes.
 - Unlike the state, the study region rates remained relatively stable for COPD or Asthma in Older Adults (age 40+).
- **By Age Group.** As shown in *Exhibit 3C*, from 2011 to 2013, study region rates:
 - Declined for residents age 18-64; and
 - Remained relatively stable for seniors age 65+.
 - Unlike the state, the study region rate remained relatively stable for seniors age 65+.
- **By Race/Ethnicity.** As shown in *Exhibit 3D*, from 2011 to 2013, study region rates declined for all race/ethnic groups. The study region trends were consistent with the statewide trends.

- **By Payer.** As shown in *Exhibit 3E*, from 2011 to 2013, study region counts:
 - Increased for the Medicare and Self-Pay/Uninsured populations; and
 - Declined for the Medicaid and Private Insurance populations.
 - The study region trends were consistent with the statewide trends.

Exhibit 3A. Preventable Hospitalization Snapshot (2013)

Indicator	Virginia	Study Region
Counts		
Total PQI Discharges (see note)	76,860	5,020
Congestive Heart Failure	18,239	1,372
COPD or Asthma In Older Adults (age 40+)	16,026	1,013
Bacterial Pneumonia	11,099	769
Diabetes	11,867	623
Urinary Tract Infection	8,452	496
Dehydration	7,743	452
Hypertension	2,768	151
Perforated Appendix	1,189	119
Asthma in Younger Adults (age 18-39)	444	72
Angina	941	54
Crude Rates per 100,000 Population		
Total PQI Discharges (see note)	932.0	887.4
Congestive Heart Failure	221.2	242.5
COPD or Asthma In Older Adults (age 40+)	194.3	179.1
Bacterial Pneumonia	120.5	135.9
Diabetes	143.9	110.1
Urinary Tract Infection	102.5	87.7
Dehydration	93.9	79.9
Hypertension	33.6	26.7
Perforated Appendix	14.4	21.0
Asthma in Younger Adults (age 18-39)	5.4	12.7
Angina	11.4	9.5
<i>Note: The sum of the individual diagnoses may differ slightly from the Total Discharges figure for technical reasons.</i>		
<i>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.</i>		

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

Indicator	Study Region			% Change (2011-2013)	
	2011	2012	2013	Virginia	Study Region
Counts					
Total PQI Discharges	4,943	4,773	5,020	-6%	2%
Congestive Heart Failure	1,151	1,244	1,372	-8%	19%
COPD or Asthma In Older Adults (age 40+)	982	911	1,013	-20%	3%
Bacterial Pneumonia	785	796	769	-29%	-2%
Diabetes	713	552	623	-2%	-13%
Urinary Tract Infection	551	526	496	-22%	-10%
Crude Rates per 100,000 Population					
Total PQI Discharges	905.0	861.1	887.4	-7%	-2%
Congestive Heart Failure	210.7	224.4	242.5	-9%	15%
COPD or Asthma In Older Adults (age 40+)	179.8	164.4	179.1	-21%	0%
Bacterial Pneumonia	143.7	143.6	135.9	30%	-5%
Diabetes	130.5	99.6	110.1	0%	-16%
Urinary Tract Infection	100.9	94.9	87.7	-23%	-13%
<i>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.</i>					

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	233	201	217	-23%	-7%
	Adults Age 30-44	404	353	340	-21%	-16%
	Adults Age 45-64	1,352	1,238	1,321	-18%	-2%
	Seniors Age 65+	2,954	2,981	3,142	-20%	6%
Crude Rates per 100,000 Population						
Age	Adults Age 18-29	238.5	139.7	208.9	-24%	-12%
	Adults Age 30-44	359.1	229.2	294.6	-21%	-18%
	Adults Age 45-64	926.8	613.5	874.7	-19%	-6%
	Seniors Age 65+	5,144.5	3,492.0	5,163.8	-23%	0%
<i>Note: PQI Discharges with an unknown age were not included in the analysis.</i>						
<i>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.</i>						

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	117	116	99	-11%	-15%
	Black/African American	1,216	1,165	1,219	-16%	0%
	White	3,297	3,201	3,304	-22%	0%
Ethnicity	Hispanic Ethnicity	84	61	9	-30%	--
Crude Rates per 100,000 Population						
Race	Asian	384.6	303.6	305.4	-24%	-21%
	Black/African American	1,124.9	556.2	1,093.5	-21%	-3%
	White	879.9	679.3	854.0	-19%	-3%
Ethnicity	Hispanic Ethnicity	237.0	124.9	--	-23%	--
<i>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.</i>						
<i>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.</i>						

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

Indicator		Study Region			% Change (2011-2013)	
Counts (Total PQI Discharges)					Virginia	Study Region
Payer	Medicare	3,274	3,211	3,431	2%	5%
	Medicaid	366	351	267	-6%	-27%
	Private	389	388	368	-12%	-5%
	Self-Pay/Uninsured	427	394	437	2%	2%
Crude Rates per 100,000 Population						
Payer	Medicare	--	--	--	--	--
	Medicaid	--	--	--	--	--
	Private	--	--	--	--	--
	Self-Pay/Uninsured	--	--	--	--	--
<i>Note: PQI Discharges with unknown payer were not included in the analysis. Enrollment data were not available to calculate rates.</i>						
<i>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.</i>						

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.

Behavioral Health Hospitalization Snapshot-Age 18+ (2013)

As shown in *Exhibit 4A*:

- In 2013 there were 3,563 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, and Alcoholic Psychoses.
- The BH discharge rates for the study region were higher than the state rates for Affective Psychoses, Schizophrenic Disorders, Alcoholic Psychoses, Drug Psychoses, Symptoms Involving Head or Neck, and Drug Dependence.

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

- **By Leading Diagnoses.** As shown in *Exhibit 4B*, from 2011 to 2013, study region rates:
 - Increased for Affective Psychoses and Alcoholic Psychoses;
 - Declined for Schizophrenic Disorders; and
 - Remained relatively stable for Total BH Discharges (all BH diagnoses combined).
 - Unlike the state, the study region rate increased for Affective Psychoses.
 - Unlike the state, the study region rate declined for Schizophrenic Disorders.
 - Unlike the state, the study region rate remained relatively stable for Total BH Discharges (all BH diagnoses combined).
- **By Age Group.** As shown in *Exhibit 4C*, from 2011 to 2013, study region rates:
 - Increased for residents age 30-64; and
 - Declined for residents age 18-29 and age 65+.
 - Unlike the state, the study region rate declined for the 18-29 age group.
- **By Sex.** As shown in *Exhibit 4D*, from 2011 to 2013, study region rates:
 - Increased for male residents; and
 - Declined for female residents.
 - The study region trends were consistent with the statewide trends.

- **By Race/Ethnicity.** As shown in *Exhibit 4E*, from 2011 to 2013, study region rates:
 - Increased for the White population;
 - Declined for the Asian population; and
 - Remained relatively stable for Black/African American population.
 - Unlike the state, the study region rate declined for the Asian population.

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

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

Indicator	Virginia	Study Region
Counts-BH Discharges		
Total BH Diagnoses	53,638	3,563
Counts-Leading 14 BH Diagnoses		
Affective Psychoses	22,078	1,624
Schizophrenic Disorders	8,064	563
Alcoholic Psychoses	4,033	376
Drug Psychoses	2,102	197
Alcohol Dependence Syndrome	2,388	132
Other Nonorganic Psychoses	1,951	79
Adjustment Reaction	2,031	76
Symptoms Involving Head or Neck	883	75
Altered Mental Status	976	67
Depressive Disorder, Not Elsewhere Classified	2,608	62
Drug Dependence	810	62
Neurotic Disorders	982	36
Other Organic Psychotic Conditions-Chronic	795	19
Non Dependent Abuse of Drugs	575	8
<i>Note: Data for residents age 0-17 are not included. See details in Appendix B.</i>		
<i>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.</i>		

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

Indicator	Virginia	Study Region
Crude Rates Per 100,000 Population		
All Diagnoses	650.4	629.8
Affective Psychoses	267.7	287.1
Schizophrenic Disorders	97.8	99.5
Alcoholic Psychoses	48.9	66.5
Drug Psychoses	25.5	34.8
Alcohol Dependence Syndrome	29.0	23.3
Other Nonorganic Psychoses	23.7	14.0
Adjustment Reaction	24.6	13.4
Symptoms Involving Head or Neck	10.7	13.3
Altered Mental Status	11.8	11.8
Depressive Disorder, Not Elsewhere Classified	31.6	11.0
Drug Dependence	9.8	11.0
Neurotic Disorders	11.9	6.4
Other Organic Psychotic Conditions-Chronic	9.6	--
Non Dependent Abuse of Drugs	7.0	--
<i>Note: Rates are not calculated where n<30. Data for residents age 0-17 are not included. See details in Appendix B.</i>		
<i>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.</i>		

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)	3,459	3,663	3,563	3%	3%
Affective Psychoses	1,543	1,548	1,624	-1%	5%
Schizophrenic Disorders	604	631	563	1%	-7%
Alcoholic Psychoses	231	336	376	23%	63%
Crude Rates per 100,000 Population					
Total BH Discharges (All Diagnoses)	633.3	660.8	629.8	2%	-1%
Affective Psychoses	282.5	279.3	287.1	-2%	2%
Schizophrenic Disorders	110.6	113.8	99.5	0%	-10%
Alcoholic Psychoses	42.3	60.6	66.5	21%	57%
<i>Note: Data for residents age 0-17 are not included. See details in Appendix B.</i>					
<i>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.</i>					

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

Indicator	Study Region			% Change (2011-2013)		
	2011	2012	2013	Virginia	Study Region	
Counts						
All BH Discharges						
Age	Adults Age 18-29	944	956	891	10%	-6%
	Adults Age 30-44	902	1,016	969	2%	7%
	Adults Age 45-64	1,174	1,227	1,279	3%	9%
	Seniors Age 65+	439	464	424	-4%	-3%
Crude Rates per 100,000 Population						
Age	Adults Age 18-29	966.5	967.5	857.7	7%	-11%
	Adults Age 30-44	801.8	899.6	839.7	2%	5%
	Adults Age 45-64	804.8	818.0	846.9	2%	5%
	Seniors Age 65+	764.5	754.7	696.8	-7%	-9%
<i>Note: Data for residents age 0-17 are not included. Discharges with an unknown age were not included in the analysis. See details in Appendix B.</i>						
<i>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.</i>						

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	1,884	1,882	1,814	-1%	-4%
	Male	1,574	1,781	1,749	8%	11%
Crude Rates per 100,000 Population						
Sex	Female	672.5	666.3	629.3	-2%	-6%
	Male	591.5	655.1	630.3	7%	7%
<i>Note: Discharges with an Other/Unknown sex were not included in the analysis. Data for residents age 0-17 are not included. See details in Appendix B.</i>						
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>						

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	45	60	43	14%	-4%
	Black/African American	697	798	720	2%	3%
	White	2,568	2,656	2,695	2%	5%
Ethnicity	Hispanic Ethnicity	60	62	6	-6%	--
Crude Rates per 100,000 Population						
Race	Asian	147.9	188.8	132.6	6%	-10%
	Black/African American	644.8	731.5	645.9	0%	0%
	White	685.3	700.7	696.6	2%	2%
Ethnicity	Hispanic Ethnicity	169.3	180.1	--	-7%	--
<i>Note: Rates and/or percent change are not calculated where n<30. Discharges with an Other/Unknown race were not included in the analysis. Hispanic is classification of ethnicity; therefore, Hispanic individuals are also included in the race categories. Data for residents age 0-17 are not included. See details in Appendix B</i>						
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>						

Exhibit 4F. Behavioral Health Hospitalization Trend by Payer-Age 18+ (2011-2013)

Indicator		Study Region			% Change (2011-2013)	
		2011	2012	2013	Virginia	Study Region
Counts						
All BH Discharges						
Payer	Medicare	944	997	941	5%	0%
	Medicaid	188	182	228	12%	21%
	Private	2,036	2,234	2,023	-2%	-1%
	Self-Pay/Uninsured	283	245	364	14%	29%
Crude Rates per 100,000 Population						
Payer	Medicare	--	--	--	--	--
	Medicaid	--	--	--	--	--
	Private	--	--	--	--	--
	Self-Pay/Uninsured	--	--	--	--	--
<i>Note: Discharges with an Other/Unknown payer were not included in the analysis. Enrollment data were not available to calculate rates. Data for residents age 0-17 are not included. See details in Appendix B.</i>						
<i>Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.</i>						

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*, in 2014, substantial numbers of adults have lifestyle health risks related to nutrition, weight, physical inactivity, tobacco and alcohol. For example,
 - An estimated 338,029 adults age 18+ (78%) are not meeting the guidelines for fruit and vegetable intake,
 - An estimated 264,211 adults age 18+ (61%) are overweight or obese, and
 - An estimated 223,776 adults age 18+ (51%) are not meeting recommendations for physical activity.

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

Indicator		Virginia	Study Region
Estimates-Counts			
Estimated Adults age 18+		6,393,583	435,911
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	5,114,866	338,029
	Overweight or Obese	3,964,021	264,211
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	3,068,920	223,776
	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	93,053
	Smoker	1,214,781	85,276
Chronic Conditions	High Cholesterol (was checked, and told by a doctor or other health professional it was high)	2,237,754	156,598
	High Blood Pressure (told by a doctor or other health professional)	1,918,075	124,135
	Arthritis (told by a doctor or other health professional)	1,534,460	102,023
	Diabetes (told by a doctor or other health professional)	575,422	36,314
General Health Status	Limited in any Activities because of Physical, Mental or Emotional Problems	1,214,781	83,807
	Fair or Poor Health Status	1,022,973	70,679
Estimates-Rates			
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	80%	78%
	Overweight or Obese	62%	61%
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	48%	51%
	At-risk for Binge Drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	18%	21%
	Smoker	19%	20%
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%	28%
	Arthritis (told by a doctor or other health professional)	24%	23%
	Diabetes (told by a doctor or other health professional)	9%	8%
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*, in 2014, substantial numbers of youth have lifestyle health risks related to nutrition, weight, alcohol, mental health, physical inactivity, and tobacco. For example,
 - Only an estimated 3,833 youth age 14-19 (8%) and 4,356 youth age 10-14 (25%) met the guidelines for fruit and vegetable intake,
 - An estimated 12,472 youth age 14-19 (27%) are overweight or obese, and
 - An estimated 25,254 youth age 14-19 (55%) and 12,016 youth age 10-14 (66%) did not meet the guidelines for physical activity.

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

Indicator	Virginia	Study Region
Counts (Estimates)		
High School Youth Age 14-19		
<i>Total Estimated High School Youth Age 14-19</i>	654,462	45,747
Met Guidelines for Fruit and Vegetable Intake	54,707	3,833
Overweight or Obese	179,050	12,472
Not Meeting Recommendations for Physical Activity in the Past Week	363,586	25,254
Used Tobacco in the Past 30 Days	118,572	8,288
Had at least One Drink of Alcohol At least One Day in the Past 30 Days	178,173	12,476
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	11,487
Middle School Youth Age 10-14		
<i>Total Estimated Middle School Youth Age 10-14</i>	523,850	18,235
Met Guidelines for Fruit and Vegetable Intake	125,285	4,356
Not Meeting Recommendations for Physical Activity in the Past Week	345,407	12,016
Used Tobacco in the Past 30 Days	19,192	422
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%	55%
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%	27%
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%	24%
Not Meeting Recommendations for Physical Activity in the Past Week	66%	66%
Used Tobacco in the Past 30 Days	4%	2%
<i>Note: State-level estimates are provided for reference only, and direct comparisons of local estimates with state estimates are not recommended.</i>		
<i>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.</i>		

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 estimates, and therefore subject to estimation error.

