

A Community Health Needs Assessment
Prepared for VCU Community Memorial Hospital
By Community Health Solutions
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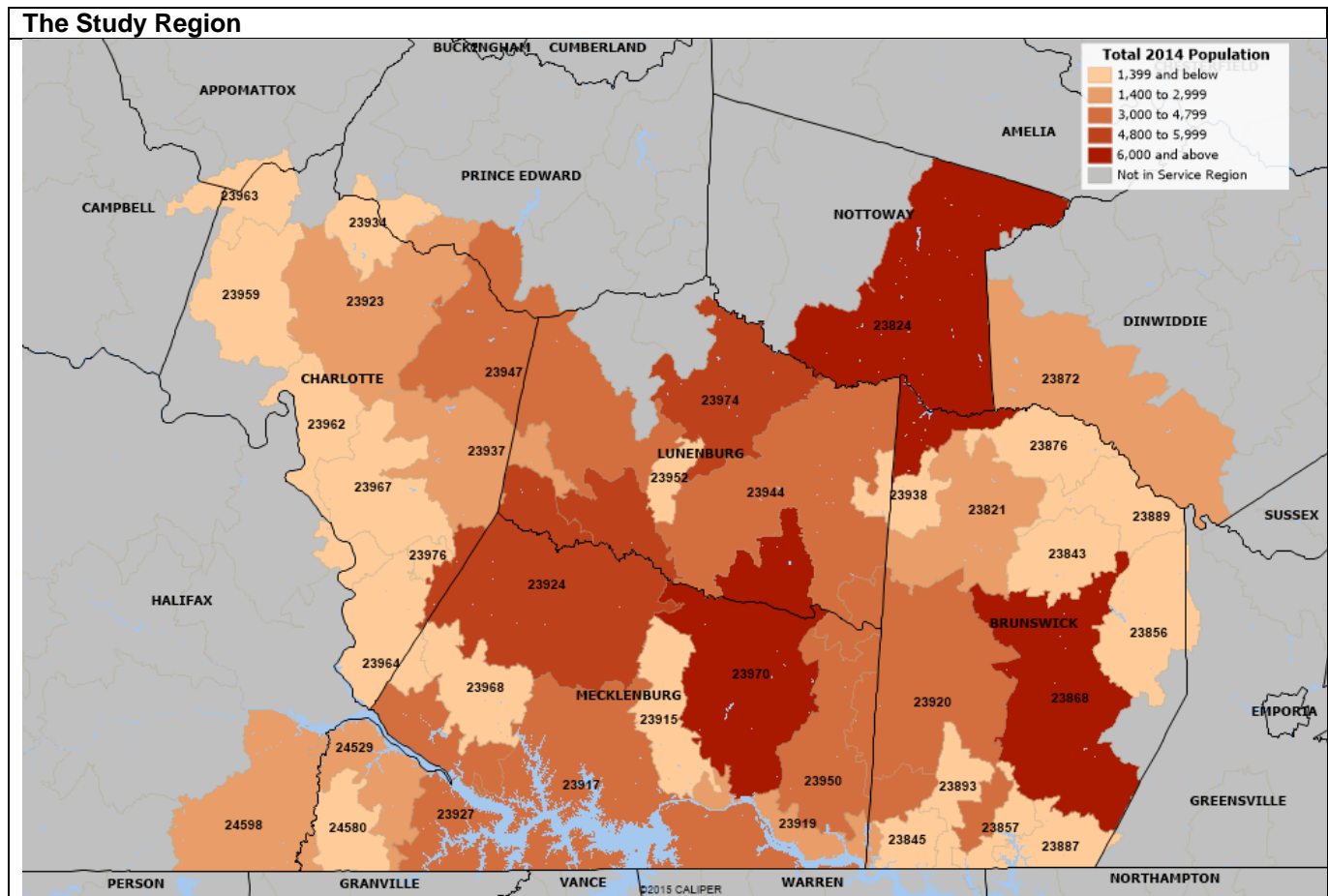
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Executive Summary

The mission of VCU Community Memorial Hospital is to "provide excellence in the delivery of healthcare". With this mission in mind, VCU Community Memorial Hospital commissioned Community Health Solutions to conduct this community health needs assessment in 2015.

The study focuses on the VCU Community Memorial Hospital service area of 38 zip codes, most of which fall within Brunswick, Charlotte, Lunenburg, Mecklenburg and Nottoway counties. The study region is shown in the map below. The results 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.



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 VCU Community Memorial Hospital. The survey participants were asked to provide their viewpoints on:

- Important health concerns in the community;
- Significant service gaps in the community;
- Specialty medical care service gaps in the community;
- Vulnerable/at-risk populations in the community;
- Vulnerable/at-risk regions in the community; and
- Additional ideas or suggestions for improving community health.

The survey was sent to a group of 427 community stakeholders. A total of 76 (18%) submitted a response (although not every respondent answered every question). The respondents provided rich insights about community health in the study region. To summarize:

- **Health Concerns.** The respondents identified over 20 important community health concerns including cancer; Alzheimer's Disease; heart disease; high blood pressure; stroke; adult obesity; diabetes; prenatal and pregnancy care; tobacco use; childhood obesity; and other concerns.
- **Service Gaps.** The respondents identified more than two dozen specific community services in need of strengthening, including long term care services; aging services; behavioral health services; cancer services; chronic pain management services; health insurance coverage; maternal, infant, and child health services; early intervention services for children; specialty medical care; primary health care; and other services.
- **Community Specialty Medical Services Gaps.** The respondents were asked to review a list of specialty medical services typically needed to address community healthcare needs. Identified gaps include cardiologists, dermatologist, family practice physicians, geriatricians, pediatricians, oncologists, urologists, and other specialists.
- **Vulnerable or At-Risk Populations.** The respondents were asked to identify particular populations who are vulnerable or at risk for health concerns or difficulty obtaining health services. Identified populations include the elderly; children; low income and unemployed or under-employed residents; persons without reliable transportation; and members of the Hispanic community.
- **Vulnerable or At-Risk Regions.** The respondents were also asked to identify vulnerable or at-risk neighborhoods or geographic regions in the community. Identified regions include rural areas generally, plus South Hill, Mecklenburg, Brunswick, Lunenburg, and several specific neighborhoods. (See *Appendix A* for zip-code level maps of selected demographic and health indicators for the region).
- **Ideas and Suggestions.** Thirty-three respondents offered open-ended responses with additional ideas and suggestions for improving community health.

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 2014, the study region included an estimated 81,737 people. The population is expected to increase to 82,151 by 2019. Compared to Virginia as a whole, the study region is more rural, older, and more racially/ethnically diverse. The study region also has lower income and educational attainment among adults than Virginia as a whole. Focusing on trends from 2010 to 2019, it is projected that population growth of 14 percent will occur in the senior population age 65+, with declining populations expected in other age groups. Focusing on race and ethnicity, growth is expected within the Asian, Other or Multi-Race, and Hispanic population groups, with declines expected in the White and Black/African American population segments.
- *Mortality Profile.* The study region had 1,080 total deaths in 2013. The leading causes of death were heart disease (275 deaths), malignant neoplasms (cancer) (255 deaths), and cerebrovascular disease (stroke) (83 deaths). The death rates in the study region (unadjusted for age) were higher than Virginia overall, and for the top seven causes of death.

- *Maternal and Infant Health Profile.* The study region had 778 total live births in 2013. Of these, 89 (11%) were born with low birth weight, 155 (20%) were births without early prenatal care, 407 (52%) were non-marital births, and 70 (9%) were births to teens [with most (56) involving older teens age 18 or 19]. Compared to Virginia as a whole, the study region had higher rates of low weight births, births without early prenatal care, and non-marital births. The five-year infant mortality rates were higher than the statewide rate for four of the five counties, the exception being Lunenburg County. Teen pregnancy rates were also higher than the statewide rate for four of the five counties, the exception being Mecklenburg County.¹
- *Preventable Hospitalization Profile.* The Agency for Healthcare Research and Quality (AHRQ) identifies a defined 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. Residents of the study region had 1,705 PQI hospital discharges in 2013. The leading diagnoses for these discharges were chronic obstructive pulmonary disease (COPD) and asthma in older adults (449); congestive heart failure (445), Diabetes (240), and Bacterial Pneumonia (200). The PQI discharge rates for the study region were higher than the Virginia statewide rates PQI diagnoses overall and for the seven leading causes.
- *Behavioral Health Hospital Discharge Profile.* Behavioral health hospitalizations provide another important indicator of community health status. Residents of the study region had 626 hospital discharges from Virginia community hospitals for behavioral health conditions in 2013. The leading diagnoses for these discharges were affective psychoses (226), schizophrenic disorders (95), and Depressive Disorders (53). The BH discharge rates for the study region were higher than Virginia statewide rates overall and for four of the top five causes, the exception being a lower rate for schizophrenic disorder.
- *Adult and Youth 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 12,721 nonelderly residents of the study region were uninsured in 2014. Among both children and adults, the majority of uninsured residents were estimated to have incomes 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 five counties that overlap the study region have been designated as MUAs.

¹ 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.

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: Maps

Appendix A provides a set of thematically colored maps displaying variation in community health indicators by zip code. The maps are accompanied by a table of the same indicators.

Appendix B: Trend Analysis of Priority Concerns

Appendix B provides trend analysis of indicators for health concerns that were identified as priorities in the 2011 CHNA report.

Appendix B: Data Sources

Appendix B provides detail on the methods used to produce the indicators.

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 VCU Community Memorial Hospital. The survey participants were asked to provide their viewpoints on:

- Important health concerns in the community;
- Significant service gaps in the community;
- Specialty medical care service gaps in the community;
- Vulnerable/at-risk populations in the community;
- Vulnerable/at-risk geographic regions in the community; and
- Additional ideas and suggestions for improving community health.

The survey was sent to a group of 427 community stakeholders. A total of 76 (18%) 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 Respondents²**

AmeriCare Plus (2)	Park View High School (2)
Benchmark Community Bank	R. T. Arnold Library
BGF Industries	Re/Max On The Lake
Brunswick County Public Schools (2)	Retired (2)
Citizens Community Bank (4)	School Board
VCU Community Memorial Hospital (4)	South Hill Enterprise
Courier-Record Newspaper	South Hill Volunteer Fire Department (2)
Crowder-Hite-Crews Funeral Home	South. Hill. Chamber
Edward Jones Investments (2)	Southside Appraisal Services
Exit Town & Lake Realty (3)	Southside Health District - Mecklenburg County Health Department
FIRST CITIZENS BANK	Southside Massage, LLC
GLENN E. BARBOUR, P. C.	Southside Medical Management
Halifax Community College	Southside PDC
International Veneer	Southside VA Community College (4)
It's A Royal Affair Design & Marketing	SoVa Realty
Jackson Hewitt	SVRMC
Lake Country Area Agency on Aging (2)	Team Nurse, Inc.
Lake Gaston Regional Chamber of Commerce	The Colonial Center for Performing Arts
Lunenburg County Public Schools	The Mecklenburg Sun
MacCallum More Museum & Gardens	Town of South Hill (5)
Mary Baldwin College	Virginia Senate
Mecklenburg County Public Library	Virginia Asset Management (2)
Mecklenburg County Public Schools	Virginia-Carolina Appraisal Co
Mecklenburg Electric Cooperative (2)	Unknown Organization (6)

²A count is provided for organizations with multiple survey respondents. One respondent represented more than one 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, including open-ended responses.

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

Answer Options	Response Percent ³	Response Count
Cancer	91%	68
Alzheimer's Disease	79%	59
Heart Disease	76%	57
High Blood Pressure	73%	55
Stroke	71%	53
Adult Obesity	68%	51
Diabetes	68%	51
Prenatal & Pregnancy Care	57%	43
Tobacco Use	53%	40
Childhood Obesity	49%	37
Depression	48%	36
Arthritis	45%	34
Infant and Child Health	45%	34
Mental Health Conditions (other than depression)	43%	32
Orthopedic Problems	41%	31
Substance Abuse - Illegal Drugs	40%	30
Dental Care/Oral Health-Pediatric	39%	29
Teen Pregnancy	39%	29
Dental Care/Oral Health-Adult	36%	27
Renal (kidney) Disease	35%	26
Substance Abuse - Prescription Drugs	35%	26
Alcohol Use	32%	24
Chronic Pain	32%	24
Injuries	32%	24
Neurological Disorders (seizures, multiple sclerosis)	31%	23
Respiratory Diseases (other than asthma)	31%	23
Asthma	28%	21
Physical Disabilities	24%	18
Autism	21%	16
Infectious Diseases	21%	16
Domestic Violence	20%	15
Intellectual/Developmental Disabilities	20%	15
Sexually Transmitted Diseases	13%	10
HIV/AIDS	12%	9
Environmental Quality	9%	7
Other Health Problems (see next page)	11%	8

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 Seventy-five (75) of the 76 survey respondents answered this question.

