

**Rappahannock Area Community Health Assessment Update**  
 Rappahannock Area Health District, Virginia Department of Health  
 June 2024



## Introduction

In 2022 the Rappahannock Area Health District (RAHD) conducted a Community Health Assessment (CHA) of its localities (City of Fredericksburg and the Counties of Caroline, King George, Spotsylvania, and Stafford) as well as additional areas of Mary Washington Healthcare (MWHC) service areas (Counties of Orange, Prince William, and Westmoreland). During this process, RAHD implemented National Association of County and City Health Officials (NACCHO)’s Mobilizing for Action through Planning and Partnerships (MAPP) process to collect data from various sources to understand the health needs and status of the localities. This data was used to identify and prioritize three major health issues in the community and devise Community Health Improvement Plan (CHIP).

To stay up to date on trends in the health district, this report contains available data on demographic information and information related to the three CHIP priority areas: mental health, affordable housing, and access to healthcare.

## Demographic Information

The following tables and graphs display some of the demographic information for the localities within RAHD and MWHC service areas.

### A. Total resident population and population density<sup>1</sup>

The City of Fredericksburg has the highest population density (2,704 individuals per square mile), although it has a low total resident population (28,258). Caroline County has the lowest population density with 59 individuals per square mile and the remaining counties in RAHD have higher population density when compared to the US (94 individuals per square mile).

Table: Total resident population and population density

Report Area	Total Resident Population	Total Land Area (Sq. Miles)	Population Density (Per Sq. Mile)
United States	331,097,593	3,533,269.3	94
Virginia	8,624,511	39,482.1	218
Caroline County	31,181	527.4	59
Fredericksburg City	28,258	10.5	2,704
King George County	26,985	179.6	150
Spotsylvania County	141,097	401.9	351
Stafford County	157,606	269.2	585
Orange County	36,593	340.5	107
Prince William County	481,114	335.3	1,435
Westmoreland County	18,480	229.3	81

<sup>1</sup> US Census Bureau, American Community Survey, 2018-22 5-year estimates. ([link](#))

This population density data for RAHD localities is represented by the adjacent figure, where darker shades of brown represent higher population density. As shown, the City of Fredericksburg and some areas of Spotsylvania and Stafford Counties have much higher population density than surrounding areas.

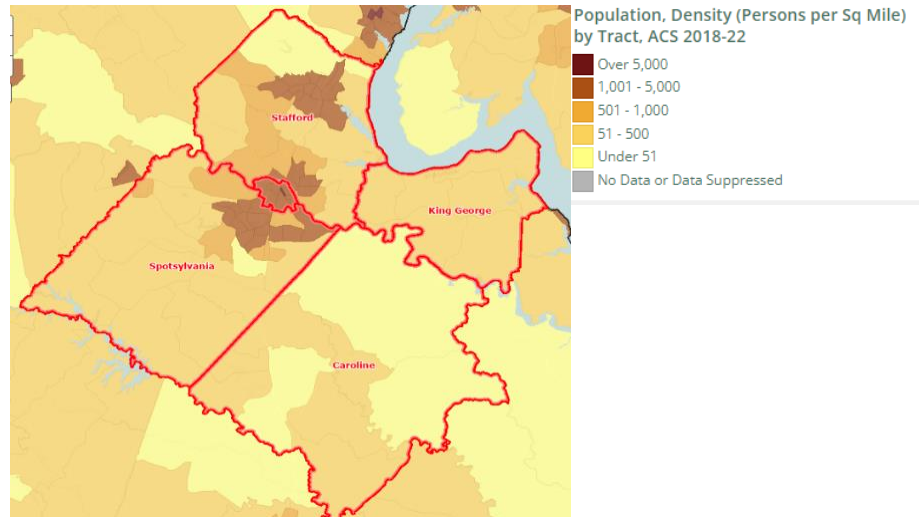


Figure: Population density in RAHD localities

## B. Total population by race<sup>2</sup>

According to the US census bureau, King George and Spotsylvania Counties within the RAHD localities have higher percentage of population who identify as White when compared to the US and the State of Virginia. Similarly, Caroline County and the City of Fredericksburg City have higher percentage of population who identify as Black. In Fredericksburg City and Stafford County there are higher percentage of individuals who identify themselves as multiple races than the US average, and there are higher percentage of individuals who identify themselves as “some other race” in Stafford County.

Table: Total population by race

Report Area	White	Black	Asian	American Indian / Alaska Native	Native Hawaiian / Pacific Islander	Some Other Race	Multiple Races
United States	65.9%	12.5%	5.8%	0.8%	0.2%	6.1%	8.8%
Virginia	63.5%	18.9%	6.8%	0.3%	0.1%	3.5%	6.9%
Caroline County	63.9%	24.5%	1.0%	0.4%	0.0%	4.1%	6.2%
Fredericksburg City	59.9%	21.5%	3.8%	0.2%	0.0%	5.5%	9.1%
King George County	72.5%	15.8%	1.4%	0.1%	0.0%	3.6%	6.6%
Spotsylvania County	68.2%	16.8%	2.7%	0.2%	0.1%	5.2%	6.8%
Stafford County	59.7%	18.9%	3.8%	0.3%	0.0%	7.6%	9.7%
Orange County	78.1%	12.3%	1.5%	0.1%	0.0%	1.4%	6.8%
Prince William County	50.2%	20.7%	9.7%	0.6%	0.1%	7.8%	10.9%
Westmoreland County	63.3%	24.4%	1.1%	0.2%	0.0%	4.8%	6.2%

<sup>2</sup> US Census Bureau, American Community Survey, 2018-22 5-year estimates. ([link](#))

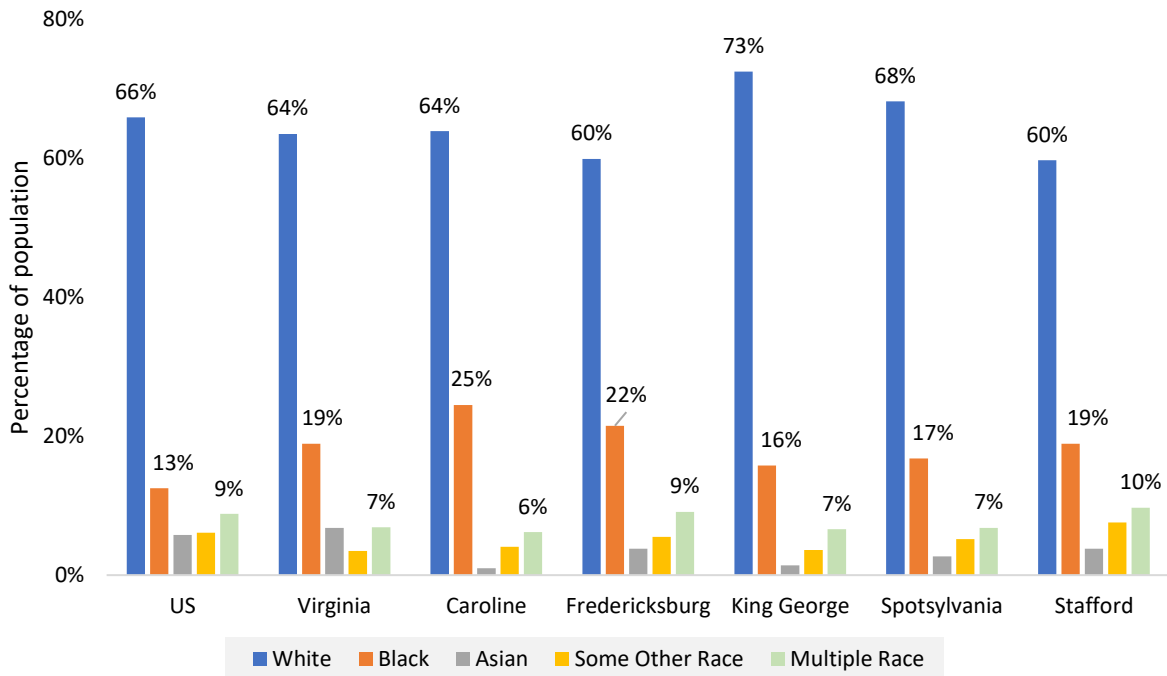


Figure: Race distribution in the US, State of Virginia, and RAHD localities

### C. Total population by ethnicity<sup>3</sup>

According to the 2018-22 data, all of the RAHD localities have lower percentage of Hispanic or Latino population when compared to the US (19%). Among RAHD localities, Caroline and King George Counties both have the lowest percentage (6%) and Stafford County has the highest percentage of Hispanic or Latino population (15%).

Table: Total population by ethnicity

Report Area	Hispanic or Latino Population	Non-Hispanic Population
United States	18.6%	81.4%
Virginia	10.1%	89.9%
Caroline County	5.9%	94.1%
Fredericksburg City	11.7%	88.3%
King George County	6.4%	93.6%
Spotsylvania County	11.3%	88.7%
Stafford County	14.9%	85.1%
Orange County	6.1%	93.9%
Prince William County	24.9%	75.1%
Westmoreland County	6.8%	93.2%

<sup>3</sup> US Census Bureau, American Community Survey, 2018-22 5-year estimates. ([link](#))

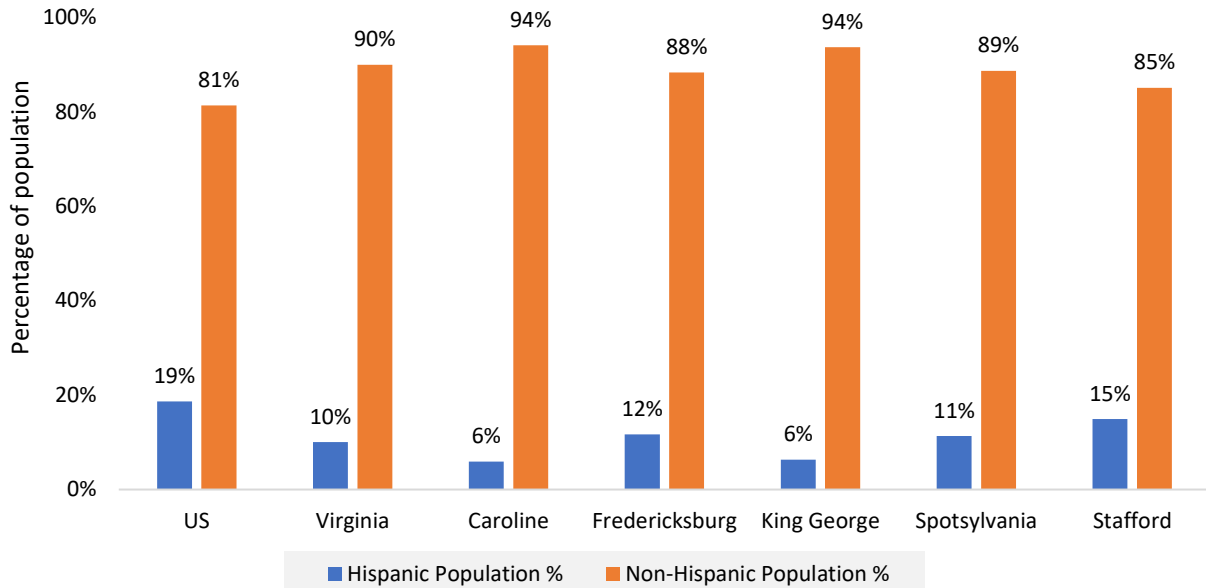


Figure: Total population by ethnicity in the US, State of Virginia, and RAHD localities

#### Median annual household income<sup>4</sup>

Based on the census data, between 2017-2022, Stafford County has reported highest median annual household income when compared to the US, the State of Virginia, and the other RAHD localities. It is noted that Fredericksburg City and Caroline County have lower median annual household income than the US during these years, while Stafford has one of the highest median household incomes of any county in the country.