As shown in *Exhibit 7*:

- At any given point in 2014, an estimated 66,239 residents of the study region were uninsured.
- The estimated number of uninsured children age 0-18 was 8,503 in the study region. Among uninsured children, it is estimated that 50% have family income below 200 percent of the federal poverty level, possibly making them income-eligible for coverage through the state Medicaid or FAMIS program.
- The estimated number of uninsured adults age 19-64 was 57,736 in the study region. Among uninsured adults, it is estimated that 54% have family income below 200 percent of the federal poverty level.

Exhibit 7. Uninsured Profile (2014 Estimates)

Indicator	Virginia	Study Region
Estimated Uninsured Counts*		
Uninsured Nonelderly Age 0-64	1,013,986	66,239
Uninsured Children Age 0-18	120,105	8,503
Uninsured Children Age 0-18 <=138% FPL	327,185	2,758
Uninsured Children Age 0-18 <=200% FPL	479,797	4,269
Uninsured Children Age 0-18 <=250% FPL	578,328	5,242
Uninsured Children Age 0-18 <=400% FPL	749,463	6,969
Uninsured Children Age 0-18 138-400% FPL	422,276	4,211
Uninsured Adults Age 19-64	893,456	57,736
Uninsured Adults Age 19-64 <=138% FPL	327,185	21,143
Uninsured Adults Age 19-64 <=200% FPL	479,797	31,005
Uninsured Adults Age 19-64 <=250% FPL	578,328	37,372
Uninsured Adults Age 19-64 <=400% FPL	749,463	48,431
Uninsured Adults Age 19-64 138-400% FPL	422,276	27,288
Estimated Uninsured Percent		
Uninsured Children Percent	6%	6%
Uninsured Adults Percent	17%	16%
<i>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.</i>		
<i>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.</i>		

APPENDIX A: Zip Code-Level Maps

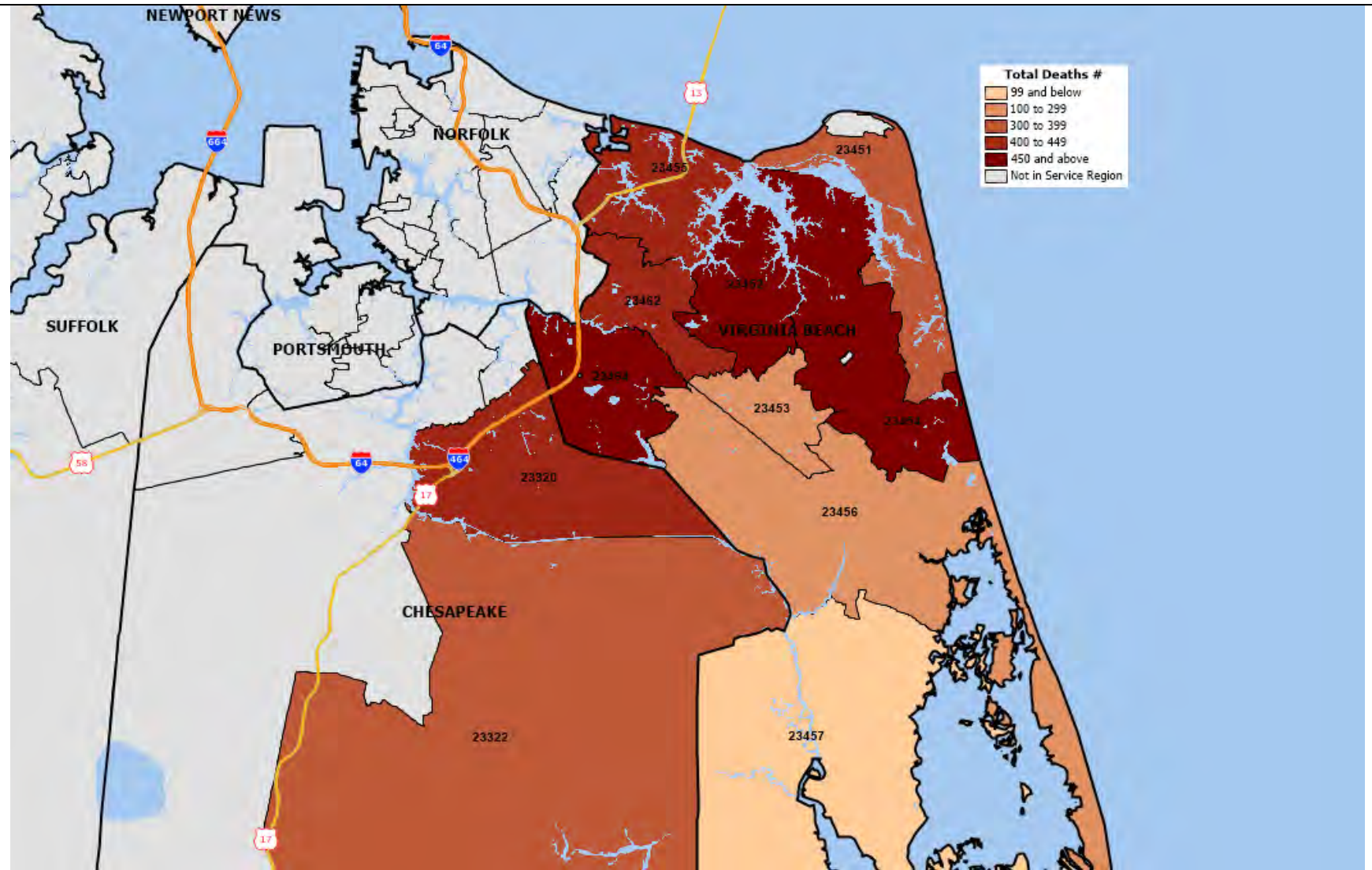
The Zip Code-Level maps in this section illustrate the geographic distribution of the zip code-level study region on key health status indicators. The maps in this section include the following for 2013/2014:

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	Map Table

Technical Notes

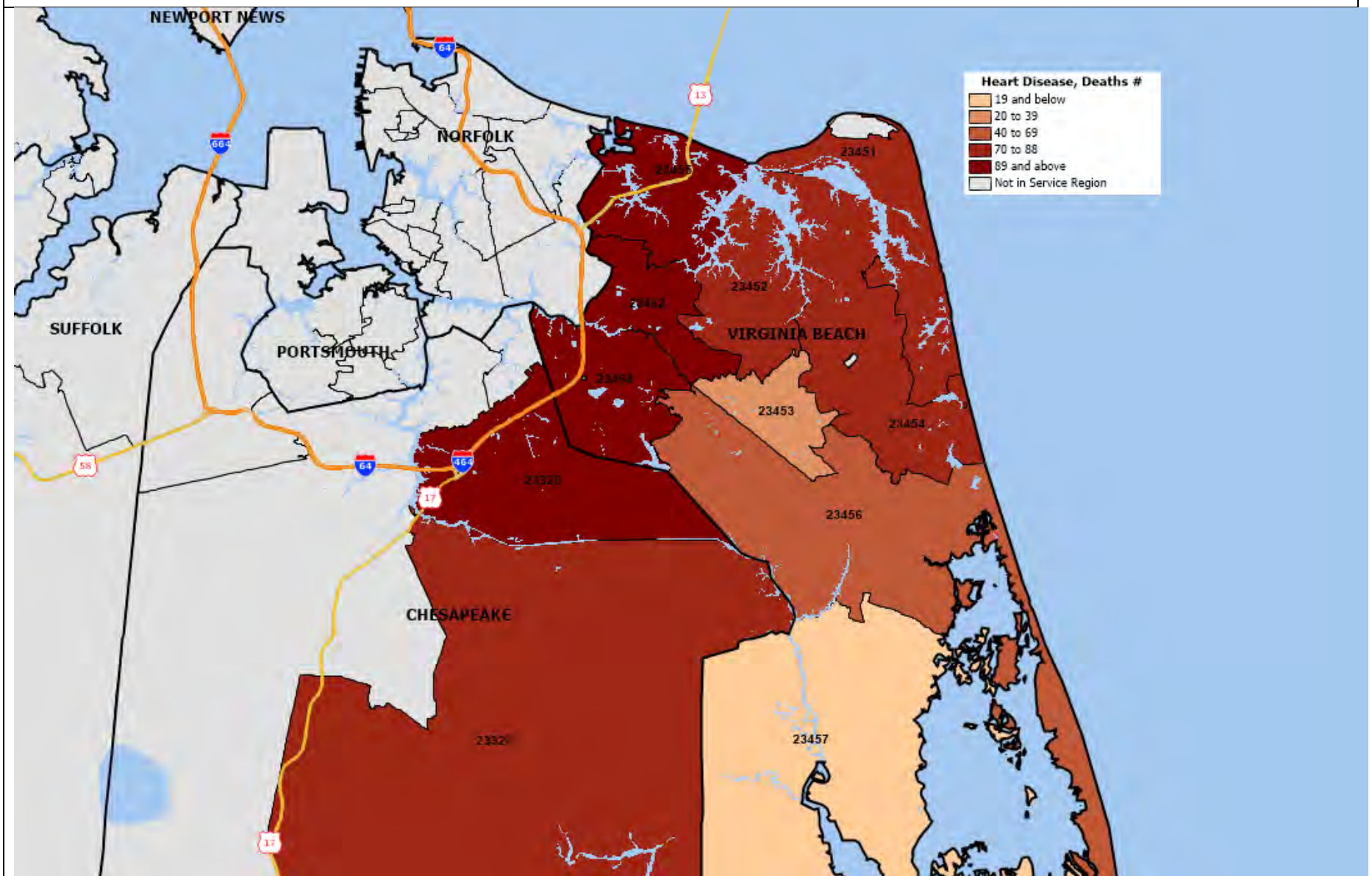
1. The maps and data include 11 zip codes, as identified by Sentara Princess Anne Hospital, all of which fall within the cities of Chesapeake and Virginia Beach. It is important to note that zip code boundaries do not automatically align with city/county boundaries, and there are some zip codes that extend beyond the county boundaries.
2. The maps show counts rather than rates. Rates are not mapped at the zip code-level because in some zip codes the population is too small to support rate-based comparisons.
3. Data are presented in natural breaks.
4. Zip Code-Level Study Region zip codes with zero values are noted.

Map 1: Total Deaths, 2013



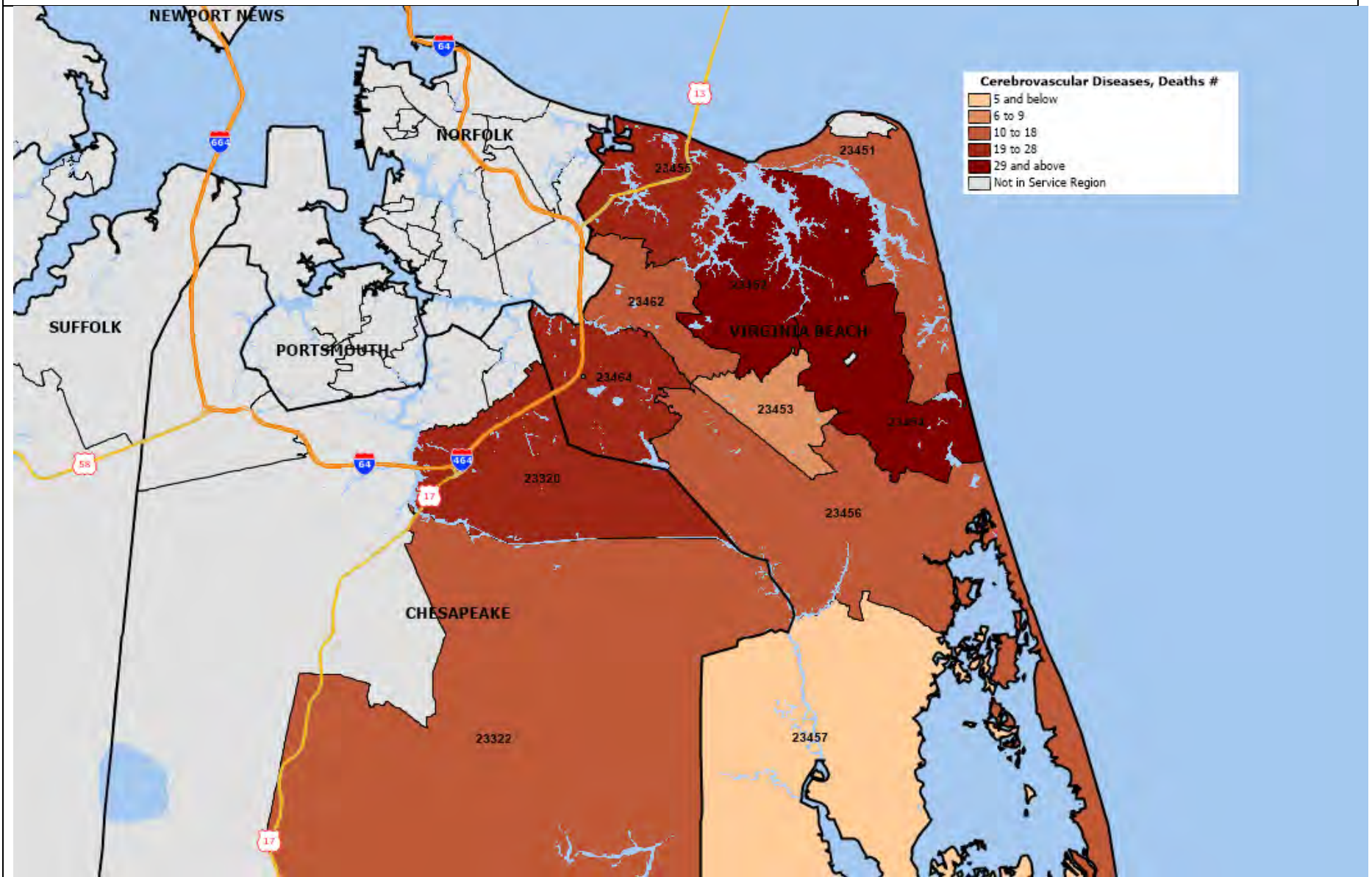
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.