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

Other Important Community Health Concerns Identified by Survey Respondents	
Response #	Reponses
1.	All items checked are critical health concerns for the community, especially the youth attending public schools.
2.	At first I marked every box, then I tried to focus in on those that seems more widespread in their being problems.
3.	Dermatology
4.	1. Dermatology 2. Support groups for people caring for aging parents, education on the aging process of parents and how to cope with them.
5.	Skin diseases
6.	The prevalence of cancer seems off the charts.
7.	We have a lot of bad habits around here. Folks eat too much, smoke, and drink too much.
8.	We have many children in our school system with asthma. Our numbers of autistic children are growing. Also parents need education about nutrition for their children; we have many children who have decaying teeth when they enter Pre-K. There is a great need for prenatal and pregnancy care (we have no obstetrician or pediatrician in our county) as well as education for teens concerning teen pregnancy and STDs.

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
Long Term Care Services	62%	44
Aging Services	59%	42
Behavioral Health Services (including mental health, substance use and intellectual disability)	54%	38
Cancer Services (screening, diagnosis, treatment)	51%	36
Chronic Pain Management Services	42%	30
Health Care Insurance Coverage (private and government)	41%	29
Maternal, Infant & Child Health Services	41%	29
Early Intervention Services for Children	39%	28
Specialty Medical Care (e.g. cardiologists, oncologists, etc.)	38%	27
Primary Health Care Services	35%	25
Food Safety Net (food bank, community gardens)	34%	24
Health Care Services for the Uninsured and Underinsured	34%	24
Home Health Services	34%	24
Job/Vocational Retraining	34%	24
Chronic Disease Services (including screening and early	32%	23
Patient Self-Management Services (e.g. nutrition, exercise, taking	32%	23
Dental Care/Oral Health Services-Pediatric	31%	22
Health Promotion and Prevention Services	31%	22
Transportation	31%	22
Hospital Services (including emergency, inpatient and outpatient)	28%	20
School Health Services	27%	19
Dental Care/Oral Health Services-Adult	25%	18
Family Planning Services	23%	16
Hospice Services	23%	16
Domestic Violence Services	20%	14
Physical Rehabilitation	20%	14
Social Services	18%	13
Homeless Services	14%	10
Pharmacy Services	14%	10
Public Health Services	13%	9
Environmental Health Services	10%	7
Workplace Health and Safety Services	7%	5
Other Community Health Services (see next page)	10%	7

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.

⁴ Seventy-one (71) of the 76 survey respondents answered this question.

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

Other Important Community Health Services Gaps Identified by Survey Respondents	
Response #	Responses
1.	Need for pulmonologist and dermatologist.
2.	Dermatology
3.	General Practitioners
4.	Glad that VCU-CMH is bringing back more "maternal care". I believe delivering babies at the hospital in South Hill probably needs to be a goal. I served on the now somewhat defunct/in transition "Smart Beginnings Southside" board, and Early Intervention Services for Children was an area we determined needed enhancing. In addition, some Dept. of Social Services reps participated on that board, but they seemed "spread thin".
5.	Labor and delivery
6.	The demographics of the area warrant a need for additional care of the senior citizens especially intervention services. The elderly don't want to give up their real estate in order to receive services or to benefit from Medicaid. Therefore, they need home health services and transportation to receive primary health care services.
7.	We have many children living in poverty in our area. They are coming to school already behind developmentally. Workshops for families would be beneficial in the areas of nutrition, literacy, and stages of growth and development. Schools share nurses, and in emergencies a nurse is not always available. Speech services are also needed for young children.

4. Community Specialty Medical Services Gaps

Survey respondents were asked to review a list of medical services that are typically important for addressing specialty health care needs of a community. Respondents were asked to identify from the list any specialty medical 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-4* summarizes the results, including open-ended responses.

Exhibit I-4
Gaps in Specialty Medical Services Identified by Survey Respondents

Answer Options	Response Percent ⁵	Response Count
Cardiologists	61%	43
Dermatologists	63%	45
Family Practice Physicians	66%	47
Geriatricians	51%	36
Pediatricians	55%	39
Oncologists	38%	27
Urologists	34%	24
Other-Specialty Medical Care Services (list in box below)	9%	6
Other Important Community Health Services Gaps Identified by Survey Respondents		
Response #	Responses	
1.	Endocrinologist, Infectious Disease Specialist, Pulmonologists	
2.	Infectious disease	
3.	Natural and holistic practitioners.	
4.	Need access to primary care, need urgent care option vs. having to go to emergency room and/or sitting for hours in primary care waiting room.	
5.	Nephrologists, visual and hearing specialists, podiatrists are not on the list. There are people who drive 70+ miles to receive services for items checked in the list above to avoid waiting all day in a health care facility.	
6.	Obstetrical/gynecological services	
7.	Orthopedics; pain management	
8.	Podiatrist, Urgent Care Facility	
9.	Psychologists/Psychiatrists/Mental Health Counselors.	

⁵ Seventy-one (71) of the 76 survey respondents answered this question.

5. Vulnerable/At-Risk Populations in the Community

Survey respondents were asked if there are particular populations within the community who are vulnerable/at-risk for health concerns or difficulties obtaining health services. *Exhibit I-5* summarizes the results, including representative comments.⁶

Exhibit I-5
Vulnerable/At-Risk Populations Identified by Survey Respondents

Vulnerable/At-Risk Population Category	Representative Comments ⁷
Elderly	<ol style="list-style-type: none"> 1. Elderly and aging populations need help especially those with little or no family support. 2. I believe the elderly population to be most at risk for health concerns. 3. Elderly with mental and health issues. 4. Elderly and children of high risk for abuse and neglect. 5. Long term care for the elderly. 6. Elderly (70+): number is increasing and this population is prone to medical issues, chronic conditions. 7. Low-and moderate-income families, elderly, and children of low-income families. 8. Physical therapy for the elderly and disabled need to be provided as an in-home service on a regular schedule. 9. I think all populations are at risk for various health care problems. The elderly and children are at greatest risk. 10. The elderly - with being underinsured & having to choose between paying for medications or medical care versus buying food or buying oil or gas/electric for heating their home. 11. The aging poor as well as young children from poverty stricken homes.
Children	<ol style="list-style-type: none"> 1. Children at high risk for abuse and neglect. 2. Children of low-income families. 3. Were it not for a grant in our school system (Essilor Vision Foundation), many students would not have received eye exams and eyeglasses this school year. Parents readily take their children to the emergency room in non-emergency situations. 4. I think all populations are at risk for various health care problems. The elderly and children are at greatest risk. 5. Children need healthier ways to get exercise and learn good nutritional habits. Also, dental care is not always a priority for some of the students I teach. The ones who do have braces have to drive out of town to get them. 6. A high percentage of students in the public school system receive free or reduced lunch. 7. The aging poor as well as young children from poverty stricken homes.
Low Income, Unemployed, Under-Employed	<ol style="list-style-type: none"> 1. Low -and moderate- income families, elderly, and children of low - income families. 2. Those low income families, that include single-parent households, the unemployed and underemployed. 3. Many low income people in this area go without seeing a doctor or waiting so long it necessitates a trip to the emergency room. 4. Working low income families that cannot receive assistance because they are employed. 5. We have a large number of low to moderate income residents. 6. Senior, low income folks who reside in outlying areas. 7. Low income, single parent families.

⁶Forty-two (42) of the 76 survey respondents answered this question. Most responses included multiple at-risk populations.

⁷ Many respondents identified the same types of populations (e.g. elderly), although with slightly different language. The populations listed in the Exhibit represent the range of populations identified.

Exhibit I-5 (continued)
Vulnerable/At-Risk Populations Identified by Survey Respondents (continued)

Vulnerable/At-Risk Population Category	Representative Comments⁸
Those without Reliable Transportation	<ol style="list-style-type: none"> 1. Seniors without reliable transportation. Transportation for non-medical appointments, i.e. grocery store, pharmacy consults. 2. I've heard of transportation issues in this area. 3. There are many marginalized groups that have little training, remain unemployed, and/or have no transportation.
Hispanic Community	<ol style="list-style-type: none"> 1. Hispanics; single mothers 2. Hispanics.

⁸ Many respondents identified the same types of populations (e.g. elderly), although with slightly different language. The populations listed in the Exhibit represent the range of populations identified.

6. Vulnerable/At-Risk Regions

Survey respondents were asked if there are particular neighborhoods or geographic regions within the community where residents may be vulnerable/at-risk for health problems or difficulties obtaining health services. *Exhibit I-6* summarizes the results, including representative comments.⁹

Exhibit I-6.
Vulnerable/At-Risk Neighborhoods or Geographic Regions Identified by Survey Respondents

Vulnerable/At-Risk Neighborhood/Geographic Regions	Representative Comments ¹⁰
Rural Areas	<ol style="list-style-type: none"> 1. Given that the area primarily remains rural, I would say that nearly all of the area has needs. 2. Rural areas where aging can't drive and are unaware of their needs or services available. 3. Rural areas, more than 15-20 miles in county. 4. As we have many, very rural areas, I would suspect that there are some who may be less likely to seek out health services. I could not identify by neighborhood, however. 5. Generally speaking, rural areas such as the Southside PDC region. 6. There is no geographic community that is more vulnerable than another in this rural area which has been a major farming locality of tobacco. 7. Rural areas with the lack of transportation. 8. I sense that the more rural the neighborhood, the harder it is to obtain health services.
South Hill, Mecklenburg, Brunswick, Lunenburg, Circle Drive	<ol style="list-style-type: none"> 1. Bracey, South Hill, many areas need outreach and transportation to help get benefits to them. 2. My sense/hunch is that Chase City is behind Clarksville and South Hill as a town with access. 3. I'm not sure if I can pin-point a particular neighborhood or region in the community, but there is no public transportation available in South Hill or the surrounding communities. 4. Circle Drive, South Hill. 5. The entire Mecklenburg, Brunswick and Lunenburg area; honestly. 6. Circle Drive. The Grove. Mecklenburg Manor. Trailer park near the post office. 7. Lunenburg, Mecklenburg & Brunswick

⁹ Twenty-eight (28) of the 76 survey respondents answered this question. Most responses included multiple at-risk populations.

¹⁰ Many respondents identified the same types of geographic regions (e.g. South Hill), although with slightly different language. The populations listed in the Exhibit represent the range of populations identified.

