# **Community Health Needs Assessment Culpeper, Madison and Orange Counties**

June 2023













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## **Executive Summary**

This report presents the results of a Community Health Needs Assessment (CHNA) for the three-county region including Culpeper, Madison, and Orange counties. 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.<sup>1</sup>











As shown in the exhibit below, the three-county study region is home to a population of 104,864 residents. 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	104,864	
Culpeper County	53,761	
Madison County	13,874	
Orange County	36,830	

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.

<sup>&</sup>lt;sup>1</sup> 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 351 community residents. **Section 2** presents results from a survey of 26 community stakeholders that work in community organizations. **Section 3** presents results from a series of four community listening events, including 20 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						
Source	Source Community Resident Survey Community Stakeholder Survey Community Listening Events					
Topic						
Participants	□ 351 respondents □ See Section 1 for details	26 respondents     See Section 2 for details	<ul><li>20 participants</li><li>See Section 3 for details</li></ul>			
Community issues and concerns	<ul> <li>□ Affordable housing</li> <li>□ Jobs/healthy economic</li> <li>□ Access to healthy foods</li> <li>□ Access to public transportation</li> <li>□ Gun safety</li> </ul>	Mental health conditions     Substance abuse     Aging concerns     Domestic violence     Suicide	<ul> <li>Health care services and coverage</li> <li>Health-related social supports</li> <li>Substance use</li> <li>Mental health</li> <li>Transportation</li> </ul>			
Community health services that need improvement	Affordable health insurance Mental health services Primary care services Health care services for uninsured and underinsured Dental services	Mental health services     Substance use services     Health care services for uninsured and underinsured     Dental care / oral health care     Health promotion and prevention	Health care services and coverage     Substance use services     Mental health services     Health behaviors     Telehealth			
Other community services that need improvement	<ul> <li>□ Childcare services</li> <li>□ Housing services</li> <li>□ Public transportation</li> <li>□ Respite care</li> <li>□ Financial and legal counseling</li> <li>□ Domestic violence services</li> <li>□ Reliable internet access</li> </ul>	<ul> <li>Housing / homeless services</li> <li>Long term care supports</li> <li>Aging services</li> <li>Respite care</li> <li>Social services</li> <li>Disability services</li> </ul>	<ul> <li>□ Transportation</li> <li>□ Housing</li> <li>□ Education</li> <li>□ Food security</li> <li>□ Social isolation</li> </ul>			
Idea of a healthy community	Health care services and coverage     Health-related social supports     Substance use services     Food security     Mental health services	Health-related social supports Health care services and coverage Community collaboration Housing Food security	(Topic not specifically addressed in this setting)			
Important health resources in the community	<ul> <li>Health care services and coverage</li> <li>Health environment</li> <li>Health-related social supports</li> <li>Food security</li> <li>Health behaviors</li> </ul>	<ul> <li>Health care services and coverage</li> <li>Mental health</li> <li>Substance use</li> <li>Health environment</li> <li>Health related social supports</li> </ul>	(Topic not specifically addressed in this setting)			

Summary Insights from Community Surveys and Listening Events:  Most Commonly Identified Responses or Themes					
Source	Community Resident Survey	Community Stakeholder Survey	Community Listening Events		
Topic					
Participants	☐ 351 respondents ☐ See Section 1 for details	☐ 26 respondents ☐ See Section 2 for details	□ 20 participants □ See Section 3 for details		
People who need help accessing resources to better their health	Minority population/people of color Older adults Low-income population Children and families People with disabilities Immigrant / undocumented LGBTQ+	<ul> <li>Older adults</li> <li>Low-income population</li> <li>Children and families</li> <li>Minority population / people of color</li> <li>Immigrants / undocumented</li> <li>People with disabilities</li> </ul>	<ul> <li>Children and families</li> <li>Older adults</li> <li>Low-income population</li> <li>Minority population / people of color</li> <li>Immigrant / undocumented</li> <li>People with disabilities</li> </ul>		
New health concerns that others may not be aware of yet	<ul> <li>Substance use</li> <li>Health related social supports</li> <li>Education</li> <li>Health services and coverage</li> <li>Mental health</li> </ul>	<ul> <li>Substance use</li> <li>Health care services and coverage</li> <li>Mental Health</li> <li>COVID-19</li> <li>Health-related social supports</li> </ul>	(Topic not specifically addressed in this setting)		
Areas where people and organizations can work together for community health improvement	<ul> <li>Community collaboration (generally)</li> <li>Health related social supports</li> <li>Health care services and coverage</li> <li>Diversity and inclusion</li> <li>Education</li> </ul>	<ul> <li>Community collaboration (generally)</li> <li>Health care services and coverage</li> <li>Health related social supports</li> <li>Mental health</li> <li>Substance use</li> </ul>	<ul> <li>□ Community collaboration (generally)</li> <li>□ Health-related social supports</li> <li>□ Health care services and coverage</li> <li>□ Education</li> <li>□ Substance use</li> <li>□ Mental health</li> </ul>		
Source: CHS analysis of co responses.	mmunity resident survey responses, com	nmunity stakeholder survey responses,	, and community listening session		

## **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 101,753 residents as of 2021 □ Estimated 22.8% under age 18, and estimated 18.0% age 65+ □ Estimated 76.6% White, 12.4% Black or African American, 20% other or mixed race and 8.5% Hispanic ethnicity □ The population is expected to grow to more than 110,206 residents by 2030			
COVID-19 Profile (Exhibit 4.2)	□ 27,058 reported COVID-19 cases since pandemic started □ 623 COVID-19 hospitalizations since pandemic started □ 337 COVID-19 deaths since pandemic started			
Leading Causes of Death (Exhibit 4.3)	<ul> <li>□ Leading causes of death in the 2016-2020 timeframe include cancer, cardiovascular related, Alzheimer's and dementia-related conditions, and respiratory disease</li> <li>□ Years of potential life lost due to premature death higher than statewide rates</li> </ul>			
Access to Health Insurance Profile (Exhibit 4.4)	☐ Estimated 6.6% of children without health coverage (2020) ☐ Estimated 12.3% of adults aged 18-64 without health coverage (2020)			
Avoidable Hospital Visit Profile (Exhibit 4.5)	<ul> <li>Includes hospitalizations that could be avoided with adequate outpatient care.</li> <li>Estimated 811 potentially avoidable hospitalizations in 2020</li> <li>Higher local rates of potentially avoidable hospitalizations per 100,000 population th statewide wide</li> <li>Estimated 8%-10% of ED visits potentially avoidable in 2021</li> </ul>			
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)	<ul> <li>15 total infant deaths in Culpeper and Orange in the 2018-2020 timeframe</li> <li>1,186 total live births in the three-county region in 2020</li> <li>87 low-weight births and 110 preterm births in 2020.</li> </ul>			
Chronic Conditions Profile (Exhibit 4.8)	<ul> <li>Estimated 11%-14% of adults diagnosed with asthma (2020)</li> <li>Estimated 14.6% to 17% of adults diagnosed with diabetes (2020)</li> <li>Substantial numbers of hospitalizations for asthma, diabetes, hypertension, and stro (2020)</li> </ul>			
Communicable or Infectious Disease Profile (Exhibit 4.9)	<ul> <li>Sexually transmitted disease rates below state rates in 2020</li> <li>HIV infection rates below state rate in 2020</li> </ul>			
Injury and Violence Profile (Exhibit 4.10)	<ul> <li>383 unintentional injury deaths in 2016-2020</li> <li>Unintentional injury death rates higher than statewide rate</li> </ul>			

Summary Insights from Community Data Profiles			
Community Data Profile	Summary Insights		
Mental Health Profile (Exhibit 4.11)	□ Estimated 17.9%-26.1% of adults report 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) □ 489 self-harm or suicide-related emergency department visits in 2021 □ 83 deaths by suicide in 2016-2020 (all ages)		
Substance Use Profile (Exhibit 4.12)	□ In the 2016-2020 timeframe, there were 161 drug overdose deaths in the region. □ Population rates of deaths due to overdose were higher than the statewide rate in Culpeper and Orange. (Data were not reported for Madison). □ 98 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	Minority population/people of color Older adults Low-income population Children and families People with disabilities Immigrant / undocumented LGBTQ+				
SDOH factors affecting health opportunity	□ Affordable housing □ Welcoming of diversity □ Affordable health insurance □ Educational opportunities □ Jobs / healthy economy □ Access to public parks and playgrounds □ Access to healthy foods □ 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 to 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.

