A Community Health Needs Assessment

Prepared for Riverside Tappahannock Hospital

By Community Health Solutions

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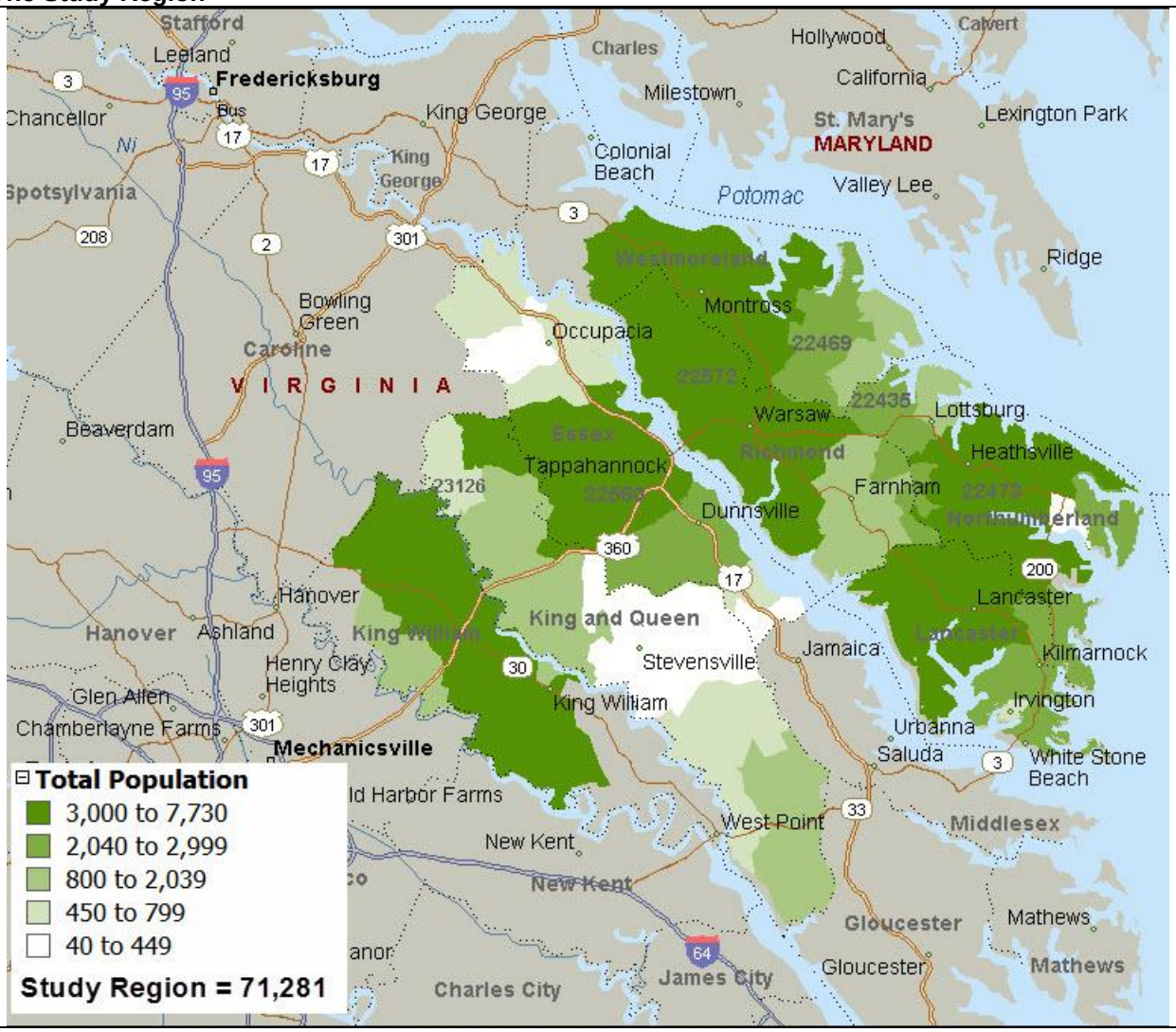
Executive Summary

The mission of Riverside Tappahannock Hospital (RTH) is "to care for others as we would care for those we love-to enhance their well-being and improve their health." With this mission in mind, RTH commissioned Community Health Solutions to conduct this community health needs assessment in 2012.

The study focuses on the RTH service area of 35 zip codes most of which fall within Essex, King and Queen, King William, Lancaster, Northumberland, Richmond and Westmoreland counties. 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



Part I. Community Insight Profile

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

- Important health concerns in the community;
- Significant service gaps in the community; and
- Ideas for addressing health concerns and service gaps.

The survey was sent to a group of 88 community stakeholders identified by RTH. A total of 43 (49%) 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 almost two dozen important health concerns such as obesity, chronic disease, mental health conditions, substance use, Alzheimer's Disease and more.

- The respondents reported more than two dozen specific community services in need of strengthening. Commonly identified services included aging services, behavioral health services, transportation, health care coverage, long term care services and more.

Twenty-one respondents offered open-ended responses with additional ideas and suggestions for improving community health. These responses are listed in *Appendix B* on page 38.

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.[1,2] To summarize:

- *Demographic Profile.* As of 2011, the study region included 71,281 people. Compared to the Commonwealth of Virginia as a whole, the study region is more rural, older, and proportionally more Black/African American. The region also has lower income levels and proportionally more adults without a high school education.

- *Mortality Profile.* The study region had 801 total deaths in 2010. The leading causes of death were malignant neoplasm (cancer), heart disease, and cerebrovascular disease (stroke). The study region age-group death rate per 100,000 population was higher than the statewide rate for adults age 45-64, and lower than the statewide rate for seniors age 65+.[3]

- *Maternal and Infant Health Profile.* The study region had 719 total live births in 2010. Compared to Virginia as a whole, the study region had comparable rates of low weight births and births without early prenatal care; and a higher rate of non-marital births. The five-year infant mortality rates were higher than the statewide rate in five of the seven localities that encompass the study region (Essex, King William, Lancaster, Richmond and Westmoreland counties). The teen pregnancy rate was higher than the statewide rate in all seven localities.[4]

- *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.[5] High rates of hospitalization for these conditions indicate potential gaps in

[1] Unless otherwise noted, demographic data used in the report were acquired from Alteryx, Inc., a commercial vendor of such data. The Virginia Department of Health was the source for all of the birth and death data included in the report. Virginia Health Information, Inc. was the source of the hospital discharge data included in the report. 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.*

[2] In addition, Community Health Solutions produced a number of indicators using '*synthetic estimation methods*.' Synthetic estimation methods can be used when there are no readily available sources of local data to produce a community health indicator. Synthetic estimation begins with analysis of national and state survey data to develop estimates of the number of people with a particular health status (e.g. asthma, diabetes, uninsured) at the national or state level. The national and state data are then applied to local demographic data to produce estimates of health status in a local area. These kinds of synthetic estimates are subject to error. They are instructive for planning, but it is not possible for Community Health Solutions to guarantee their accuracy.

[3] 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] Infant mortality and teen pregnancy rates were not calculated for this study region because the study region is defined by zip codes, and available data are not structured to support calculation of rates at the zip code level. City/county level rates are provided as an alternative.

[5] 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 has been 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

access to quality outpatient services for community residents. Residents of the study region had 1,028 PQI hospital discharges in 2011, with most involving seniors age 65+.[6] The leading diagnoses for these discharges were congestive heart failure, bacterial pneumonia, and chronic obstructive pulmonary disease. The study region PQI discharge rates per 100,000 population were higher than the statewide rates for adults 18-64, and lower for seniors age 65+.

- *Behavioral Health Hospital Discharge Profile.* Behavioral health hospitalizations provide another important indicator of community health status. Residents of the study region had 514 hospital discharges from Virginia hospitals for behavioral health conditions in 2011.[7] The leading diagnoses for these discharges were affective psychoses, general symptoms and schizophrenic disorders. The study region behavioral health discharge rate per 100,000 population was higher than the statewide rate for children age 0-17, and lower than the statewide rates for adults 18+.

- *Adult and Child Health Risk Profiles.* The study includes a set of estimates of adult and child health risk. The local estimates indicate that substantial numbers of adults in the study region may have health risks related to nutrition, physical activity, weight, tobacco, and alcohol. It is also estimated that large numbers of children in the study region are not meeting recommendations for healthy eating, physical activity and healthy weight.

- *Uninsured Profile*. An estimated 9,059 (16%) nonelderly residents of the study region were uninsured at any point in time in 2011. Among both children and adults, the large majority of uninsured residents were estimated to have income at or below 200% of the federal poverty level (FPL).

- *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+. All localities that encompass the study region have been fully designated as MUAs (Essex, King and Queen, King William, Lancaster, Northumberland, Richmond and Westmoreland counties).

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 for the Study Region

Appendix A provides a set of thematically colored maps displaying variation in 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 the introduction to Appendix A.*

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

Twenty-one survey respondents offered open-ended responses with additional ideas and suggestions for improving community health. These responses are listed in *Appendix B* on page 38.

Appendix C: Community Health Needs Assessment Data Sources

Appendix C provides a list of the data sources used in the analysis contained in this report.

[6] Data include discharges 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 primary diagnosis.
[7] Data include discharges 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 primary diagnosis.

Part I. Community Insight Profile

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

- Important health concerns in the community;
- Significant service gaps in the community; and
- Ideas for addressing health concerns and service gaps.

The survey was sent to a group of 88 community stakeholders identified by RTH. A total of 43 (49%) 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

Bay Rivers Telehealth Alliance	Northumberland County Chamber of Commerce
Colonial Beach Public Schools	Northumberland County Department of Social Services
Essex County Emergency Services	Northumberland County Sheriff's Office
Essex County Board of Supervisors	Northumberland Elementary School
Essex County Chamber of Commerce	Richmond County Department of Social Services
Essex County Department of Social Services	Richmond County Sheriff's Office
Essex County Public Schools	Richmond County YMCA
Essex County Sheriff's Office	Riverside Health System-Physician(7)
First Baptist Church	Riverside Tappahannock Hospice
King and Queen County Board of Supervisors	Riverside Tappahannock Home Health Agency
King and Queen County Social Services	Tappahannock Regional Free Clinic
King William County Emergency Services	The Orchard
King William County Public Schools	Three Rivers Health District
King William Pharmacy	Town Of Tappahannock(2)
King William Social Services	Town of Warsaw
Lancaster County Department of Social Services	Virginia Cooperative Extension
Middle Peninsula Northern Neck Community Services Board	Westmoreland Medical Center
Northumberland County Board of Supervisors	*Unknown Organization*

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.

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

Answer Options	Response Percent	Response Count
Adult Obesity	81%	35
Heart Disease & Stroke	74%	32
Cancer	72%	31
Diabetes	72%	31
Mental Health Conditions	72%	31
Substance Abuse - Illegal Drugs	70%	30
Childhood Obesity	67%	29
Alzheimer's Disease	65%	28
Substance Abuse - Prescription Drugs	65%	28
Alcohol Use	58%	25
Tobacco Use	58%	25
Arthritis	49%	21
Intellectual/Developmental Disabilities	42%	18
Asthma	40%	17
Dental Care/Oral Health	40%	17
Prenatal & Pregnancy Care	37%	16
Teen Pregnancy	37%	16
Chronic Pain	35%	15
Physical Disabilities	35%	15
Respiratory Diseases (other than asthma)	35%	15
Domestic Violence	33%	14
Injuries	26%	11
Autism	19%	8
Environmental Quality	19%	8
Sexually Transmitted Diseases	19%	8
HIV/AIDS	14%	6
Infectious Diseases	14%	6
Other Health Problems (list in box below)	*9%*	*4*
Open-Ended Responses		
• Air quality in school building		
• Geriatric patients often lack needed community resources and family resources and are quite isolated.		
• Hypertension		
• Non-compliance with treatment plan		

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.

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	Response Count
Aging Services	74%	32
Behavioral Health Services (including mental health, substance use and intellectual disability)	67%	29
Transportation	58%	25
Health Care Coverage	54%	23
Long Term Care Services	54%	23
Health Promotion and Prevention Services	47%	20
Patient Self Management Services (e.g. nutrition, exercise, taking medications)	44%	19
Specialty Medical Care (e.g. cardiologists, oncologists, etc.)	42%	18
Chronic Disease Services (including screening and early detection)	35%	15
Early Intervention Services for Children	35%	15
Social Services	35%	15
Chronic Pain Management Services	33%	14
Dental Care/Oral Health Services	33%	14
Home Health Services	33%	14
Maternal, Infant & Child Health Services	33%	14
Public Health Services	33%	14
Family Planning Services	30%	13
Hospital Services (including emergency, inpatient and outpatient)	30%	13
School Health Services	28%	12
Primary Health Care Services	21%	9
Domestic Violence Services	16%	7
Environmental Health Services	16%	7
Workplace Health and Safety Services	16%	7
Food Safety Net/Basic Needs Services	12%	5
Hospice Services	12%	5
Pharmacy Services	12%	5
Other Community Health Services (list in box below)	*14%*	*6*
Open-Ended Responses		
• Substance abuse prevention and rehabilitation services are also needed locally.		
• Mentoring, comprehensive family support services.		
• Parenting education for new parents		
• Rehab Services		
• Screenings for long term care completed while patient [is] in [the] hospital and/or [the] ER.		
• The ECO and TDO process needs to be evaluated and the amount of time spent before a patient can be admitted needs to be shortened. This office has limited staff and at least 6 hours are committed to every TDO process. This takes my officer off of the street and creates overtime. Quite often emergency CSB workers have to call all over the state and beg hospitals to accept the patient.		

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.

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 the Commonwealth of Virginia overall. The results can also be helpful for determining the number of people within the study region 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
3. Mortality Profile
4. Maternal and Infant Health Profile
5. Preventable Hospitalization Profile
6. Behavioral Health Hospital Discharge Profile
7. Adult Health Risk Factor Profile
8. Child 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 of the population, age of the population, racial/ethnic mix of the population, income status and education status can have a significant impact on overall health status, health needs and demand for local services.

As shown in *Exhibit II-1*, as of 2011, the study region included 71,281 people. The population is expected to increase to 72,067 by 2016. It is projected that population growth will occur in all age groups, including a 7% increase among seniors age 65+. Focusing on racial/ethnic background, growth is projected for all populations, including a 5% increase in the Asian population. The Hispanic population is also expected to grow by 25%.

Exhibit II-1.
Health Demographic Trend, 2010-2016

Indicator	2010 Census	2011 Estimate	2016 Projection	% Change 2011-2016
Total Population	71,095	71,281	72,067	1%
Population Density (per Sq Mile)	47.8	47.9	48.4	1%
Total Households	29,202	29,371	30,075	2%
Population by Age				
Children Age 0-17	13,775	13,819	14,051	2%
Adults Age 18-29	8,426	8,456	8,616	2%
Adults Age 30-44	11,532	11,574	11,810	2%
Adults Age 45-64	22,075	22,134	22,379	1%
Seniors Age 65+	15,287	15,267	16,375	7%
Population by Race/Ethnicity				
Asian	334	344	361	5%
Black/African American	20,744	20,993	21,587	3%
White	46,204	47,285	47,450	0%
Other or Multi-Race	1,479	2,658	2,672	1%
Hispanic Ethnicity[8]	2,344	2,758	3,442	25%

Source: Community Health Solutions analysis of data from Alteryx, Inc.

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

2. Health Demographic Snapshot

Community health is driven in large 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 2011, the study region included an estimated 71,281 people. Compared to the Commonwealth of Virginia as a whole, the study region is more rural, older, and proportionally more Black/African American. The region also has lower income levels and proportionally more adults without a high school education. *Note: Maps 1-13 in Appendix A show the geographic distribution of the population by zip code.*

Exhibit II-2.
Health Demographic Snapshot, 2011

Indicator	Study Region	Virginia
Population Counts		
Population	71,281	8,120,937
Children Age 0-17	13,819	1,910,883
Adults Age 18-29	8,456	1,367,779
Adults Age 30-44	11,574	1,687,883
Adults Age 45-64	22,134	2,139,219
Seniors Age 65+	15,267	1,014,213
Female	35,820	4,130,586
Male	35,467	3,990,349
Asian	344	446,480
Black/African American	20,993	1,575,045
White	47,285	5,568,689
Other or Multi-Race	2,658	530,708
Hispanic Ethnicity[9]	2,758	684,450
Low Income Households (Households with Income < $25,000)	7,348	561,807
Population Age 25+ Without a High School Diploma	9,193	697,401
Population Rates		
Population Density (pop. per sq. mile)	47.9	201.7
Children Age 0-17 pct. of Total Pop.	19%	24%
Adults Age 18-29 pct. of Total Pop.	12%	17%
Adults Age 30-44 pct. of Total Pop.	16%	21%
Adults Age 45-64 pct. of Total Pop.	31%	26%
Seniors Age 65+ pct. of Total Pop.	21%	12%
Female pct. of Total Pop.	50%	51%
Male pct. of Total Pop.	50%	49%
Asian pct. of Total Pop.	0%	5%
Black/African American pct. of Total Pop.	29%	19%
White pct. of Total Pop.	66%	69%
Other or Multi-Race pct. of Total Pop.	4%	7%
Hispanic Ethnicity pct. of Total Pop.	4%	8%
Per Capita Income	$25,484	$33,364
Median Household Income	$46,462	$63,002
Low Income Households (Households with Income < $25,000) pct. of Total Households	25%	18%
Pop. Age 25+ Without a High School Diploma pct. Total Pop. Age 25+	18%	13%

Source: Community Health Solutions analysis of data from Alteryx, Inc.

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

3. Mortality Profile

As shown in *Exhibit II-3*, the study region had 801 total deaths in 2010. The leading causes of death were malignant neoplasm (cancer) (202), heart disease (194), and cerebrovascular disease (stroke) (56). The study region age-group death rate per 100,000 population was higher than the statewide rate for adults age 45-64, and lower than the statewide rate for seniors age 65+. [10] *Note: Maps 14-17 in Appendix A show the geographic distribution of deaths by zip code.*

Exhibit II-3.
Mortality Profile, 2010

Indicators	Study Region	Virginia
Total Deaths		
Deaths by All Causes	801	58,841
Deaths by Top 14 Causes		
Malignant Neoplasms Deaths	202	13,958
Heart Disease Deaths	194	13,332
Cerebrovascular Diseases Deaths	56	3,259
Chronic Lower Respiratory Diseases Deaths	33	2,957
Alzheimer's Disease Deaths	31	1,842
Unintentional Injury Deaths	28	2,571
Nephritis and Nephrosis Deaths	25	1,583
Suicide Deaths	14	982
Septicemia Deaths	13	1,358
Influenza and Pneumonia Deaths	12	1,183
Chronic Liver Disease Deaths	9	687
Diabetes Mellitus Deaths	9	1,527
Parkinson's Disease Deaths	7	519
Primary Hypertension and Renal Disease Deaths	2	589
Total Deaths by Age Group		
Total Deaths Age 0-17	10	989
Total Deaths Age 18-29	9	1,001
Total Deaths Age 30-44	20	2,181
Total Deaths Age 45-64	147	12,036
Total Deaths Age 65+	615	42,626
Death Rates by Age Group[11]		
Total Deaths per 100,000 pop. Age 0-17	N/A	53.4
Total Deaths per 100,000 pop. Age 18-29	N/A	73.3
Total Deaths per 100,000 pop. Age 30-44	N/A	133.4
Total Deaths per 100,000 pop. Age 45-64	665.9	554.9
Total Deaths per 100,000 pop. Age 65+	4,023.0	4,363.2

Source: Community Health Solutions analysis of data from the Virginia Department of Health.

[10] 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.
[11] Rates are not calculated where n<30.