Table: Median annual household income

Report Area	2017	2018	2019	2020	2021	2022
United States	\$60,336	\$61,937	\$65,712	\$67,340	\$69,717	\$74,755
Virginia	\$71,518	\$72,600	\$76,471	\$79,154	\$80,926	\$85,838
Caroline County	\$62,207	\$67,335	\$64,647	\$67,663	\$73,390	\$72,210
Fredericksburg City	\$56,580	\$58,448	\$62,121	\$72,437	\$77,437	\$71,217
King George County	\$86,878	\$86,619	\$85,657	\$90,786	\$98,668	\$100,092
Spotsylvania County	\$85,743	\$86,695	\$90,262	\$94,299	\$100,162	\$96,322
Stafford County	\$111,184	\$108,421	\$109,090	\$110,120	\$116,569	\$134,456
Orange County	\$62,707	\$63,681	\$71,691	\$73,226	\$94,547	\$81,390
Prince William County	\$100,431	\$106,200	\$106,208	\$111,117	\$116,354	\$119,051
Westmoreland County	\$51,414	\$54,885	\$59,343	\$59,959	\$61,545	\$51,414

<sup>4</sup> US Census Bureau, Small Area Income and Poverty Estimates, 2022. ([link](#))

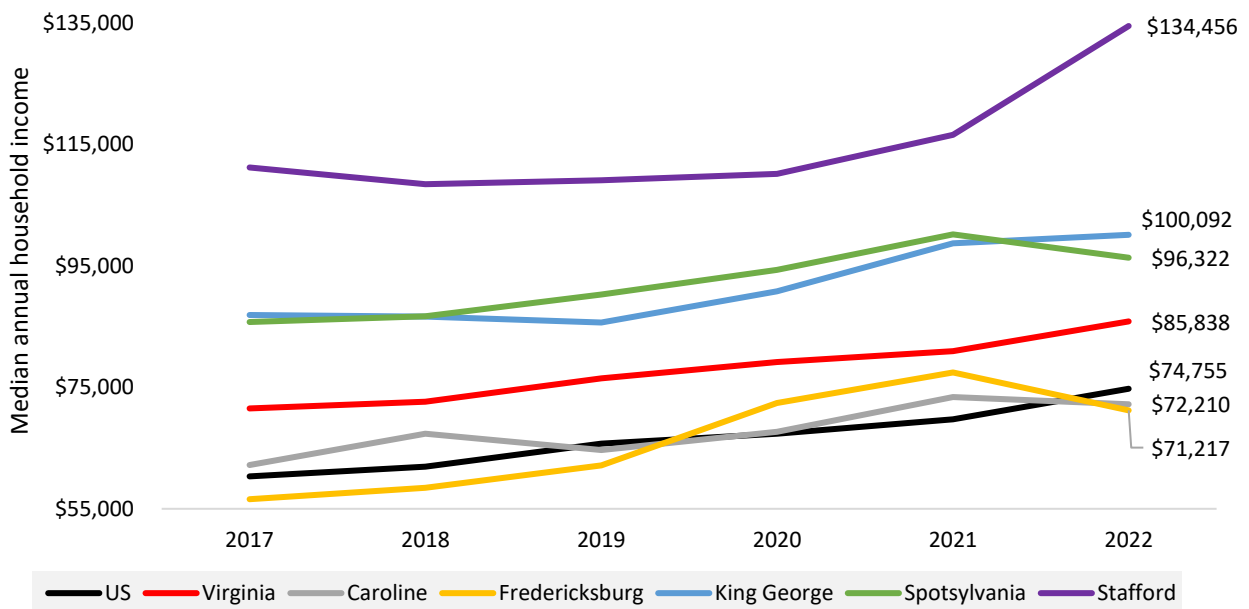


Figure: Median annual household income in the US, State of Virginia, and RAHD localities

#### D. National origin<sup>5</sup>

This indicator reports the top 10 countries of origin for the foreign-born population in the RAHD area. The foreign-born population includes anyone who was not a US citizen at birth. This includes respondents who indicated they were a U.S. citizen by naturalization or not a US citizen.

Table: National origin in RAHD area

Rank	Country	Percentage
1	El Salvador	16.6%
2	Mexico	11.3%
3	Ghana	4.1%
4	Afghanistan	3.9%
5	Korea	3.6%
6	Philippines	3.2%
7	Germany	2.9%
8	Honduras	2.9%
9	China, excluding Hong Kong and Taiwan	2.6%
10	India	2.6%

#### E. Population below 100% Federal Poverty Level (FPL)<sup>6</sup>

Fredericksburg has the highest percentage of population below the FPL of RAHD localities, well above the state and national averages. Poverty is considered a key driver of health status as it creates barriers to access including healthcare services, healthy food, and other necessities to maintain health and well-being.

Table: Population below 100% Federal Poverty Level

<sup>5</sup> US Census Bureau, American Community Survey, 2018-22 5-year estimates. ([link](#))

<sup>6</sup> US Census Bureau, American Community Survey, 2018-22 5-year estimates. ([link](#))

Report Area	Total Population	Population in Poverty	Population in Poverty (%)
United States	323,275,448	40,521,584	12.5%
Virginia	8,379,773	836,686	9.9%
Caroline County	29,697	3,435	11.6%
Fredericksburg City	25,880	4,667	18.0%
King George County	26,644	1,846	6.9%
Spotsylvania County	140,211	10,308	7.4%
Stafford County	153,799	8,268	5.4%
Orange County	35,955	4,670	12.9%
Prince William County	475,568	28,768	6.1%
Westmoreland County	18,295	2,935	16.0%

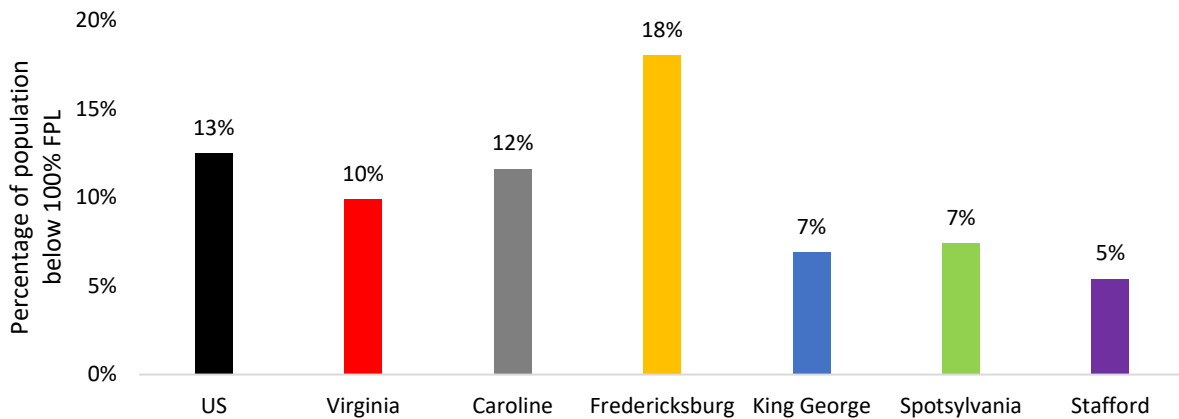


Figure: Population below 100% FPL in the US, State of Virginia, and RAHD localities

The adjacent figure highlights specific area with higher percentage of population living below 100% FPL. In the figure, darker shades of green represent higher percentage of population living below the poverty level.

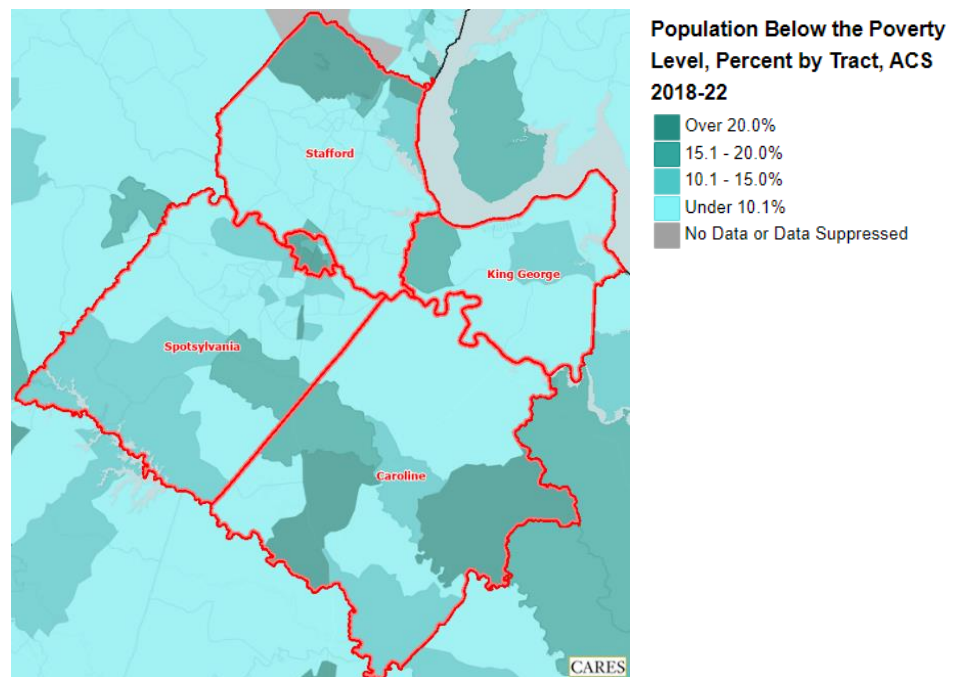


Figure: Population below 100% FPL in RAHD localities

## F. Unemployment rate<sup>7</sup>

The unemployment rate indicates the percentage of population ages 16 and older who are unemployed but seeking work. As shown below, 2020 saw the rapid increase in the rates of unemployment in the US and all RAHD localities due to the COVID-19 pandemic. The rates decreased beginning in 2021, and in 2023 unemployment returned to levels similar to 2019. The RAHD area consistently maintained unemployment levels lower than the national average over this period.