A total of 351 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.

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 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:

- 35 percent of survey respondents reported household income below \$35,000, compared to an estimated 14% for the general population.
- 40 percent of survey respondents self-identified as Hispanic, Latino, or Spanish origin, compared to an estimated 9% for the general population.
- 7 percent of survey respondents self-identified as Black or African American, compared to 12% for the general population.
- 75 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=350)		
18-24	7%	24
25-34	19%	68
35-44	23%	82
45-54	18%	62
55-64	18%	64
65-74	9%	33
75-84	4%	14
85+	1%	3
Race (n=342) (respondents could choose more than one	e option)	
Asian	1%	5
American Indian or Alaska Native	1%	2
Black or African American	7%	25
Native Hawaiian or Pacific Islander	0%	1
White	80%	272
Other	11%	37
Ethnicity (n=344)		
Hispanic, Latino, or Spanish origin	40%	137
Non-Hispanic, Latino, or Spanish origin	60%	207
Gender (n=351)		
Female	75%	265
Male	24%	83
Unknown	1%	3
Sexual Orientation (n=339)		
Gay or lesbian	3%	9
Straight, that is not gay or lesbian	88%	297
Bisexual	1%	4
Other	2%	8
I don't know	0%	1
Prefer not to answer	6%	20

Category	Percent	Count	
Household Income (n=344)			
Less than \$25,000	22%	75	
\$25,000-\$34,999	13%	43	
\$35,000-\$49,999	9%	32	
\$50,000-\$74,999	12%	41	
\$75,000+	12%	40	
\$100,000+	25%	86	
Don't Know/Not Sure	8%	27	
Education (n=340)			
Less than High School	19%	65	
High School or GED	19%	63	
Some College	12%	42	
Associate degree	9%	32	
Bachelor's Degree	21%	71	
Master's Degree	12%	41	
Professional Degree	3%	11	
Doctorate	4%	15	
Household Size (n=351)			
1	11%	38	
2	24%	84	
3	17%	59	
4	19%	67	
5	15%	54	
More Than 5	14%	49	
School Aged Children in the Household (n=336)			
Yes	44%	149	
No	56%	187	
County (based on reported zip cod	e of residence	ce) (n=351)	
Culpeper	45%	278	
Orange	8%	51	
Madison	4%	22	

## 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 (53%) said they and their immediate family were generally able to obtain the community services and supports they needed during the pandemic, while 33% reported problems. Respondents also reported a wide range of challenges resulting from COVID-19, including lost employment (35%) lost housing (10%). Respondents also reported a number of additional difficulties including keeping good mental health (53%) and physical health (46%) in response 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=274)		%	Count
	I and my immediate family were generally able to obtain the community services and supports we needed during the pandemic.	53%	145
	I or my immediate family had problems obtaining the community services and supports we needed during the pandemic.	33%	90
	I or someone in my immediate family lost employment during the pandemic.	35%	97
	I or someone in my immediate family lost housing during the pandemic.	10%	28

OVID-19 pandemic started in 2020, have you personally experienced any difficulty elect all that apply. (n=264)	%	Count
Keeping good mental health	53%	141
Keeping good physical health	46%	121
Keeping good dental health	41%	107
Getting dental care	40%	106
Feeling lonely or isolated from others	39%	102
Affording housing costs	38%	100
Getting health care	37%	97
Getting essential supplies for daily living	36%	95
Experiencing overall financial hardship	34%	91
Getting healthy food	30%	78
Managing schooling at home for children	26%	68
Getting childcare	25%	65
Getting social services	19%	51
Getting transportation	17%	46
Taking care of a person who is elderly, disabled, lives alone	17%	46
Getting in-home care services	15%	40
Other difficulties	7%	19

### 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 (58%) and the free clinic (36%). The results are shown in **Exhibit 1.3**.

	Exhibit 1.3	
Sources	of Health Information	n

ad a question or needed information about improving your health, where ou go for advice? Select all that apply. (n=321)	%	Count
Health Care Provider (Example: Physician, Nurse Practitioner)	58%	187
Free Clinic	36%	114
Online Resources other than Social Media	32%	104
Family Member	17%	54
Friends	17%	54
Local Health Department	17%	54
Urgent Care	14%	44
Hospital Emergency Department	12%	38
Other	7%	23
Social Media Resources	7%	23
Health Fairs	6%	20
Faith Based Organization	6%	19

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% of respondents reporting they do not have reliable internet access at home.

Exhibit 1.4
Reliable Internet Access

	f the following statements are true for you or other members of your old? Select all that apply. (n=305)	%	Count
Need fo	r Reliable Internet Access		
	We need reliable home internet for educational purposes.	53%	162
	We need reliable home internet for work purposes.	48%	146
	Reliable home internet is important for our quality of life.	45%	136
	We need reliable home internet for health purposes.	45%	136
Reliable	Access to Internet at Home		
	We DO have reliable internet access at home.	52%	160
	We DO NOT have reliable internet access at home.	22%	67

## 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 the leading improvement needs being affordable housing (66%), and jobs/health economy (50%).

Exhibit 1.5
Neighborhood and Community Environment

on your experience, select each area that needs improvement in the neighborhood munity where you live. Select all that apply. (n=309)	%	Count
Affordable housing	66%	203
Jobs/healthy economy	50%	155
Access to healthy foods	48%	147
Access to public transportation	48%	147
Gun safety	45%	138
Welcoming of diversity	40%	125
Opportunities for healthy activities	39%	122
Schools	39%	119
Educational opportunities	39%	119
Opportunities to participate in community activities	37%	113
Healthy messaging in media, public spaces	36%	110
Access to public parks or playgrounds	35%	107
Water quality	26%	81
Traffic	20%	63
Air quality	17%	53
Other	12%	36

## 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, with the leading healthcare service needs being affordable health insurance (61%), mental health (57%), primary care services (56%), and healthcare for uninsured/underinsured (55%) as shown in **Exhibit 1.6**.

Exhibit 1.6
Health Care Service Needs

on your experience, select each type of service that needs improvement in phborhood or community where you live. Select all that apply. (n=314)	%	Count
Affordable health insurance	61%	192
Mental health services	57%	178
Primary care services	56%	176
Healthcare for the Uninsured and Underinsured	55%	174
Dental services	53%	165
Services for weight control	42%	131
Substance Use services	41%	129
Chronic disease services	41%	128
Specialty Care services	38%	120
Hospital services	30%	95
Vision services	30%	95
Home health services	30%	94
Pharmacy services	28%	89
Public health services	27%	86
Maternal, infant, and child health services	27%	85
Services for quitting smoking	25%	80
Workplace health services	25%	78
Physical Rehabilitation	25%	77
Hearing services	22%	69
Other	7%	22

## 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, with the leading community service needs being childcare services (53%), housing (51%), and public transportation (50%). Results are shown in **Exhibit 1.7**.

## Exhibit 1.7 Community Services that Need Improvement

Based on your experience, select each improvement in the neighborhood or all that apply. (n=296)		%	Count
□ Childcare services		53%	156
☐ Housing services		51%	150
□ Public transportation		50%	147
☐ Financial and legal counseling	services	40%	119
□ Respite care		40%	119
□ Domestic violence services		40%	118
□ Long term care services		39%	115
☐ After school programs		38%	113
□ Aging Services		38%	112
☐ Services for adults with disabi	lities	37%	109
☐ Assisted living services		34%	102
□ Food safety net		34%	101
☐ Services for children with disa	bilities	34%	101
☐ Early intervention services		30%	90
□ Veterans Services		30%	90
□ Public safety		25%	73
□ Other		6%	17

## A Note on Thematic Analysis

Respondents were invited to respond to a series of survey questions in their own words rather than through a predefined 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 Health Community

A total of 212 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 Healthy Community

hemes identified from 212 individual responses:	Number of responses involving this theme
☐ Health Care Services and Coverage	104
☐ Health Related Social Supports	68
□ Substance Use Concerns	34
□ Food Security	31
□ Children and Families	29
□ Mental Health	27
□ Education	23
☐ Health Behaviors	21
☐ Health Environment (Built or Natural)	21
☐ Housing	20
□ Older Adults	16
□ Diversity and Inclusion	15
□ Community Collaboration	13
□ Community Safety	13
□ Transportation	13
□ Health Equity	11
□ Low Income Population	10
□ Employment	6
□ People with Disabilities	5
□ Chronic Conditions	3
□ COVID-19	3
☐ Minority Population/POC	2
□ Social Isolation	2
□ Telehealth	2
□ Domestic Violence	1
☐ Faith-Based Communities	1
□ Funding-Related	1

## 1.9 Important Health Resources

Source: CHS analysis of community resident survey responses.