4. Maternal and Infant Health Profile

As shown in *Exhibit II-4A,* the study region had 719 total live births in 2010. Of these, 63 (9%) were born with low birth weight, 114 (16%) were births without early prenatal care, 358 (50%) were non-marital births, and 88 were births to teens [with most (68) involving older teens age 18 or 19]. Compared to Virginia as a whole, the study region had comparable rates of low weight births and births without early prenatal care; and a higher rate of 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, 2010

Indicators	Study Region	Virginia
Counts		
Total Live Births	719	102,934
Low Weight Births (under 2,500 grams / 5 lb. 8 oz.)	63	8,487
Births Without Early Prenatal Care (No Prenatal Care in First 13 Weeks)	114	14,950
Non-Marital Births	358	36,532
Live Births to Teens Age 10-19	88	7,444
Live Births to Teens Age 18-19	68	5,418
Live Births to Teens Age 15-17	19	1,955
Live Births to Teens Age <15	1	71
Rates[12]		
Live Birth Rate per 1,000 Population	10.1	12.9
Low Weight Births pct. of Total Live Births	9%	8%
Births Without Early Prenatal Care (No Prenatal Care in First 13 Weeks) pct. of Total Live Births	16%	15%
Non-Marital Births pct. of Total Live Births	50%	35%

Source: Community Health Solutions analysis of data from the Virginia Department of Health.

The study region is defined in terms of zip code boundaries. For technical reasons, it was not possible to calculate teen pregnancy rates or five-year infant mortality rates at the zip code level.[13] *Exhibit II-4B* shows counts and rates of infant mortality and teen pregnancy for the seven localities that encompass the study region (Essex, King and Queen, King William, Lancaster, Northumberland, Richmond and Westmoreland counties). The five-year infant mortality rates were higher than the statewide rate in five localities (Essex, King William, Lancaster, Richmond and Westmoreland counties). The teen pregnancy rate was higher than the statewide rates in all seven localities.

[12] 2010 data were used to calculate study region rates.
[13] Infant mortality and teen pregnancy rates were not calculated for this study region because the study region is defined by zip codes, and available data are not structured to support calculation of rates at the zip code level. City/county level rates are provided as an alternative.

Exhibit II-4B.
Infant Mortality and Teen Pregnancy, 2010

Indicators	Virginia	Essex County	King and Queen County	King William County	Lancaster County	Northumberland County	Richmond County	Westmoreland County
Counts								
Total Infant Deaths (2010)	695	2	0	1	1	2	1	1
Total Teenage (age 10-19) Pregnancies (2010)	10,970	30	12	24	14	18	12	37
Rates								
Five-Year Average Infant Mortality Rate per 1,000 Live Births (2006-2010)	7.1	11.6	0.0	7.7	9.9	5.7	9.1	11.4
Teenage (age 10-19) Pregnancy Rate per 1,000 Teenage Female Population (2010)	21.1	38.9	30.9	22.5	27.5	33.3	26.4	37.1

Source: Community Health Solutions analysis of data from the Virginia Department of Health.

5. 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.[14] 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*, residents of the study region had 1,028 PQI hospital discharges in 2011, with most (658) involving seniors age 65+.[15] The leading diagnoses for these discharges were congestive heart failure (261), bacterial pneumonia (211), and chronic obstructive pulmonary disease (144). The study region PQI discharge rates per 100,000 population were higher than the statewide rates for adults 18-64, and lower for seniors age 65+. *Note: Map 22 in Appendix A shows the geographic distribution of PQI discharges by zip code.*

Exhibit II-5.
Prevention Quality Indicator Hospital Discharges, 2011

Indicators	Study Region	Virginia
PQI Discharges by Age Group		
All Ages	1,028	83,258
Total PQI Discharges-Age 0-17	2	335
Total PQI Discharges-Age 18-29	39	3,633
Total PQI Discharges-Age 30-44	69	7,175
Total PQI Discharges-Age 45-64	260	24,322
Total PQI Discharges-Age 65+	658	47,793
PQI Discharges by Diagnosis		
Congestive Heart Failure	261	18,962
Bacterial Pneumonia	211	16,196
Chronic Obstructive Pulmonary Disease (COPD)	144	11,422
Urinary Tract Infection	124	10,478
Diabetes	121	11,314
Adult Asthma	60	6,399
Dehydration	45	3,394
Hypertension	25	2,894
Angina	20	715
Perforated Appendix	17	1,484
PQI Discharge Rates by Age Group[16]		
Total PQI Discharges per 100,000 pop. Age 0-17	N/A	17.5
Total PQI Discharges per 100,000 pop. Age 18-29	461.2	256.6
Total PQI Discharges per 100,000 pop. Age 30-44	596.2	425.1
Total PQI Discharges per 100,000 pop. Age 45-64	1,174.7	1,137.0
Total PQI Discharges per 100,000 pop. Age 65+	4,309.9	4,712.3

Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information, Inc.

[14] 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

[15] Data include discharges 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 primary diagnosis.

[16] Rates are not calculated where n<30.

6. Behavioral Health Hospital Discharge Profile

Behavioral health (BH) hospitalizations provide another important indicator of community health status. *Exhibit II-6* shows behavioral health hospital discharges for study region residents in 2011. Residents of the study region had 514 hospital discharges from Virginia hospitals for behavioral health conditions in 2011.[17] The leading diagnoses for these discharges were affective psychoses (198), general symptoms (122) and schizophrenic disorders (54). The study region behavioral health discharge rate per 100,000 population was higher than the statewide rate for children age 0-17, and lower than the statewide rates for adults 18+. *Note: Map 23 in Appendix A shows the geographic distribution of behavioral health discharges by zip code.*

Exhibit II-6.
Behavioral Health Hospital Discharges, 2011

Indicators	Study Region	Virginia
BH Discharges by Age Group		
All Ages	514	64,853
Total BH Discharges-Age 0-17	65	7,996
Total BH Discharges-Age 18-29	76	12,295
Total BH Discharges-Age 30-44	103	15,059
Total BH Discharges-Age 45-64	138	19,662
Total BH Discharges-Age 65+	132	9,841
BH Discharges by Top 10 Diagnoses		
Affective Psychoses[18]	198	27,268
General Symptoms[19]	122	11,127
Schizophrenic Disorders	54	8,039
Depressive Disorder, Not Elsewhere Classified	23	2,784
Other Nonorganic Psychoses	20	2,146
Adjustment Reaction	19	2,123
Neurotic Disorders	16	1,350
Alcoholic Dependence Syndrome	14	2,161
Alcoholic Psychoses	10	3,280
Drug Psychoses	4	1,314
BH Discharge Rates by Age Group		
Total BH Discharges per 100,000 pop. Age 0-17	470.4	418.4
Total BH Discharges per 100,000 pop. Age 18-29	898.8	898.9
Total BH Discharges per 100,000 pop. Age 30-44	889.9	892.2
Total BH Discharges per 100,000 pop. Age 45-64	623.5	919.1
Total BH Discharges per 100,000 pop. Age 65+	864.6	970.3

Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information, Inc.

[17] Data include discharges 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 primary diagnosis.
[18] Includes major depressive, bipolar affective and manic depressive disorders.
[19] 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 based on synthetic estimates developed by Community Health Solutions.[20] As shown in *Exhibit II-7*, the estimates indicate that substantial numbers of adults in the study region may have health risks related to nutrition, weight, physical activity, tobacco and alcohol. In addition, substantial numbers of adults may have chronic conditions such as arthritis, high blood pressure, high cholesterol, asthma and diabetes. *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 Factors (Synthetic Estimates), 2011

Indicators	Study Region Estimates (count)	Study Region Estimates (percent)
Estimated adults age 18+	57,431	100%
Risk Factors. Adults Age 18+ estimated to…		
Eat Less Than Five Servings of Fruits and Vegetables Per Day	43,698	76%
Be Overweight or Obese	34,989	61%
Have No Physical Activity in the Past 30 Days	14,759	26%
Be a Smoker	11,823	21%
Be at Risk for Binge Drinking	6,848	12%
Chronic Conditions. Adults Age 18+ estimated to…		
Have High Blood Pressure (told by a doctor or other health professional)	20,012	35%
Have Arthritis (told by a doctor or other health professional)	19,499	34%
Have High Cholesterol (told by a doctor or other health professional)	19,335	34%
Have Asthma (told by a doctor or other health professional)	7,183	13%
Have Diabetes (told by a doctor or other health professional)	6,145	11%
General Health Status. Adults Age 18+ estimated to…		
Be Limited in any Activities because of Physical, Mental or Emotional Problems	12,125	21%
Have Fair or Poor Health Status	10,732	19%

Source: Community Health Solutions synthetic estimates.

[20] Synthetic estimates are used when there are no primary sources of data available at the local level. In this case, synthetic estimates were developed by using national and state survey results to predict the prevalence of the listed conditions in the local population. The survey data came from the CDC's Behavioral Risk Factor Surveillance Survey. Local demographics estimates were obtained from Alteryx, Inc. The statistical model to produce the estimates was developed by Community Health Solutions.

8. Child Health Risk Factor Profile

This section examines a set of health risks for children based on synthetic estimates developed by Community Health Solutions. The particular risk indicators involve nutrition, physical activity and weight-related risks. 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 the list of selected child health risk estimates for children age 10-17 in the study region. These estimates are based on statewide and regional survey data from a recent household survey on childhood obesity commissioned by the Virginia Foundation for Healthy Youth.[21] The results of the survey were published in May 2010. The estimates were produced by applying the regional estimates for eastern Virginia to the study region population estimates for 2011. Assuming that the survey estimates for eastern Virginia reflect the behaviors of children in the study region today, it is estimated that large numbers of children in the study region are not meeting recommendations for healthy eating, physical activity and healthy weight. *Note: Maps 28 and 29 in Appendix A show the geographic distribution of selected child health risks by zip code.*

Exhibit II-8.
Child Health Risk Factors (Synthetic Estimates) 2011

Indicators	Study Region Estimates (count)	Study Region Estimates (percent)
Estimated Children Age 10-17	6,468	100%
Estimated to…		
Drink Soda or Eat Chips or Candy At Least Once Per Week	5,951	92%
Eat Less than the Recommended Intake of Fruits and Vegetables	5,692	88%
Be Less Physically Active than Recommended	2,199	34%
Watch Television Three or More Hours per Day	1,682	26%
Be Overweight or Obese[22]	1,552	24%
Play Video/Computer Games Three or More Hours per Day	1,035	16%

Source: Community Health Solutions synthetic estimates.

[21] Synthetic estimates are used when there are no primary sources of data available at the local level. In this case, synthetic estimates were developed by using state and regional survey results to predict the prevalence of the listed conditions in the local population. The survey data came from Market Decisions' *2010 Obesity Survey* commissioned by Virginia Foundation for Healthy Youth. Local demographic estimates were obtained from Alteryx, Inc. The statistical model to produce the estimates was developed by Community Health Solutions.
[22] 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.

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 synthetic estimates of the number of uninsured individuals in the study region as of 2011.[23] An estimated 9,059 (16%) nonelderly residents of the study region were uninsured at any point in time. This includes an estimated 1,268 children and 7,791 adults. Among both children and adults, the large majority of uninsured residents were estimated to have income at or below 200% of the federal poverty level (FPL).[24] *Note: Maps 30-35 in Appendix A show the geographic distribution of the uninsured population by zip code.*

Exhibit II-9.
Uninsured (Synthetic Estimates) 2011

Indicators	Study Region
Estimated Uninsured Counts	
Uninsured Nonelderly Age 0-64	9,059
Uninsured Children Age 0-18	1,268
Uninsured Children 0- 200% Federal Poverty Level (FPL)	923
Uninsured Children <100% FPL	388
Uninsured Children 101-200% FPL	534
Uninsured Children 201-300% FPL	233
Uninsured Children 301%+ FPL	112
Uninsured Adults Age 19-64	7,791
Uninsured Adults 0-200% FPL	5,909
Uninsured Adults <100% FPL	3,373
Uninsured Adults 101-200% FPL	2,536
Uninsured Adults 201-300% FPL	1,233
Uninsured Adults 301%+ FPL	648
Uninsured Adults 19-64 0-138% FPL	4,254
Estimated Uninsured Rates	
Uninsured Nonelderly Percent	16%
Uninsured Children Percent	9%
Uninsured Adults Percent	19%

Source: Community Health Solutions synthetic estimates.

[23] Synthetic estimates are used when there are no primary sources of data available at the local level. In this case, synthetic estimates were developed by using state survey results to predict the prevalence of the listed conditions in the local population. The statewide uninsured estimates were obtained from a report produced for the Virginia Health Care Foundation by Urban Institute. Local demographic estimates were obtained from Alteryx, Inc. The statistical model to produce the estimates was developed by Community Health Solutions. The estimates do not explicitly account for either undocumented populations or acute drops in income due to the recession.

[24] Two hundred percent of the federal poverty level is defined as an annual income of $44,700 for a family of four. For more information, please see: http://aspe.hhs.gov/poverty/11poverty.shtml

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*, all localities that encompass the study region have been fully designated as MUAs (Essex, King and Queen, King William, Lancaster, Northumberland, Richmond and Westmoreland counties). For a more detailed description, visit the U.S. Health Resources and Services Administration designation webpage at http://muafind.hrsa.gov/.

Exhibit II-10.
Medically Underserved Areas

Locality	MUA designation	Census Tracts
Essex County	Full	3 of 3 Census Tracts
King and Queen County	Full	2 of 2 Census Tracts
King William County	Full	4 of 4 Census Tracts
Lancaster County	Full	4 of 4 Census Tracts
Northumberland County	Full	4 of 4 Census Tracts
Richmond County	Full	2 of 2 Census Tracts
Westmoreland County	Full	4 of 4 Census Tracts

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 zip code level maps in this section illustrate the geographic distribution of the study region population on key demographic and health indicators. The results 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 2010/2011:

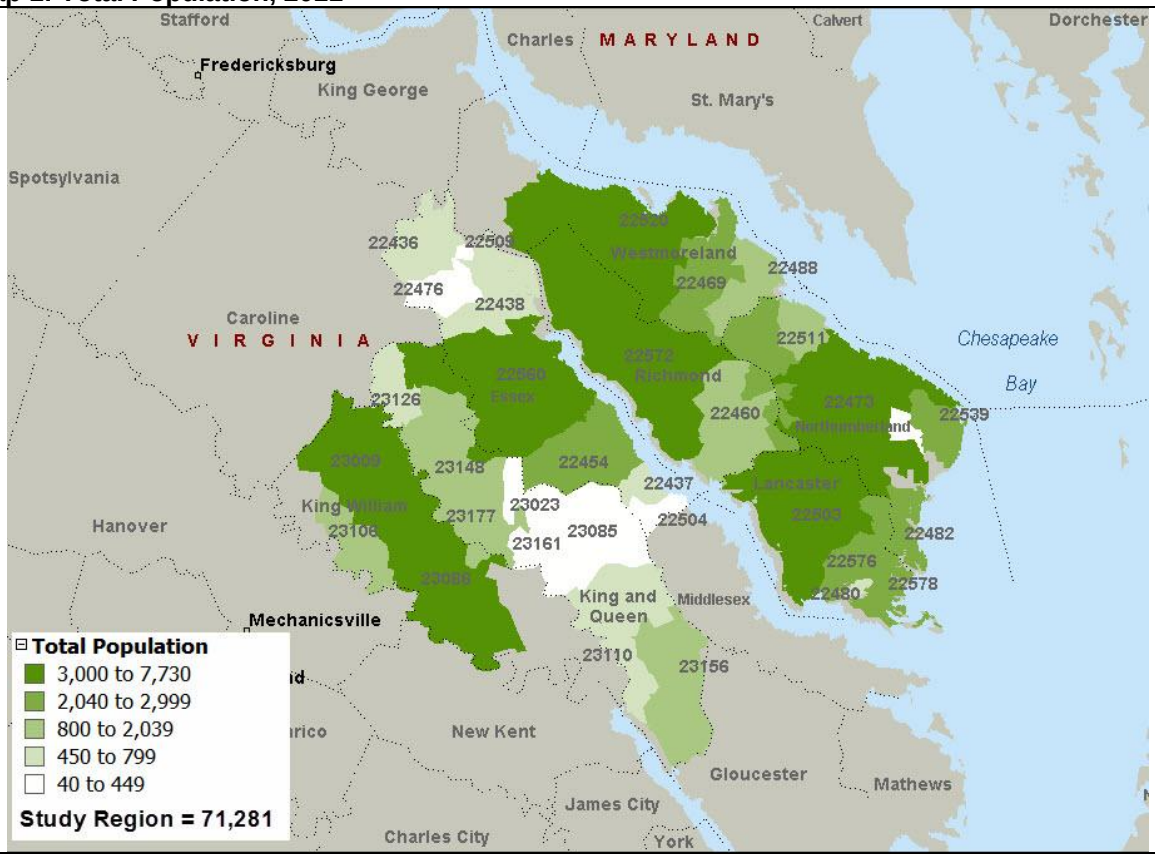
1. Total Population, 2011	19. Low Weight Births, 2010
2. Population Density, 2011	20. Births Without Early Prenatal Care (No Prenatal Care in the First 13 Weeks), 2010
3. Child Population Age 0-17, 2011	21. Births to Teen Mothers Under Age 18, 2010
4. Senior Population Age 65+, 2011	22. Prevention Quality Indicator (PQI) Hospital Discharges, 2011
5. Asian Population, 2011	23. Behavioral Health (BH) Hospital Discharges, 2011
6. Black/African American Population, 2011	24. Estimated Adults Age 18+ Overweight or Obese, 2011
7. White Population, 2011	25. Estimated Adults Age 18+ with High Blood Pressure, 2011
8. Other or Multi-Race Population, 2011	26. Estimated Adult Age 18+ Smokers, 2011
9. Hispanic Ethnicity Population, 2011	27. Estimated Adults Age 18+ with Diabetes, 2011
10. Per Capita Income, 2011	28. Estimated Children Age 10-17 Overweight or Obese, 2011
11. Median Household Income, 2011	29. Estimated Children Age 10-17 Not Meeting Physical Activity Targets, 2011
12. Low Income Households (Households with Income <$25,000), 2011	30. Estimated Uninsured Nonelderly Age 0-64, 2011
13. Population Age 25+ Without a High School Diploma, 2011	31. Estimated Uninsured Nonelderly Age 0-64 and Income 0-200% Federal Poverty Level, 2011
14. Total Deaths, 2010	32. Estimated Uninsured Children Age 0-18, 2011
15. Malignant Neoplasm (Cancer) Deaths, 2010	33. Estimated Uninsured Children Age 0-18 and Income 0-200% Federal Poverty Level, 2011
16. Heart Disease Deaths, 2010	34. Estimated Uninsured Adults Age 19-64, 2011
17. Cerebrovascular Disease (Stroke) Deaths, 2010	35. Estimated Uninsured Adults Age 19-64 and Income 0-138% Federal Poverty Level,2011
18. Total Live Births, 2010	

Technical Notes

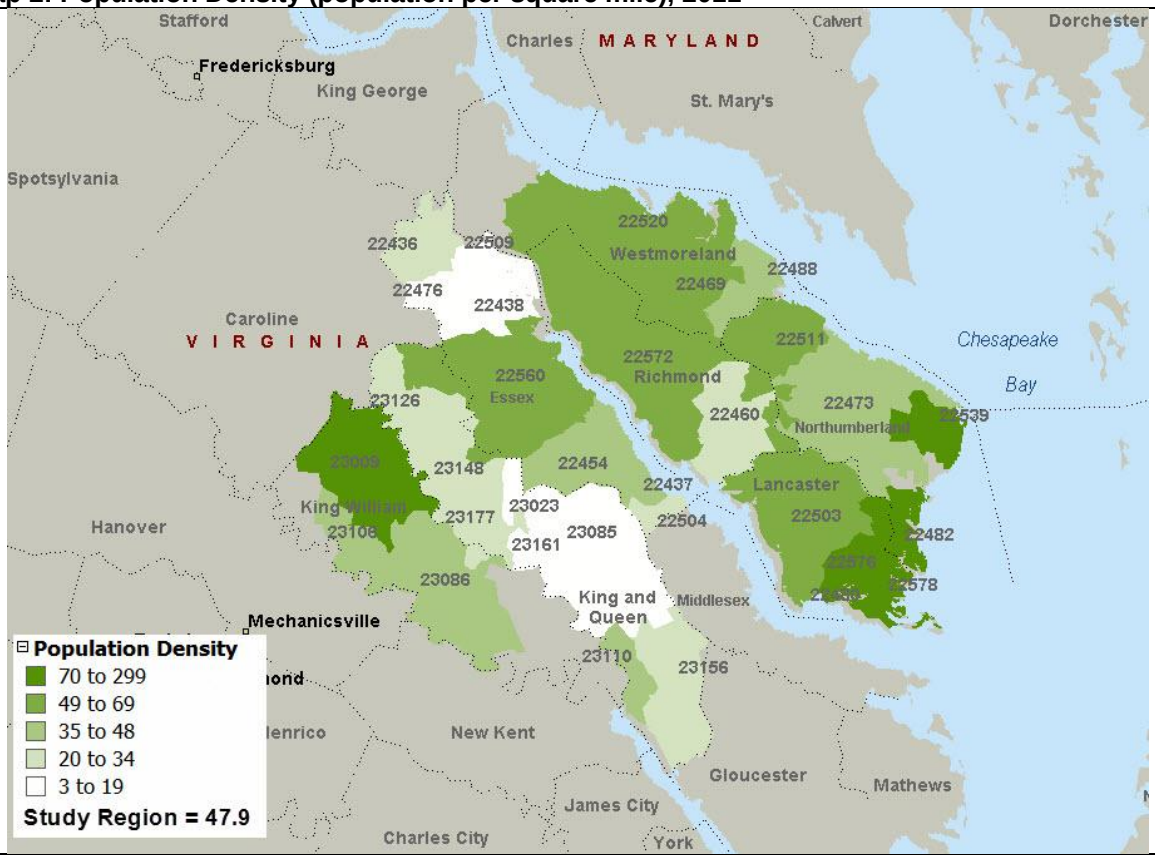
1. The study focuses on the Riverside Tappahannock Hospital (RTH) service area of 35 zip codes most of which fall within Essex, King and Queen, King William, Lancaster, Northumberland, Richmond and Westmoreland counties. Because zip code boundaries do not automatically align with city/county boundaries, there are some zip codes that extend beyond the county boundaries.