Table: Unemployment rate

Report Area	2017	2018	2019	2020	2021	2022	2023
United States	4.4%	3.9%	3.7%	8.1%	5.4%	3.7%	3.6%
Virginia	3.7%	3.0%	2.8%	6.4%	3.9%	2.8%	2.9%
Caroline County	4.2%	3.5%	3.2%	6.9%	4.3%	3.1%	3.1%
Fredericksburg City	4.3%	3.5%	3.3%	7.4%	4.6%	3.2%	3.4%
King George County	3.7%	3.0%	2.6%	4.6%	2.9%	2.5%	2.6%
Spotsylvania County	3.7%	3.1%	2.9%	6.2%	3.8%	2.9%	3.0%
Stafford County	3.6%	3.0%	2.7%	5.8%	3.6%	2.8%	2.9%
Orange County	3.7%	3.0%	3.0%	5.8%	3.6%	2.9%	3.0%
Prince William County	3.4%	2.8%	2.5%	6.7%	3.9%	2.6%	2.7%
Westmoreland County	4.4%	3.7%	3.5%	6.0%	4.4%	3.0%	3.3%

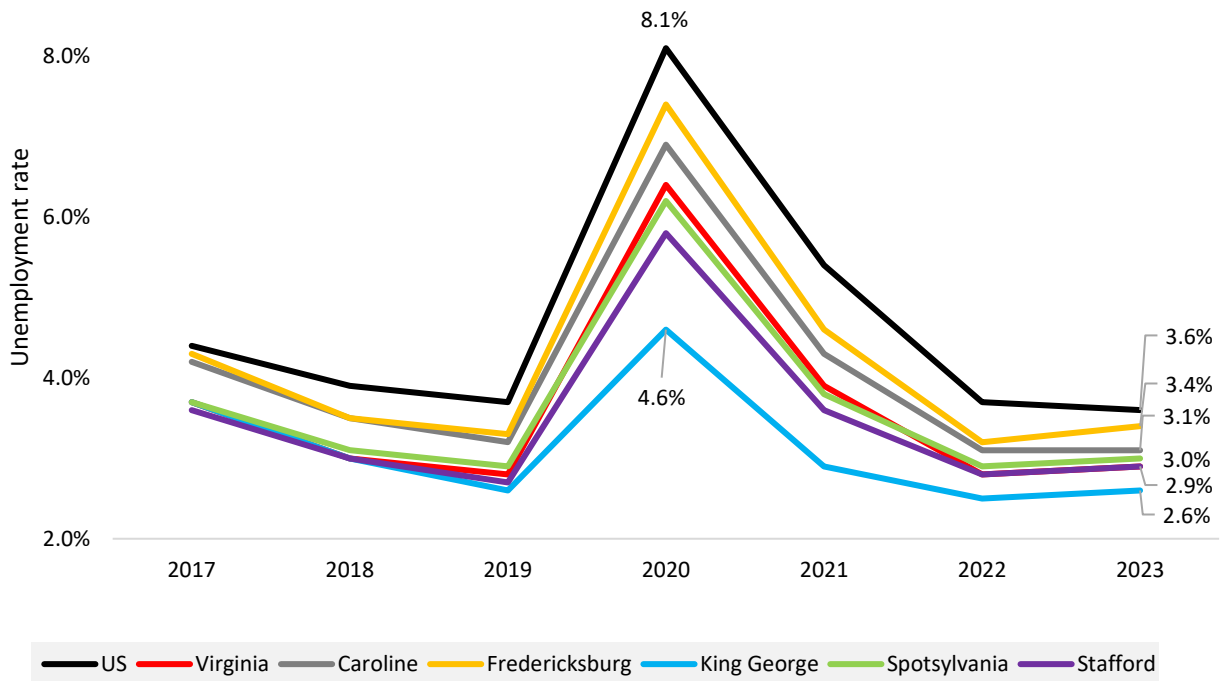


Figure: Unemployment rates in the US, State of Virginia, and RAHD localities

<sup>7</sup> US Census Bureau, American Community Survey, 2024. ([link](#))

## Mental Health

### A. Poor mental health days<sup>8</sup>

This indicator represents average number of mentally unhealthy days reported in past 30 days (age-adjusted). The data indicates an overall increase in the number of poor mental health days for all RAHD since 2016. The numbers increase rapidly in 2021, which may be attributed to the COVID-19 pandemic.

Table: Average number of poor mental health days reported in past 30 days

Report Area	2016	2017	2018	2019	2020	2021
United States	-	4.0	4.1	4.5	4.4	4.8
Virginia	3.5	3.8	4.0	4.2	4.1	4.9
Caroline County	3.6	3.8	4.4	4.6	4.5	4.9
Fredericksburg City	3.7	3.9	4.6	4.4	4.4	5.2
King George County	3.2	3.7	4.2	4.3	4.5	4.8
Spotsylvania County	3.4	3.6	4.2	4.3	4.2	4.9
Stafford County	3.2	3.2	3.6	3.9	4.0	4.6
Orange County	3.5	3.7	4.4	4.6	4.7	5.3
Prince William County	3.1	3.4	3.9	3.8	3.8	4.1
Westmoreland County	3.8	3.8	4.6	4.8	4.8	5.5

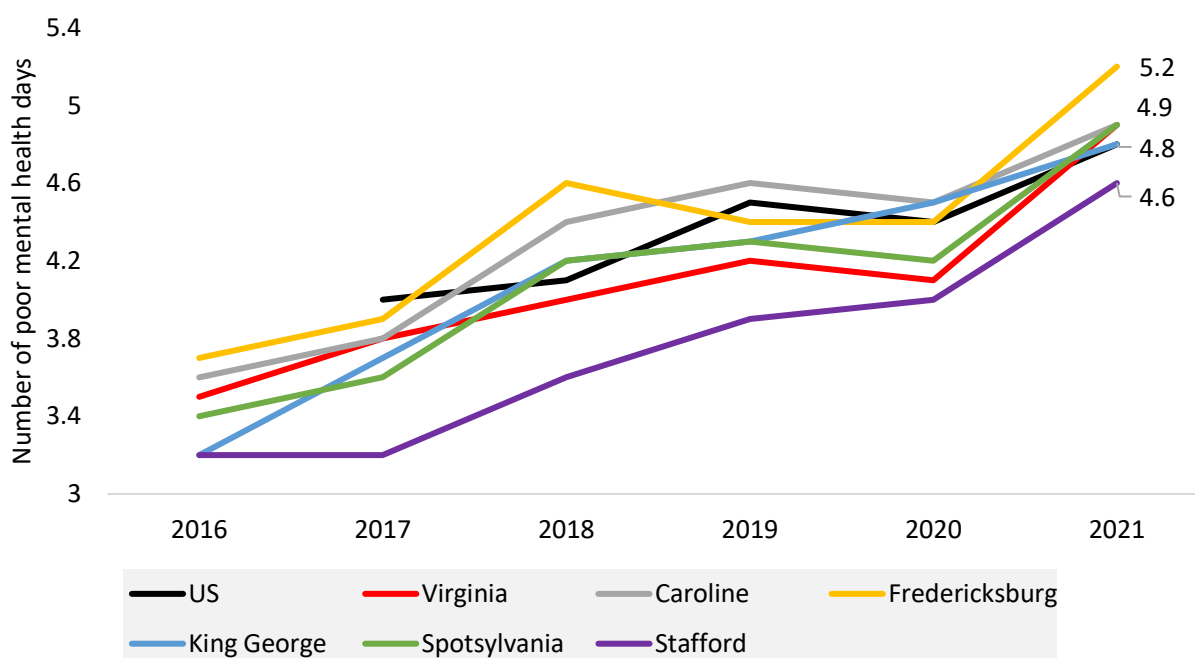


Figure: Average number of mentally unhealthy days reported in the past 30 days in the US, State of Virginia, and RAHD localities

<sup>8</sup> Behavior Risk Factor Surveillance System, 2021. ([link](#))



## B. Mental Health Providers<sup>9</sup>

This indicator represents the ratio of population to mental health providers in the reporting area.

Though mental health provider ratios remain high in RAHD's counties, particularly the more rural counties of Caroline and King George, RAHD has seen improvements in the ratios of providers to population across all localities from 2018 to 2023.

Mental health providers in this indicator includes marriage and family therapist and providers who treat alcohol and other drug abuse. However, some mental health professionals included in this list may no longer be practicing or accepting new patients and some professionals may be registered with an address in one county, while practicing in another county.

Table: Ratio of Population to Mental health providers

Report Area	2018	2019	2020	2021	2022	2023
United States	440:1	400:1	380:1	350:1	340:1	320:1
Virginia	630:1	570:1	530:1	480:1	450:1	410:1
Caroline County	3,810:1	3,080:1	3,070:1	2,570:1	2,240:1	2,130:1
Fredericksburg City	170:1	160:1	140:1	140:1	120:1	120:1
King George County	2,190:1	2,420:1	2,440:1	1,830:1	1,450:1	1,390:1
Spotsylvania County	1,510:1	1,320:1	1,140:1	1,050:1	1,000:1	870:1
Stafford County	1,400:1	1,260:1	1,220:1	1,140:1	1,070:1	960:1
Orange County	2,120:1	1,830:1	1,850:1	1,570:1	1,620:1	1,460:1
Prince William County	920:1	860:1	800:1	710:1	680:1	610:1
Westmoreland County	17,780:1	8,920:1	9,010:1	6,050:1	9,370:1	9,360:1

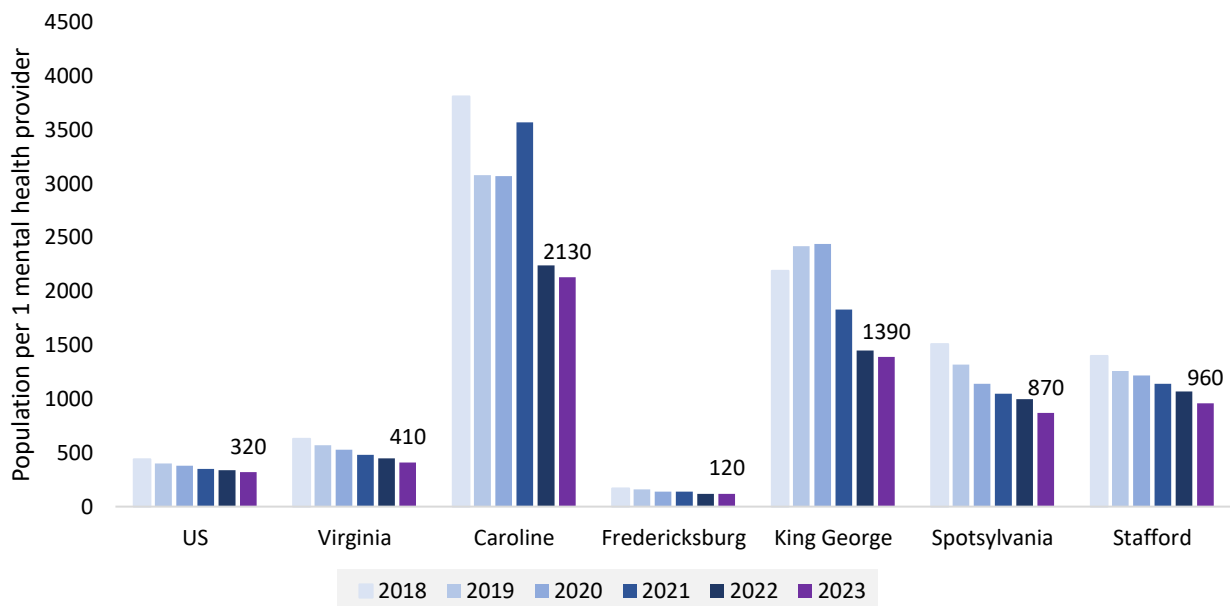


Figure: Population per one mental health provider in the US, State of Virginia, and the RAHD localities

<sup>9</sup> Centers for Medicare & Medicaid Services, National Provider Identification, 2023. ([link](#))

### C. Frequent mental distress<sup>10</sup>

This indicator represents the percentage of adults who stated that their mental health, which includes stress, depression and problems with emotions, was not good for 14 or more days of the past 30 days.