7. Additional Ideas and Suggestions

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

Additional Ideas and Suggestions Provided by Respondents	
Response #	Reponses
1.	Two great areas for growth: 1. Family Physicians - The options in town are less than desirable. 2. Long Term Care - large opportunity for a local area with our aging population.
2.	1. A language barrier sometimes exists because English is spoken with a heavy accent. Patients need to be able to clearly understand and communicate with their health care provider. 2. We also need more family/internal medicine physicians so that there is not a several day wait for treatment.
3.	All patient care is important. Bedside manner and communicating well across patient, doctor and nurses is imperative. The emergency room process and timeline has to be quicker and more efficient. Also a lot of people will travel out of the area for a Patient First or Better Med option due to convenience and speed of care especially on the weekends, but if the options were local they would stay.
4.	Any of the times I have been in your hospital I feel that I have been very well taken care of. It has been some time since I have been there overnight, but I remember being awakened very early to get my blood pressure, temperature, etc. Then being asked how I slept - removed that question as I was sleeping very well until they woke me up.
5.	Bringing back the OB department and adding dermatology would be terrific for our community!
6.	Continue to reach out to those less fortunate
7.	Educating parents about the importance of child development during the ages of 0-3 would benefit our
8.	Education concerning health care has become extremely necessary in order for (especially) low informed people to understand the issues of health care, primarily the cost (not just monetary). The notion that health care is free, that emergency rooms are for emergencies (not for a primary care visit), preventative health care is very important, and out-of-wedlock/teenage pregnancies can be devastating to families, and the economy are some of the educational concerns that need to be understood.
9.	<ol style="list-style-type: none"> 1. Expand educational and outreach programs on various health topics. 2. Ensure Veterans have access to care (many have to travel outside the region to get care). 3. Expand access to dental care for low income families. 4. Encourage use of alternative medicines and therapies. 5. Healthy Eating
10.	Great progress has been made since the affiliation in meeting some of the deficiencies noted in the survey.
11.	Have a signed death certificate with each body at the time of removal by funeral home.
12.	I am very thankful for our local hospital and all the employees, doctors, nurses, volunteers, administrators and board members, who day after day take care of our community and the visitors to our area. You should be proud of your accomplishments! VCU CMH is a great marriage, together you will fulfill a greater vision and hope for the people in our area. You are greatly appreciated!
13.	I believe support groups for many would be a tremendous help to this community, parenting classes, caring for the elderly, education for teens about drug abuse, sexual responsibilities and repercussions, a safe place possibly hotline for high risk teens. hot lines for domestic abuse.
14.	I believe the hospital needs a physician liaison that could help with physician relations, keep our physicians informed about new providers and services as well keep our physicians connected/involved with the hospital.

Additional Ideas and Suggestions Provided by Respondents

Response #	Responses
15.	I believe VCU Community Memorial to be achieving its mission at a very high level.
16.	I believe VCU-CMH does provide good healthcare but it amazes me how many people go to other hospitals from this area for even simple procedures.
17.	I do not use any of the local options for health care, so I do not feel comfortable commenting when I really do not know.
18.	I like the idea of having the hospitalist program being locally operated. I think the more providers we could have here who are truly committed to this community and its residents, the better the care is going to be over the long-term. I think "care" is the key word in healthcare, and in any endeavor for that matter. In addition to employing people who are properly qualified and certified, I think employing people who truly care about what they're doing and the people they're serving goes a long way toward providing a high quality in healthcare.
19.	I like the plans for the new hospital and VCU officials' statement that they desire to bring as many services to South Hill as possible. This is great news for our region!
20.	I like the way you are going
21.	I think building the new hospital and affiliation with VCU will raise the image of the service. I think there have been some good relationships in the past with VCU such as bringing in <i>[name of new doctor]</i> that have improved the image and service. Bringing in these docs that locals can see without travel to Richmond is great. Geriatric care is lacking here too.
22.	I think VCU Community Memorial Hospital has done a great job in serving the locale and surrounding community population.
23.	I would like to share my personal experience with VCU-CMH. I was one of the members who was treated after the RRSA accident. You will not find a Hospital anywhere in my eyes who will do what you all did for us and our families. The level of care for not only the patient but also our families was top notch. We could not have asked for anything better than the dedication that was given to us. So if I could add one thing it would be to always stay community based and remember that the local Emergency Services community has always and will always be here to support each other.
24.	I'm glad you're coming. I think everyone in our community is excited about the prospect of better healthcare services.
25.	Keep moving in the positive direction VCU/CMH is moving for the future. The VCU affiliation is a positive for our community and that has been noticed by additional specialists and physicians moving to our area.
26.	Labor and Delivery services on the hospital are a must for growth of the area. We recently lost a few young adult professionals to a larger area where they had access to these services.
27.	More health education in areas remote from South Hill. Lake area.
28.	Our physicians are aging and are not as caring in the past 20 years. It is zeal about the bottom line and it shows in people going out of town for urgent care for their family.
29.	Partner with the existing agencies to help improve the services already provided.
30.	Partnering more with local entities like churches--and like "Smart Beginnings Southside".
31.	Quality of services offered are critical. Many in our area have had bad experiences at CMH and travel to Richmond, etc. for Health Care. I have had positive experiences at CMH but would hope the merger with VCU will offer additional services here with improved customer satisfaction.
32.	The VCU Massey Cancer Outreach office in Lawrenceville is an asset to the aging population in the community.
33.	VCU/CMH does a good job of taking care of our community's medical needs but expanding our specialty physicians and services will have a major impact on the value of the hospital and the overall health of Southside Virginia and Northern NC.

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 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. 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 2014, the study region included an estimated 81,737 people. The population is expected to increase to 82,151 by 2019. Focusing on trends from 2010 to 2019, it is projected that population growth of 14 percent will occur in the senior population age 65+, with declining populations expected in other age groups. Focusing on race and ethnicity, growth is expected within the Asian, Other or Multi-Race, and Hispanic population groups, with declines expected in the White and Black/African American population segments.

**Exhibit II-1
Health Demographic Trend Profile, 2010-2019**

Indicator+	2010 Census	2014 Estimate	2019 Projection	% Change 2010-2019
Total Population	85,651	81,737	82,151	-4%
Population Density (per Sq. Mile)	35.2	33.5	33.7	-4%
Total Households	33,934	32,794	33,245	-2%
Population by Age				
Children Age 0-17	17,406	16,376	15,946	-8%
Adults Age 18-29	11,588	11,057	11,353	-2%
Adults Age 30-44	14,958	13,742	13,337	-11%
Adults Age 45-64	25,600	24,403	23,208	-9%
Seniors Age 65+	16,089	16,159	18,305	14%
Population by Race/Ethnicity				
Asian	368	489	518	41%
Black/African American	33,529	31,204	31,848	-5%
White	49,289	47,428	46,819	-5%
Other or Multi-Race	2,467	2,614	2,964	20%
Hispanic Ethnicity ¹¹	2,189	2,267	2,493	14%

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

¹¹ Classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.

2. Health Demographic Snapshot

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 III-2 presents a snapshot of key health-related demographics of the study region. As of 2014, the study region included an estimated 81,737 people. As illustrated by the population rates shown in the lower part of the Exhibit, compared to Virginia as a whole, the study region is more rural, older, and more racially/ethnically diverse. The study region also has lower income and educational attainment among adults than Virginia as a whole.

**Exhibit III-2
Health Demographic Snapshot Profile, 2014**

Indicator		Study Region	Virginia
Population Counts			
Total Population	Population	81,737	8,282,921
Age	Children Age 0-17	16,376	1,889,338
	Adults Age 18-29	11,057	1,417,141
	Adults Age 30-44	13,742	1,678,713
	Adults Age 45-64	24,403	2,241,450
	Seniors Age 65+	16,159	1,056,279
Sex	Female	40,758	4,214,922
	Male	40,979	4,067,999
Race	Asian	489	486,905
	Black/African American	31,204	1,602,827
	White	47,428	5,616,313
	Other or Multi-Race	2,614	576,876
Ethnicity	Hispanic Ethnicity ¹²	2,267	705,701
Income	Low Income Households (Households with Income < \$25,000)	11,328	594,210
Education	Population Age 25+ Without a High School Diploma	58,688	5,565,986
Population Rates			
Total Population	Population Density (pop. per sq. mile)	33.5	206.1
Age	Children Age 0-17 pct. of Total Pop.	20%	23%
	Adults Age 18-29 pct. of Total Pop.	14%	17%
	Adults Age 30-44 pct. of Total Pop.	17%	20%
	Adults Age 45-64 pct. of Total Pop.	30%	27%
	Seniors Age 65+ pct. of Total Pop.	20%	13%
Sex	Female pct. of Total Pop.	50%	51%
	Male pct. of Total Pop.	50%	49%
Race	Asian pct. of Total Pop.	1%	6%
	Black/African American pct. of Total Pop.	38%	19%
	White pct. of Total Pop.	58%	68%
	Other or Multi-Race pct. of Total Pop.	3%	7%
Ethnicity	Hispanic Ethnicity pct. of Total Pop.	3%	9%
Income	Low Income Households (Households with Income <\$25,000) pct. of Total Households	35%	19%
Education	Pop. Age 25+ Without a High School Diploma pct. of Total Pop. Age 25+	24%	12%

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

¹² Classification of ethnicity; therefore, Hispanic individuals are also included in the race categories.

3. Mortality Profile

Mortality is one of the most commonly cited community health indicators. As shown in *Exhibit II-3*, the study region had 1,080 total deaths in 2013. The leading causes of death were heart disease (275 deaths), malignant neoplasms (cancer) (255 deaths), and cerebrovascular disease (stroke) (83 deaths). The death rates (unadjusted for age) in the study region were higher than Virginia overall and for the top seven causes of death. *Note: Maps in Appendix A show the geographic distribution of key death indicators by zip code.*

**Exhibit II-3
Mortality Profile, 2013**

Indicator	Study Region	Virginia
Total Deaths	Count (Percent of Total)	
Deaths by All Causes	1,080	62,309
Deaths by Top 14 Causes		
Heart Disease, Deaths	275 (25%)	13,543 (22%)
Malignant Neoplasms, Deaths	255 (24%)	14,348 (23%)
Cerebrovascular Diseases, Deaths	83 (8%)	3,278 (5%)
Chronic Lower Respiratory Diseases, Deaths	48 (4%)	3,168 (5%)
Unintentional Injury, Deaths	43 (4%)	2,794 (4%)
Diabetes Mellitus, Deaths	38 (4%)	1,618 (3%)
Nephritis and Nephrosis, Deaths	31 (3%)	1,547 (2%)
Alzheimer's Disease, Deaths	20 (2%)	1,634 (3%)
Influenza and Pneumonia, Deaths	20 (2%)	1,430 (2%)
Septicemia, Deaths	19 (2%)	1,464 (2%)
Chronic Liver Disease, Deaths	16 (1%)	836 (1%)
Suicide, Deaths	13 (1%)	1,047 (2%)
Primary Hypertension and Renal Disease, Deaths	13 (1%)	629 (1%)
Parkinson's Disease, Deaths	4 (0%)	549 (1%)
Crude Rate per 100,000 Population¹³		
Total Deaths	1,314.1	755.5
Heart Disease, Deaths	334.6	164.2
Malignant Neoplasms, Deaths	310.3	174.0
Cerebrovascular Diseases, Deaths	101.0	39.7
Chronic Lower Respiratory Diseases, Deaths	58.4	38.4
Unintentional Injury, Deaths	52.3	33.9
Diabetes Mellitus, Deaths	46.2	19.6
Nephritis and Nephrosis, Deaths	37.7	18.8
Alzheimer's Disease, Deaths	--	19.8
Influenza and Pneumonia, Deaths	--	17.3
Septicemia, Deaths	--	17.8
Chronic Liver Disease, Deaths	--	10.1
Suicide, Deaths	--	12.7
Primary Hypertension and Renal Disease, Deaths	--	7.6
Parkinson's Disease, Deaths	--	6.7

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

¹³ -- Rates are not calculated where the number of deaths is less than 30. 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, a crude rate is provided as an alternative.

4. Maternal and Infant Health Profile

As shown in *Exhibit II-4A*, the study region had 778 total live births in 2013. Of these, 89 (11%) were born with low birth weight, 155 (20%) were births without early prenatal care, 407 (52%) were non-marital births, and 70 were births to teens [with most (56) involving older teens age 18 or 19]. Compared to Virginia as a whole, the study region had higher rates of low weight births, births without early prenatal care, and non-marital births. *Note: Maps in Appendix A show the geographic distribution of key birth indicators by zip code.*

**Exhibit II-4A
Maternal and Infant Health Profile, 2013**

Indicators	Study Region	Virginia
Counts		
Total Live Births	778	101,977
Low Weight Births (under 2,500 grams / 5 lb. 8 oz.)	89	8,178
Births Without Early Prenatal Care (No Prenatal Care in First 13 Weeks)	155	13,435
Non-Marital Births	407	35,289
Live Births to Teens Age 10-19	70	5,316
Live Births to Teens Age 18-19	56	4,073
Live Births to Teens Age 15-17	13	1,208
Live Births to Teens Age <15	1	35
Rates¹⁴		
Live Birth Rate per 1,000 Population	10.0	12.3
Low Weight Births pct. of Total Live Births	11%	8%
Births Without Early Prenatal Care (No Prenatal Care in First 13 Weeks) pct. of Total Live Births	20%	13%
Non-Marital Births pct. of Total Live Births	52%	35%
Live Births to Teens Age 10-19	--	10.3
Live Births to Teens Age 18-19	--	36.4
Live Births to Teens Age 15-17	--	8.0

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

For technical reasons, it was not possible to calculate teen pregnancy rates or five-year infant mortality rates at the zip code level.¹⁵ As an approximation, *Exhibit II-4B* on the following page shows counts and rates of infant mortality and teen pregnancy for the counties that overlap the study region. The five-year infant mortality rates were higher than the statewide rate for four of the five counties, the exception being Lunenburg County. Teen pregnancy rates were also higher than the statewide rate for four of the five counties, the exception being Mecklenburg County.

