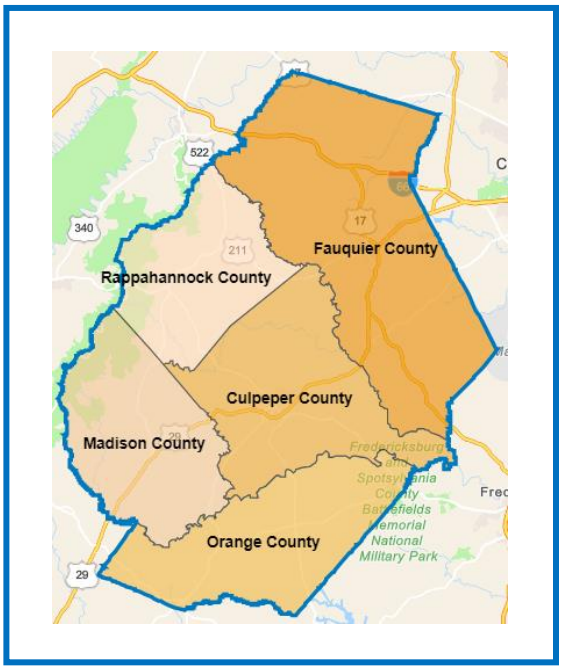
Community Health Needs Assessment
Planning District 9

June 2023



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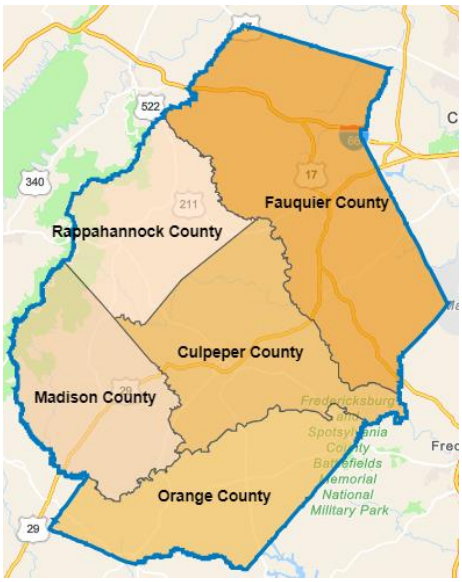
Executive Summary

This report presents the results of a Community Health Needs Assessment (CHNA) for the five-county region encompassed by Planning District 9. The CHNA was guided by five regional organizations that decided to collaborate on the project: Culpeper Wellness Foundation, Fauquier Health, PATH Foundation, Rappahannock-Rapidan Health District, and UVA Health.[1]

As shown in the map below, the CHNA study is focused on Planning District 9 (PD9) which includes five counties: Culpeper, Fauquier, Madison, Orange, and Rappahannock. The CHNA study was designed to provide insight about community health needs and opportunities for community health improvement. Research activities for the study included a survey of community residents, a survey of community professionals, a series of community listening events, and analysis of community health and demographic indicators.

The CHNA Study Region (Planning District 9)



2022 Population Estimates	
Total	185,951
Culpeper County	53,761
Fauquier County	74,216
Madison County	13,874
Orange County	36,830
Rappahannock County	7,270

Source: CHS analysis of community population estimates from ESRI, accessed through ArcGIS Business analyst. Figures are estimates and may differ from figures published by local sources.

Organization of the Report

The report is organized into five sections. Sections 1 and 2 describe results from the community resident survey and the community stakeholder survey, respectively. Section 3 describes results from the series of community listening events. Section 4 presents a series of community data profiles. Section 5 draws from the multiple sources of data to explore social determinants of health in the region. The remainder of this executive summary describes the key insights generated from Sections 1 through 5 of the report.

[1] Community Health Solutions provided research support, data analysis support, and drafting support for the CHNA.

Sections 1-3: Insights from Community Surveys and Listening Events

The study included three methods for obtaining community insights about community health needs and ideas for community health improvement. **Section 1** of the report presents results from a survey of 659 community residents. **Section 2** presents results from a survey of 48 community stakeholders that work in community organizations. **Section 3** presents results from a series of nine community listening events, including 58 participants who shared their insights and ideas about community health.

The exhibit below provides a summary view of community insights from across the three methods. The results reflect both commonalities and differences in perceptions of the topics shown. Please note that this summary view only includes the most common response or themes shared in response to each topic. Additional details are provided within Sections 1, 2, and 3.

Summary Insights from Community Surveys and Listening Events: Most Commonly Identified Responses or Themes

Topic \ Source	Community Resident Survey	Community Stakeholder Survey	Community Listening Events
Participants	659 respondents See Section 1 for details	48 respondents See Section 2 for details	58 participants See Section 3 for details
Community issues and concerns	Affordable housing Access to public transportation Jobs / healthy economy Access to healthy foods Gun safety	Mental health conditions Substance abuse Aging concerns Domestic violence Suicide	Health-related social supports Health care services and coverage Substance use Mental health Housing
Community health services that need improvement	Affordable health insurance Mental health services Health care services for uninsured and underinsured Dental services Primary care services	Mental health services Substance use services Health care services for uninsured and underinsured Dental care / oral health care Primary health care services	Health care services and coverage Substance use services Mental health services Health behaviors Telehealth
Other community services that need improvement	Public transportation Housing services Childcare services Long term care services Aging services Reliable internet access*[2]	Aging services Housing / homeless services Long term care supports After school programs Disability services Educational services Reliable internet access*	Housing Transportation Education Food security Social isolation
Idea of a healthy community	Health care services and coverage Health-related social supports Food security Substance use services Mental health services	Health-related social supports Health care services and coverage Community collaboration Food security Healthy behaviors	(Topic not specifically addressed in this setting)

[2] Note: The topic of reliable internet access was addressed differently across the two surveys, but both indicate reliable internet access is a community service that needs improvement.

Summary Insights from Community Surveys and Listening Events: Most Commonly Identified Responses or Themes			
Source / Topic	Community Resident Survey	Community Stakeholder Survey	Community Listening Events
Participants	659 respondents See Section 1 for details	48 respondents See Section 2 for details	58 participants See Section 3 for details
Important health resources in the community	Health care services and coverage Health environment Health-related social supports Food security Education	Health care services and coverage Substance use Mental health Health environment Health related social supports	(Topic not specifically addressed in this setting)
People who need help accessing resources to better their health	Older adults Low-income population Minority population / people of color Children and families People with disabilities Immigrants / undocumented LGBTQ+	Older adults Low-income population Children and families Minority population / people of color Immigrants / undocumented People with disabilities	Children and families Older adults Low-income population People with disabilities Minority population / people of color Immigrants / undocumented
New health concerns that others may not be aware of yet	Substance use Health care services and coverage Health related social supports Education Mental Health	Substance use Health care services and coverage Health-related social supports Mental Health COVID-19	(Topic not specifically addressed in this setting)
Areas where people and organizations can work together for community health improvement	Health related social supports Community collaboration (generally) Health care services and coverage Education Health behaviors	Community collaboration (generally) Health care services and coverage Health related social supports Funding-related Mental health	Community collaboration0 (generally) Health-related social supports Health care services and coverage Education Substance use

Source: CHS analysis of community resident survey responses, community stakeholder survey responses, and community listening session responses.

Section 4: Insights from Community Data Profiles

Section 4 of the report presents a series of community data profiles showing a series of indicators relating to community demographics and health. The profiles are not designed to present every indicator of interest. 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. Summary insights from this analysis are outlined below. (Also please see the technical notes on statistical comparisons in the introduction to Section 4).

Summary Insights from Community Data Profiles	
Community Data Profile	**Summary Insights**
Community Demographic Profile (Exhibit 4.1)	Estimated 181,569 residents as of 2021, projected to grow to more than 197,000 by 2030 Estimated 22.9% under age 18, and estimated 17.6% age 65+ Estimated 80.1% White, 9.9% Black or African American, 10% other race, and 8.6% Hispanic ethnicity Estimated 7.6% with income below poverty, 19.1% with income below 200% of poverty
COVID-19 Profile (Exhibit 4.2)	45,204 reported COVID-19 cases since pandemic started 1,218 COVID-19 hospitalizations since pandemic started 515 COVID-19 deaths since pandemic started
Leading Causes of Death (Exhibit 4.3)	Leading causes of death in the 2016-2020 timeframe include cancer, cardiovascular-related, Alzheimer's and dementia-related conditions, and respiratory disease Years of potential life lost due to premature death higher than statewide rates
Access to Health Insurance Profile (Exhibit 4.4)	Estimated 6.5% of children without health coverage (2020) Estimated 11.4% of adults aged 18-64 without health coverage (2020)
Avoidable Hospital Visit Profile (Exhibit 4.5)	Includes hospitalizations that could be avoided with adequate outpatient care. Estimated 1,229 potentially avoidable hospitalizations in 2020 Estimated 8%-10% of ED visits potentially avoidable in 2021
Health Behaviors Profile (Exhibit 4.6)	Estimated 62.3% of adults classified as overweight or obese (2020) Estimated 18.9% of adults smoke (2020) Estimated 9% of high school youth smoke tobacco (2019) Estimated 25.5% of high school youth use electronic vapor products (2019) Estimated 36% of high school youth classified as overweight or obese (2019)
Maternal and Infant Health Profile (Exhibit 4.7)	28 total infant deaths and 7 maternal deaths in the 2018-2020 timeframe 1,948 total live births in 2020 77 late or no prenatal care births, 143 low weigh births, and 170 preterm births in 2020
Chronic Conditions Profile (Exhibit 4.8)	Estimated 15.8% of adults diagnosed with asthma (2020) Estimated 14.5% of adults diagnosed with diabetes (2020) Substantial numbers of hospitalizations for asthma, diabetes, hypertension, and stroke (2020)
Communicable or Infectious Disease Profile (Exhibit 4.9)	Sexually transmitted disease rates below state rates in 2020 HIV infection rates below state rate in 2020
Injury and Violence Profile (Exhibit 4.10)	614 unintentional injury deaths in 2016-2020 876 hospitalizations for all injuries in 2020

Summary Insights from Community Data Profiles	
Community Data Profile	**Summary Insights**
Mental Health Profile (Exhibit 4.11)	□ Estimated 20.3% of adults report ever being diagnosed with depression (2020) □ Estimated 32.8% of high school youth report feeling sad or hopeless (2019) □ Estimated 18.1% of high school youth report seriously considering suicide (2019) □ 829 self-harm or suicide-related emergency department visits in 2021 □ 144 deaths by suicide in 2016-2020 (all ages)
Substance Use Profile (Exhibit 4.12)	□ In the 2016-2020 timeframe, there were 259 drug overdose deaths in the region. □ Population rates of deaths due to overdose were higher than the statewide rate in Culpeper, Fauquier, and Orange. (Data were not reported for Madison and Rappahannock). □ 156 hospitalizations with drug overdose in 2020 □ Estimated 29.5 of high school youth report drinking alcohol (2021) □ Estimated 17.8% of high school youth report using marijuana (2021)

Section 5: Insights on Social Determinants of Health

Section 5 of the report explores the study results in the context of **social determinants of health (SDOH)**. As background for this analysis, social determinants of health (SDOH) are the nonmedical factors that influence health outcomes. They can be defined as the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. They can also be grouped into five domains, including economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context. All of these factors can influence health disparities and health equity for community populations. Summary insights about social determinants of health are outlined below and presented in more detail in Section 5 of the report.

Summary Insights about Social Determinants of Health		
Source	**Selected Indicators**	
People that may need help accessing services to better their health	□ Older adults □ Low-income population □ Minority population / people of color □ Children and families □ People with disabilities □ Immigrant / undocumented population □ LGBTQ+ population	
SDOH factors affecting health opportunity	□ Affordable housing □ Affordable health care □ Jobs / healthy economy □ Access to public transportation □ Access to healthy foods	□ Welcoming of diversity □ Educational opportunities □ Access to public parks and playgrounds □ Reliable internet access
Insights from community mapping	□ Community data and maps show the estimated counts and distribution of community residents that may be at elevated risk for health disparities due to social, economic, and environmental factors such as income, age, race, ethnicity, and disability.	

Section 1. Insights from Community Residents

To generate community input for the community health needs assessment, a survey was conducted with community residents. To develop the survey, the project partners began with a common aim to conduct an inclusive survey with insights from all demographic groups, including low-income and minority populations.

With this aim in mind, the survey was conducted in partnership with a wide range of community partners that helped raise awareness and encourage community members to complete the survey. Online surveys could be completed by community residents willing and able to do so. Paper surveys could be completed at various community sites where diverse people gather.

It should also be noted that the surveys were conducted using convenience sampling. Convenience sampling is a practical approach for obtaining insights from as many people as possible, but without random selection. The results of a convenience sample are instructive for understanding the scope of issues and opportunities in a community; however, results might not be statistically representative of the entire population of a community.

Section 1 Outline

1.1	Demographic Profile
1.2	Community Needs Related to COVID-19
1.3	Sources of Health Information
1.4	Access to Internet
1.5	Neighborhood and Community Environment
1.6	Health Care Service Needs
1.7	Community Services and Supports
1.8	Defining a Healthy Community
1.9	Important Health Resources
1.10	Groups that Need Help
1.11	New Health Issues or Concerns
1.12	Ideas for Working Together
1.13	Additional Ideas

A total of 659 individuals submitted a response to the community resident survey (although not every respondent completed every item). The respondents provided insights about community needs, community services, community members who need help, and ideas for how community organizations could work together for community health improvement. The results are presented in Sections 1.1 through 1.13 that follow.