Map 2: Heart Disease Deaths, 2013



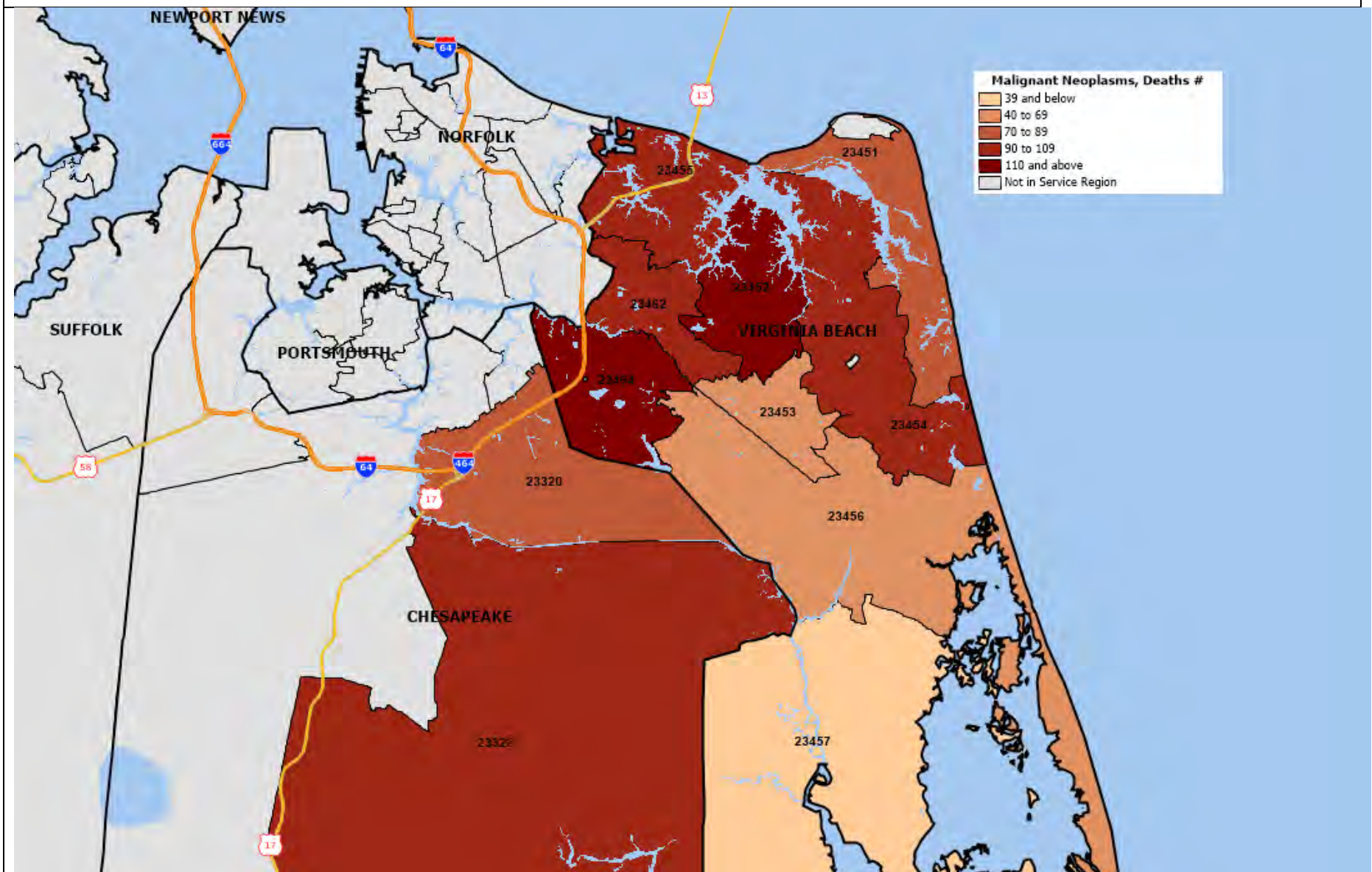
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.

Map 3: Cerebrovascular Disease (Stroke) Deaths, 2013



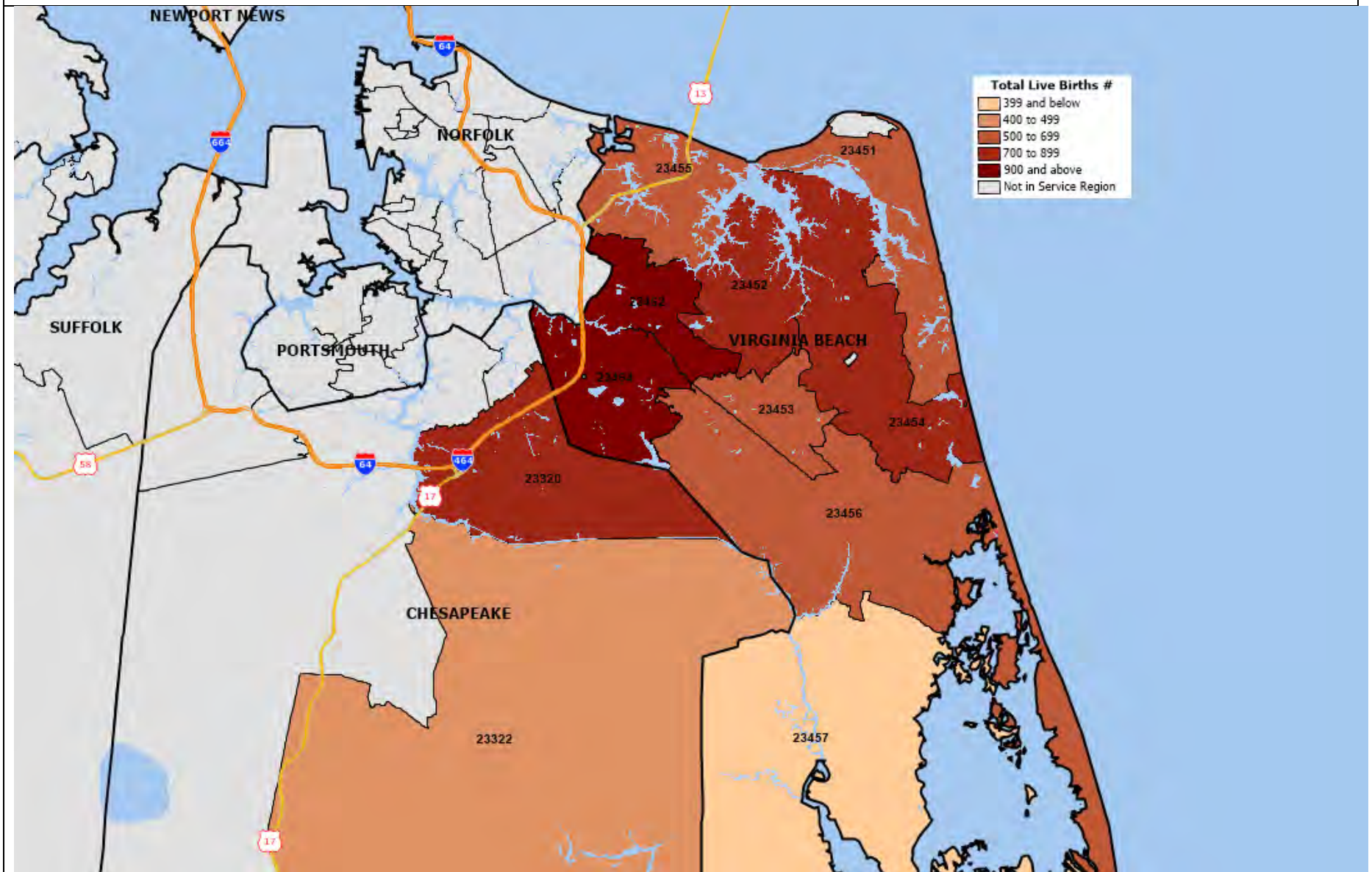
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B. Notes: There were no reported stroke deaths for zip code 23457.

Map 4: Malignant Neoplasms (Cancer) Deaths, 2013



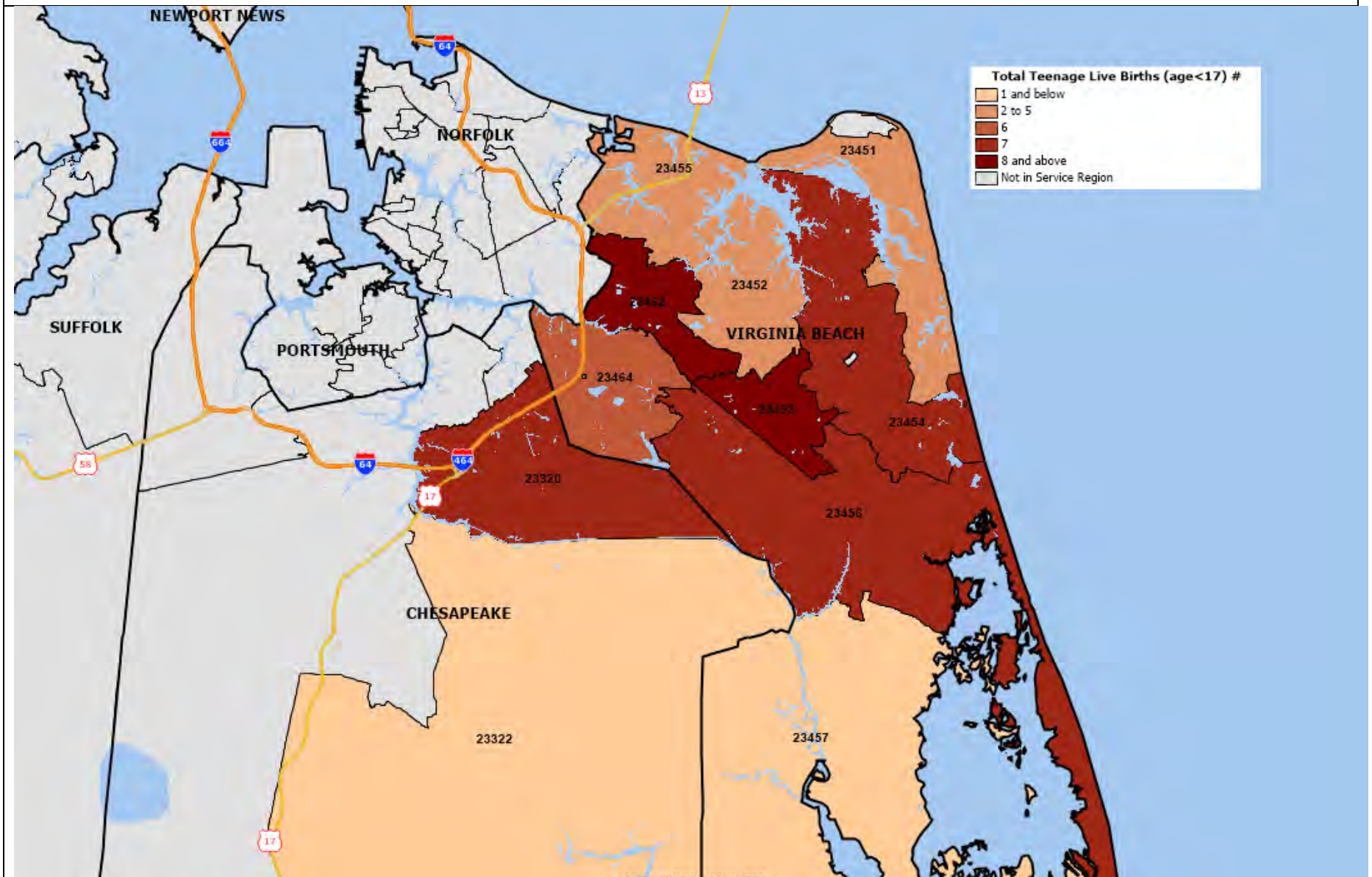
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B.

Map 5: Total Live Births, 2013



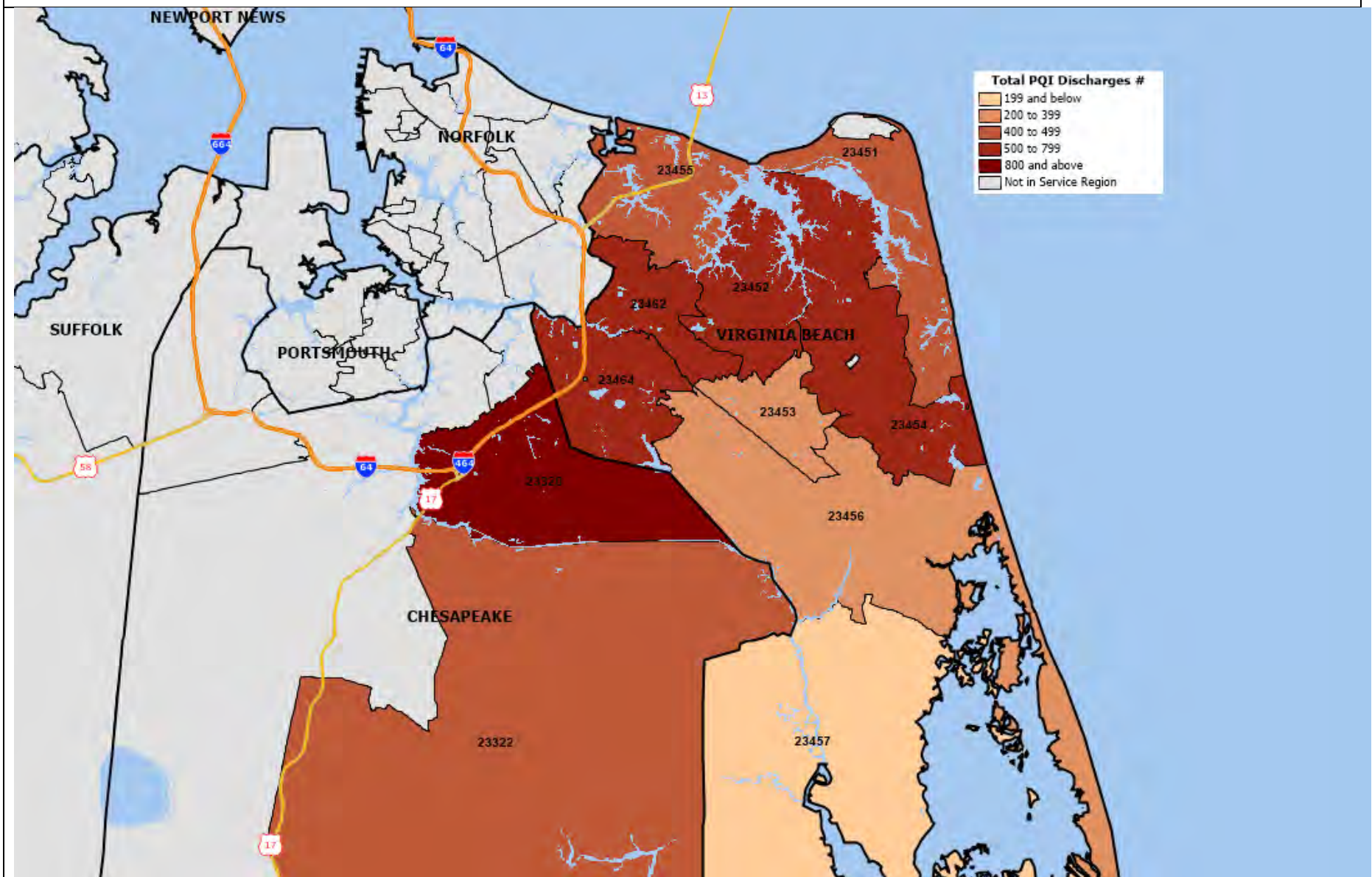
Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B.

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



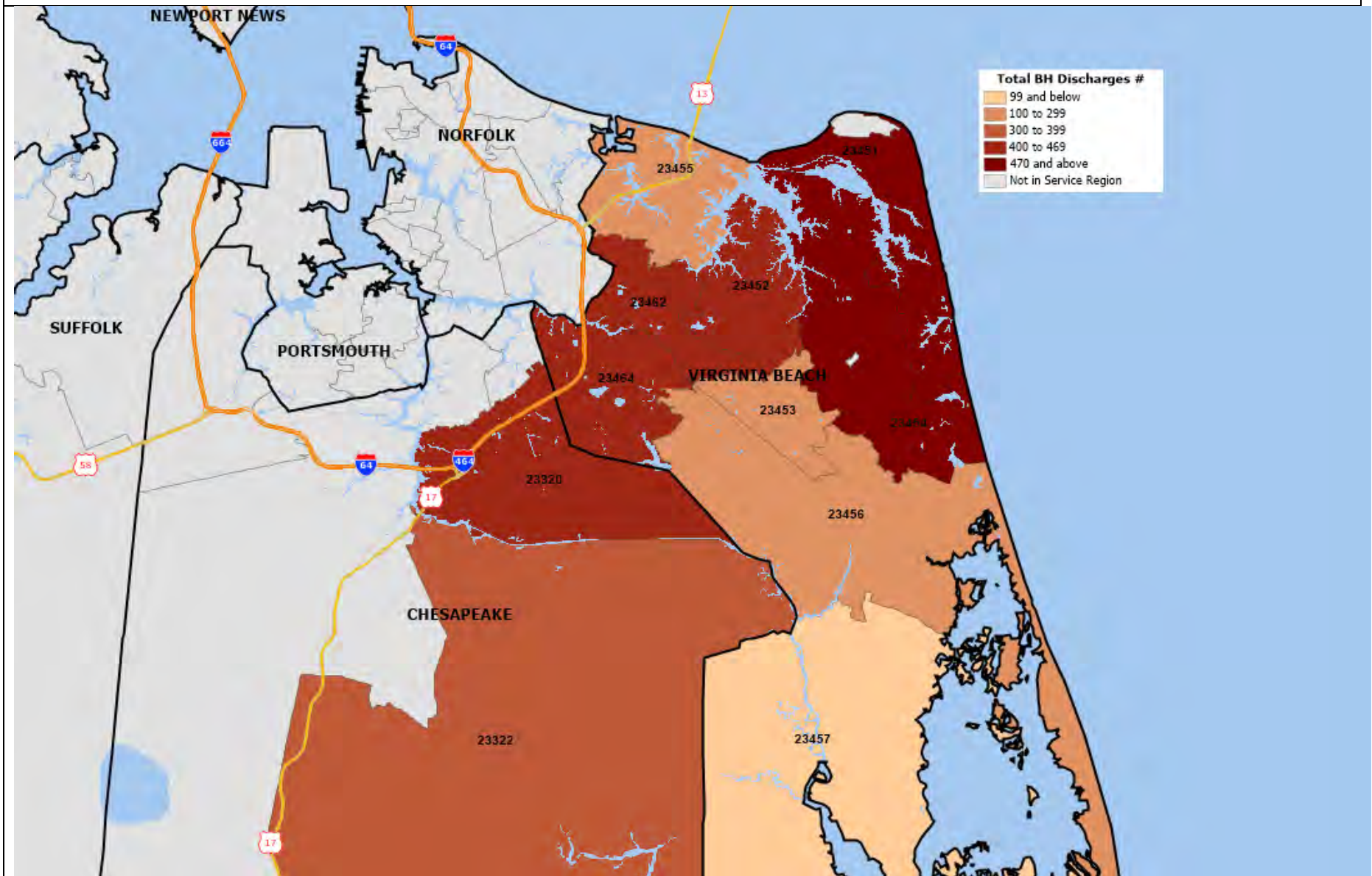
Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B. Notes: There were no reported teenage live births for zip codes 23322 and 23457.