¹⁴ -- Rates are not calculated where the count is less than 30.

¹⁵ 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, 2013**

Indicators	Virginia	Brunswick County	Charlotte County	Lunenburg County	Mecklenburg County	Nottoway County
Counts						
Total Infant Deaths (2013)	632	0	0	0	3	2
Total Teenage (age 10-19) Pregnancies (2013)	7,447	16	19	12	25	19
Rates						
Five-Year Average Infant Mortality Rate per 1,000 Live Births (2009-2013)	7.1	10.6	11.7	7.0	14.8	10.3
Teenage (age 10-19) Pregnancy Rate per 1,000 Teenage Female Population (2013)	14.4	17.7	25.1	19.1	14.1	22.7

5. Preventable Hospitalization Discharge Profile

The Agency for Healthcare Research and Quality (AHRQ) identifies a defined set of conditions (called Prevention Quality Indicators, or ‘PQIs’) for which hospitalization should be avoidable with proper outpatient health care.¹⁶ 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 1,705 PQI hospital discharges in 2013.¹⁷ The leading diagnoses for these discharges were chronic obstructive pulmonary disease (COPD) and asthma in older adults (449), congestive heart failure (445), diabetes (240), and bacterial pneumonia (200). The PQI discharge rates for the study region were higher than the Virginia statewide rates PQI diagnoses overall and for the seven leading causes. *Note: A map in Appendix A shows the geographic distribution of total PQI discharges by zip code.*

**Exhibit II-5
Prevention Quality Indicator (PQI) Hospital Discharge Profile, 2013**

Indicator	Study Region	Virginia
Total PQI Discharges	Count (Percent of Total)	
Total PQI Discharges by All Diagnoses	1,705	78,768
PQI Discharges by Diagnosis		
COPD or Asthma In Older Adults, PQI Discharges	449 (26%)	16,026 (20%)
Congestive Heart Failure, PQI Discharges	445 (26%)	18,239 (23%)
Diabetes, PQI Discharges	240 (14%)	11,099 (14%)
Bacterial Pneumonia, PQI Discharges	200 (12%)	11,867 (15%)
Dehydration, PQI Discharges	153 (9%)	7,743 (10%)
Urinary Tract Infection, PQI Discharges	144 (8%)	8,452 (11%)
Perforated Appendix, PQI Discharges	32 (2%)	1,189 (2%)
Hypertension, PQI Discharges	25 (1%)	2,768 (4%)
Angina, PQI Discharges	11 (1%)	444 (1%)
Asthma in Younger Adults, PQI Discharges	6 (0%)	941 (1%)
Rates-Per 100,000 Population¹⁸		
Total Prevention Quality Indicator (PQI) Discharges	2,074.6	955.1
COPD or Asthma In Older Adults, PQI Discharges	546.3	194.3
Congestive Heart Failure, PQI Discharges	541.5	221.2
Diabetes, PQI Discharges	292.0	134.6
Bacterial Pneumonia, PQI Discharges	243.4	143.9
Dehydration, PQI Discharges	186.2	93.9
Urinary Tract Infection, PQI Discharges	175.2	102.5
Perforated Appendix, PQI Discharges	38.9	14.4
Hypertension, PQI Discharges	--	33.6
Angina, PQI Discharges	--	5.4
Asthma in Younger Adults, PQI Discharges	--	11.4

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

¹⁶ 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 four 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

¹⁷ 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.

¹⁸ -- Rates are not calculated where the number of PQI discharges is less than 30. Age-adjusted 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 rates at the zip code level, a crude rate is provided as an alternative.

6. Behavioral Health Hospitalization Discharge Profile

Behavioral health (BH) hospitalizations provide another important indicator of community health status. As shown in *Exhibit II-6*, residents of the study region had 626 hospital discharges from Virginia community hospitals for behavioral health conditions in 2013.¹⁹ The leading diagnoses for these discharges were affective psychoses (226), schizophrenic disorders (95), and Depressive Disorders (53). The BH discharge rates for the study region were higher than Virginia statewide rates overall and for four of the top five causes, the exception being a lower rate for schizophrenic disorder. *Note: A map in Appendix A shows the geographic distribution of Total BH discharges by zip code.*

**Exhibit II-6
Behavioral Health Hospital Discharge Profile, 2013**

Indicator	Study Region	Virginia
BH Discharges	Count (Percent of Total)	
Total BH Discharges by All Diagnoses	626	60,600
BH Discharges by Diagnosis		
Affective Psychoses, BH Discharges	226 (36%)	26,709 (44%)
Schizophrenic Disorders, BH Discharges	95 (15%)	8,136 (13%)
Depressive Disorder, Not Elsewhere Classified, BH Discharges	53 (8%)	3,503 (6%)
Other Nonorganic Psychoses, BH Discharges	34 (5%)	2,133 (4%)
Senility Without Mention Of Psychosis, BH Discharges	33 (5%)	1,688 (3%)
Other Organic Psychotic Conditions-Chronic, BH Discharges	28 (4%)	795 (1%)
Alcoholic Psychoses, BH Discharges	25 (4%)	4,037 (7%)
Altered Mental Status, BH Discharges	25 (4%)	1,000 (2%)
Neurotic Disorders, BH Discharges	17 (3%)	1,207 (2%)
Alcohol Dependence Syndrome, BH Discharges	15 (2%)	2,391 (4%)
Symptoms Involving Head or Neck, BH Discharges	14 (2%)	933 (2%)
Adjustment Reaction, BH Discharges	12 (2%)	2,271 (4%)
Non Dependent Abuse of Drugs, BH Discharges	11 (2%)	600 (1%)
Drug Psychoses, BH Discharges	5 (1%)	2,121 (4%)
Drug Dependence, BH Discharges	4 (1%)	816 (1%)
Rates-Per 100,000 Population²⁰		
Total Behavioral Health (BH) Discharges, BH Discharges	761.7	734.8
Affective Psychoses, BH Discharges	275.0	323.9
Schizophrenic Disorders, BH Discharges	115.6	98.7
Depressive Disorder, Not Elsewhere Classified, BH Discharges	64.5	42.5
Other Nonorganic Psychoses, BH Discharges	41.4	25.9
Senility Without Mention of Psychosis, BH Discharges	40.2	20.5
Other Organic Psychotic Conditions-Chronic, BH Discharges	--	9.6
Alcoholic Psychoses, BH Discharges	--	49.0
Altered Mental Status, BH Discharges	--	12.1
Neurotic Disorders, BH Discharges	--	14.6
Alcohol Dependence Syndrome, BH Discharges	--	29.0
Symptoms Involving Head or Neck, BH Discharges	--	11.3
Adjustment Reaction, BH Discharges	--	27.5
Non Dependent Abuse of Drugs, BH Discharges	--	7.3
Drug Psychoses, BH Discharges	--	25.7
Drug Dependence, BH Discharges	--	9.9

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

¹⁹ 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.

²⁰ --Rates are not calculated where the number of discharges is less than 30.

7. Adult Health Risk Factor Profile

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

As shown in **Exhibit II-7. Adult Health Risk Factor Profile (2014-Estimates)**, substantial numbers of adults have lifestyle health risks related to nutrition, weight, physical inactivity, tobacco and alcohol. Please note that these estimates reflect general patterns based on statistical analysis of multiple years of survey data. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. *Note: Maps in Appendix A show the geographic distribution of key adult health risk estimates by zip code.*

**Exhibit II-7
Adult Health Risk Factor Profile (2014-Estimates)**

Indicator		Study Region
Estimates-Counts		
Estimated Adults age 18+		65,361
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	54,691
	Overweight or Obese	43,025
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	32,204
	At-risk for Binge Drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	9,027
	Smoker	14,480
Chronic Conditions	High Cholesterol (was checked, and told by a doctor or other health professional it was high)	23,184
	High Blood Pressure (told by a doctor or other health professional)	21,093
	Arthritis (told by a doctor or other health professional)	17,858
	Diabetes (told by a doctor or other health professional)	6,921
General Health Status	Limited in any Activities because of Physical, Mental or Emotional Problems	13,582
	Fair or Poor Health Status	10,468
Estimates-Rates		
Lifestyle Risk Factors	Less than Five Servings of Fruits and Vegetables Per Day	84%
	Overweight or Obese	66%
	Not Meeting Recommendations for Physical Activity in the Past 30 Days	49%
	At-risk for Binge Drinking (males having five or more drinks on one occasion, females having four or more drinks on one occasion)	14%
	Smoker	22%
Chronic Conditions	High Cholesterol (was checked, and told by a doctor or other health professional it was high)	35%
	High Blood Pressure (told by a doctor or other health professional)	32%
	Arthritis (told by a doctor or other health professional)	27%
	Diabetes (told by a doctor or other health professional)	11%
General Health Status	Limited in any Activities because of Physical, Mental or Emotional Problems	21%
	Fair or Poor Health Status	16%

8. Youth Health Risk Factor Profile

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

As shown in **Exhibit II-8. Youth Health Risk Factor Profile (2014-Estimates)**, substantial numbers of youth have lifestyle health risks related to nutrition, weight, alcohol, mental health, physical inactivity, and tobacco. Please note that these estimates reflect general patterns based on statistical analysis of survey data. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. *Note: A map in Appendix A shows the geographic distribution of estimated overweight and obese youth age 14-19 by zip code.*

**Exhibit II-8
Youth Health Risk Factor Profile (2014 Estimates)**

Indicator	Study Region
Counts (Estimates)	
High School Youth Age 14-19	
<i>Total Estimated High School Youth Age 14-19</i>	5,907
Met Guidelines for Fruit and Vegetable Intake	476
Overweight or Obese	1,717
Not Meeting Recommendations for Physical Activity in the Past Week	3,260
Used Tobacco in the Past 30 Days	1,077
Had at least One Drink of Alcohol At least One Day in the Past 30 Days	1,597
Felt Sad or Hopeless (almost every day for two or more weeks in a row so that	1,406
Middle School Youth Age 10-14	
<i>Total Estimated Middle School Youth Age 10-14</i>	2,303
Met Guidelines for Fruit and Vegetable Intake	563
Not Meeting Recommendations for Physical Activity in the Past Week	791
Used Tobacco in the Past 30 Days	55
Rates (Percent Estimates)	
High School Youth Age 14-19	
Met Guidelines for Fruit and Vegetable Intake	8%
Overweight or Obese	29%
Not Meeting Recommendations for Physical Activity in the Past Week	55%
Used Tobacco in the Past 30 Days	18%
Had at least One Drink of Alcohol At least One Day in the Past 30 Days	27%
Felt Sad or Hopeless (almost every day for two or more weeks in a row so that	24%
Middle School Youth Age 10-14	
Met Guidelines for Fruit and Vegetable Intake	24%
Not Meeting Recommendations for Physical Activity in the Past Week	34%
Used Tobacco in the Past 30 Days	2%

9. Uninsured Profile

This profile presents estimates of the uninsured population within the 0-64 age group. The indicators in this profile are estimates based on analysis of data from the U.S. Census Bureau Small Area Health Insurance Estimates and demographic estimates from Alteryx, Inc. (see *Appendix B* for details on methods.) These are ‘snapshot’ indicators that estimates the number of uninsured at a specific point in time. Please note that all indicators in this profile are subject to estimation error. *Note: Maps in Appendix A show the geographic distribution of key adult and child uninsured estimates by zip code.*

As shown in **Exhibit II-9. Uninsured Profile (2014 Estimates)**:

- At any specific point in 2014, an estimated 12,721 residents of the study region were uninsured.
- The estimated number of uninsured children age 0-18 was 1,489 in the study region. Among uninsured children, it is estimated that roughly half have family income below 200 percent of the federal poverty level, possibly making them income-eligible for coverage through the state Medicaid or FAMIS program.
- The estimated number of uninsured adults age 19-64 was 11,231 in the study region. Among uninsured adults, it is estimated that more than half have family income below 200 percent of the federal poverty level.