A Technical Note for Reviewing the Exhibits

In the exhibits that follow, 'n' refers to the number of survey respondents answering each item. Note that the 'n' may vary because some respondents did not answer every survey item.

1.1 Demographic Profile

Community residents were asked to describe their demographic background. The resulting demographic profile of survey respondents is shown **in Exhibit 1.1** on the following page. Worth noting:

- 28 percent of survey respondents reported household income below $35,000, compared to an estimated 14% for the general population.
- 31 percent of survey respondents self-identified as Hispanic, Latino, or Spanish origin, compared to an estimated 11% for the general population.
- 9 percent of survey respondents self-identified as Black or African American, compared to 9% for the general population.
- 78 percent of survey respondents self-identified as female. This over-representation is common for community health surveys of this type.

Exhibit 1.1
Demographic Profile of Survey Respondents

Category	Percent	Count
Age (n=654)		
18-24	6%	37
25-34	17%	109
35-44	21%	139
45-54	18%	120
55-64	21%	138
65-74	11%	74
75-84	5%	30
85+	1%	7
Race (n=634) (respondents could choose more than one option)		
Asian	1%	9
American Indian or Alaska Native	1%	8
Black or African American	9%	55
Native Hawaiian or Pacific Islander	0%	2
White	82%	520
Other	9%	59
Ethnicity (n=646)		
Hispanic, Latino, or Spanish origin	31%	199
Non-Hispanic, Latino, or Spanish origin	69%	447
Gender (n=657)		
Female	78%	510
Male	22%	142
Unknown	1%	5
Sexual Orientation (n=639)		
Gay or lesbian	3%	17
Straight, that is not gay or lesbian	87%	558
Bisexual	3%	18
Other	2%	11
I don't know	1%	4
Prefer not to answer	5%	31

Category	Percent	Count
Household Income (n=645)		
Less than $25,000	17%	111
$25,000-$34,999	11%	74
$35,000-$49,999	8%	54
$50,000-$74,999	12%	76
$75,000+	11%	71
$100,000+	32%	206
Don't Know/Not Sure	8%	53
Education (n=644)		
Less than High School	13%	86
High School or GED	17%	109
Some College	14%	92
Associate degree	9%	57
Bachelor's Degree	22%	144
Master's Degree	15%	99
Professional Degree	4%	23
Doctorate	5%	34
Household Size (n=658)		
1	12%	81
2	28%	184
3	16%	105
4	18%	119
5	14%	95
More Than 5	11%	74
School Aged Children in the Household (n=639)		
Yes	40%	256
No	60%	383
County (based on reported zip code of residence) (n=618)		
Culpeper	45%	278
Fauquier	37%	231
Orange	8%	51
Rappahannock	6%	36
Madison	4%	22

Source: CHS analysis of community resident survey responses.

1.2 Community Needs Related to COVID-19

Community residents were asked to share their insights on community needs specifically related to COVID-19. The results are shown in **Exhibit 1.2**. Most respondents (58%) said they and their immediate family were generally able to obtain the community services and supports they needed during the pandemic, while 26% reported problems. Respondents also reported a wide range of challenges resulting from COVID-19, including lost employment (33%) lost housing (9%), and a number of additional difficulties as reflected in responses to the second question shown in the exhibit.

Exhibit 1.2
Community Needs Related to COVID-19

Which of the following, if any, have happened since the start of the COVID-19 pandemic? Select all that apply. (n=508)	%	Count
□ I and my immediate family were generally able to obtain the community services and supports we needed during the pandemic.	58%	293
□ I or my immediate family had problems obtaining the community services and supports we needed during the pandemic.	26%	134
□ I or someone in my immediate family lost employment during the pandemic.	33%	166
□ I or someone in my immediate family lost housing during the pandemic.	9%	48

Since COVID-19 pandemic started in 2020, have you personally experienced any difficulty with: Select all that apply. (n=476)	**%**	**Count**
□ Keeping good mental health	53%	252
□ Keeping good physical health	44%	208
□ Feeling lonely or isolated from others	37%	174
□ Affording housing costs	33%	155
□ Getting essential supplies for daily living	32%	154
□ Experiencing overall financial hardship	31%	148
□ Keeping good dental health	30%	142
□ Getting health care	30%	141
□ Getting dental care	28%	135
□ Managing schooling at home for children	23%	111
□ Getting healthy food	23%	108
□ Getting childcare	18%	84
□ Taking care of a person who is elderly or disabled and lives alone	16%	77
□ Getting social services	15%	72
□ Getting transportation	14%	67
□ Getting in-home care services	13%	63
□ Other difficulties	6%	30

Source: CHS analysis of community resident survey responses.

1.3 Sources of Health Information

Community residents were asked to identify the sources they use for health information and advice, with the leading sources being health care providers and online resources. The results are shown in **Exhibit 1.3**.

Exhibit 1.3
Sources of Health Information

If you had a question or needed information about improving your health, where would you go for advice? Select all that apply. (n=601)	%	Count
Health Care Provider (Example: Physician, Nurse Practitioner)	64%	387
Online Resources other than Social Media	37%	221
Free Clinic	26%	159
Family Member	18%	111
Friends	17%	102
Local Health Department	16%	94
Urgent Care	15%	91
Hospital Emergency Department	13%	81
Health Fairs	7%	43
Social Media Resources	7%	42
Faith Based Organization	7%	40
Other	5%	29

Source: CHS analysis of community resident survey responses.

1.4 Access to Internet Service

Community residents were asked to describe their need for reliable internet access, and whether they have reliable internet access at home. The results are shown in **Exhibit 1.4**, with 22% reporting they do not have reliable internet access at home.

Exhibit 1.4
Reliable Internet Access

Which of the following statements are true for you or other members of your household? Select all that apply. (n=576)	%	Count
Need for Reliable Internet Access		
We need reliable home internet for educational purposes.	50%	290
Reliable home internet is important for our quality of life.	47%	273
We need reliable home internet for work purposes.	46%	266
We need reliable home internet for health purposes.	43%	247
Reliable Access to Internet at Home		
We DO have reliable internet access at home.	55%	316
We DO NOT have reliable internet access at home.	22%	125

Source: CHS analysis of community resident survey responses.

1.5 Neighborhood and Community Environment

Community residents were asked to identify areas that need improvement in the neighborhood or community where they live. The results are shown in **Exhibit 1.5**, with responses ranging from affordable housing to better air quality.

Exhibit 1.5
Neighborhood and Community Environment

Based on your experience, select each area that needs improvement in the neighborhood or community where you live. Select all that apply. (n=573)	%	Count
☐ Affordable housing	66%	376
☐ Access to public transportation	46%	263
☐ Jobs/healthy economy	46%	263
☐ Access to healthy foods (fresh fruits and vegetables)	43%	246
☐ Gun safety	39%	221
☐ Welcoming of diversity (age, social, cultural, faith, economic)	37%	211
☐ Opportunities for healthy activities (biking, walking)	36%	208
☐ Educational opportunities (libraries, jobs or career skills training)	32%	182
☐ Opportunities to participate in community events and activities	32%	181
☐ Schools	30%	174
☐ Healthy messaging in media and public spaces	30%	173
☐ Access to safe public parks or playgrounds	30%	171
☐ Water quality	24%	138
☐ Traffic	18%	104
☐ Air quality	14%	78
☐ Other	10%	55

Source: CHS analysis of community resident survey responses.

1.6 Health Care Service Needs

Community residents were asked to review a list of common health services, and identify which services need improvement in their community. Respondents identified a wide range of services that need improvement, as shown in **Exhibit 1.6**.

Exhibit 1.6
Health Care Service Needs

Based on your experience, select each type of service that needs improvement in the neighborhood or community where you live. Select all that apply. (n=574)	%	Count
□ Mental health services	58%	332
□ Affordable health insurance	58%	331
□ Healthcare for the Uninsured and Underinsured	49%	281
□ Dental services	45%	259
□ Primary care services	44%	255
□ Chronic disease services (asthma, cancer, diabetes, etc.)	39%	224
□ Specialty Care services (neurology, endocrinology, pain management, etc.)	39%	224
□ Services for weight control	36%	207
□ Substance Use services (alcohol, opioids)	36%	205
□ Hospital services	31%	180
□ Vision services	28%	160
□ Pharmacy services	26%	147
□ Home health services	26%	147
□ Public health services (immunizations, infectious disease control, etc.)	25%	141
□ Maternal, infant, and child health services	23%	134
□ Workplace health services	23%	131
□ Hearing services	20%	116
□ Services for quitting smoking	20%	115
□ Physical Rehabilitation	20%	112
□ Other	5%	31

Source: CHS analysis of community resident survey responses.

1.7 Community Services and Supports

Looking beyond health care, community residents were asked to review a list of community services and supports and identify any that need improvement in their community. Respondents identified a diverse array of services and supports that can affect access to health care and overall quality of life. Results are shown in **Exhibit 1.7**.

Exhibit 1.7
Community Services that Need Improvement

Based on your experience, select each service or support that needs improvement in the neighborhood or community where you live. Select all that apply. (n=545)	%	Count
☐ Public transportation	49%	267
☐ Housing services	46%	251
☐ Childcare services	43%	233
☐ Long term care services	40%	219
☐ Aging Services	39%	213
☐ Financial and legal counseling services	38%	205
☐ After school programs	37%	202
☐ Respite care (short-term break for caregivers)	37%	199
☐ Services for adults with disabilities	36%	195
☐ Assisted living services	35%	193
☐ Domestic violence services	35%	189
☐ Food safety net (food banks, etc.)	31%	171
☐ Services for children with disabilities	30%	166
☐ Veterans Services	29%	158
☐ Early intervention services	28%	152
☐ Public safety (police, fire, EMS, public health)	22%	122
☐ Other	5%	28

Source: CHS analysis of community resident survey responses.

A Technical Note on Thematic Analysis

Respondents were invited to respond to a series of survey questions in their own words rather than through a pre-defined checklist. The detailed responses have been shared with the project partners. To summarize the results, Community Health Solutions applied a method called 'thematic analysis' to identify common themes among the responses. Thematic analysis is a process for grouping text responses into categories based on common words and phrases. It is a commonly used method in qualitative analysis. The results of this summary analysis are presented in the exhibits that follow.

1.8 Your Idea of a Healthy Community

A total of 377 respondents shared their idea of a healthy community. Results of the thematic analysis are shown in **Exhibit 1.8**.

Exhibit 1.8
Thematic Analysis: Your Idea of a Health Community

In your own words, how would you define the idea of a healthy community?	
Themes identified from 377 individual responses:	**Number of responses involving this theme**
Health Care Services and Coverage	174
Health Related Social Supports	128
Food Security	64
Substance Use	60
Mental Health	51
Health Environment (Built or Natural)	50
Children and Families	43
Health Behaviors	39
Education	37
Older Adults	36
Housing	35
Transportation	32
Diversity and Inclusion	27
Community Collaboration	26
Community Safety	26
Health Equity	21
Employment	15
Low Income Population	12
COVID-19	9
People with Disabilities	6
Minority Population/POC	5
Telehealth	5
Chronic Conditions	4
Faith-Based Communities	4
Domestic Violence	3
Social Isolation	3
Funding-Related	2
Immigrants/Undocumented	1
LGBTQ+	1

Source: CHS analysis of community resident survey responses.

1.9 Important Health Resources

A total of 361 respondents shared their views on the important health resources in their community. Results of the thematic analysis are shown in **Exhibit 1.9**.

Exhibit 1.9
Thematic Analysis: Important Health Resources

In your view, what are people, places or things that contribute the most to better health in your neighborhood or community?	
Themes identified from 361 individual responses:	**Number of responses involving this theme**
Health Care Services and Coverage	164
Health Environment (Built or Natural)	123
Health Related Social Supports	101
Food Security	52
Education	32
Health Behaviors	32
Transportation	24
Faith-Based Communities	21
Community Collaboration	19
Substance Use	17
Mental Health	14
Community Safety	10
Housing	10
Diversity and Inclusion	10
Employment	7
Funding-Related	4
Health Equity	4
COVID-19	3
Telehealth	3
Domestic Violence	1

Source: CHS analysis of community resident survey responses.

1.10 Groups that Need Help

A total of 340 respondents shared their views on community members who may need help accessing resources to better their health. Results of the thematic analysis are shown in **Exhibit 1.10**.

Exhibit 1.10
Thematic Analysis: Groups that Need Help

Are there particular groups of people within your neighborhood or community who need help accessing resources to better their health?	
Themes identified from 340 individual responses:	**Number of responses involving this theme**
Groups that may need help:	
Older Adults	88
Low Income Population	56
Minority Population/POC	55
Children and Families	43
People with Disabilities	16
Immigrants/Undocumented	7
LGBTQ+	4
Areas where help may be needed:	
Health Equity	89
Health Care Services and Coverage	78
Health Related Social Supports	59
Substance Use	35
Transportation	32
Mental Health	27
Housing	24
Education	19
Food Security	17
Health Behaviors	13
Telehealth	5
Health Environment (Built or Natural)	5
Social Isolation	4
Faith-Based Communities	4
Diversity and Inclusion	4
Employment	3
COVID-19	3
Domestic Violence	2
Community Safety	2
Community Collaboration	1
Chronic Conditions	1

Source: CHS analysis of community resident survey responses.