Table: Adults with frequent mental distress in past 30 days

Report Area	2016	2017	2018	2019	2020	2021
United States	-	12%	13%	14%	14%	15%
Virginia	11%	12%	12%	13%	13%	15%
Caroline County	11%	12%	14%	15%	14%	17%
Fredericksburg City	12%	12%	14%	14%	14%	16%
King George County	10%	11%	13%	13%	14%	16%
Spotsylvania County	10%	11%	13%	14%	13%	16%
Stafford County	10%	10%	12%	12%	13%	15%
Orange County	11%	12%	14%	15%	15%	17%
Prince William County	10%	10%	12%	12%	13%	14%
Westmoreland County	12%	12%	14%	16%	15%	18%

From 2020 to 2021, the percentages of adults who stated that their mental health was not good for 14 days or more per month increased for all the RAHD localities, as well as the US and State of Virginia.

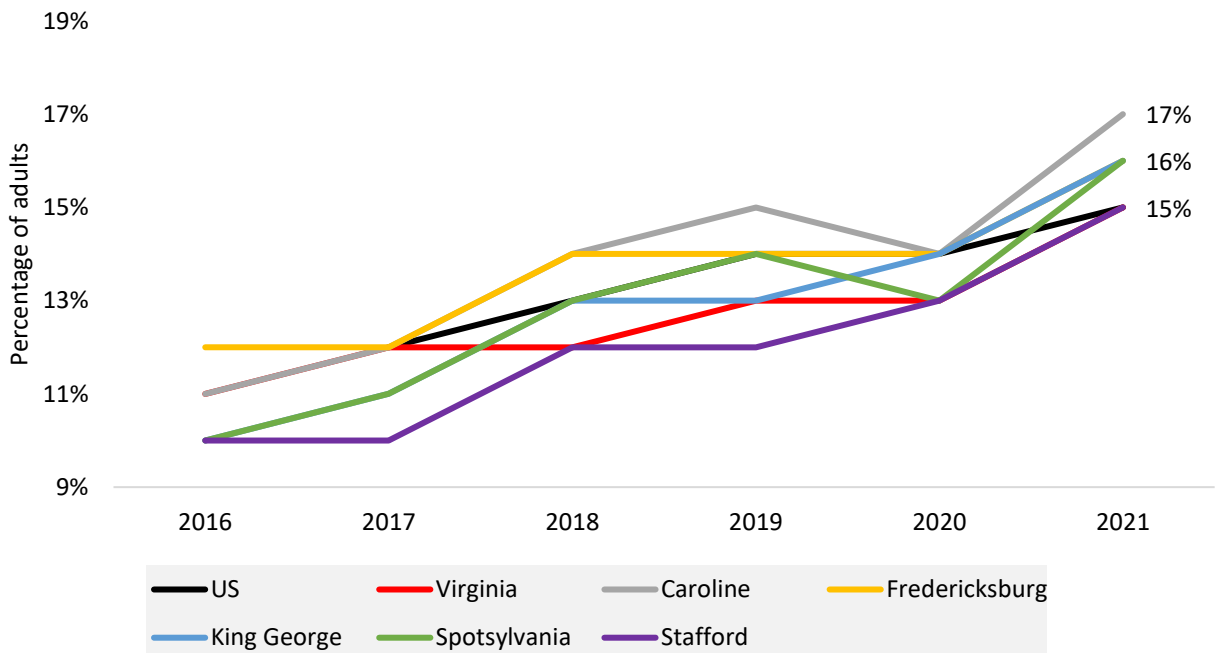


Figure: Adults with frequent mental distress in the US, State of Virginia, and RAHD localities

<sup>10</sup> Behavioral Risk Factor Surveillance System, 2021. ([link](#))

#### D. Suicide rate<sup>11</sup>

This indicator reports the 2016-2020 five-year average rate of death due to suicide per 100,000 population. The age-adjusted 5-year death rate due to suicide is highest in King George County (21.3 per 100,000 population), followed by Caroline County (17.8 per 100,000 population).

Table: Suicide rate per 100,000 population

Report Area	Five Year Total Deaths, 2016-2020 Total	Age-Adjusted Death Rate (Per 100,000 Population)
United States	233,972	13.8
Virginia	5,930	13.4
Caroline County	28	17.8
Fredericksburg City	22	13.7
King George County	29	21.3
Spotsylvania County	87	12.6
Stafford County	95	12.8
Orange County	27	13.8
Prince William County	218	9.4
Westmoreland County	-	-

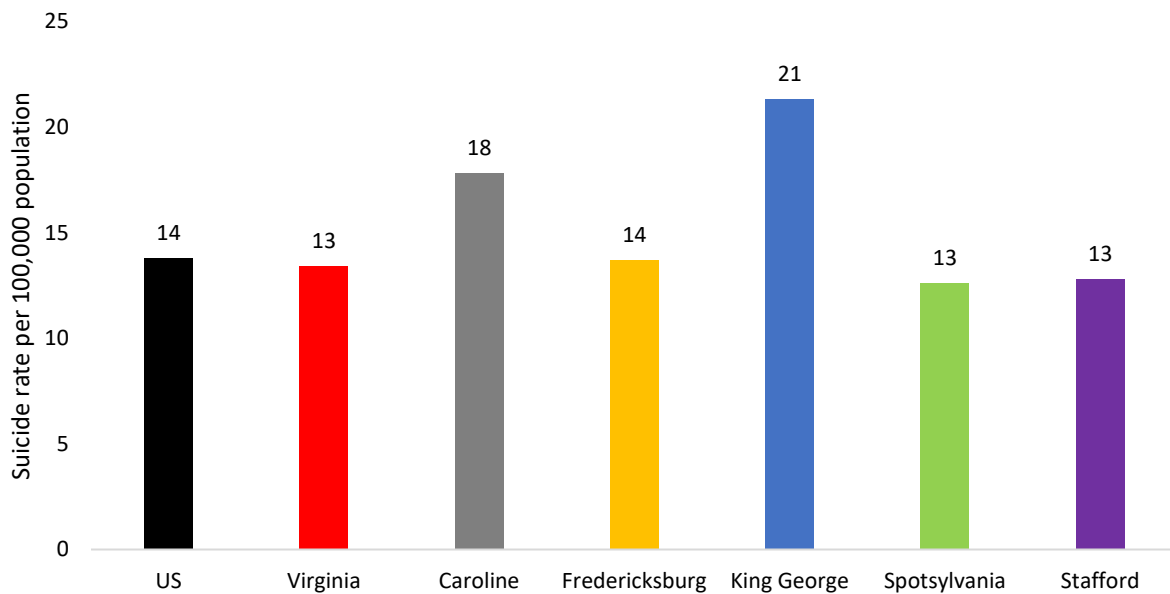


Figure: Suicide rates in the US, State of Virginia, and RAHD localities

<sup>11</sup> CDC- National Vital Statistics System, 2016-20. ([link](#))

## E. Self-harm and suicide related ED visits<sup>12</sup>

This indicator reports the number and rate of self-harm and suicide-related emergency department (ED) visits, per 100,000 population among Virginia residents ages 5 years and older. This includes visits with suicidal ideation or thoughts, self-harm, or suicide attempts.

Table: Self-harm and suicide related ED visits

Report Area	Self-harm and Suicide-related ED Visit Counts	Self-harm and Suicide-related ED Visit, Rate (per 100,000 Population 5+)
Virginia	55,067	680.9
Caroline County	253	873.7
Fredericksburg City	321	1,162.9
King George County	132	511.7
Spotsylvania County	890	684.4
Stafford County	811	551.7
Orange County	161	452.5
Prince William County	2,801	564.0
Westmoreland County	116	673.5

Data indicates that Fredericksburg City had the highest rate of self-harm and suicide-related ED visits among RAHD localities. Although the actual number of ED visits is much higher in localities like Spotsylvania and Stafford (890 and 811 respectively), the rate of visit is highest in the City of Fredericksburg and lowest in King George County, which might be attributed to the location of the healthcare facilities. Additionally, residents from King George may use hospital systems in Maryland due to its close proximity, which might have contributed to their low rate of ED visit.

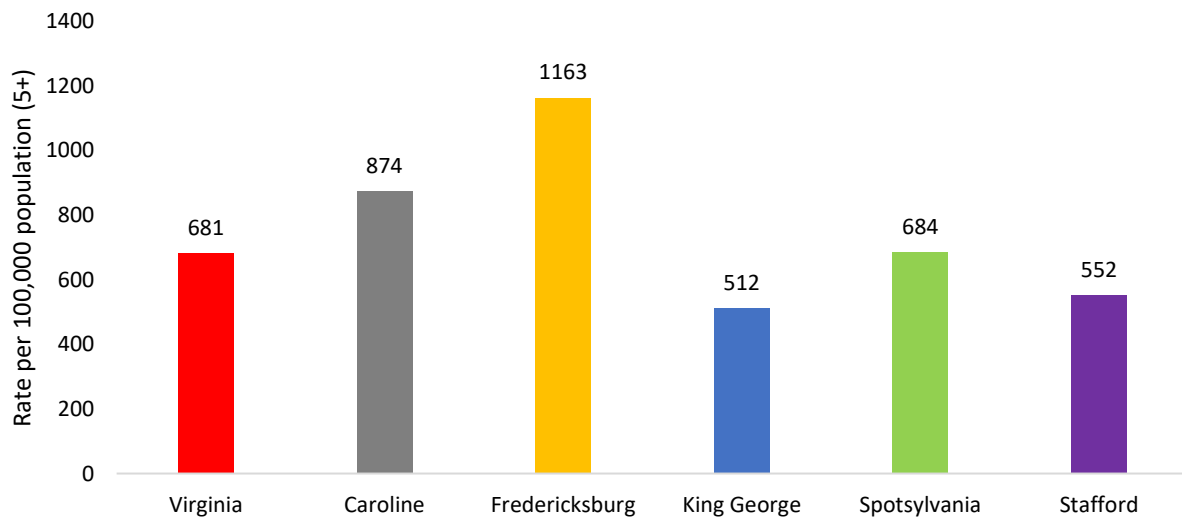


Figure: Self-harm and suicide-related ED visit rates in State of Virginia, and RAHD localities

<sup>12</sup> Virginia Department of Health, 2021. ([link](#))

## Access to Care

### A. Uninsured adults<sup>13</sup>

This indicator represents the percentage of adults under age 65 without health insurance. King George and Stafford Counties have lower percentages of adults under age 65 without health insurance, while Fredericksburg has the highest rate.