A total of 198 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

emes identified from 198 individual responses:	Number of responses involving this theme
☐ Health Care Services and Coverage	98
☐ Health Environment (Built or Natural)	63
☐ Health Related Social Supports	51
□ Food Security	25
☐ Children and Families	23
☐ Health Behaviors	19
☐ Education	18
□ Older Adults	15
□ Community Collaboration	12
☐ Substance Use Concerns	10
☐ Transportation	10
☐ Faith-Based Communities	8
□ Mental Health	8
☐ Housing	7
☐ Diversity and Inclusion	5
□ Community Safety	5
☐ Health Equity	4
☐ Low Income Population	3
☐ People with Disabilities	3
☐ Funding-Related	2
□ Domestic Violence	1
☐ Minority Population/POC	1
☐ Telehealth	1

## 1.10 Groups that Need Help

A total of 180 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

Themes	s identified from 180 individual responses:	Number of responses involving this theme
Groups	that may need help:	
	Minority Population/POC	43
	Older Adults	38
	Low Income Population	29
	Children and Families	22
	People with Disabilities	4
	Immigrants/Undocumented	4
	LGBTQ+	2
Areas v	vhere help may be needed:	
	Health Equity	56
	Health Care Services and Coverage	39
	Health Related Social Supports	28
	Substance Use	19
	Housing	16
	Mental Health	13
	Transportation	12
	Education	11
	Food Security	11
	Health Behaviors	8
	Diversity and Inclusion	3
	Social Isolation	3
	COVID-19	2
	Faith-Based Communities	2
	Health Environment (Built or Natural)	2
	Telehealth	2
	Community Collaboration	1
	Community Safety	1
	Domestic Violence	1
	Employment	1

## 1.11 New Health Issues or Concerns

A total of 152 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

Themes	s identified from 152 individual responses:	Number of responses involving this theme
	Substance Use Concerns	44
	Children and Families	35
	Health Related Social Supports	34
	Education	30
	Health Care Services and Coverage	30
	Mental Health	15
	Health Behaviors	13
	Community Safety	11
	COVID-19	10
	Older Adults	8
	Food Security	4
	Health Equity	4
	Low Income Population	4
	Social Isolation	4
	Diversity and Inclusion	3
	Housing	3
	Domestic Violence	2
	Employment	2
	Health Environment (Built or Natural)	2
	Minority Population/POC	2
	Telehealth	2
	Transportation	2
	Chronic Conditions	1
	Community Collaboration	1
	People with Disabilities	1

## 1.12 Ideas for Working Together

A total of 163 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

Themes identified from 163 individual responses:		Number of responses involving this theme
	Community Collaboration	38
	Health Related Social Supports	36
	Health Care Services and Coverage	23
	Children and Families	14
	Diversity and Inclusion	12
	Education	12
	Health Behaviors	11
	Older Adults	9
	Health Environment (Built or Natural)	8
	Unknown	7
	Food Security	6
	Mental Health	6
	Substance Use Concerns	6
	Health Equity	5
	Telehealth	5
	Faith-Based Communities	5
	Housing	4
	Low Income Population	4
	Funding-Related	3
	Minority Population/POC	3
	Employment	2
	Community Safety	2
	Transportation	2
	Chronic Conditions	1
	Domestic Violence	1
	Social Isolation	1

## 1.13 Additional Ideas

A total of 152 respondents shared their 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?

Source: CHS analysis of community resident survey responses.

Do you have ideas about how local organizations can help you and others in your neighborhood or community achieve better health?		
Themes identified from 152 individual responses:	Number of responses involving this theme	
☐ Health Care Services and Coverage	58	
□ Community Collaboration	27	
□ Health Related Social Supports	22	
□ Substance Use Concerns	12	
□ Education	11	
□ Mental Health	11	
□ Food Security	10	
□ Older Adults	10	
□ Children and Families	9	
□ Health Behaviors	8	
□ Health Equity	7	
☐ Health Environment (Built or Natural)	5	
□ Transportation	5	
□ Faith-Based Communities	4	
□ Low Income Population	3	
□ Telehealth	3	
□ Chronic Conditions	2	
□ Community Safety	2	
☐ Housing	2	
□ COVID-19	1	
□ Diversity and Inclusion	1	
□ Domestic Violence	1	
□ Employment	1	
☐ Minority Population/POC	1	

## **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 26 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	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 26 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=24)By Organization By Geographic Perspective (A count denotes multiple respondents from the same organization.) (Multiple respondents identified multiple counties.) Afro American Historical **MAFRAC** Association of Fauquier County Mental Health Association of Aging Together **Fauquier County** Culpeper 26 CHASS Pathways, Inc Community Touch Rappahannock Rapidan Madison 12 Culpeper Baptist Church Community Services (3) Orange 13 Culpeper Human Services Rappahannock Rapidan Regional Commission (2) Culpeper Public Schools Saint James Episcopal School Fauguier Community Child Care Services to Abused Families (2) Forever Free Town of Culpeper Free Clinic of Culpeper (2) Generations Central Adult Day Center Source: CHS analysis of community stakeholder survey responses. Two of the 26 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**, respondents reported their organization's clients experienced a wide range of challenges resulting from COVID-19, including affording housing costs (83%), feeling lonely or isolated (79%), keeping good mental health (75%) and experiencing overall financial hardship (71%).

Exhibit 2.2 Community Member Difficulties Due to COVID-19

having	g about the people your organization serves, have you noticed people difficulty with any of the following since the start of the COVID-19 iic in 2020? Select all that apply.	%	Count
From 2	total respondents:		
	Affording housing costs	83%	20
	Feeling lonely or isolated	79%	19
	Keeping good mental health	75%	18
	Experiencing overall financial hardship	71%	17
	Getting transportation	50%	12
	Care of a person who is elderly, disabled, lives alone	38%	9
	Getting health care	38%	9
	Getting dental care	33%	8
	Getting in-home care services	33%	8
	Keeping good physical health	33%	8
	Getting healthy food	29%	7
	Getting essential supplies for daily living	25%	6
	Keeping good dental health	25%	6
	Managing schooling at home for children	25%	6
	Getting childcare	21%	5
	Getting social services	21%	5

## 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**, with mental health (77%) being the most commonly cited concern.

Exhibit 2.3 Community Health Concerns

mportant health concerns in the communities your organization serves check all that apply)	%	Count
rom 26 total respondents		
☐ Mental Health Conditions (other than depression)	77%	20
☐ Substance Abuse - Illegal Drugs	65%	17
☐ Depression	62%	16
☐ Aging Concerns	58%	15
□ Substance Abuse	54%	14
□ Domestic Violence	50%	13
□ Alcohol Use	46%	12
□ Suicide	46%	12
☐ Maternal, Infant, and Child Health	42%	11
□ Dental Care/Oral Health-Adult	38%	10
☐ Adult Obesity/Overweight	38%	10
☐ Childhood Obesity/Overweight	31%	8
☐ Gun Safety	31%	8
☐ Intellectual/Developmental Disabilities	31%	8
□ Cancer	27%	7
□ Chronic Pain	27%	7
□ Dental Care/Oral Health-Pediatric	27%	7
□ Alzheimer's Disease	23%	6
□ Diabetes	23%	6
☐ Physical Disabilities	23%	6
□ Tobacco Use	23%	6
☐ High Blood Pressure	19%	5
☐ Other Health Concerns	19%	5
□ Autism	15%	4
□ Food Safety	15%	4
□ Prenatal & Pregnancy Care	15%	4
□ Teen Pregnancy	15%	4
□ Water Quality	15%	4
□ Arthritis	12%	3
□ Infectious Diseases	12%	3
<ul> <li>Other illnesses that spread person to person</li> </ul>	12%	3
□ Renal Disease	12%	3
□ Sexually Transmitted Diseases	12%	3
□ Stroke	12%	3
□ Preventable Injuries	8%	2
□ Respiratory Diseases	8%	2
□ Air Quality	4%	1
□ HIV/AIDS	4%	1
□ Neurological Disorders	4%	1
□ Orthopedic Problems	4%	1
□ Asthma	0%	0