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



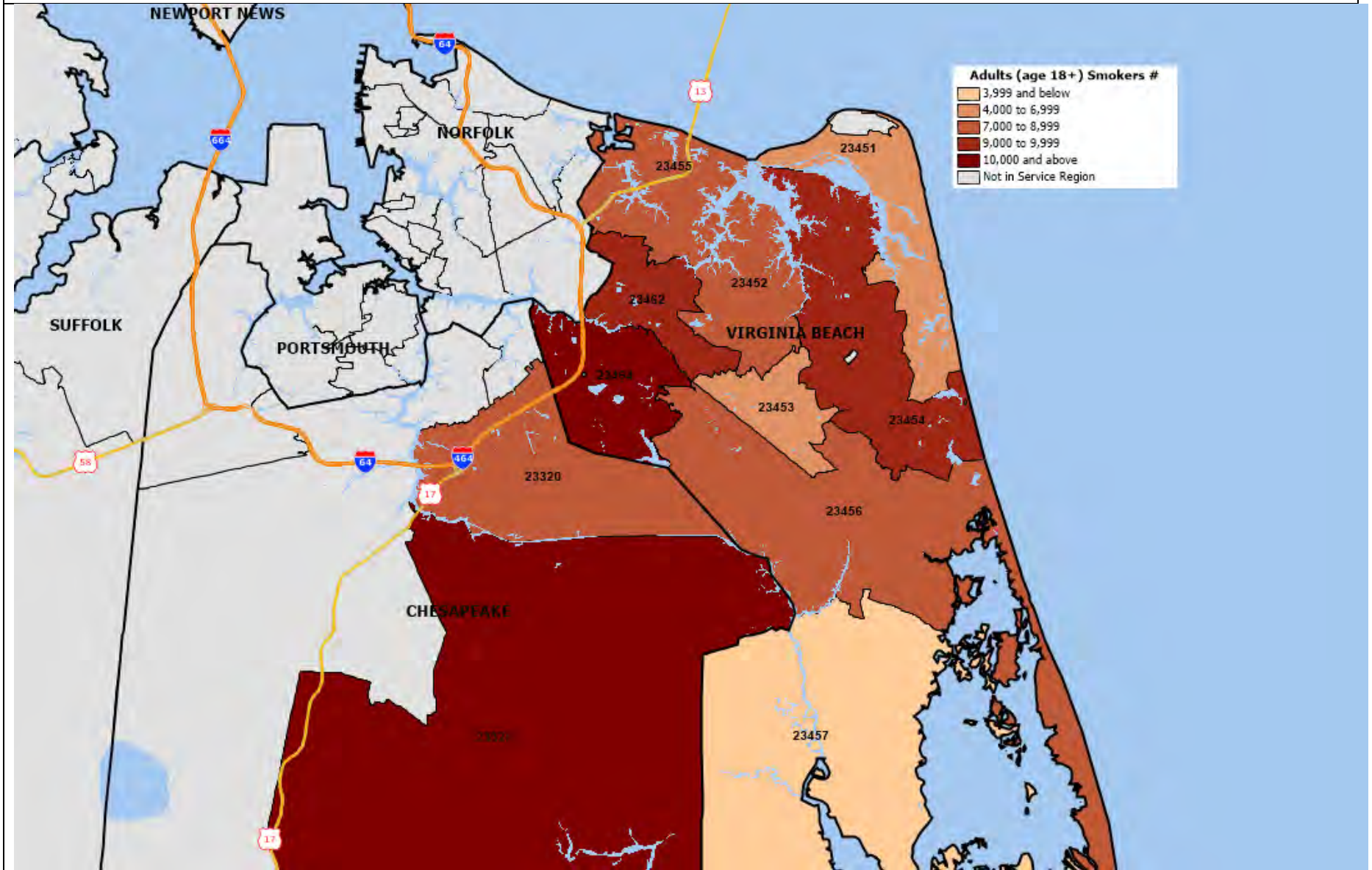
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.

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



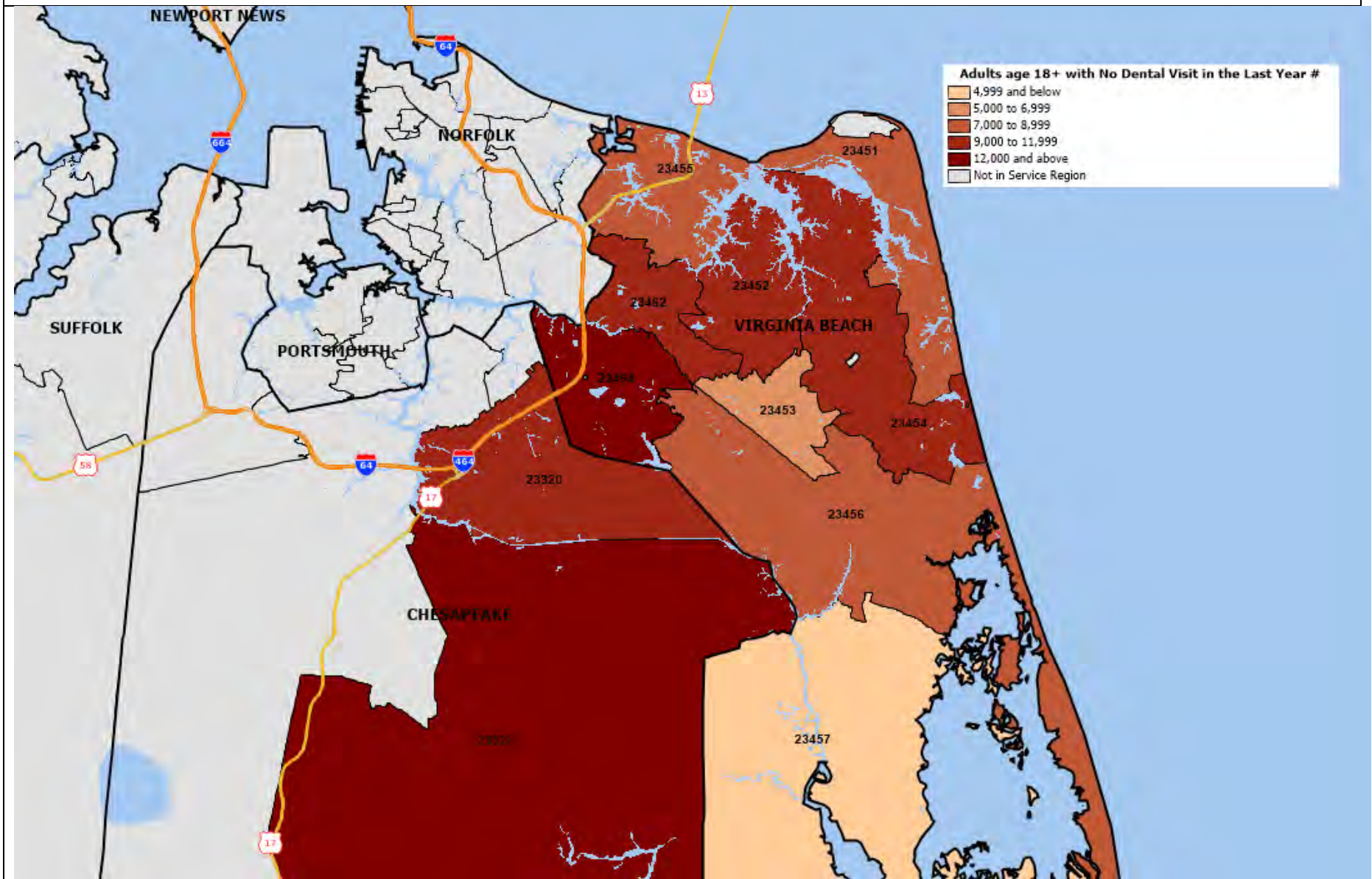
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B.

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



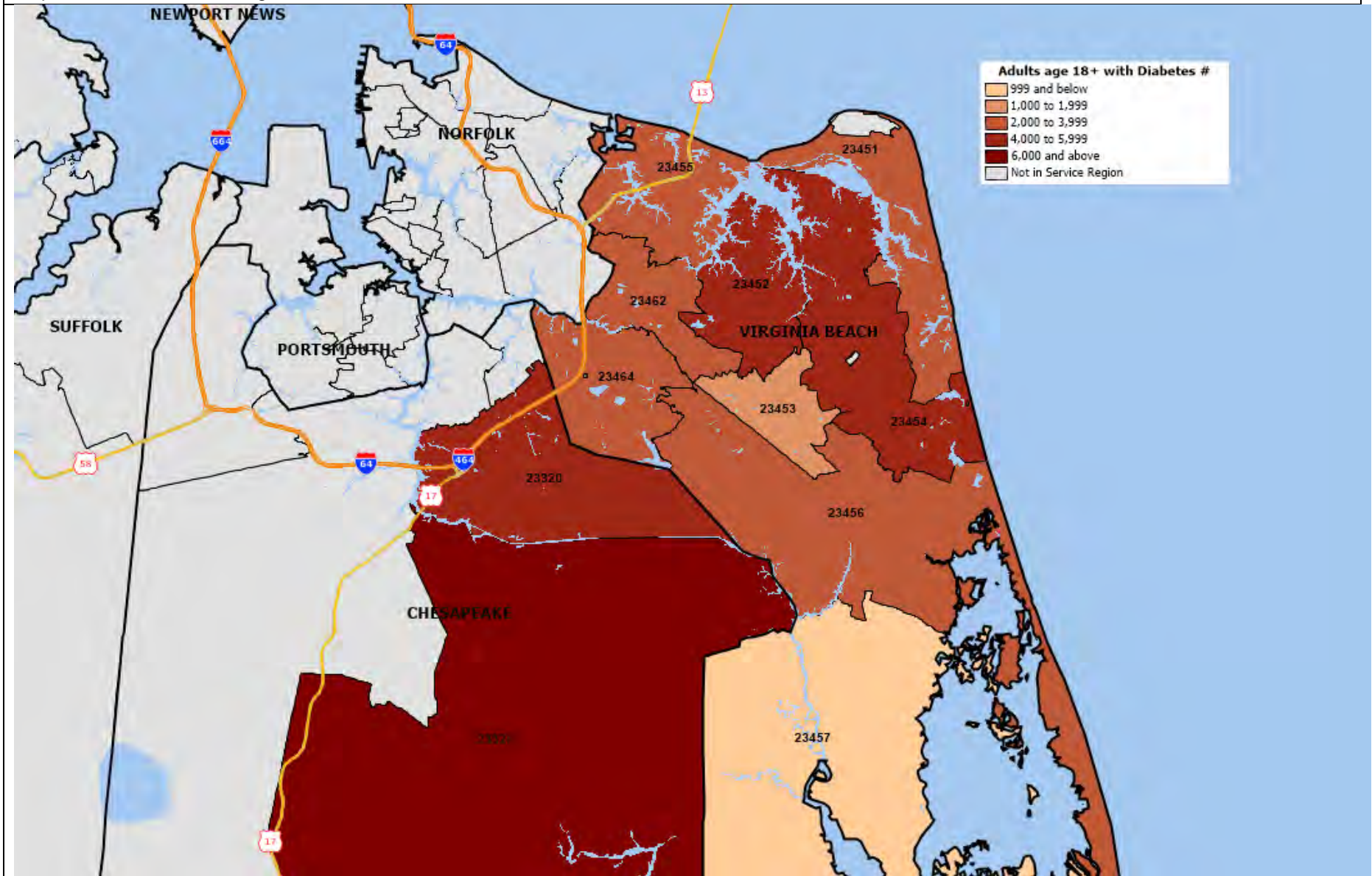
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in Appendix B.

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



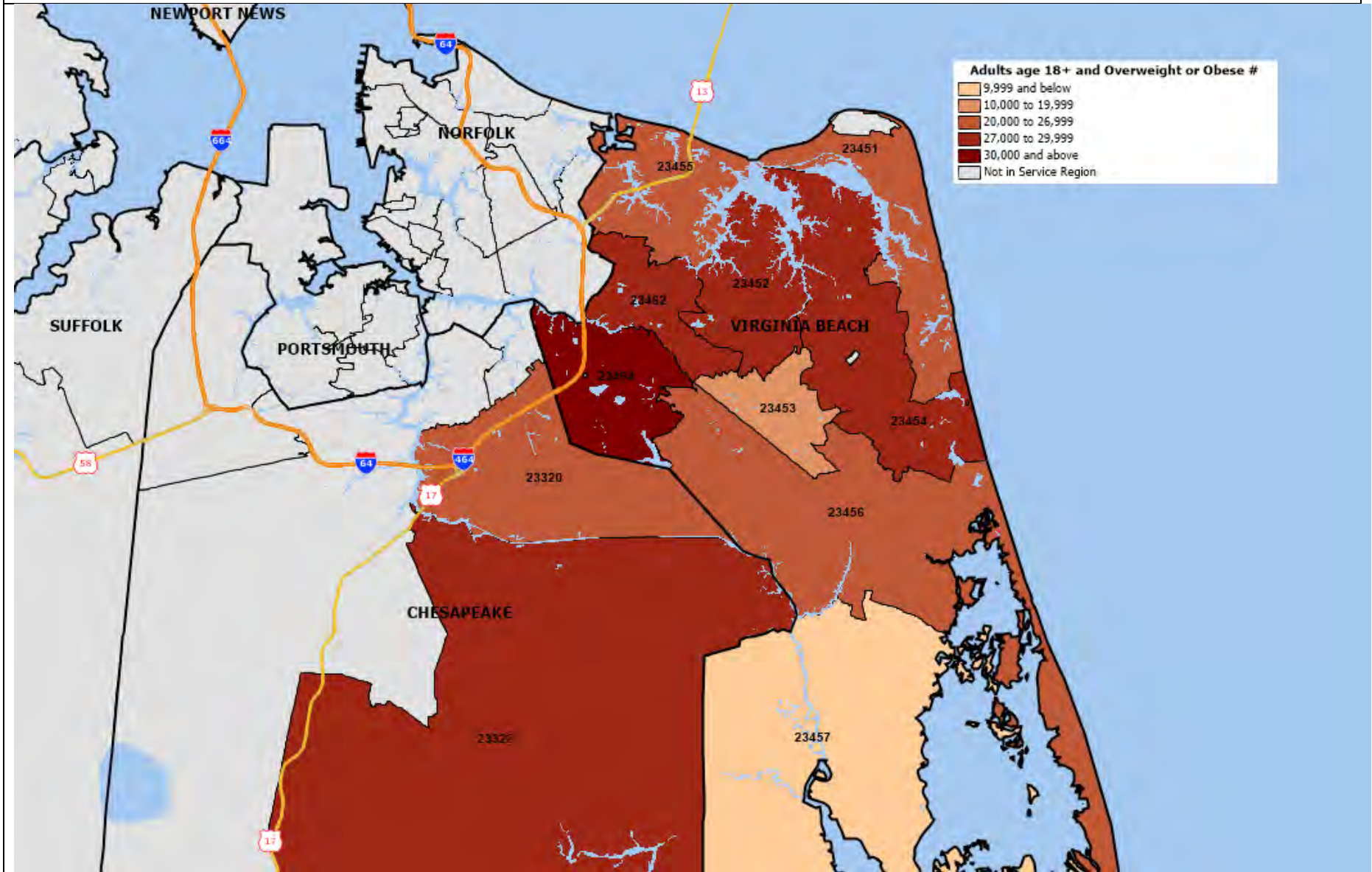
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in Appendix B.