1.11 New Health Issues or Concerns

A total of 281 respondents shared their views on new health issues or concerns within their neighborhood or community. Results of the thematic analysis are shown in **Exhibit 1.11**.

Exhibit 1.11
Thematic Analysis: New or Emerging Health Concerns

Are there any new health concerns within your neighborhood or community that others may not be aware of, but could cause serious harm today or in the future?	
Themes identified from 281 individual responses:	**Number of responses involving this theme**
Substance Use	71
Health Care Services and Coverage	55
Health Related Social Supports	54
Children and Families	48
Education	37
Mental Health	28
Health Behaviors	26
Community Safety	17
Older Adults	16
COVID-19	16
Transportation	8
Health Equity	7
Low Income Population	6
Food Security	5
Social Isolation	5
Housing	5
Chronic Conditions	3
Diversity and Inclusion	3
Domestic Violence	3
Minority Population/POC	3
Health Environment (Built or Natural)	2
Telehealth	2
Employment	2
Community Collaboration	1
LGBTQ+	1
People with Disabilities	1

Source: CHS analysis of community resident survey responses.

1.12 Ideas for Working Together

A total of 294 respondents shared their ideas about how people could work together to promote better health in their neighborhood or community. Results of the thematic analysis are shown in **Exhibit 1.12**.

Exhibit 1.12
Thematic Analysis: Ideas for Working Together

Do you have ideas about how people could work together to promote better health in your neighborhood or community?	
Themes identified from 294 individual responses:	**Number of responses involving this theme**
Health Related Social Supports	77
Community Collaboration	70
Health Care Services and Coverage	39
Education	28
Children and Families	28
Older Adults	23
Health Behaviors	16
Diversity and Inclusion	15
Health Environment (Built or Natural)	14
Substance Use	13
Community Safety	12
Food Security	11
Mental Health	11
Faith-Based Communities	9
Health Equity	8
Housing	8
Transportation	7
Funding-Related	6
Low Income Population	6
Telehealth	6
Minority Population/POC	4
Employment	4
COVID-19	3
Social Isolation	2
Chronic Conditions	1
Domestic Violence	1
People with Disabilities	1

Source: CHS analysis of community resident survey responses.

1.13 Additional Ideas

A total of 279 respondents shared their insights about how local organizations can help them and others in their neighborhood or community achieve better health. Results of the thematic analysis are shown in **Exhibit 1.13**.

Exhibit 1.13
Thematic Analysis: How Can We Help You and Others in Your Neighborhood or Community?

Do you have ideas about how local organizations can help you and others in your neighborhood or community achieve better health?	
Themes identified from 279 individual responses:	**Number of responses involving this theme**
Health Care Services and Coverage	82
Health Related Social Supports	57
Community Collaboration	51
Food Security	28
Education	22
Children and Families	21
Older Adults	20
Substance Use	20
Health Environment (Built or Natural)	16
Mental Health	16
Transportation	15
Health Behaviors	14
Faith-Based Communities	9
Health Equity	8
Funding-Related	6
Housing	6
Community Safety	5
Low Income Population	5
Telehealth	5
Chronic Conditions	3
COVID-19	3
Employment	3
People with Disabilities	2
Diversity and Inclusion	1
Domestic Violence	1
Minority Population/POC	1
Social Isolation	1

Source: CHS analysis of community resident survey responses.

Section 2. Insights from Community Professionals

In addition to the survey of community residents described in Section 1, a second survey was conducted with a group of community professionals identified by the Planning District 9 Planning Workgroup. The survey was conducted online with a pool of potential respondents identified by the project partners from their existing lists of community contacts. The survey questions addressed the list of topics outlined in the box at right. A total of 48 individuals submitted a response (although not every respondent answered every question).

A Technical Note for Reviewing the Exhibits

In the exhibits that follow, 'n' refers to the number of survey respondents answering each item. Note that the 'n' may vary because some respondents did not answer every survey item.

Section 2 Outline

2.1	Participant Profile
2.2	Difficulties Related to COVID-19
2.3	Community Health Concerns
2.4	Services and Supports that Need Improvement
2.5	Defining a Healthy Community
2.6	Important Health Resources
2.7	Groups that Need Help
2.8	New Health Issues or Concerns
2.9	Ideas for Working Together
2.10	Additional Ideas

2.1 Participant Profile

Survey Responses were received from 48 community professionals from the organizations listed in **Exhibit 2.1**. Each respondent was asked to describe their geographic perspective in terms of the counties for which they would share insights on the survey. Most respondents identified multiple counties.

Exhibit 2.1
Participant Profile
(n=46)

By Organization
(A count denotes multiple respondents from the same organization.)

- Afro American Historical Association of Fauquier County (2)
- Aging Together
- CHASS
- Community Touch
- Culpeper Baptist Church
- Culpeper Human Services
- Culpeper Public Schools
- DSS
- FCAC Head Start
- Fauquier Community Child Care (5)
- Fauquier Community Food Bank and Thrift
- Fauquier County Department of Social Services (5)
- Fauquier County Parks and Recreation
- Fauquier County Public Schools
- Fauquier FISH
- Forever Free
- Free Clinic of Culpeper (2)
- Generations Central Adult Day Center
- Headwaters Foundation
- Highland School
- Leadership Fauquier
- MAFRAC
- Mental Health Association of Fauquier County
- Pathways, Inc
- Rapp Center for Education
- Rappahannock Benevolent Fund
- Rappahannock Rapidan Community Services (3)
- Rappahannock Rapidan Regional Commission (2)
- Rapp at Home
- Saint James Episcopal School
- Services to Abused Families (2)
- Town of Culpeper

By Geographic Perspective
(Multiple respondents identified multiple counties.)

Fauquier	26
Culpeper	34
Rappahannock	12
Orange	13
Madison	19

Source: CHS analysis of community stakeholder survey responses. Two of the 48 respondents did not provide organizational information.

2.2 Difficulties Related to COVID-19

Community professionals were asked to share their insights on community needs specifically related to COVID-19. As shown in **Exhibit 2.2**, survey respondents identified a range of difficulties ranging from feeling lonely or isolated to getting social services.

Exhibit 2.2
Community Member Difficulties Due to COVID-19

Thinking about the people your organization serves, have you noticed people having difficulty with any of the following since the start of the COVID-19 pandemic in 2020? Select all that apply.	%	Count
From 44 total respondents:		
☐ Feeling lonely or isolated	77%	34
☐ Affording housing costs	77%	34
☐ Keeping good mental health	75%	33
☐ Experiencing overall financial hardship	64%	28
☐ Getting transportation	41%	18
☐ Getting in-home care services	39%	17
☐ Taking care of a person who is elderly or disabled and lives alone	39%	17
☐ Getting health care	34%	15
☐ Keeping good physical health	34%	15
☐ Getting healthy food	32%	14
☐ Getting childcare	27%	12
☐ Getting essential supplies for daily living	27%	12
☐ Getting dental care	25%	11
☐ Managing schooling at home for children	23%	10
☐ Keeping good dental health	23%	10
☐ Getting social services	18%	8

Source: CHS analysis of community stakeholder survey responses.

2.3 Community Health Concerns

Community professionals were asked to review a list of common community health needs and identify which are important health concerns in the communities their organization serves. The results are shown in **Exhibit 2.3**.

Exhibit 2.3
Community Health Concerns

Important health concerns in the communities your organization serves (check all that apply)	%	Count
From 47 total respondents		
☐ Mental Health Conditions (other than depression)	83%	39
☐ Substance Abuse - Illegal Drugs	64%	30
☐ Depression	60%	28
☐ Aging Concerns	55%	26
☐ Substance Abuse - Prescription Drugs	51%	24
☐ Suicide	43%	20
☐ Domestic Violence	43%	20
☐ Alcohol Use	38%	18
☐ Adult Obesity/Overweight	36%	17
☐ Dental Care/Oral Health-Adult	34%	16
☐ Maternal, Infant, and Child Health	32%	15
☐ Intellectual/Developmental Disabilities	32%	15
☐ Childhood Obesity/Overweight	30%	14
☐ Gun Safety	30%	14
☐ Tobacco Use (cigarettes, vaping, snuff, chewing tobacco)	28%	13
☐ Chronic Pain	26%	12
☐ Dental Care/Oral Health-Pediatric	26%	12
☐ Diabetes	26%	12
☐ Physical Disabilities	23%	11
☐ Alzheimer's Disease	21%	10
☐ Autism	19%	9
☐ High Blood Pressure	17%	8
☐ Cancer	17%	8
☐ Other illnesses that spread person to person (TB, flu, newly emerging viruses)	17%	8
☐ Food Safety	15%	7
☐ Water Quality	15%	7
☐ Prenatal & Pregnancy Care	15%	7
☐ Infectious Diseases (Lyme Disease, rabies)	13%	6
☐ Teen Pregnancy	13%	6
☐ Stroke	11%	5
☐ Preventable Injuries (car or bike crashes, falls)	11%	5
☐ Arthritis	11%	5
☐ Respiratory Diseases (other than asthma)	9%	4
☐ Renal (kidney) Disease	9%	4
☐ Neurological Disorders (seizures, multiple sclerosis)	9%	4
☐ Sexually Transmitted Diseases	6%	3
☐ Air Quality	6%	3
☐ Orthopedic Problems	4%	2
☐ Asthma	4%	2
☐ HIV/AIDS	2%	1
☐ Other Health Concerns	15%	7

Source: CHS analysis of community stakeholder survey responses.

2.4. Services and Supports that Need Improvement

Community professionals were asked to review a list of common community services and supports and identify which need improvement in the communities they serve. The results are summarized in **Exhibit 2.4** in two parts: *A. Health Care Services and Supports*, and *B. Other Community Services and Supports*.

Exhibit 2.4
Services and Supports that Need Improvement

Based on your experience, please select each item you think needs improvement in the communities your organization serves. Select all that apply.

From 47 total respondents

A. Health Care Services and Supports	%	Count
☐ Mental Health Services	74%	35
☐ Substance Use Services	45%	21
☐ Health Care Services for the Uninsured and Underinsured	43%	20
☐ Dental Care/Oral Health Services-Adult	30%	14
☐ Health Promotion and Prevention	30%	14
☐ Home Health Services	30%	14
☐ Primary Health Care Services	30%	14
☐ Health Care Insurance Coverage (private and government)	28%	13
☐ Hospital Services (including emergency, inpatient and outpatient)	23%	11
☐ Chronic Disease Services (including screening and early detection)	21%	10
☐ Specialty Medical Care (e.g., Neurology, Endocrinology, Pain Management, etc.)	21%	10
☐ Chronic Pain Management Services	19%	9
☐ Dental Care/Oral Health Services-Pediatric	19%	9
☐ Hearing Services	19%	9
☐ Family Planning Supports	17%	8
☐ Healthy Messaging in Media and Public Spaces	17%	8
☐ Maternal, Infant, and Child Health Services	17%	8
☐ Public Health Services (e.g., immunizations, infectious disease control, etc.)	17%	8
☐ Services for Quitting Smoking	17%	8
☐ Services for Weight Control	17%	8
☐ Physical Rehabilitation	15%	7
☐ Cancer Services (screening, diagnosis, treatment)	13%	6
☐ Pharmacy Services	11%	5
☐ Vision Services	11%	5

(continued)

Exhibit 2.4
Services and Supports that Need Improvement

Based on your experience, please select each item you think needs improvement in the communities your organization serves. Select all that apply.

From 47 total respondents

B. Other Community Services and Supports	%	Count
□ Aging Services	57%	27
□ Housing Services	53%	25
□ Homeless Services	53%	25
□ Long Term Care Supports	51%	24
□ After School Programs	43%	20
□ Services for Adults with Disabilities	36%	17
□ Educational Opportunities (libraries, jobs, or career skills training)	34%	16
□ Respite Care (e.g., short-term break for caregivers)	34%	16
□ Assisted Living Services	34%	16
□ Reliable Internet Access (at home)	34%	16
□ Early Intervention for Children	34%	16
□ Social Services	32%	15
□ Public Transportation Services	28%	13
□ Services for Children with Disabilities	28%	13
□ Employment Opportunity/Workforce Development	28%	13
□ Food Safety Net (food bank, farmers markets, community gardens)	28%	13
□ Childcare Services	26%	12
□ Domestic Violence Services	23%	11
□ Financial and Legal Counseling Services	23%	11
□ Self-Management Supports (including nutrition, exercise, taking medications)	23%	11
□ Veteran Services	21%	10
□ Early Childhood Education	21%	10
□ Reliable Internet Access (at work)	21%	10
□ Safe Play and Recreation (community centers, parks)	19%	9
□ Opportunities to Participate in Community Events and Activities	19%	9
□ Welcoming of Diversity (age, social, cultural, faith, economic)	19%	9

Source: CHS analysis of community stakeholder survey responses.