## 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 26 total respondents

A. He	alth Care Services and Supports	%	Count
	Mental Health Services	77%	20
	Substance Use Services	54%	14
	Health Care Services for Uninsured and Underinsured	46%	12
	Dental Care/Oral Health Services-Adult	38%	10
	Health Promotion and Prevention	35%	9
	Primary Health Care Services	35%	9
	Health Care Insurance Coverage (private and government)	31%	8
	Home Health Services	31%	8
	Specialty Medical Care (e.g., Neurology, Endocrinology, Pain Management, etc.)	27%	7
	Chronic Disease Services (including screening and early detection)	27%	7
	Chronic Pain Management Services	23%	6
	Dental Care/Oral Health Services-Pediatric	23%	6
	Family Planning Supports	19%	5
	Healthy Messaging in Media and Public Spaces	19%	5
	Hearing Services	19%	5
	Hospital Services (including emergency, inpatient and outpatient)	19%	5
	Public Health Services (e.g., immunizations, infectious disease control, etc.)	19%	5
	Services for Quitting Smoking	15%	4
	Cancer Services (screening, diagnosis, treatment)	12%	3
	Maternal, Infant, and Child Health Services	12%	3
	Physical Rehabilitation	12%	3
	Services for Weight Control	12%	3
	School Health Services	8%	2
	Vision Services	8%	2
	Hospice Services	4%	1

(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 26 total respondents

. 01	ther Community Services and Supports	%	Count
	Homeless Services	62%	16
	Aging Services	54%	14
	Long Term Care Supports	54%	14
	Housing Services	46%	12
	Respite Care	38%	10
	Social Services	38%	10
	Educational Opportunities	35%	9
	Services for Adults with Disabilities	35%	9
	After School Programs	31%	8
	Assisted Living Services	31%	8
	Public Transportation Services	31%	8
	Early Intervention for Children	27%	7
	Employment Opportunity/Workforce Development	27%	7
	Food Safety Net	27%	7
	Childcare Services	23%	6
	Domestic Violence Services	23%	6
	Financial and Legal Counseling Services	23%	6
	Self-Management Supports	23%	6
	Services for Children with Disabilities	23%	6
	Veteran Services	23%	6
	Welcoming of Diversity	23%	6
	Reliable Internet Access (at home)	19%	5
	Early Childhood Education	15%	4
	Environmental Assets	15%	4
	Opportunities to Participate in Community Activities	15%	4
	Safe Play and Recreation	12%	3
	Workplace Health and Safety	12%	3
	Education-Kindergarten through High School	8%	2
	Other Services and Supports	8%	2
	Public Safety	8%	2
	Reliable Internet Access	8%	2
	Traffic Safety	8%	2

## A Note on Thematic Analysis

Respondents were invited to respond to a series of survey questions in their own words rather than through a predefined 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 19 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 Healthy Community

In your own words, how would you define the idea of a healthy community?		
Themes identified from 19 individual responses:	Number of responses involving this theme	
☐ Health Related Social Supports	13	
☐ Health Care Services and Coverage	9	
□ Community Collaboration	9	
☐ Housing	4	
□ Food Security	3	
☐ Health Behaviors	3	
□ Older Adults	3	
□ Transportation	3	
□ Diversity and Inclusion	2	
□ Education	2	
☐ Health Environment (Built or Natural)	2	
□ Health Equity	2	
□ Children and Families	2	
□ Employment	1	
□ Funding-Related	1	
□ Mental Health	1	
□ Substance Use Concerns	1	

## 2.6 Important Health Resources

A total of 19 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

hemes	identified from 19 individual responses:	Number of responses involving this theme
	Health Care Services and Coverage	15
	Mental Health	8
	Substance Use Concerns	8
	Health Environment (Built or Natural)	8
	Older Adults	7
	Health Related Social Supports	6
	Education	5
	Food Security	5
	Health Behaviors	4
	Transportation	3
	Children and Families	3
	Community Safety	2
	Employment	2
	Health Equity	2
	Housing	2
	Chronic Conditions	1
	Diversity and Inclusion	1
	Low Income Population	1
	Social Isolation	1

## 2.7 Groups that Need Help

A total of 17 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

emes identified from 17 individual responses:	Number of responses involving this theme
☐ Health Care Services and Coverage	9
□ Older Adults	7
□ Low Income Population	6
□ Mental Health	6
□ Substance Use Concerns	6
□ Health Equity	6
□ Children and Families	4
□ Housing	4
□ Health Related Social Supports	3
□ Employment	2
□ Social Isolation	2
□ Transportation	2
☐ Minority Population/POC	2
□ Community Collaboration	1
□ Education	1
□ Faith-Based Communities	1
□ Health Behaviors	1
□ Health Environment (Built or Natural)	1
□ Immigrants/Undocumented	1

## 2.8 New Health Issues or Concerns

A total of 14 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				
<b>Thematic Analysis: New Health Concerns</b>				

Are th	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	s identified from 14 individual responses:	Number of responses involving this theme	
	Substance Use Concerns	7	
	Children and Families	5	
	Health Care Services and Coverage	5	
	Mental Health	4	
	COVID-19	3	
	Health Related Social Supports	3	
	Education	2	
	Older Adults	2	
	Social Isolation	2	
	Community Safety	1	
	Don't Know or No	1	
	Employment	1	
	Health Behaviors	1	
	Human Trafficking	1	
	People with Disabilities	1	

## 2.9 Ideas for Working Together

A total of 17 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 17 individual responses  Number of responses involving this theme			
□ Community Collaboration	12		
☐ Health Care Services and Coverage	6		
□ Health Related Social Supports	3		
□ Mental Health	3		
□ Substance Use Concerns	3		
□ Funding-Related	2		
☐ Health Behaviors	2		
□ Transportation	2		
□ Diversity and Inclusion	1		
□ Employment	1		
□ Faith-Based Communities	1		
☐ Health Environment (Built or Natural)	1		
☐ Health Equity	1		

## 2.10 Additional Ideas

A total of six 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		

Ple	Please hare any additional ideas or suggestions for improving community health.			
Themes	Themes identified from 6 individual responses:  Number of responses involving this theme			
	Health Related Social Supports	3		
	Health Care Services and Coverage	2		
	Children and Families	1		
	Community Collaboration	1		
	COVID-19	1		
	Don't Know or No	1		
	Education	1		
	Employment	1		
	Health Equity	1		
	Housing	1		
	Older Adults	1		
	Telehealth	1		

## **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.

This section presents results from four community listening events held in Culpeper, Madison, and Orange. The events were advertised and open to any interested community members. Data was collected from 20 individual attendees who shared their insights in response to two primary questions. The results are summarized below.

Source: CHS analysis of community listening event responses.