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



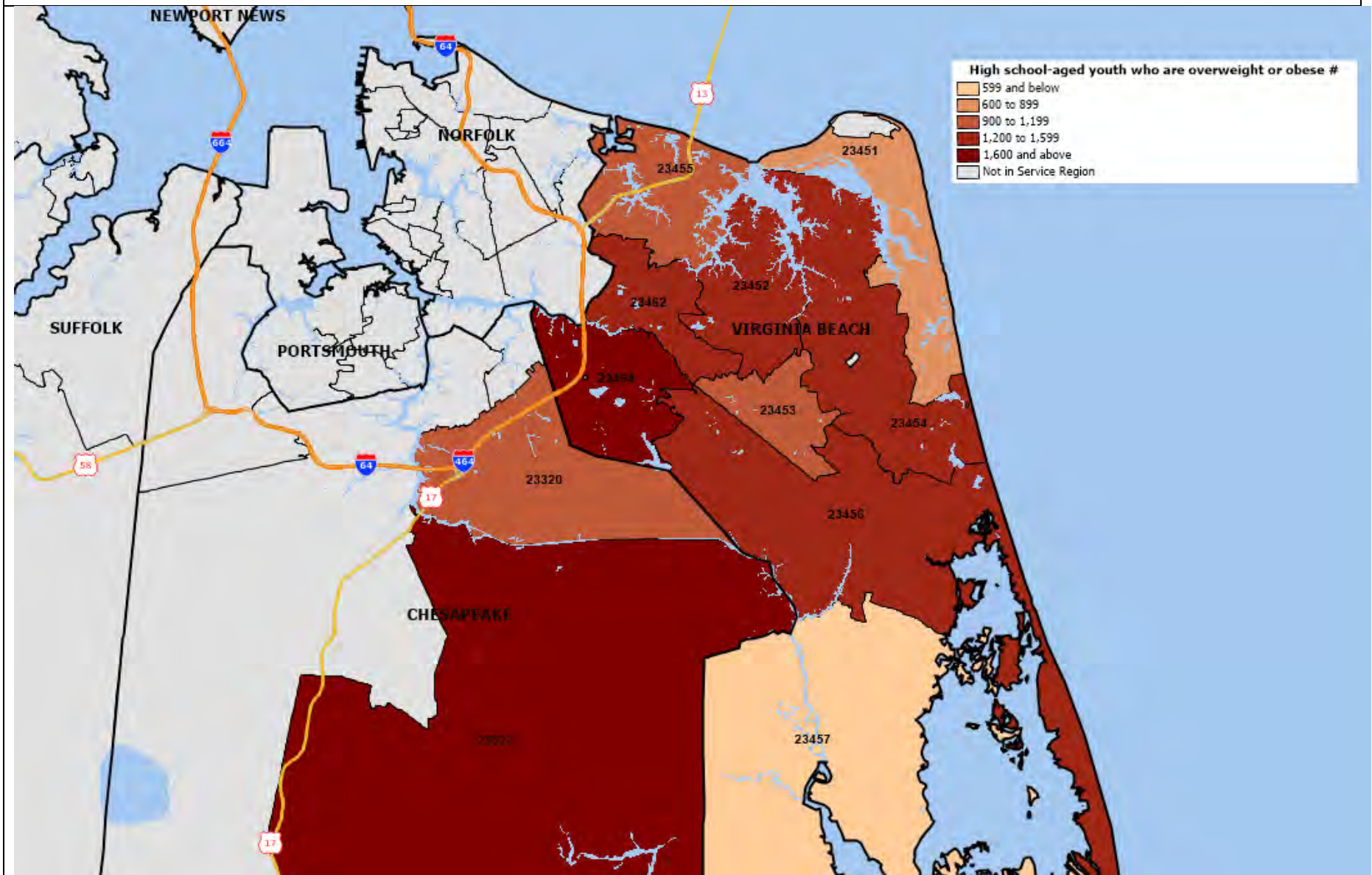
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in Appendix B.

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



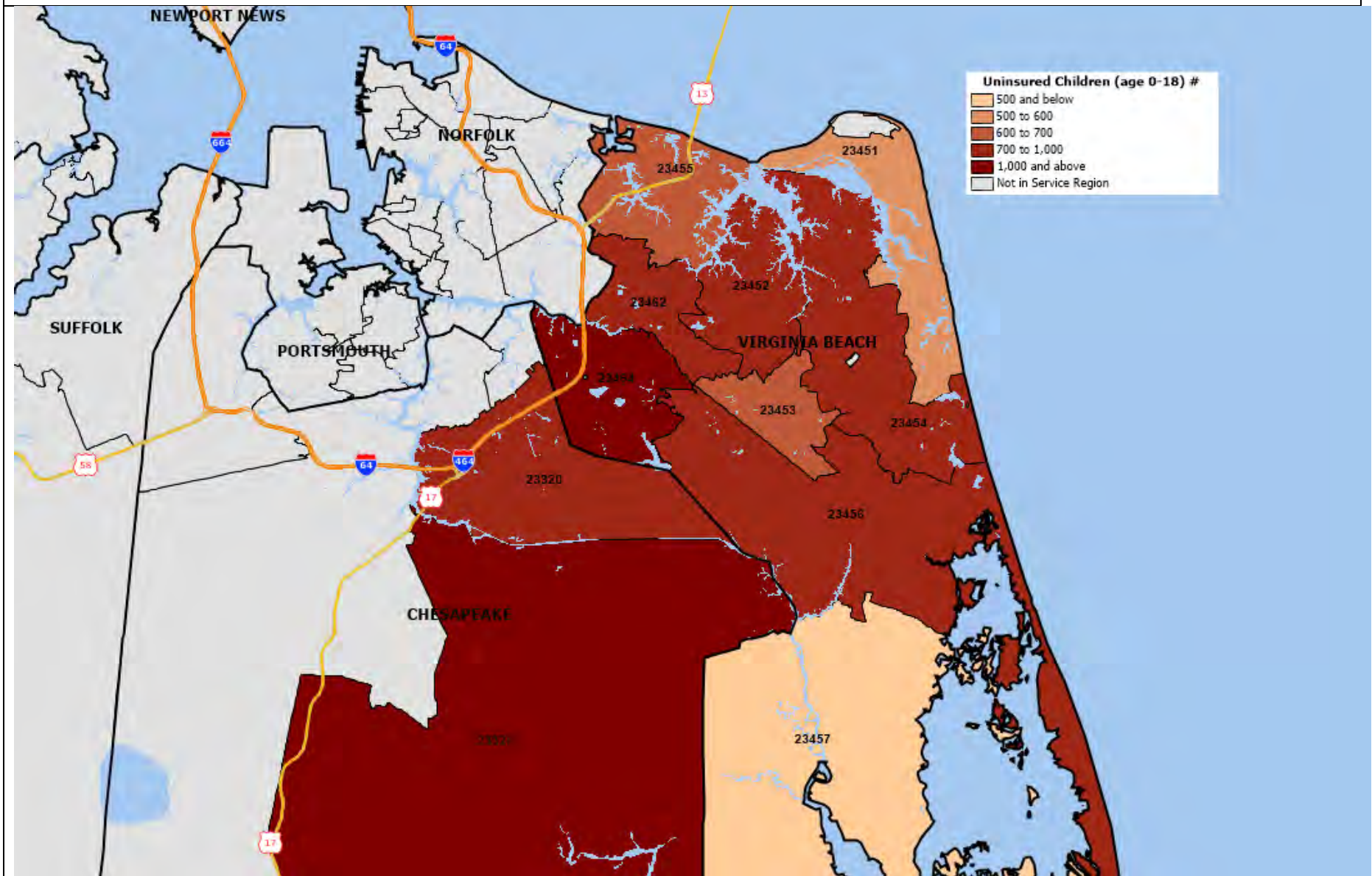
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See Appendix B.

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



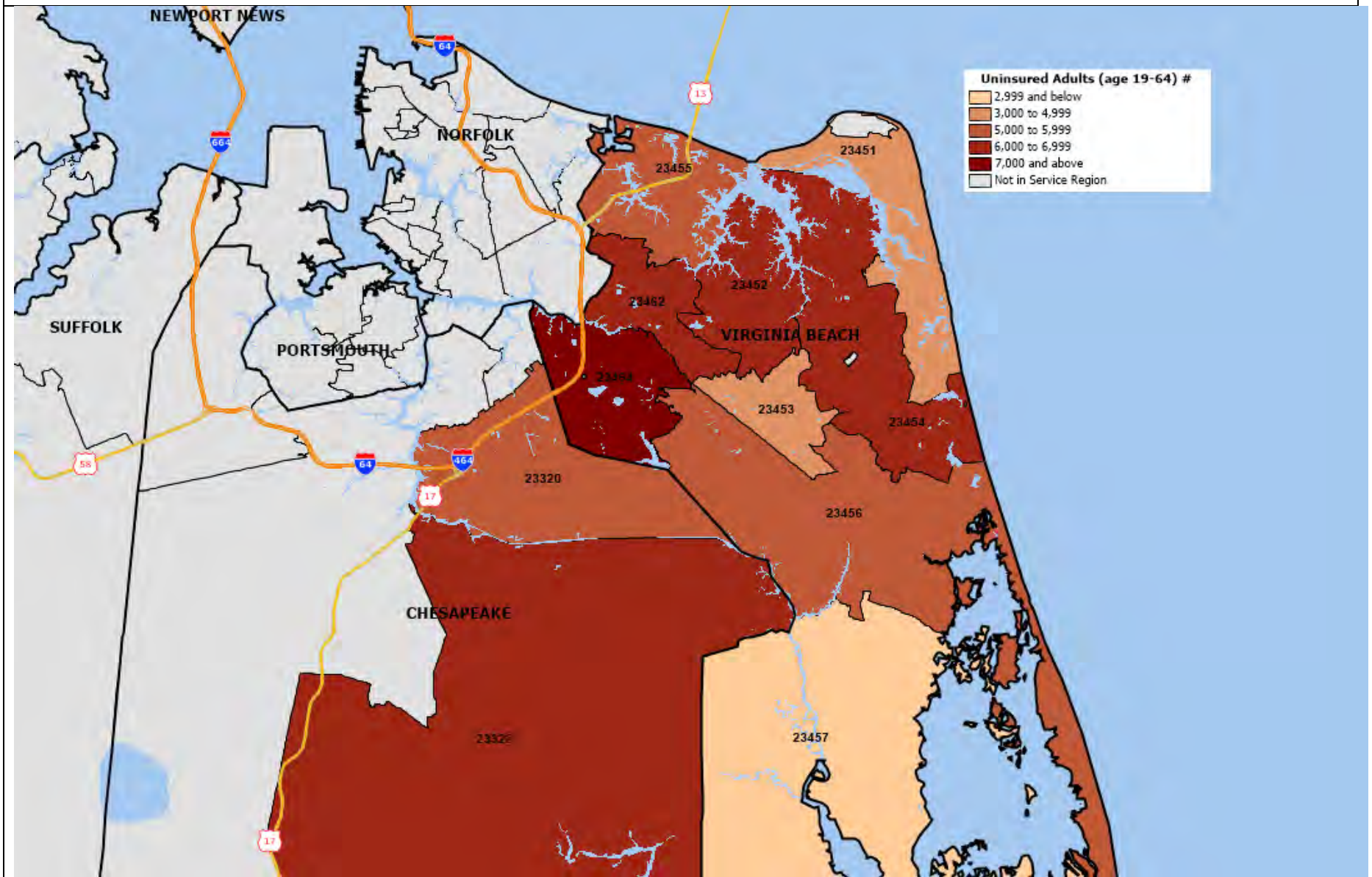
Source: Estimates produced by Community Health Solutions using Virginia Youth Risk Behavioral Surveillance System data and local demographic estimates from Alteryx, Inc. See Appendix B. Data Sources for details.

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: Health Status Indicators Data Sources

Profile	Source
Important Note on Data Sources	The data used to produce the health status indicators in this report were obtained from public or commercial sources as indicated throughout this appendix. Community Health Solutions cannot, and does not guarantee the accuracy of these data sources.
1) Mortality Profile (also Appendix A. Maps 1-4)	Community Health Solutions analysis of Virginia Department of Health death record data (2011-2013).
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).
3) Preventable Hospitalization Profile (also Appendix A. Map 7) 4) Behavioral Health Hospitalization Profile (also Appendix A. Map 8)	<p>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.</p> <p>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 <i>All PQI Discharges</i> 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</p> <p>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.</p> <p><i>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.</i></p>

Profile	Source
5) Adult Health Risk Factor Profile (also Appendix A. Maps 9-12)	<p>Estimates of chronic disease and risk behaviors for adults 18+ were produced by Community Health Solutions using:</p> <ul style="list-style-type: none"> • 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) <p>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.</p>
6) Youth Health Risk Factor Profile (also Appendix A. Map 13)	<p>Estimates of risk behaviors for youth age 14-19 and 10-14 were produced by Community Health Solutions using:</p> <ul style="list-style-type: none"> • 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/yrebs/index.htm • Local demographic estimates from Alteryx, Inc. (2014). <p>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.</p>
7) Uninsured Profile (also Appendix A. Maps 14-15)	<p>Estimates of uninsured nonelderly age 0-64 were produced by Community Health Solutions using:</p> <ul style="list-style-type: none"> • 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) <p>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 local level 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.</p>

Community Insight

The community insight component of this CHNA consisted of two methodologies: an online Community Stakeholder Survey carried by the Sentara Strategy Department and a series of more in-depth Community Focus Groups carried out by the hospital.

The Community Stakeholder Survey was conducted jointly with all Sentara hospitals in South Hampton Roads due to the proximity of the hospitals and the wide variety of community stakeholders that work with multiple hospitals throughout the region. The survey tool was similar to but expanded from the survey utilized for the 2013 CHNA. The expansion was a result of a community collaborative effort. The survey was conducted using Survey Monkey, an online survey service, in June 2016. Stakeholders were invited to participate by email and were sent the link to open the survey. They were asked to identify the hospitals they work with and their answers were included with each hospital identified. Invitations were based on the recipients' employment or community engagement, community history, and knowledge. A wide-variety of stakeholders were sought, including representative from public health departments, social services, emergency services, healthcare providers, elected or non-elected government officials, representatives of underserved and/or minority populations, consumers of services, and others.