2. With the exception of 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.

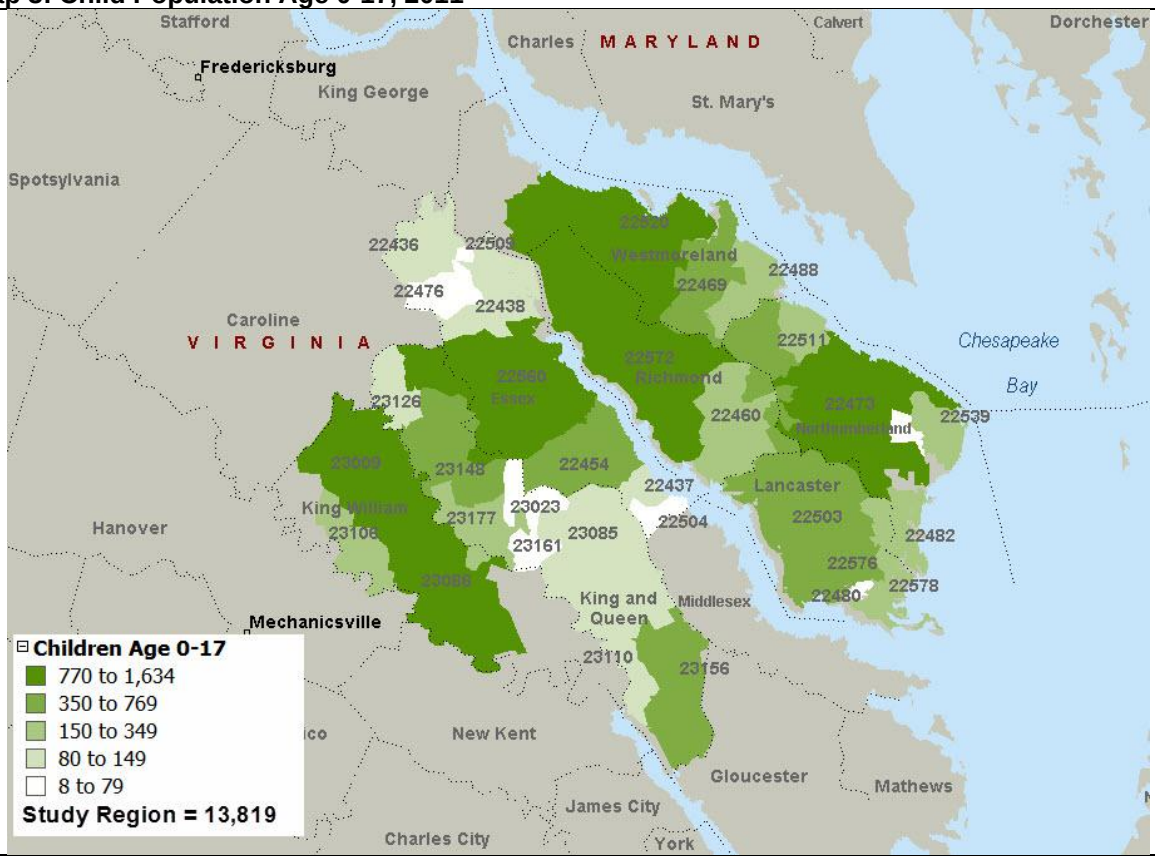
Map 1: Total Population, 2011



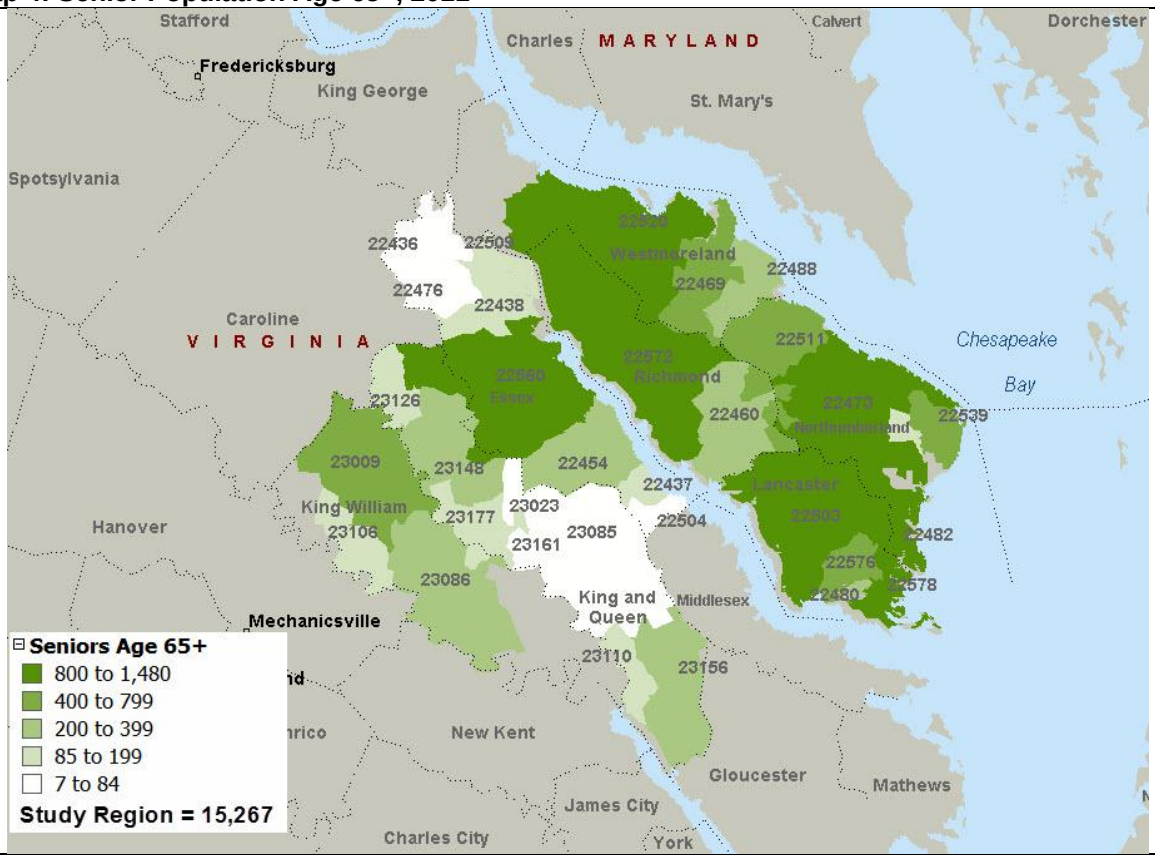
Map 2: Population Density (population per square mile), 2011