**Exhibit II-9
Uninsured Profile (2014 Estimates)**

Indicator	Study Region
Estimated Uninsured Counts*	
Uninsured Nonelderly Age 0-64	12,721
Uninsured Children Age 0-18	1,489
Uninsured Children Age 0-18 <=138% FPL	483
Uninsured Children Age 0-18 <=200% FPL	748
Uninsured Children Age 0-18 <=250% FPL	918
Uninsured Children Age 0-18 <=400% FPL	1,221
Uninsured Children Age 0-18 138-400% FPL	738
Uninsured Adults Age 19-64	11,231
Uninsured Adults Age 19-64 <=138% FPL	4,113
Uninsured Adults Age 19-64 <=200% FPL	6,031
Uninsured Adults Age 19-64 <=250% FPL	7,270
Uninsured Adults Age 19-64 <=400% FPL	9,421
Uninsured Adults Age 19-64 138-400% FPL	5,308
Estimated Uninsured Percent	
Uninsured Children Percent	9%
Uninsured Adults Percent	23%

*FPL Categories are cumulative

Source: Community Health Solutions analysis of U.S. Census Bureau’s Small Area Health Insurance Estimates data. See *Appendix B Data Sources* for details.

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 five counties that overlap the study region have been designated as MUAs. 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 Areas and Populations**

Locality	MUA/MUP designation	Census Tracts
Brunswick County	Full	14 of 14 Census Tracts
Charlotte County	Full	13 of 13 Census Tracts
Lunenburg County	Full	14 of 14 Census Tracts
Mecklenburg County	Full	27 of 27 Census Tracts
Nottoway County	Full	14 of 14 Census Tracts

Source: Community Health Solutions analysis of U.S. Health Resources and Services Administration data. See Appendix B Data Sources for details.

APPENDIX A: Zip Code-Level Maps

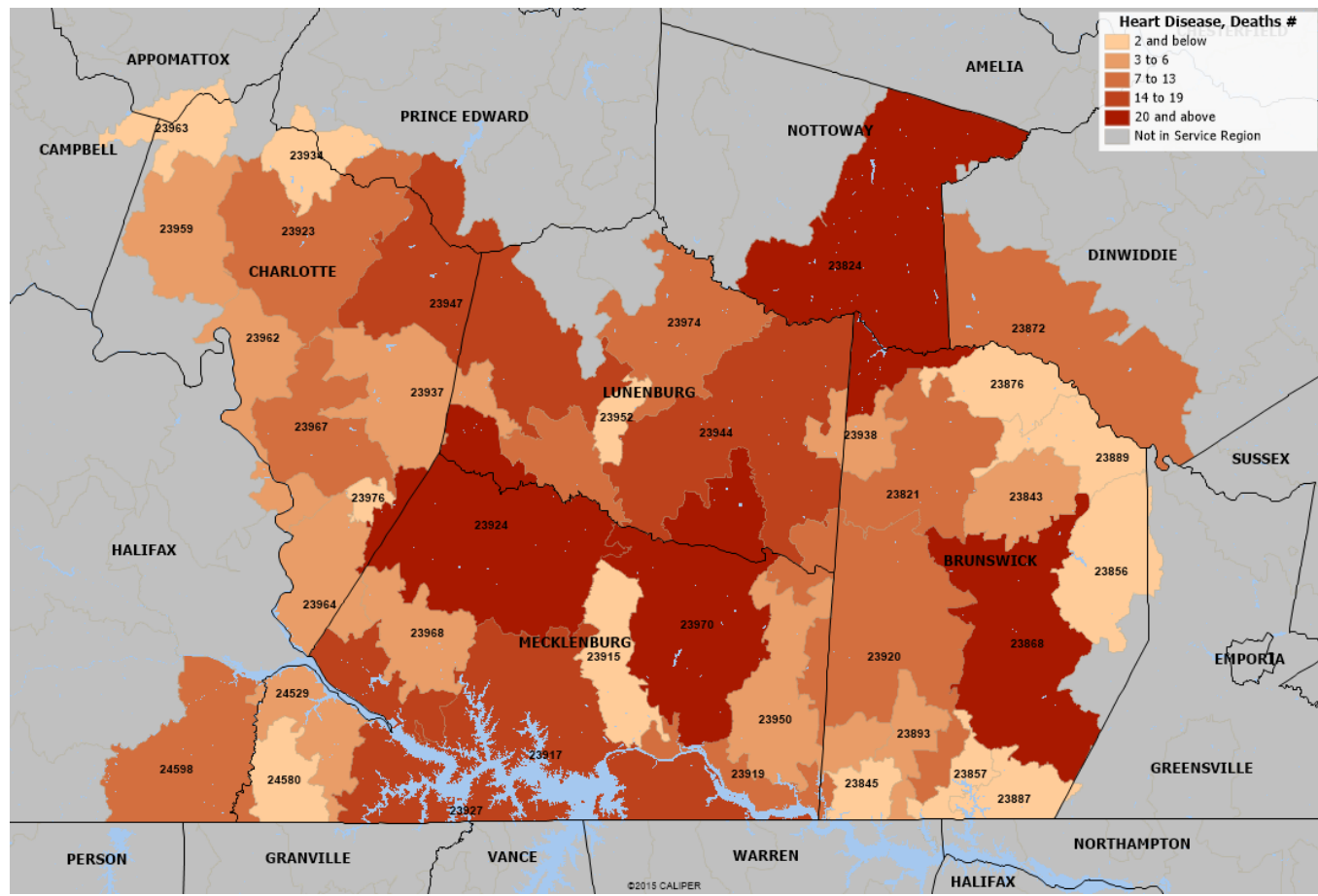
The Zip Code-Level maps in this section illustrate the geographic distribution of the zip code-level study region on key health status indicators. Following the maps is a table with the underlying data. The maps in this section include the following for 2013/2014:

1. Total Deaths, 2013	9. Estimated Adult Age 18+ Smokers, 2014
2. Heart Disease Deaths, 2013	10. Estimated Adults Age 18+ with No Dental Visit in
3. Cerebrovascular Disease (Stroke) Deaths, 2013	11. Estimated Adults Age 18+ with Diabetes, 2014
4. Malignant Neoplasm (Cancer) Deaths, 2013	12. Estimated Adults Age 18+ who are Overweight or
5. Total Live Births, 2013	13. Estimated High School-aged Youth (age 14-19) who are Overweight or Obese, 2014
6. Total Teenage Live Births (age<17), 2013	14. Estimated Uninsured Children Age 0-18, 2014
7. Total Prevention Quality Indicator Hospitalization	15. Estimated Uninsured Adults, Age 19-64, 2014
8. Total Behavioral Health Hospitalization	

****Technical Notes****

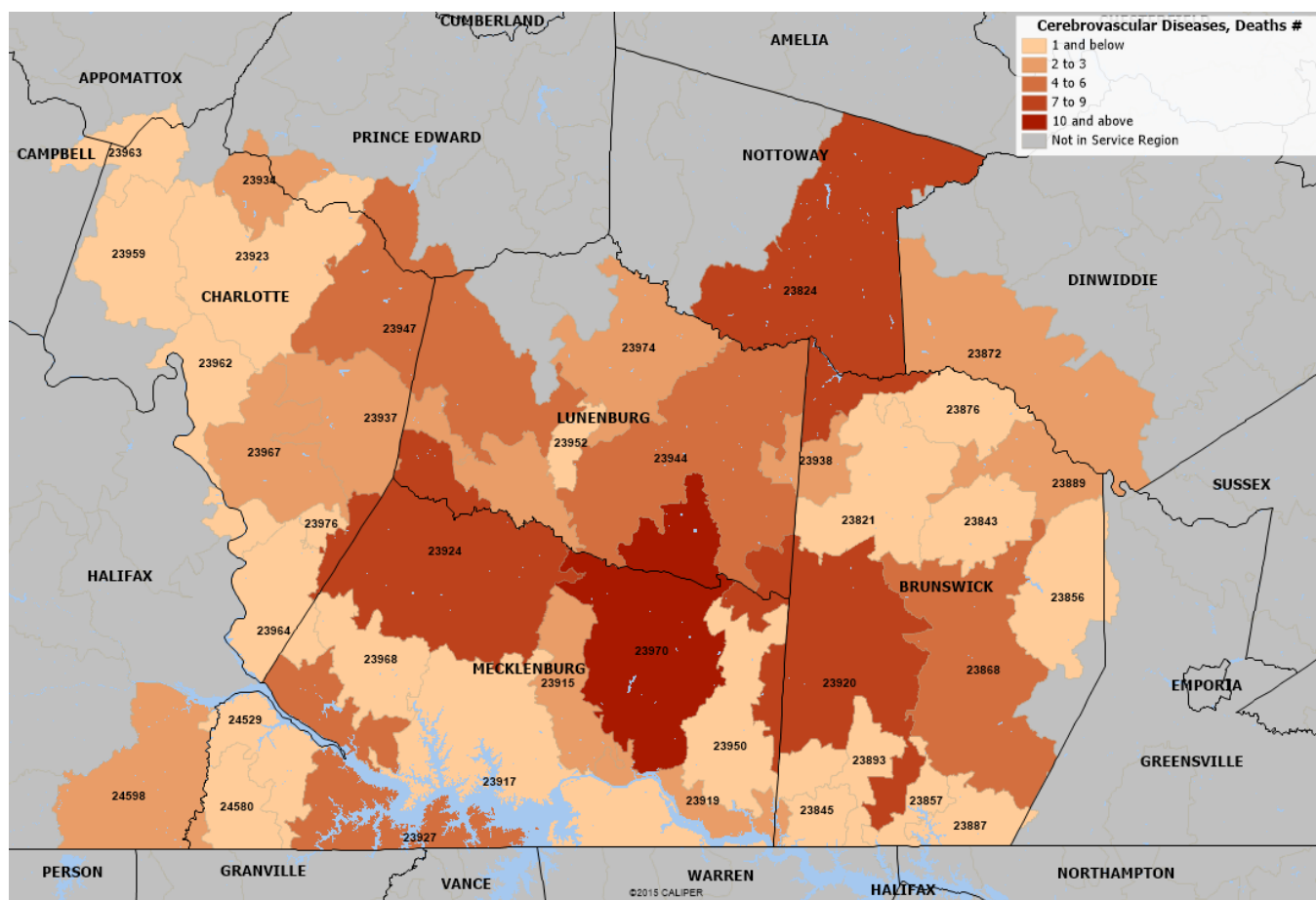
1. The maps and data include 38 zip codes, as identified by VCU Community Memorial Hospital, most of which fall within Brunswick, Charlotte, Lunenburg, Mecklenburg and Nottoway counties. It is important to note that zip code boundaries do not automatically align with city/county boundaries, and there are some zip codes that extend beyond the county boundaries. Also, not all zip codes in each of above mentioned localities were identified by VCU Community Memorial Hospital as part of the Zip Code-Level Study Region
2. The maps show counts rather than rates. Rates are not mapped at the zip code-level because in some zip codes the population is too small to support rate-based comparisons.
3. Data are presented in natural breaks.
4. Zip Code-Level Study Region zip codes with zero values are noted.