A Note on Thematic Analysis

Respondents were invited to respond to a series of survey questions in their own words rather than through a pre-defined checklist. The detailed responses have been shared with the project partners. To summarize the results, Community Health Solutions applied a method called 'thematic analysis' to identify common themes among the responses. Thematic analysis is a process for grouping text responses into categories based on common words and phrases. It is a commonly used method in qualitative analysis. The results of this summary analysis are presented in the exhibits that follow.

2.5 Defining a Healthy Community

A total of 32 respondents described their idea of a healthy community. Results of the thematic analysis are shown in **Exhibit 2.5**.

Exhibit 2.5
Thematic Analysis: Your idea of a Health Community

In your own words, how would you define the idea of a healthy community?	
Themes identified from 32 individual responses:	**Number of responses involving this theme**
Health Related Social Supports	19
Health Care Services and Coverage	17
Community Collaboration	11
Food Security	7
Health Behaviors	7
Housing	6
Mental Health	6
Substance Use	6
Children and Families	5
Older Adults	5
Health Environment (Built or Natural)	5
Employment	3
Health Equity	3
Transportation	3
Diversity and Inclusion	2
Education	2
COVID-19	1
Faith-Based Communities	1
Funding-Related	1

Source: CHS analysis of community stakeholder survey responses.

2.6 Important Health Resources

A total of 31 respondents shared their views on the most important health resources in the communities they serve. Results of the thematic analysis are shown in **Exhibit 2.6**.

Exhibit 2.6
Thematic Analysis: Important Health Resources

In your view, what are the most important health resources in the communities you serve?	
Themes identified from 31 individual responses:	**Number of responses involving this theme**
Health Care Services and Coverage	23
Substance Use	12
Mental Health	12
Health Environment (Built or Natural)	11
Health Related Social Supports	11
Older Adults	10
Children and Families	8
Education	7
Health Behaviors	7
Food Security	6
Housing	5
Health Equity	4
Transportation	4
Community Safety	3
Low Income Population	3
Employment	2
Chronic Conditions	1
Diversity and Inclusion	1
Funding-Related	1
Social Isolation	1

Source: CHS analysis of community stakeholder survey responses.

2.7 Groups that Need Help

A total of 29 respondents shared their views on groups that may need help accessing resources to better their health. Results of the thematic analysis are shown in **Exhibit 2.7**.

Exhibit 2.7
Thematic Analysis: Groups that Need Help

Are there particular groups within the communities you serve that need help accessing resources to better their health?	
Themes identified from 29 individual responses:	**Number of responses involving this theme**
Groups that may need help:	
Older Adults	12
Low Income Population	9
Children and Families	7
Minority Population/POC	2
Immigrants/Undocumented	1
People with Disabilities	1
Areas where help may be needed:	
Health Care Services and Coverage	13
Health Related Social Supports	9
Health Equity	9
Mental Health	8
Substance Use	8
Housing	6
Education	3
Employment	3
Social Isolation	3
Transportation	3
Health Environment (Built or Natural)	2
Community Collaboration	1
Community Safety	1
Faith-Based Communities	1
Food Security	1
Health Behaviors	1
Domestic Violence	1

Source: CHS analysis of community stakeholder survey responses.

2.8 New Health Issues or Concerns

A total of 24 respondents shared their views on new health issues or concerns that may not be widely known yet, but could cause serious harm today or in the future. Results of the thematic analysis are shown in **Exhibit 2.8**.

Exhibit 2.8
Thematic Analysis: New Health Concerns

Are there any new health concerns within the community that may not be widely known yet, but could cause serious harm today or in the future?	
Themes identified from 24 individual responses:	**Number of responses involving this theme**
Substance Use	9
Health Care Services and Coverage	8
Children and Families	6
Health Related Social Supports	6
Mental Health	6
COVID-19	3
Social Isolation	3
Community Safety	2
Education	2
Funding-Related	2
Health Behaviors	2
Older Adults	2
People with Disabilities	2
Domestic Violence	1
Employment	1
Health Environment (Built or Natural)	1
Housing	1
Human Trafficking	1
Telehealth	1

Source: CHS analysis of community stakeholder survey responses.

2.9 Ideas for Working Together

A total of 26 respondents shared ideas for how people could work together to promote optimal health in the community. Results of the thematic analysis are shown in **Exhibit 2.9**.

Exhibit 2.9
Thematic Analysis: Ideas for Working Together

Please share your ideas about how people could work together to promote optimal health in the community.	
Themes identified from 26 individual responses	**Number of responses involving this theme**
Community Collaboration	16
Health Care Services and Coverage	8
Health Related Social Supports	6
Funding-Related	4
Mental Health	4
Substance Use	4
Children and Families	2
Health Behaviors	2
Transportation	2
Diversity and Inclusion	1
Education	1
Employment	1
Faith-Based Communities	1
Food Security	1
Health Environment (Built or Natural)	1
Health Equity	1
Housing	1
Older Adults	1

Source: CHS analysis of community stakeholder survey responses.

2.10 Additional Ideas

A total of 16 respondents shared additional ideas or suggestions for improving community health. Results of the thematic analysis are shown in **Exhibit 2.10**.

Exhibit 2.10
Thematic Analysis: Additional Ideas for Improving Community Health

Please hare any additional ideas or suggestions for improving community health.	
Themes identified from 16 individual responses:	**Number of responses involving this theme**
Health Related Social Supports	6
Health Care Services and Coverage	5
Health Equity	4
Children and Families	3
Housing	3
Community Collaboration	2
Community Safety	2
Education	2
Food Security	2
Health Behaviors	2
Low Income Population	2
Older Adults	2
COVID-19	1
Domestic Violence	1
Employment	1
Faith-Based Communities	1
Mental Health	1
Minority Population/POC	1
Substance Use	1
Telehealth	1
Transportation	1

Source: CHS analysis of community stakeholder survey responses.

Section 3. Insights from Community Listening Events

In addition to the survey of community residents, the study also included a series of nine community listening events. Eight events were held onsite at community locations, and one event was held virtually. The events were advertised and open to any interested community members. Data were collected from 58 individual attendees who shared their insights in response to two primary questions. The results are summarized below.

Section 3 Outline	
3.1	Attendee Profile
3.2	Insights on Most Important Issues or Concerns
3.3	Creative Ways that Community Organizations Could Work Together

3.1 Attendee Profile

Community members who attended the listening events were asked to anonymously share some background demographic information on forms provided at the events. The resulting attendee profile data is outlined in **Exhibit 3.1.**

Exhibit 3.1
Community Listening Events: Attendee Profile

Attendee Profile (9 events)	
Total attendees submitting information forms	58
County (based on reported zip code)	
Culpeper	11
Fauquier	22
Madison	4
Orange	5
Rappahannock	16
By Age	
18-34	2
35-44	6
45-54	8
55-64	12
65+	24
By Gender	
Female	43
Male	15
By Race and Ethnicity	
Black or African American (Race)	7
White (Race)	50
Other Race	1
Hispanic Ethnicity	2

Source: CHS analysis of community listening event responses.

3.2 Insights on Most Important Issues or Concerns

Listening event participants were invited to share their insights on the most important issues or concerns that should be addressed in developing strategies for community health improvement. A total of 274 ideas were shared by the 58 respondents. The results of the thematic analysis are summarized in **Exhibit 3.2**.

Exhibit 3.2
Most Important Issues or Concerns Identified at Community Listening Events

What are the most important issues or concerns we should focus on as we develop strategies for community health improvement?	
Themes identified from 274 ideas shared by listening event participants:	**Number of ideas involving this theme**
Health Related Social Supports	113
Health Care Services and Coverage	108
Substance Use	59
Mental Health	45
Children and Families	42
Housing	38
Older Adults	28
Transportation	27
Education	23
Health Behaviors	21
Food Security	18
Low Income Population	14
Health Equity	13
Social Isolation	10
Telehealth	8
COVID-19	8
Chronic Conditions	5
Community Collaboration	5
Diversity and Inclusion	4
Health Environment (Built or Natural)	4
People with Disabilities	4
Minority Population/POC	3
Immigrants/Undocumented	2
Domestic Violence	2
Community Safety	1
Employment	1
Faith-Based Communities	1
Funding-Related	1

Source: CHS analysis of community listening event responses.

3.3 Creative Ways that Community Organizations Could Work Together

Listening event participants were also invited to share ideas for how community organizations could work together in creative ways. A total of 201 ideas were shared by the 58 respondents. The results of the thematic analysis are summarized in **Exhibit 3.3**.

Exhibit 3.3
Creative Ways that Community Organizations Could Work Together

What are some creative ways that community organizations could work together for community health improvement?	
Themes identified from 201 ideas shared by listening event participants:	**Number of ideas involving this theme**
Community Collaboration (generally)	66
Health Related Social Supports	60
Health Care Services and Coverage	51
Children and Families	31
Education	27
Substance Use	18
Older Adults	16
Mental Health	15
Low Income Population	13
Transportation	13
Funding-Related	13
Faith-Based Communities	12
Food Security	10
Health Equity	9
Health Environment (Built or Natural)	9
Community Safety	8
Telehealth	8
Health Behaviors	8
Housing	7
Diversity and Inclusion	5
Minority Population/POC	4
Chronic Conditions	4
Domestic Violence	2
Employment	2
Social Isolation	2
COVID-19	1

Source: CHS analysis of community listening event responses.

Section 4. Insights from Community Indicator Profiles

This section of the report provides a profile of the study region based on analysis 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 analysis can be helpful for determining the number of people affected by specific health concerns. In addition, the results can be used alongside the survey results to help inform action plans for community health improvement.

The community data profiles are organized into 12 sections as shown in the outline. Please review the following technical note on statistical comparisons before reviewing the community data profiles.

Section 4 Outline	
4.1	Community Demographic Profile
4.2	COVID-19 Profile
4.3	Mortality Profile
4.4	Access to Health Insurance Profile
4.5	Avoidable Hospital Visit Profile
4.6	Health Behaviors Profile
4.7	Maternal and Infant Health Profile
4.8	Chronic Conditions Profile
4.9	Communicable or Infectious Disease Profile
4.10	Injury and Violence Profile
4.11	Mental Health Profile
4.12	Substance Use Profile

A Note on Context for Statistical Comparisons

In reviewing the following exhibits, it is logical to compare rates for various health indicators between counties within the region, and between the local region and the state of Virginia. Please note that with some exceptions, the underlying source data is not structured to support this type of comparative analysis with a high level of statistical confidence or reliability.

As background, the indicators shown in the following exhibits were obtained from published sources as listed within each exhibit. The published data are in particular formats defined by the source organizations. For various reasons, the formats limit the possibilities for making geographic comparisons. In some situations, the underlying data are based on survey samples rather than complete health records, and the resulting indicators are not published in ways that support comparative statistical analysis. In other situations, the underlying data are based on actual health records, but the relevant indicators are not reported for the smaller counties because of an insufficient number of cases. Another consideration is that some indicators should be adjusted for age and/or population size, and the underlying data to support this analysis is not available.

Despite these statistical considerations, there can still be practical value in evaluating local health indicators in the context of regional and statewide indicators. These differences are noted as applicable in the introductory paragraphs for each of the following exhibits. Where numeric differences are apparent, it may be worthwhile to conduct further research with local stakeholders to learn more about possible health challenges that may be reflected in the data.

4.1 Community Demographic Profile

Exhibit 4.1 provides a demographic profile of the region as of 2021.[3] The estimates are based on data from the U.S. Census Bureau, as published in the Virginia Community Health Improvement Data Portal or (in the case of population projections) the Weldon Cooper Center for Public Service at the University of Virginia. Some of the estimates may differ from local sources due to differences in timing and estimation methodology.

Focusing on rates in the bottom panel, compared to Virginia as a whole, the PD9 region is more rural, has a higher percentage of seniors age 65+, is less racially and ethnically diverse, and has lower levels of poverty. However, there is substantial demographic diversity within the region, as explored in more detail within **Section 5** of the report.