The survey contained questions on:

- The most important health problems in the community
- Community services that need strengthening
- Vulnerable/at-risk populations in the community
- Existing health assets within the community
- Health assets needed in the community
- Additional ideas of suggestions for improving community health

Across the region, 458 invitations were sent, and 121 individual stakeholders completed the survey. For Sentara Princess Anne Hospital, 37% of overall South Hampton Roads survey respondents indicated they work with the hospital, which includes 45 individual stakeholders. The survey results that follow are limited to these responses. Note that not all participants answered every question.

Community Focus Group Sessions were carried out by the hospital to gain more in-depth insight from community stakeholders. The questions below were utilized. The results of the focus groups are presented after the survey results.

- 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?

Community Stakeholder Survey Results

The results of the 2016 Community Stakeholder Survey for Sentara Princess Anne Hospital are displayed on the following pages in table form. First, the list of community stakeholders participating in the survey are displayed below.

Sentara Princess Anne Hospital - Community Stakeholder Survey Participants by Organization	
Access Partnership	PIN Ministry
American Cancer Society	RG Electric Company, Inc
American Heart Association	Senior Services of Southeastern Virginia
Beach Health Clinic	Sentara Health Plans Optima Health
Bon Secours Hampton Roads	Sentara Princess Anne Hospital Auxiliary/ Sentara Princess Anne Hospital Healing Therapies
Bon Secours Health System	Sentara Virginia Beach General Hospital Auxiliary
Chesapeake Regional Medical Center	South University
City of Virginia Beach	St. Luke Catholic Church
ECPI University, MSN Program	The Union Mission
Emergency Medical Service (EMS)	Tidewater Community College
Emergency Physicians of Tidewater	Virginia Beach Rescue Squad Volunteer/Paramedic
Eastern Virginia Medical School (EVMS)	Virginia Beach Department of Public Health
FFG	Virginia Beach Fire Department
Foodbank of Southeastern VA	Virginia Oral Health Coalition
LifeNet	Volunteer at SPAH; resident of Villages at West Neck
Norfolk Community Services Board	Volunteer Services
Old Dominion University	West Neck HOA
Old Dominion University School of Dental Hygiene	Not provided

Community Health Concerns

Survey participants were asked, “What are the most important health problems in your community?” Thirty-four choices were included in the survey; the number of choices each person could select was not restricted or ranked. The frequency of the health problems chosen are displayed below, followed by open-ended responses or additional comments submitted by the participants. Responses are ranked in order of the frequency identified; when counts equaled, the same rank is provided for those selections. Forty-four participants responded to this question.

Frequency Rank	2016 Most Important Health Problem in Community	% of Participants Selecting Item
1	Mental Health - Behavioral Health Conditions (e.g. depression, anxiety, etc.)	84%
2	Diabetes	66%
	Obesity	66%
4	Heart Disease	64%
5	High Blood Pressure / Hypertension	59%
6	Cancer	57%
	Substance Abuse (prescription or illegal drugs)	57%
8	Dementia / Alzheimer's Disease	55%
9	Alcohol Use	50%
10	Accidents / Injuries	43%
	Chronic Pain	43%
	Dental / Oral Health Care	43%
13	Tobacco Use	41%
14	Orthopedic Problems	39%
	Stroke	39%
16	Infant and Child Health	36%
	Physical Disabilities	36%
18	Respiratory Diseases (e.g. asthma, COPD, etc.)	34%
19	Arthritis	30%
	Neurological Conditions (e.g. seizures, multiple sclerosis, traumatic brain injury, etc.)	30%
	Prenatal and Pregnancy Care	30%
	Sexually Transmitted Diseases	30%
	Violence - Domestic Violence	30%
24	Environmental Health (e.g. pollution, mosquito control, water quality, etc.)	27%
25	Intellectual / Developmental Disabilities	25%
	Violence - Other than Domestic Violence	25%
27	Infectious Diseases	23%
	Teen Pregnancy	23%
29	Autism	21%

	Renal (kidney) Disease	21%
31	Bullying	18%
	Drowning / Water Safety	18%
	HIV / AIDS	18%
34	Hunger	16%

Mental and behavioral health topped the most important health problems selected by community stakeholder participants, followed by diabetes and obesity.

Nine participants chose to provide additional comments to the question, “What are the most important health problems in your community?” These responses are provided below. Note responses are unedited except in the interest of confidentiality (example: participant phone number redacted).

Additional Comments
<ul style="list-style-type: none"> • Healthy Eating • Access to Care • Prevention and Early Detection
<ul style="list-style-type: none"> • I am a volunteer at the Information Desk. A good attitude is a major requirement in dealing with the families and friends visiting patients. The Princess Anne campus is complicated for lots of people and the badging requirement is burdensome for some, but the person at the desk must always react in a calm and professional manner.
<ul style="list-style-type: none"> • Uninsured and under-insured status creates barriers to care for any health problems. • Access Partnership receives numerous calls each month requesting assistance to obtain DME, medical supplies and medications. Social Workers, case managers, insurance companies, hospitals, health centers, free clinics and community members need nutritional supplements, adult diapers, walkers, wheelchairs, hospital beds, shower chairs, nebulizers, CPAPs (over 100 people are waiting for these at Sentara ACC). Out of necessity, Access Partnership has been coordinating donated supplies & equipment which people want to donate (they are often told by DME and supply companies that the items are paid for and to dispose of them or give them away). Most thrift stores will not accept large items (hospital beds). FREE Foundation will accept a number of items but does not accept diapers, nutritional supplements, beds, and more. • Dental/Oral Health is a significant problem which has been shown by HR residents sleeping overnight outside Green Run HS for the Mission of Mercy project on April 30. Over 500 were provided care but more approx 150 were turned away. • Tobacco, substance abuse, alcohol use all contribute to oral health care and oral health care (lack of or poor oral health care) contributes to heart disease, kidney disease, premature birth, uncontrolled diabetes, and more health issues. • Care connection is an additional need in our communities. Life Coaches are in some EDs, case managers and social workers are in the health care sites and communities but there is a need to "link" and connect all available resources. This has been a key objective for Access Partnership.
<ul style="list-style-type: none"> • Transportation
<ul style="list-style-type: none"> • I believe all of the above are important to the Hampton Roads Community. However, the over health and nutrition in Hampton Roads play a huge part in the community and future well-being.
<ul style="list-style-type: none"> • Cardiovascular diseases
<ul style="list-style-type: none"> • As a volunteer paramedic I am exposed to all of these issues and each is just as important as another to that individual that it is affecting at the time. Obviously, some of these issues last a lifetime. Take for incident car accidents - not all are just bad driving, but so many are caused because of medical conditions, alcohol/drug abuse, elderly who should know longer be driving, etc... I see a real need for more mental health facilities. So many patients we bring in with

mental health/alcohol/drug abuse do not necessarily need a jail nor always a hospital but a place they can go to get help and counseling. This is to include chronic pain and the over use/abuse of prescription pain medication.

- Sepsis - this continues to be a real problem in all ages of the population, however, I see it a great deal in our elderly. More early recognition programs for families need to be in place.
 - More help needs to be given to people who cannot afford medications for such chronic illnesses as diabetes. We have repeat offenders who for whatever reason do not take their medications or cannot afford insulin pumps that is critical to their everyday life.
 - Drowning is definitely an issue that we should always be addressing in our community due to all of our natural resources and backyard accessibility to pools.
 - Obesity is huge in our community. We need to continue to work on improving this whether through workplace incentives, insurance incentives, medical payment incentives...; something because so many of the other diseases HTN, orthopedic problems, heart disease, diabetes, and even mental health and bullying etc... I feel may be associated with obesity. ----Nutrition
-
- Biggest need is mental health and substance abuse, particularly heroin and similar opioids (Percocet, etc.).
 - Support groups

Community Services Needing Strengthening

Survey participants were asked, “Which community health services need strengthening?” Thirty-five choices were included in the survey; the number of choices each person could select was not restricted or ranked. The frequency of the services chosen are displayed below, followed by open-ended responses or additional comments submitted by the participants. Responses are ranked in order of the frequency identified; when counts equaled, the same rank is provided for those selections. Forty-three participants responded to this question.

Frequency Rank	2016 Community Services Needing Strengthening	% of Participants Selecting Item
1	Aging Services	63%
	Mental Health - Behavioral Health Services	63%
	Services for Vulnerable Populations (e.g. uninsured / underinsured, migrant workers, homeless, etc.)	63%
4	Care Coordination and Transitions of Care	56%
5	Health Care Insurance Coverage	49%
6	Chronic Disease Services (e.g. diabetes, high blood pressure, etc.)	47%
	Substance Abuse Services	47%
8	Dental / Oral Health Care Services	42%
9	Health Promotion and Prevention Services	37%
	Services for Caregivers	37%
	Transportation Services	37%
12	Long Term Care Services	35%
13	Chronic Pain Management Services	33%
	Early Intervention Services for Children	33%
	Public Health Services	33%
16	Food Safety Net (e.g. food bank, community gardens, school lunches, etc.)	28%
	Self Management Services (e.g. nutrition, exercise, taking medications)	28%
18	Home Health Services	23%
	Hospice Services	23%
	Maternal, Infant, and Child Health Services	23%
	Social Services	23%
22	Veterans Services	21%
23	Domestic Violence Services	19%
	Environmental Health Services	19%
	Primary Care Medical Services	19%
	School Health Services	19%
27	Cancer Services (e.g. screening, diagnosis, treatment, etc.)	16%
	Hospital Services (e.g. inpatient, outpatient, emergency care, etc.)	16%

29	Intellectual / Developmental Disabilities Services	14%
30	Family Planning Services	12%
	Pharmacy Services	12%
	Public Safety Services	12%
33	Specialty Medical Care Services (e.g. cardiologists, oncologists, etc.)	7%
	Workplace Health and Safety Services	7%
35	Physical Rehabilitation	5%

Aging services, mental and behavioral health services, and services for vulnerable populations were the most frequently identified services by community stakeholders that need to be strengthened.

Six participants chose to provide additional comments to the question, “Which community health services need strengthening?” These responses are provided below. Note responses are unedited except in the interest of confidentiality (example: participant phone number redacted).

Additional Comments
<ul style="list-style-type: none"> • Palliative Care - Resources and Education
<ul style="list-style-type: none"> • Access to DME & Medical Supplies for uninsured and under-insured persons. Nutritional supplements are very expensive but most insurance will not cover cost unless only source of nutrition. Adult diapers are not covered by most private insurance, are very expensive but are needed for the health and comfort of individuals. Over 100 are on a waiting list for CPAPs at Sentara ACC and the sleep center will no longer perform sleep studies on patients that don't have coverage, funds or access to CPAP machines. Access Partnership has gathered about 40 donated CPAPs and provided to ACC who has them cleaned and ready for use for individuals in need. • Dental and oral services are most often excluded from coverage and there is a need to address reimbursement under medical benefits when oral health needs are adversely affecting medical health. Dental insurance is geared toward preventive care and most often has limits of \$1,000 to \$1,500 per year (under-insured). Access to dentures and partials is an issue that affects nutritional status and overall health but there are rare insurance programs that cover this. • Specialty care is difficult to obtain for the un/under insured. Most safety net providers focus on primary care and when a specialist is required, an "advocate" is needed to navigate. Specialty providers are being asked to see pro-bono cases by several different clinics, health centers, hospitals (specialists are required to take call and accept uninsured for privileges)
<ul style="list-style-type: none"> • Supportive Housing for persons with significant behavioral health issues to support their overall well-being including their management of chronic disease and preventing medical conditions. "Housing is healthcare"
<ul style="list-style-type: none"> • SPAH needs to add more rooms - the frequent backups in the Emergency Department would be reduced if more in-patient rooms were available for shifting ED patients upstairs. Many people in our neighborhood choose to go to the SPAH ED but don't like having to wait so long to get a bed.
<ul style="list-style-type: none"> • We still have many elderly who are living by themselves-- we need more affordable transitioning and not just rehab centers that have understaffed and at times unqualified people working in them. Many of our local rehab facilities need updating and have better facilities management and even at times care staff. So many times I walk into a facility that smells of urine and there is no place that should be like that. It is a matter of cleanliness. The staff quite often say this patient isn't mine so I don't have information on him. It is disgraceful the care our elderly, or people with severe head injuries, severe orthopedic injuries at times receive in facilities. • Cardiac arrests - we can do better! AHA has come out with a phone app that shows defibrillators and their locations, and will go off when a cardiac arrest is nearby prompting a citizen to respond if they are close by to initiate CPR. I think this is something Sentara should help the region supply with our 911 system. • In addition, I feel Sentara should consider lobbying or delegate etc. for such things as requiring all people who get a DMV license needs to have gone through a cpr class and show proof prior to getting their license and that it must be maintained. So every time they renew, they must renew their CPR.

- Also, I feel they should lobby the localities and request that as part of getting a business license if they have X number of employees they are required to purchase and maintain an AED.
- Para-medicine is something that our community should look at adopting. I think this could help our Emergency Depts as so often many people that come in are for "sick visits" and it is something if a Medic were to have been doing preventive stops may could avoid so many of the unnecessary calls to 911 and stops to the ER.
- Stroke Bus -
http://www.emsworld.com/press_release/12178068/excellance-reveals-mobile-stroke-unit
our area may benefit from something such as this.
- comprehensive health care that includes oral health - to reduce ED visits for dental issues; to improve diabetes outcomes, contribute to a reduction in preterm birth

Vulnerable/At-Risk Populations and Geographic Regions in the Community

Survey participants were asked two related free response questions: “Are there particular populations within the community who are vulnerable or at risk for health problems or having difficulties obtaining health services?” and, “Are there particular neighborhoods or geographic regions within the community where the resident population may be vulnerable or at risk for health problems or having difficulties obtaining health services?” Summary results for each question are provided below, listed in order of relative frequency noted by stakeholder participants, followed by tables listing the detailed, unedited responses to each question. Thirty-two participants responded to the first question, while 29 participants responded to the second question.

Vulnerable/At-Risk Populations	Vulnerable/At-Risk Geographic Regions
<ul style="list-style-type: none"> • Low income • Uninsured/ underinsured • Elderly • Individuals with disabilities • Immigrants/non-English speakers • Homeless • Individuals with mental health/substance abuse issues 	<ul style="list-style-type: none"> • Oceanfront (homeless) • Rural areas • Northwest Virginia Beach, Green Run, Plaza, and Salem neighborhoods • Regions outside the SPAH service area, including Portsmouth and Norfolk

Low income and uninsured/underinsured populations were most frequently identified by community stakeholders as being vulnerable or at risk for health problems or having difficulties obtaining health services, followed by the elderly.

