Sentara Virginia Beach General Hospital
Community Health Needs Assessment
2013

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Sentara Virginia Beach General Hospital

Community Health Needs Assessment

Introduction

Sentara Virginia Beach General 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 these factors can impact health. The assessment also looks at risk factors like obesity and smoking and health indicators such as infant mortality and preventable hospitalizations. Community input is important so the assessment also includes survey results from local health departments, the school system, social services, community health centers, free clinics, local governments, and many others. In the following pages, additional information on the assessment process and findings can be found.

The needs assessment identifies numerous health issues that our communities face. While there are many important health matters, we are focusing our efforts on the health issues listed below. Considering factors such as size and scope of the health problem, the intensity and severity of the issue, the potential to effectively address the problem and the availability of community resources, and Sentara's mission "to improve health every day", we have identified these priority health problems in our area:

- Obesity
- Diabetes
- Heart disease/high blood pressure
- Cancer
- Behavioral health

The community health needs assessment was used as the foundation for a hospital implementation strategy to address these priority needs. The assessment and implementation strategy have been adopted by the hospital's governing body. A number of resources are available in the community to address these needs through community partners such as the local health departments, United Way Agencies, and others. Information about these 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!

A Community Health Needs Assessment

Prepared for the Sentara Virginia Beach General Hospital

By Community Health Solutions

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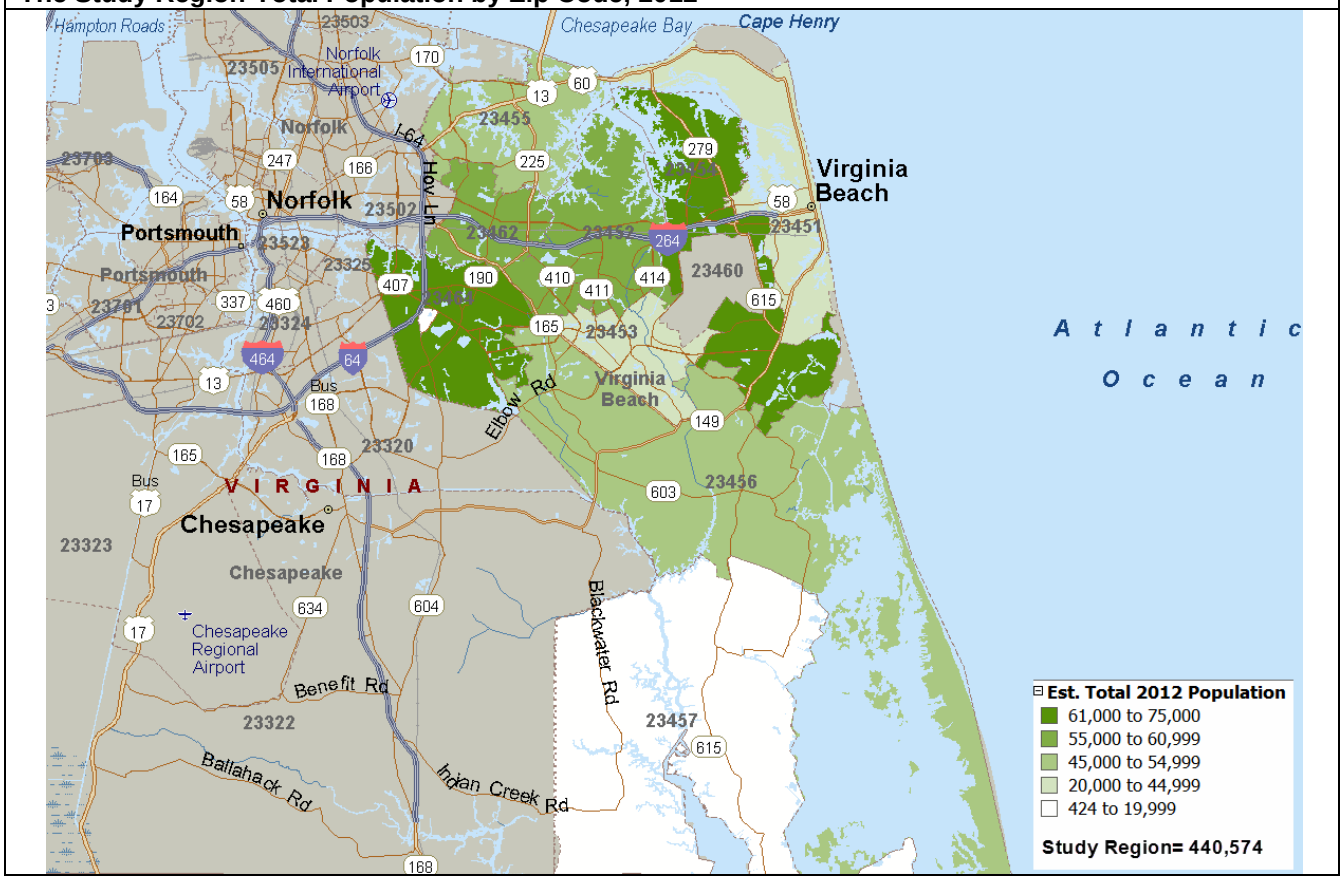
Executive Summary

The mission of Sentara Virginia Beach General Hospital (SVBGH) is "to improve health every day." With this mission in mind, SVBGH commissioned Community Health Solutions to conduct this community health needs assessment.

The study focuses on the SVBGH service area of 10 zip codes, located in the City of Virginia Beach. The study region is shown in the map below. The results of the study include two primary components: a 'community insight profile' based on qualitative analysis of a survey of community stakeholders, and a 'community indicator profile' based on quantitative analysis of community health status indicators. This Executive Summary outlines major findings, and details are provided in the body of the report.

The Study Region-Total Population by Zip Code, 2012



Part I. Community Insight Profile

In an effort to generate community input for the study, a 'Community Insight Survey' was conducted with a group of community stakeholders identified by SVBGH. The survey participants were asked to provide their viewpoints on:

- Important health concerns in the community;
- Significant service gaps in the community; and
- Additional ideas or suggestions for improving community health.

The survey was sent to a group of community stakeholders identified by SVBGH. A total of 52 stakeholders submitted a response (although not every respondent answered every question). The respondents provided rich insights about community health in the study region. To summarize:

- The respondents identified over 20 important health concerns such as obesity, chronic disease, mental health, stroke and more.

- The respondents reported more than two dozen specific community services in need of strengthening. Identified services included behavioral health services, health care services for the uninsured/underinsured, homeless services, aging services and more.

Nineteen respondents offered open-ended responses with additional ideas and suggestions for improving community health. These responses are listed in *Appendix B*.

Part II. Community Indicator Profile

The community indicator profile in Part II presents a wide array of quantitative community health indicators for the study region. To produce the profile, Community Health Solutions analyzed data from multiple sources. By design, the analysis does not include every possible indicator of community health. The analysis is focused on a set of indicators that provide broad insight into community health, and for which there were readily available data sources. To summarize:

- *Demographic Profile.* As of 2012, the study region included an estimated 440,574 people. The population is expected to increase to 451,609 by 2017. It is projected that the population will remain stable or grow in all demographic groups, including an 11% increase in seniors age 65+; a 6% increase in the Asian population; and a 4% increase in the Hispanic ethnicity population. Compared to Virginia as a whole, the study region is more densely populated has generally higher income levels, and has (proportionally) fewer adults age 25+ without a high school diploma than Virginia as a whole.

- *Mortality Profile.* In 2011, the study region had 2,745 total deaths. The leading causes of death were malignant neoplasms (cancer), heart disease and chronic lower respiratory disease. The study region age group death rates per 100,000 population were lower than the statewide rate in all age groups except for the 0-17 age group.

- *Maternal and Infant Health Profile.* In 2011, the study region had 6,239 total live births. Compared to Virginia as a whole, the study region had a higher rate of live births overall, and lower rates of births without prenatal care and non-marital births. Both teen pregnancy rates and five-year infant mortality rates were lower for the City of Virginia Beach than the statewide rates.

- *Preventable Hospitalization Discharge 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. High rates of hospitalization for these conditions indicate potential gaps in access to quality outpatient services for community residents. In 2011, residents of the study region had 3,537 PQI hospital discharges. The study region PQI discharge rates per 100,000 population were lower than the statewide rates for all age groups.

- *Behavioral Health Hospitalization Discharge Profile.* Behavioral Health (BH) hospitalizations provide another important indicator of community health status. In 2011, residents of the study region had 3,536 hospital discharges from Virginia community hospitals for behavioral health conditions.[1] The leading diagnoses for these discharges were affective psychoses, general symptoms[2], and schizophrenic disorders. The study region behavioral health hospitalization discharge rates per 100,000 population were higher than the statewide rates for the 0-17, 18-29 and 65+ age groups.

- *Adult Health Risk Profile.* Local estimates indicate that substantial numbers of adults (age 18+) in the study region have health risks related to nutrition, weight, physical inactivity, alcohol and tobacco. In addition, substantial numbers of adults have chronic conditions such as high cholesterol, high blood pressure, arthritis, diabetes and asthma.

[1] Data include discharges for Virginia residents from Virginia community hospitals reporting to Virginia Health Information, Inc. These data do not include discharges from state behavioral health facilities or federal (military) facilities. Data reported are based on the primary diagnosis.
[2] This diagnosis includes symptoms, signs, abnormal results of laboratory or other investigative procedures, and ill-defined conditions regarding which no diagnosis classifiable elsewhere is recorded.

- *Youth Health Risk Profile.* Local estimates indicate that substantial numbers of youth (age 14-19) in the study region have health risks related to nutrition, alcohol, weight, mental health, tobacco, and physical activity.

- *Uninsured Profile*. An estimated 49,648 (13%) nonelderly residents of the study region were uninsured at a given point in time in 2012. This included an estimated 7,790 children and 41,858 adults.

- *Medically Underserved Profile.* Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) are designated by the U.S. Health Resources and Services Administration as being at risk for health care access problems. The designations are based on several factors including primary care provider supply, infant mortality, prevalence of poverty and the prevalence of seniors age 65+. The City of Virginia Beach is partially designated as a MUA/MUP.

Accompanying File of Zip Code-Level Indicators

This report includes community health indicators for the study region as a whole. A separate Microsoft Excel file contains indicators for each zip code within the study region.

Appendix A. Zip Code-Level Maps

Appendix A provides a set of thematically colored maps displaying variation in selected community health indicators by zip code. The underlying data for these maps are provided in a separate Microsoft Excel file. *Please read the important note about zip code-level data in Appendix A.*

Appendix B. Community Insight Profile- Additional Ideas and Suggestions for Improving Community Health

Nineteen survey respondents offered open-ended responses with additional ideas and suggestions for improving community health. These responses are listed in *Appendix B*.

Appendix C. Data Sources

Appendix C provides a list of the data sources used in the analyses for this report.

Part I. Community Insight Profile

In an effort to generate community input for the study, a 'Community Insight Survey' was conducted with a group of community stakeholders identified by SVBGH. The survey participants were asked to provide their viewpoints on:

- Important health concerns in the community;
- Significant service gaps in the community; and
- Additional ideas and suggestions for improving community health.

The survey was sent to a group of community stakeholders identified by SVBGH. A total of 52 stakeholders submitted a response (although not every respondent answered every question). The respondents provided rich insights about community health in the study region. The results are summarized in the remainder of this section.

1. Survey Respondents

Exhibit I-1 below lists the organizational affiliations of the survey respondents.

Exhibit I-1
Reported Organization Affiliation of Survey Respondents

Access Partnership	Samaritan House
Beach Health Clinic	Senior Services of Southeastern Virginia
Chesapeake Care, Inc./Hampton Roads Dental Center	Sentara Medical Group (3)
Chesapeake Health Department	Sentara Norfolk General Hospital Patient & Family Advisory Council
Eastern Virginia Medical School (3)	Sentara Virginia Beach General Hospital Auxiliary (6)
ECPI University	The Barry Robinson Center
Emergency Physicians of Tidewater (2)	The Planning Council
EMS Plaza #16	United Way of South Hampton Roads
Foodbank of SEVA	Virginia Beach Department of Human Services, MHSA
Free Foundation of South Hampton Roads	Virginia Beach Department of Public Health
LMI	Virginia Beach EMS (2)
Max Media	Virginia Beach General Hospital Aux Board Member
Medical Transport	Virginia Beach General Hospital Auxiliary
Norfolk State University	Virginia Beach United Methodist Church
Old Dominion University	VisionWalk
PDBHS	Williams Mullen
People In Need Ministry	YMCA of South Hampton Roads
Prime Plus	*Unknown Organization* (5)
RG Electric Company, Inc.	

2. Community Health Concerns

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

Exhibit I-2.
Important Community Health Concerns Identified by Survey Respondents

Answer Options	Response Percent[3]	Response Count
Adult Obesity	78%	40
Diabetes	63%	32
Heart Disease	61%	31
Childhood Obesity	59%	30
High Blood Pressure	59%	30
Cancer	57%	29
Depression	55%	28
Mental Health Conditions (other than depression)	55%	28
Stroke	53%	27
Dental Care/Oral Health-Adult	49%	25
Tobacco Use	49%	25
Alzheimer's Disease	45%	23
Substance Abuse - Prescription Drugs	45%	23
Alcohol Use	43%	22
Substance Abuse - Illegal Drugs	41%	21
Domestic Violence	33%	17
Chronic Pain	31%	16
Injuries	29%	15
Physical Disabilities	29%	15
Arthritis	28%	14
Asthma	28%	14
Renal (kidney) Disease	28%	14
Infant and Child Health	26%	13
Orthopedic Problems	26%	13
Respiratory Diseases (other than asthma)	26%	13
Intellectual/Developmental Disabilities	24%	12
Neurological Disorders (seizures, multiple sclerosis)	24%	12
Prenatal & Pregnancy Care	24%	12
Sexually Transmitted Diseases	24%	12
Teen Pregnancy	24%	12
Dental Care/Oral Health-Pediatric	22%	11
Autism	20%	10
Infectious Diseases	20%	10
HIV/AIDS	18%	9
Environmental Quality	10%	5

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

Continued on next page…

[3] *Fifty-one (51) of the 52 survey respondents answered this question.*

Exhibit I-2.
Important Community Health Concerns Identified by Survey Respondents (continued)

Other Important Community Health Concerns Identified by Survey Respondents in Open-Ended Responses	
Response #	**Responses**
1	Aging (as age increases, support systems decrease, leading to preventable medical mishaps)
2	Community Health!
3	From my vantage point, we are having an epidemic of substance use disorders, and severe mental health disorders without the needed resources for treatment. We are also witnessing concomitant health problems as a result of these illnesses and sometimes the treatment of them.
4	GI Problems
5	Having chaired the Hampton Roads VisionWalk for two consecutive years and being vision impaired myself, I see a real need for education, awareness and community assistance for the large vision impaired population here in Hampton Roads. I have had the opportunity to speak at numerous community organizations about vision loss and am astounded by the number of people who are affected or have family and friends that are impacted by vision loss.
6	I have personally known someone, or a loved one of someone I know, who has dealt with one or more of the issues listed above. All would be a community concern.
7	Vascular disease (e.g. PVD, aortic disease)
8	VBGH deals with an older population and many homeless; the reason for my above selections.

3. Community Service Gaps

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

Exhibit I-3.
Important Community Service Gaps Identified by Survey Respondents

Answer Options	Response Percent[4]	Response Count
Behavioral Health Services (including mental health, substance use and intellectual disability)	70%	35
Health Care Services for the Uninsured and Underinsured	64%	32
Homeless Services	60%	30
Aging Services	58%	29
Dental Care/Oral Health Services-Adult	44%	22
Long Term Care Services	44%	22
Social Services	44%	22
Transportation	44%	22
Health Care Insurance Coverage (private and government)	40%	20
Health Promotion and Prevention Services	36%	18
Early Intervention Services for Children	32%	16
Chronic Disease Services (including screening and early detection)	30%	15
Domestic Violence Services	30%	15
Patient Self Management Services(e.g. nutrition, exercise, taking medications)	30%	15
Primary Health Care Services	28%	14
Chronic Pain Management Services	26%	13
Food Safety Net (food bank, community gardens)	26%	13
Job/Vocational Retraining	26%	13
Public Health Services	26%	13
Cancer Services (screening, diagnosis, treatment)	24%	12
Home Health Services	24%	12
Dental Care/Oral Health Services-Pediatric	22%	11
Maternal, Infant & Child Health Services	22%	11
Hospice Services	18%	9
School Health Services	18%	9
Family Planning Services	16%	8
Workplace Health and Safety Services	8%	4
Hospital Services (including emergency, inpatient and outpatient)	6%	3
Pharmacy Services	6%	3
Specialty Medical Care (e.g. cardiologists, oncologists, etc.)	6%	3
Environmental Health Services	4%	2
Physical Rehabilitation	0%	0

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

Continued on next page…

[4] *Fifty (50) of the 52 survey respondents answered this question.*

Exhibit I-3.
Important Community Service Gaps Identified by Survey Respondents (continued)

Other Important Community Health Services Gaps Identified by Survey Respondents in Open-Ended Responses	
Response #	**Responses**
1	Access to mobility equipment if uninsured or underinsured.
2	Community Health Clinics and services are in dire need! If you want to charge big bucks for the insured take care of the uninsured.
3	High quality mental health services are desperately needed in this region! Too many ER and primary care visits are complicated by mental health issues that personnel do not have the skills to address.
4	I have referred numerous friends and neighbors to NDC for primary health care services only to be told by my friends/neighbors that NDC is no longer accepting patients (Medicare or private insurance). Primary health care at NDC is outstanding and would benefit Sentara by increasing providers and patient base.
5	Those not checked adequately met.