Table: Uninsured adults

Report Area	2016	2017	2018	2019	2020	2021
United States	12%	12%	12%	13%	12%	12%
Virginia	12%	12%	12%	11%	10%	9%
Caroline County	13%	14%	13%	11%	10%	10%
Fredericksburg City	13%	13%	14%	12%	14%	12%
King George County	8%	9%	9%	8%	7%	7%
Spotsylvania County	12%	12%	12%	10%	10%	10%
Stafford County	7%	8%	8%	7%	8%	7%
Orange County	12%	12%	11%	10%	10%	10%
Prince William County	10%	12%	12%	11%	9%	11%
Westmoreland County	13%	13%	13%	11%	11%	11%

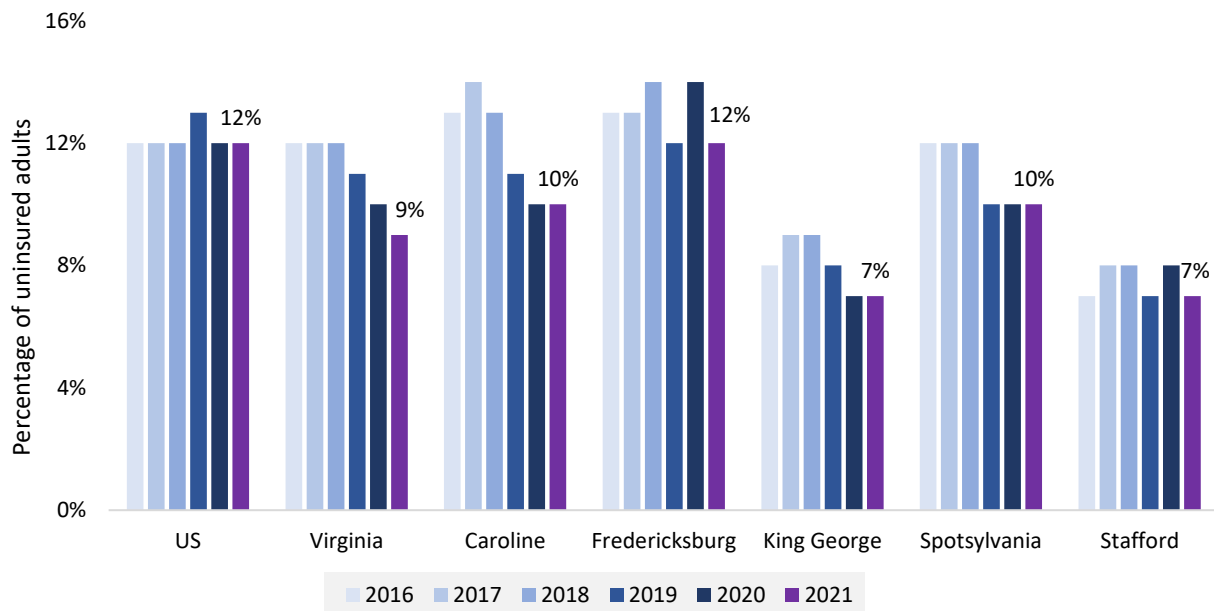


Figure: Uninsured adults in the US, State of Virginia, and RAHD localities

<sup>13</sup> US Census Bureau, Small Area Health Insurance Estimates, 2021. ([link](#))

## B. Adults who have had a routine checkup<sup>14</sup>

This indicator shows the percentage of adults who reported having visited a doctor for a routine checkup within the past year. All RAHD localities fall near or above the US average on this metric, though Fredericksburg has the lowest rate in the area.

Table: Adults who have had a routine checkup

Report Area	Percentage of adults
United States	73.6%
Caroline County	76.8%
Fredericksburg City	73.5%
King George County	75.3%
Spotsylvania County	76.6%
Stafford County	75.5%
Orange County	76.9%
Prince William County	74.4%
Westmoreland County	77.3%

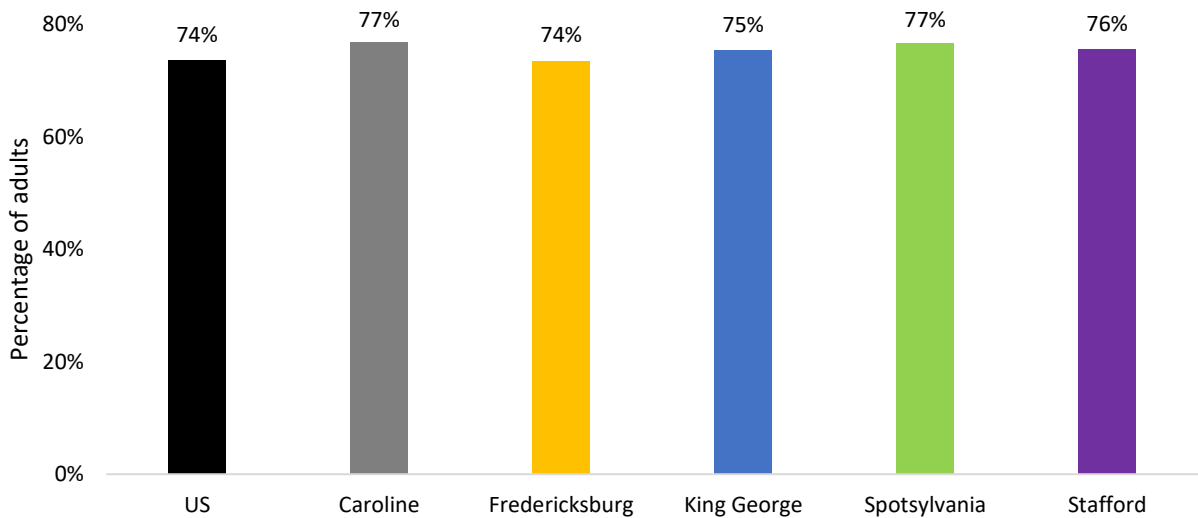


Figure: Adults who have had a routine checkup in the US and RAHD localities

<sup>14</sup> CDC – PLACES, 2021. ([link](#))

### C. Primary care provider ratio<sup>15</sup>

This indicator represents the ratio of population to primary care providers (PCP). PCPs here include nearly all Doctor of Medicine and Doctor of Osteopathic Medicine in the US, but excludes obstetrics/gynecology, nurse practitioners, physician assistants, and other practitioners available for primary care services.

Table: Primary care physician ratio

Report Area	2016	2017	2018	2019	2020	2021
United States	1,330:1	1,330:1	1,320:1	1,310:1	1,310:1	1,330:1
Virginia	1,310:1	1,320:1	1,330:1	1,310:1	1,320:1	1,340:1
Caroline County	6,040:1	6,090:1	6,150:1	6,150:1	7,720:1	10,440
Fredericksburg City	760:1	680:1	730:1	710:1	720:1	570:1
King George County	3,710:1	3,760:1	4,430:1	4,470:1	4,560:1	4,580:1
Spotsylvania County	1,690:1	1,600:1	1,660:1	1,720:1	1,870:1	2,080:1
Stafford County	3,140:1	3,330:1	3,260:1	3,400:1	3,410:1	3,830:1
Orange County	2,090:1	2,400:1	2,290:1	2,320:1	2,090:1	2,190:1
Prince William County	2,210:1	2,250:1	2,230:1	2,320:1	2,370:1	2,260:1
Westmoreland County	8,800:1	8,890:1	5,940:1	6,010:1	6,050:1	4,680:1

The population dependent on a single primary care physician is significantly higher in Caroline and King George Counties when compared to the US, Virginia and surrounding localities. The ratio is lowest among RAHD localities in City of Fredericksburg. Ratios have increased in all localities in RAHD, indicating fewer PCPs relative to the population in 2016.

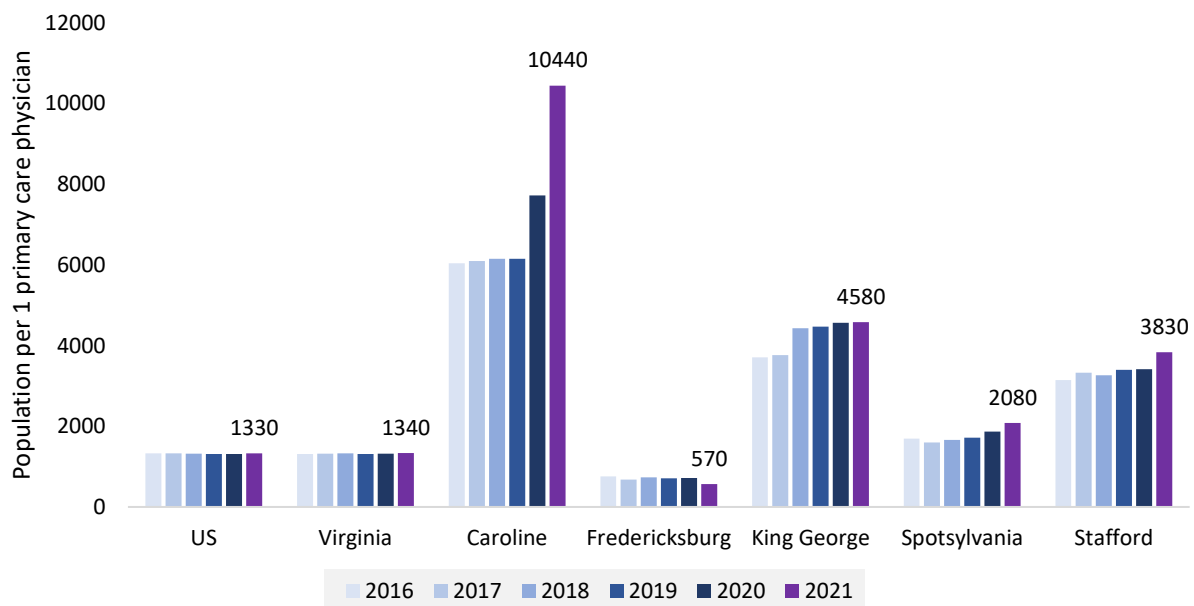


Figure: Primary care physician ratio in the US, State of Virginia, and RAHD localities

<sup>15</sup> Area Health Resource File/American Medical Association, 2021. ([link](#))

## D. Dentist ratio<sup>16</sup>

This indicator represents the ratio of population to registered dentists in the report area.

Table: Dentists ratio

Report Area	2017	2018	2019	2020	2021	2022
United States	1,460:1	1,450:1	1,400:1	1,400:1	1,380:1	1,360:1
Virginia	1,470:1	1,460:1	1,410:1	1,390:1	1,350:1	1,330:1
Caroline County	4,350:1	3,850:1	4,390:1	5,140:1	4,480:1	3,990:1
Fredericksburg City	480:1	520:1	490:1	520:1	490:1	490:1
King George County	2,190:1	2,210:1	2,060:1	2,280:1	2,110:1	2,140:1
Spotsylvania County	1,510:1	2,530:1	2,430:1	2,520:1	2,520:1	2,220:1
Stafford County	2,880:1	2,940:1	2,940:1	3,010:1	2,980:1	2,820:1
Orange County	3,280:1	3,660:1	3,710:1	3,770:1	3,100:1	3,170:1
Prince William County	1,890:1	1,860:1	1,750:1	1,730:1	1,610:1	1,590:1
Westmoreland County	17,780:1	8,920:1	9,010:1	9,070:1	9,370:1	9,360:1

The number of people dependent on a single registered dentist is highest in Caroline County at nearly 3 times the national average. Similar to PCPs, the ratios of population to dentists is lowest in Fredericksburg.