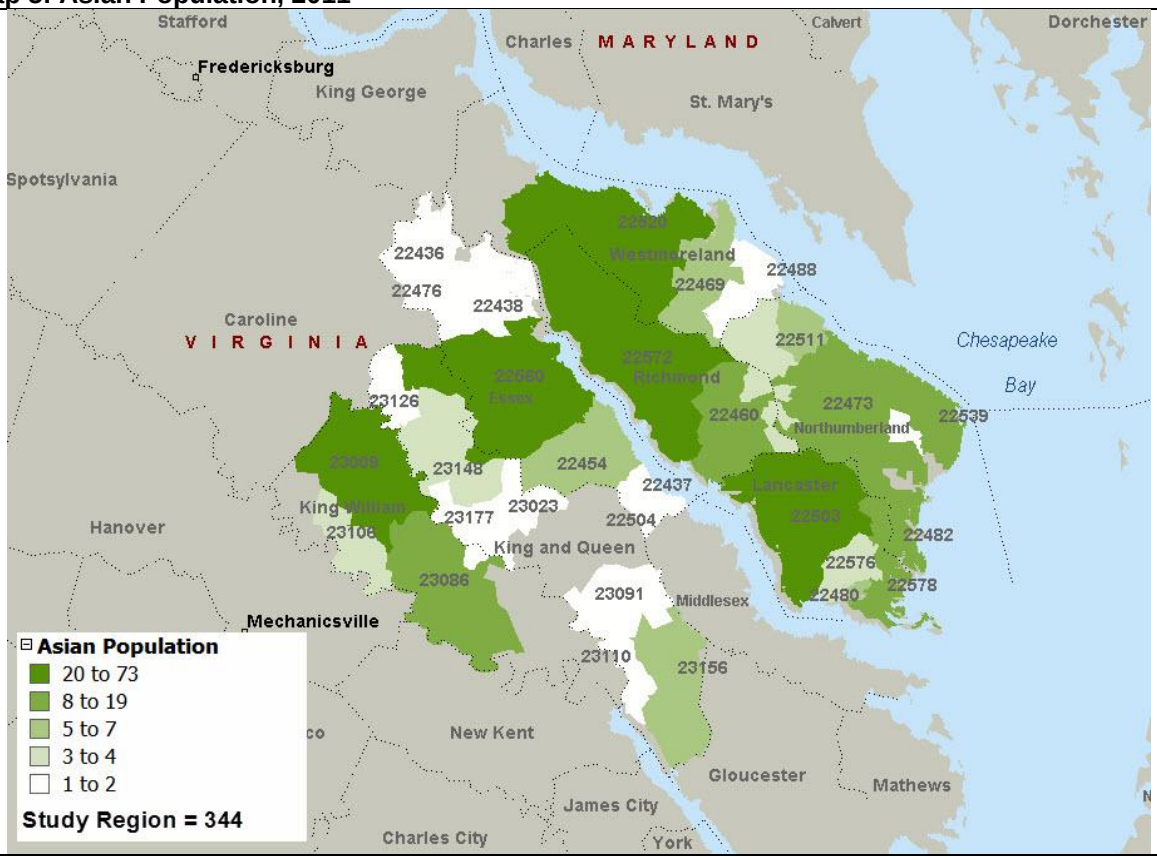
Map 3: Child Population Age 0-17, 2011



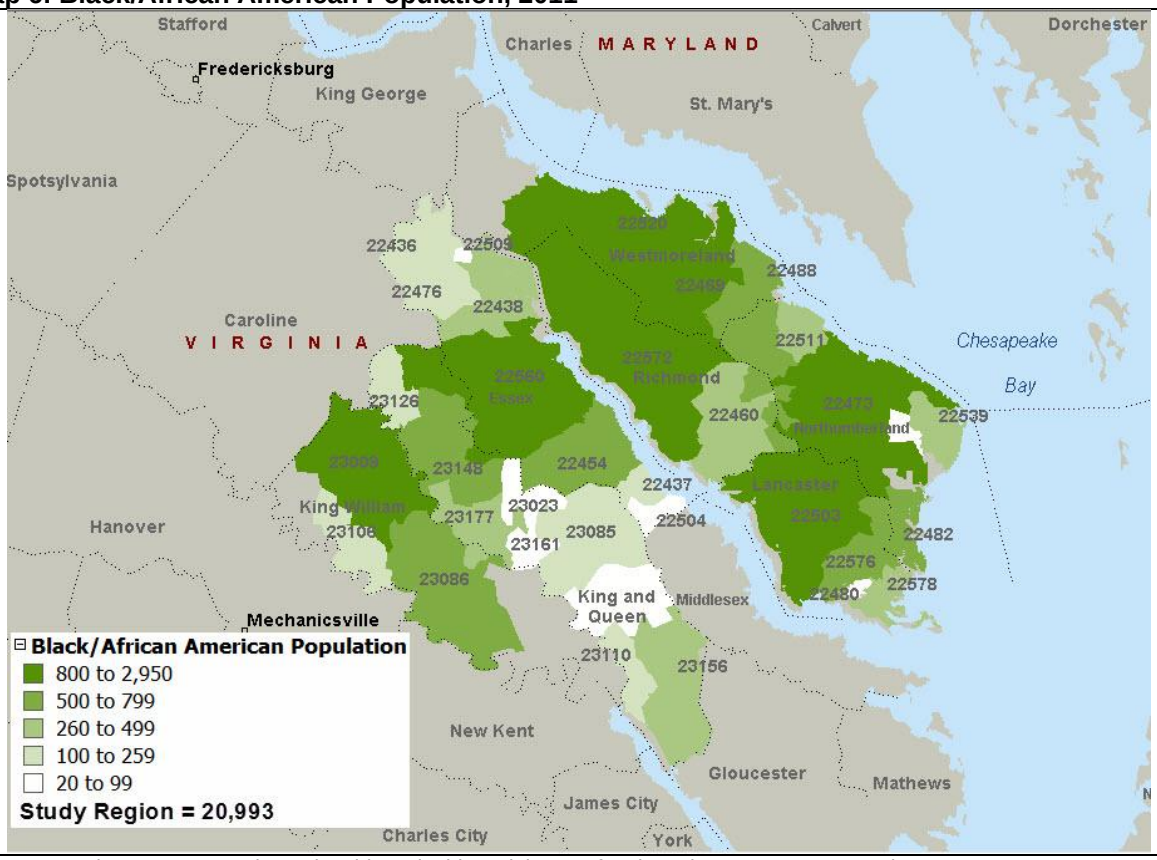
Map 4: Senior Population Age 65+, 2011



Map 5: Asian Population, 2011*

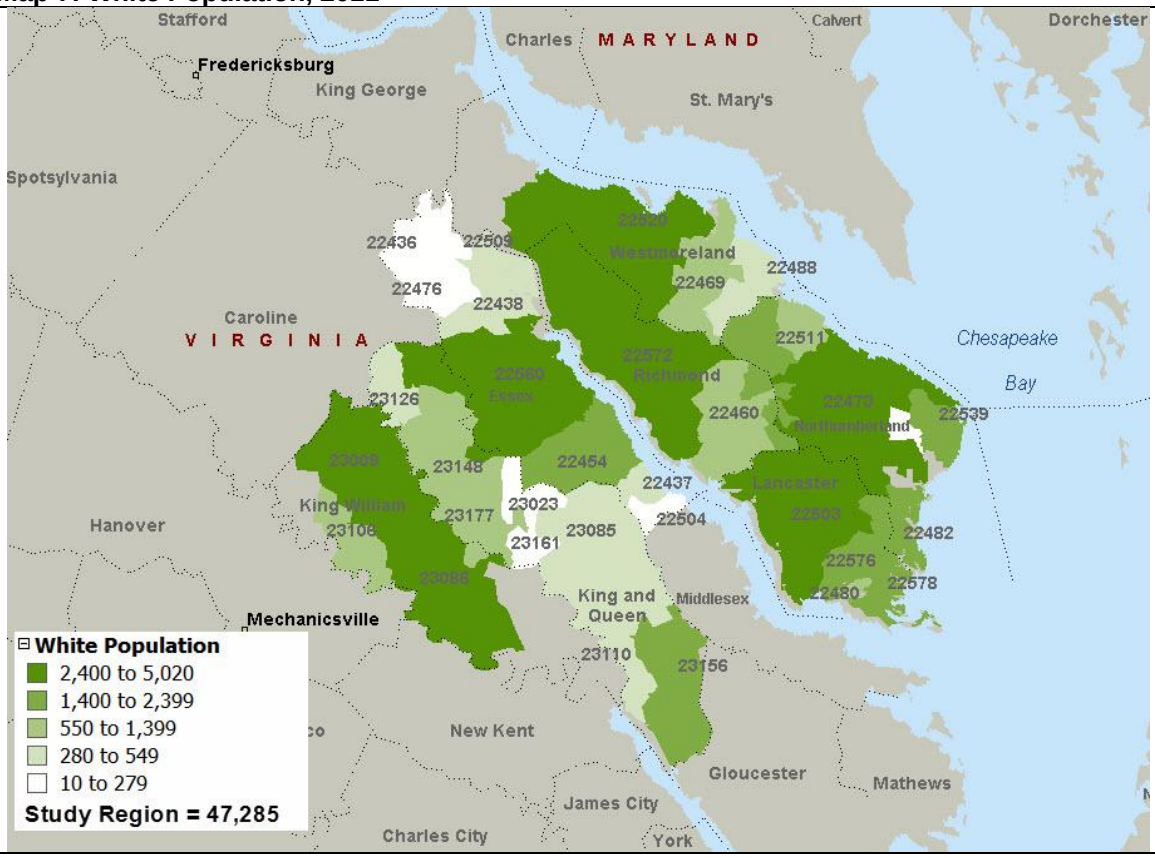


Map 6: Black/African American Population, 2011

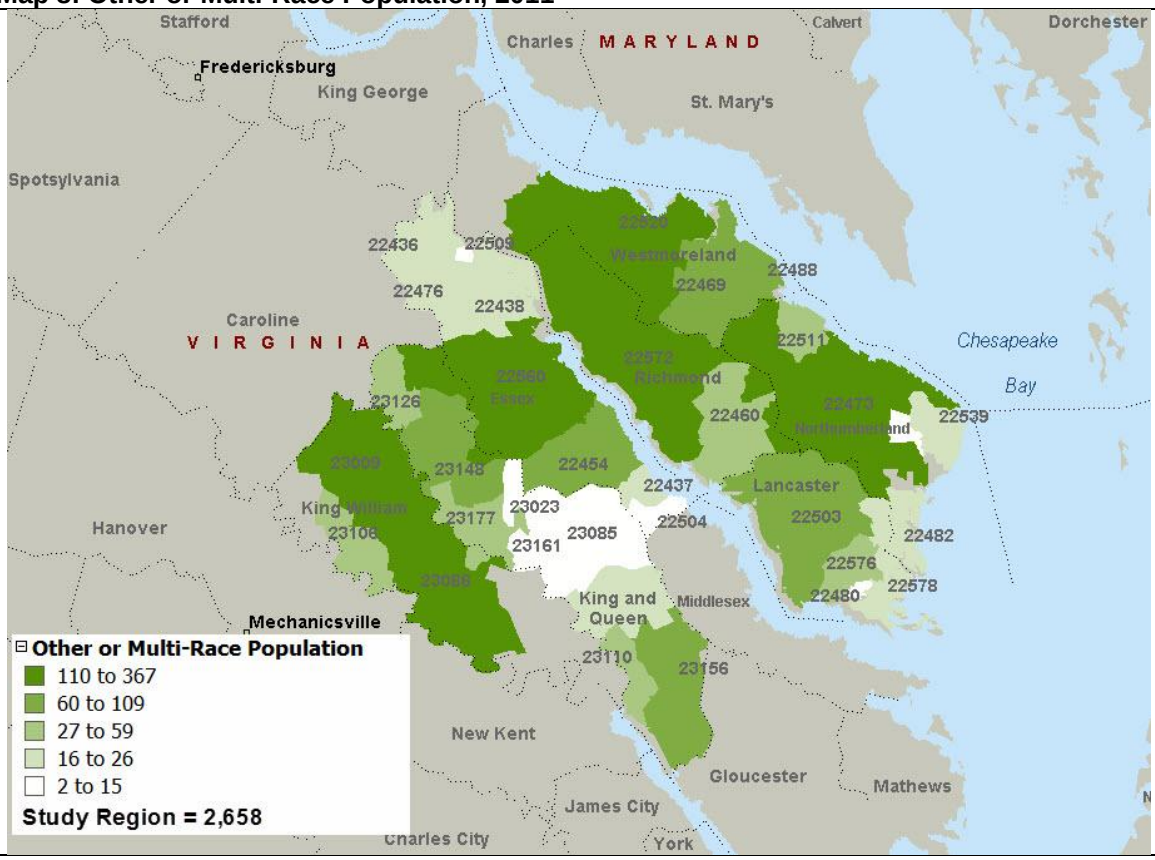


**Note: There were no estimated residents in this racial group for zip codes 22509, 23161 and 23085.*

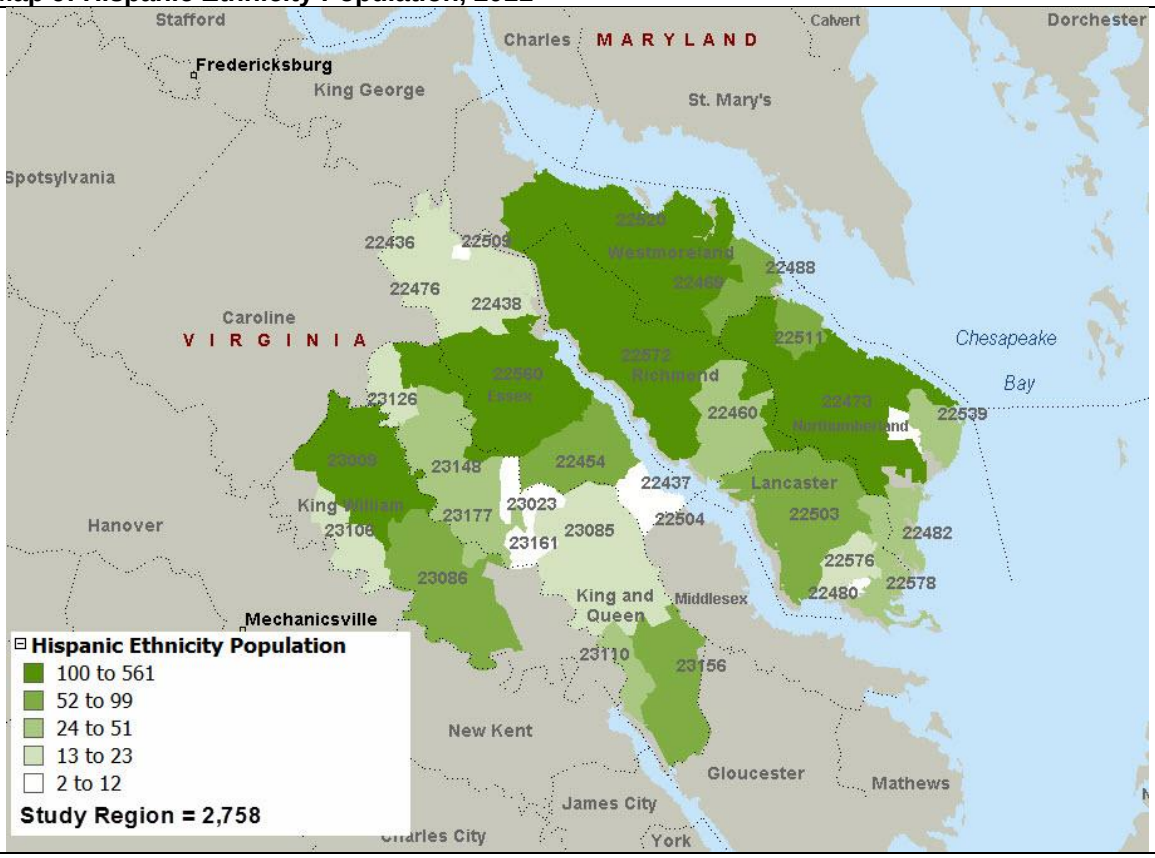
Map 7: White Population, 2011



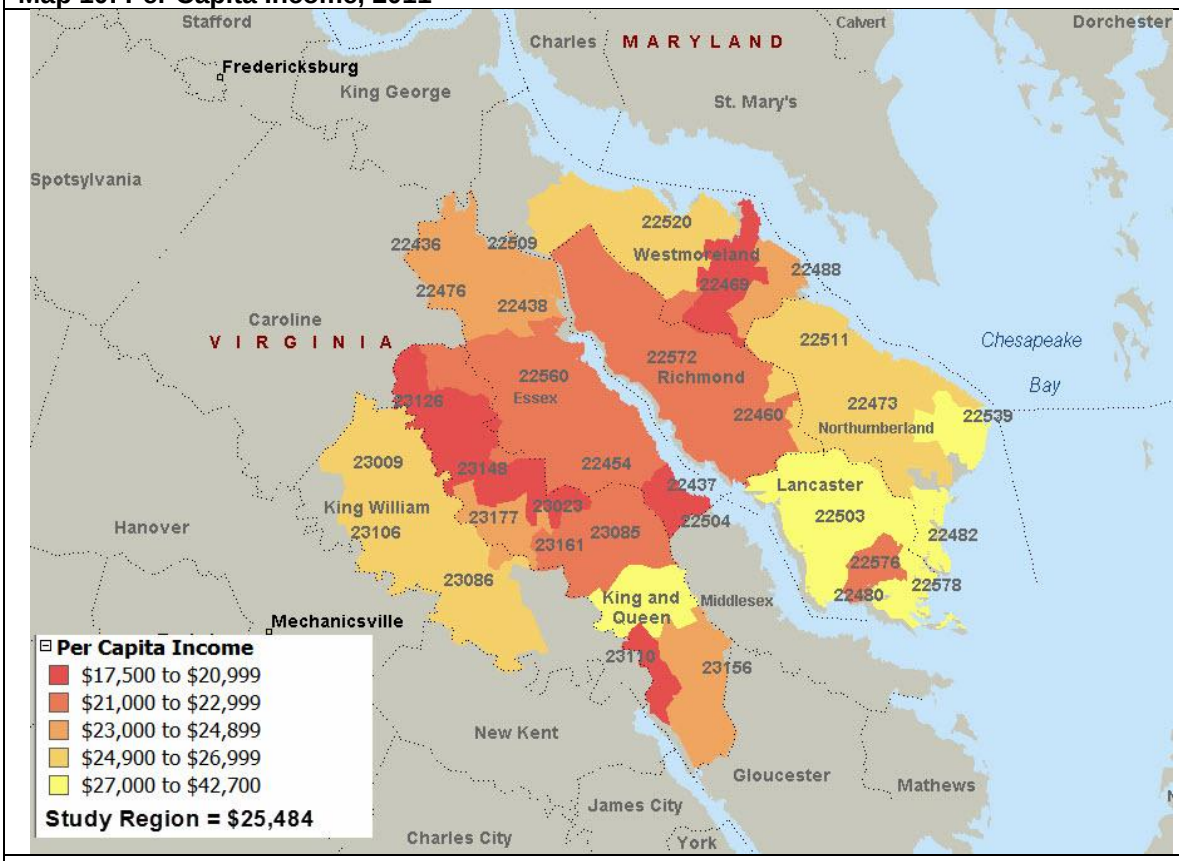
Map 8: Other or Multi-Race Population, 2011



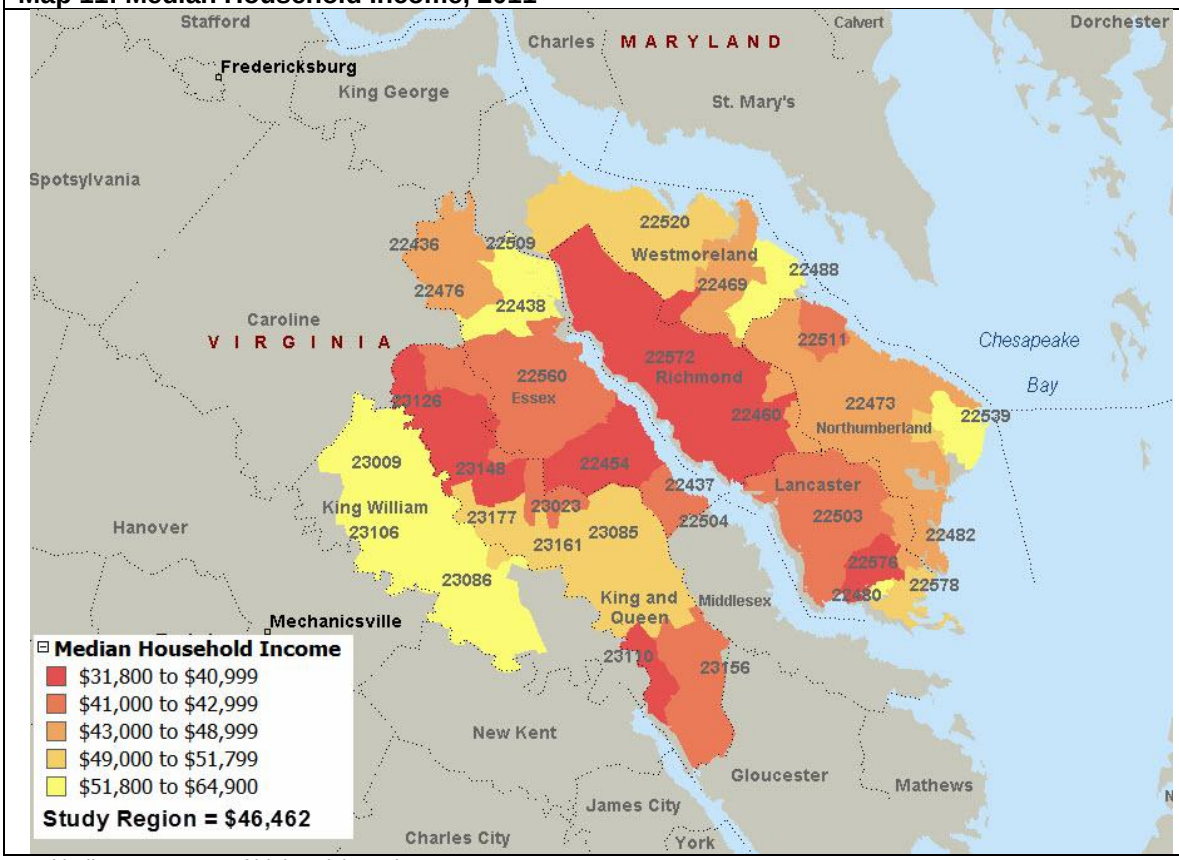
Map 9: Hispanic Ethnicity Population, 2011