Map 2: Heart Disease Deaths, 2013



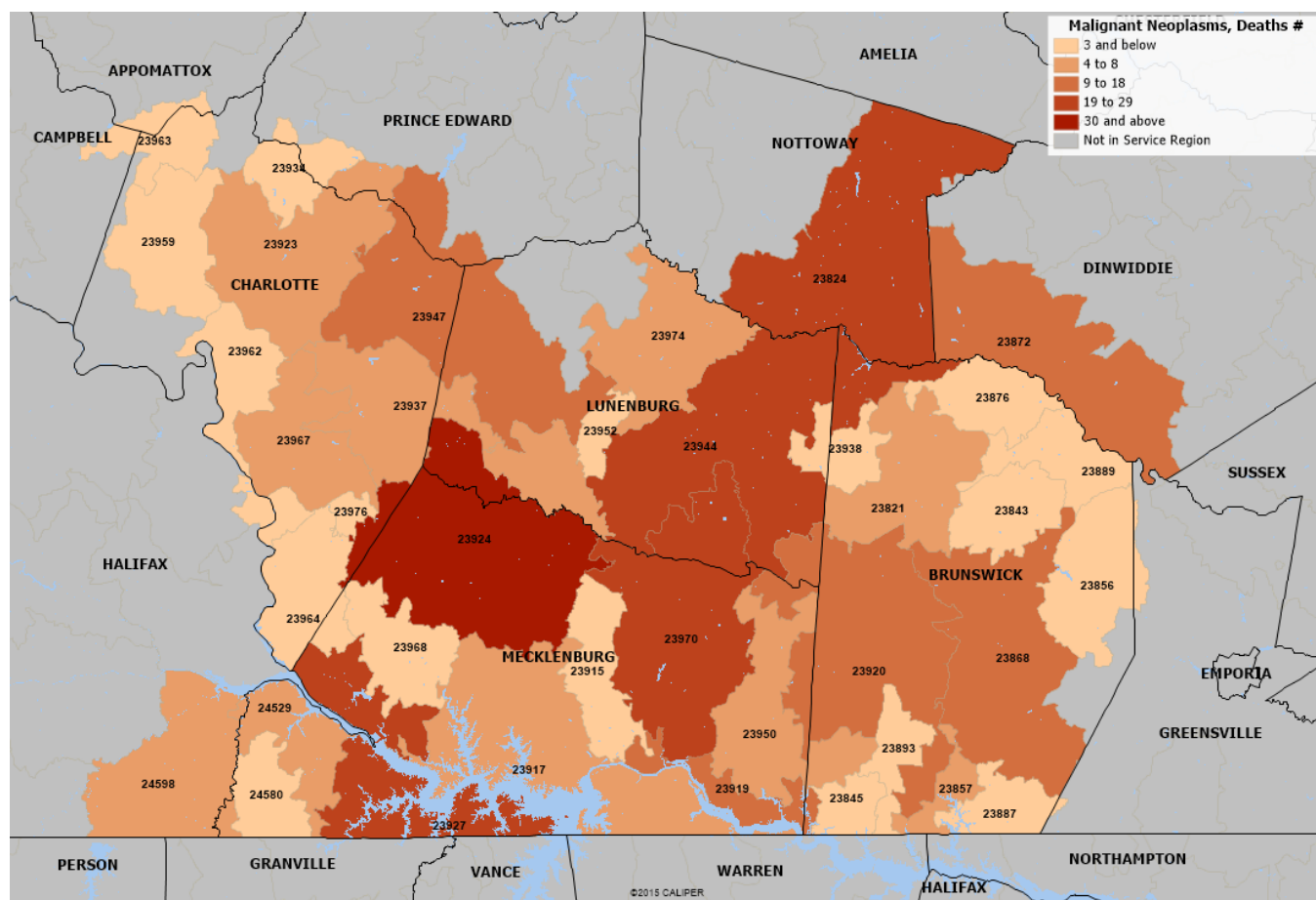
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B Data Sources for details.

Map 3: Cerebrovascular Disease (Stroke) Deaths, 2013



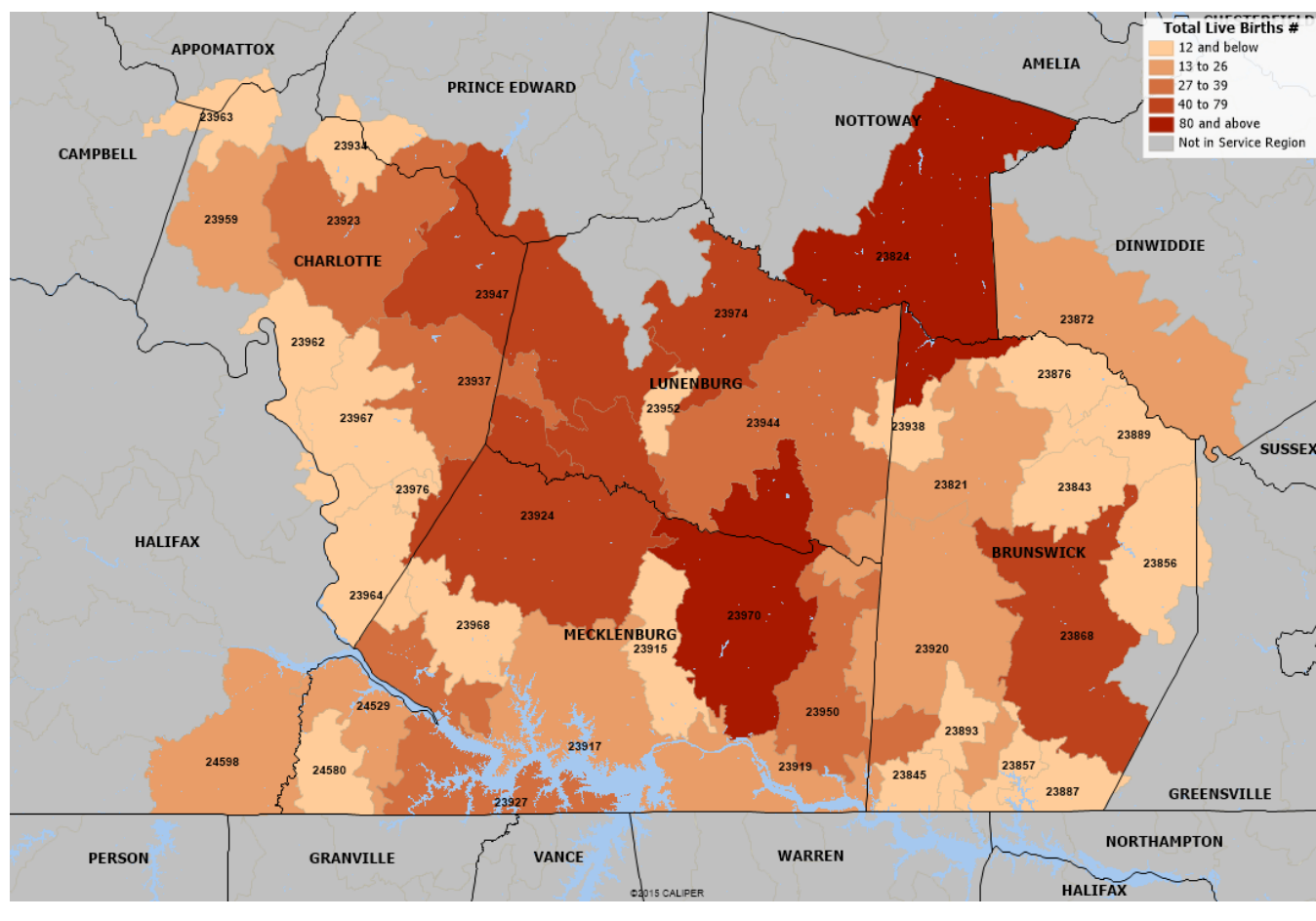
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B Data Sources for details.

Map 4: Malignant Neoplasm (Cancer) Deaths, 2013



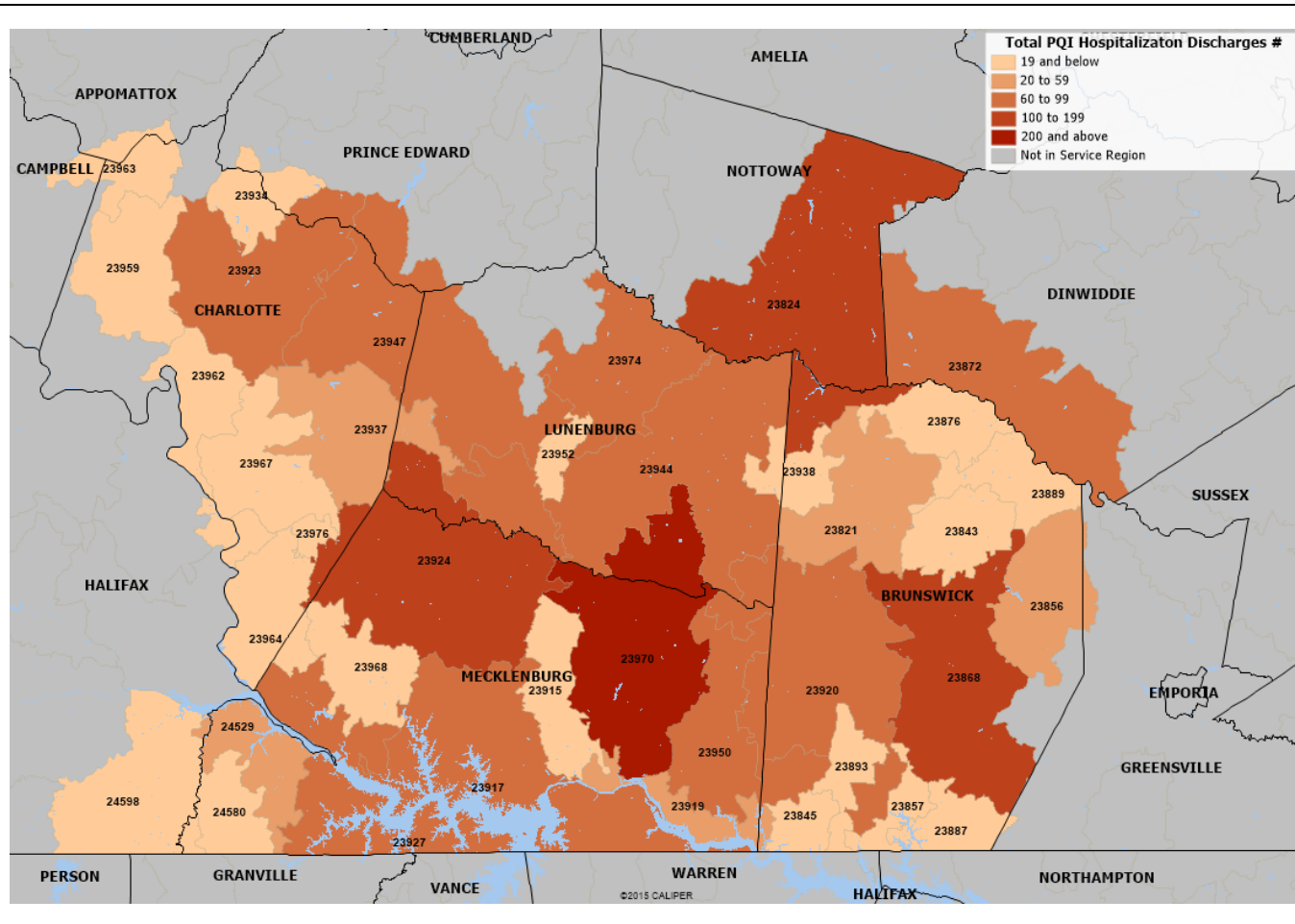
Source: Community Health Solutions analysis of death record data from the Virginia Department of Health. See details in methods in Appendix B Data Sources for details.