Part II. Community Indicator Profile

This section of the report provides a quantitative profile of the study region based on a wide array of community health indicators. To produce the profile, Community Health Solutions analyzed data from multiple sources. By design, the analysis does not include every possible indicator of community health. The analysis is focused on a 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 Virginia overall. The results can also be helpful for determining the number of people affected by specific health concerns. In addition, the results can be used alongside the Community Insight Survey results and the zip code-level maps to help inform action plans for community health improvement. This section includes ten profiles as follows:

1. Health Demographic Trend Profile
2. Health Demographic Snapshot Profile
3. Mortality Profile
4. Maternal and Infant Health Profile
5. Preventable Hospitalization Discharge Profile
6. Behavioral Health Hospitalization Discharge Profile
7. Adult Health Risk Factor Profile
8. Youth Health Risk Factor Profile
9. Uninsured Profile
10. Medically Underserved Profile

1. Health Demographic Trend Profile

Trends in health-related demographics are instructive for anticipating changes in community health status. Changes in the size, age and racial/ethnic mix of the population can have a significant impact on overall health status, health needs and demand for local services.

As shown in *Exhibit II-1*, as of 2012, the study region included an estimated 440,574 people. The population is expected to increase to 451,609 by 2017. It is projected that the population will remain stable or grow in all age groups, including an 11% increase in seniors age 65+. Focusing on racial background, growth is projected for all populations, including a 6% increase in the Asian population. The Hispanic ethnicity population is also expected to grow by 4%.

Exhibit II-1.
Health Demographic Trend Profile, 2010-2017

Indicator	2010 Census	2012 Estimate	2017 Projection	% Change 2012-2017
Total Population	432,750	440,574	451,609	3%
Population Density (per Sq Mile)	1,745.2	1,776.7	1,821.2	3%
Total Households	164,728	165,842	170,938	3%
Population by Age				
Children Age 0-17	104,693	103,976	104,783	1%
Adults Age 18-29	80,000	80,793	80,570	0%
Adults Age 30-44	89,415	90,759	93,724	3%
Adults Age 45-64	112,246	115,311	117,511	2%
Seniors Age 65+	46,400	49,738	55,023	11%
Population by Race/Ethnicity				
Asian	26,621	27,608	29,310	6%
Black/African American	84,618	86,466	88,983	3%
White	293,335	297,190	302,698	2%
Other or Multi-Race	28,178	29,309	30,621	4%
Hispanic Ethnicity[5]	28,441	29,624	30,864	4%

Source: Community Health Solutions analysis of US Census data and estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

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[5] Classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.

2. Health Demographic Snapshot Profile

Community health is driven in part by community demographics. The age, sex, race, ethnicity, income and education status of a population are strong predictors of community health status and community health needs.

Exhibit II-2 presents a snapshot of key health-related demographics of the study region. As of 2012, the study region included an estimated 440,574 people. Focusing on population rates in the lower part of the Exhibit, compared to Virginia as a whole, the study region is more densely populated, has generally higher income levels, and has (proportionally) fewer adults age 25+ without a high school diploma than Virginia as a whole. *Note: Maps 1-13 in Appendix A show the geographic distribution of the population by zip code.*

Exhibit II-2.
Health Demographic Snapshot Profile, 2012

Indicator		Study Region	Virginia
Population Counts			
Total	Population	440,574	8,154,815
Age	Children Age 0-17	103,976	1,857,225
	Adults Age 18-29	80,793	1,375,674
	Adults Age 30-44	90,759	1,642,637
	Adults Age 45-64	115,311	2,233,940
	Seniors Age 65+	49,738	1,045,339
Sex	Female	225,164	4,148,680
	Male	215,410	4,006,135
Race	Asian	27,608	459,660
	Black/African American	86,466	1,579,659
	White	297,190	5,573,480
	Other or Multi-Race	29,309	542,016
Ethnicity	Hispanic Ethnicity[6]	29,624	655,986
Income	Low Income Households (Households with Income < $25,000)	22,545	553,382
Education	Population Age 25+ Without a High School Diploma	18,096	675,228
Population Rates			
Total	Population Density (pop. per sq. mile)	1,776.7	202.2
Age	Children Age 0-17 pct. of Total Pop.	24%	23%
	Adults Age 18-29 pct. of Total Pop.	18%	17%
	Adults Age 30-44 pct. of Total Pop.	21%	20%
	Adults Age 45-64 pct. of Total Pop.	26%	27%
	Seniors Age 65+ pct. of Total Pop.	11%	13%
Sex	Female pct. of Total Pop.	51%	51%
	Male pct. of Total Pop.	49%	49%
Race	Asian pct. of Total Pop.	6%	6%
	Black/African American pct. of Total Pop.	20%	19%
	White pct. of Total Pop.	67%	68%
	Other or Multi-Race pct. of Total Pop.	7%	7%
Ethnicity	Hispanic Ethnicity pct. of Total Pop.	7%	8%
Income	Per Capita Income	$32,063	$34,307
	Median Household Income	$64,497	$64,118
	Low Income Households (Households with Income < $25,000) pct. of Total Households	14%	18%
Education	Pop. Age 25+ Without a High School Diploma pct. of Total Pop. Age 25+	6%	12%

Source: Community Health Solutions analysis of US Census data and estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

[6] Classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.

3. Mortality Profile

Mortality is traditionally one of the most important indicators of community health status. As shown in *Exhibit II-3*, in 2011, the study region had 2,745 total deaths. The leading causes of death were malignant neoplasms (cancer) (635), heart disease (540), and chronic lower respiratory disease (155). The study region age group death rates per 100,000 population were lower than the statewide rate in all age groups except for the 0-17 age group.[7] *Note: Maps 14-17 in Appendix A show the geographic distribution of deaths by zip code.*

Exhibit II-3.
Mortality Profile, 2011

Indicator	Study Region	Virginia
Total Deaths		
Total Deaths by All Causes	2,745	60,325
Deaths by Top 14 Causes		
Malignant Neoplasms Deaths	635	14,261
Heart Disease Deaths	540	13,201
Chronic Lower Respiratory Diseases Deaths	155	3,097
Unintentional Injury Deaths	133	2,726
Cerebrovascular Diseases Deaths	122	3,327
Alzheimer's Disease Deaths	104	1,800
Septicemia Deaths	73	1,372
Suicide Deaths	68	1,052
Diabetes Mellitus Deaths	67	1,628
Influenza and Pneumonia Deaths	60	1,404
Nephritis and Nephrosis Deaths	38	1,425
Chronic Liver Disease Deaths	31	725
Pneumonitis Deaths	29	560
Primary Hypertension and Renal Disease Deaths	25	569
Deaths by Age Group		
Deaths Age 0-17	67	1,024
Deaths Age 18-29	53	1,080
Deaths Age 30-44	104	2,121
Deaths Age 45-64	542	12,338
Deaths Age 65+	1,979	43,758
Death Rates by Age Group (see note 7)		
Deaths per 100,000 pop. All Ages	632.8	742.9
Deaths per 100,000 pop. Age 0-17	64.0	53.6
Deaths per 100,000 pop. Age 18-29	66.0	79.0
Deaths per 100,000 pop. Age 30-44	115.8	125.7
Deaths per 100,000 pop. Age 45-64	482.1	576.8
Deaths per 100,000 pop. Age 65+	4,259.0	4,314.5

Source: Community Health Solutions analysis of mortality data from the Virginia Department of Health and local demographic estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

[7] Age adjusted death rates were not calculated for this study because the study region is defined by zip codes, and available data are not structured to support calculation of age adjusted death rates at the zip code level. Age group death rates are used as an alternative.

4. Maternal and Infant Health Profile

Along with mortality, maternal and infant health is another traditionally important indicator of community health status. As shown in *Exhibit II-4A,* in 2011, the study region had 6,239 total live births. Among these were 510 low weight births, 684 births without early prenatal care, 1,933 non-marital births and 299 births to teens. Compared to Virginia as a whole, the study region had a higher rate of live births overall, and lower rates of births without prenatal care and non-marital births. *Note: Maps 18-21 in Appendix A show the geographic distribution of births by zip code.*

Exhibit II-4A.
Maternal and Infant Health Profile, 2011

Indicator	Study Region	Virginia
Counts		
Total Live Births	6,239	102,525
Low Weight Births (under 2,500 grams / 5 lb. 8 oz.)	510	8,204
Births Without Early Prenatal Care (No Prenatal Care in First 13 Weeks)	684	13,500
Non-Marital Births	1,933	36,390
Live Births to Teens Age 10-19	299	6,572
Live Births to Teens Age 18-19	226	4,807
Live Births to Teens Age 15-17	71	1,708
Live Births to Teens Age <15	2	57
Rates		
Live Birth Rate per 1,000 Population	14.4	12.7
Low Weight Births pct. of Total Live Births	8%	8%
Births Without Early Prenatal Care (No Prenatal Care in First 13 Weeks) pct. of Total Live Births	11%	13%
Non-Marital Births pct. of Total Live Births	31%	35%

Source: Community Health Solutions analysis of data from the Virginia Department of Health and local health demographic estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Exhibit II-4B below provides counts and rates of teen pregnancy and infant mortality for the City of Virginia Beach. [8] Both the teen pregnancy and five-year infant mortality rates were lower for the City of Virginia Beach than the statewide rates.

Exhibit II-4B.
Teen Pregnancy and Infant Mortality Profile, 2011

Indicator	Virginia Beach, City of	Virginia
Teen Pregnancy Counts and Rates		
Total Teenage Pregnancies Age 10-19 (2011)	515	9,630
Total Pregnancies per 1,000 Female Population Age 10-19 (2011)	18.4	18.6
Infant Mortality Counts and Rates		
Total Infant Deaths (2011)	43	685
Five-Year Average Infant Mortality Rate per 1,000 Live Births (2007-2011)	6.5	7.0

Source: Community Health Solutions analysis of data from the Virginia Department of Health. See Appendix C. Data Sources for details.

[8] Indicators are shown at the city and county level because teen pregnancy and five-year average infant mortality data are not available at the zip code-level.

5. Preventable Hospitalization Discharge 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.[9] High rates of hospitalization for these conditions indicate potential gaps in access to quality outpatient services for community residents.

As shown in *Exhibit II-5*, in 2011, residents of the study region had 3,537 PQI hospital discharges from Virginia hospitals.[10] The leading diagnoses for these discharges were congestive heart failure (868), bacterial pneumonia (607) and diabetes (580). The study region PQI discharge rates per 100,000 population were lower than the statewide rates for all age groups. *Note: Map 22 in Appendix A shows the geographic distribution of PQI discharges by zip code.*

Exhibit II-5.
Prevention Quality Indicator (PQI) Hospital Discharge Profile, 2011

Indicator	Study Region	Virginia
PQI Discharges by Age Group (see note 9)		
All Ages	3,537	83,392
Total PQI Discharges-Age 0-17	13	335
Total PQI Discharges-Age 18-29	194	3,639
Total PQI Discharges-Age 30-44	338	7,190
Total PQI Discharges-Age 45-64	956	24,359
Total PQI Discharges-Age 65+	2,036	47,869
PQI Discharges by Diagnosis		
Congestive Heart Failure	868	18,990
Bacterial Pneumonia	607	16,221
Diabetes	580	11,326
Chronic Obstructive Pulmonary Disease (COPD)	439	11,439
Urinary Tract Infection	410	10,496
Adult Asthma	265	6,419
Hypertension	120	2,898
Dehydration	117	3,401
Perforated Appendix	85	1,487
Angina	46	715
PQI Discharge Rates by Age Group		
PQI Discharges per 100,000 pop. All Ages	815.4	1,027.0
PQI Discharges per 100,000 pop. Age 0-17	see note	17.5
PQI Discharges per 100,000 pop. Age 18-29	241.4	266.1
PQI Discharges per 100,000 pop. Age 30-44	376.5	426.0
PQI Discharges per 100,000 pop. Age 45-64	850.3	1,138.7
PQI Discharges per 100,000 pop. Age 65+	4,381.7	4,719.8

Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information, Inc. and local demographic estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Note: *Rates are not calculated when the number of cases is less than 30.*

[9] The PQI 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 three diabetes-related PQI indicators which have been combined into one for the report. For more information, visit the AHRQ website at www.qualityindicators.ahrq.gov/pqi_overview.htm

[10] Data include discharges for Virginia residents from Virginia community hospitals reporting to Virginia Health Information, Inc. These data do not include discharges from state behavioral health facilities or federal (military) facilities. Data reported are based on the primary diagnosis.

6. Behavioral Health Hospitalization Discharge Profile

Behavioral Health (BH) hospitalizations provide another important indicator of community health status. As shown in *Exhibit II-6,* in 2011, residents of the study region had 3,536 hospital discharges from Virginia hospitals for behavioral health conditions.[11] The leading diagnoses for these discharges were affective psychoses (1,633), general symptoms (549) and schizophrenic disorders (500). The study region behavioral health hospitalization discharge rates per 100,000 population were higher than the statewide rates for the 0-17, 18-29 and 65+ age groups. *Note: Map 23 in Appendix A shows the geographic distribution of BH discharges by zip code.*

Exhibit II-6.
Behavioral Health Hospital Discharge Profile, 2011

Indicator	Study Region	Virginia
BH Discharges by Age Group (see note 11)		
All Ages	3,536	64,892
Total BH Discharges-Age 0-17	513	7,996
Total BH Discharges-Age 18-29	786	12,297
Total BH Discharges-Age 30-44	736	15,063
Total BH Discharges-Age 45-64	993	19,677
Total BH Discharges-Age 65+	508	9,859
BH Discharges by Diagnosis		
Affective Psychoses [12]	1,633	27,277
General Symptoms [13]	549	11,135
Schizophrenic Disorders	500	8,042
Alcoholic Psychoses	169	3,283
Depressive Disorder, Not Elsewhere Classified	106	2,785
Other Nonorganic Psychoses	104	2,148
Alcoholic Dependence Syndrome	99	2,161
Drug Psychoses	87	1,321
Adjustment Reaction	72	2,123
Neurotic Disorders	53	1,351
BH Discharge Rates by Age Group		
BH Discharges per 100,000 pop. All Ages	815.2	799.2
BH Discharges per 100,000 pop. Age 0-17	489.8	418.4
BH Discharges per 100,000 pop. Age 18-29	978.1	899.0
BH Discharges per 100,000 pop. Age 30-44	819.8	892.4
BH Discharges per 100,000 pop. Age 45-64	883.2	919.8
BH Discharges per 100,000 pop. Age 65+	1,093.3	972.1

Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information, Inc. and local demographic estimates from Alteryx, See Appendix C. Data Sources for details.

[11] Data include discharges for Virginia residents from Virginia community hospitals reporting to Virginia Health Information, Inc. These data do not include discharges from state behavioral health facilities or federal (military) facilities. Data reported are based on the primary diagnosis.
[12] Includes major depressive, bipolar affective and manic depressive disorders.
[13] This diagnosis includes symptoms, signs, abnormal results of laboratory or other investigative procedures, and ill-defined conditions regarding which no diagnosis classifiable elsewhere is recorded.