Map 10: Per Capita Income, 2011*

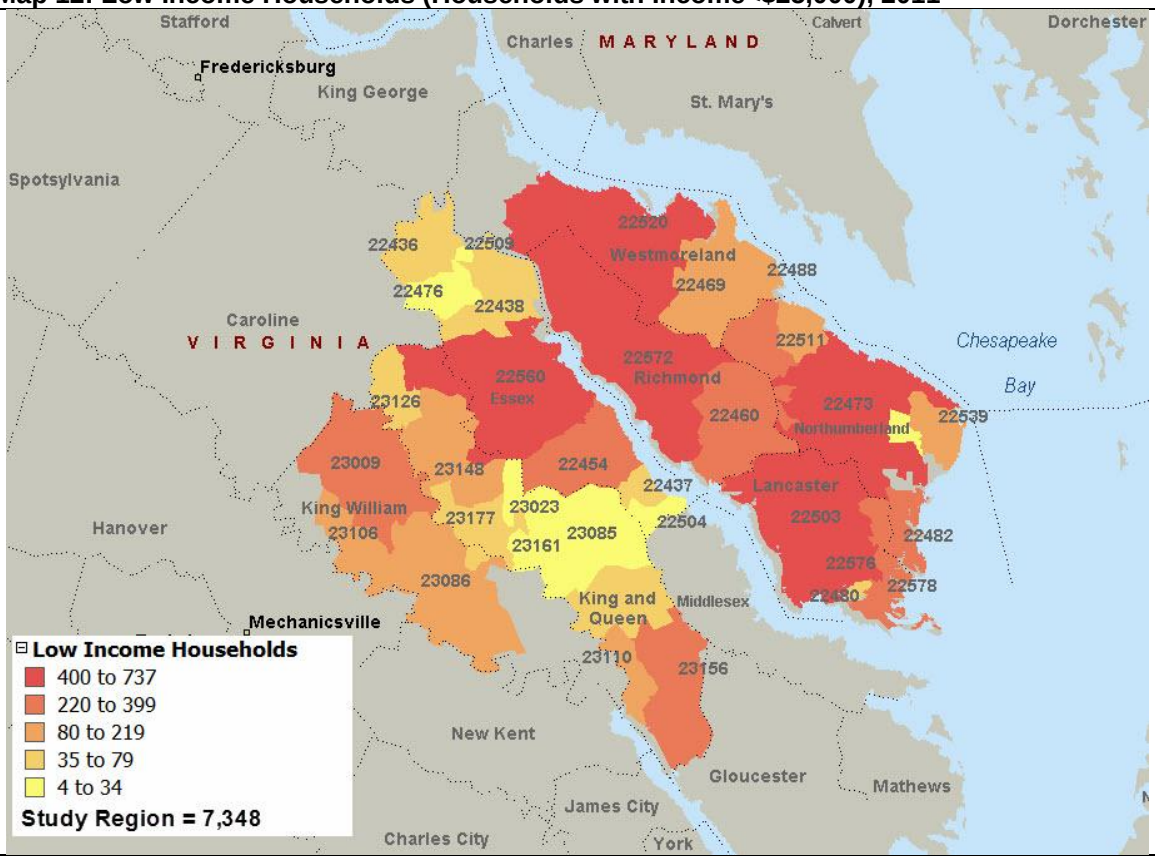


Map 11: Median Household Income, 2011*

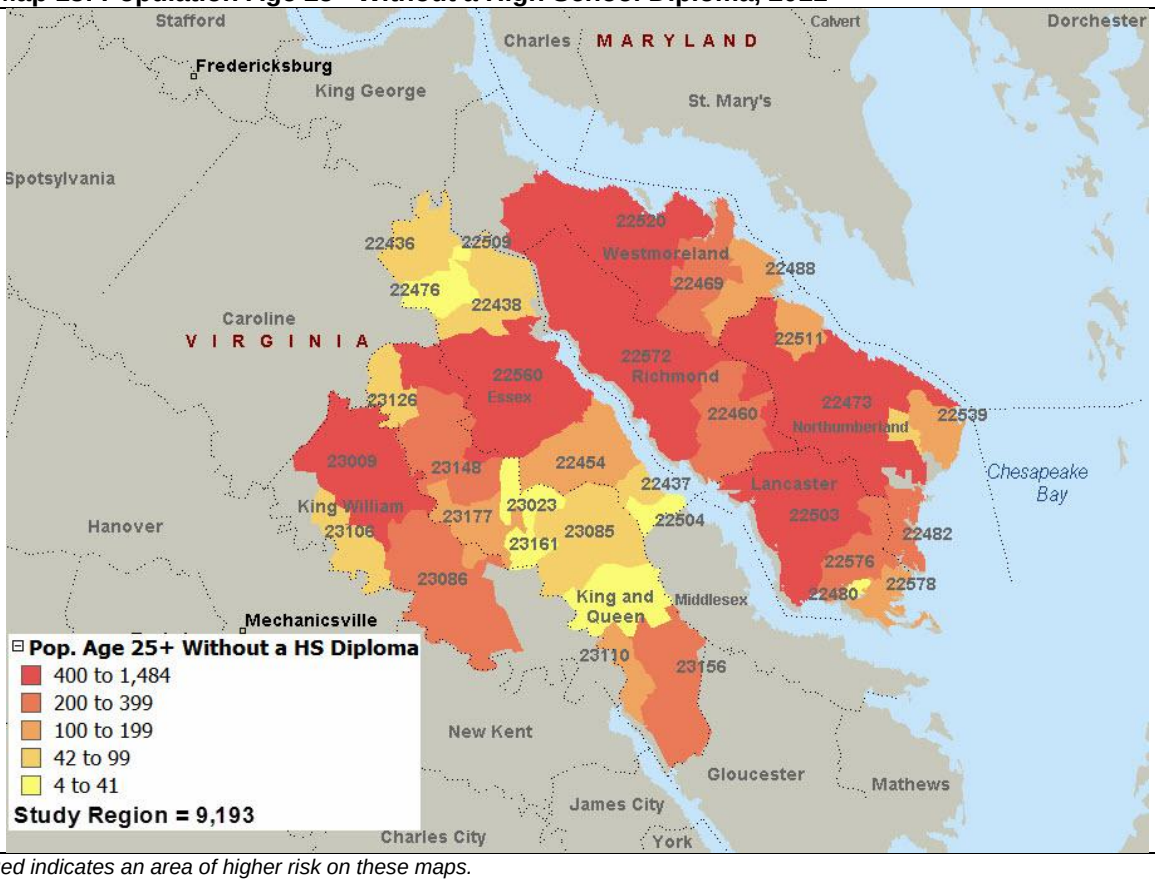


**Red indicates an area of higher risk on these maps.*

Map 12: Low Income Households (Households with Income<$25,000), 2011*

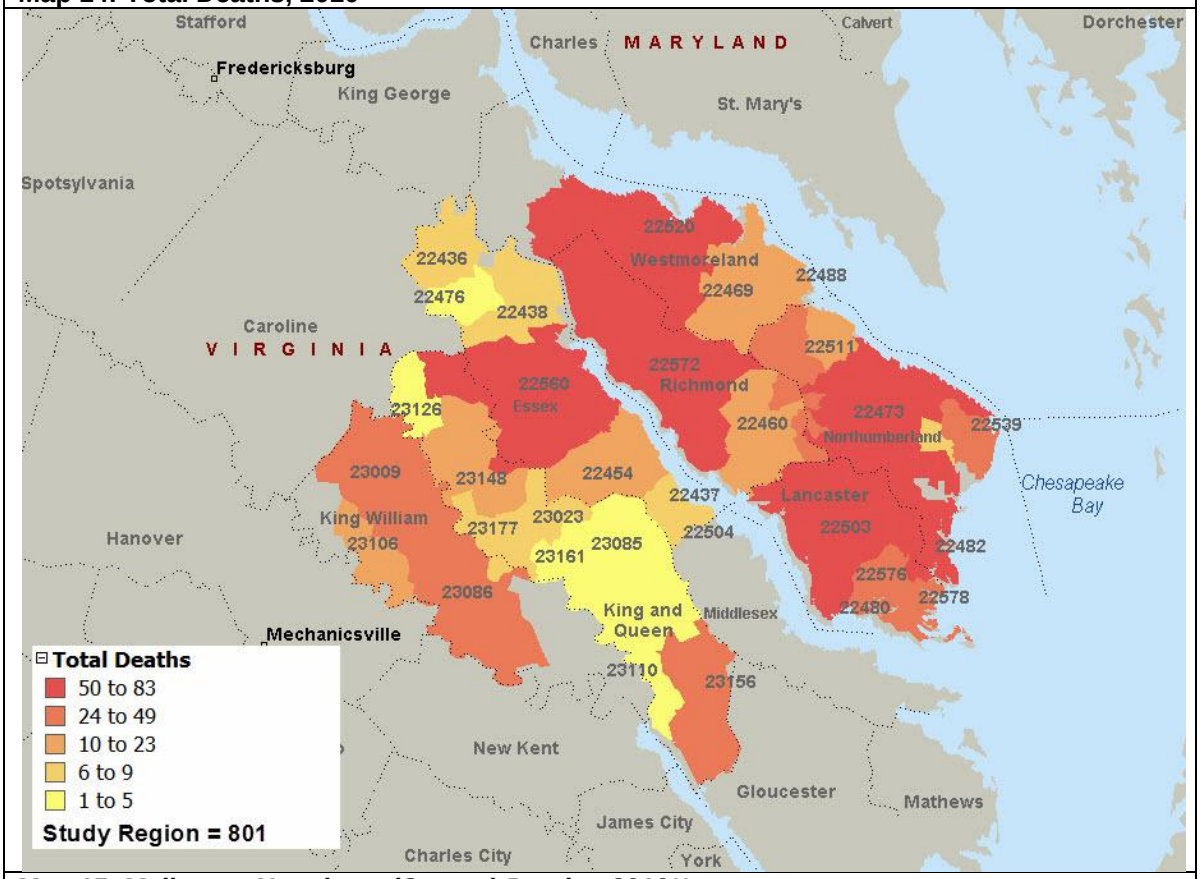


Map 13: Population Age 25+ Without a High School Diploma, 2011*

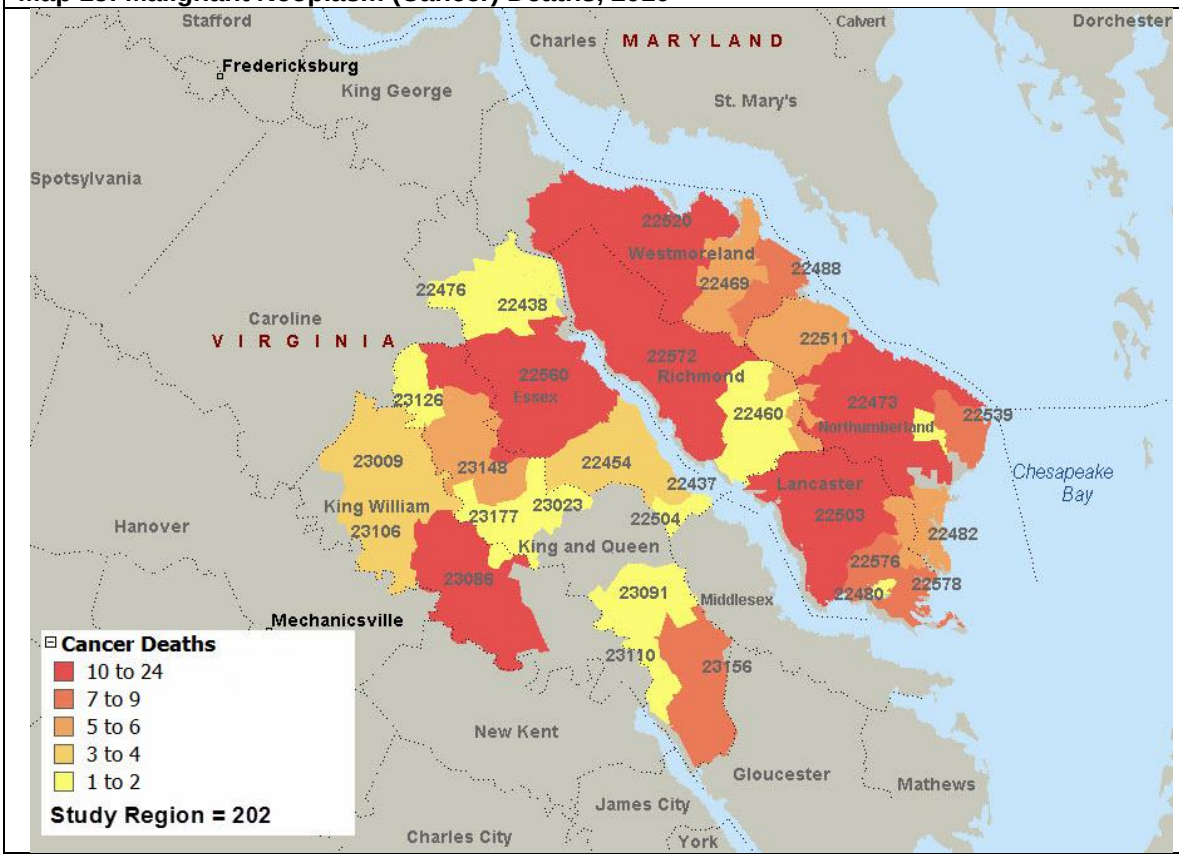


**Red indicates an area of higher risk on these maps.*

Map 14: Total Deaths, 2010*



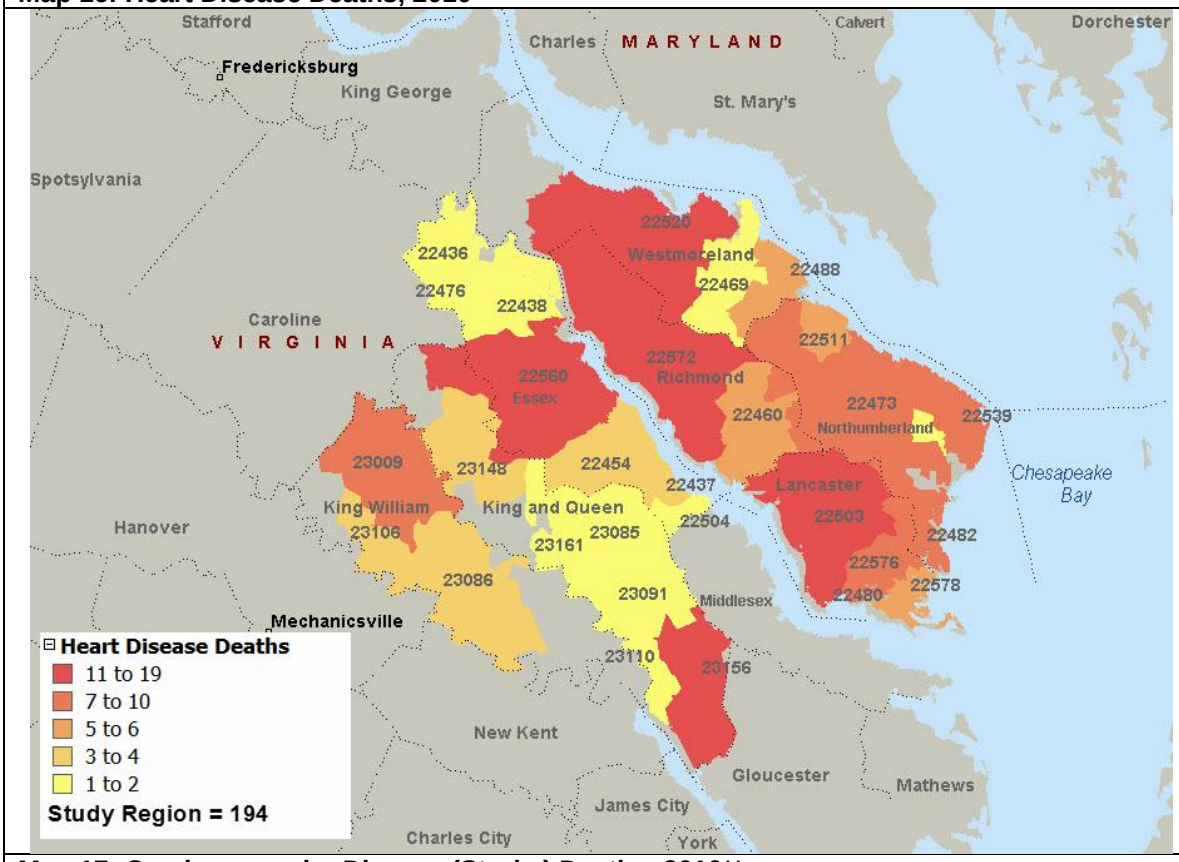
Map 15: Malignant Neoplasm (Cancer) Deaths, 2010**



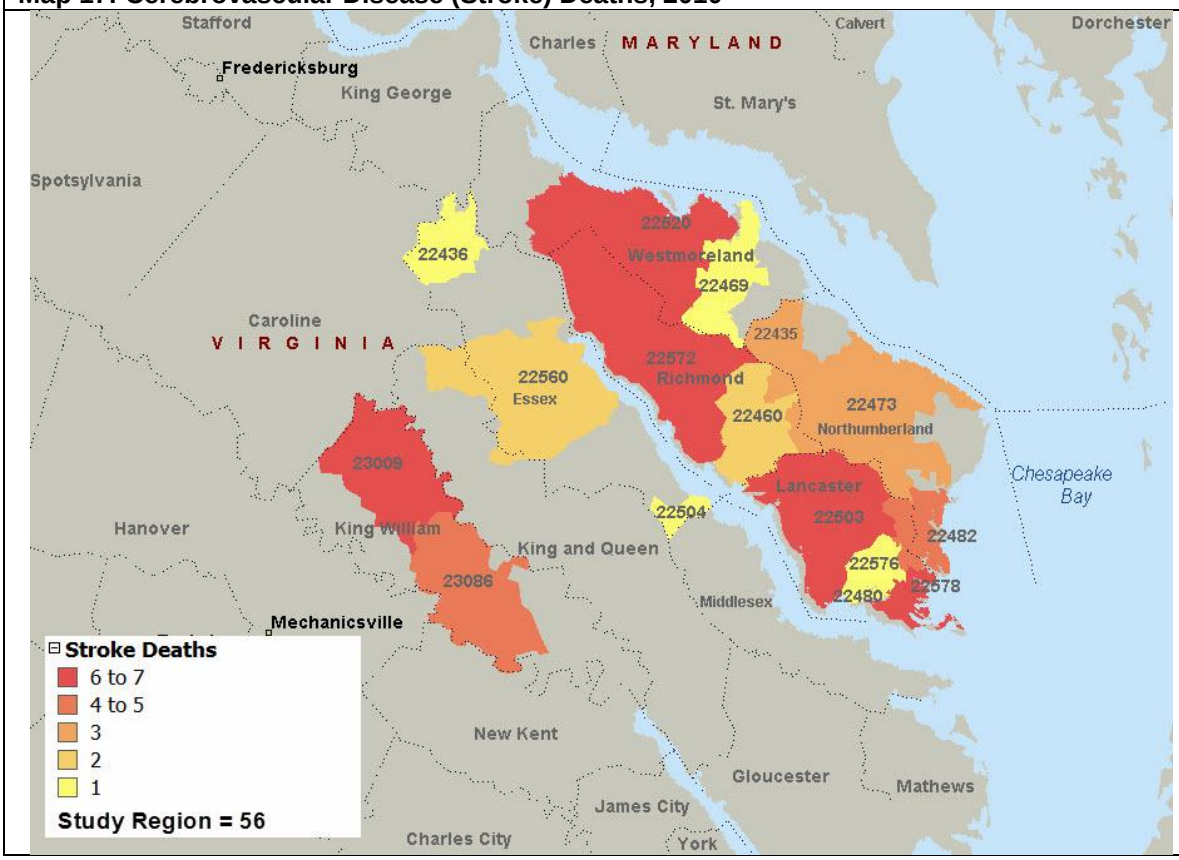
** There were no reported deaths for zip code 22509.*

** *There were no reported cancer deaths for zip codes 22509, 23161, 23085 and 22436.*

Map 16: Heart Disease Deaths, 2010*



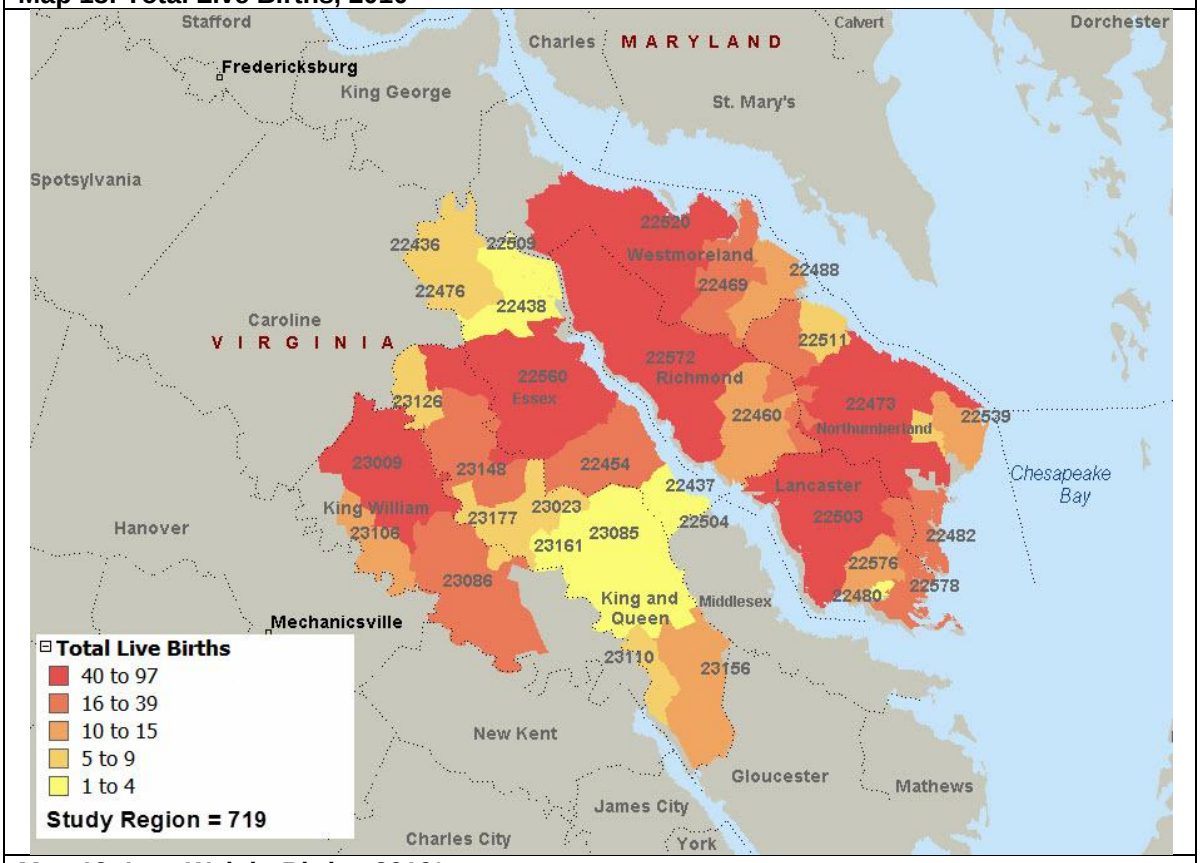
Map 17: Cerebrovascular Disease (Stroke) Deaths, 2010**



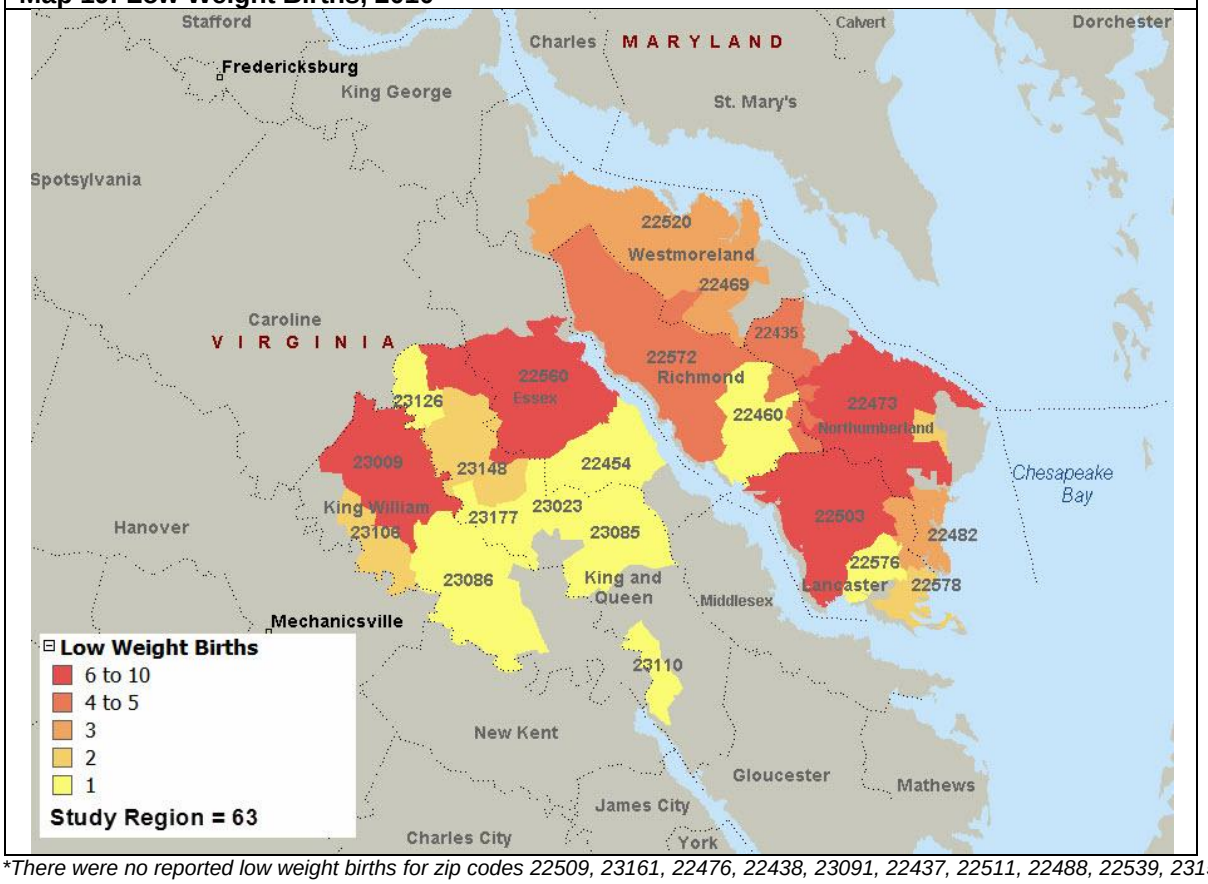
** There were no reported heart disease deaths for zip codes 22509, 23126 and 23177.*