<p align="center">“Are there particular populations within the community who are vulnerable or at risk for health problems or having difficulties obtaining health services?” Detailed Responses (unedited except for confidentiality reasons)</p>
<ul style="list-style-type: none"> • There still seems to be many adults without health insurance who cannot afford dental care services. This is an ongoing issue in our community.
<ul style="list-style-type: none"> • Substance abusers; mentally ill
<ul style="list-style-type: none"> • low health literacy populations , uninsured , indigent and obese populations, increased aging population
<ul style="list-style-type: none"> • The uninsured in our community still have a challenging time recognizing they need care and obtaining it. Person who speak other than English are at a great disadvantage in our community as translation services are limited and there is a dearth of multilingual service providers.
<ul style="list-style-type: none"> • The poor; immigrants who do not speak English as a first language; isolated elderly
<ul style="list-style-type: none"> • uninsured
<ul style="list-style-type: none"> • uninsured
<ul style="list-style-type: none"> • UNK
<ul style="list-style-type: none"> • Seniors and Children • Working Poor
<ul style="list-style-type: none"> • yes, they can't afford the federal insurance program and make to much to qualify for medicaid
<ul style="list-style-type: none"> • Extremely low-income (under 100% poverty), unemployed, veterans, mentally and physically disabled, children and elderly populations are recognized vulnerable populations with many nonprofits and federal, state and local governments are working to address their needs. However, the working poor (over 100% and under

<p>300% poverty) are over-income for most assistance, yet cannot afford health insurance premiums (without high deductibles & copays), and don't have funds to pay for preventive and therapeutic services.</p>
<ul style="list-style-type: none"> • Uninsured/Underinsured, Unemployed/Underemployed, • Non-English speaking
<ul style="list-style-type: none"> • Persons experiencing homeless • Persons with serious mental illness - primary care physicians who are comfortable with medically treating persons with SMI
<ul style="list-style-type: none"> • no
<ul style="list-style-type: none"> • Homeless population at the oceanfront
<ul style="list-style-type: none"> • low income, low education residents
<ul style="list-style-type: none"> • Inadequately insured individuals
<ul style="list-style-type: none"> • Low Income/elderly.
<ul style="list-style-type: none"> • Home support for those not ready for, no financially capable, or refusing skilled care facilities.
<ul style="list-style-type: none"> • Low income; people on fixed incomes with no insurance
<ul style="list-style-type: none"> • It is difficult for the homeless and extremely poor to receive comprehensive medical care because often times the lack the proper documentation to receive care at the free clinics.
<ul style="list-style-type: none"> • Yes - underinsured, public housing, individuals living in food deserts
<ul style="list-style-type: none"> • Adults without health insurance
<ul style="list-style-type: none"> • Individuals with Disabilities for Dental Services • Veterans • Low income Seniors • All need Oral Healthcare Services
<ul style="list-style-type: none"> • Uninsured and those with mental illnesses
<ul style="list-style-type: none"> • The poor, the uninsured, children, the elderly, the homeless, individuals with disabilities, non-English speaking individuals
<ul style="list-style-type: none"> • Medicare recipients
<ul style="list-style-type: none"> • Elderly, Underprivileged and Mental Health are the populations I would say we still have a lot of needs for service. • Elderly - Paramedicine could help by stopping by and making sure they are taking their meds, do an in home fall assessment. Continue with stroke awareness, heart attack awareness outreach programs. • Mental health - Need more facilities as they do not always need jail time but they need counseling and detox. - Our community does NOT have enough beds and staff to take care of the demand. We see kids as young as 5 with suicidal ideations - we need more beds and staff for mental health. • Underprivileged - need education on health issues and need places to go for everyday medical care with easy access and leave the ER's for emergencies.
<ul style="list-style-type: none"> • With the aging population, Alzheimer treatment/care is important
<ul style="list-style-type: none"> • uninsured, under-insured, low-income
<ul style="list-style-type: none"> • Pediatric population; they only have one place to go, and it is not in your facilities.
<ul style="list-style-type: none"> • The people most vulnerable are those with some or no health insurance that still cannot afford the copays or the 20% payments. These individuals still not afford healthcare. People are making daily choices to seek treatment or not based on how much money is in the bank. The price of health care (on the bills) is astounding and illogical. The money reimbursed by insurance is the same. Healthcare costs and reimbursements do not make sense to the public (nothing adds up) and even to healthcare providers.

“Are there particular neighborhoods or geographic regions within the community where the resident population may be vulnerable or at risk for health problems or having difficulties obtaining health services?” Detailed Responses (unedited except for confidentiality reasons)
<ul style="list-style-type: none"> • Low income areas
<ul style="list-style-type: none"> • Portsmouth, Norfolk , Suffolk Chesapeake, Rural communities
<ul style="list-style-type: none"> • There are 11 census tracts within Virginia Beach that have a life expectancy of less than 75.0 years. They live on average 10+ years less than those in the highest life expectancy tract. These include the following: 040600, 041002, 042801, 044200, 040200, 044806, 040402, 045408, 046005, 040801, and 041003.
<ul style="list-style-type: none"> • UNK
<ul style="list-style-type: none"> • South Norfolk - not enough primary care
<ul style="list-style-type: none"> • Calvert Square, Tidewater Park, Southside, Suffolk, Portsmouth
<ul style="list-style-type: none"> • Yes, several. East Ocean View is one that comes to mind
<ul style="list-style-type: none"> • Average working class communities and those with young families. Child care averages \$150 to \$200 week and 2bdr apartments average \$1,000/month. Add utilities, car payments, gas, etc. and there is nothing left to go to the dentist or see a doctor for preventive care. They delay until their need is acute and could have been prevented.
<ul style="list-style-type: none"> • There are pockets throughout the area
<ul style="list-style-type: none"> • Ocean View, Berkley
<ul style="list-style-type: none"> • low income areas
<ul style="list-style-type: none"> • usual underserved areas
<ul style="list-style-type: none"> • Portsmouth
<ul style="list-style-type: none"> • Economically challenged and homeless in the Virginia Beach Oceanfront area, the northwestern section of the Virginia Beach and Plaza/Green Run/ Salem areas.
<ul style="list-style-type: none"> • East Ocean View area of Norfolk, Virginia Beach Blvd stretch between Lynnhaven Blvd and the Oceanfront.
<ul style="list-style-type: none"> • Generally low income neighborhoods need more intrusive intervention strategies
<ul style="list-style-type: none"> • People at the extreme southern end of the city have to drive a long distance to get to services.
<ul style="list-style-type: none"> • A lot of the homeless live at the oceanfront of Virginia Beach.
<ul style="list-style-type: none"> • Norfolk, Newport News, Portsmouth, Hampton
<ul style="list-style-type: none"> • Lower income neighborhoods in all of the cities and rural communities in Suffolk, Chesapeake and Virginia Beach
<ul style="list-style-type: none"> • I have witnessed all areas of Southampton Roads Virginia in need of oral healthcare services
<ul style="list-style-type: none"> • Norfolk, Portsmouth
<ul style="list-style-type: none"> • Green Run, Seatack, Bayside
<ul style="list-style-type: none"> • None that I know of
<ul style="list-style-type: none"> • Jamestown Commons - Military Highway has many underprivileged housing areas that are part of the Virginia beach community, Birdneck area - a lot of homeless also live in this area, Campus East, and those neighborhoods around Wesleyan and Aragona, Plaza near Plaza apts, Lake Edward, Luther Manor Nursing home, Etc.
<ul style="list-style-type: none"> • not in Virginia Beach
<ul style="list-style-type: none"> • see above. zip code is very much a predictor of health
<ul style="list-style-type: none"> • All of the neighborhoods that you serve.
<ul style="list-style-type: none"> • Area of Northampton blvd is home to many sex offenders and a new building for the working homeless. The areas up Diamond Springs Rd are poor and dangerous. More services to this area of Virginia Beach would be great.

Health Assets in the Community

Survey participants were asked to 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. Then they were asked two related free response questions, “In your view, what are the most important health assets within the community?” followed by, “Are there any health assets that the community needs but is lacking?” Summary results for each question are provided below, listed in order of relative frequency noted by stakeholder participants, followed by tables listing the detailed, unedited responses to each question. Thirty participants responded to the first question, while 27 participants responded to the second question.

Most Important Health Assets Existing in Community	Needed Health Assets Currently Lacking in the Community
<ul style="list-style-type: none"> • Built resources, including community parks, recreation areas, walking/bike trails, community recreation centers, gyms, YMCA, Boardwalk, and Farmer's markets • Natural resources (beaches, the outdoors) • Safety net providers/free clinics, accessible medical care facilities • Health Department, schools, and EVMS • Emphasis on collaborations, partnerships, institutions, and people 	<ul style="list-style-type: none"> • Mental health and substance abuse services/facilities • Built resources to improve the walkability and bikeability of communities • Assets focused on improving medical and preventive care to the indigent and uninsured/underinsured • Assets related to wellness and obesity prevention (increased access to healthy foods, obesity prevention education, safe exercise places and parks) • Improved public transportation • Affordable housing

Built resources, natural resources, and safety net providers and medical care facilities were frequently noted by stakeholders as the most important health assets that exist in the community. Mental health and substance abuse services and facilities and more built resources to improve the walkability and bikeability of communities were among the most frequently mentioned health assets that are needed in the community.

<p align="center">“In your view, what are the most important health assets within the community?” Detailed Responses (unedited except for confidentiality reasons)</p>
<ul style="list-style-type: none"> • Safety net clinics and community health centers
<ul style="list-style-type: none"> • Community parks, walking trails, bike lanes, athletic and fitness centers. Strong health systems.
<ul style="list-style-type: none"> • For Virginia Beach, the most influential resource we have are our amazing parks and recreation areas. We have an Outdoor Plan, a Bikes and Trailways Plan and a Complete Street policy. These all help promote active living in our community. We also have amazing partnerships and collaborations.
<ul style="list-style-type: none"> • Clean air and water supplies; good schools; the CVB GrowSmart program; in-home "Healthy Families" programming from CVB; the clinics and hospitals
<ul style="list-style-type: none"> • Va Beach Health Clinic, bike and walking trails
<ul style="list-style-type: none"> • The Community Welfare Centers. Particularly for the older population.
<ul style="list-style-type: none"> • Chesapeake Regional Medical Center, Chesapeake Public Health Department, YMCA, Chesapeake Care Free Clinic

• Natural resources, built resources, evms
• Bike trail in Norfolk
• access to fresh produce, many areas are a food desert
• people and institutions
• People helping people, for example the faith-based community. Churches have food pantries, are providing more affordable child care, dinners for seniors, shelter (NEST), emergency financial assistance for people in need. They are the best example of community assistance.
• Institutions that can be relied on to serve as models of health. Built resources that can be easily utilized in the metropolis that is Hampton Roads.
• Parks, parks & rec classes
• walking trails, bike trails, boardwalk for running/walking, private gyms, YMCA, recreation centers
• Sentara, EVMS, VDH, local outdoors
• Recreation Centers; bike/walking trails; boardwalk/beach.
• Bikeways, parks, pools, sports teams for all ages. Group fitness programs. Nutrition and lifestyle support programs.
• Safe places to exercise, accessible medical facilities
• Programs and institutions
• Open space - parks, beaches, playing fields
• Walking paths, healthy-food access/ farmer's markets, Hands-only CPR training
• Expanded public and specialized transportation; greater access to evidence based wellness instruction, stronger links between health collaboratives and civic groups
• Safety net providers who have dental
• ODU School of Dental Hygiene has 32 chair clinic
• ODU School of Dental Hygiene 35 dental hygiene students who impact community
• Sentara Grant -Dental Voucher Program for those who are uninsured and underserved
• Mission of Mercy Dental Access Event 1x per year - over 600 individuals were turned away
• Homeless Connect Norfolk Access Event
• Sentara programs, YMCA, Princess Anne Park are the close ones
• Hospitals, Health Dept., Beach Health Clinic, Parks, Beaches, Farmer's Markets, Rec Centers, Libraries, Bikeways and Trails
• Work out centers
• Bike trails, rec centers, boardwalk
• Yes
• Sentara is well located throughout the community. Safety on walking trails outside the state parks is an issue. The Public Health Department is underfunded - and they serve a large population in Hampton Roads. Assisting with funding of Public Health Initiatives (partnering) would be an important asset.

“Are there any health assets that the community needs but is lacking?”

Detailed Responses (unedited except for confidentiality reasons)

• Substance abuse and mental health treatment, especially for those who cannot afford it or are uninsured
• More healthy eating and fresh food offerings
• Senior offerings
• Obesity prevention and education

<ul style="list-style-type: none"> • We are sorely lacking mental health services. With the increasing problem with substance abuse, we need more treatment programs as well as an integrated approach to mental and physical health.
<ul style="list-style-type: none"> • More low-cost walk-in clinics that prevent the poor from using Emergency Rooms as their primary caregivers
<ul style="list-style-type: none"> • more preventative care for underinsured
<ul style="list-style-type: none"> • UNK
<ul style="list-style-type: none"> • Mental health facilities, good public transit, bicycle trails
<ul style="list-style-type: none"> • Safe Parks for children, walking trails
<ul style="list-style-type: none"> • Mental health, addiction treatment, homelessness-particularly for families or single mothers with children,
<ul style="list-style-type: none"> • Coordination, connections to resources, teaching (without lecturing) how to access and better manage health resources. Many "classes" and workshops are offered but there is a limited amount of time to participate in the offerings. Access Partnership identified that if information is sent to some of the local churches, they reach out to their congregations. There is also a "trust" within the faith-based communities that may be lacking in other areas, especially in minority communities.
<ul style="list-style-type: none"> • Bike trails, walking trails, better public transportation that would encourage more biking and walking rather than just pulling in a parking space.
<ul style="list-style-type: none"> • Assertive outreach and access primary care and medications for no fee for indigent
<ul style="list-style-type: none"> • services for older adults
<ul style="list-style-type: none"> • some sort of collaborative community analytic and needs identification capability
<ul style="list-style-type: none"> • In home or easy access follow up and compliance care for patients with chronic illness (diabetes, CAD, obesity). Especially for low income families and those with less than a high school education.
<ul style="list-style-type: none"> • Safe places to exercise for some of the more vulnerable zip codes
<ul style="list-style-type: none"> • More walking trails and biking trails. Kids need places to ride bikes, roller blades, and boards.
<ul style="list-style-type: none"> • education
<ul style="list-style-type: none"> • Sidewalks
<ul style="list-style-type: none"> • A call-center for our area for those who do not have access to healthcare services especially dental. Most go to the emergency room - expensive and inadequate care.
<ul style="list-style-type: none"> • Mental health
<ul style="list-style-type: none"> • Free clinics
<ul style="list-style-type: none"> • Affordable housing
<ul style="list-style-type: none"> • Exercise areas and classes
<ul style="list-style-type: none"> • Paramedicine • AHA App - CPR, - Pulse Point • AED program for businesses and churches (large meeting areas and recreation areas, • Stop the Bleed program • Sepsis Program • More stroke awareness and heart attack awareness presenters to go to church groups, rotary clubs, etc... to present. • Facilities for Mental health
<ul style="list-style-type: none"> • collaboration among existing orgs and agencies will increase collective impact and improve outcomes.
<ul style="list-style-type: none"> • Safe walking areas at night

Additional Ideas and Suggestions

As an optional open-ended question, additional ideas or suggestions for improving community health were asked to be shared. Eleven participants provided comments. The detailed responses are provided below. Note responses are unedited except in the interest of confidentiality (example: participant phone number redacted).

Additional Ideas and Suggestions
<ul style="list-style-type: none"> • The state government needs to expand Medicaid.
<ul style="list-style-type: none"> • Transportation for health care is a major concern for many. • More long term care facilities and resources for increasing senior populations. Better collaboration within the health community.
<ul style="list-style-type: none"> • Work collaboratively with CRMC and public health department
<ul style="list-style-type: none"> • access to dental services for adults is also lacking.
<ul style="list-style-type: none"> • Bon Secours created Parish Nursing, now known as faith-based nursing and worked with health advocates and professionals within the churches. This was very successful but doesn't seem as active. There may be an opportunity to revisit faith community nursing in Hampton Roads since there are churches in every community. http://www.churchhealthcenter.org/fcnhome
<ul style="list-style-type: none"> • Rental bikes for downtown areas. More drive share areas for traveling to and from work.
<ul style="list-style-type: none"> • Obesity and poor nutrition contributes to a host of problems and should be addressed community wide.
<ul style="list-style-type: none"> • More mental health treatment facilities and more beds so that patients don't have to languish in jail.
<ul style="list-style-type: none"> • Call Center for South Hampton Roads Area of VA. • Safety Net Providers help but weak on human resources and grants funding for dental • More visibility for ODU School of Dental Hygiene Care Clinic where we can see many underserved individuals. • Transportation issues
<ul style="list-style-type: none"> • Feel free to contact me if you have any questions regarding any of my responses. <i>[phone number redacted for confidentiality]</i>
<ul style="list-style-type: none"> • I write as the ED of a statewide organization, so my lens is not as specific to Hampton-Roads as i would like to best fill out this survey - but I see your community making great strides to collaborate and work collectively to improve health outcomes. My niche is oral health integration and the importance of including oral health as part of comprehensive health care (improving diabetes outcomes, early childhood health, and reducing pain and use of the ED for avoidable conditions.