7. Adult Health Risk Factor Profile

This section examines health risks for adults age 18+. Prevalence estimates of health risks, chronic disease and health status can be useful in developing prevention and improvement efforts. *Exhibit II-7* shows estimates indicating that substantial numbers of adults in the study region have health risks related to nutrition, weight, physical inactivity, alcohol and tobacco. In addition, substantial numbers of adults have chronic conditions such as high cholesterol, high blood pressure, arthritis, diabetes and asthma. *Note: Maps 24-27 in Appendix A show the geographic distribution of selected adult health risks by zip code.*

Exhibit II-7.
Adult Health Risk Factor Profile (Estimates), 2012

Indicator	Study Region Estimates (Count)	Study Region Estimates (Percent)
Estimated Adults age 18+	336,601	100%
Risk Factors		
Less than Five Servings of Fruits and Vegetables Per Day*	260,316	77%
Overweight or Obese[14]	205,438	61%
Not Meeting Recommendations for Physical Activity in the Past 30 Days	172,592	51%
At Risk for Binge Drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	70,365	21%
Smoker*	64,371	19%
Chronic Conditions		
High Cholesterol (was checked, and told by a doctor or other health professional it was high)*	121,056	36%
High Blood Pressure (told by a doctor or other health professional)*	96,355	29%
Arthritis (told by a doctor or other health professional)*	80,233	24%
Diabetes (told by a doctor or other health professional)*	25,418	8%
Asthma (told by a doctor or other health professional)*	24,167	7%
General Health Status		
Limited in any Activities because of Physical, Mental or Emotional Problems*	65,823	20%
Fair or Poor Health Status*	54,076	16%

** Indicators marked (*) are based on respondent self reports. Other indicators are calculated by Centers for Disease Control based on Virginia Behavioral Risk Factor Behavioral Surveillance System results.*

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

[14] According to the CDC, for adults 20 years old and older, BMI is interpreted using standard weight status categories that are the same for all ages and for both men and women. Overweight is defined as a BMI between 25.0 and 29.9. Obesity is defined as a BMI 30.0 and above. For more information: http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/index.html#Interpreted

8. Youth Health Risk Factor Profile

This section examines selected health risks for youth age 14-19. These risks have received increasing attention as the population of American children have become more sedentary, more prone to unhealthy eating and more likely to develop unhealthy body weight. The long-term implications of these trends are serious, as these factors place children at higher risk for chronic disease both now and in adulthood.

Exhibit II-8 shows estimates indicating that substantial numbers of youth in the study region have health risks related to nutrition, alcohol, weight, mental health, tobacco, and physical activity. *Note: Maps 28-29 in Appendix A show the geographic distribution of selected youth health risks by zip code.*

Exhibit II-8.
Youth Health Risk Factor Profile (Estimates), 2012

Indicator	Study Region Estimates (Count)	Study Region Estimates (Percent)
Estimated Youth age 14-19	33,813	100%
Less than the Recommended Intake of Vegetables	29,782	88%
Less than the Recommended Intake of Fruit	29,166	86%
Have at least One Drink of Alcohol at least One Day in the Past 30 Days*	9,899	29%
Overweight or Obese[15]	9,524	28%
Feel Sad or Hopeless (almost every day for two or more weeks in a row so that they stopped doing some usual activities)*	8,443	25%
Used Tobacco in the Past 30 Days*	6,794	20%
Not Meeting Recommendations for Physical Activity in the Past Week*	5,078	15%

** Indicators marked (*) are based on respondent self reports. Other indicators are calculated by Centers for Disease Control based on Virginia Youth Behavioral Risk Factor Behavioral Surveillance System results.*

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

[15] For children and adolescents (aged 2–19 years), the BMI value is plotted on the CDC growth charts to determine the corresponding BMI-for-age percentile. Overweight is defined as a BMI at or above the 85th percentile and lower than the 95th percentile. Obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex. For more information: http://www.cdc.gov/healthyweight/assessing/bmi/childrens_BMI/about_childrens_BMI.html

9. Uninsured Profile

Decades of research show that health coverage matters when it comes to overall health status, access to health care, quality of life, school and work productivity, and even mortality. *Exhibit II-9* shows the estimated number of uninsured individuals by income, in the study region as of 2012. [16] An estimated 49,648 (13%) nonelderly residents of the study region were uninsured at a given point in time in 2012. This included an estimated 7,790 children and 41,858 adults. *Note: Maps 30-31 in Appendix A show the geographic distribution of the uninsured population by zip code.*

Exhibit II-9.
Uninsured Profile (Estimates), 2012

Indicator	Study Region
Estimated Uninsured Counts	
Uninsured Nonelderly Age 0-64	49,648
Uninsured Children Age 0-18	7,790
Uninsured Children <100% FPL	1,919
Uninsured Children 100-200% FPL	3,140
Uninsured Children 201-300% FPL	1,294
Uninsured Children 301%+ FPL	1,437
Uninsured Adults Age 19-64	41,858
Uninsured Adults <100% FPL	15,216
Uninsured Adults 100-200% FPL	11,990
Uninsured Adults 201-300% FPL	7,420
Uninsured Adults 301%+ FPL	7,232
Uninsured Adults Under 133% FPL [17]	*16,622*
Estimated Uninsured Rates	
Uninsured Nonelderly Percent	13%
Uninsured Children Percent	7%
Uninsured Adults Percent	15%

Source: Estimates produced by Community Health Solutions using the (2011) Profile of the Uninsured report produced for Virginia Health Care Foundation by the Urban Institute and local demographic estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

[16] For more information, please see: http://aspe.hhs.gov/poverty/12poverty.shtml
[17] Uninsured Adults Under 133% FPL are included in the <100 and 100-200% FPL income categories. This separate income level has been included in the table to provide an estimate of uninsured adults who may be eligible for health coverage under Medicaid expansion.

10. Medically Underserved Profile

Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) are designated by the U.S. Health Resources and Services Administration as being at risk for health care access problems. The designations are based on several factors including primary care provider supply, infant mortality, prevalence of poverty and the prevalence of seniors age 65+.

As shown in *Exhibit II-10*, the City of Virginia Beach is partially designated as MUA/MUP. For a more detailed description, visit the U.S. Health Resources and Service Administration designation webpage at http://muafind.hrsa.gov/.

Exhibit II-10.
Medically Underserved Area/Populations Profile

Locality	MUA/MUP Designation	Census Tracts
Virginia Beach, City of	Partial	3 of 99 Census Tracts
		CT 0442.00
		CT 0448.06
		CT 0464.00

Source: Community Health Solutions analysis of U.S. Health Resources and Services Administration data.

APPENDIX A. Zip Code-Level Maps for the Study Region

The maps in this section illustrate the geographic distribution of the study region population on key demographic and health indicators by zip code. The maps can also be used alongside the Community Insight Survey (Part I) and the Community Indicator Profile (Part II) to help inform plans for community health initiatives. The underlying data for these maps are provided in a separate Microsoft Excel file. The maps in this section include the following for 2011/2012:

1. Total Population, 2012	17. Chronic Lower Respiratory Diseases Deaths, 2011
2. Population Density (population per square mile), 2012	18. Total Live Births, 2011
3. Child Population Age 0-17, 2012	19. Low Weight Births, 2011
4. Senior Population Age 65+, 2012	20. Births Without Early Prenatal Care (No Prenatal Care in the First 13 Weeks), 2011
5. Asian Population, 2012	21. Births to Teen Mothers Under Age 18, 2011
6. Black/African American Population, 2012	22. Prevention Quality Indicator (PQI) Hospital Discharges, 2011
7. White Population, 2012	23. Behavioral Health (BH) Hospital Discharges, 2011
8. Other or Multi-Race Population, 2012	24. Estimated Adults Age 18+ Overweight or Obese, 2012
9. Hispanic Ethnicity Population, 2012	25. Estimated Adult Age 18+ Smokers, 2012
10. Per Capita Income, 2012	26. Estimated Adults Age 18+ with Diabetes, 2012
11. Median Household Income, 2012	27. Estimated Adults Age 18+ with High Blood Pressure, 2012
12. Low Income Households (Households with Income <$25,000), 2012	28. Estimated Youth Age 14-19 Overweight or Obese, 2012
13. Population Age 25+ Without a High School Diploma, 2012	29. Estimated Youth Age 14-19 Not Meeting Recommendations for Physical Activity in the Past Week, 2012
14. Total Deaths, 2011	30. Estimated Uninsured Children Age 0-18, 2012
15. Malignant Neoplasm (Cancer) Deaths, 2011	31. Estimated Uninsured Adults Age 19-64, 2012
16. Heart Disease Deaths, 2011	

Technical Notes

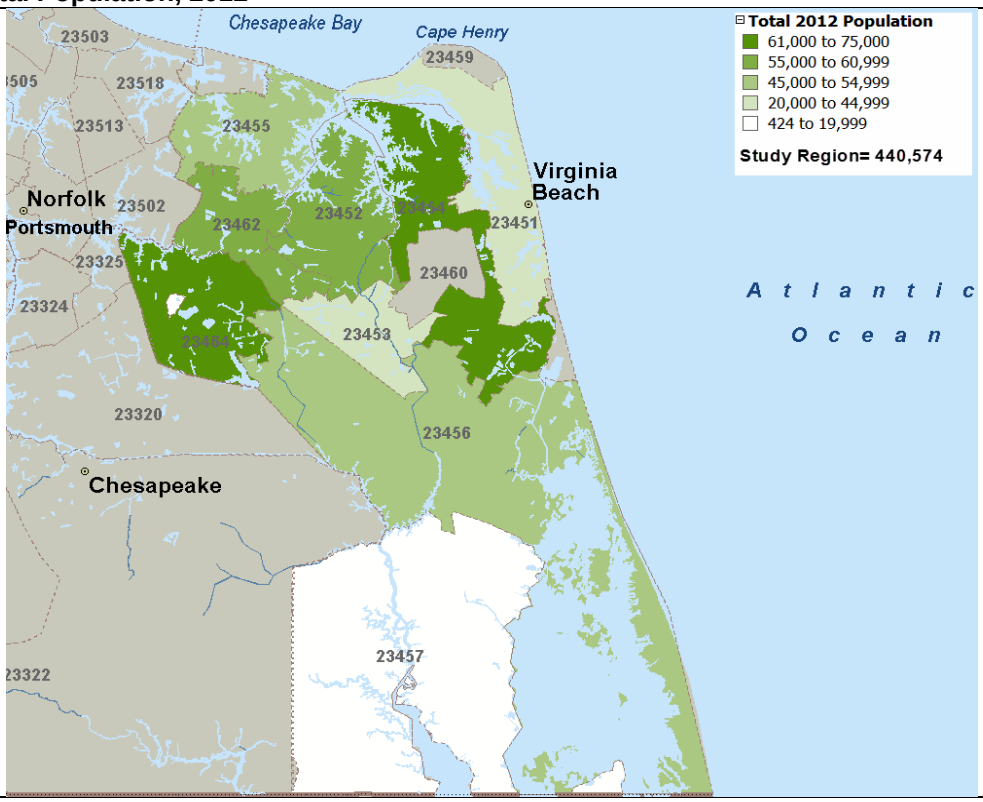
1. The maps focus on the Sentara Virginia Beach General Hospital (SVBGH) service area of 10 zip codes, located in the City of Virginia Beach. Because zip code boundaries do not automatically align with city/county boundaries, there are some zip codes that extend beyond the city/county boundaries. Additionally, not all zip codes in the City of Virginia Beach were identified as part of the SVBGH study region.

2. With the exception of population density, per capita income and median household income, 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.

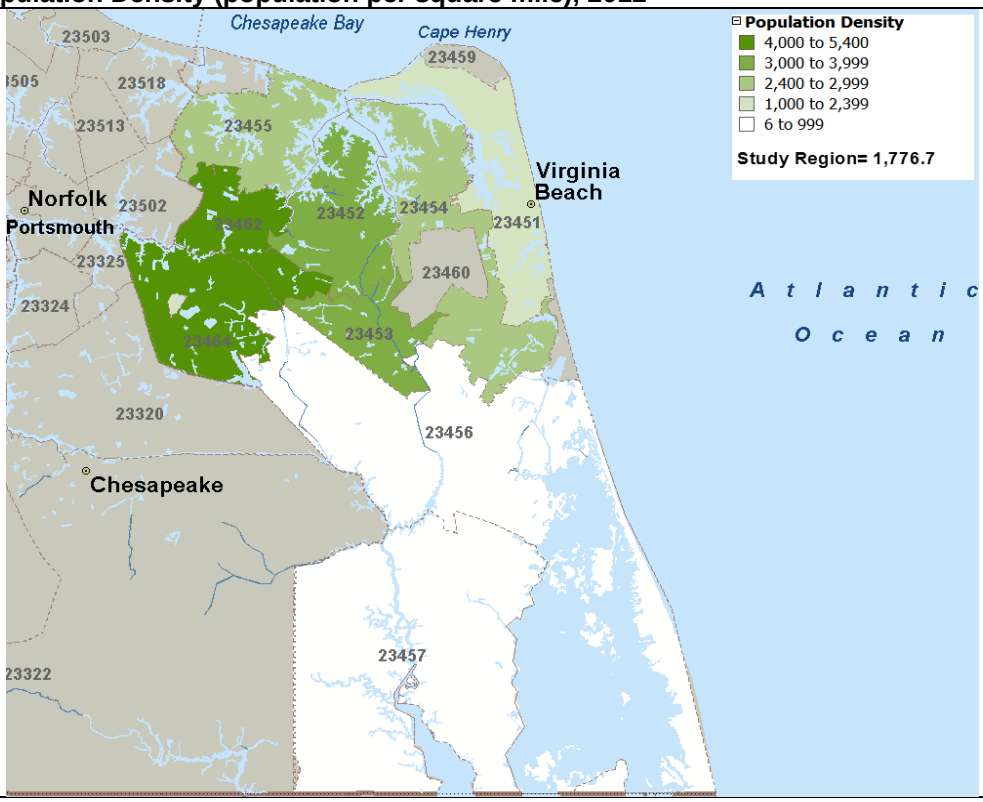
3. The maps are thematically shaded to show the zip code-level indicators in five groupings or 'quintiles'.

4. Gray shading indicates either zip codes not included in the SVBGH study region, or zero values for zip codes that are included in the SVBGH study region. SVBGH study region zip codes with zero values are noted.

Map 1: Total Population, 2012

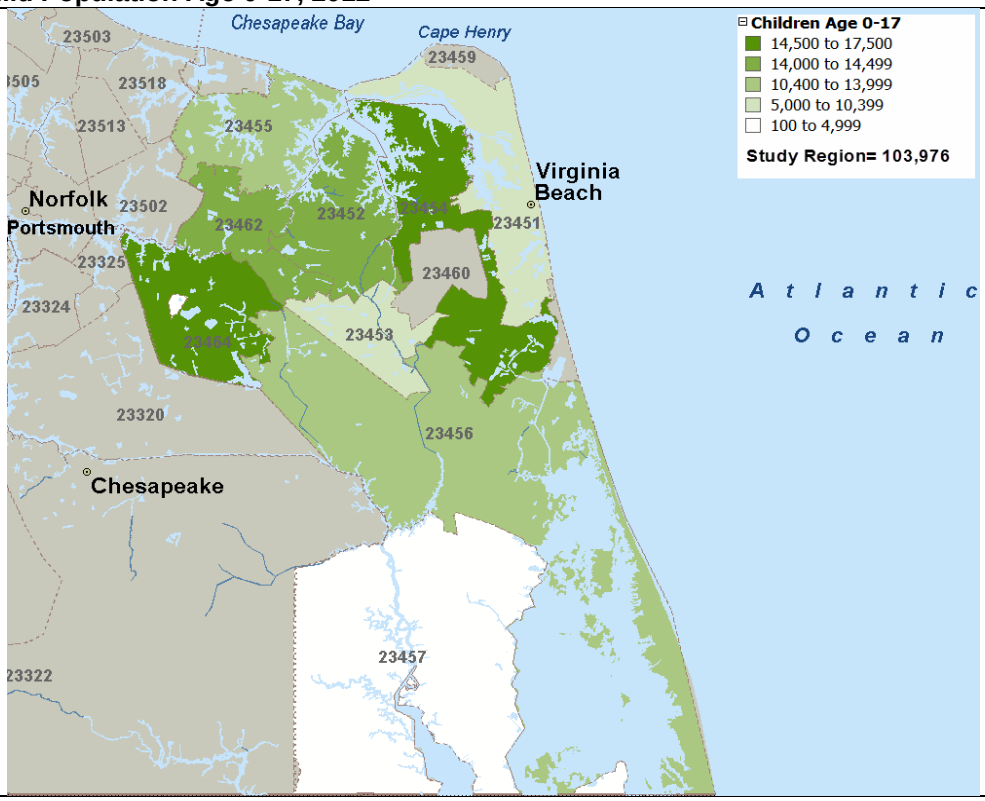


Map 2: Population Density (population per square mile), 2012

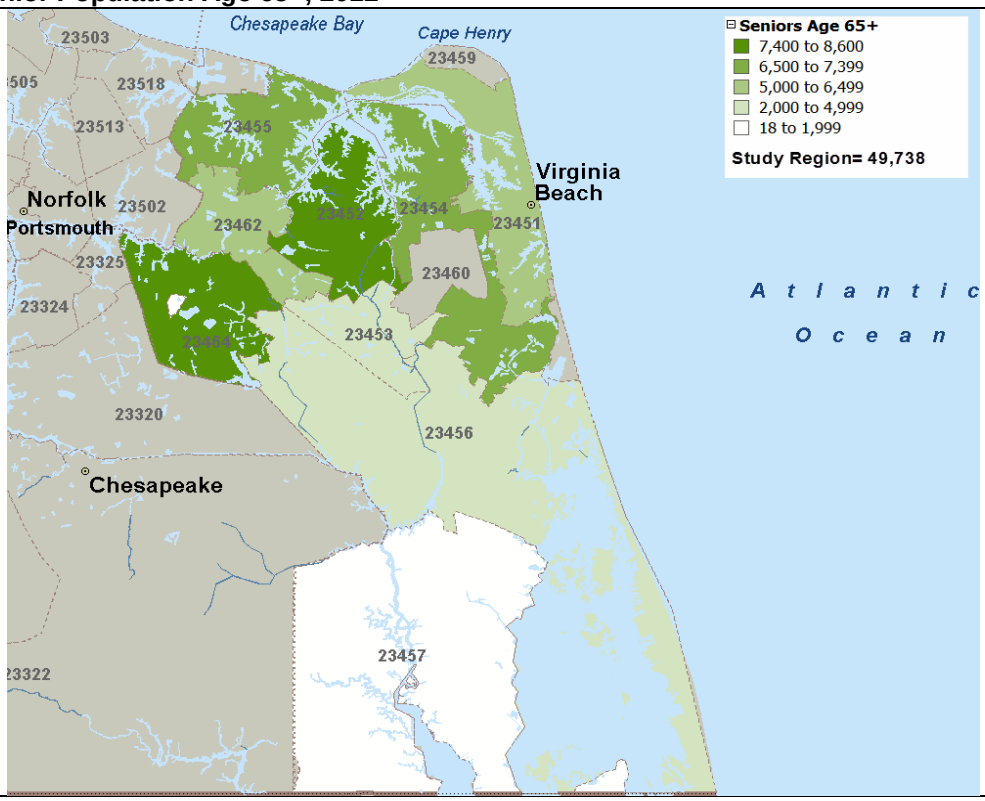


Source: Community Health Solutions analysis of estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 3: Child Population Age 0-17, 2012