** *There were no reported stroke deaths for zip codes 22509, 23126, 23177, 23161, 23085, 23110, 22432, 22476, 23023, 22438, 23091, 23148, 22437, 23106, 22454, 22511, 22488, 22539, and 23156.*

Map 18: Total Live Births, 2010

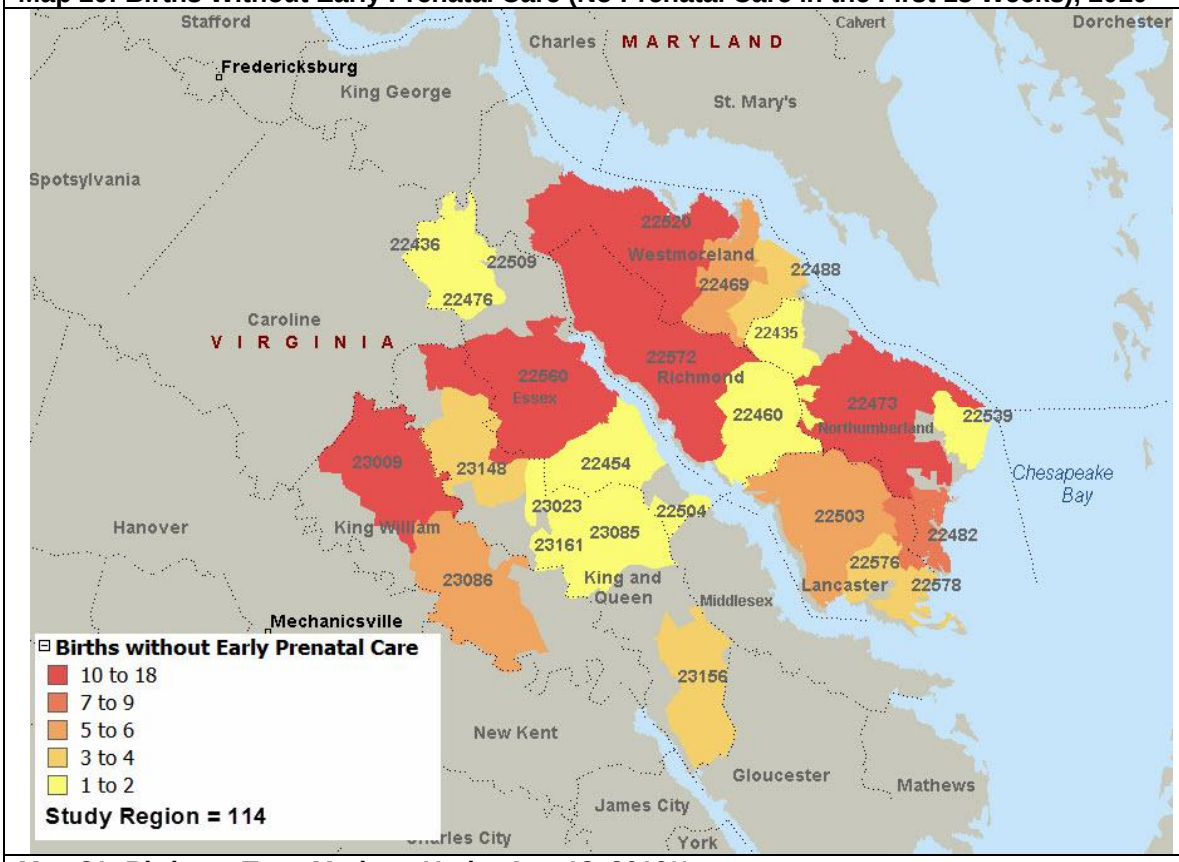


Map 19: Low Weight Births, 2010*

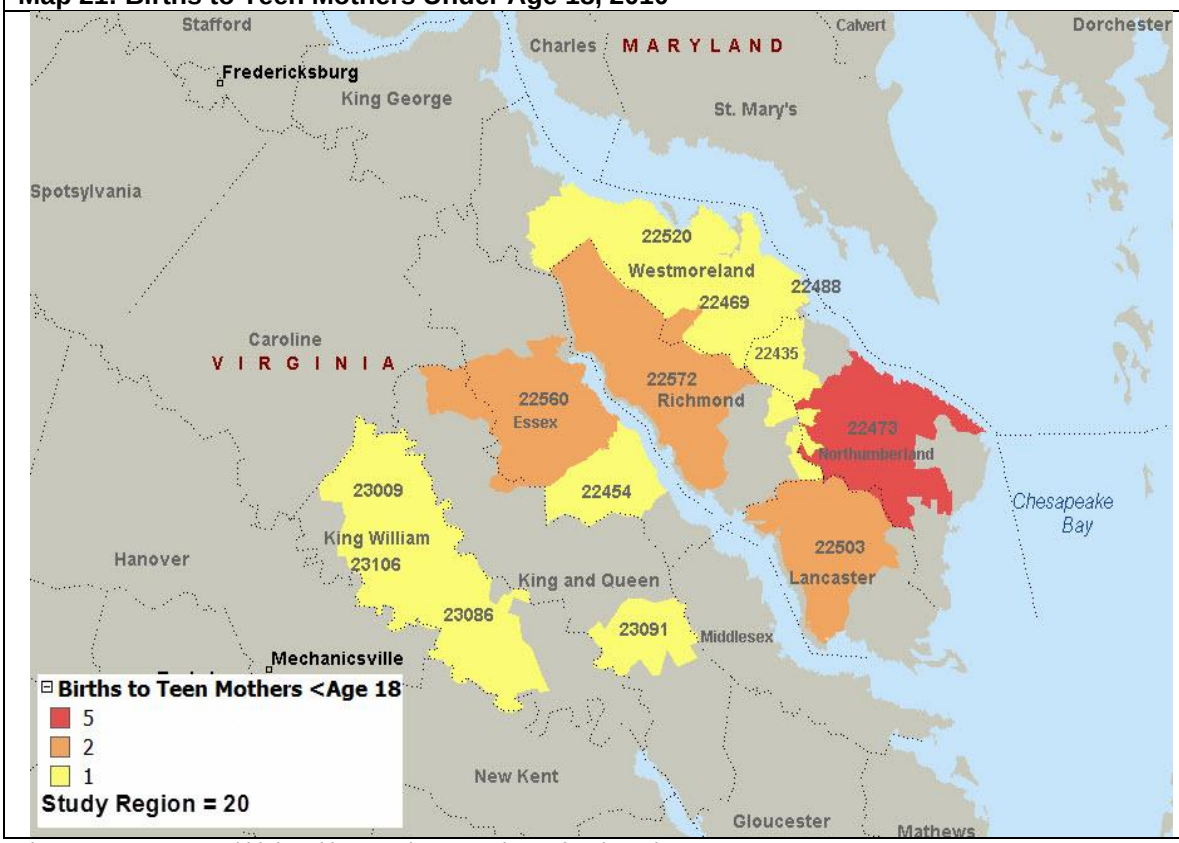


**There were no reported low weight births for zip codes 22509, 23161, 22476, 22438, 23091, 22437, 22511, 22488, 22539, 23156, 22436, 22504, and 22480.*

Map 20: Births Without Early Prenatal Care (No Prenatal Care in the First 13 Weeks), 2010*



Map 21: Births to Teen Mothers Under Age 18, 2010**



** There were no reported births without early prenatal care for zip codes 22438, 23091,22437,22511,22480,23126,23177,23110 22432, and 23106.*

** *There were no reported births to teen mothers under age 18 for zip codes 22438, 22437, 22511, 22480, 23126, 23177, 23110, 22432 22509, 23161, 22476, 22539, 22436, 22504, 23023, 22460, 23085, 23156, 23148, 22576, 22578, and 22482.*

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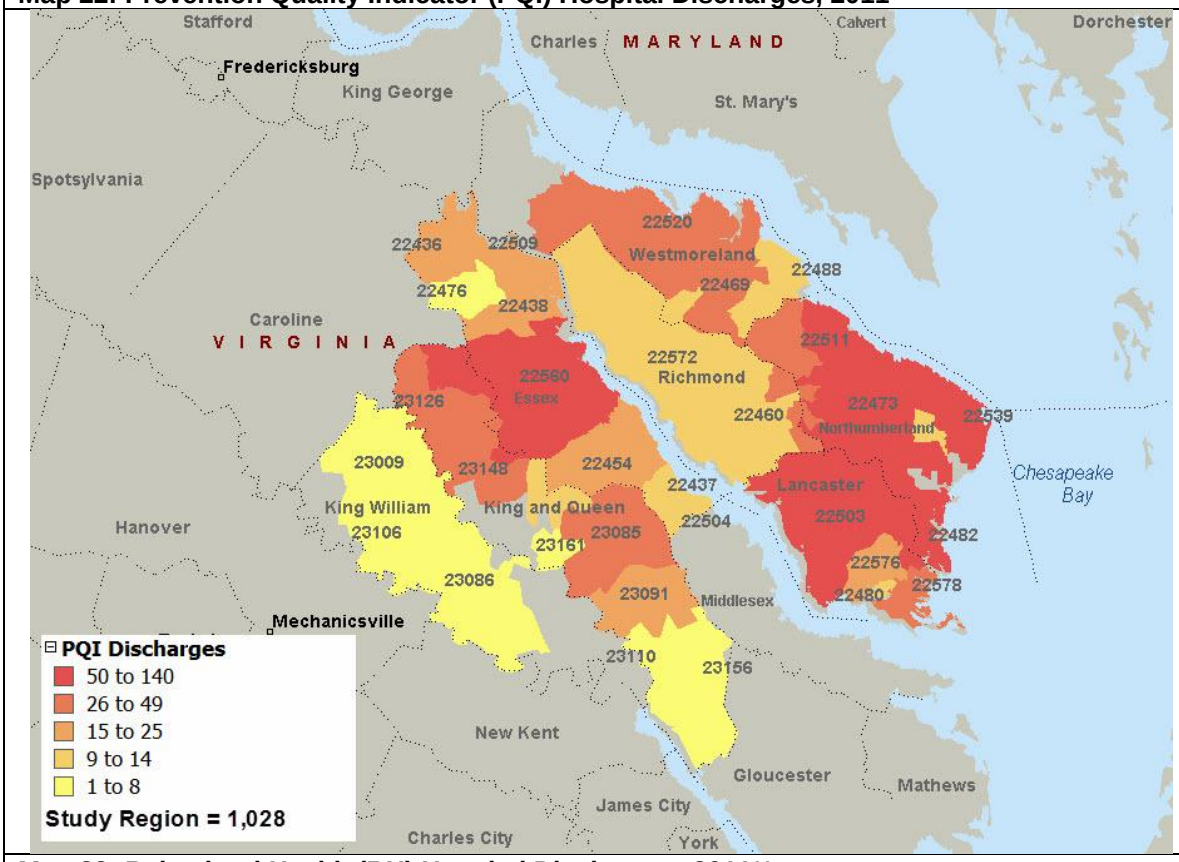
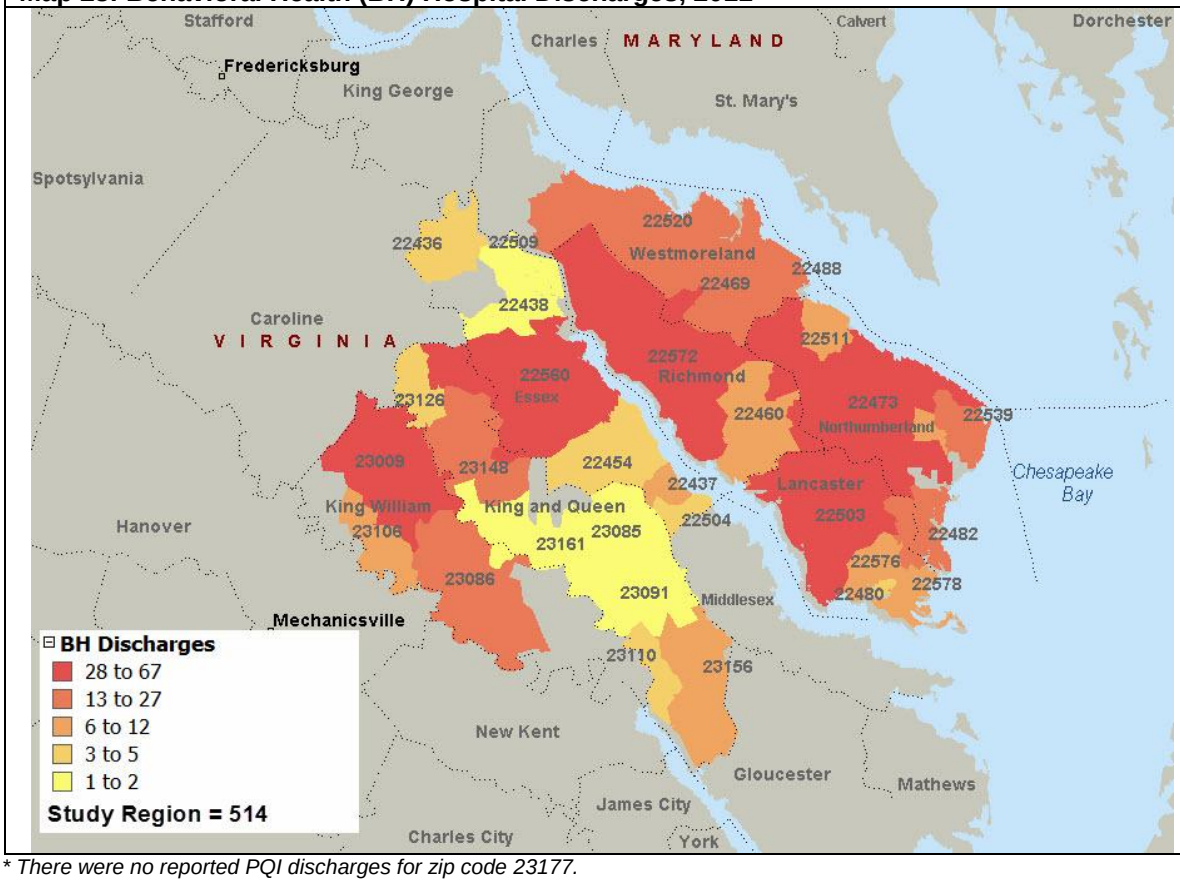
Map 22: Prevention Quality Indicator (PQI) Hospital Discharges, 2011*



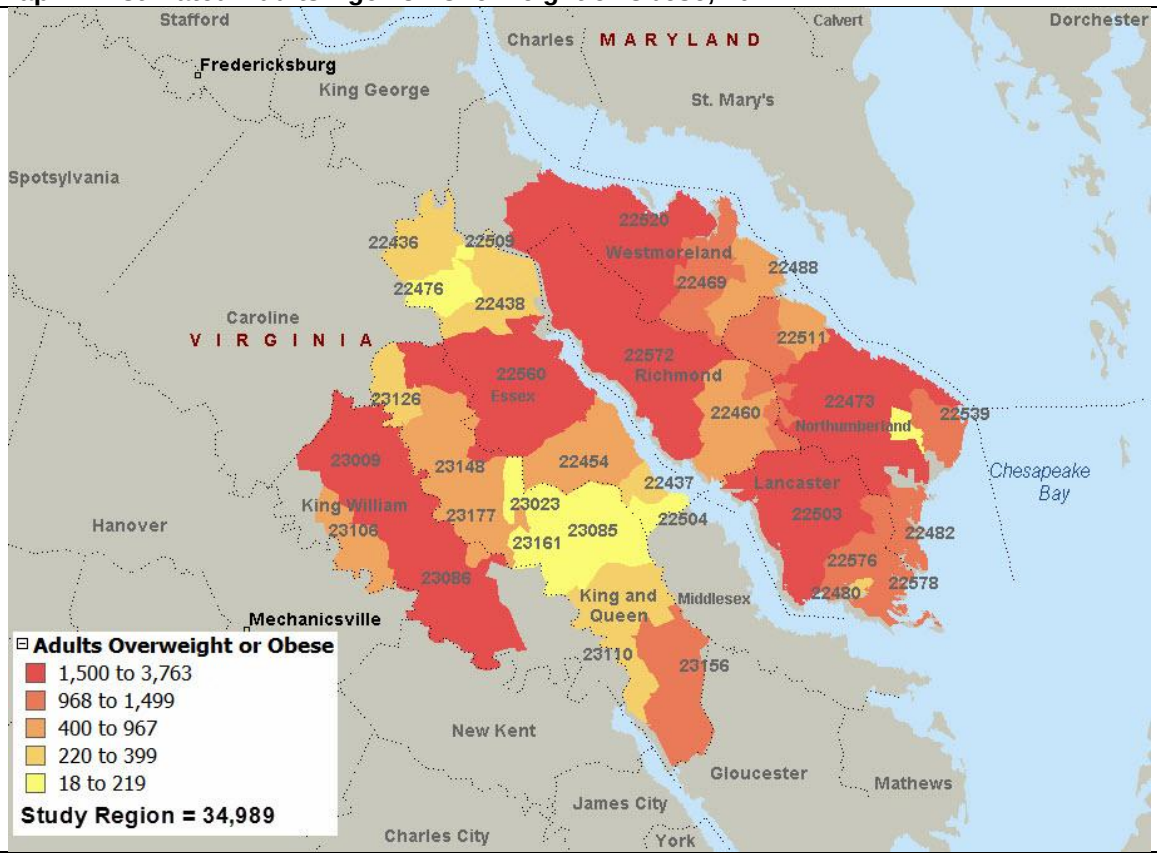
Map 23: Behavioral Health (BH) Hospital Discharges, 2011**



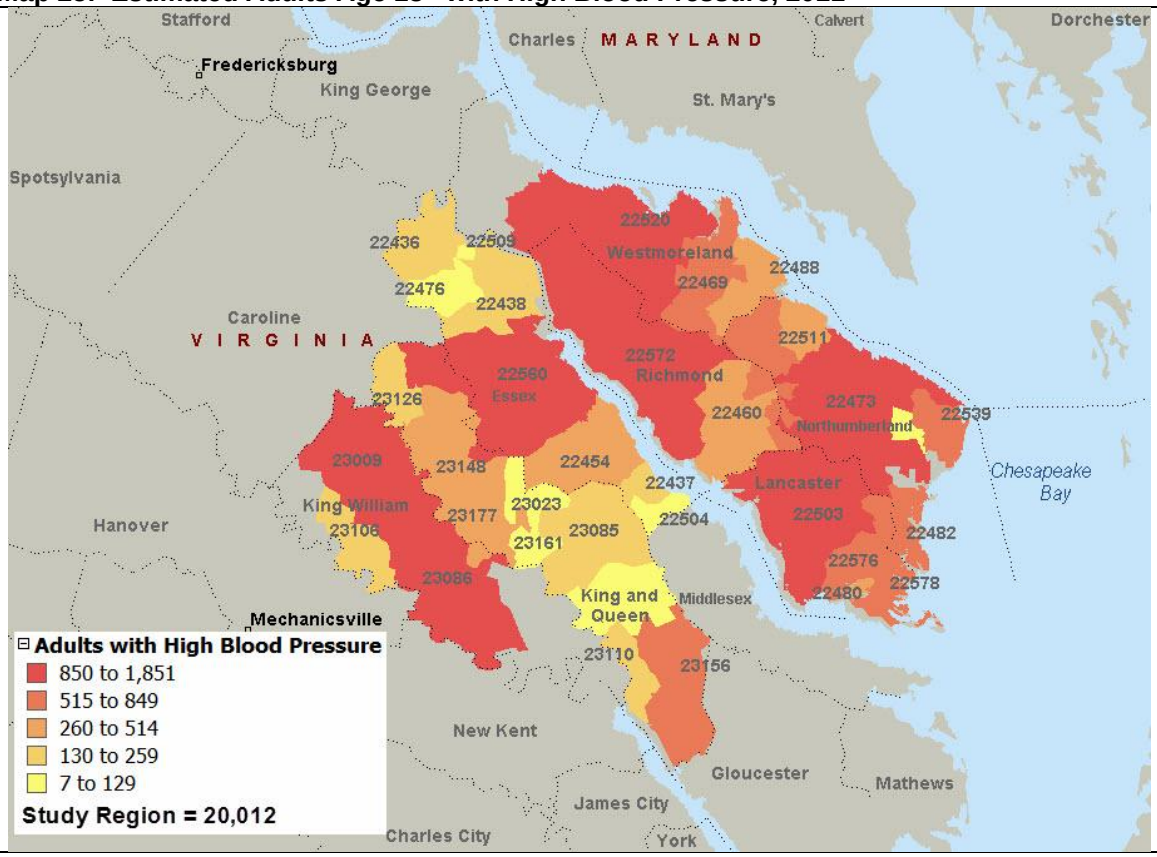
** There were no reported PQI discharges for zip code 23177.*