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** Total attendees submitting information forms 20 County (based on reported zip code) 11 Culpeper Madison 4 5 Orange By Age 4 18-34 3 35-44 45-54 1 55-64 3 65+ 9 By Gender Female 14 Male 6 By Race and Ethnicity Black or African American (Race) 1 White (Race) 18 Other Race 1 Hispanic Ethnicity 1

## 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 218 insight statements were shared by the 20 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

Themes identified from 218 ideas shared by listening event participants:		Number of insight statements involving this theme
	Health Care Services and Coverage	40
	Health Related Social Supports	36
	Substance Use Concerns	21
	Children and Families	18
	Mental Health	14
	Older Adults	13
	Transportation	11
	Housing	10
	Health Behaviors	8
	Education	6
	Food Security	6
	Low Income Population	5
	Telehealth	5
	Health Equity	5
	Social Isolation	4
	Community Collaboration	3
	COVID-19	3
	Minority Population/POC	3
	Chronic Conditions	2
	Health Environment (Built or Natural)	2
	Employment	1
	Immigrants/Undocumented	1
	People with Disabilities	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 138 ideas were shared by the 20 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 138 ideas shared by listening event participants:  Number of involving the			
	Community Collaboration (generally)	21	
	Health Related Social Supports	20	
	Health Care Services and Coverage	17	
	Children and Families	11	
	Education	9	
	Older Adults	8	
	Substance Use Concerns	7	
	Mental Health	7	
	Funding-Related	5	
	Health Equity	5	
	Telehealth	5	
	Minority Population/POC	4	
	Food Security	3	
	Low Income Population	3	
	Health Behaviors	3	
	Chronic Conditions	2	
	Health Environment (Built or Natural)	2	
	COVID-19	1	
	Diversity and Inclusion	1	
	Housing	1	
	Social Isolation	1	
	Transportation	1	
	Community Safety	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.

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 study region as of 2021.<sup>2</sup> 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, compared to Virginia as a whole, the study region is more rural, has a higher percentage of seniors age 65+, and is less racially diverse. However, there is substantial demographic diversity within the study region, as explored in more detail within **Section 5** of the report.

	Communi	Exhibit 4.1 ty Demograp	hic Profile			
		.,				
Indicators	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia
Total Population	52,021	13,731	36,001	101,753	181,569	8,582,479
Total Land Area (Square Miles)	379.2	320.6	341.1	1,040.9	1,955.3	39,482.1
Population Density (Per Sq. Mile)	137	43	106	98	93	217
Age (2021)						
Counts	0.055	770	4 004	5.000	40.040	504.404
Population Age 0-4	3,255	773	1,901	5,929	10,318	501,494
Population Age 5-17	9,523	2,064	5,729	17,136	31,234	1,391,25
Population Age 18-64	31,242	7,757	21,245	60,244	108,012	5,361,12
Population Age 65+	8,001	3,137	7,126	18,264	32,005	1,328,60
Rates	0.00/	F 00/	F 00/	F 00/	F 70/	F 00'
Population Age 0-4 Percent	6.3%	5.6%	5.3%	5.8%	5.7%	5.8%
Population Age 5-17 Percent	18.3%	15.0%	15.9%	17.0%	17.2%	16.2%
Population Age 18-64 Percent	60.1%	56.5%	59.0%	59.2%	59.5%	62.5%
Population Age 65+ Percent	15.4%	22.9%	19.8%	18.0%	17.6%	15.5%
Hispanic Ethnicity (2021)			2.224		24224	0.40.040
Hispanic Total	6,181	432	2,021	8,634	840,248	840,248
Hispanic Percent	11.9%	3.2%	5.6%	8.5%	8.6%	9.8%
Race (2021)						
Counts	07.550	44.050	00.500	77.047	4.45.540	5 574 00
White Total	37,553	11,858	28,506	77,917	145,510	5,574,30
Black Total	7,029	1,018	4,604	12,651	17,962	1,631,94
American Indian Total	162	2	9	173	448	24,007
Asian Total	500	107	513	1,120	2,320	578,210
Native Hawaiian Total	65	-	-	65	98	5,313
Some Other Total	3,378	47	526	3,951	4,979	265,361
Mixed Race Total	3,334	699	1,843	5,876	10,252	503,340
Rates						
White Percent	72.2%	86.4%	79.2%	76.6%	80.1%	65.0%
Black Percent	13.5%	7.4%	12.8%	12.4%	9.9%	19.0%
American Indian Percent	0.3%	0.0%	0.0%	0.2%	0.2%	0.9%
Asian Percent	1.0%	0.8%	1.4%	1.1%	1.3%	6.8%
Native Hawaiian Percent	0.1%	0.0%	0.0%	0.06%	0.1%	0.06%
Some Other Race Percent	6.5%	0.3%	1.5%	3.9%	2.7%	3.09%
Mixed Race Percent	6.4%	5.1%	5.1%	5.8%	5.6%	5.9%
Poverty (2021)						
Income Below 100% FPL	3,633	1,174	3,999	8,806	13,489	828,664
Income Below 200% FPL	11,594	3,965	7,507	23,066	34,083	1,966,81

<sup>&</sup>lt;sup>2</sup> 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.

Exhibit 4.1 Community Demographic Profile									
Indicators	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia			
Income Below 100% FPL, Percent	7.2%	8.7%	11.3%	8.9%	7.6%	9.9%			
Income Below 200% FPL, Percent	23.0%	29.2%	21.3%	23.3%	19.1%	23.6%			
Population Growth 2022-2030									
2022	54,089	14,017	37,109	105,215	186,145	8,696,955			
2030	57,578	14,160	38,468	110,206	197,007	9,129,002			
Pct Change 2022-2030	6%	1%	4%	4%	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 study region had 27,058 total cases, 623 hospitalizations, and 337 deaths due to COVID-19.

Exhibit 4.2 COVID-19 Profile								
Indicators from 2020 through May 30, 2023	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia		
Total Cases	14,560	3,202	9,296	27,058	45,204	2,314,521		
Hospitalizations	322	77	224	623	1,218	61,770		
Deaths	178	49	110	337	515	23,751		

Source: CHS analysis of data from the Virginia Department of Health (accessed 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 study region.

- The CDC defines premature deaths as those occurring before age 80. Based on this measure, the study region had 1,369 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 in all three counties.
- Focusing on the leading causes of death in the study region, over the 2016-2020 timeframe the leading causes of death in the region were related to heart disease, Alzheimer's or dementia, and cancer.

			hibit 4.3 ality Profile			
Indicators	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia
Premature Deaths (2018-2020)						
Premature Deaths, 2018-2020 (Counts)	655	201	513	1,369	2,270	100,719
Years of Potential Life Lost, Rate per 100,000 Population	7,032.0	9,838.0	8,379.0	(nr)	7,249.0	6,707.0
Leading Causes of Death (2016-2020 Combined Counts)						
Cancer-Related (Counts)						
Bronchus or lung, unspecified - Malignant neoplasms	98	45	106	249	429	
Pancreas, unspecified - Malignant neoplasms	42	14	40	96	145	_
Breast, unspecified - Malignant neoplasms	43	13	26	82	135	
Cardiovascular-Related (Counts)						
Atherosclerotic heart disease	83	30	83	196	300	
Acute myocardial infarction, unspecified	54	25	89	168	239	
Congestive heart failure	53	17	68	138	226	
Stroke, not specified as hemorrhage or infarction	47	22	36	105	154	
Atherosclerotic cardiovascular disease, so described	37	12	17	66	131	_
Alzheimer's or Dementia- Related (Counts)						
Unspecified dementia	115	55	125	295	428	
Alzheimer disease, unspecified	78	37	80	195	287	
Senile degeneration of brain, not elsewhere classified	38	(nr)	17	55	157	
Other (Counts)						
Chronic obstructive pulmonary disease, unspecified	121	22	103	246	392	
Septicemia	34	12	37	83	137	
Accidental poisoning by and exposure to narcotics	37	(nr)	34	71	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 6.6% of children and 12.3% of adults aged 18-64 were without health coverage.

Exhibit 4.4 Access to Health In	nsurance
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2020 Estimates	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia
Population without Insurance						
Counts						
Age 0-18 w/o Insurance (count)	914	213	461	1,588	2,768	84,392
Age 18-64 w/o Insurance (count)	3,871	1,003	2,506	7,380	12,105	518,054
Rates						
Age 0-18 w/o Insurance (percent)	6.8%	7.9%	5.8%	6.6%	6.5%	4.4%
Age 18-64 w/o Insurance (percent)	12.8%	13.3%	11.6%	12.3%	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 study region. The data indicate there were 811 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, which may reflect an older population in the study region. The percentage of emergency department visits classified as potentially avoidable ranged from 8.8% to 10.4% within the study region during 2021.