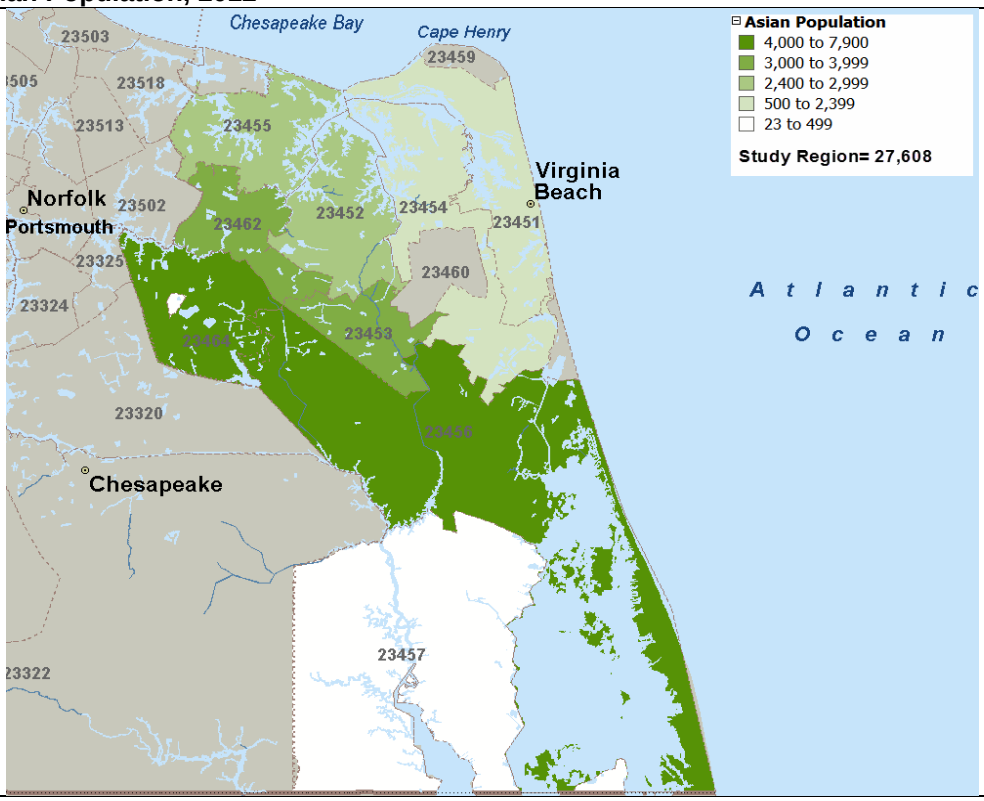


Map 4: Senior Population Age 65+, 2012

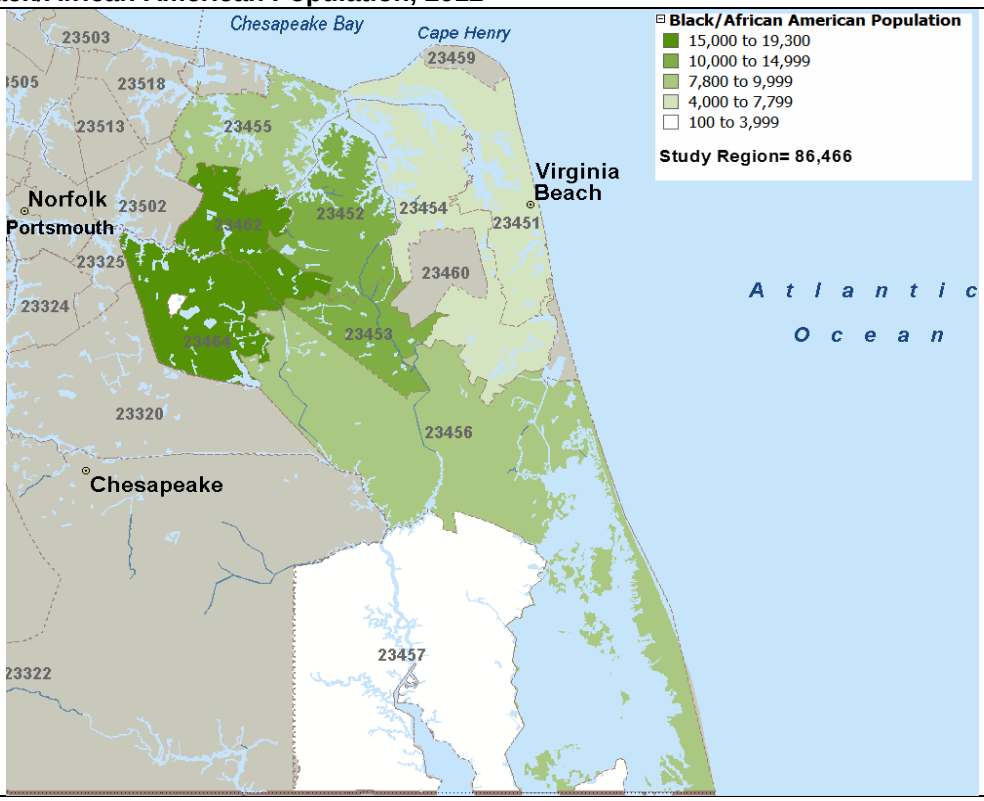


Source: Community Health Solutions analysis of estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 5: Asian Population, 2012

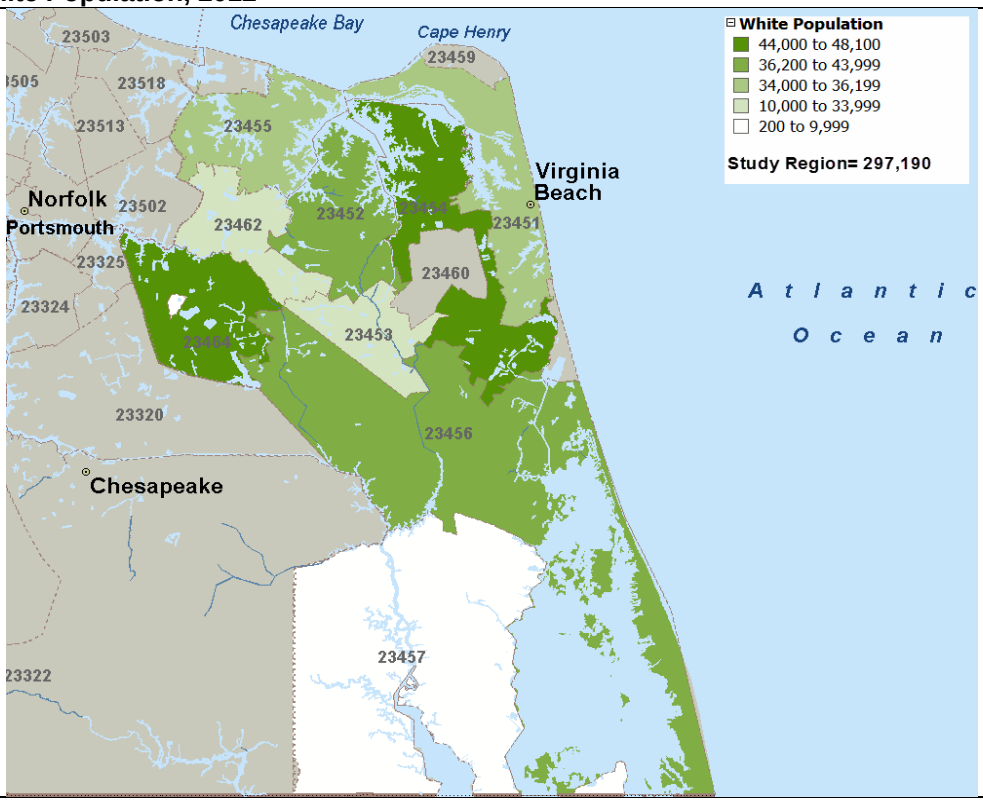


Map 6: Black/African American Population, 2012

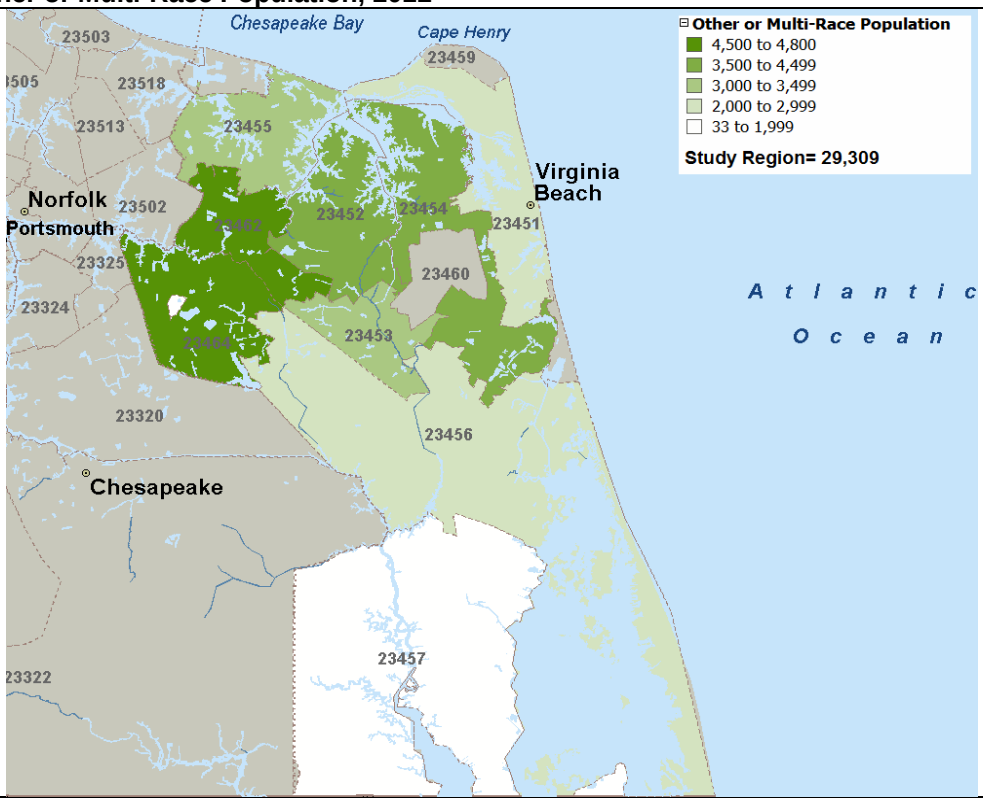


Source: Community Health Solutions analysis of estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 7: White Population, 2012

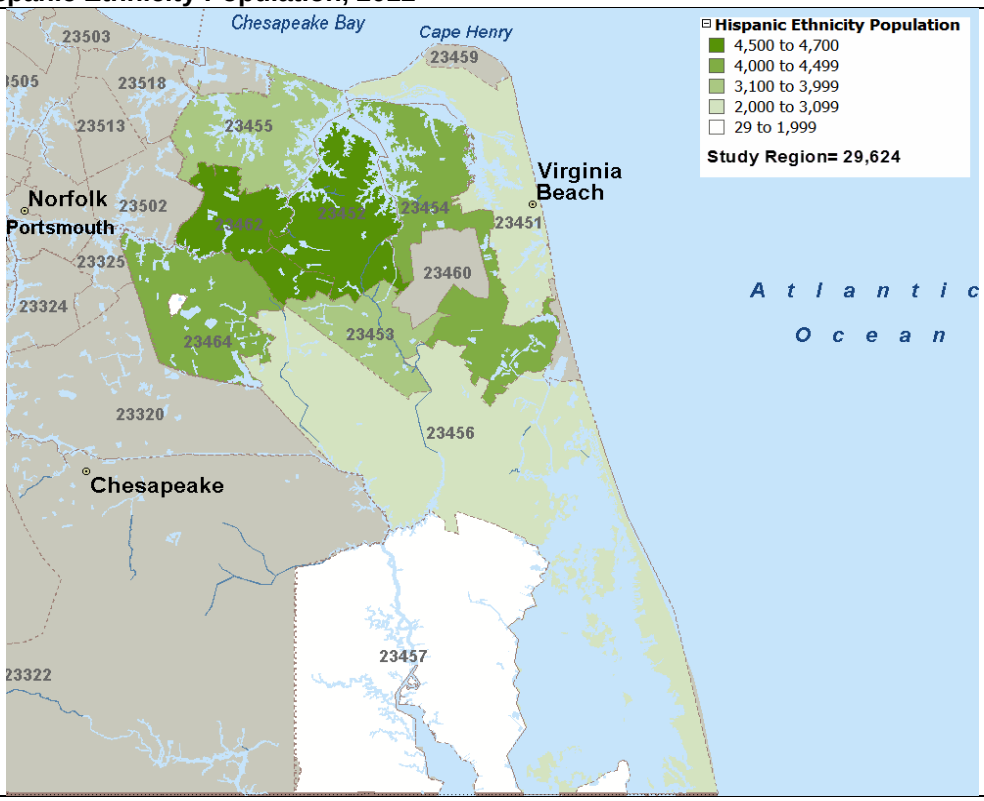


Map 8: Other or Multi-Race Population, 2012



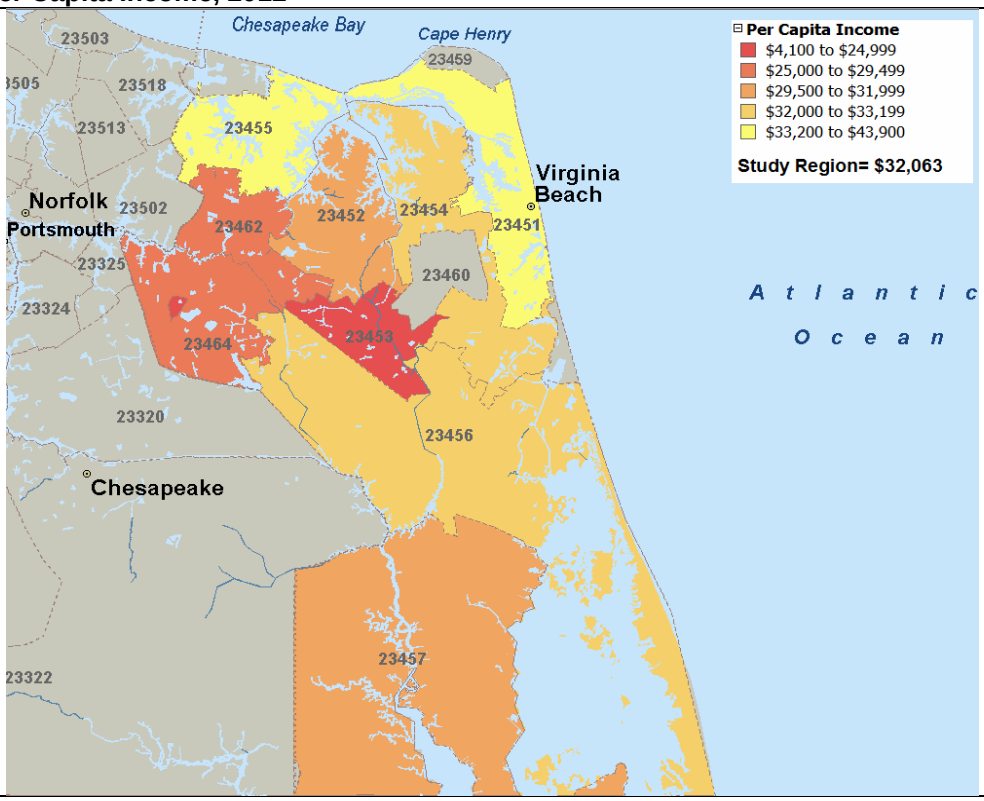
Source: Community Health Solutions analysis of estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 9: Hispanic Ethnicity Population, 2012