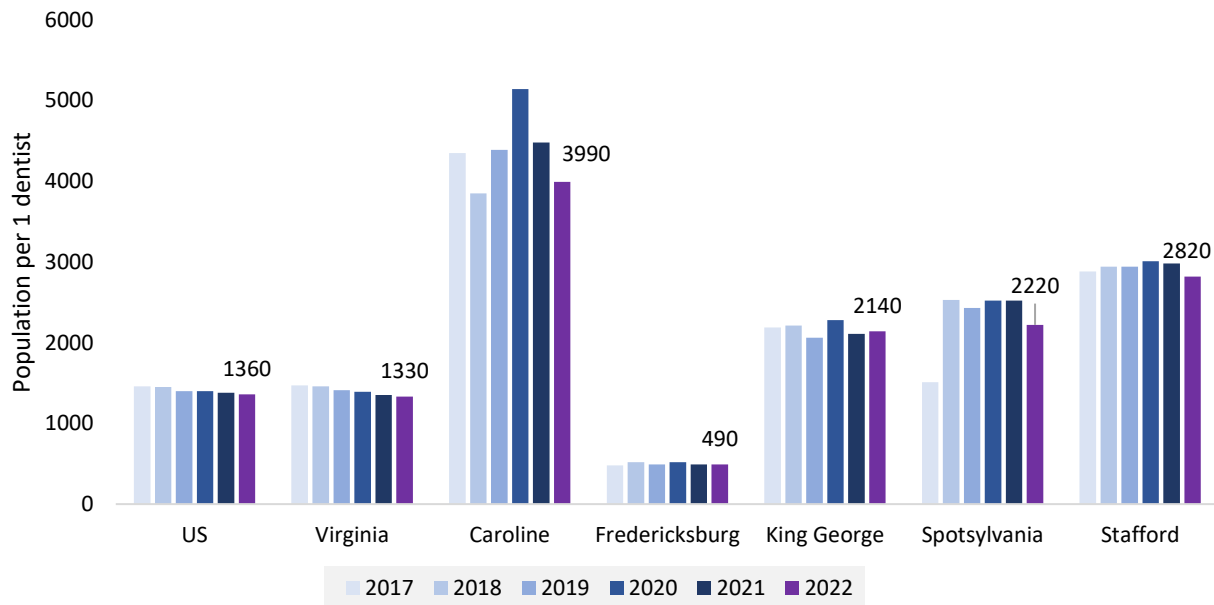


Figure: Population per one registered dentist in the US, State of Virginia, and RAHD localities

<sup>16</sup> Area Health Resource File/National Provider Identifier Downloadable File, 2022. ([link](#))



## E. Preventable hospital stays<sup>17</sup>

This indicator represents the rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees. Hospitalization for ambulatory-care sensitive conditions, diagnoses usually treatable in outpatient settings, suggests that quality outpatient care was not accessible.

Table: Rate of hospital stays for ambulatory-care sensitive conditions

Report Area	2016	2017	2018	2019	2020	2021
United States	-	4,535	4,236	3,767	2,809	2,681
Virginia	4,454	4,461	4,269	3,896	2,902	2,601
Caroline County	4,921	5,781	5,181	5,693	4,754	4,396
Fredericksburg City	5,657	5,514	6,769	6,451	5,390	4,127
King George County	5,595	6,073	6,327	6,710	5,127	4,502
Spotsylvania County	6,140	6,469	6,155	5,831	4,690	4,475
Stafford County	6,010	5,741	6,231	5,730	4,290	4,086
Orange County	3,993	4,303	4,760	4,508	3,028	2,377
Prince William County	4,544	5,131	4,709	4,205	3,108	2,617
Westmoreland County	5,089	5,353	4,888	4,796	4,280	3,732

The overall rate of hospital stays for ambulatory-care sensitive conditions declined from 2019 to 2021. This might be due to multiple reasons including the COVID-19 pandemic, an increase in education and awareness about the use or cost of emergency rooms, and an increased availability of urgent care offices.

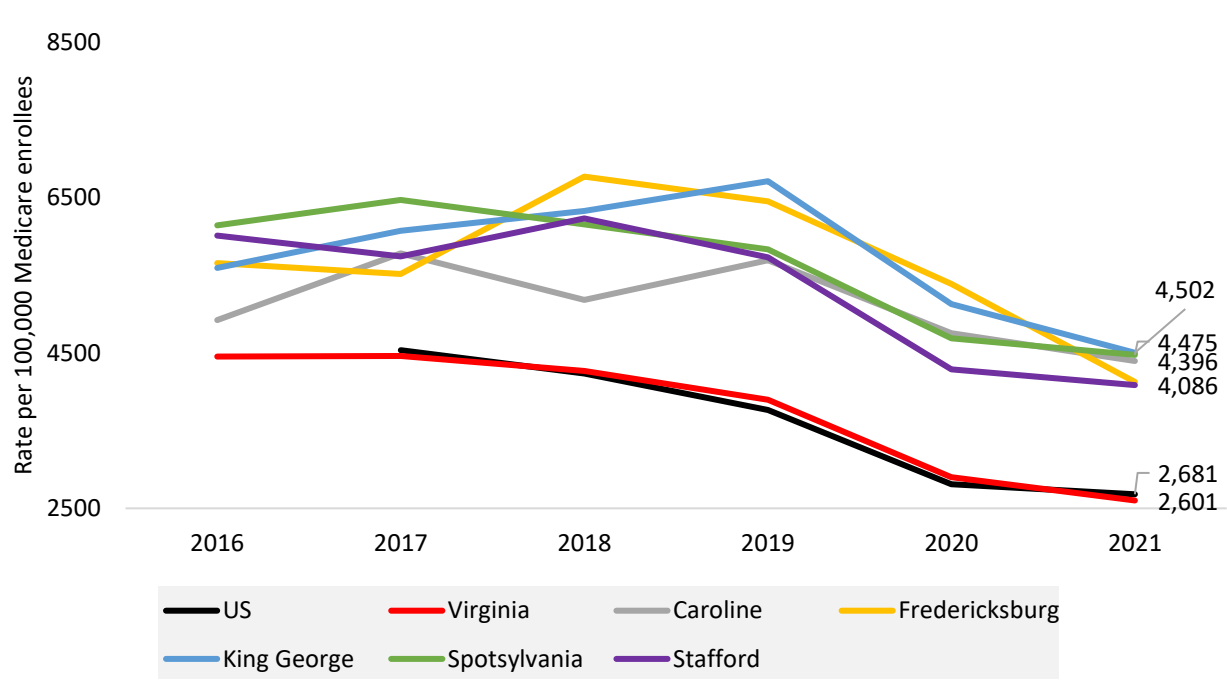


Figure: Preventable hospital stays in the US, State of Virginia, and RAHD localities

<sup>17</sup> Mapping Medicare Disparities Tool, 2021. ([link](#))

## F. Mammography screenings<sup>18</sup>

This indicator represents the percentage of female Medicare enrollees ages 65-74 who received an annual mammography screening.

Table: Annual mammography screenings among 65-74 old female Medicare enrollees

Report Area	2016	2017	2018	2019	2020	2021
United States	-	42%	42%	43%	37%	43%
Virginia	43%	44%	43%	44%	39%	44%
Caroline County	39%	38%	40%	41%	36%	42%
Fredericksburg City	32%	34%	35%	40%	35%	39%
King George County	33%	36%	34%	37%	35%	40%
Spotsylvania County	36%	39%	39%	40%	36%	41%
Stafford County	36%	38%	38%	38%	36%	40%
Orange County	40%	44%	44%	46%	44%	50%
Prince William County	34%	36%	36%	36%	30%	34%
Westmoreland County	42%	42%	42%	44%	39%	42%

The percentages of female Medicare enrollees getting their annual mammography screening decreased in 2020 for all RAHD localities. This is likely due to changes in healthcare appointment availability and healthcare seeking behaviors due to COVID-19 in 2020, and we see that in 2021 screenings returned to a level similar to 2019. All RAHD localities are below the state and national averages, with the highest 2021 screening rates in Caroline and the lowest in Fredericksburg.

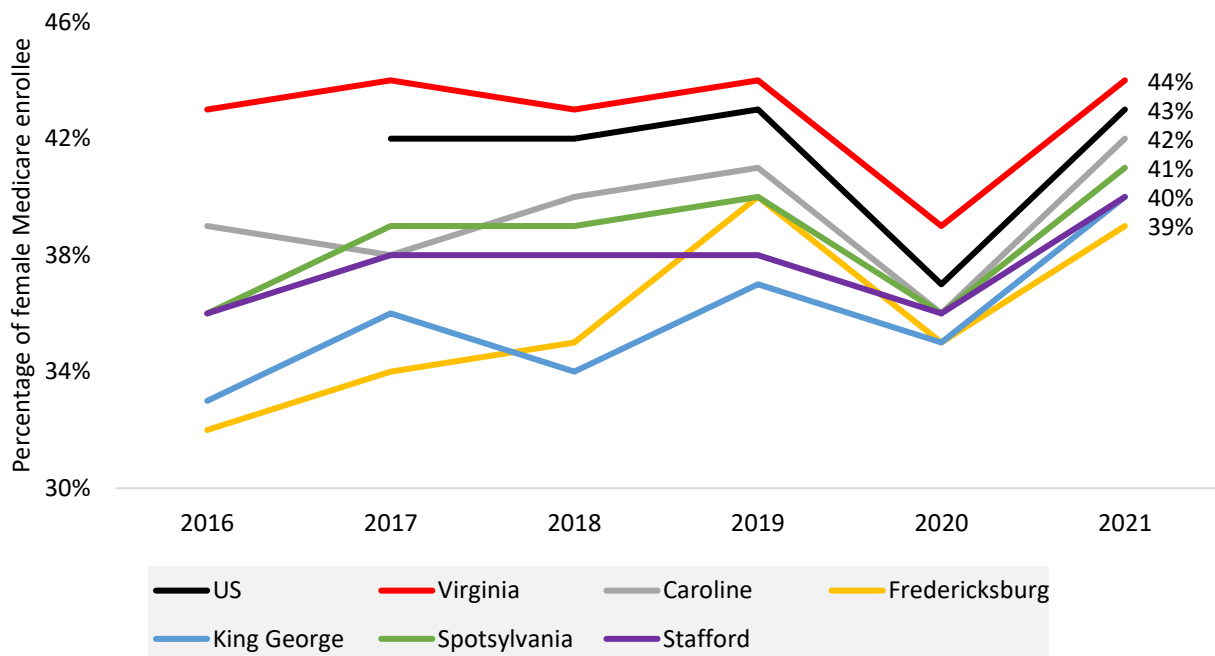


Figure: Annual mammography screening in the US, State of Virginia, and RAHD localities

<sup>18</sup> Mapping Medicare Disparities Tool, 2021. ([link](#))

## G. Flu vaccinations<sup>19</sup>

This indicator represents the percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination. The data trend indicates that the percentage of annual flu vaccinations is increasing in the US, State of Virginia, and RAHD localities since 2016, however declined in 2021.