Exhibit 4.1
Community Demographic Profile

Indicators	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Total Population	52,021	72,416	13,731	36,001	7,400	181,569	8,582,479
Total Land Area (Square Miles)	379.2	648.0	320.6	341.1	266.4	1955.3	39,482.1
Population Density (Per Sq. Mile)	137	112	43	106	28	93	217
Age (2021)							
Counts							
Population Age 0-4	3,255	4,084	773	1,901	305	10,318	501,494
Population Age 5-17	9,523	12,839	2,064	5,729	1,079	31,234	1,391,258
Population Age 18-64	31,242	43,635	7,757	21,245	4,133	108,012	5,361,127
Population Age 65+	8,001	11,858	3,137	7,126	1,883	32,005	1,328,600
Rates							
Population Age 0-4 Percent	6.3%	5.6%	5.6%	5.3%	4.1%	5.7%	5.8%
Population Age 5-17 Percent	18.3%	17.7%	15.0%	15.9%	14.6%	17.2%	16.2%
Population Age 18-64 Percent	60.1%	60.3%	56.5%	59.0%	55.9%	59.5%	62.5%
Population Age 65+ Percent	15.4%	16.4%	22.9%	19.8%	25.5%	17.6%	15.5%
Hispanic Ethnicity (2021)							
Hispanic Total	6,181	6,674	432	2,021	295	15,603	840,248
Hispanic Percent	11.9%	9.2%	3.2%	5.6%	4.0%	8.6%	9.8%
Race (2021)							
Counts							
White Total	37,553	61,017	11,858	28,506	6,576	145,510	5,574,307
Black Total	7,029	5,012	1,018	4,604	299	17,962	1,631,941
American Indian Total	162	252	2	9	23	448	24,007
Asian Total	500	1,165	107	513	35	2,320	578,210
Native Hawaiian Total	65	33	-	-	-	98	5,313
Some Other Total	3,378	789	47	526	239	4,979	265,361
Mixed Race Total	3,334	4,148	699	1,843	228	10,252	503,340
Rates							
White Percent	72.2%	84.3%	86.4%	79.2%	88.9%	80.1%	65.0%
Black Percent	13.5%	6.9%	7.4%	12.8%	4.0%	9.9%	19.0%
American Indian Percent	0.3%	0.3%	0.0%	0.0%	0.3%	0.2%	0.9%
Asian Percent	1.0%	1.6%	0.8%	1.4%	0.5%	1.3%	6.8%
Native Hawaiian Percent	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.06%
Some Other Race Percent	6.5%	1.1%	0.3%	1.5%	3.2%	2.7%	3.09%
Mixed Race Percent	6.4%	5.7%	5.1%	5.1%	3.1%	5.6%	5.85%
Poverty (2021)							
Income Below 100% FPL	3,633	4,234	1,174	3,999	449	13,489	828,664
Income Below 200% FPL	11,594	9,588	3,965	7,507	1,429	34,083	1,966,819

[3] Some demographic estimates for 2022 are also available and used elsewhere in this report. 2021 estimates are used in this exhibit because they are consistent with other data obtained from the Virginia Community Health Improvement Data Portal.

Income Below 100% FPL, Percent	7.2%	5.9%	8.7%	11.3%	6.1%	7.6%	9.9%
Income Below 200% FPL, Percent	23.0%	13.3%	29.2%	21.3%	19.4%	19.1%	23.6%
Population Growth 2022-2030							
2022	54,089	73,536	14,017	37,109	7,394	186,145	8,696,955
2030	57,578	79,584	14,160	38,468	7,218	197,007	9,129,002
Pct Change 2022-2030	6%	8%	1%	4%	-2%	6%	5%

Source: Estimates from the Virginia Department of Health, Virginia Community Health Improvement Data Portal, based on data from US Census Bureau, American Community Survey (2021). Population growth estimates from the Weldon Cooper Center for Public Service at the University of Virginia (accessed May 2023).

4.2 COVID-19 Profile

Exhibit 4.2 lists indicators related to the COVID-19 pandemic. The figures reflect COVID-19 cases, hospitalizations, and deaths since record-keeping began in 2020 through May 30 of 2023. Over this timespan the region had 45,204 total cases, 1,218 hospitalizations, and 515 deaths due to COVID-19.

Exhibit 4.2
COVID-19 Profile

Indicators from 2020 through May 30, 2023	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Total Cases	14,560	16,760	3,202	9,296	1,386	45,204	2,314,521
Hospitalizations	322	552	77	224	43	1,218	61,770
Deaths	178	164	49	110	14	515	23,751

Source: CHS analysis of data from the Virginia Department of Health as of May 30, 2023.
https://www.vdh.virginia.gov/coronavirus/see-the-numbers/covid-19-in-virginia/covid-19-in-virginia-cases/

4.3 Mortality Profile

Looking beyond the impact of COVID-19, **Exhibit 4.3** lists indicators of overall mortality in the region.

- The CDC defines premature deaths as those occurring before age 80. Based on this measure, the region had 2,270 premature deaths in the 2018-2020 timeframe.
- The CDC defines years of potential life lost as years lost to death before age 75. Based on this measure, the years of potential life lost per 100,000 population was higher than the statewide rate overall in four out of five counties.
- Focusing on leading causes of death in the region, over the 2016-2020 timeframe the leading causes of death in the region were related to cancer, heart disease, Alzheimer's or dementia, and respiratory disease.

Exhibit 4.3
Mortality Profile

Indicators	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Premature Deaths (2018-2020)							
Premature Deaths, 2018-2020 (Counts)	655	804	201	513	97	2,270	100,719
Years of Potential Life Lost, Rate per 100,000 Population	7032.0	6369.0	9838.0	8379.0	7186.0	7249.0	6707.0
Leading Causes of Death (2016-2020 Combined Counts)							
Cancer-Related							
Bronchus or lung, unspecified - Malignant neoplasms	98	161	45	106	19	429	
Pancreas, unspecified - Malignant neoplasms	42	49	14	40	(nr)	145	
Breast, unspecified - Malignant neoplasms	43	53	13	26	(nr)	135	
Cardiovascular-Related (Counts)							
Atherosclerotic heart disease	83	90	30	83	14	300	
Acute myocardial infarction, unspecified	54	71	25	89	(nr)	239	
Congestive heart failure	53	75	17	68	13	226	
Stroke, not specified as hemorrhage or infarction	47	49	22	36	(nr)	154	
Atherosclerotic cardiovascular disease, so described	37	52	12	17	13	131	
Alzheimer's or Dementia-Related (Counts)							
Unspecified dementia	115	123	55	125	10	428	
Alzheimer disease, unspecified	78	77	37	80	15	287	
Senile degeneration of brain, not elsewhere classified	38	102	(nr)	17	(nr)	157	
Other (Counts)							
Chronic obstructive pulmonary disease, unspecified	121	130	22	103	16	392	
Septicemia	34	54	12	37	(nr)	137	
Accidental poisoning by and exposure to narcotics	37	54	(nr)	34	(nr)	125	

Source: Premature death indicators from Virginia Department of Health, Virginia Community Health Improvement Data Portal (2018-2020)
Leading cause of deaths indicators extracted from CDC Wonder by Community Health Solutions (2018-2020).
(nr) = not reported

4.4 Access to Health Insurance Profile

Access to health coverage is fundamental for sustaining optimal lifelong health. **Exhibit 4.4** lists estimates of children and adults without health insurance as of 2020. For this analysis health insurance refers to any type of private or public health coverage, including Medicare and Medicaid. An estimated 6.5% of children and 11.4% of adults aged 18-64 were without health coverage.

Exhibit 4.4 Access to Health Insurance

2020 Estimates	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Population without Insurance							
Counts							
Age 0-18 w/o Insurance (count)	914	1,041	213	461	139	2,768	84,392
Age 18-64 w/o Insurance (count)	3,871	4,152	1,003	2,506	573	12,105	518,054
Rates							
Age 0-18 w/o Insurance (percent)	6.8%	6.1%	7.9%	5.8%	11.2%	6.5%	4.4%
Age 18-64 w/o Insurance (percent)	12.8%	9.7%	13.3%	11.6%	14.4%	11.4%	10.1%

Source: Virginia Department of Health, Virginia Community Health Improvement Data Portal, based on data from US Census Bureau Small Area Health Insurance Estimates (2020).

4.5 Avoidable Hospital Visit Profile

Potentially avoidable hospital visits are another broad indicator of access to health care. Potentially avoidable visits are identified based on analysis of specific diagnostic and procedure codes for hospital admissions and hospital emergency department visits. Selected codes indicate that the visit may have been avoidable with appropriate utilization of ambulatory care outside of the hospital setting.

Exhibit 4.5 lists indicators of potentially avoidable hospital visits for the region.

- The data indicate there were 1,229 potentially avoidable hospital admissions for area residents in Virginia community hospitals in 2020. The associated rate of hospitalization was higher than the state as a whole, although figures are not age-adjusted.
- The percentage of emergency department visits classified as potentially avoidable ranged from 8.1% to 10.4% within the region during 2021.

Exhibit 4.5 Avoidable Hospital Visit Profile

Indicators	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Inpatient Hospitalizations							
Potentially Avoidable Hospitalizations (2020)	367	380	90	354	38	1,229	55,139
Potentially Avoidable Hospitalizations, Rate (per 100,000 Population 18+)	909.7	691.3	842.9	1184.8	627.9	866.0	820.0
Emergency Department Visits							
Potentially Avoidable Hospital Emergency Department Visits (as percent of total visits, 2021)	10.4%	8.1%	9.2%	8.8%	(nr)	(nr)	8.4%

Source: Data on potentially avoidable hospitalizations are from the Virginia Department of Health, Virginia Community Health Improvement Data Portal (2020). Data on potentially avoidable hospital emergency department visits are from Virginia Health Information, Inc., (2021).
(nr) = not reported at the county level

4.6 Health Behaviors Profile

Exhibit 4.6 lists indicators of selected health behaviors that can affect overall health and well-being.

- Among adults as of 2020, an estimated 62.3% were overweight or obese, 78.7% were aerobically active, and 18.9% were current smokers. (Note that figures on adult smoking may be unreliable due to estimation error).
- Among high school youth as of 2019, 36% were classified as overweight or obese, 9% smoked cigarettes, and 25.8% used electronic vaping elements. Note that all of these estimates are based on estimates from survey data, and subject to measurement error.

Exhibit 4.6 Health Behaviors Profile

2020 Estimates	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Adults 18+ (2020 estimates)							
Adults Overweight or Obese, Weighted Percent	Due to uncertain reliability of the underlying data for county-level estimates, the PD9 region rate is used as a proxy for local rates.					62.3%	67.3%
Adults Aerobically Active, Weighted Percent						78.7%	79.1%
Adults Who Are Current Smokers, Weighted Percent**						18.9%	13.6%
High School Youth (2019 estimates)							
Classified as obese	(nr)					19.8%*	14.8%
Classified as overweight	(nr)					16.2%*	15.8%
Currently smoked cigarettes	(nr)					9.0%*	5.5%
Currently use electronic vaping product	(nr)					25.8%*	19.9%

Note:
* Regional estimates are for the Northwest region of Virginia, which includes but is not limited to Planning District 9.
**Figures on adult smoking rates may be unreliable due to estimation error.

Source: Adult estimates from the Virginia Department of Health, Virginia Community Health Improvement Data Portal, based on data from Virginia Behavioral Risk Factor Survey (2020). High school youth estimates from the Virginia Department of Health Youth Risk Behavior Survey (2019). (nr) = not reported at the county level

4.7 Maternal and Infant Health Profile

Maternal and infant health is a fundamental indicator of overall community health. **Exhibit 4.7** lists a series of indicators of maternal and infant health in the region.

- In the 2018-2020 timeframe, there were 28 infant deaths and seven maternal deaths in the region. In 2020, there were 106 teen pregnancies, 1,948 live births, 77 births with late or no prenatal care, 143 low weight births, and 170 pre-term births.
- Rates associated with these indicators varied within the region, with higher rates in Culpeper and orange compared to the rest of the region and the state.

Exhibit 4.7
Maternal and Infant Health Profile

Indicators	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Infant Mortality (2018-2020)							
Total Live Births	1,992	2,226	(nr)	1,200	(nr)	5,949	291,926
Total Infant Deaths	7	11	(nr)	8	(nr)	28	1,679
Infant Deaths, Rate (per 1,000 Total Live Births)	3.51	4.94	2.64	6.67	6.58	4.71	5.75
Maternal Mortality (2018-2020)							
Total Maternal Deaths	(nr)	(nr)	(nr)	(nr)	(nr)	7	139
Maternal Mortality, Rate (per 100,000 Total Live Births)	100.4	89.9	0.0	250.0	0.0	117.67	47.9
Teen Pregnancies (2020)							
Female Population Ages 15-19	1,730	2,319	(nr)	980	(nr)	5,555	267,017
Pregnancies of Females Ages 15-19	56	19	(nr)	26	(nr)	106	4612
Teen Pregnancies, Rate (per 1,000 Females Ages 15-19)	32.4	8.2	8.4	26.5	11.8	19.08	17.3
Total Live Births (2020)							
Total Live Births (2020)	667	714	126	393	(nr)	1,948	94,694
Prenatal Care (2020)							
Mothers with Late/No Prenatal Care	26	30	(nr)	18	(nr)	77	3,851
Mothers with Late/No Prenatal Care, Percent of Total Live Births	3.9%	4.2%	0.8%	4.6%	4.2%	3.95%	4.1%
Low Weight Births (2020)							
Low Birth Weight	52	52	7	28	(nr)	143	7,852
Low Birth Weight, Percent	7.8%	7.3%	5.6%	7.1%	8.3%	7.34%	8.3%
Pre-Term Births (2020)							
Preterm Births	63	56	15	32	(nr)	170	9,091
Preterm Births, Percent	9.5%	7.8%	11.9%	8.1%	8.3%	8.73%	9.6%

Source: Infant and maternal mortality data (2018-2020), and teen pregnancy and total live birth data (2020) from Virginia Department of Health, Virginia Community Health Improvement Data Portal. (nr) = not reported at the county level

4.8 Chronic Condition Profile

Chronic conditions are a major cause of illness, hospitalization, disability, and death within communities. **Exhibit 4.8** lists selected indicators of chronic conditions for the region.

- Among adults aged 18+, an estimated 15.8% have been diagnosed with asthma, an estimated 14.5% with pre-diabetes, and an estimated 14.9% with diabetes.
- Estimated rates of pre-diabetes and diabetes appear to be higher than statewide rates, although these differences might not be statistically significant.
- Focusing on hospitalizations, in 2020 the region had 866 hospitalizations for asthma, 3,834 hospitalizations for diabetes, 7,911 hospitalizations for hypertension, and 395 hospitalizations for stroke. The population rates of hospitalization for these conditions varied within the region.