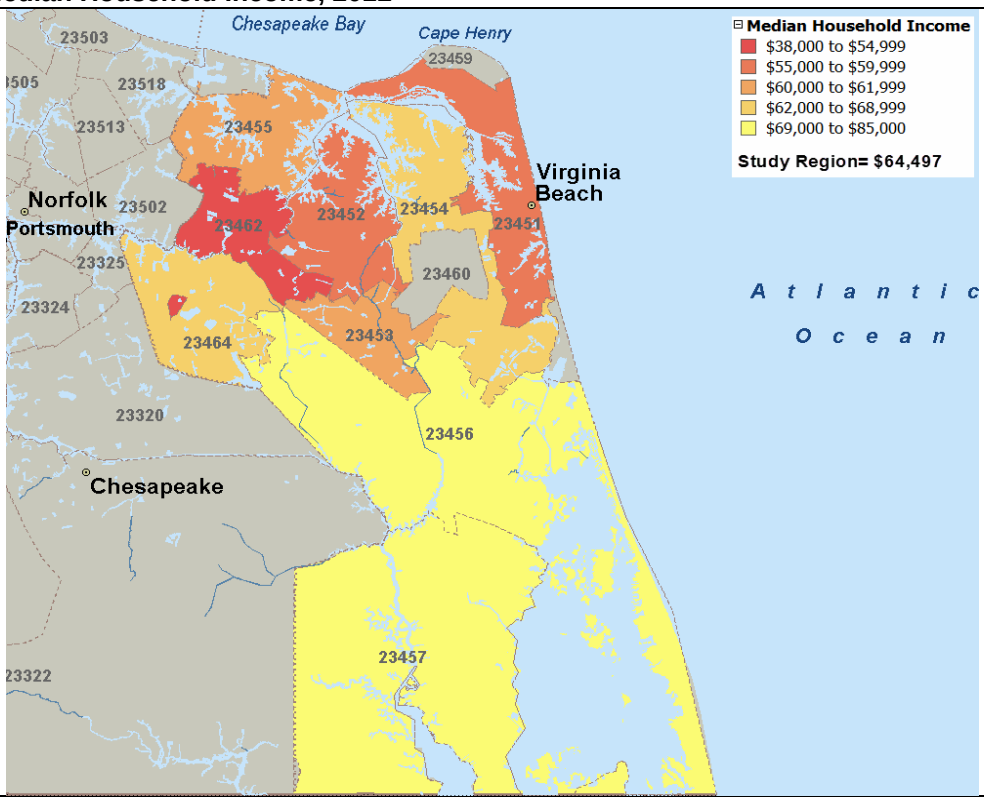


Source: Community Health Solutions analysis of estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 10: Per Capita Income, 2012

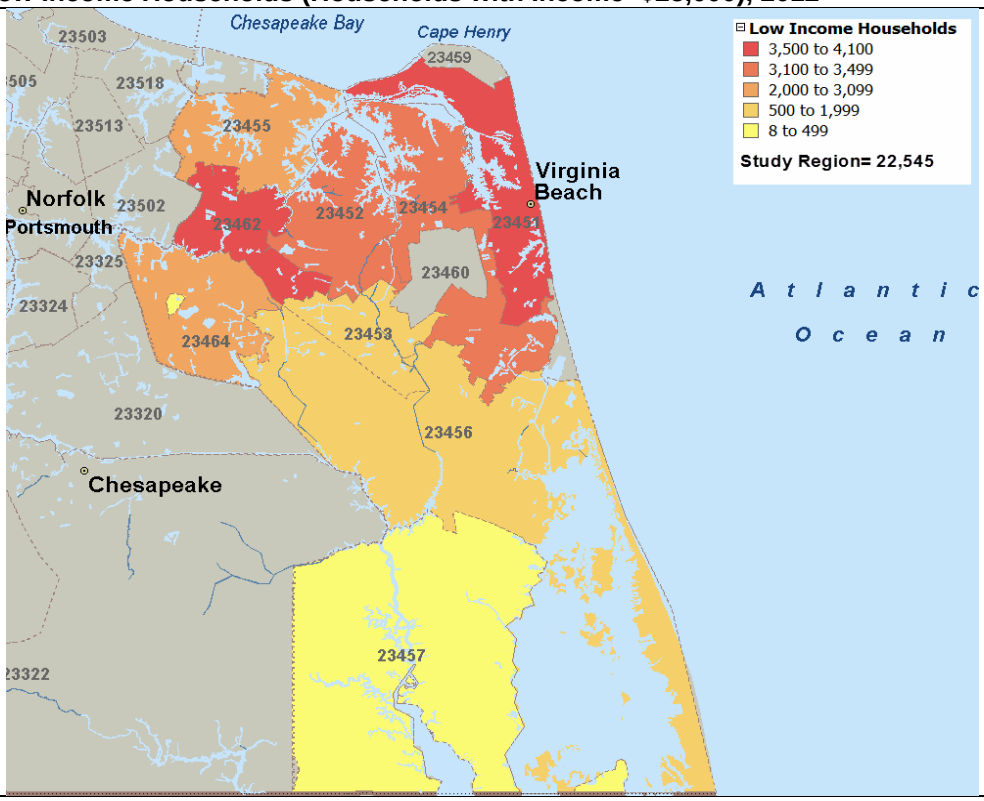


Map 11: Median Household Income, 2012

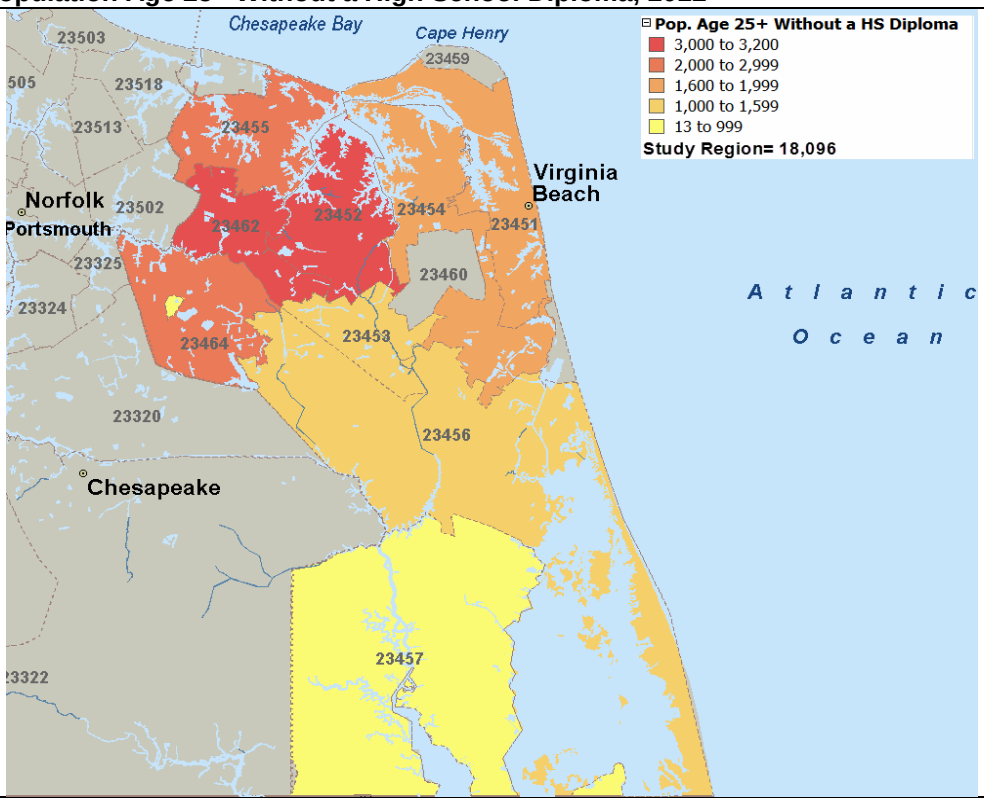


Source: Community Health Solutions analysis of estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 12: Low Income Households (Households with Income<$25,000), 2012

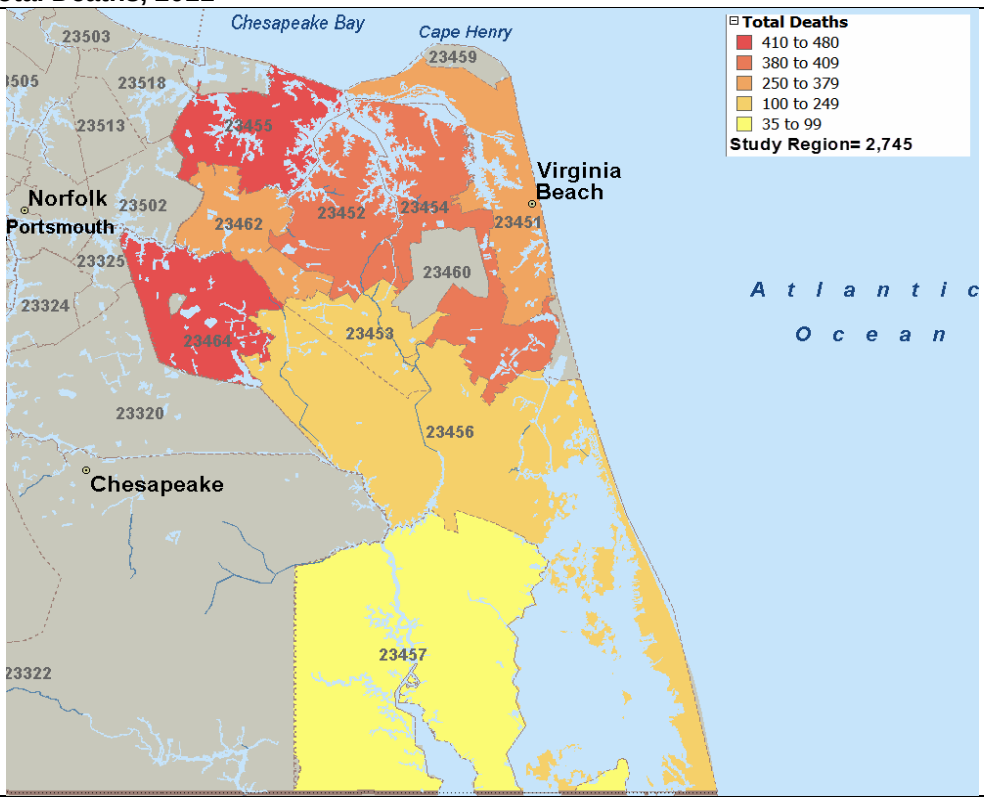


Map 13: Population Age 25+ Without a High School Diploma, 2012

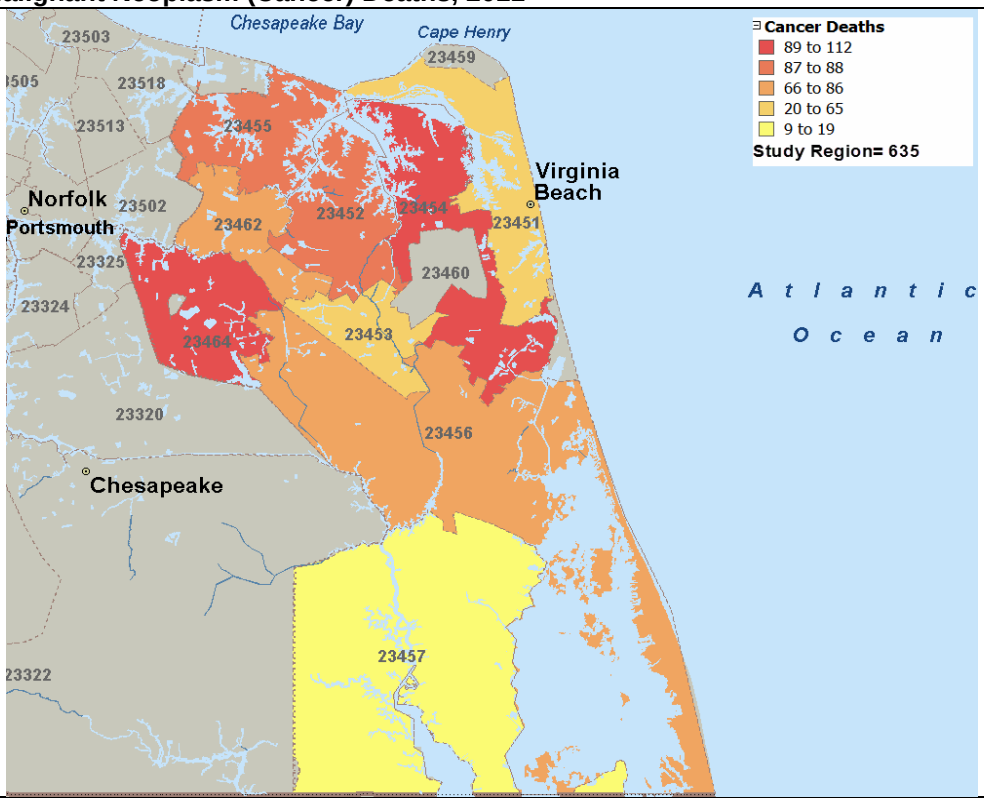


Source: Community Health Solutions analysis of estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 14: Total Deaths, 2011*