Map 5: Total Live Births, 2013



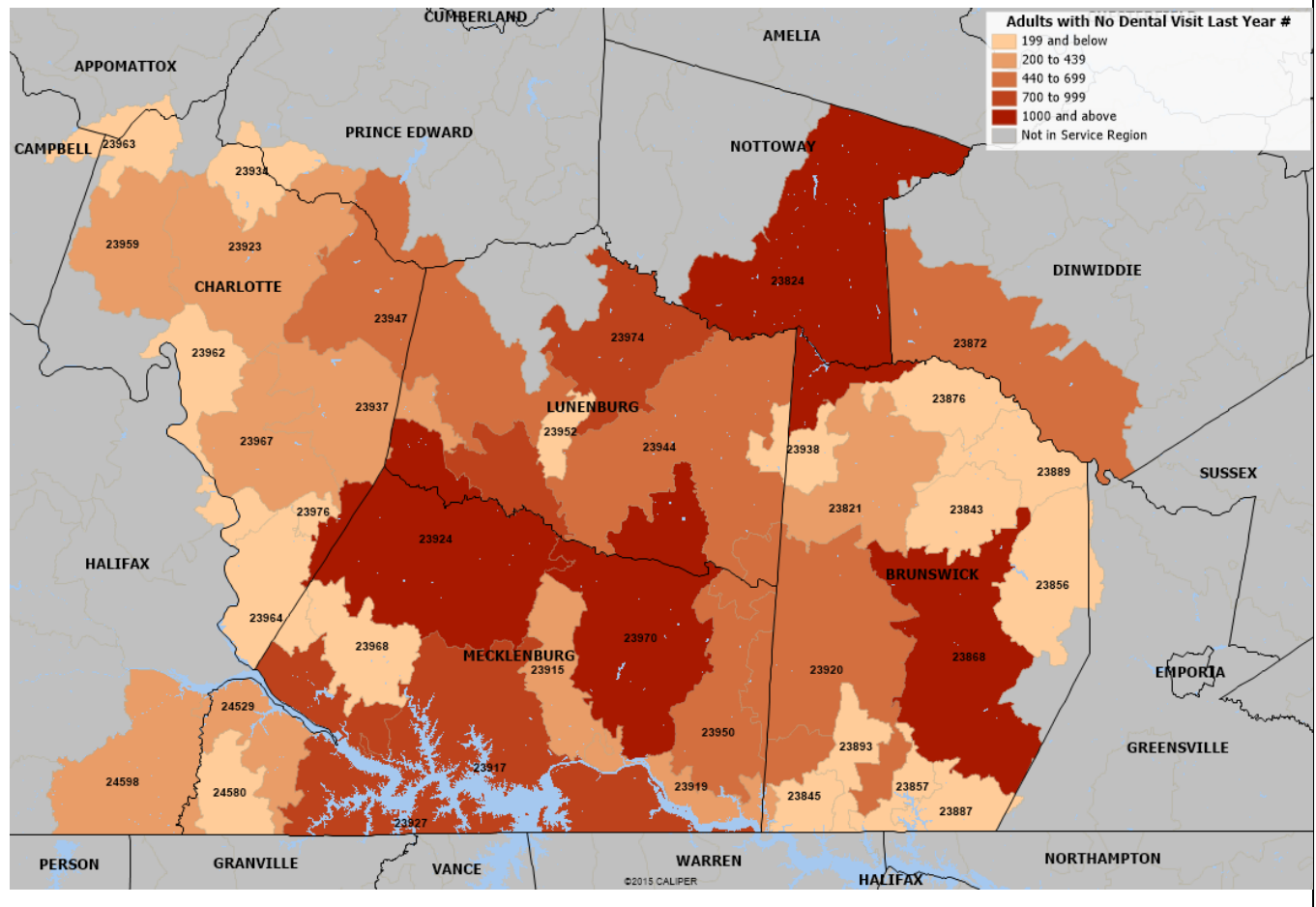
Source: Community Health Solutions analysis of birth record data from the Virginia Department of Health. See details in methods in Appendix B Data Sources for details.

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



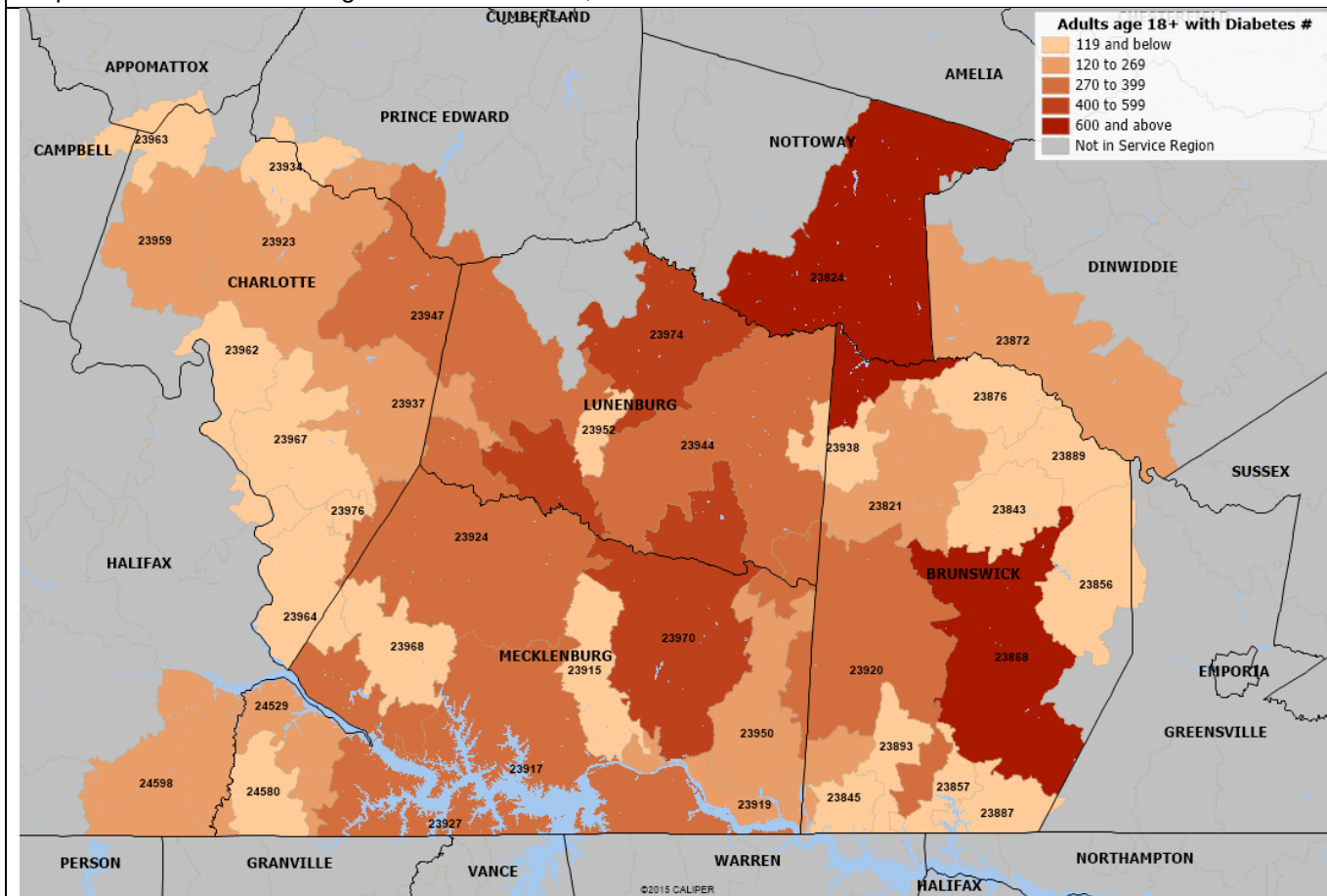
Source: Community Health Solutions analysis of hospital discharge data from Virginia Health Information and demographic data from Alteryx, Inc. See details on methods in Appendix B Data Sources for details.

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



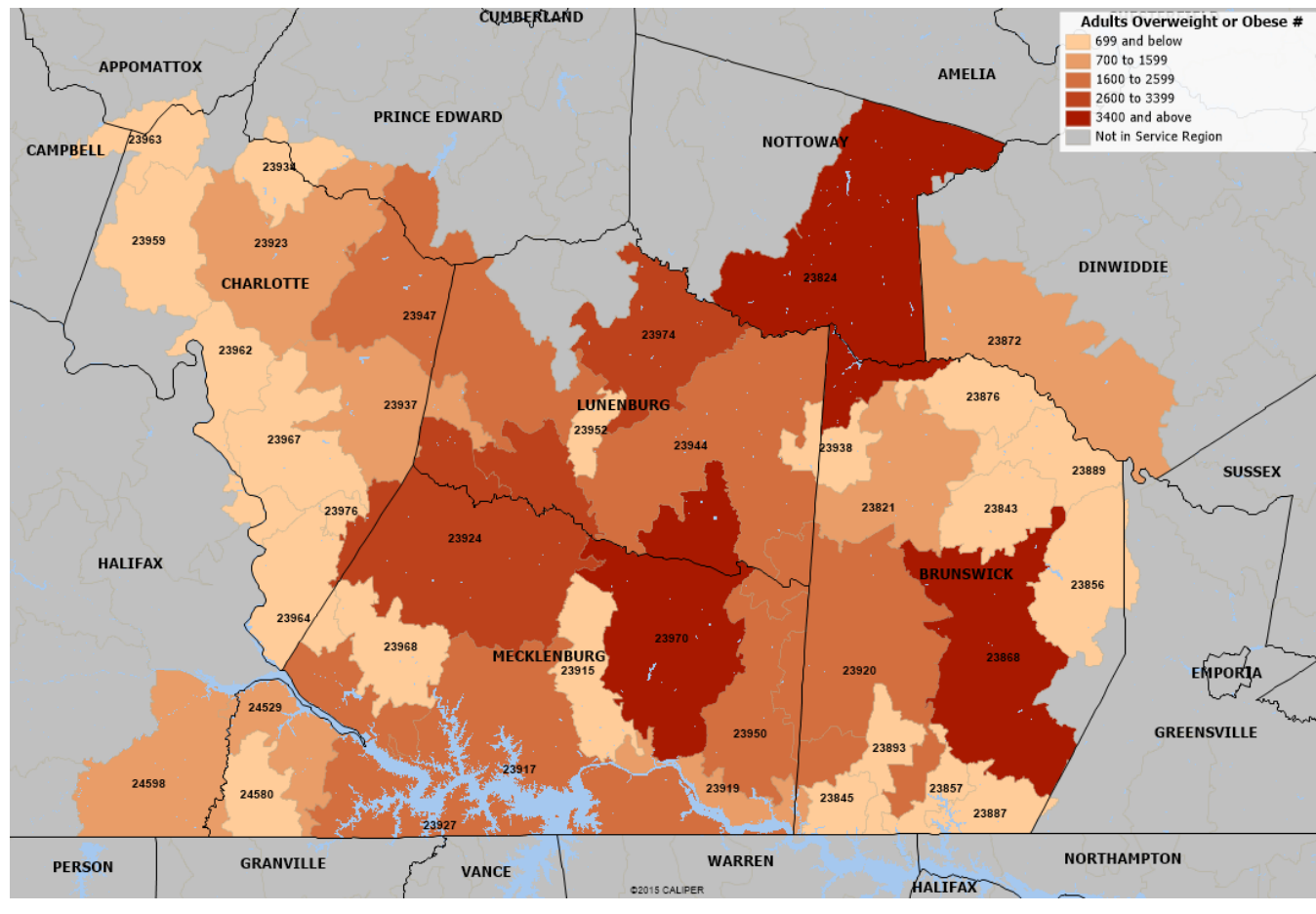
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in Appendix B Data Sources for details.