*** There were no reported BH discharges for zip codes 22476 and 23023.*

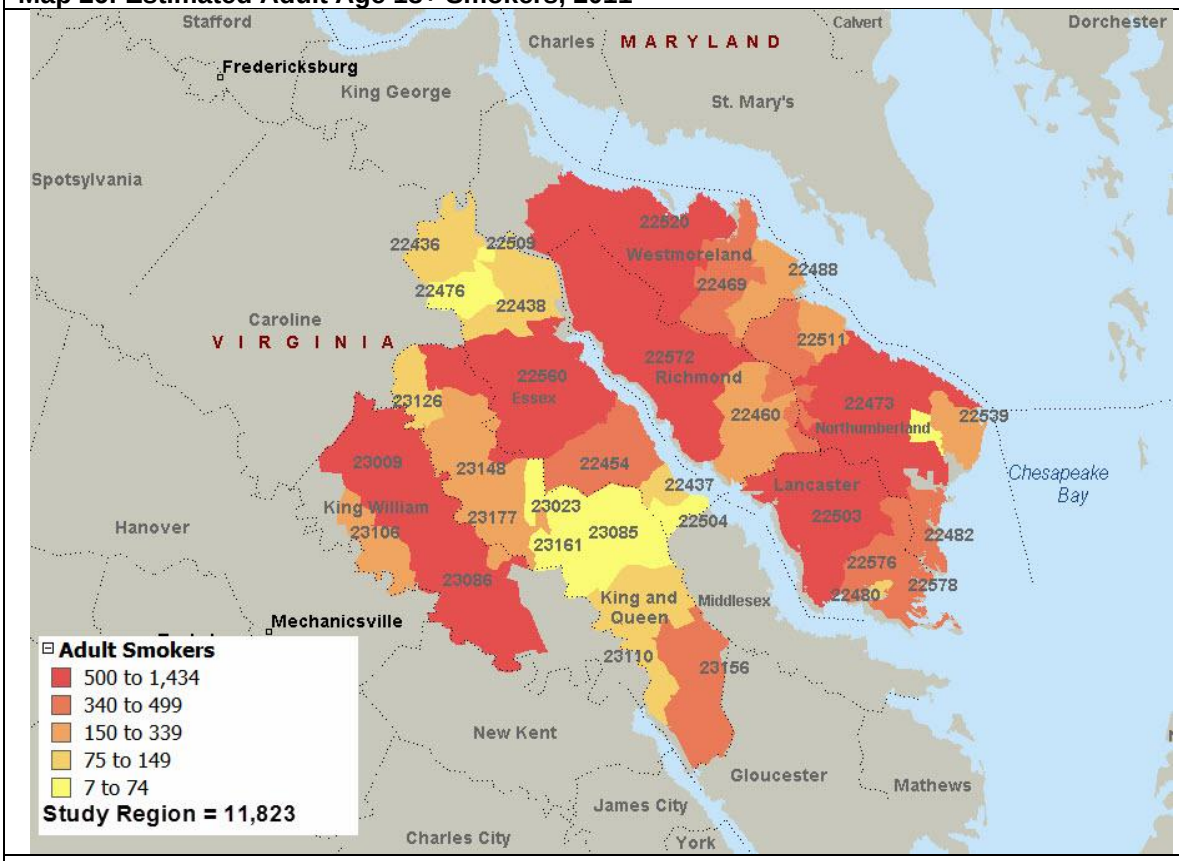
Map 24: Estimated Adults Age 18+ Overweight or Obese, 2011



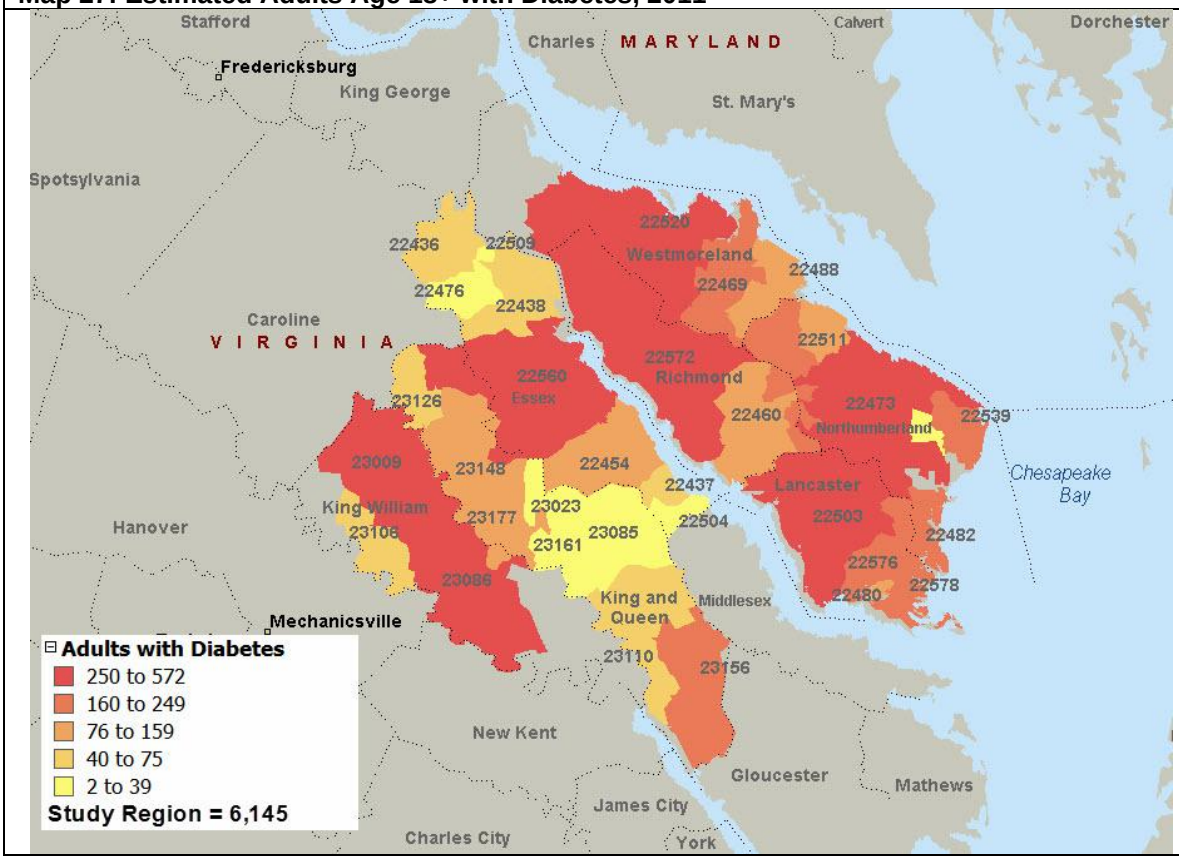
Map 25: Estimated Adults Age 18+ with High Blood Pressure, 2011



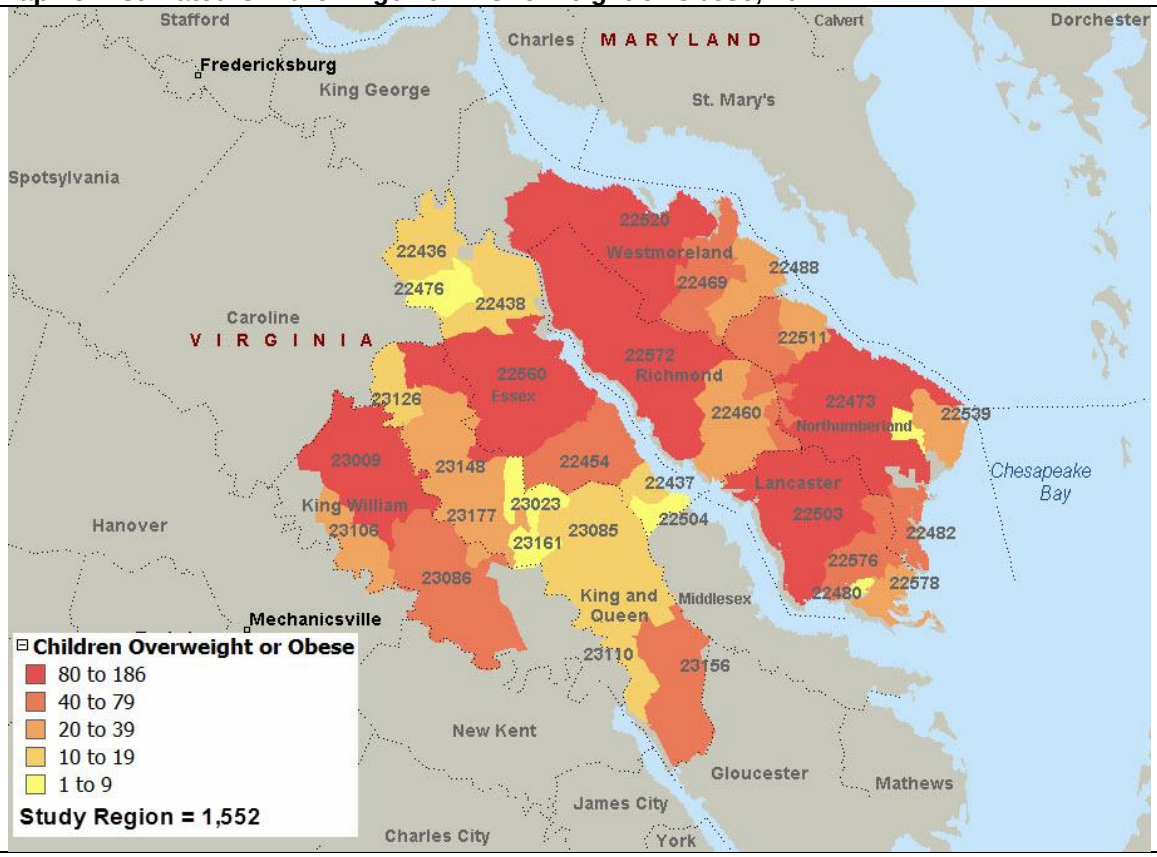
Map 26: Estimated Adult Age 18+ Smokers, 2011



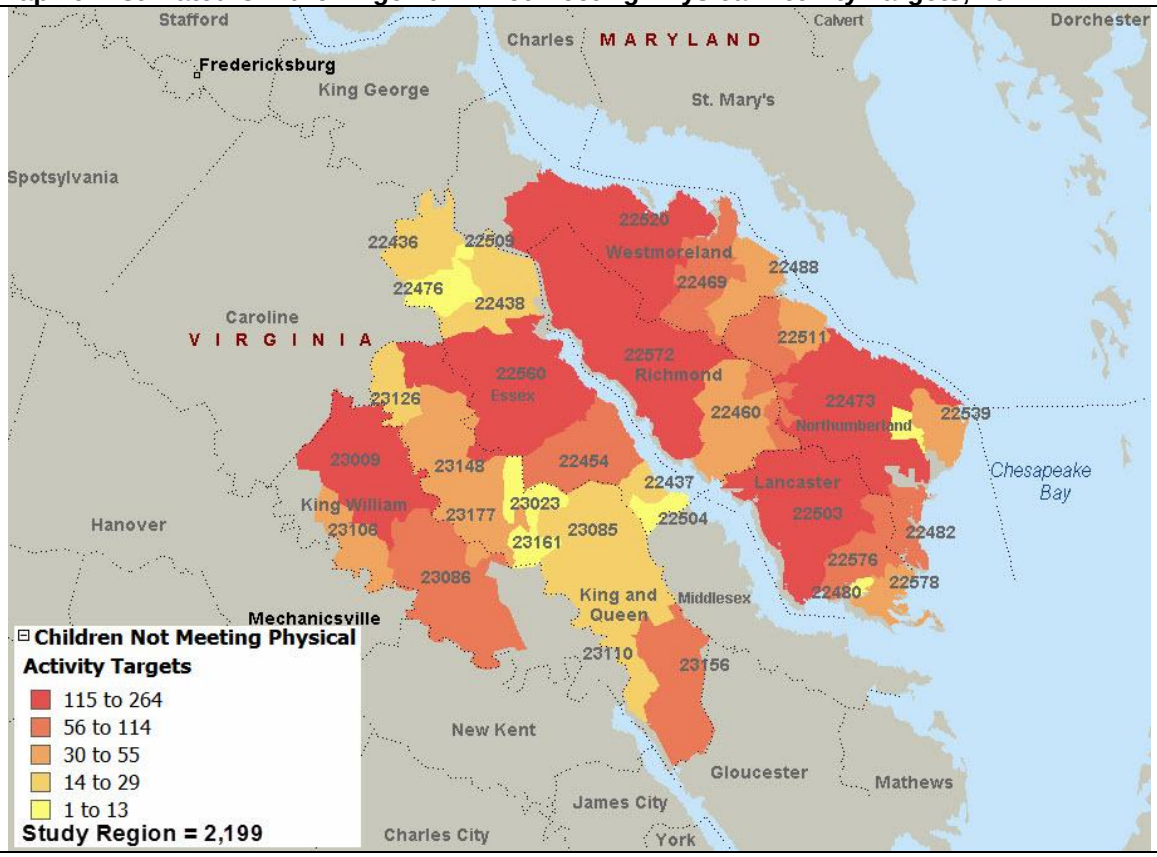
Map 27: Estimated Adults Age 18+ with Diabetes, 2011



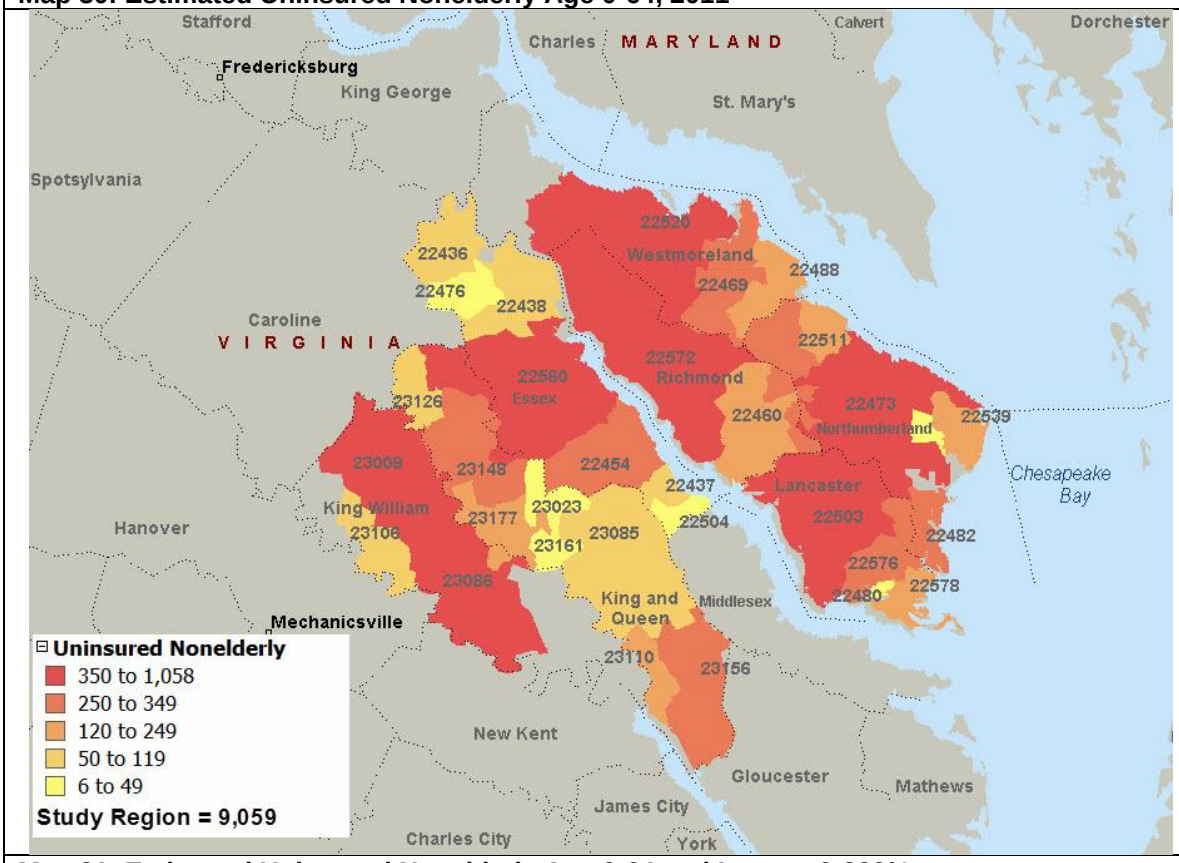
Map 28: Estimated Children Age 10-17 Overweight or Obese, 2011



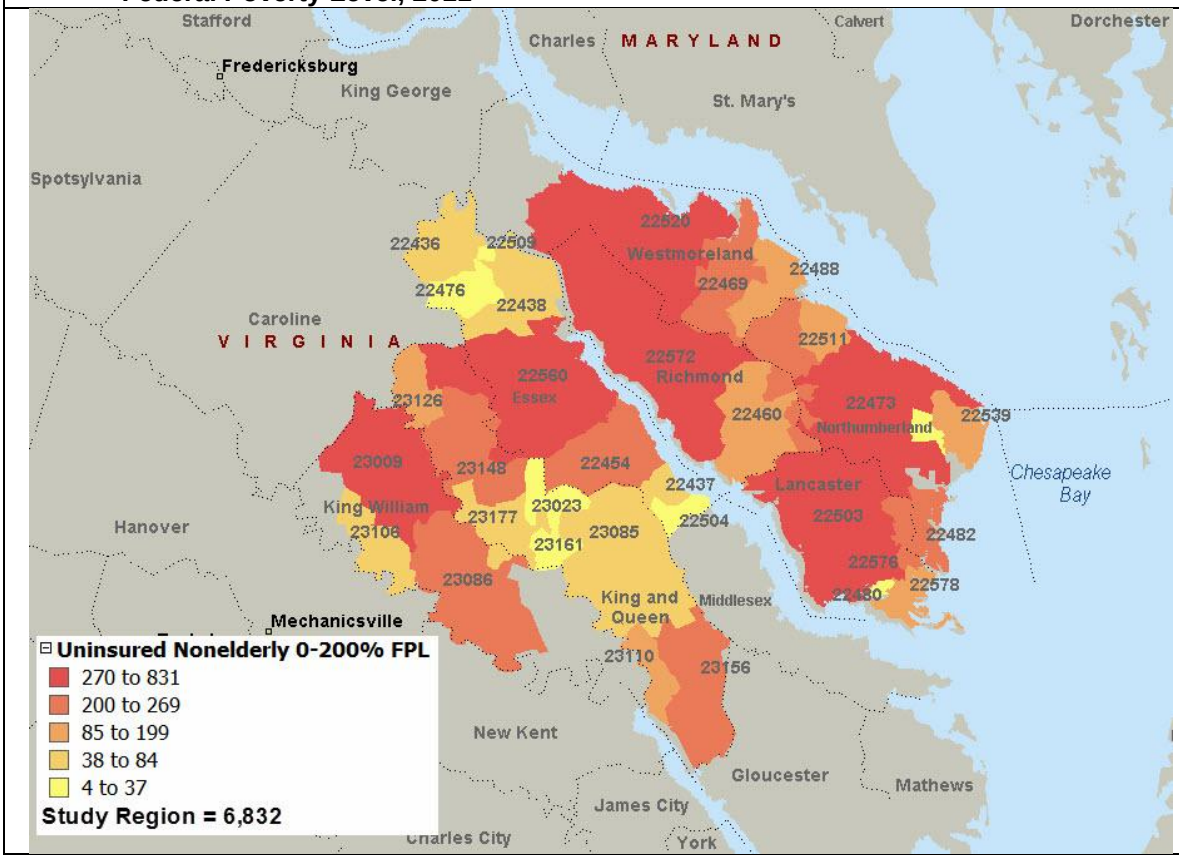
Map 29: Estimated Children Age 10-17 Not Meeting Physical Activity Targets, 2011