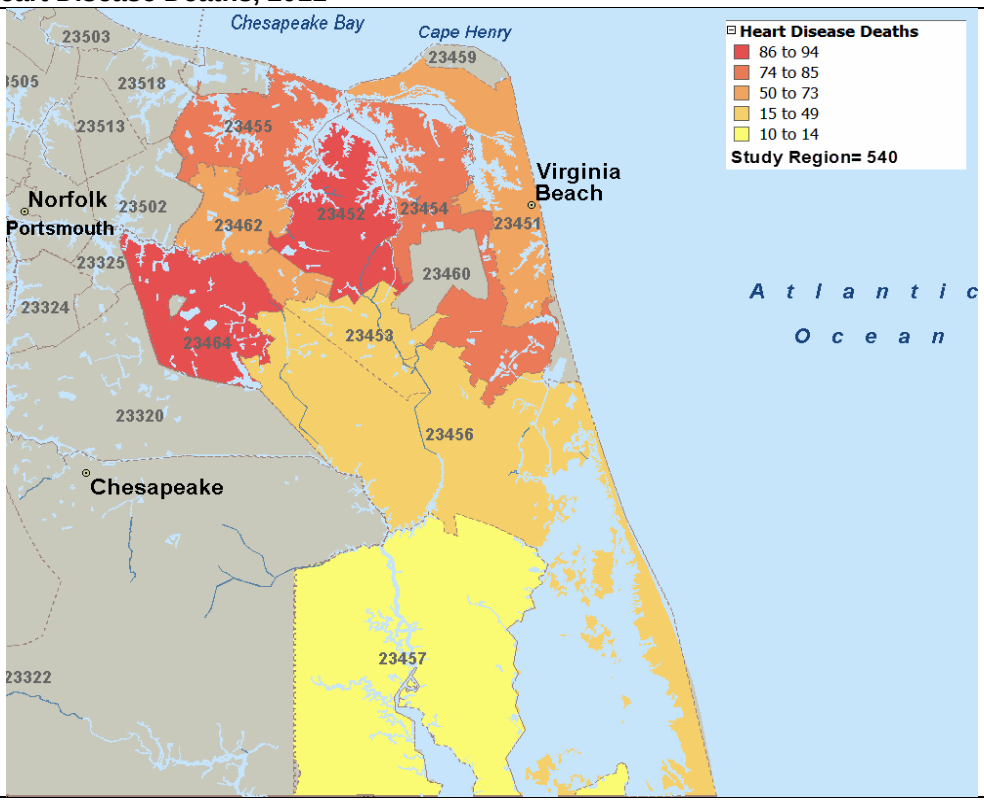


Map 15: Malignant Neoplasm (Cancer) Deaths, 2011*

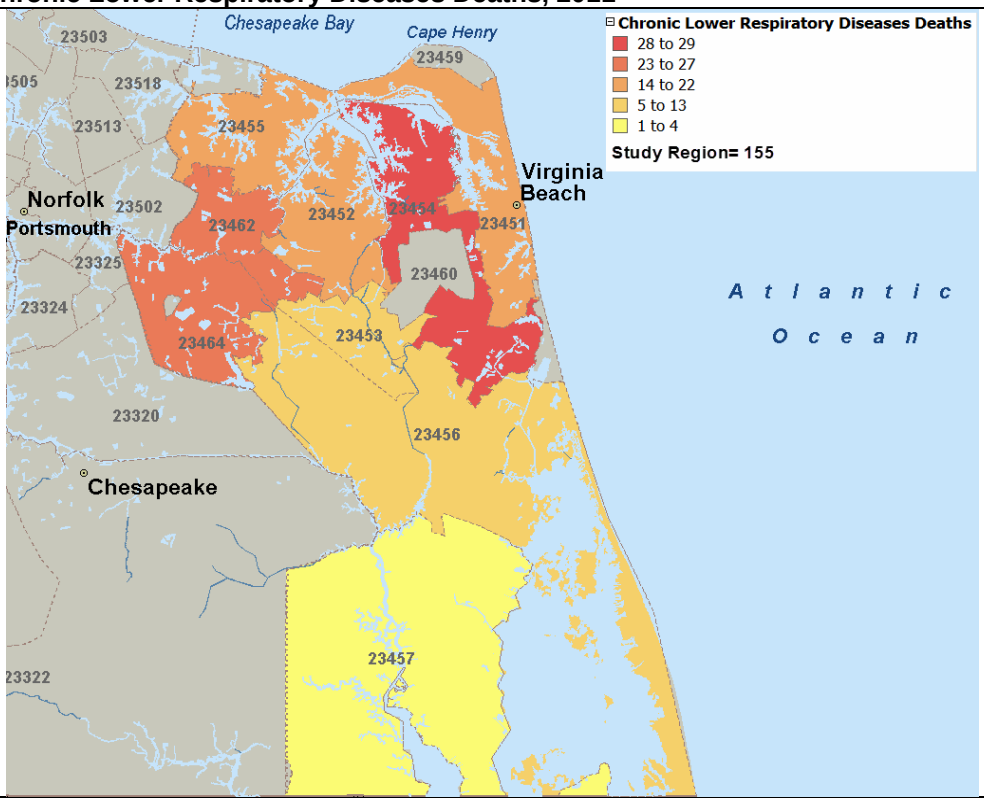


**There were no reported deaths for zip code 23463.*
Source: Community Health Solutions analysis of data from the Virginia Department of Health. See Appendix C. Data Sources for details.

Map 16: Heart Disease Deaths, 2011*



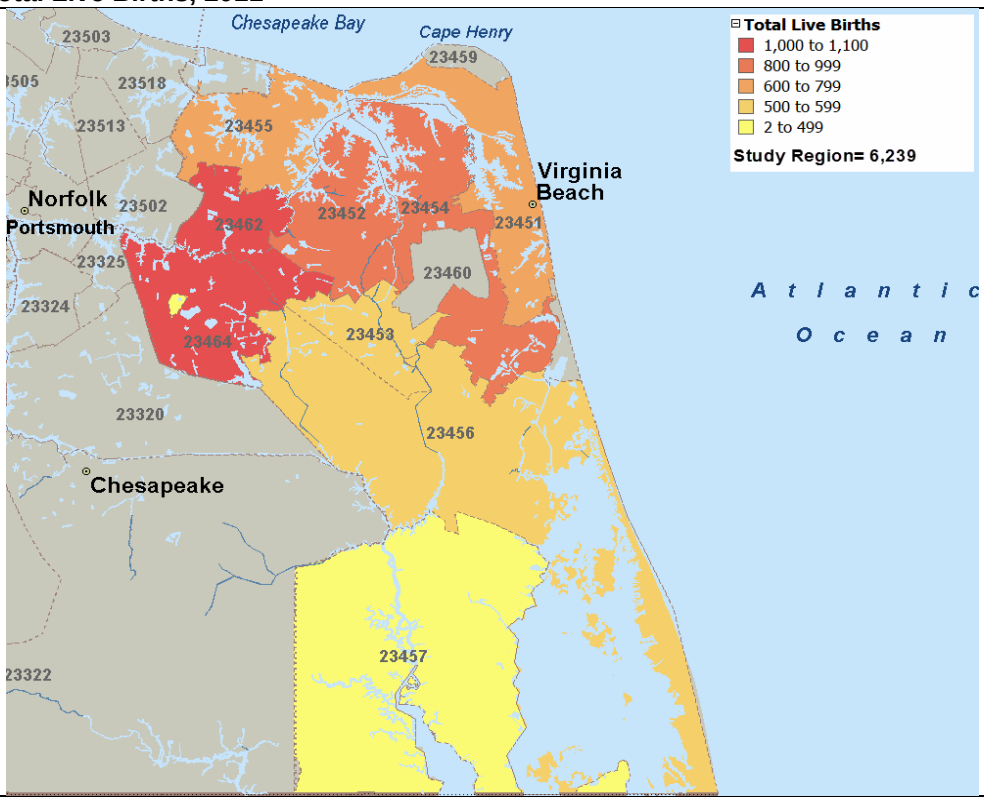
Map 17: Chronic Lower Respiratory Diseases Deaths, 2011*



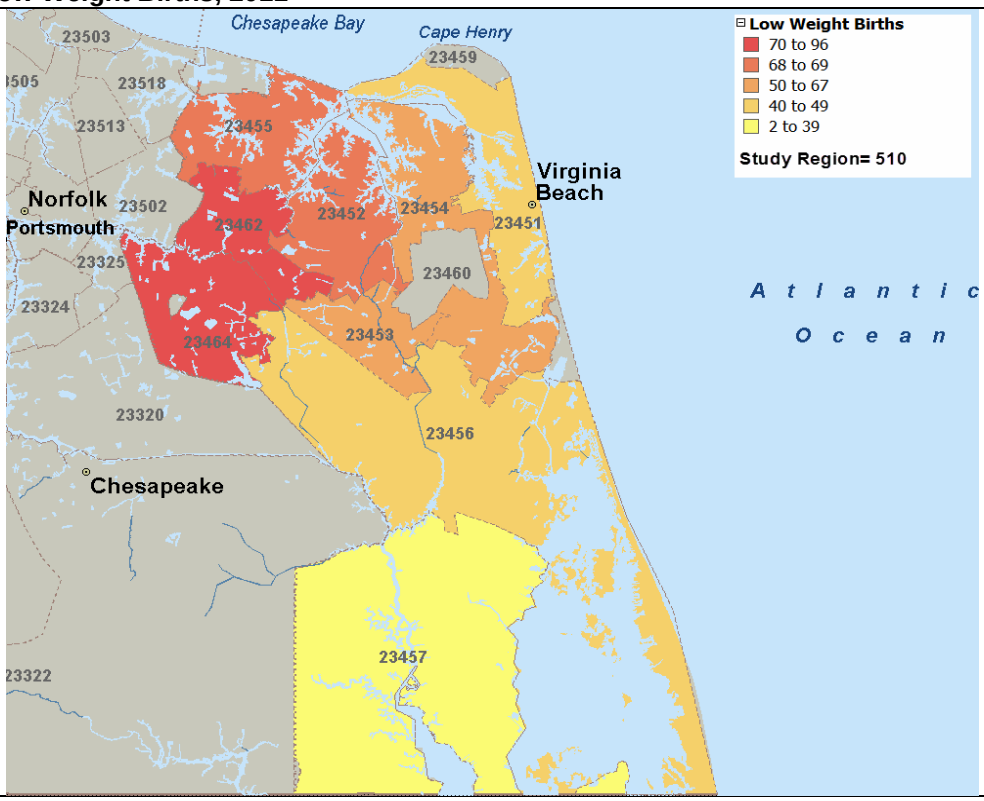
**There were no reported deaths for zip code 23463.*

Source: Community Health Solutions analysis of data from the Virginia Department of Health. See Appendix C. Data Sources for details.

Map 18: Total Live Births, 2011

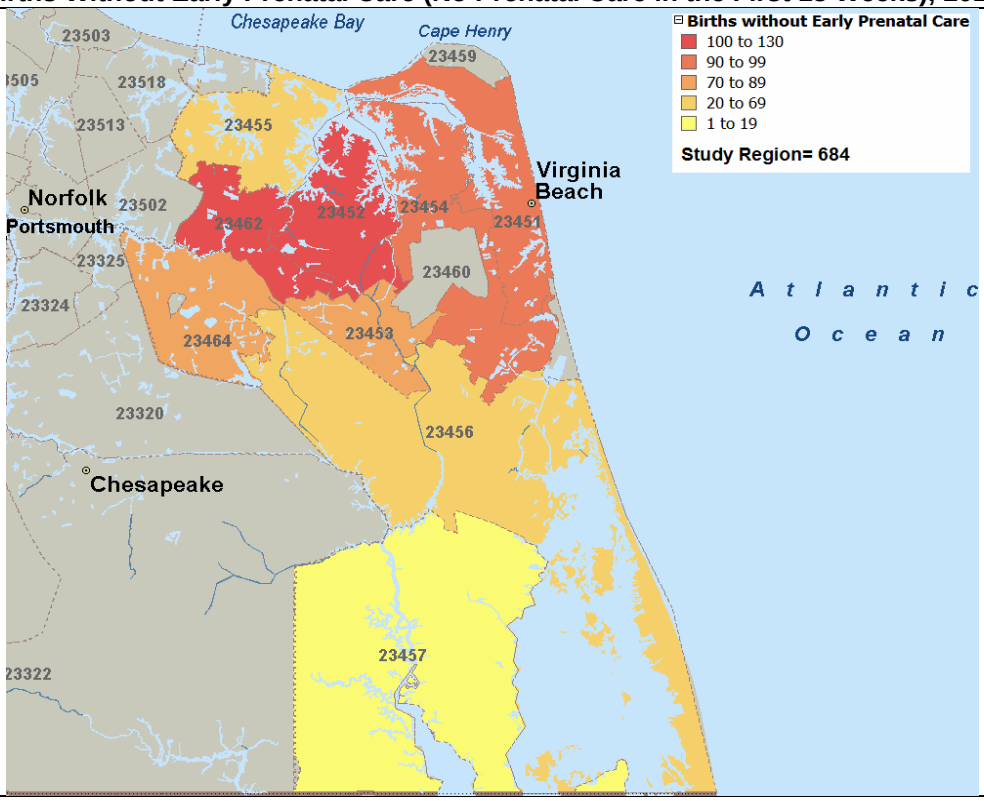


Map 19: Low Weight Births, 2011*

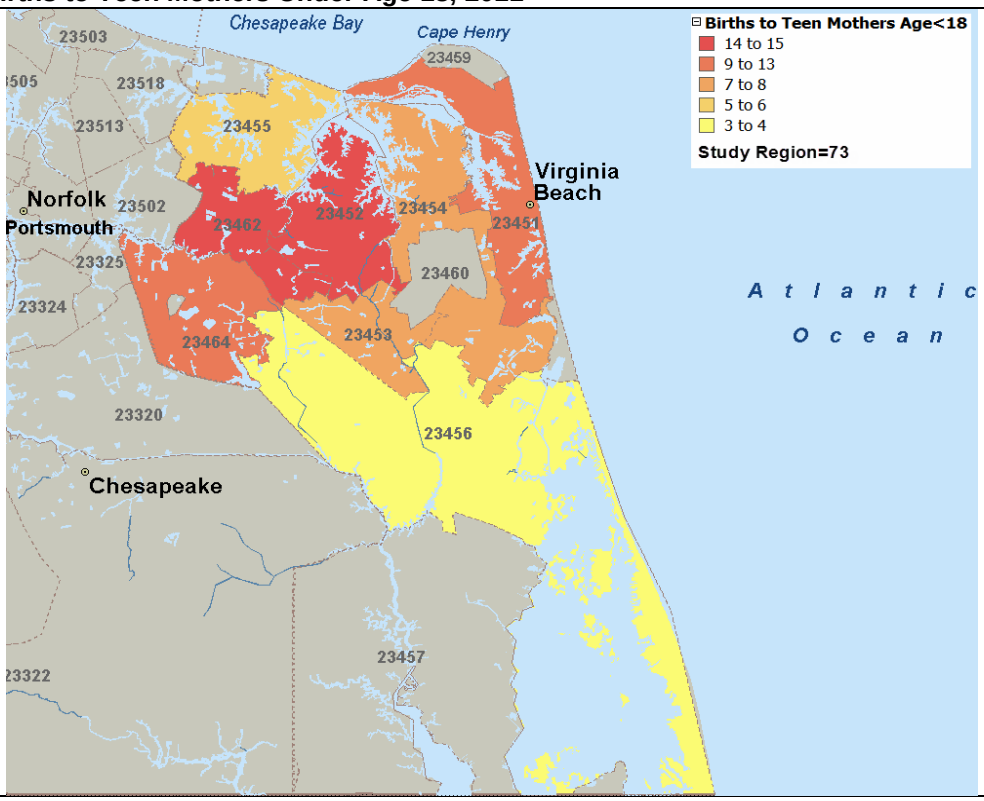


** There were no reported low weight births for zip code 23463.*
Source: Community Health Solutions analysis of data from the Virginia Department of Health. See Appendix C. Data Sources for details.

Map 20: Births Without Early Prenatal Care (No Prenatal Care in the First 13 Weeks), 2011*