Exhibit 4.8 Chronic Conditions Profile

Indicators	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Asthma Estimates (2020)							
Adults Diagnosed with Asthma, Weighted Percent	11.5%	14.4%	12.8%	14.0%	13.8%	15.8%	13.5%
Diabetes Estimates (2020)							
Adults with Prediabetes, Weighted Percent	14.0%	14.0%	14.0%	14.0%	14.0%	14.5%	9.3%
Adults with Diabetes, Weighted Percent	14.6%	13.6%	16.8%	17.0%	17.0%	14.9%	11.1%
Inpatient Hospitalization (2020)							
Counts							
Hospitalizations with Asthma	265	235	70	275	21	866	41,865
Hospitalizations with Diabetes	1,149	1,135	286	1,140	124	3,834	170,866
Hospitalizations with Hypertension	2,268	2,499	607	2,325	212	7,911	352,510
Hospitalizations with Stroke	121	122	28	115	9	395	19,676
Rates							
Hospitalizations with Asthma, Rate (per 100,000 Total Population)	494.7	329.3	525.8	729.5	289.3	472.7	487.3
Hospitalizations with Diabetes, Rate (per 100,000 Total Population)	2144.9	1590.5	2148.4	3024.3	1708.0	2092.8	1989.0
Hospitalizations with Hypertension, Rate (per 100,000 Total Population)	4,233.8	3,501.9	4,559.8	6,167.9	2,920.1	4,318.3	4,103.5
Hospitalizations with Stroke, Rate (per 100,000 Total Population)	225.9	171.0	210.3	305.1	124.0	215.6	229.0

Source: Virginia Department of Health, Virginia Community Health Improvement Data Portal. Asthma estimates and diabetes estimates based on data from Virginia Behavioral Health Risk Factor Surveillance Survey (2020). Cancer mortality indicators based on data from CDC Wonder (2016-2020). Inpatient hospitalization indicators based on data from the Virginia Health Information Virginia Inpatient Hospital Discharge Data Set maintained by Virginia Department of Health (2020). (nr) = not reported at the county level

4.9 Communicable or Infections Disease Profile

Looking beyond chronic disease, **Exhibit 4.9** lists selected indictors of communicable or infectious disease for the region. In 2020 the region recorded 451 chlamydia infections, 87 gonorrhea infections, and 280 HIV/AIDS infections. The population rate of infection in the region was below the statewide rate for each of these diseases.

Exhibit 4.9
Communicable or Infectious Disease Profile

Indicators	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Chlamydia (2020)							
Chlamydia Infections	149	182	23	88	9	451	40,965
Chlamydia Infections, Rate per 100,000 Pop.	283.2	255.5	173.4	237.5	122.1	248.5	479.9
Gonorrhea (2020)							
Gonorrhea Infections	34	30	1	19	3	87	15,217
Gonorrhea Infections, Rate per 100,000 Pop.	64.6	42.1	7.5	51.3	40.7	47.9	178.3
HIV/AIDS (2020)							
Population with HIV / AIDS	104	91	12	62	11	280	24,046
Population with HIV / AIDS, Rate per 100,000 Pop.	235.5	151.8	104.9	193.4	171.8	181.8	331.4

Source: Virginia Department of Health, Virginia Community Health Improvement Data Portal, based on data from CDC (2020).

4.10 Injury and Violence Profile

Injury and violence are community health concerns with implications for health, well-being, hospitalization, and death. **Exhibit 4.10** lists selected indicators of injury and violence for the region.

- During the 2016-2020 timeframe, the region had 614 unintentional injury deaths. Population rates for injury deaths were above the statewide rate across the region.

- In 2020, the region had 876 hospitalizations for injury, with leading causes including falls (485), traumatic brain injury (116), and motor vehicle accidents (107). Population rates for injury hospitalization were generally above the statewide rates.

Exhibit 4.10
Injury and Violence Profile

Indicators	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Deaths (2016-2020)							
Unintentional Injury Death, Five Year Total Deaths, 2016-2020 Total	171	201	58	154	30	614	20,285
Unintentional Injury Death, Crude Death Rate (Per 100,000 Population)	65.9	57.1	87.6	84.2	82.0	68.5	47.7
Hospitalizations (2020 counts)							
All Injuries	271	270	57	250	28	876	33,241
Nondrug Poisoning	3	6	1	3	0	13	452
Assault Injury	1	2	-	2	-	5	837
Fall Injury	144	151	31	147	12	485	17,790
Firearm Injury	-	2	-	2	-	4	829
Motor Vehicle Traffic-related (MVT)	27	38	11	28	3	107	3,259
Traumatic Brain Injury (TBI)	39	43	3	26	5	116	5,163
Drowning	0	0	0	0	0	0	20
Hospitalizations (2020 rates per 100,000 population)							
All Injuries	505.9	378.4	428.2	663.2	385.7	478.2	387.0
Nondrug Poisoning	5.6	8.4	7.5	8.0	0.0	7.1	5.3
Assault Injury	1.9	2.8	0.0	5.3	0.0	2.7	9.7
Fall Injury	268.8	211.6	232.9	390.0	165.3	264.7	207.1
Firearm Injury	0.0	2.8	0.0	5.3	0.0	2.2	9.7
Motor Vehicle Traffic-related (MVT)	50.4	53.3	82.6	74.3	41.3	58.4	37.9
Traumatic Brain Injury (TBI)	72.8	60.3	22.5	69.0	68.9	63.3	60.1
Drowning	0.0	0.0	0.0	0.0	0.0	0.0	0.2

Source: Virginia Department of Health, Virginia Community Health Improvement Data Portal. Virginia mortality data from CDC Wonder (2016-2020). Virginia hospitalization data from the Virginia Inpatient Hospital Discharge Data Set, Virginia Health Information (2020).

4.11 Mental Health Profile

Mental health conditions can cause serious harm by themselves or in connection with other illnesses and disabilities. **Exhibit 4.11** lists selected mental health indicators for the region.

- An estimated 20.3% of adults in the region reported being diagnosed with depressive order.
- An estimated 32.8% percent of high school youth reported feeling sad or hopeless for at least a two-week period in the prior 12 months, and 18.1% reported seriously considering suicide in the prior 12 months.
- Residents of the region had 829 self-harm and suicide-related emergency department visits in 2021.
- The region had 144 deaths by suicide in the 2016-2020 timeframe.

Exhibit 4.11
Mental Health Profile

Indicators	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Depressive Disorder							
Adults with Depressive Disorder, Weighted Percent (2020)	17.9%	16.5%	16.5%	26.1%	19.4%	20.3%	17.2%
High school youth reporting feeling sad or hopeless almost every day for at least two weeks in prior 12 months	(nr)					32.8%*	32.4%
High school youth seriously considering suicide in prior 12 months	(nr)					18.1%*	11.4%
ED Visits (all ages)							
Self-harm and Suicide-related ED Visit Counts (2021)	281	325	47	161	15	829	55,067
Self-harm and Suicide-related ED Visit, Rate (per 100,000 Population 5+) (2021)	560.9	483.1	372.1	452.5	216.0	480.5	680.9
Death by Suicide (all ages)							
Deaths by Suicide, Five Year Total Deaths, 2016-2020 Total	42	49	14	27	12	144	5,930
Deaths by Suicide, Crude Death Rate (Per 100,000 Population)	16.2	13.9	(nr)	14.8	(nr)	16.1	13.9
Deaths by Suicide, Age-Adjusted Death Rate (Per 100,000 Population)	15.7	14.6	(nr)	13.8	(nr)	14.8	13.4

Note:* Regional estimates for Virginia high school youth are from the Virginia Youth Risk Survey Northwest Region report. This report includes but is not limited to the counties in Planning District 9.

Source: Data on deaths (2016-2020) and hospitalizations (2021) from Virginia Department of Health, Virginia Community Health Improvement Data Portal. Data on high school youth from Virginia Department of Health, Virginia Youth Survey (2019).
(nr) = not reported at the county level.

4.12 Substance Use Profile

According to the CDC, substance use refers to the use of selected substances, including alcohol, tobacco products, drugs, inhalants, and other substances that can be consumed, inhaled, injected, or otherwise absorbed into the body with possible dependence and other detrimental effects. **Exhibit 4.12** provides indicators of substance use in the region.

- In the 2016-2020 timeframe, there were 259 drug overdose deaths in the region. Population rates of deaths due to overdose were higher than the statewide rate in Culpeper, Fauquier, and Orange. (Data were not reported for Madison and Rappahannock).
- In 2020 residents of the region had 156 hospitalizations with drug overdose, and 124 hospitalizations for substance use disorder. Population rates of hospitalization were generally lower than statewide rates.
- Focusing on high school youth in 2019, regional survey data indicate that 29.5% drank alcohol, 18.9% had tried alcohol before they were age 13, and 13.3% had ridden in a vehicle with a driver who had been drinking.
- Turning to drug use as of 2019, 17.8% of high school youth surveyed reported they currently used marijuana, 5.7% said they had tried marijuana before age 13, and 13.5% reported they had been offered, sold, or given illegal drugs on school property.

Exhibit 4.12
Substance Use Profile

Indicators	Culpeper	Fauquier	Madison	Orange	Rappahannock	Region	Virginia
Drug Overdose Deaths (2016-2020)							
Drug Overdose Deaths (All Substances), Five Year Total Deaths, 2016-2020 Total	83	87	14	64	11	259	8,147
Crude Death Rate (Per 100,000 Population)	32.0	24.7	(nr)	35.0	(nr)	28.9	19.2
Age-Adjusted Death Rate (Per 100,000 Population)	35.2	27.4	(nr)	37	(nr)	32.1	19.3
Hospitalization with Drug Overdose (2020)							
Hospitalizations with Drug Overdose	46	56	9	43	2	156	7,725
Hospitalizations with Drug Overdose, Rate (per 100,000 Total Population)	85.9	78.5	67.6	114.1	27.6	85.2	89.9
Hospitalization with Substance Use Disorder (2020)							
Hospitalizations with Substance Use Disorder	39	50	3	31	1	124	6,447
Hospitalizations with Substance Use Disorder, Rate (per 100,000 Total Population)	72.8	70.1	22.5	82.2	13.8	67.7	75.1
High School Youth (2019)							
Currently drank alcohol	(nr)					29.5%*	25.4%
Had first drink of alcohol (other than a few sips) before age 13 years	(nr)					18.9%*	15.6%
Rode with a driver who had been drinking alcohol	(nr)					13.3%*	13.0%
Currently used marijuana	(nr)					17.8%*	17.3%
Tried marijuana for the first time before age 13 years	(nr)					5.7%*	5.2%
Were offered, sold, or given an illegal drug on school property	(nr)					13.5%*	14.0%

Note:* Regional estimates for Virginia high school youth are from the Virginia Youth Risk Survey Northwest Region report. This report includes but is not limited to the counties in Planning District 9.

Source: Data on deaths (2016-2020) and hospitalizations (2021) from Virginia Department of Health, Virginia Community Health Improvement Data Portal. Data on high school youth from Virginia Department of Health, Virginia Youth Survey (2019).
(nr) = not reported at the county level

Section 5. Insights on Social Determinants of Health

Sections 1-4 of the report present the primary findings from the survey community residents, the survey community professionals, the community listening events, and the community data profiles. This section further explores these results in the context of **social determinants of health**.

As background for this analysis, **social determinants of health (SDOH)** are the nonmedical factors that influence health outcomes. They can be defined as the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. They can also be grouped into **five domains**, including economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context. All of these social determinants can influence **health disparities** and **health equity** for community populations.[4]

Given these dynamics, exploring social determinants of health can be an important step for identifying health disparities and advancing health equity within communities. The results are summarized in Sections 5.1-5.8 as outlined below.

Section 5 Outline	
5.1	Summary Insights from Community Surveys and Listening Events
5.2	Community Mapping
5.3	Children Under Age 18
5.4	Older Adults Age 65+
5.5	Households with 1+ Persons with a Disability
5.6	Households in Poverty
5.7	Black or African American Population
5.8	Hispanic Population

[4] Health equity can be defined as the state in which everyone has a fair and just opportunity to attain their highest level of health. Health disparities can be defined as differences in health care access, quality, utilization, experience, or outcomes. Health inequities exist when health disparities are caused by obstacles in the culture or structure of community systems of care. Additional detail on these concepts is available from the CDC at https://health.gov/healthypeople/priority-areas/social-determinants-health.

5.1 Summary Insights from Community Surveys and Listening Events

Community members shared relevant insights through the survey of community residents, the survey of community professionals, and the community listening events. As summarized in **Exhibit 5.1**:

- Community members identified at least seven community groups that may need help accessing services to better their health, including older adults, low-income residents, minority populations / people of color, children and families, people with disabilities, immigrant or undocumented populations, and LGBTQ+ populations.

- In addition, community members identified a series of SDOH factors that can influence health opportunities for community members, including access to affordable health insurance, affordable housing, jobs, transportation, healthy food, a welcoming culture, education, parks, and reliable internet access.