Exhibit 4.5 Avoidable Hospital Visit Profile							
Indicators	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia	
Inpatient Hospitalizations							
Potentially Avoidable Hospitalizations (2020)	367	90	354	811	1,229	55,139	
Potentially Avoidable Hospitalizations, Rate (per 100,000 Population 18+)	909.7	842.9	1,184.8	1,002.5	866.0	820.0	
Emergency Department Visits							
Potentially Avoidable Hospital Emergency Department Visits (as percent of total visits, 2021)	10.4%	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.
- Among high school youth in the planning district as a whole, 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	Madison	Orange	Study Region	PD9 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					18.9%	13.6%
ligh School Youth (2019 estimates)						
Classified as obese					19.8%*	14.8%
Classified as overweight		(			16.2%*	15.8%
Currently smoked cigarettes	(nr)			9.0%*	5.5%	
Currently use electronic vaping product					25.8%*	19.9%

### Note:

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

<sup>\*</sup> Regional estimates are for the Northwest region of Virginia, which includes but is not limited to Planning District 9.

<sup>\*\*</sup>Figures on adult smoking rates may be unreliable due to estimation error.

## 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 study region.

- There were 15 total infant deaths in Culpeper and Orange in the 2018-2020 timeframe.
- In 2020, there were 82 teen pregnancies, 1,186 live births, 44 births with late or no prenatal care, 87 low weight births, and 110 pre-term births. Rates associated with these indicators varied within the study region.

	Exhibit 4.7 Maternal and Infant Health Profile								
Indicators	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia			
Infant Mortality (2018-2020)									
Total Live Births	1,992	(nr)	1,200	(nr)	5,949	291,926			
Total Infant Deaths	7	(nr)	8	(nr)	28	1,679			
Infant Deaths, Rate (per 1,000 Total Live Births)	3.51	2.64	6.67	(nr)	4.71	5.75			
Maternal Mortality (2018-2020)									
Total Maternal Deaths	(nr)	(nr)	(nr)	(nr)	7	139			
Maternal Mortality, Rate(per 100,000 Total Live Births)	100.4	0.0	250.0	(nr)	117.7	47.9			
Teen Pregnancies (2020)									
Female Population Ages 15-19	1,730	(nr)	980	(nr)	5,555	267,017			
Pregnancies of Females Ages 15-19	56	(nr)	26	(nr)	106	4,612			
Teen Pregnancies, Rate (per 1,000 Females Ages 15-19)	32.4	8.4	26.5	(nr)	19.1	17.3			
Total Live Births (2020)									
Total Live Births (2020)	667	126	393	1,186	1,948	94,694			
Prenatal Care (2020)									
Mothers with Late/No Prenatal Care	26	(nr)	18	(nr)	77	3,851			
Mothers with Late/No Prenatal Care, Percent of Total Live Births	3.9%	0.8%	4.6%	(nr)	4.0%	4.1%			
Low Weight Births (2020)									
Low Birth Weight	52	7	28	87	143	7,852			
Low Birth Weight, Percent	7.8%	5.6%	7.1%	7.3%	7.3%	8.3%			
Pre-Term Births (2020)									
Preterm Births	63	15	32	110	170	9,091			
Preterm Births, Percent	9.5%	11.9%	8.1%	9.3%	8.7%	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 study region.

- Among adults aged 18+, an estimated 12-14% have been diagnosed with asthma, an estimated 14% with pre-diabetes, and an estimated 15-17% with diabetes.
- Focusing on hospitalizations, in 2020 the study region had 610 hospitalizations for asthma, 2,575 hospitalizations for diabetes, 5,200 hospitalizations for hypertension, and 264 hospitalizations for stroke. The population rates of hospitalization for these conditions varied within the study region.

	Exhibit 4.8 Chronic Conditions Profile									
Indicators	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia				
Asthma Estimates (2020)										
Adults Diagnosed with Asthma, Weighted Percent	11.5%	12.8%	14.0%	(nr)	15.8%	13.5%				
Diabetes Estimates (2020)										
Adults with Prediabetes, Weighted Percent	14.0%	14.0%	14.0%	(nr)	14.5%	9.3%				
Adults with Diabetes, Weighted Percent	14.6%	16.8%	17.0%	(nr)	14.9%	11.1%				
Inpatient Hospitalization (2020)										
Counts										
Hospitalizations with Asthma	265	70	275	610	866	41,865				
Hospitalizations with Diabetes	1,149	286	1,140	2,575	3,834	170,866				
Hospitalizations with Hypertension	2,268	607	2,325	5,200	7,911	352,510				
Hospitalizations with Stroke	121	28	115	264	395	19,676				
Rates										
Hospitalizations with Asthma, Rate(per 100,000 Total Population)	494.7	525.8	729.5	583.3	472.7	487.3				
Hospitalizations with Diabetes, Rate(per 100,000 Total Population)	2,144.9	2,148.4	3,024.3	2,462.3	2,092.8	1,989.0				
Hospitalizations with Hypertension, Rate(per 100,000 Total Population)	4,233.8	4,559.8	6,167.9	4,972.5	4,318.3	4,103.5				
Hospitalizations with Stroke, Rate(per 100,000 Total Population)	225.9	210.3	305.1	252.5	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 Infectious Disease Profile

Looking beyond chronic disease, **Exhibit 4.9** lists selected indictors of communicable or infectious disease for the study region.

- In 2020 the study region recorded 260 chlamydia infections, 54 gonorrhea infections, and 178 HIV/AIDS infections.
- The population rate of infection in the study region was below the statewide rate for each of these diseases.

Exhibit 4.9 Communicable or Infectious Disease Profile								
Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia			
149	23	88	260	451	40,965			
283.2	173.4	237.5	252.6	248.5	479.9			
34	1	19	54	87	15,217			
64.6	7.5	51.3	52.5	47.9	178.3			
104	12	62	178	280	24,046			
235.5	104.9	193.4	203.1	181.8	331.4			
	Culpeper  149 283.2  34 64.6	Culpeper         Madison           149         23           283.2         173.4           34         1           64.6         7.5           104         12	Culpeper         Madison         Orange           149         23         88           283.2         173.4         237.5           34         1         19           64.6         7.5         51.3           104         12         62	Culpeper         Madison         Orange         Study Region           149         23         88         260           283.2         173.4         237.5         252.6           34         1         19         54           64.6         7.5         51.3         52.5           104         12         62         178	Culpeper         Madison         Orange         Study Region         PD9 Region           149         23         88         260         451           283.2         173.4         237.5         252.6         248.5           34         1         19         54         87           64.6         7.5         51.3         52.5         47.9           104         12         62         178         280			

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 study region.

- During the 2016-2020 timeframe, the study region had 383 unintentional injury deaths. Population rates for injury deaths were above the statewide rate across the study region.
- In 2020, the study region had 578 hospitalizations for injury, with leading causes including falls (322), traumatic brain injury (68), and motor vehicle accidents (66). Population rates for injury hospitalizations were generally above the statewide rates.

Exhibit 4.10 Injury and Violence Profile									
Indicators	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia			
Deaths (2016-2020)									
Unintentional Injury Death, Five Year Total Deaths, 2016- 2020 Total	171	58	154	383	614	20,285			
Unintentional Injury Death, Crude Death Rate (Per 100,000 Population)	65.9	87.6	84.2	75.3	68.5	47.7			
Hospitalizations (2020 counts)									
All Injuries	271	57	250	578	876	33,241			
Nondrug Poisoning	3	1	3	7	13	452			
Assault Injury	1	-	2	3	5	837			
Fall Injury	144	31	147	322	485	17,790			
Firearm Injury	-	-	2	2	4	829			
Motor Vehicle Traffic-related (MVT)	27	11	28	66	107	3,259			
Traumatic Brain Injury (TBI)	39	3	26	68	116	5,163			
Drowning	0	0	0	0	0	20			
Hospitalizations (2020 rates per 100,000 population)									
All Injuries	505.9	428.2	663.2	552.7	478.2	387.0			
Nondrug Poisoning	5.6	7.5	8.0	6.69	7.1	5.3			
Assault Injury	1.9	0.0	5.3	2.87	2.7	9.7			
Fall Injury	268.8	232.9	390.0	307.9	264.7	207.1			
Firearm Injury	0.0	0.0	5.3	1.91	2.2	9.7			
Motor Vehicle Traffic-related (MVT)	50.4	82.6	74.3	63.1	58.4	37.9			
Traumatic Brain Injury (TBI)	72.8	22.5	69.0	65.0	63.3	60.1			
Drowning	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 illness and disabilities. **Exhibit 4.11** lists selected mental health indicators for the study region.