Table: Flu vaccinations

Report Area	2016	2017	2018	2019	2020	2021
United States	-	46%	48%	48%	51%	46%
Virginia	48%	50%	51%	51%	53%	49%
Caroline County	32%	37%	46%	48%	49%	42%
Fredericksburg City	43%	45%	48%	49%	53%	46%
King George County	37%	37%	39%	40%	43%	39%
Spotsylvania County	40%	43%	46%	46%	48%	41%
Stafford County	42%	44%	47%	46%	51%	44%
Orange County	51%	53%	54%	55%	57%	52%
Prince William County	47%	47%	49%	48%	52%	47%
Westmoreland County	40%	44%	42%	41%	47%	39%

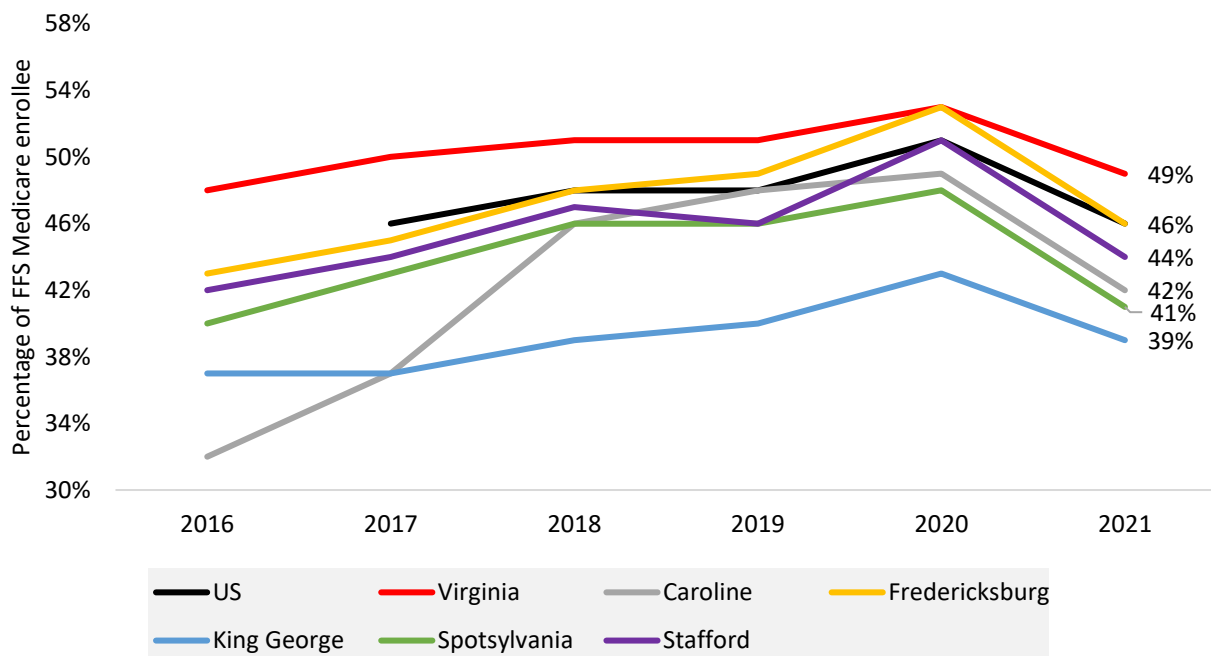


Figure: Flu vaccination in the US, State of Virginia, and RAHD localities

<sup>19</sup> Mapping Medicare Disparities Tool, 2021. ([link](#))

## Affordable Housing

### A. Cost Burdened Households (30% or more)<sup>20</sup>

This indicator reports the percentage of the households where housing costs are 30% or more of total household income. The data indicates that higher percentage of households in the City of Fredericksburg are cost burdened (33%) as compared to the US (31%), State of Virginia (28%), and other RAHD localities.

Table: Cost burdened households

Report Area	Total Households	Cost-Burdened Households	Cost-Burdened Households, Percent
United States	125,736,353	38,363,931	30.5%
Virginia	3,289,776	927,674	28.2%
Caroline County	11,387	2,796	24.6%
Fredericksburg City	11,276	3,742	33.2%
King George County	9,737	2,322	23.9%
Spotsylvania County	49,449	12,837	25.9%
Stafford County	50,313	11,900	23.7%
Orange County	14,309	3,093	21.6%
Prince William County	152,616	44,790	29.4%
Westmoreland County	7,832	2,468	31.5%

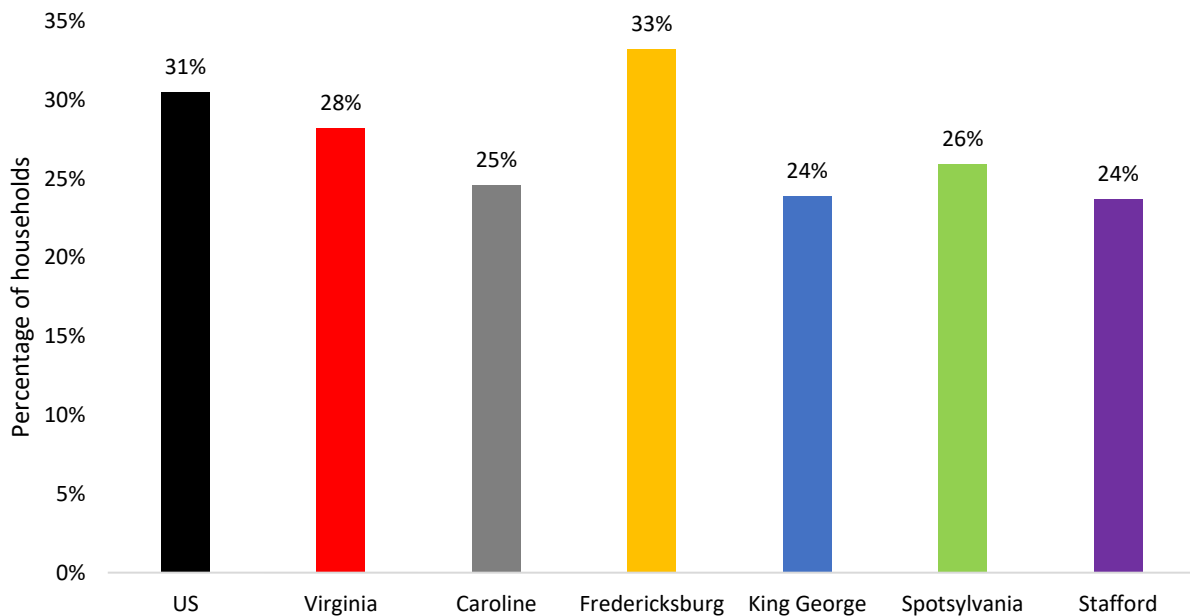


Figure: Cost burdened households (30% or more) in the US, State of Virginia, and RAHD localities

<sup>20</sup> US Census Bureau, American Community Survey, 2018-22. ([link](#))

## B. Severe Housing Cost Burden (50% or more)<sup>21</sup>

This indicator represents the percentage of households that spend 50% or more of their household income on housing. The percentage of households with severe housing cost burden has been significantly higher in City of Fredericksburg than the US, Virginia, and other RAHD localities.

Table: Severe housing cost burden (50% or more)

Report Area	2013-17	2014-18	2015-19	2016-20	2017-21	2018-22
United States	15%	15%	14%	14%	14%	14%
Virginia	13%	13%	13%	12%	12%	13%
Caroline County	9%	8%	9%	7%	7%	9%
Fredericksburg City	18%	18%	18%	17%	16%	19%
King George County	9%	8%	8%	9%	8%	9%
Spotsylvania County	12%	12%	11%	10%	10%	11%
Stafford County	9%	9%	8%	9%	9%	8%
Orange County	10%	10%	10%	11%	11%	11%
Prince William County	13%	13%	13%	12%	12%	12%
Westmoreland County	13%	13%	17%	14%	15%	16%

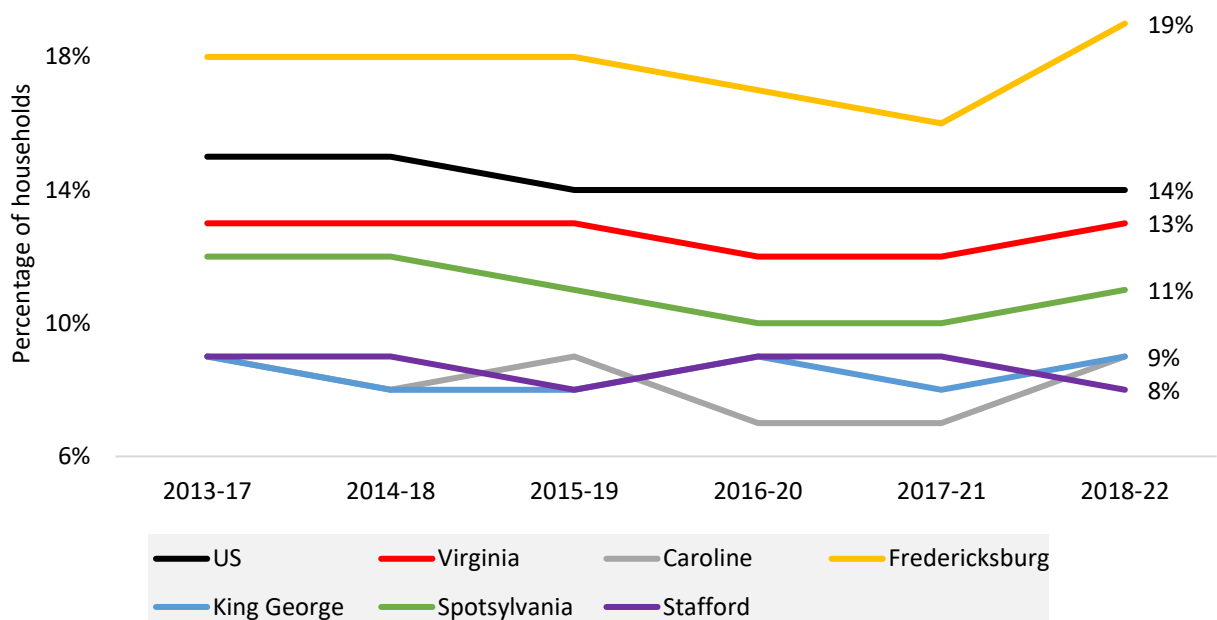


Figure: Severe housing cost burden (50% or more) in the US, State of Virginia, and RAHD localities

<sup>21</sup> US Census Bureau, American Community Survey, 2018-22. ([link](#))

### C. Eviction Filing Rate<sup>22</sup>

This indicator indicates the number of evictions filed in an area per 100 rental households. Fredericksburg had a higher eviction filing rate (15.1 per 100 rental households) in 2022 than the State of Virginia (14.9 per 100 rental households) and Caroline County had the lowest rate among the RAHD localities.