Community Focus Group Session Findings

Community Focus Groups were carried out for 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.

Six focus group sessions were held in July- October 2016. The number of participants in the sessions ranged from 10-40. When possible, representatives from the health department and other local hospitals were invited to attend the sessions.

1. Virginia Beach Health Department WIC Group- joint focus group held with Sentara Virginia Beach General Hospital
2. Virginia Beach Health Department Breastfeeding Class- joint focus group held with Sentara Virginia Beach General Hospital
3. Sentara Princess Anne Hospital Advisory Board
4. Sentara Princess Anne Hospital Auxiliary Board
5. Senior Living Group (Rosemont)- joint focus group held with Sentara Virginia Beach General Hospital
6. Sentara Princess Anne Hospital Clergy Grand Rounds

A series of questions were asked during each focus group. A brief summary of the key findings for each topic is presented below.

Topic	Key Findings
<p>What are the most serious health problems in our community?</p>	<ul style="list-style-type: none"> • Diabetes • Obesity • High Blood Pressure/ Heart Disease • Cancer • Aging Services/Senior health • Mental Health • Drug/Alcohol Addiction • Uninsured/Underinsured • Chronic pain • Dental/Oral Health • Tobacco use • Stroke

<p>Who/what groups of individuals are most impacted by these problems?</p>	<ul style="list-style-type: none"> • Low income • Uninsured/underinsured • Seniors • Lack of education • Children • Homeless • Disabled • Veterans
<p>What keeps people from being healthy? In other words, what are the barriers to achieving good health?</p>	<ul style="list-style-type: none"> • Lack of education • Addiction to food • Transportation concerns • Unhealthy foods • Busy lifestyle • Elderly • Lack of exercise or availability to exercise correctly • Cost of healthy food vs fast food • Mental issues • Cultural/generational • Prevention availability • Food deserts
<p>What is being done in our community to improve health and to reduce barriers? What resources exist in the community?</p>	<ul style="list-style-type: none"> • Use of YMCA • Use of Food Bank • Use of Share Program\Use of recreation Centers • Use of PACE • Health Fairs • Support Groups • Wellness Programs

What more can be done to improve health, particularly for those individuals and groups most in need?	<ul style="list-style-type: none">• Free gym access• Cooking classes• Better and more economical health insurance options• Improve mental health• Cancer screenings• Create a culture of Volunteerism• More prevention classes• Availability of Complementary Medicine services• Improved continuity of care• Expand community gardens throughout the area• Improve healthy living decisions• Low cost/affordable senior living
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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 Princess Anne Hospital

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

In support of community health needs assessment and related implementation strategies, 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.

Reports should be emailed to Deb Anderson at dkanders@sentara.com within 15 days of the close of each quarter.

Health Problem	Three Year Implementation Strategies	Progress
All	-Continue community outreach, particularly in targeted areas with specific health concerns, by partnering with civic groups and faith based organizations.	-Hosted 4 th Annual Colon Cancer (Obesity/ Cancer) 5k and 1 mile run/walk. Shared contributing causes of colon cancer. Discussed and displayed signage on healthy eating, activity and healthy weight. Appx. 330 individuals registered and over 700 total in attendance. More than 35 volunteers and community physician offices attended the event.

Health Problem	Three Year Implementation Strategies	Progress
	<p data-bbox="457 410 1176 516">-Continue to strengthen community relationships at all levels by increasing community success with timely health education and events.</p> <p data-bbox="457 1027 1176 1133">-Evaluate the awareness and education of a holistic approach, a total healthy person concept, with specific formulations for top health issues.</p>	<p data-bbox="1236 256 1892 329">- Participated in the annual South Hampton Roads Healthy Heart Walk in Virginia Beach.</p> <p data-bbox="1236 378 1892 597">-Participated in the annual Greek Festival for three days, hosted by the Greek Orthodox Church in Virginia Beach. Each day staff and volunteers from SPAH provided blood pressure screenings, stroke information, and answered a variety of health questions.</p> <p data-bbox="1236 646 1892 946">-SPAH is participating in the Virginia Accountable Care Communities regional meetings. An overview of the state of Virginia’s plan for wellbeing, including common health status metrics, were issues discussed at the most recent meeting. The Virginia Beach Health Department and SPAH are working closely on all community health action items.</p> <p data-bbox="1236 995 1892 1409">-The “Dr. Dean Ornish Program for the Reversal of Heart Disease” has been approved for opening. This program positively impacts a variety of other health concerns: diabetes, obesity, high blood pressure, and cancer. Our Director of Patient Care Services, Radiology/ Cardiology and a cardiologist visited a completed and successful program site at the Charleston Area Medical Center, Charleston, West Virginia. Succeeded in receiving approval for a partnership with Healthways/ Dr. Dean Ornish Program. The targeted opening date is April 2016.</p>

Health Problem	Three Year Implementation Strategies	Progress
	<p>-Develop and distribute free, low cost resources and/or pamphlets in the community.</p> <p>-Continue participation in the annual American Heart Association Run/Walk for Health.</p>	<p>-Distributed a variety of health information pamphlets to several civic groups, faith based organizations, and community events.</p> <p>-In October 2015 30 SPAH employees participated in the South Hampton Roads Heart Walk in Virginia Beach. The Heart Walk is a fundraiser as well as an awareness campaign regarding heart disease and stroke.</p>
<p>Problem #1</p> <p>Adult Obesity</p>	<p>-Collaborate with community leaders to provide a hospital community garden to provide access to fresh fruits and vegetables.</p>	<p>-The Princess Anne Hospital Community Garden has been approved and a contract signed between Sentara and Whole Foods Market in partnership with Virginia Beach Community Gardens. Over 30 volunteers from the community and hospital began building 60 raised garden beds, a compost bed, and tilling a berry patch.</p> <p>-An official opening ceremony was held for the Community Garden in May. The Spring harvest included the following: lettuce, kale, beets, carrots, beans, cucumbers, tomatoes, and squash. The Judeo Christian Outreach Center harvested produce for their shelter. Twenty eight beds have been planted with more planned for the fall harvest.</p> <p>-The Community Garden has become very successful with the hospital staff, the local community college, and the community. As a result,</p>

Health Problem	Three Year Implementation Strategies	Progress
	<p data-bbox="457 565 1176 673">-Promote healthy nutrition practices at the hospital for both staff and patients by partnering with Morrison to support healthy menu options.</p> <p data-bbox="457 1187 1176 1295">-Continue to promote nutritional awareness, emphasizing the relationship of obesity to disease through community awareness and wellness programs.</p>	<p data-bbox="1218 256 1879 479">a new contract was written and approved for this project to continue for 10 years at a new designated site on the SPAH campus. This will provide an increased opportunity for the community to have improved access to fresh fruits and vegetables.</p> <p data-bbox="1218 560 1894 706">-Implemented policy to support healthier options for internal caterings. Continued efforts to sell local produce from the Farmers Market to customers and staff in the Café.</p> <p data-bbox="1218 747 1869 852">-Hosted several “farmer’s markets” in the hospital cafeteria with fresh local fruits and vegetables available for staff and community purchase.</p> <p data-bbox="1218 901 1848 1128">-Introduced a “super food” of the month in the hospital cafeteria. The daily menu contained a variety of items made with the “super food”. Herbs, apples, cranberries, summer squash, and chocolate are examples of “super foods” used in the preparation of menu items.</p> <p data-bbox="1218 1177 1894 1318">-Received approval for a partnership with the Healthways/ Dr. Dean Ornish program providing the community with a comprehensive wellness program in reversing heart disease.</p>

Health Problem	Three Year Implementation Strategies	Progress
<p>Problem #2</p> <p>Diabetes</p>	<p>-Continue to offer the community Diabetes Management classes by Diabetes Educator.</p> <p>-Expand Diabetes Management classes to include awareness, prevention, and early detection (food label significance, self-care, cooking classes.)</p>	<p>-A new Diabetes Educator was hired for the hospital. In addition to the inpatient education, the following was provided:</p> <ul style="list-style-type: none"> -Group Instruction 13 participants -Support Group 18 participants -Individual, 17 participants <p>-Standard diabetes education provided to include awareness, prevention, and early detection.</p> <p>-Cardiac Rehab – Presented 2, 30 minutes sessions on Heart Health for Diabetics; total 16 participants.</p> <p>-Diabetes Support Group presented “Avoiding Stroke for Diabetics” with speaker, Brian Jones, RN, SPAH Stroke Coordinator; 10 participants.</p> <p>-“Healthy Living with Diabetes”, Class 1 module, 16 participants; Class 2 module, 12 participants; and Class 3 module, 9 participants.</p> <p>- Diabetes Support Group presented “Dental Health for Diabetics” with Tanya Rengifo, dental hygienist; 2 participants.</p>

Health Problem	Three Year Implementation Strategies	Progress
	<p>-Offer a Diabetes presentation for civic leagues, churches, and other community associations.</p>	<p>-Diabetes Support Group presented “Exercise in the Lifestyle of a Diabetic”, by Scott Vangeluwe and Audrey Prior-Mouizi, 4 participants.</p> <p>-“Diabetes Support Group presented “Tai Chi for the Diabetic” by Jerry Hudson and Phillip Szpiech, 4 participants.</p> <p>-Offered “Healthy Living with Diabetes” classes for 20 participants. Offered “Pedorthist Diabetic Footwear” for 6 participants.</p> <p>-A Diabetes display table set up in the lobby of the hospital for three weeks.</p> <p>-A Diabetes Health Fair was given at several local churches. Carb counting, blood glucose monitoring, and Diabetes Foot care were discussed.</p> <p>-Presented at Enoch Baptist Church - Speaker for “Million Hearts Initiative” Heart Health for Diabetics, for audience of 400 at 9:00 AM service and 400 at 11:00 AM service. Health information booth between services, presented Carb Counting and meal planning for 30; HLWD Class Brochure, 25; Support Group Flyer, 20.</p>

Health Problem	Three Year Implementation Strategies	Progress
	<p data-bbox="457 253 1163 326">-Offer blood pressure screening and education classes to both staff and community.</p> <p data-bbox="457 797 1136 870">-Offer Heart Healthy presentations for civic leagues, churches, and other community events.</p> <p data-bbox="457 1260 1167 1333">-Offer high blood pressure presentation for Civic Leagues, churches, and other community associations.</p>	<p data-bbox="1215 253 1822 367">-Provided blood pressure screening and stroke education and prevention information for approximately 30 people at local church.</p> <p data-bbox="1215 407 1808 521">-Attended stroke survivor support group. Presented educational information regarding medications and stroke rehabilitation.</p> <p data-bbox="1215 561 1898 675">-Stroke advisor presented to SPAH Patient Advisory Board the topic: “Stroke, What You Need to Know “, 15 participants in attendance.</p> <p data-bbox="1215 756 1877 943">-Sentara Cardiology Specialists from Princess Anne Hospital presented the benefits of plant based whole foods in reducing the risk of cardiovascular disease at the Whole Foods Market in Virginia Beach.</p> <p data-bbox="1215 992 1892 1179">-Presented a “Pocket EKG” program for West Neck residents with 40 participants. Heart health, blood pressure, and stroke concerns were addressed. As a result several individuals made appointments with cardiologists as a result of this screening.</p> <p data-bbox="1215 1260 1881 1373">-Stroke Awareness Day at the hospital for staff and visitors. Gave 500 pamphlets and educational magnets.</p>

Health Problem	Three Year Implementation Strategies	Progress
		<p>-Published article “What We Should All Know About Stroke” in Virginia Beach City School Parent Connection Newsletter.</p> <p>- SPAH provided Greek Festival Stroke information and Blood Pressure Screening to approximately 50 people.</p> <p>-Stoke Education Prevention presentation at the SPAH Auxiliary meeting with 35 in attendance.</p> <p>-Stroke Education presentation for the Tidewater Emergency Nurses Association Chapter with 30 participants.</p>
<p>Problem #4</p> <p>Health Care for Under/Uninsured</p>	<p>-Increase awareness of current programs, such as Medicaid and Charity Care (both community based and Sentara based) i.e. utilizing Chamberlain/Edmond</p> <p>-Evaluate Sentara based efforts to assist patients with enrollment in health insurance exchanges</p>	<p>-SPAH’s estimated costs underlying our Charity Care write-offs and reserves for the first quarter totaled to \$2,502K, 1,533K in the second quarter, 3,314K in the third quarter, and K in the fourth quarter of 2015.</p> <p>- CE assisted 371 patients in obtaining Medicaid insurance coverage for 2015.</p> <p>- SHP is offering a number of Federal Facilitated Exchange (FFE) insurance products. They enrolled 19,467 active members in the first quarter, of which 22% reside in Virginia Beach; 2,332 in the second quarter, of which 25% reside in Virginia Beach; 1,713 in the third quarter, of which 26% reside in Virginia Beach.</p>

Health Problem	Three Year Implementation Strategies	Progress
	<p>-Provide post discharge follow-up primary care visits for uninsured SPAH patients</p>	<p>- SMG scheduled 32 follow-up primary care office visits with uninsured inpatients discharged from SPAH for 2015.</p>
<p>Problem #5</p> <p>Cancer</p>	<p>-Continue to participate in the cancer service line strategic plan project.</p> <p>-Evaluate and determine types of cancer, patient volumes, barriers to care, and barrier resolutions in the community.</p> <p>-Continue to support select cancer related community events, i.e. Colon Walk.</p>	<p>-Initiated a Thoracic Tumor board to review complex/complicated cases with a multi-disciplinary approach, creating a specific treatment plan with a physician panel.</p> <p>-New Oncology Nurse navigator has begun trending the types of cancer, patient volumes, barriers to care, and barrier resolutions in the community. Breast cancer is number one, followed by Colon/GI, and Hematology. Community barriers to care include: emotional support, psychosocial, financial, clinical issues, uninsured, and transportation. Nurse Navigator and team provide resolutions to many of the barriers facing cancer patients.</p> <p>-Successful Colon Run/Walk and educational fair held on hospital grounds with excellent community participation.</p>

Health Problem	Three Year Implementation Strategies	Progress
	<p>-Evaluate expanding cancer support groups and appropriate exercise programs, i.e. “Yoga for Cancer”.</p> <p>-Evaluate expanding cancer prevention screening, i.e. free skin cancer screenings, lung cancer screenings, etc.</p> <p>-Define/enhance supporting the cancer patient’s self-image by providing education regarding reconstruction, make-up, etc.</p>	<p>-“Relay of Life” cancer walk resulted in SPAH netting \$5,842 for Cancer with 47 SPAH team members participating.</p> <p>-Expanded the successful “Yoga for Cancer”, offering five classes per week for patients, caregivers, and family members. Free 1 on 1 yoga therapy sessions are also offered. This class has become so successful that another class was added to accommodate patients.</p> <p>-Offered free skin cancer screening in partnership with EVMS (Eastern Virginia Medical School) and Sentara Virginia Beach Hospital for 6 different sessions. Approximately 167 people were screened.</p> <p>-During breast cancer awareness month, Breast Center staff and a Radiologist gave a presentation on Breast cancer, risks, and Oncology navigation for 12 participants at a local company.</p> <p>-“Pretty Pockets” are for those cancer patients who have had surgery and have surgical drains/tubes. These pockets are, for breast patients, a practical, meaningful, and pretty way to maintain the surgical drains.</p> <p>-The “Unique Boutique” continues to be extraordinarily successful providing over 100 wigs,</p>

Health Problem	Three Year Implementation Strategies	Progress
		numerous scarves and hats to cancer patients. This endeavor is sponsored by the SPAH Auxiliary.