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



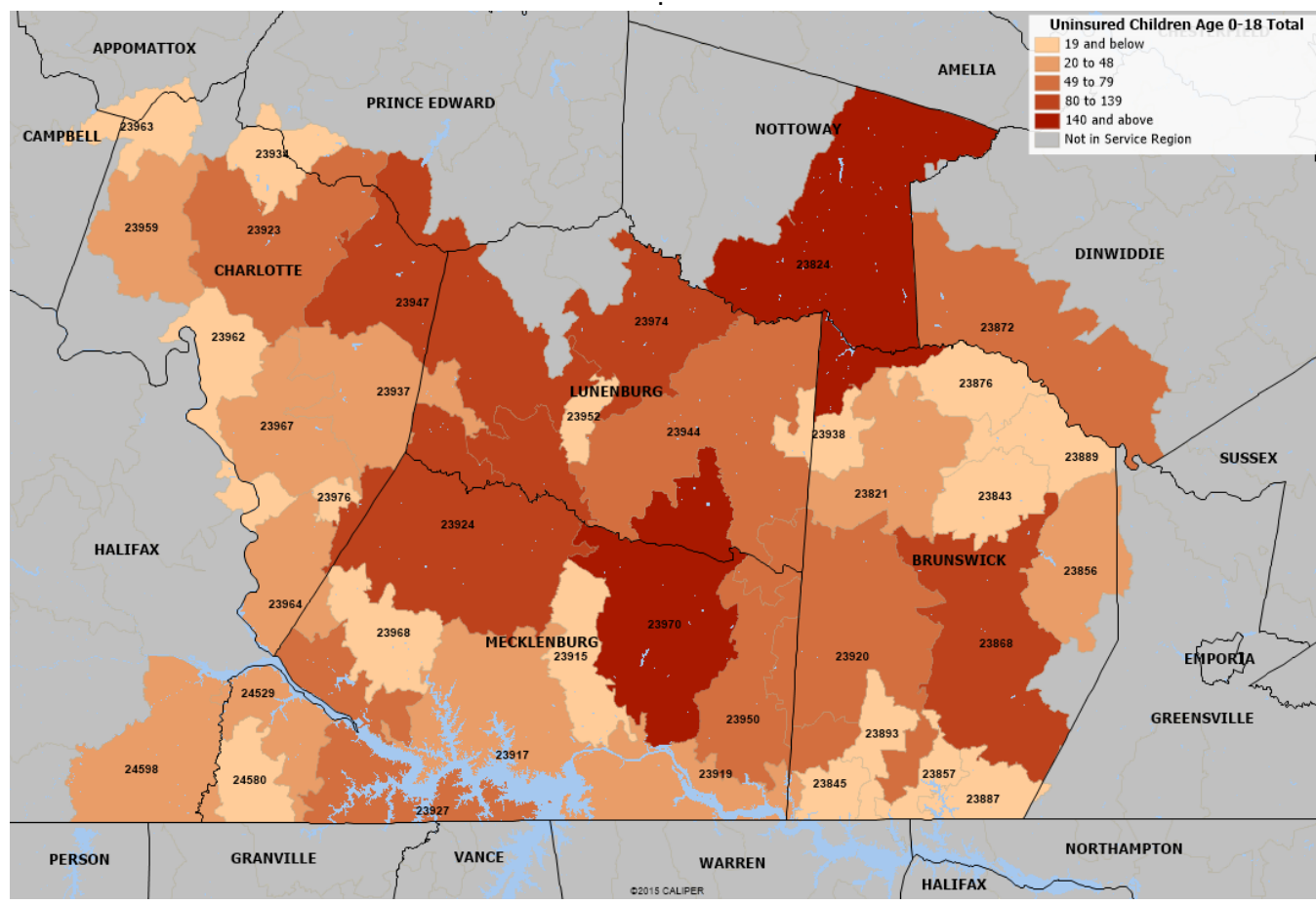
Source: Estimates produced by Community Health Solutions using Virginia Behavioral Risk Factor Surveillance System data and local demographic estimates from Alteryx, Inc. See details in methods in Appendix B Data Sources for details.

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



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

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



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

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	Total Deaths #	Heart Disease, Deaths #	Cerebrovascular Diseases, Deaths #	Malignant Neoplasms, Deaths #	Total Live Births #	Total Teenage (age 10-19) Live Births #	Total Prevention Quality Indicator (PQI) Hospitalization Discharges #	Total Behavioral Health (BH) Discharges, BH Discharges #	Adults age 18+ Smokers #	Adults age 18+ with No Dental Visit in the Last Year #	Adults age 18+ with Diabetes (told by a doctor or other health professional) #	Adults age 18+ and Overweight or Obese #	High school-aged youth (age 14-19) who are overweight or obese #	Uninsured Children Age 0-18 Total	Uninsured Adults Age 19-64 Total #
VCU CMH Study Region	1,080	275	83	255	778	70	1,705	626	14,480	14,495	6,921	43,025	1,717	1,489	11,231
23821 Alberta	21	7	1	5	16	1	28	5	141	221	172	781	34	24	191
23824 Blackstone	101	24	8	23	82	8	156	103	794	1,257	694	3,406	142	147	927
23843 Dolphin	9	3	1	2	7	1	15	6	38	63	52	258	14	9	62
23845 Ebony	3	0	0	1	4	0	3	3	131	104	53	265	9	8	60
23856 Freeman	8	1	0	2	9	1	30	4	199	156	100	556	37	22	135
23857 Gasburg	10	1	1	4	2	0	12	5	98	56	43	272	9	7	60
23868 Lawrenceville	68	21	4	12	55	7	134	48	1,521	1,357	733	3,828	177	102	1,017
23872 Mc Kenney	38	8	2	12	23	2	74	30	669	541	152	1,271	56	49	296
23876 Rawlings	2	0	0	0	2	0	8	8	78	37	51	250	10	8	61
23887 Valentines	9	2	1	3	4	1	2	3	97	49	49	293	8	7	61
23889 Warfield	6	1	2	1	7	2	13	10	96	63	51	285	13	10	67
23893 White Plains	8	4	0	1	2	0	11	0	92	50	32	259	11	9	63
23915 Baskerville	11	1	2	3	8	0	9	6	296	297	98	580	18	14	181
23917 Boydton	35	14	1	4	18	1	74	15	724	760	321	1,935	61	42	509
23919 Bracey	27	7	2	13	23	4	46	16	440	366	221	1,249	35	30	290
23920 Brodnax	45	8	7	9	21	1	98	19	668	577	276	1,660	72	57	399
23923 Charlotte Court House	27	9	1	6	32	3	62	17	401	402	195	1,245	54	62	345
23924 Chase City	116	25	8	31	48	5	154	40	1,291	1,218	340	3,039	126	99	771
23927 Clarksville	77	15	5	22	37	3	81	17	859	727	297	2,259	74	57	522
23934 Cullen	9	0	2	2	10	1	11	5	90	97	52	299	12	15	84
23937 Drakes Branch	29	6	3	7	27	5	30	13	313	305	123	910	41	41	255
23938 Dundas	9	3	2	0	5	0	10	7	98	54	62	326	13	11	81
23944 Kenbridge	53	16	4	19	36	3	88	36	267	449	299	1,852	73	72	505
23947 Keysville	55	15	5	10	44	5	77	27	688	666	347	2,077	88	93	604
23950 La Crosse	25	5	0	6	35	1	75	20	678	595	237	1,819	74	65	493
23952 Lunenburg	2	1	0	0	0	0	3	2	38	59	11	139	4	4	33
23959 Phenix	13	6	0	1	23	1	10	7	209	266	124	521	25	24	144
23962 Randolph	10	5	0	1	9	0	4	4	146	160	63	440	17	17	114
23963 Red House	5	2	0	2	3	0	7	4	105	93	58	359	18	20	101
23964 Red Oak	11	4	1	2	4	0	14	6	139	118	99	528	25	21	155
23967 Saxe	19	9	2	5	6	0	9	2	209	221	88	617	26	25	167
23968 Skipwith	20	6	1	3	8	2	16	12	171	136	57	466	18	14	117
23970 South Hill	103	22	11	20	89	6	211	69	1,490	1,376	552	3,901	165	142	1,029
23974 Victoria	42	11	2	7	45	2	82	40	500	958	431	2,639	75	81	761
23976 Wyliesburg	1	0	0	0	3	1	6	0	37	33	27	139	6	6	40
24529 Buffalo Junction	19	3	1	7	13	2	21	11	289	270	144	836	32	28	201
24580 Nelson	5	0	0	3	4	0	7	3	101	82	30	328	10	10	82
24598 Virgilina	29	10	3	6	14	1	14	3	279	259	187	1,137	37	37	249

APPENDIX B: Data Sources

Profile	Source
1) Health Demographic Trend and 2) Snapshot Profiles	Community Health Solutions analysis of demographic estimates from Alteryx, Inc. (2010, 2014 and 2019).
3) Mortality Profile (also Appendix B)	Community Health Solutions analysis of Virginia Department of Health death record data (2013). Data were obtained from the Virginia Department of Health. The combined study region counts and rates were produced by Community Health Solutions.
4) Maternal and Infant Health Profile (also Appendix B)	Community Health Solutions analysis of Virginia Department of Health death record data (2013). Data were obtained from the Virginia Department of Health. The combined study region counts and rates were produced by Community Health Solutions.
5) Preventable Hospitalization Profile 6) Behavioral Health Hospitalization Profile (also Appendix B)	<p>Community Health Solutions analysis of hospital discharge data from the Virginia Health Information (VHI) 2013 datasets and demographic estimates from Alteryx, Inc. (2013). Data include discharges for Virginia residents from Virginia hospitals reporting to Virginia Health Information, Inc.) The analysis includes records of discharges of Virginia residents from Virginia hospitals excluding state and federal facilities. Data reported are based on the patient's primary diagnosis.</p> <p>Preventable Hospitalizations-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 four 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</p> <p><i>NOTE: Virginia Health Information (VHI) requires the following statement to be included in all reports utilizing its data: VHI has provided non-confidential patient level information used in this report which was compiled in accordance with Virginia law. VHI has no authority to independently verify this data. By accepting this report the requester agrees to assume all risks that may be associated with or arise from the use of inaccurately submitted data. VHI edits data received and is responsible for the accuracy of assembling this information, but does not represent that the subsequent use of this data was appropriate or endorse or support any conclusions or inferences that may be drawn from the use of this data.</i></p>
7) Adult Health Risk Factor Profile	<p>Estimates of chronic disease and risk behaviors for adults 18+ were produced by Community Health Solutions using:</p> <ul style="list-style-type: none"> • A multi-year dataset (2006-2010) from the Virginia Behavioral Risk Factor Surveillance System (BRFSS). For more information on BRFSS visit: http://www.cdc.gov/brfss/about/index.htm • Local demographic estimates from Alteryx, Inc. (2014) <p>Estimates are used when there are no primary sources of data available at the local level. The estimates are for planning purposes only and are not guaranteed for accuracy. The statistical model to produce the local estimates was developed by Community Health Solutions. In this model, state-level data were used to predict local counts and rates, with adjustments for local demographics. Consequently, differences between local rates and state rates may reflect estimation error rather than valid differences. Therefore, state-level estimates are not provided as direct comparisons of local estimates with state</p>

Profile	Source
	<p>estimates are not recommended. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates.</p>
<p>8) Youth Health Risk Factor Profile</p>	<p>Estimates of risk behaviors for youth age 14-19 and 10-14 were produced by Community Health Solutions using:</p> <ul style="list-style-type: none"> • Data from the Virginia Youth Risk Behavioral Surveillance System from the Centers for Disease Control (2013). For more information on YRBSS visit: http://www.cdc.gov/HealthyYouth/yrbs/index.htm • Local demographic estimates from Alteryx, Inc. (2014). <p>Estimates are used when there are no primary sources of data available at the local level. The estimates are for planning purposes only and are not guaranteed for accuracy. The statistical model to produce the local estimates was developed by Community Health Solutions. In this model, state-level data were used to predict local counts and rates, with adjustments for local demographics. Consequently, differences between local rates and state rates may reflect estimation error rather than valid differences. Therefore, state-level estimates are not provided as direct comparisons of local estimates with state estimates are not recommended. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates.</p>
<p>9) Uninsured Profile</p>	<p>Estimates of uninsured nonelderly age 0-64 were produced by Community Health Solutions using:</p> <ul style="list-style-type: none"> • U.S. Census Bureau Small Area Health Insurance Estimates (2013). For more information visit: http://www.census.gov/did/www/sahie/data/index.html. • Local demographic estimates from Alteryx, Inc. (2014) <p>Estimates are used when there are no primary sources of data available at the local level. The estimates are for planning purposes only and are not guaranteed for accuracy. The statistical model to produce the local estimates was developed by Community Health Solutions. In this model, prior year locality-level rates were used to predict current year counts and rates, with adjustments for local demographics. Because of data limitations, it is not possible to assign specific margins of error or levels of significance to these statistical estimates. Likewise, it is not possible to calculate the statistical significance of differences between local rates and state rates. Therefore, state-level estimates are not provided as direct comparisons of local estimates with state estimates are not recommended. Additionally, populations in group living quarters (e.g. colleges) and undocumented populations may not be adequately addressed in this model.</p>
<p>10) Medically Underserved Profile</p>	<p>Community Health Solutions analysis of U.S. Health Resources and Services Administration data. For more information, visit: http://muafind.hrsa.gov/.</p>

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Profile	Source
11) Cancer Incidence	Community Health Solutions analysis of 2008-2012 Virginia Department of Health Cancer Registry data.