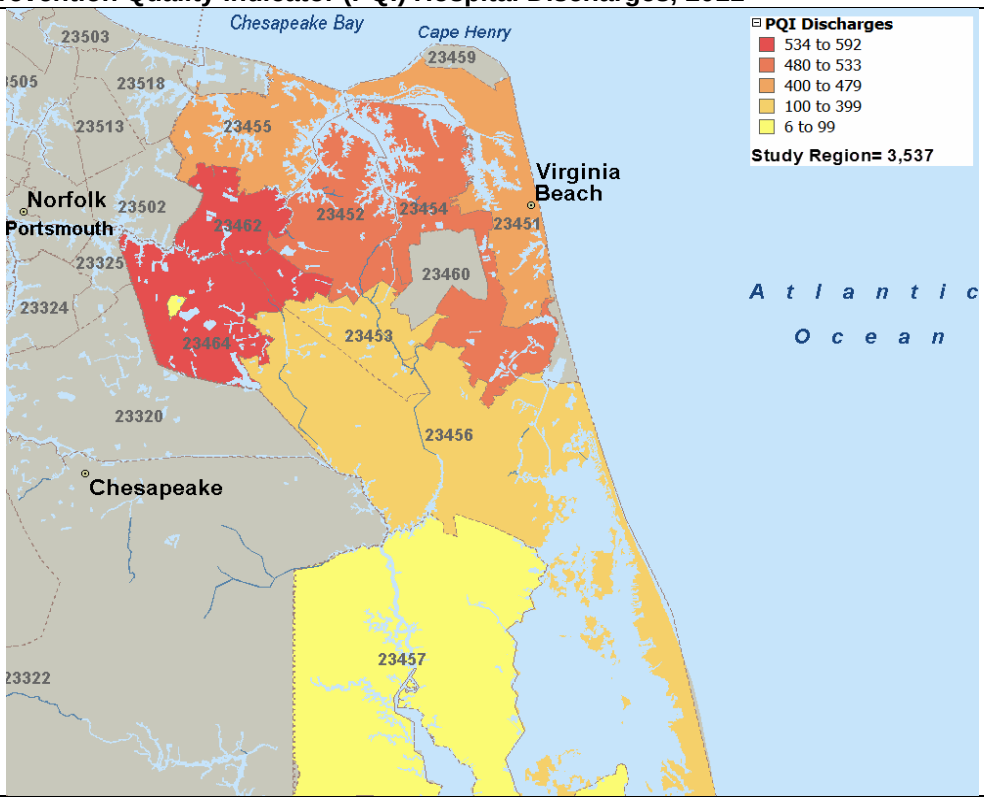


Map 21: Births to Teen Mothers Under Age 18, 2011*

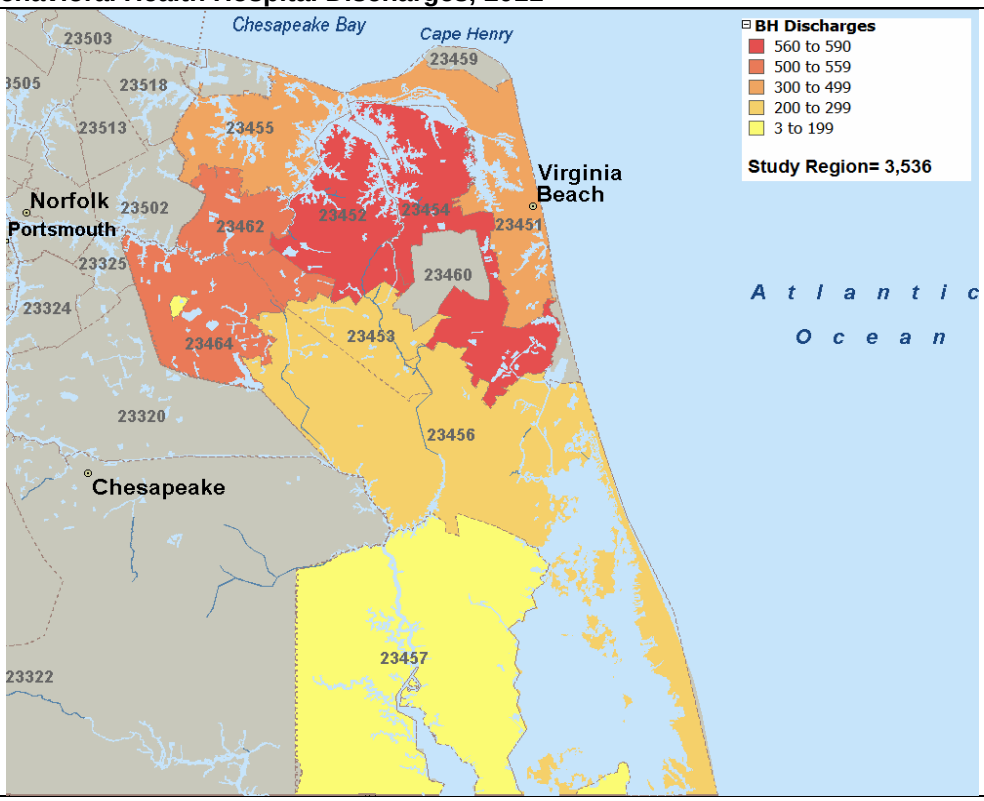


**There were no reported births without early prenatal care for zip code 23463. There were no reported births to teen mothers under age 18 for zip codes 23457 and 23463.*
Source: Community Health Solutions analysis of data from the Virginia Department of Health. See Appendix C. Data Sources for details.

Map 22: Prevention Quality Indicator (PQI) Hospital Discharges, 2011

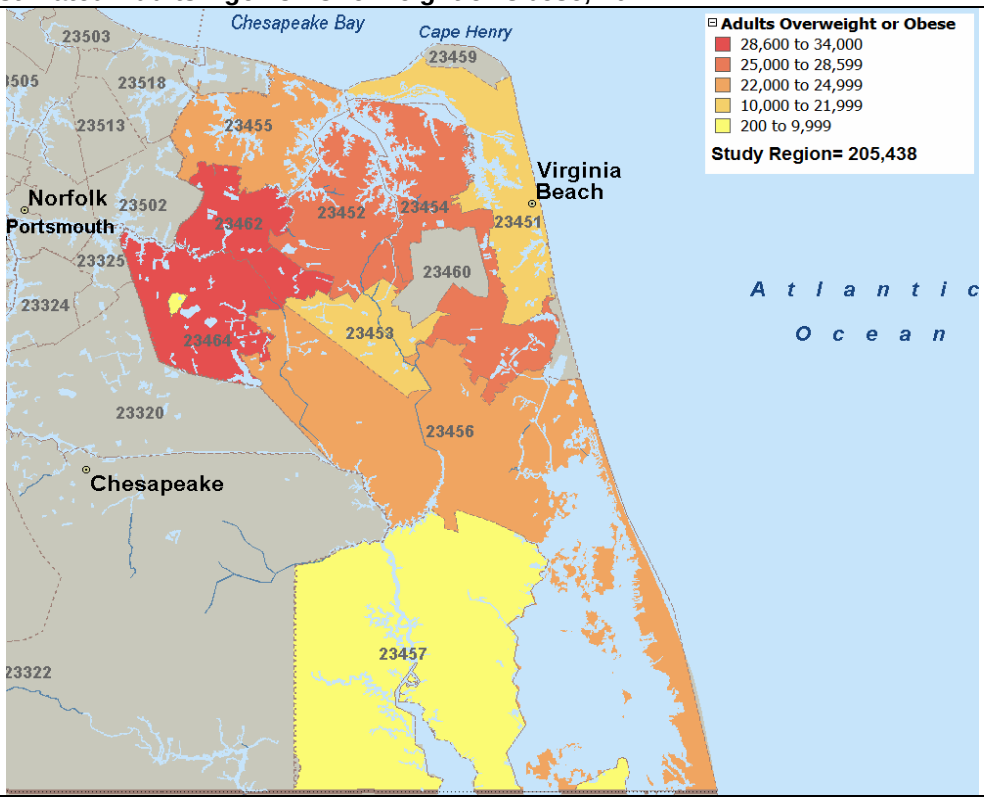


Map 23: Behavioral Health Hospital Discharges, 2011

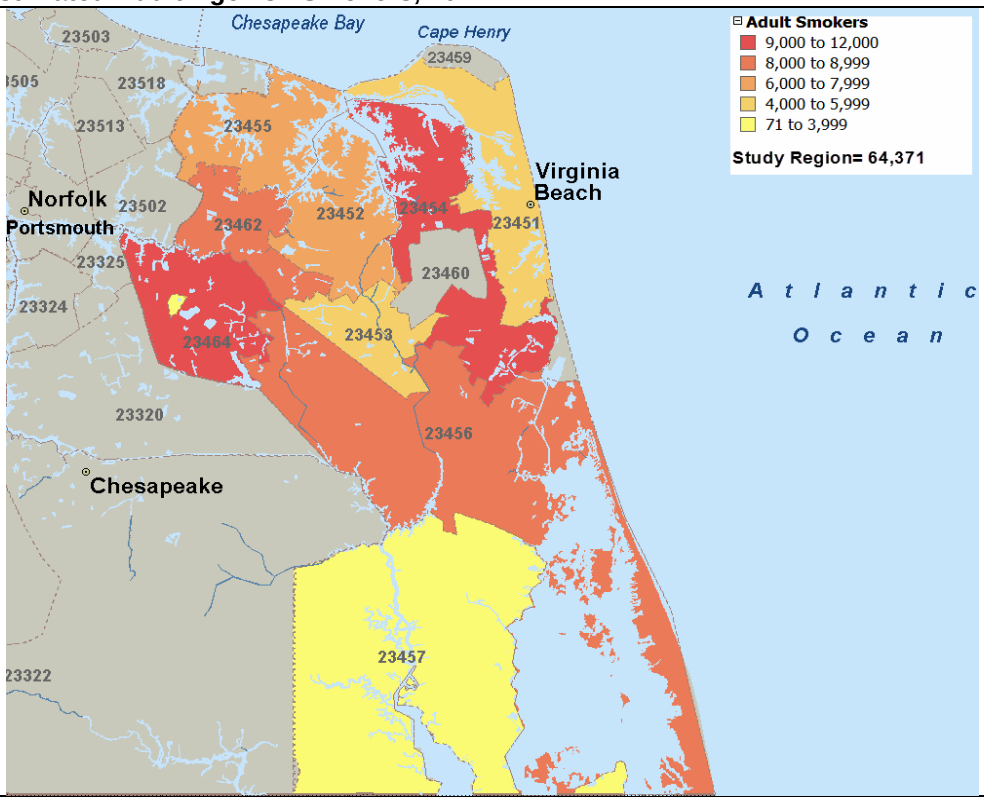


Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information, Inc. See Appendix C. Data Sources for details.

Map 24: Estimated Adults Age 18+ Overweight or Obese, 2012

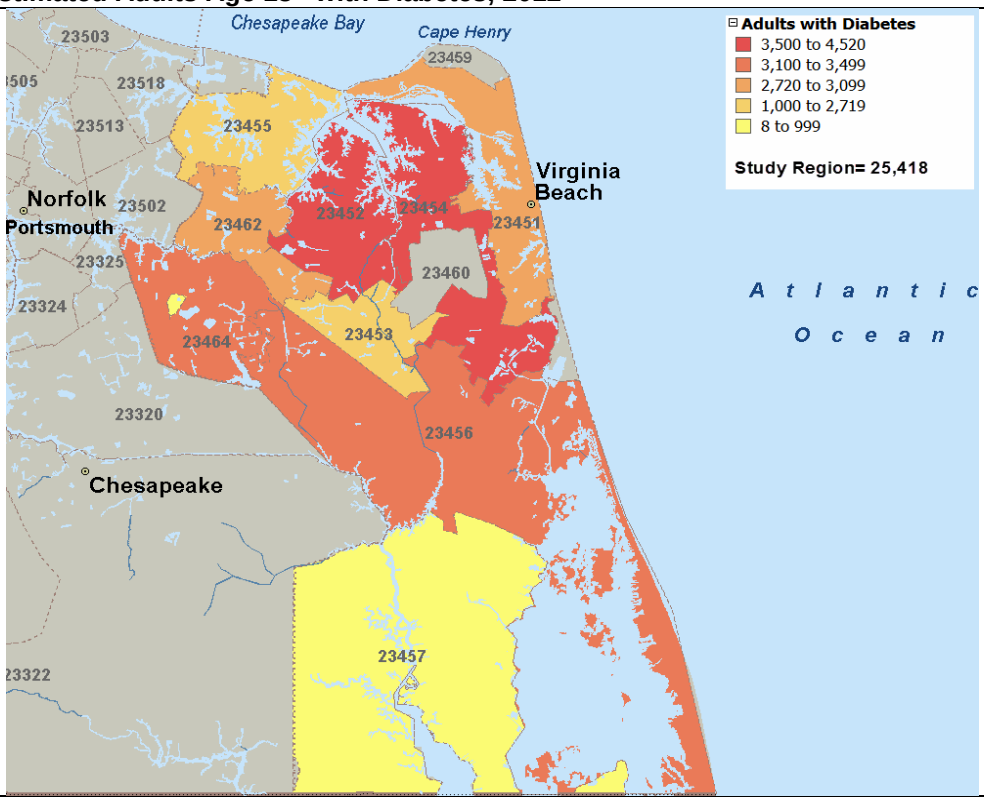


Map 25: Estimated Adult Age 18+ Smokers, 2012

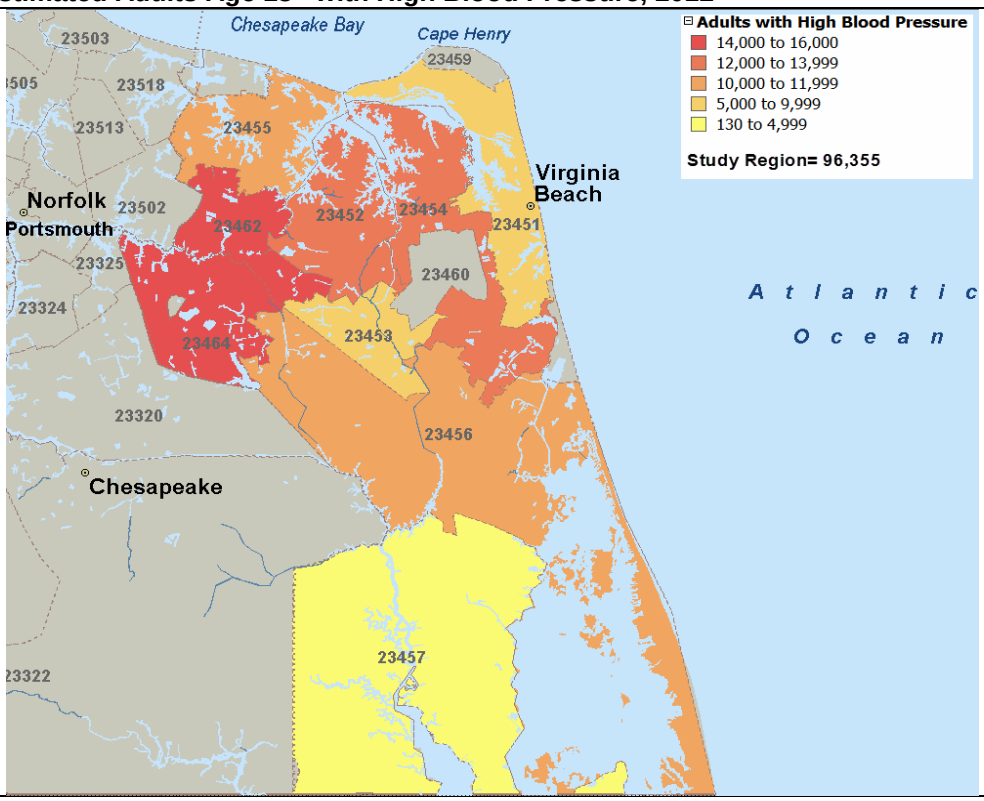


Source: Estimates based on Community Health Solutions analysis of Virginia Behavioral Risk Factor Surveillance System data and estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 26: Estimated Adults Age 18+ with Diabetes, 2012

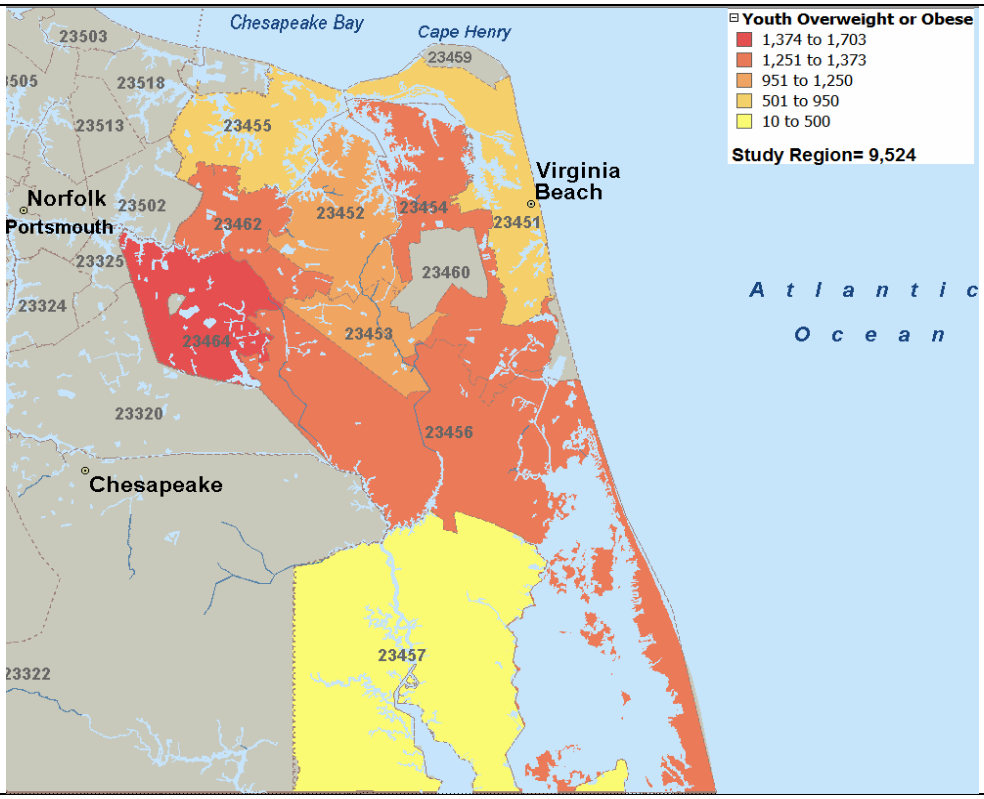


Map 27: Estimated Adults Age 18+ with High Blood Pressure, 2012

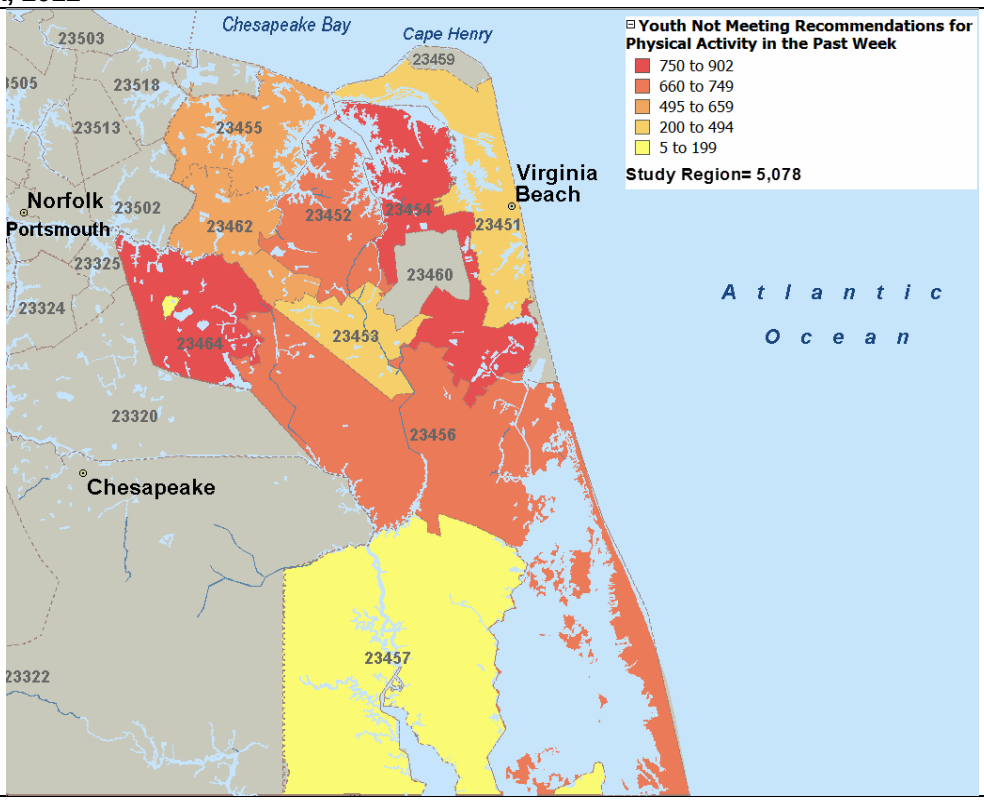


Source: Estimates based on Community Health Solutions analysis of Virginia Behavioral Risk Factor Surveillance System data and estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 28: Estimated Youth Age 14-19 Overweight or Obese, 2012