Although the data are not structured to support a one-to-one correspondence between the identified groups and SDOH factors, it is reasonable to assume that members of the identified groups are affected by challenges related to the SDOH factors.

Exhibit 5.1
Summary Insights from Community Surveys and Listening Events

People that may need help accessing services to better their health	Older adults Low-income population Minority populations / people of color Children and families People with disabilities Immigrant / undocumented population LGBTQ+ population
SDOH factors affecting health opportunity	Affordable health insurance Affordable housing Jobs / healthy economy Access to public transportation Access to healthy foods Welcoming of diversity Educational opportunities Access to public parks and playgrounds Reliable internet access

Source: CHS analysis of data from the survey of community residents, the survey of community professionals, and the community listening events.

5.2 Community Mapping[5]

For purposes of assessment and planning it is helpful to understand where populations with SDOH risk factors reside in the community. The results can be used to inform planning for community outreach and health improvement efforts. The following exhibits provide maps and data for selected indicators including older adults, low-income households, the Black or African American population, the Hispanic population, households with members having a disability, and the child population.

Please note that there are many additional SDOH indicators not illustrated here for lack of available data. The indicators shown are intended as a starting point for further analysis of SDOH factors in local communities. Also, the county-level maps reflect underlying differences in total population size. The census tract views are intended to provide a closer view of what the populations reside within the region.

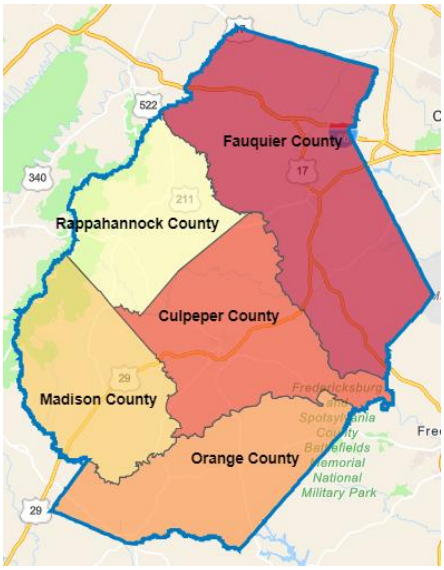
> Please note: There are many additional SDOH indicators not illustrated here for lack of available data. The indicators shown are intended as a starting point for further analysis of SDOH factors in local communities.

5.3 Children Under Age 18

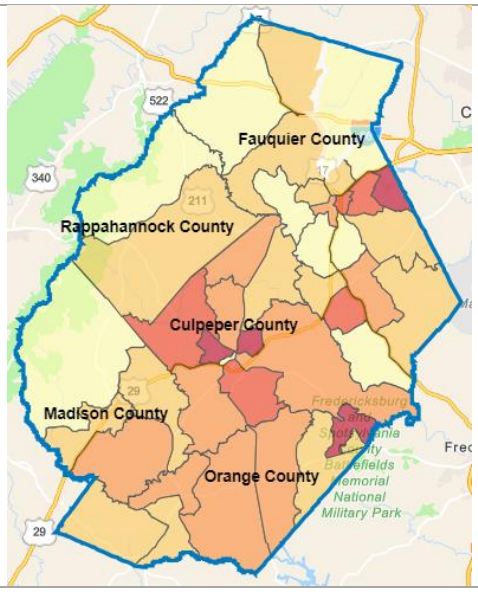
Exhibit 5.3 shows the estimated population of children under 18 as of 2022. The county view shows a total of 40,571 community residents in this age group, along with county-level figures. The census tract view shows where these population members are located across the region.

Exhibit 5.3
Children Under Age 18
(2022 Estimates)

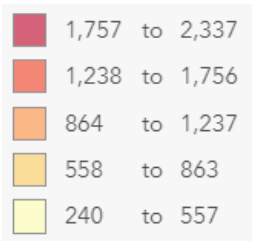
County View



Census Tract View



2022 Child Population (Estimated)	
Planning District 9	40,571
Culpeper County	12,705
Fauquier County	16,263
Madison County	2,804
Orange County	7,567
Rappahannock County	1,232



Source: CHS analysis of estimates provided by ESRI. Maps Created using ArcGIS Business Analyst software.

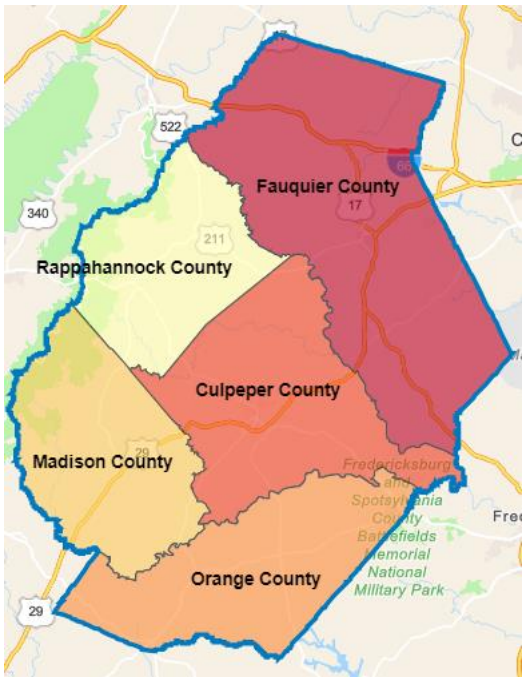
[5] This section includes 2022 demographic estimates. However, 2021 estimates are used in Section 4: Insights from Community Indicator Profiles because they are consistent with other data obtained from the Virginia Community Health Improvement Data Portal.

5.4 Older Adults Age 65+

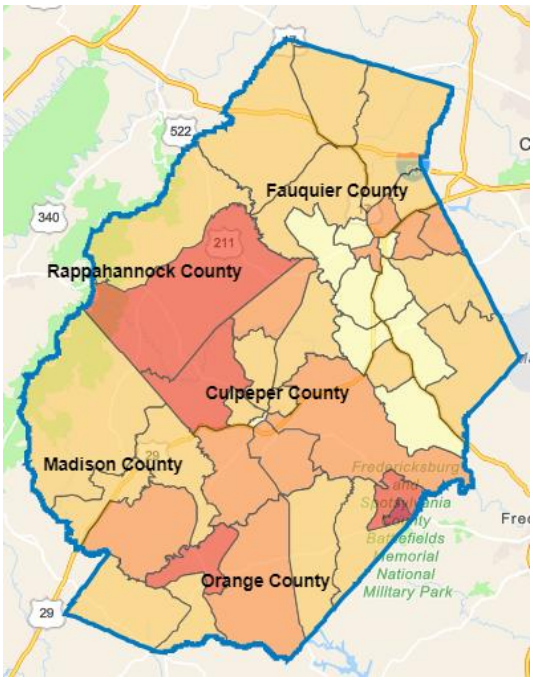
Exhibit 5.4 shows the estimated population age 65+ as of 2022. The county view shows a total of 36,233 community residents in this age group, along with county-level figures. The census tract view shows where these population members are located across the region.

Exhibit 5.4
Older Adults Age 65+
(2022 Estimates)

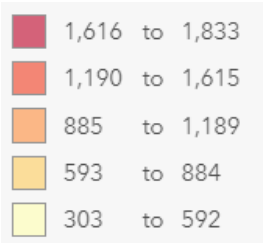
County View



Census Tract View



2022 Senior Population (Estimated)	
Planning District 9	36,233
Culpeper County	9,069
Fauquier County	13,676
Madison County	3,149
Orange County	8,359
Rappahannock County	1,980



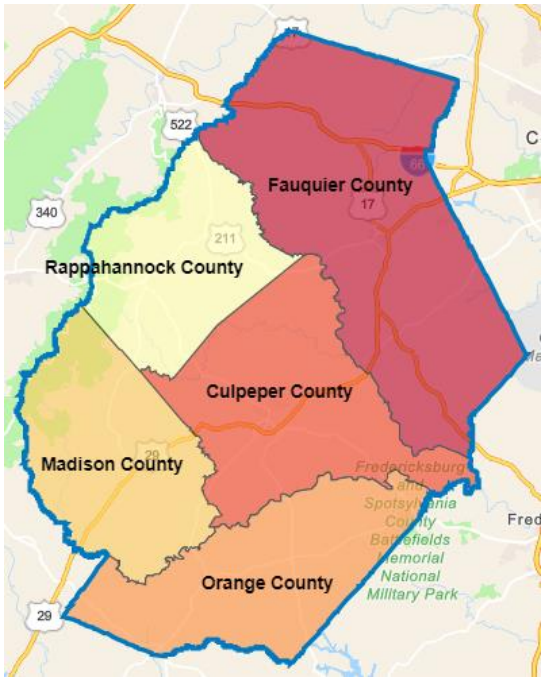
Source: CHS analysis of estimates provided by ESRI. Maps Created using ArcGIS Business Analyst software.

5.5 Households with 1+ Persons with a Disability

Exhibit 5.5 shows the estimated number of households having one or more members with a disability as of 2021. The county view shows a total of 17,877 households meeting this definition, along with county-level figures. The census tract view shows where these households are located across the region.

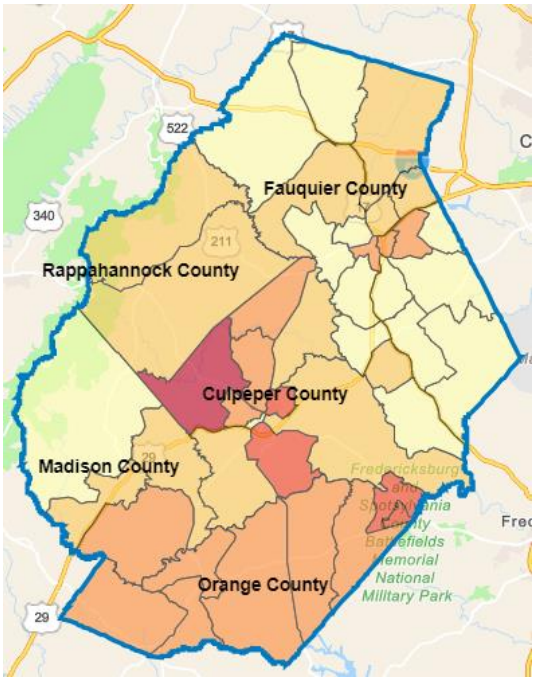
Exhibit 5.5
Households with 1+ Persons with Disability
(2021 Estimates)

County View



2021 Households w/1+ Persons w/Disability (ACS 5-Yr Estimates)	
Planning District 9	17,877
Culpeper County	5,055
Fauquier County	5,728
Madison County	1,496
Orange County	4,781
Rappahannock County	817

Census Tract View



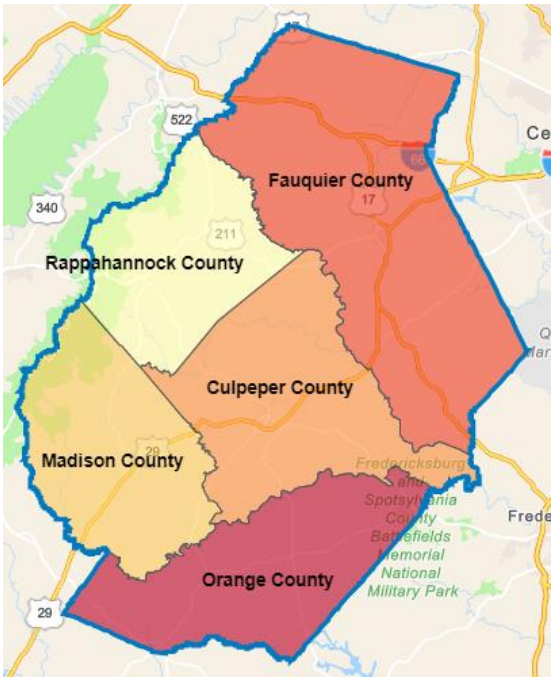
Source: CHS analysis of estimates provided by ESRI. Maps Created using ArcGIS Business Analyst software.

5.6 Households in Poverty

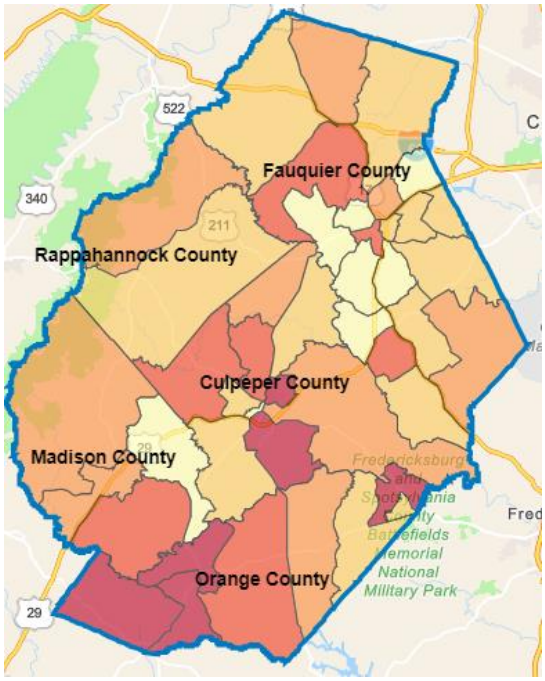
Exhibit 5.6 shows the estimated number of households with income below poverty as of 2021. The county view shows a total of 4,888 households with income below poverty, along with the county-level figures. The census tract view shows where households in poverty are located across the region.