- An estimated 17-26% of adults in the study region reported being diagnosed with depressive order.
- □ Within the planning district as a whole, 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 study region had 489 self-harm and suicide-related emergency department visits in 2021.
- ☐ The study region had 83 deaths by suicide in the 2016-2020 timeframe.

## Exhibit 4.11 Mental Health Profile

Indicators	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia
Depressive Disorder						
Adults with Depressive Disorder, Weighted Percent (2020)	17.9%	16.5%	26.1%	(nr)	20.3%	17.2%
High school youth reporting feeling sad or hopeless almost every day for at least two weeks in prior 12 months (2019)	(nr)			(nr)	32.8%*	32.4%
High school youth seriously considering suicide in prior 12 months (2019)	(nr)			(nr)	18.1%*	11.4%
ED Visits (all ages 2021)						
Self-harm and Suicide-related ED Visit Counts	281	47	161	489	829	55,067
Self-harm and Suicide-related ED Visit, Rate (per 100,000 Population 5+)	560.9	372.1	452.5	(nr)	480.5	680.9
Death by Suicide (all ages 2016-2020 Total)						
Deaths by Suicide, Five Year Total Deaths, 2016-2020 Total	42	14	27	83	144	5,930
Deaths by Suicide, Crude Death Rate (Per 100,000 Population)	16.2	(nr)	14.8	16.3	16.1	13.9
Deaths by Suicide, Age- Adjusted Death Rate (Per 100,000 Population)	15.7	(nr)	13.8	14.9	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 Culpeper, Madison and Orange counties.

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. Indicators of tobacco use are provided in **Exhibit 4.12** provides additional indicators of substance use in the study region.

- □ In the 2016-2020 timeframe, there were 161 drug overdose deaths in the study region. Population rates of deaths due to overdose were higher than the statewide rate.
- □ In 2020 residents of the study region had 98 hospitalizations with drug overdose, and 73 hospitalizations for substance use disorder. Population rates of hospitalization were generally lower than statewide rates.
- Focusing on high school youth in 2019, within the planning district as a whole, 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 within the planning district as a whole 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.

Exhibi	t 4.12	<u> </u>
Substance I	Ica E	Profile

Indicators	Culpeper	Madison	Orange	Study Region	PD9 Region	Virginia
Drug Overdose Deaths (2016-2020)						
Drug Overdose Deaths (All Substances), Five Year Total Deaths, 2016-2020 Total	83	14	64	161	259	8,147
Crude Death Rate (Per 100,000 Population)	32	(nr)	35	31.7	28.9	19.2
Age-Adjusted Death Rate (Per 100,000 Population)	35.2	(nr)	37	35.9	32.1	19.3
Hospitalization with Drug Overdose (2020)						
Hospitalizations with Drug Overdose	46	9	43	98	156	7,725
Hospitalizations with Drug Overdose, Rate (per 100,000 Total Population)	85.9	67.6	114.1	93.7	85.2	89.9
Hospitalization with Substance Use Disorder (2020)						
Hospitalizations with Substance Use Disorder	39	3	31	73	124	6,447
Hospitalizations with Substance Use Disorder, Rate (per 100,000 Total Population)	72.8	22.5	82.2	69.8	67.7	75.1
High School Youth (2019)						
Currently drank alcohol	(nr)		(nr)	29.5%*	25.4%	
Had first drink of alcohol (other than a few sips) before age 13 years	(nr)			(nr)	18.9%*	15.6%
Rode with a driver who had been drinking alcohol	(nr)			(nr)	13.3%*	13.0%
Currently used marijuana	(nr)			(nr)	17.8%*	17.3%
Tried marijuana for the first time before age 13 years	(nr)			(nr)	5.7%*	5.2%
Were offered, sold, or given an illegal drug on school property	(nr)			(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 Culpeper, Madison and Orange counties.

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.<sup>3</sup>

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	

<sup>&</sup>lt;sup>3</sup> 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 <a href="https://health.gov/healthypeople/priority-areas/social-determinants-health">https://health.gov/healthypeople/priority-areas/social-determinants-health</a>.

## 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	Minority population/people of color Older adults Low-income population Children and families People with disabilities Immigrant / undocumented LGBTQ+			
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 clistening events.	community residents, the survey of community professionals, and the community			

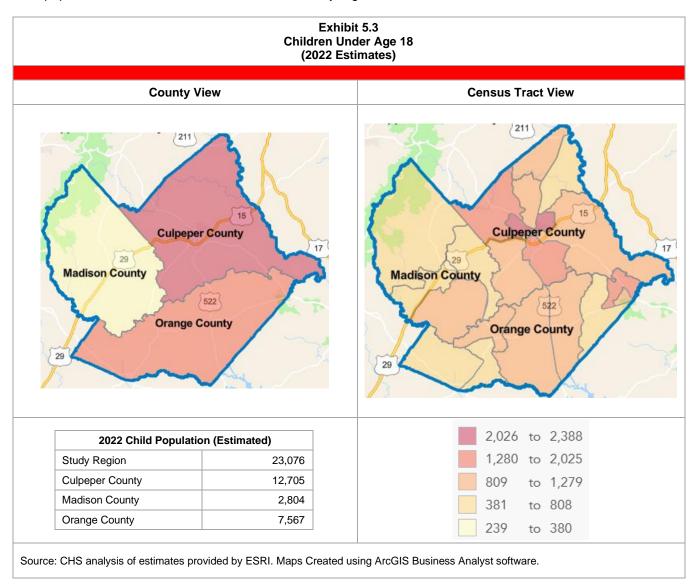
## 5.2 Community Mapping<sup>4</sup>

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. 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.

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

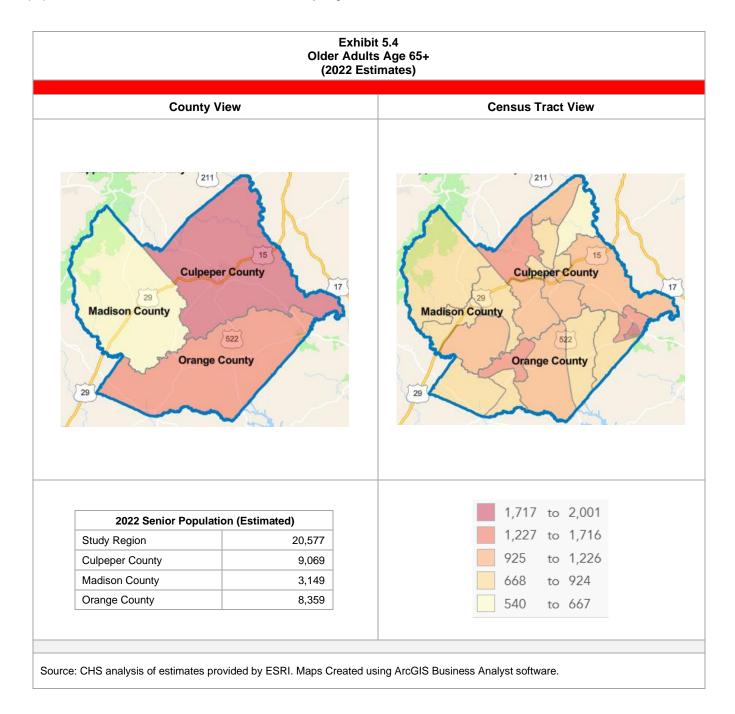
**Exhibit 5.3** shows the estimated population of children under 18 as of 2022. The county view shows a total of 23,076 community residents in this age group, along with county-level figures. The census tract view shows where these population members are located across the study region.



<sup>&</sup>lt;sup>4</sup> 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.