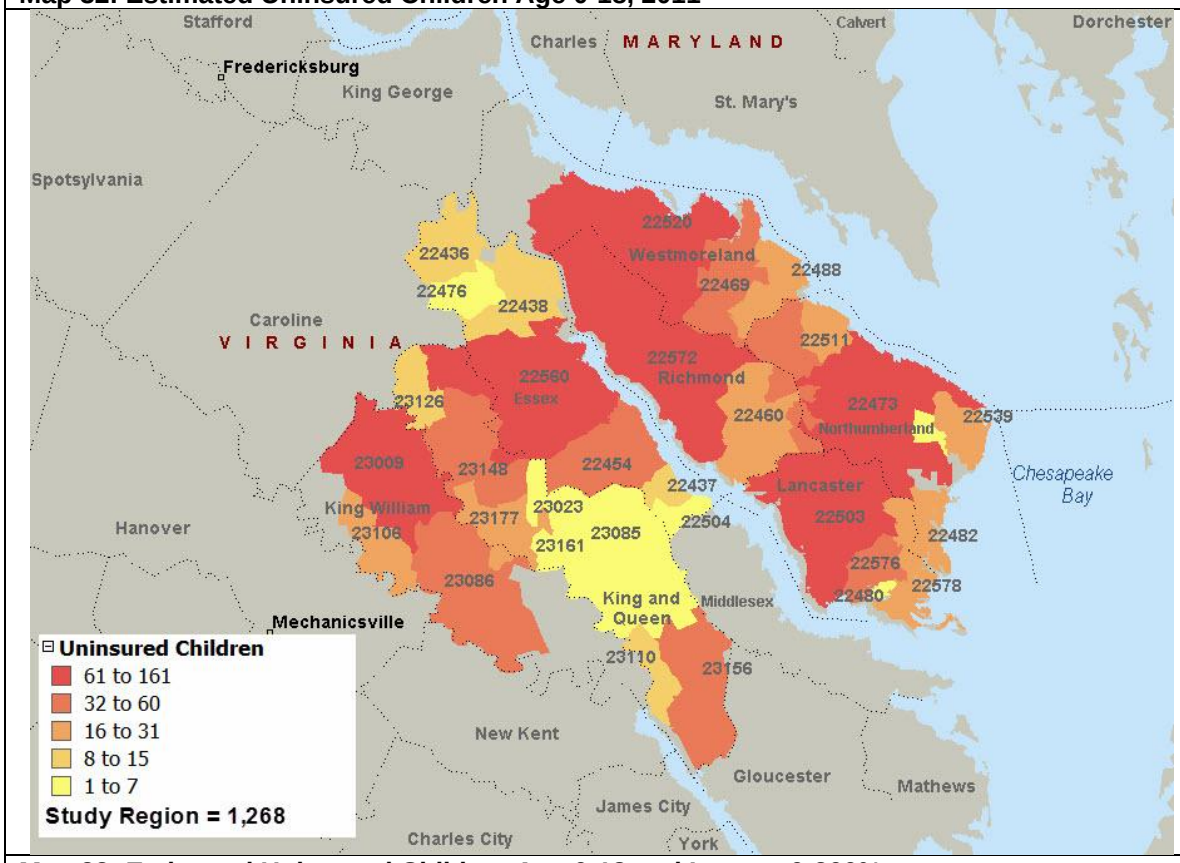
Map 30: Estimated Uninsured Nonelderly Age 0-64, 2011



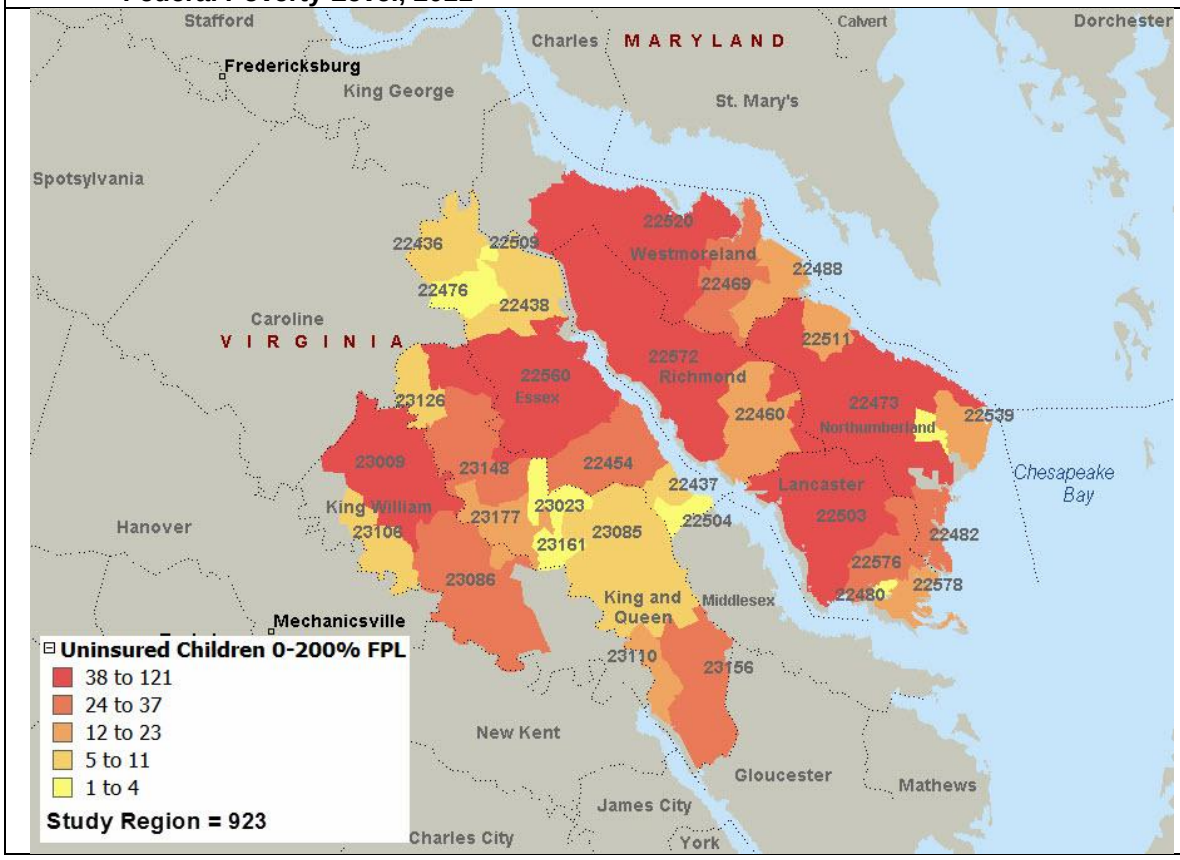
Map 31: Estimated Uninsured Nonelderly Age 0-64 and Income 0-200% Federal Poverty Level, 2011



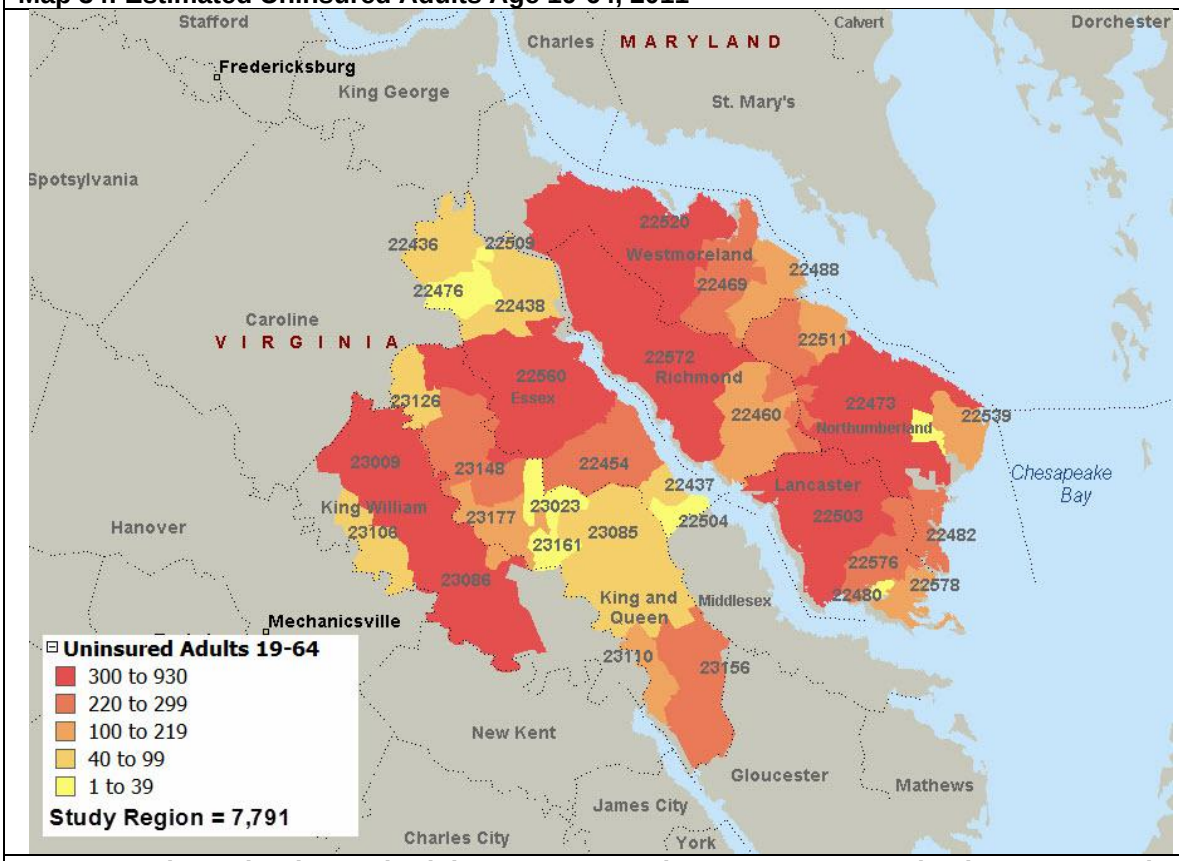
Map 32: Estimated Uninsured Children Age 0-18, 2011



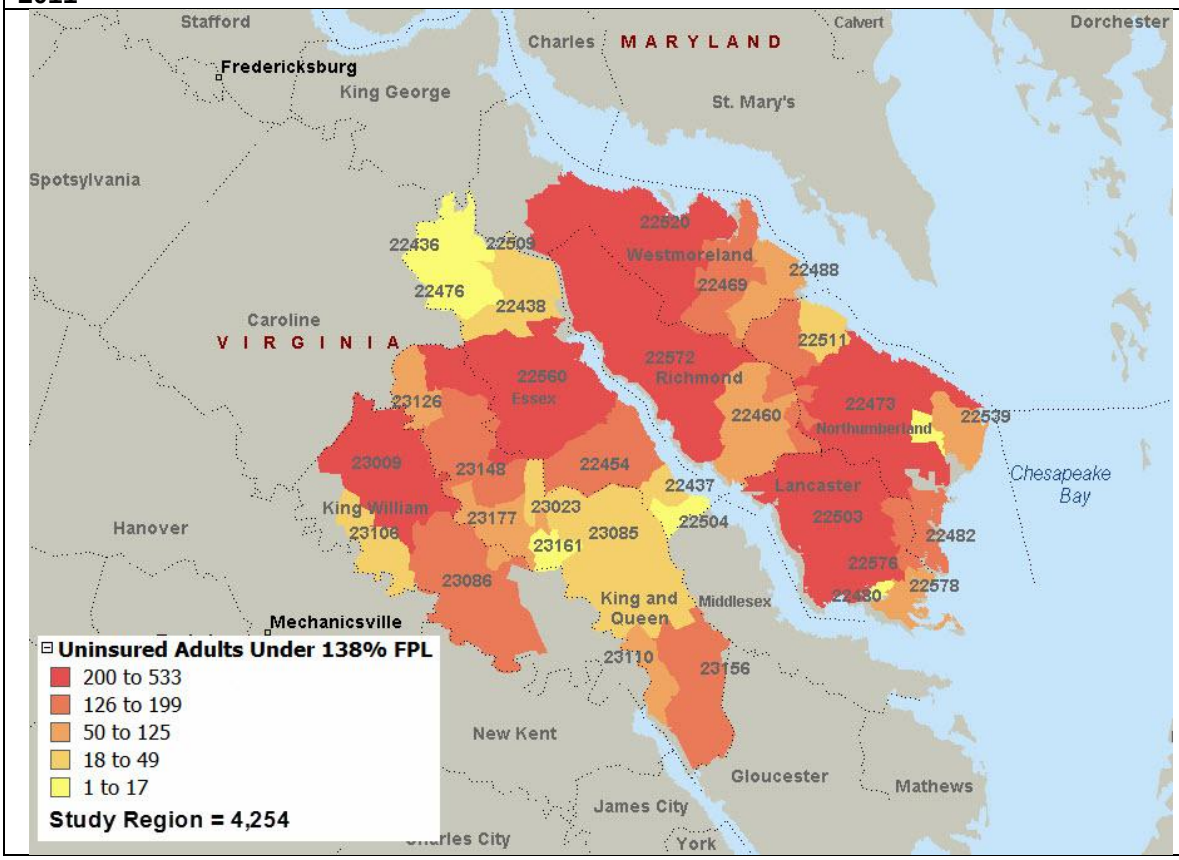
Map 33: Estimated Uninsured Children Age 0-18 and Income 0-200% Federal Poverty Level, 2011



Map 34: Estimated Uninsured Adults Age 19-64, 2011



Map 35: Estimated Uninsured Adults Age 19-64 and Income 0-138% Federal Poverty Level, 2011



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

Respondents to the *Community Insight Survey* were invited to submit additional ideas and suggestions for improving community health. The open-ended responses are listed below.

Ideas and Suggestions for Improving Community Health	
Response	
1	Great mission. Think we could work on enhancing their well-being part of this mission.
2	1. Cancer. Cancer Care is fragmented locally which creates delays to care and anxiety for patients. We should look at ways to enhance cancer care locally. 2. COPD/CAD Would be nice to have cardio- pulmonary rehab locally
3	Extensive community outreach is needed in the Tappahannock/Essex community by the hospital. I realize that support is happening in town and marketing is apparent there, but the outreach beyond the town area seems to be where more can be done.
4	Greater visibility in the community, i.e. health fairs.
5	In any small community word travels fast if someone has had a problem with any business. Luckily I have not had the need to be hospitalized but know of some that have and complain about some of the doctors being abrupt and not caring at all. This can create a reputation that is not good. I am just bringing this up because I think you need to know.
6	It appears that if you are past a certain age you are written off.
7	It would be beneficial to the citizens of this community if, while in the ER or the hospital, long term screening were completed (if applicable) to cut down on the waiting time for DSS and the Health Dept. to schedule a joint screening.
8	It would be great if we could figure out ways to partner more widely across the community to improve community health.
9	Law enforcement needs speedy health screening for mental ECO patients-before placement and transport to a mental facility. Often hours upon hours sitting in hospital waiting for health screening before officer can transport. Manpower shortage puts general public in jeopardy while babysitting mental ECO screening. Usually only two officers on patrol per county.
10	Mental health, as in most communities, is a much neglected point of focus. Realizing the fact that the reimbursement is not there for these services as it should be, somehow as care providers we need to ascertain how we can better meet this need.
11	Partnerships established between hospital, family, family physician and schools to ensure children experience adequate parenting and developmentally appropriate early education whether at home or in day care.
12	1. Possibly more resources for our geriatric patients (such as a day program for those w/ dementia) or services to help with lifestyle changes. 2. Programs for weight loss, exercise, nutrition instruction (could be done in group settings).
13	Prenatal /OB care would be a wonderful addition along with mental health (MH is a community crisis in my opinion) and dental services for the uninsured.
14	Riverside Health System has been a full team member and has lead the way from EMS and Home Care to working to ensure we have the doctors to meet the need of not only Tappahannock/Essex but the region. Thanks to you and [local physician] for taking the medical lead for all of us.
15	Riverside Hospice could greatly benefit from an increased focus on patient care. I actually had a hospice nurse tell me that she had too many patients to take care of and she could not be expected to keep all of them straight when it came to their medication therapy.
16	The community needs assistance for those in the community who do not qualify for Long Term Care. Many seniors want to remain in their own home but often they do not have support and are home alone. Normally aides are only in the home a few hours during the day. Lancaster does not have an Assisted Living Facility which would be an option for low income persons. Overall, more support services for the Elderly are desperately needed.

Continued on next page…

17	Include a program of patient navigation that would improve continuity of care, decrease use of unneeded higher level health care services, and increase matching of patient needs, over a period of time, with the appropriate level of health care and type of provider.
18	Updated physical facility with private rooms.
19	[It] would be great to have adult as well as child psychiatrists.
20	1. Wound care and Coumadin clinic for those individuals that do not meet Home Health criteria. 2. Adult Day Care
21	Your survey process is welcomed. Thank you for the opportunity to participate!

APPENDIX C: Community Health Needs Assessment 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	Community Health Solutions analysis of 2000 and 2010 Census, plus 2011 population estimates and 2016 population projections from Alteryx, Inc. Alteryx, Inc. is a commercial vendor of demographic data.
3) Mortality Profile	Community Health Solutions analysis of Virginia Department of Health 2010 death record data.
4) Maternal and Infant Health Profile	Community Health Solutions analysis of Virginia Department of Health 2010 birth record data.
5) Preventable Hospitalization Profile 6) Behavioral Health Hospitalization Profile	Community Health Solutions analysis of hospital discharge data from the Virginia Health Information (VHI) January 1-December 31, 2011 dataset. *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	Synthetic estimates by Community Health Solutions based on: 1) national and statewide Behavioral Risk Factor Surveillance Survey data from the Centers for Disease Control; and 2) demographic data from Alteryx, Inc.
8) Child Health Risk Factor Profile	Synthetic estimates by Community Health Solutions based on: 1) statewide data from Market Decisions' 2010 Obesity Survey commissioned by Virginia Foundation for Healthy Youth; and 2) demographic data from Alteryx, Inc.
9) Uninsured Profile	Uninsured indicators are synthetic estimates by Community Health Solutions based on: 1) Multiple national and statewide uninsured estimates and 2) demographic data from Alteryx, Inc.
10) Medically Underserved Profile	Community Health Solutions analysis of U.S. Health Resources and Services Administration data.