Exhibit 5.6
Number of Households with Income Below Poverty
(2021 Estimates)

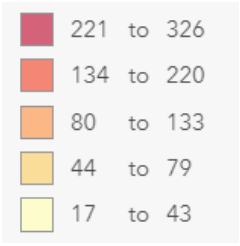
County View



Census Tract View



2021 Households with Income below Poverty (Estimated)	
Planning District 9	4,888
Culpeper County	1,313
Fauquier County	1,511
Madison County	366
Orange County	1,540
Rappahannock County	158



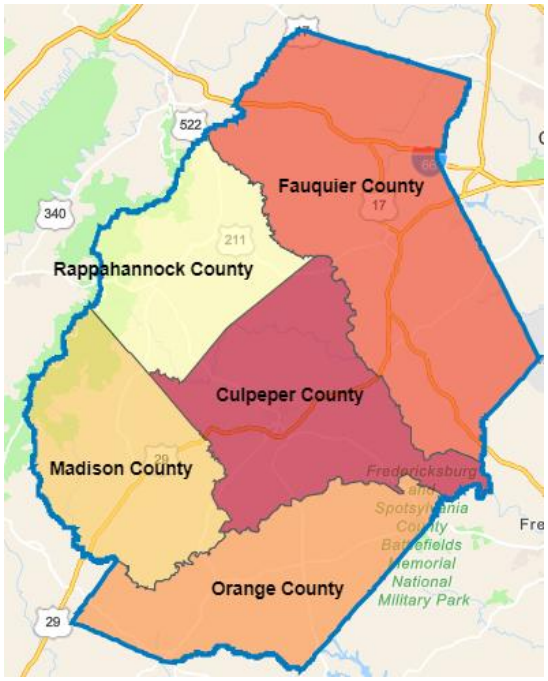
Source: CHS analysis of estimates provided by ESRI. Maps Created using ArcGIS Business Analyst software.

5.7 Black or African American Population

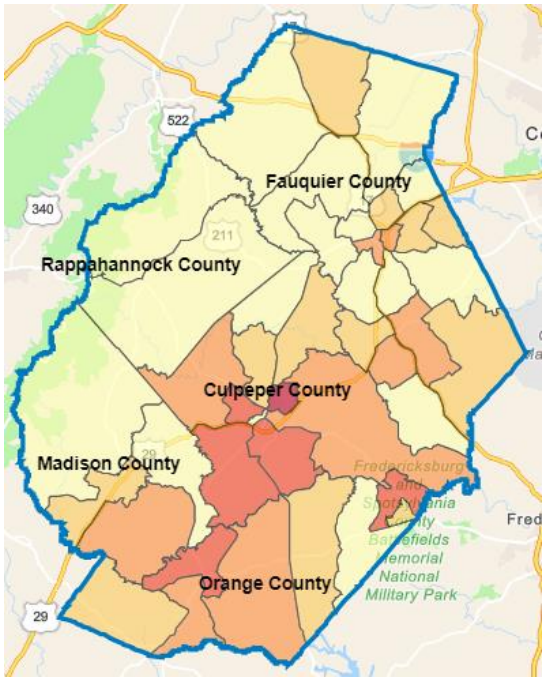
Exhibit 5.7 shows the estimated number of Black or African American residents as of 2022. The county view shows a total of 17,503 Black or African American residents in Planning District 9, along with the county-level figures. The census tract view shows where Black or African American residents reside across the region.

Exhibit 5.7
Black or African American Population
(2022 Estimates)

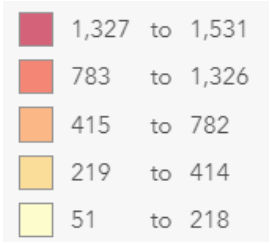
County View



Census Tract View



2022 Black or African American Population (Estimated)	
Planning District 9	17,503
Culpeper County	6,661
Fauquier County	5,153
Madison County	1,059
Orange County	4,436
Rappahannock County	194



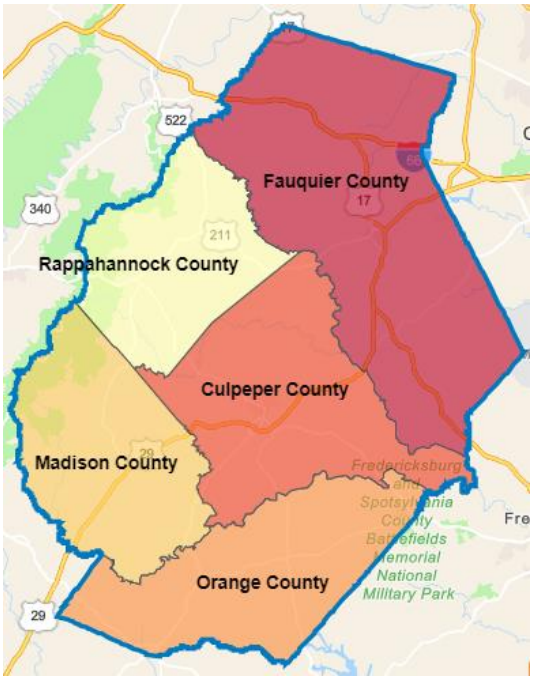
Source: CHS analysis of estimates provided by ESRI. Maps Created using ArcGIS Business Analyst software.

5.8 Hispanic Population

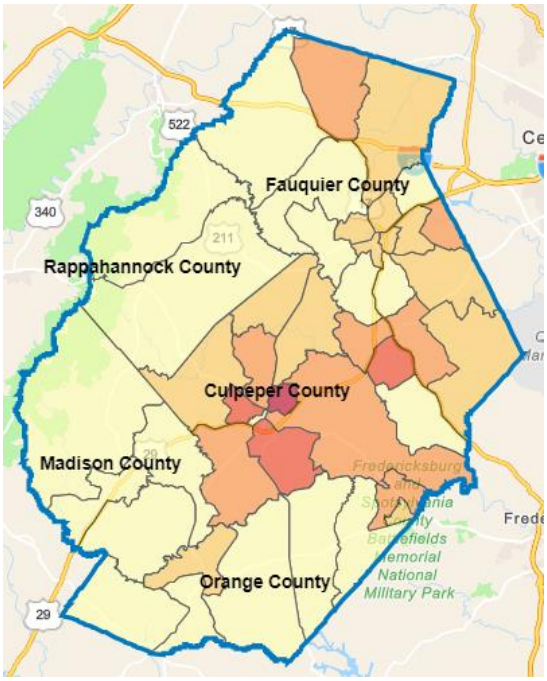
Exhibit 5.8 shows the estimated number of Hispanic residents as of 2022. The county view shows a total of 18,898 Hispanic residents in Planning District 9, along with the county-level figures. The census tract view shows where Hispanic residents reside across the region.

Exhibit 5.8
Hispanic Population
(2022 Estimates)

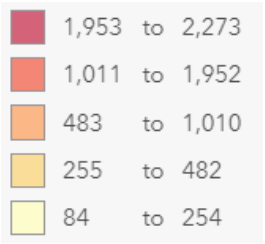
County View



Census Tract View



2022 Hispanic Population (Estimated)	
Planning District 9	18,898
Culpeper County	7,811
Fauquier County	8,084
Madison County	453
Orange County	2,253
Rappahannock County	297



Source: CHS analysis of estimates provided by ESRI. Maps Created using ArcGIS Business Analyst software.

Appendix A Data Sources and Methods	
Section 1. Insights from Community Residents	All exhibits in Section 1 are based on Community Health Solutions analysis of responses to the survey of community residents. The survey was administered online and in some local settings with the help of local partners. Online surveys could be completed by community residents willing and able to do so. Paper surveys could be completed at various community sites where diverse people gather. The survey was conducted using convenience sampling. Convenience sampling is a practical approach for obtaining insights from as many people as possible, but without random selection. The results of a convenience sample are instructive for understanding the scope of issues and opportunities in a community; however, results might not be statistically representative of the entire population of a community. A total of 659 individuals submitted a response to the community resident survey (although not every respondent completed every item). The data collection and analysis were performed using Qualtrics software. As part of the survey, respondents were invited to respond to a series of survey questions in their own words rather than through a pre-defined checklist. The detailed responses have been shared with the project partners. To summarize the results, Community Health Solutions applied a method called 'thematic analysis' to identify common themes among the responses. Thematic analysis is a process for grouping text responses into categories based on common words and phrases. It is a commonly used method in qualitative analysis.
Section 2. Insights from Community Professionals	All exhibits in Section 2 are based on Community Health Solutions analysis of responses to the survey of community professionals. The survey was conducted online with a pool of potential respondents identified by the project partners from their existing lists of community contacts. A total of 48 individuals submitted a response to the survey (although not every respondent completed every item). The data collection and analysis were performed using Qualtrics software. As part of the survey, respondents were invited to respond to a series of survey questions in their own words rather than through a pre-defined checklist. The detailed responses have been shared with the project partners. To summarize the results, Community Health Solutions applied thematic analysis' as described in Section 1 above.
Section 3. Insights from Community Listening Events	In addition to the surveys of community residents and community professionals, the study also included a series of nine community listening events. Eight events were held onsite at community locations, and one event was held virtually. The onsite events were widely advertised and open to any interested community members. Each event was hosted by a local organization in a community location. The project partners made extensive efforts to conduct listening events in all five counties, and to spread community awareness about the events. The events were facilitated by a team from Community Health Solutions and the project partner organizations. Participants were invited to share their insights and ideas in response to two primary questions: • What are the most important issues or concerns we should focus on as we develop strategies for community health improvement? • What are some creative ways that community organizations could work together for community health improvement? Participants were invited to post their own insights and ideas on poster boards, and they were also given an opportunity to review insights and ideas from other participants. In addition, each participant was invited to complete each of three short forms, all anonymously: one form with demographic background data, and two additional forms with their most important insights and ideas. A total of 58 individuals submitted forms in this fashion. To analyze the results of the community listening events, Community Health Solutions created a database containing all of the insights and ideas posted at the meetings, plus all of the responses included on forms submitted by participants at the end of the meetings. These qualitative data were analyzed using thematic analysis as described in Section 1 above.

Appendix A Data Sources and Methods	
Section 4. Insights from Community Data Profiles	Section 4 contains a series of exhibits showing community health and demographic indicators. The indicators were obtained from multiple sources as described in the source notes for each exhibit. Community Health Solutions curated the indicators and developed the exhibits included in this section. Among the primary sources of data for Section 4 were the following: • The Virginia Community Health Improvement Data Portal is a public resource provided by the Virginia Department of Health. The data portal contains a wide range of data points, each with its own source notes. Examples of source data used in data portal indicators include US Census Bureau data. Virginia vital records for births, deaths, and disease reporting., the Virginia Behavioral Risk Factor Surveillance Survey, and the Virginia Inpatient Hospital Discharge Database maintained by Virginia Health Information, Inc. Additional information on data portal sources is provided at https://virginiawellbeing.com/virginia-community-health-improvement-data-portal/. • The Virginia Youth Survey is also published by the Virginia Department of Health, but not included in the Virginia Community Health Improvement Data Portal at this time. Additional information about the Virginia Youth Risk Survey is provided at https://www.vdh.virginia.gov/virginia-youth-survey/. • ESRI is a commercial source of community demographic data. Some of the demographic data for the study were obtained from ESRI using ArcGIS Business Analyst software. • The Weldon Cooper Center for Public Service was the source for population projection data shown in Exhibit 4.1. Additional information about this source is provided at https://demographics.coopercenter.org/population-data-all-overview.
	A Technical Note on Statistical Comparisons In reviewing the Section 4 exhibits, it is logical to compare rates for various health indicators between counties within the region, and between the local region and the state of Virginia. Please note that with some exceptions, the underlying source data is not structured to support this type of comparative analysis with a high level of statistical confidence or reliability. As background, the indicators shown in the following exhibits were obtained from published sources as listed within each exhibit. The published data are in particular formats defined by the source organizations. For various reasons, the formats limit the possibilities for making geographic comparisons. In some situations, the underlying data are based on survey samples rather than complete health records, and the resulting indicators are not published in ways that support comparative statistical analysis. In other situations, the underlying data are based on actual health records, but the relevant indicators are not reported for the smaller counties because of an insufficient number of cases. Another consideration is that some indicators should be adjusted for age and/or population size, and the underlying data to support this analysis is not available. Despite these statistical considerations, there can still be practical value in evaluating local health indicators in the context of regional and statewide indicators. These differences are noted as applicable in the introductory paragraphs to each of the Section 4 exhibits. Where numeric differences are apparent, it may be worthwhile to conduct further research with local stakeholders to learn more about possible health challenges that may be reflected in the data.
Section 5. Insights on Social Determinants of Health	The community insight data presented in Section 5 was developed by Community Health Solutions from the survey of community residents, the survey of community professionals, and the Community Listening Events, all described above. The maps in Section 5 were developed by Community Health Solutions using data from ESRI, and mapping software provided in ArcGIS Business software.
Contact	Technical questions about the data sources and methods used in this report can be forwarded to Stephen Horan of Community Health Solutions at shoran@chsresults.com or 804.673.0166.