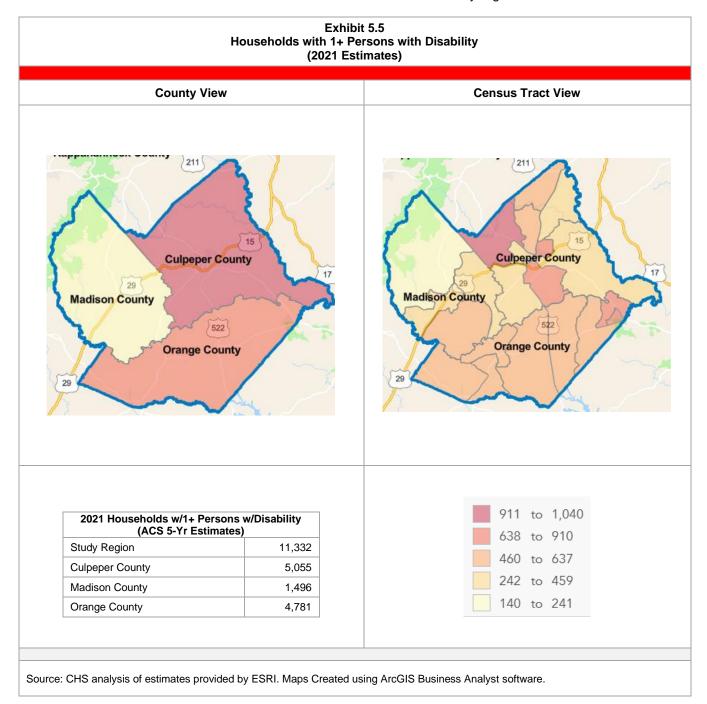
## 5.4 Older Adults Age 65+

**Exhibit 5.4** shows the estimated population age 65+ as of 2022. The county view shows a total of 20,577 community residents in this age group, along with county-level figures. The census tract view shows where these population members are located across the study region.



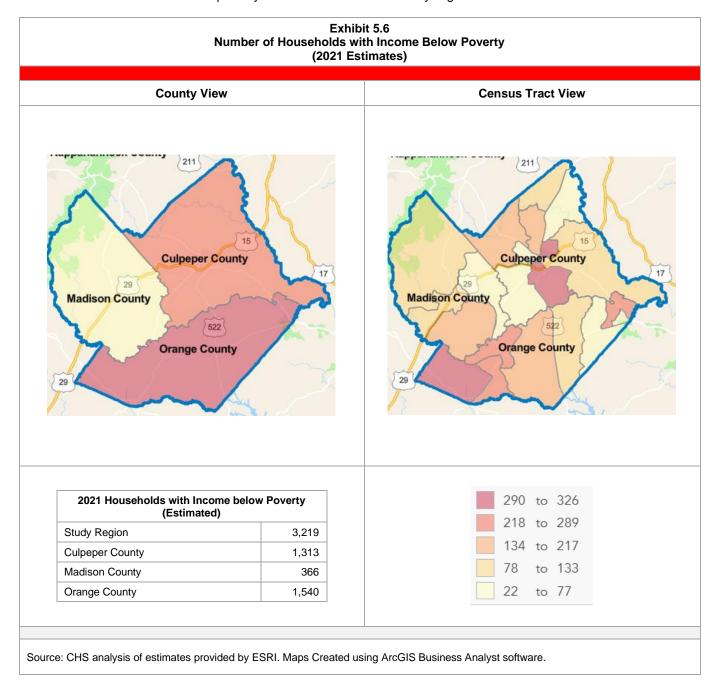
## 5.5 Households with 1+ Persons with a Disability

**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 11,332 households meeting this definition, along with county-level figures. The census tract view shows where these households are located across the study region.



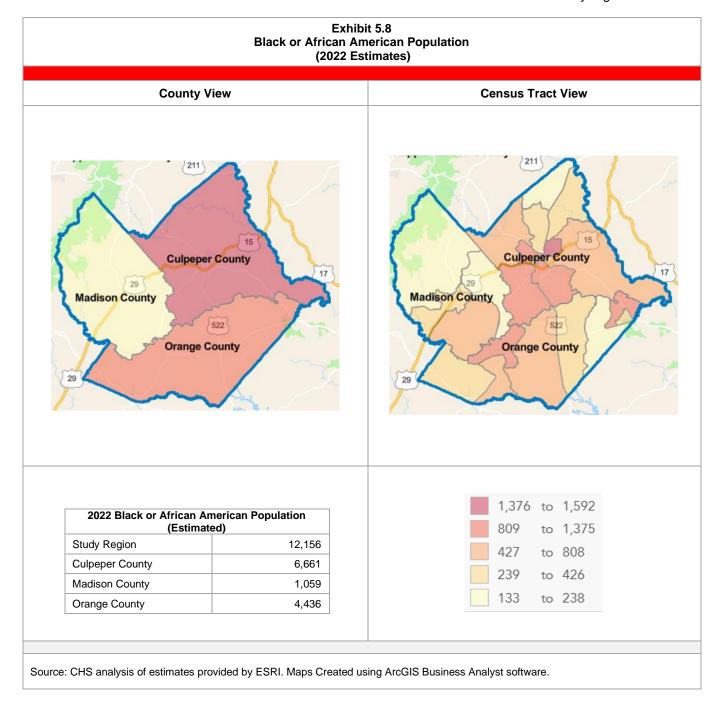
## 5.6 Households in Poverty

**Exhibit 5.6** shows the estimated number of households with income below poverty as of 2021. The county view shows a total of 3,219 households with income below poverty, along with the county-level figures. The census tract view shows where households in poverty are located across the study region.



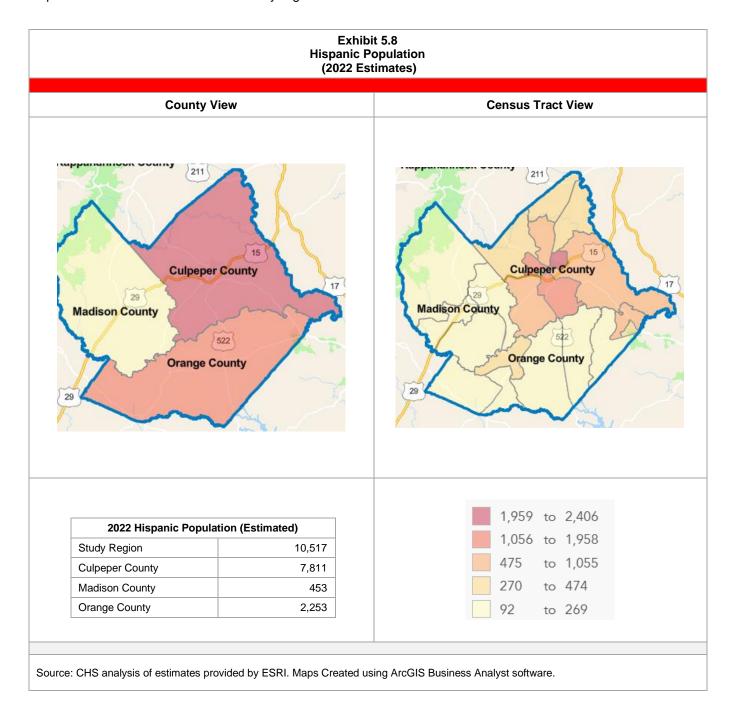
## 5.7 Black or African American Population

**Exhibit 5.5** shows the estimated number of Black or African American residents as of 2022. The county view shows a total of 12,156 Black or African American residents in the study region, along with the county-level figures. The census tract view shows where Black or African American residents reside across the study region.



## 5.8 Hispanic Population

**Exhibit 5.8** shows the estimated number of Hispanic residents as of 2022. The county view shows a total of 10,517 Hispanic residents in the study region, along with the county-level figures. The census tract view shows where Hispanic residents reside across the study region.



## Appendix A Data Sources and Methods

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.

## Section 1. Insights from Community Residents

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 351 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 26 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.

In addition to the surveys of community residents and community professionals, the study also included a series of five community listening events. Four 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 three counties, and to spread community awareness about the events.

# Section 3. Insights from Community Listening 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 20 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 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 array 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. Section 4. Insights Additional information on data portal sources is provided at https://virginiawellbeing.com/virginiafrom Community community-health-improvement-data-portal/. **Data Profiles** 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 The community insight data presented in Section 5 was developed by Community Health Solutions from the survey on Social of community residents, the survey of community professionals, and the Community Listening Events, all described Determinants of above. The maps in Section 5 were developed by Community Health Solutions using data from ESRI, and mapping Health software provided in ArcGIS Business software.

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.

Contact