Table: Eviction filing rate

Report Area	Rate per 100 Rental Households
Virginia	14.9
Caroline County	9.3
Fredericksburg City	15.1
King George County	13.1
Spotsylvania County	12.1
Stafford County	14.0
Orange County	6.2
Prince William County	15.3
Westmoreland County	9.4

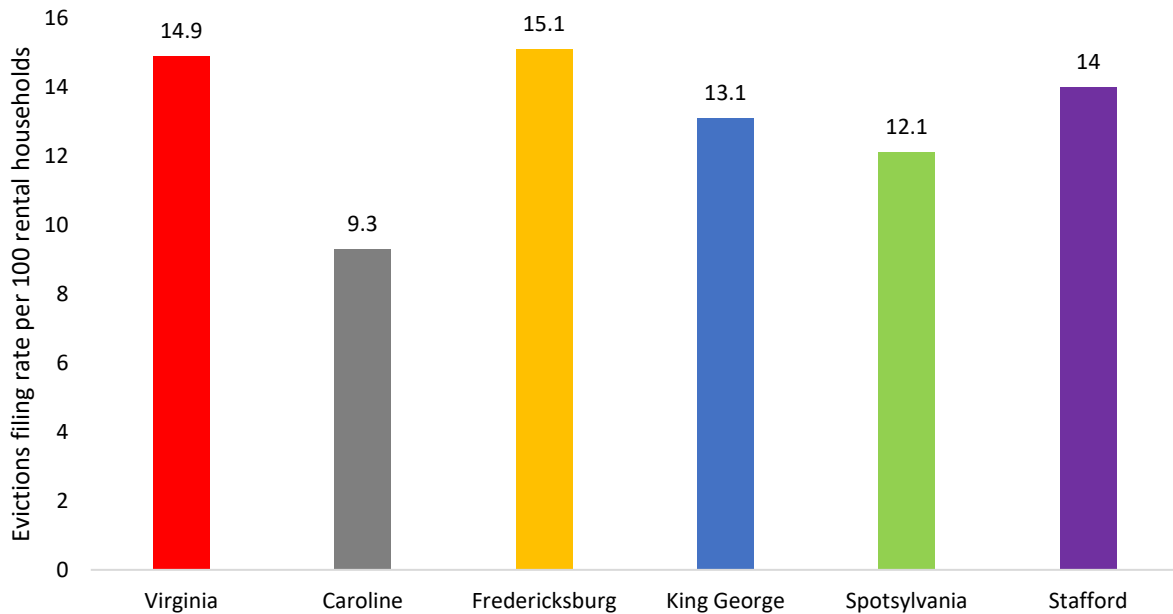


Figure: Eviction filing rate in the State of Virginia and RAHD localities

<sup>22</sup> Eviction Lab, 2018. ([link](#))

#### D. Evictions rate<sup>23</sup>

This indicator represents the rate per 100 rental homes that received an eviction judgment in which renters were ordered to leave. The data table indicates that the rate of evictions in RAHD localities is higher than the US rate (2.3), but lower than the Virginia rate (5.1), except for Spotsylvania County (5.6).

Table: Eviction rate per 100 rental homes

Report Area	Rate per 100 Rental Homes
United States	2.3
Virginia	5.1
Caroline County	4.9
Fredericksburg City	3.9
King George County	4.1
Spotsylvania County	5.6
Stafford County	4.9
Orange County	2.4
Prince William County	4.0
Westmoreland County	4.8

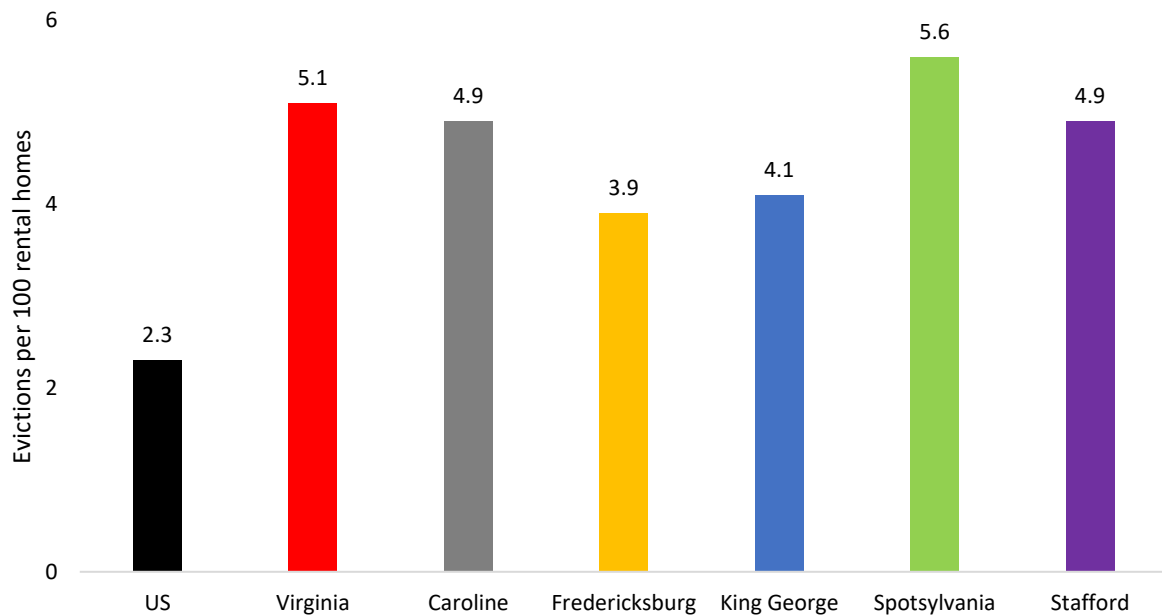


Figure: Eviction rate in the US, State of Virginia, and RAHD localities

<sup>23</sup> Eviction Lab, 2016. ([link](#))

### E. Median Household Gross Rent<sup>24</sup>

This indicator shows the median household gross rent in the US, State of Virginia, and RAHD localities. This indicator reflects the relative affluence and prosperity of an area as areas with higher median household rents are likely to have more educated residents and lower unemployment rates.

Stafford County has a higher median household gross rent (\$1,828) when compared to the US (\$1,268), State of Virginia (\$1,440), and other RAHD localities.

Table: Median household gross rent

Report Area	Median Household Gross Rent
United States	\$1,268
Virginia	\$1,440
Caroline County	\$1,212
Fredericksburg City	\$1,462
King George County	\$1,385
Spotsylvania County	\$1,677
Stafford County	\$1,828
Orange County	\$1,085
Prince William County	\$1,907
Westmoreland County	\$985

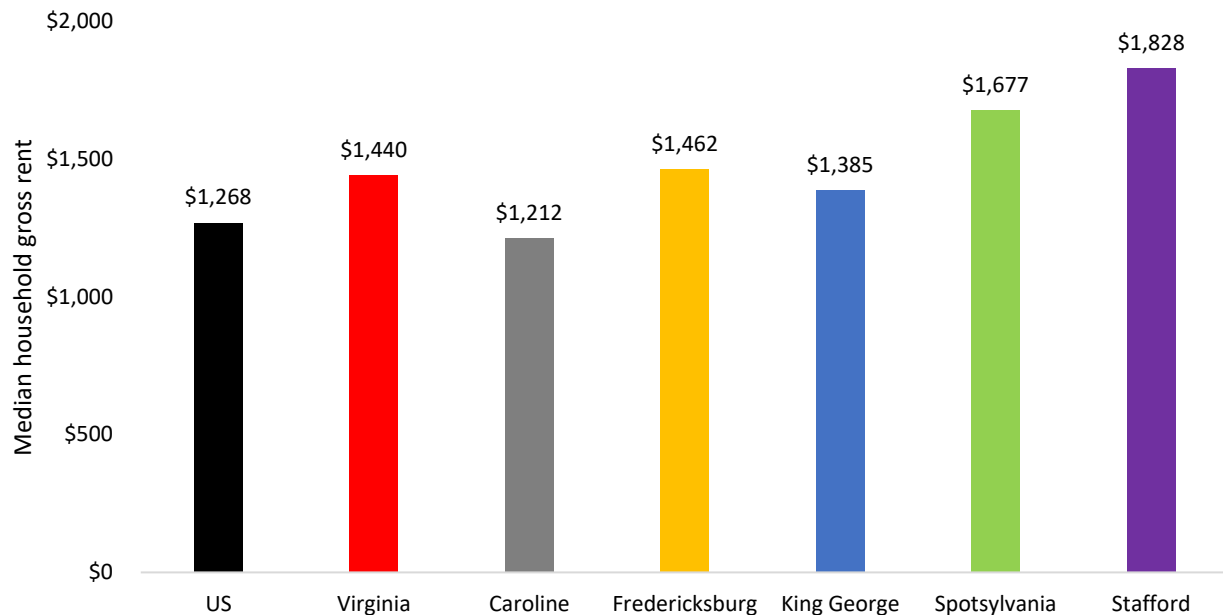


Figure: Median household gross rent in the US, State of Virginia, and RAHD localities

<sup>24</sup> American Community Survey 5-Year estimate, 2018-22. ([link](#))



## Discussion

### COVID

As we continue to move farther from the peak of the COVID-19 pandemic, data is becoming available to give a clearer picture of the community impacts of COVID-19. Though the health department was heavily involved in the public health response to prevent the spread of the virus, we can now understand more of the social impacts of the pandemic which are likely to affect long-term health outcomes. Early data shows that overall mental health worsened, unemployment spiked, area incomes increased as did housing costs. The continued fallout of the pandemic will require close monitoring as data for 2022 and beyond becomes available.

### Mental Health

The mental health data indicate that the reported average number of mentally unhealthy days and the percentage of adults with frequent mental distress increased rapidly in 2020 and continued into 2021. The timing of this data signifies the impact of the pandemic on mental health among community members. On a more positive note, the ratio of residents to mental health providers have been decreasing for the several years, signifying a potential increase in the provision of mental health services, though it is not clear that this meets the demand.

Suicide rates remain high throughout RAHD, with all localities experiencing suicide rates above the Virginia average. The most rural counties, Caroline and King George, experience the highest levels of suicide. Fredericksburg experiences the highest rates of self-harm and suicide-related ED visits.

### Access to Healthcare

The percentage of uninsured adults within the State of Virginia and RAHD localities has declined in recent years, likely due at least in part to Medicaid expansion in Virginia in 2019.

Although ratio of population to mental health provider declined during the pandemic, ratios have continuously gradually increased for PCPs. This may be a result of the growing population in our area, as well as healthcare providers leaving the profession or the area. The ratio of population to dentists is also quite high for most of our localities. Caroline County in particular sees very high population to provider ratios for PCPs, dentists, and mental health providers, while Fredericksburg sees the lowest numbers, likely due to the city serving as the urban hub for the region and home to many doctor's offices near the Mary Washington Hospital campus.

In spite of the large number of providers relative to population, Fredericksburg sees the lowest rates of adults who have had a routine checkup in the past year, indicating more than just proximity to of providers plays a role in regular PCP visits in our area.

Pandemic influences again seem to show up in access to care data. Mammography screenings took a sharp decrease in 2020 before returning to pre-pandemic levels in 2021. Preventable hospital stays also declined in 2020 but remained low in 2021, a trend which will require further monitoring moving forward. Flu vaccinations also declined in 2021, a possible result of vaccine hesitancy following COVID-19 vaccination efforts and an additional trend to be monitored as additional data becomes available.

### Affordable Housing

Fredericksburg City has the highest percentages of cost burdened households (30% or more of total household income) as well as higher percentage of severe cost burdened households (50% or more of total household income) when compared to other RAHD localities. The

percentage of severe cost burdened households in the City is higher than the US and the State of Virginia, and trend indicates that the percentage is increasing.

While Fredericksburg also has the highest eviction filing rate of RAHD localities, evictions of renters (where renters receive a judgment and are ordered to vacate) are highest in Spotsylvania, followed by Caroline and Stafford counties.