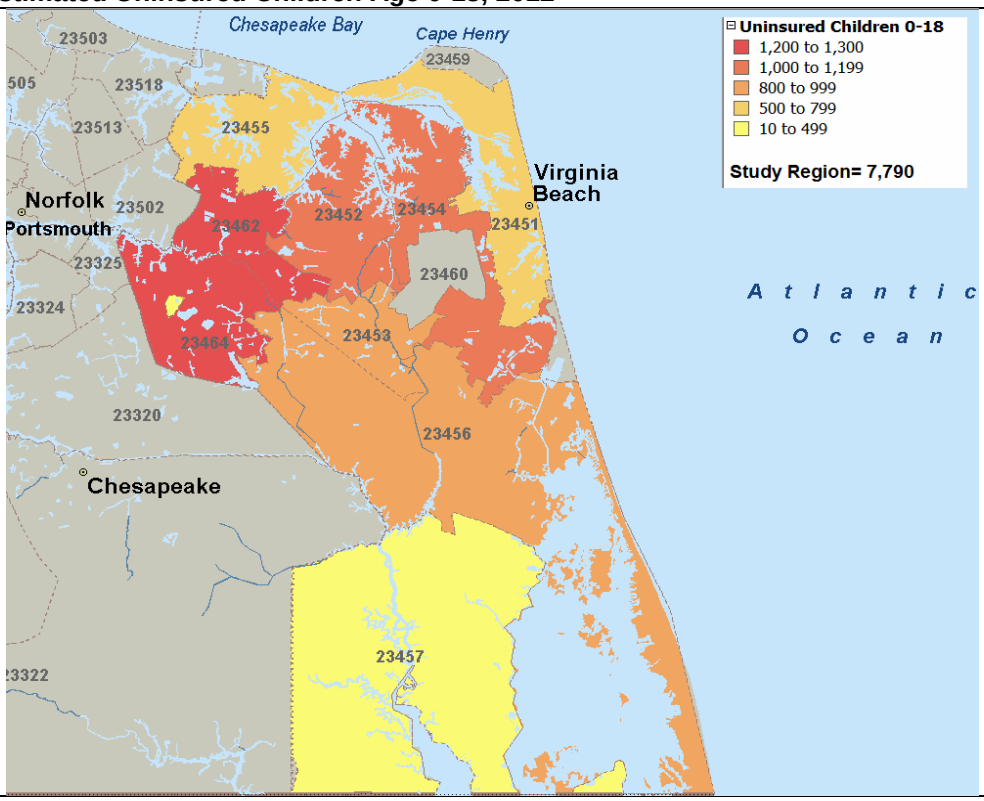


Map 29: Estimated Youth Age 14-19 Not Meeting Recommendations for Physical Activity in the Past Week, 2012

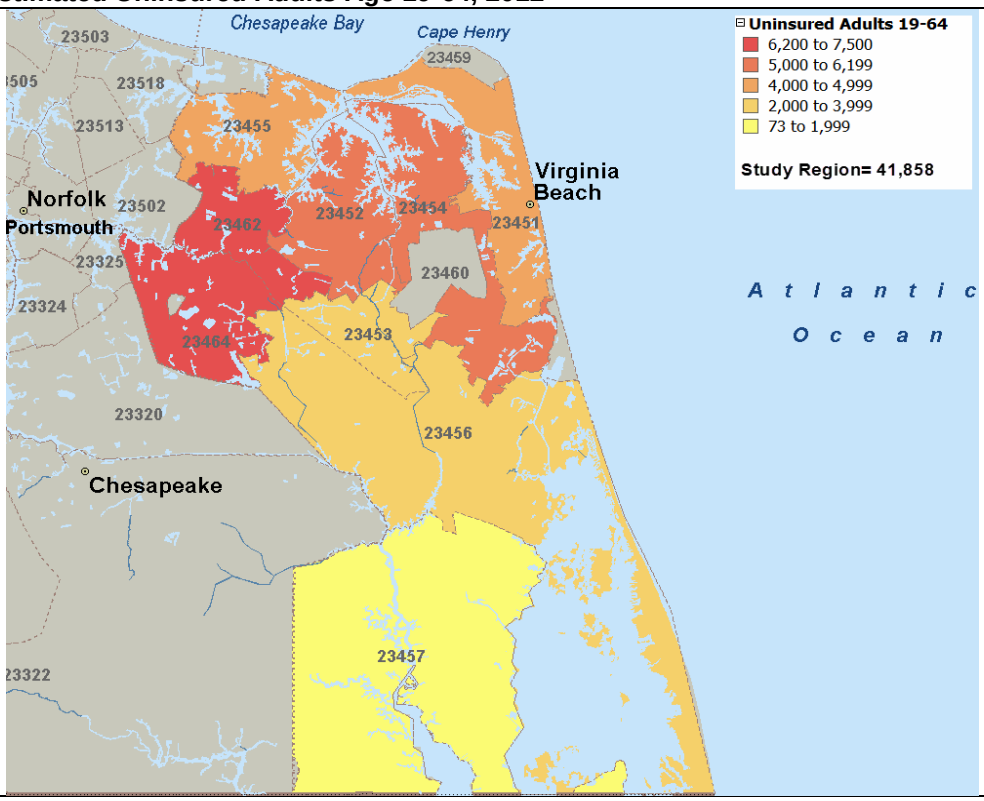


Source: Estimates based on Community Health Solutions analysis of Virginia Youth Risk Behavioral Surveillance System data and estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

Map 30: Estimated Uninsured Children Age 0-18, 2012



Map 31: Estimated Uninsured Adults Age 19-64, 2012



Source: Community Health Solutions estimates based on Community Health Solutions analysis of Profile of the Uninsured report produced for Virginia Health Care Foundation by the Urban Institute and estimates from Alteryx, Inc. See Appendix C. Data Sources for details.

APPENDIX B. Community Insight Profile- Additional Ideas and Suggestions for Improving Community Health

Survey respondents were given the option to submit additional ideas and suggestions for improving community health. The open-ended responses are listed below.

Response #	Reponses
1	Access Partnership has had a wonderful collaboration with Sentara Hospitals since the organization was established. I wish it was as easy to work with other divisions (SMG) as it is to work with the hospital division.
2	Bring your bus to the Senior Center!
3	Continue to support the mission of the Free Foundation, so that the mobility needs of the members of the community can be met.
4	• Greater focus on Alzheimer's disease.
5	Hospital services, including: • Discharge planning; setting up post discharge appointments for patients before discharge, and assessing safety prior to discharge • Better communications between doctors and families during hospitalization • Patient mobilization during hospitalization
6	I believe Sentara is cutting edge and provides our community high quality care.
7	I think that improving health occurs on an individual level as well as an overall community level. As an individual (outside of my job) I had a misread CT scan that led me to spend a large amount of money on follow up tests, surgeries, and a visit to John Hopkins; all to find out that the original CT scan that the doctors used as a basis for my treatment was misread at a Sentara facility. Then, who do you go to at Sentara to report on the misread CT scan? The system may be too big to handle individual health issues. So, there needs to be a system of checks and balances for the output of the Health System. Who checks CT scan reports for quality and accuracy? How quality is monitored other than government-required data reporting? I think the public appreciates Sentara and I know that our nursing students get excellent clinical experiences at Sentara. Thank you, [respondent name]
8	Improving health is a continuum involving patients, staff, MDs, community and ancillary services. Outside looking in, I see Sentara as a leader in cutting edge health care to include new treatment modalities and expertise in up to date clinical practices. In the employee arena, I see room for improvement. Happy, well trained and educated employees exude their job satisfaction to the customers which in turn results in high patient satisfaction numbers. Not privy to the budget numbers and realizing that Sentara is a business and needs to operate in the positive I find the practice of “furloughing” employees, when the census is down, a policy that might bear further review. When an employee making $10.00/hr. is sent home four hours early, does that $40.00 really impact the general welfare of Sentara? Down time is a great opportunity for employees to perform other duties, bond and form relationships with colleagues that results in accountability and pride and gives a sense that they are in fact a valuable asset to Sentara. In difficult financial times $40 may really impact someone’s life. [If] Sentara goes the extra mile, the employee will in turn do the same.
9	Increase leadership with the development of a continuum of care to address mental health issues for children and adolescents.
10	• Increase staffing (nurses) on the floor. • Provide more mental health services. • Provide more community awareness and educational programs for childhood obesity prevention in consort with the local health departments.

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APPENDIX B. Community Insight Profile-Additional Ideas and Suggestions for Improving Community Health (continued)

11	• One issue that I think will need more attention is geriatric care. This of course would include long term care (in or out of the home). • I feel there is not enough variety of service that is also affordable and available for families with elderly members. • I also think it would be helpful to have more doctors whose practices are geared specifically to geriatric patients: coordinating all medication and reviewing all the various medical conditions that one patient may have. • A primary physician who specializes in geriatric medicine.
12	Provide educational resources to local recreational activities/organizations to help prevent injuries.
13	Strengthening the coordination of care, services and information sharing with partners would be helpful. As an example, a clinician of Sentara was diagnosed recently with Pertussis. Your institution then sent out letters to hundreds of patients stating that they might be at risk for Pertussis as they had recently seen this doctor. The patients were instructed to see their PCP if they had concerns or symptoms compatible with Pertussis. One of the patients did have symptoms and she went to her PCP office and showed them the letter. She was not seen that day. She was not given antibiotic treatment. She was told they did not perform the nasopharyngeal swab tests for Pertussis. She was not given any care. All this happened at her Sentara-based PCP office. Ugh.
14	Support free clinics on various topics in every city.
15	To the extent not already done, EHR sharing with all area providers.
16	• We are engaged in a Care Transitions pilot with Sentara Leigh using the Coleman model. The initial results show a decline in readmissions for the very limited number of patients who have participated. We think this pilot should be expanded to SNG, SVFG and SPA, in that order, using funds from the hospitals for the interventions. • We would also like to see greater linkages between the hospitals and Senior Services in support of chronic disease self-management community based classes. Thank you for the opportunity to respond.
17	We need to expand the community services so that care is provided where people live, work, play and worship. I think that faith-based partnerships could be expanded as well as expansion of partnerships with other school of health professions, particularly in the area of community outreach.
18	• We need to form partnerships in our community to assist with the increasing substance use disorders and lack of resources and believe that we need to set up some medical detoxification services and substance use disorders ERs and psychiatric ERs to better manage the growing numbers of these populations. • Medical clearance for TDOs is problematic and some joint lobbying needs to occur with the State Legislature to change the laws.
19	Work more closely with all area safety net clinics to provide in-kind services for low-income uninsured individuals. More funding through the Sentara Health foundation for health safety net clinics.

APPENDIX C. Data Sources

Section	Source
Part I:Community Insight Profile	
1) Survey Respondents 2) Community Health Concerns 3) Community Service Gaps 4) APPENDIX B. Community Insight Profile-Additional Ideas and Suggestions for Improving Community Health	Community Health Solutions analysis of *Community Insight* survey responses submitted by community stakeholders.
Part II: Community Indicator Profile	
1) Health Demographic Trend Profile 2) Health Demographic Snapshot Profile (also Appendix A. Maps 1-13)	Community Health Solutions analysis of US Census data and local demographic estimates from Alteryx, Inc. (2012 and 2017). Note that demographic estimates may vary from other sources of local demographic indicators.
3) Mortality Profile (also Appendix A. Maps 14-17)	Community Health Solutions analysis of Virginia Department of Health death record data and local demographic estimates from Alteryx, Inc (2011).
4) Maternal and Infant Health Profile (also Appendix A. Maps 18-21)	Community Health Solutions analysis of Virginia Department of Health birth record data and estimates from Alteryx, Inc (2011).
5) Preventable Hospitalization Profile (also Appendix A. Map 22) 6) Behavioral Health Hospitalization Profile (also Appendix A. Map 23)	Community Health Solutions analysis of hospital discharge data from the Virginia Health Information (VHI) dataset (January 1-December 31, 2011) and local demographic estimates from Alteryx, Inc. (2011). Data include discharges for Virginia residents from Virginia hospitals reporting to Virginia Health Information, Inc. These data do not include discharges from state behavioral health facilities or federal (military) facilities. Data reported are based on the patient's primary diagnosis. *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.*
7) Adult Health Risk Factor Profile (also Appendix A. Maps 24-27)	Estimates of chronic disease and risk behaviors for adults 18+ were produced by Community Health Solutions using: • A multi-year dataset (2006-2010)from the Virginia Behavioral Risk Factor Surveillance System (BRFSS).For more information on BRFSS visit: http://www.cdc.gov/brfss/about/index.htm • Local demographic estimates from Alteryx, Inc. (2012) Estimates are used when there are no primary sources of data available at the local level. The statistical model to produce the estimates was developed by Community Health Solutions. The estimates are for planning purposes only and are not guaranteed for accuracy. The table does not include a comparison to Virginia statewide rates because the local estimates were derived from state-level data. Differences between local rates and state rates may reflect estimation error rather than valid differences.

8) Youth Health Risk Factor Profile (also Appendix A. Maps 28)	Estimates of risk behaviors for children age 14-19 were produced by Community Health Solutions using: • Data from the Virginia Youth Risk Behavioral Surveillance System from the Centers for Disease Control (2011). For more information on YRBSS visit: http://www.cdc.gov/HealthyYouth/yrbs/index.htm • Local demographic estimates from Alteryx, Inc. (2012). Estimates are used when there are no primary sources of data available at the local level. The statistical model to produce the estimates was developed by Community Health Solutions. The estimates are for planning purposes only and are not guaranteed for accuracy. The table does not include a comparison to Virginia statewide rates because the local estimates were derived from state-level data. Differences between local rates and state rates may reflect estimation error rather than valid differences.
9) Uninsured Profile (also Appendix A. Maps 30-31)	Estimates of uninsured nonelderly age 0-64 were produced by Community Health Solutions using: • *The Profile of the Uninsured* report produced for Virginia Health Care Foundation by the Urban Institute (2011) • Local Demographic estimates from Alteryx, Inc. (2012) Estimates are used when there are no primary sources of data available at the local level. The statistical model to produce the estimates was developed by Community Health Solutions. The estimates are for planning purposes only and are not guaranteed for accuracy. The table does not include a comparison to Virginia statewide rates because the local estimates were derived from state-level data. Differences between local rates and state rates may reflect estimation error rather than valid differences.
10) Medically Underserved Profile	Community Health Solutions analysis of U.S. Health Resources and Services Administration data. For more information visit: http://muafind.hrsa.gov/.