All appendices referenced in the CHNA report are described below and are also available online at inova.org.

Appendix A: Community Engagement

Summary of community outreach and engagement efforts

Appendix B: Population Profile, IFMC Community

Detailed maps and charts exploring resident demographics and characteristics

Appendix C: Forces of Change Assessment Discussion and Responses

Complete responses for the Forces of Change discussion

Appendix D: Community Themes and Strengths Assessment

Communitywide survey results broken down by demographics

Appendix E: Community Health Status Assessment Results

Chart of health indicators used to identify disparities, trends, and progress towards state and national benchmarks

Appendix F: Identifying Top Health Issues Methodology

Description of process and outcomes

Appendix G: Actions Taken Since the Previous CHNA

Appendix A: Community Engagement

The 2019 Inova Fairfax Medical Campus (IFMC) Community Health Needs Assessment (CHNA) adopts community data gathered during the Fairfax County 2019 Community Health Assessment (CHA). The main tool utilized in this process was an analysis of a variety of community assessments produced by key groups and partners in the community. Some assessments examined a broad range of health-related indicators, and others studied a specific program area or health-related issue. Diverse sectors of the community were broadly represented, and together these assessments provide a comprehensive profile of the Fairfax community. The 12 assessments included in the Fairfax County CHA were the following: Community Health Dashboard, Fairfax County Youth Survey, Fairfax County Human Services Needs Assessment, Inova Community Health Needs Assessment, Kaiser Permanente Community Health Needs Assessment, Community Assessment for Public Health Emergency Response, Fairfax Food Council Community Food Assessment, Culturally and Linguistically Appropriate Services Survey, Equitable Growth Profile of Fairfax County, A Study in Contrasts: Why Life Expectancy Varies in Northern Virginia, Fairfax County Park Authority Needs Assessment, The State of the Health Care Workforce in Northern Virginia. For more information on the Fairfax County CHA, visit www.fairfaxcounty.gov/livehealthy.

Additionally, Inova staff gathered feedback from the Partnership for a Healthier Fairfax Steering Committee and the Fairfax County Multicultural Advisory Council through targeted focus group questions.

Appendix B: Community Description

This section identifies and describes the community that was assessed by IFMC. The community was defined by considering the geographic origins of the hospital's inpatient discharges and emergency department visits.

The Inova Fairfax Medical Campus community is comprised of 64 ZIP codes, including all of Fairfax County and the City of Fairfax, along with parts of Loudoun County, Prince William County, Falls Church City, and Manassas City.

Total Population

Figure B1: IFMC Community

City or County	Percent of Discharges	Percent of Emergency Department Visits
Alexandria City, VA	3.7%	3.5%
Fairfax City, VA	3.0%	4.5%
Fairfax County, VA	55.4%	66.5%
Falls Church City, VA	0.7%	1.1%
Loudoun County, VA	4.4%	2.0%
Manassas City, VA	1.2%	0.8%
Prince William County, VA	8.5%	5.7%
Community Total	**76.9%**	**84.1%**
Other Areas	23.1%	15.9%
All Areas	100.0%	100.0%
Total Discharges and ED Visits	**49,523**	**116,256**

Source: Inova Health System, 2018.

Figure B2: Percent Change in Community Population by Subregion, IFMC Community (2015 – 2025)

Community	Total Population			Percent Change	
	2015	2020	2025	2015-2020	2020-2025
Fairfax County	**1,120,189**	**1,158,784**	**1,211,674**	**3.4%**	**4.6%**
Annandale/N. Springfield	72,943	73,255	74,547	0.4%	1.8%
Centreville	71,404	71,944	73,982	0.8%	2.8%
Chantilly	19,254	19,656	21,663	2.1%	10.2%
Clifton/Fairfax Station	36,154	36,233	36,558	0.2%	0.9%
East Fairfax 29/50 Corridor	86,512	91,746	93,792	6.1%	2.2%
Fairfax City	60,447	62,524	63,881	3.4%	2.2%
Franconia/Kingstowne	55,473	55,952	57,641	0.9%	3.0%
GMU/Burke	73,360	73,747	74,291	0.5%	0.7%
Lincolnia/Bailey's Crossroads	58,132	58,561	59,846	0.7%	2.2%
Lorton/Newington	31,146	33,721	35,834	8.3%	6.3%
McLean/Great Falls	74,284	82,645	92,516	11.3%	11.9%
Mount Vrn South / Ft. Belvoir	88,201	89,265	92,505	1.2%	3.6%
Oakton/Fair Lakes/S. Herndon	108,669	111,415	115,946	2.5%	4.1%
Reston/Herndon	101,371	104,305	109,509	2.9%	5.0%
Springfield	92,244	95,266	99,196	3.3%	4.1%
Vienna	64,613	72,359	83,353	12.0%	15.2%
West Falls Church	25,984	26,192	26,616	0.8%	1.6%
Falls Church City	**16,159**	**17,272**	**18,636**	**6.9%**	**7.9%**
West Falls Church	16,159	17,272	18,636	6.9%	7.9%
Loudoun County	**135,255**	**157,096**	**170,646**	**16.1%**	**8.6%**
South Riding/Aldie	54,813	72,200	80,369	31.7%	11.3%
Sterling/Dulles	80,443	84,896	90,277	5.5%	6.3%
Manassas City	**46,238**	**50,518**	**54,644**	**9.3%**	**8.2%**
Manassas West	46,238	50,518	54,644	9.3%	8.2%
Prince William County	**436,817**	**478,927**	**503,765**	**9.6%**	**5.2%**
Dale City/Dumfries/Quantico	120,167	131,266	136,327	9.2%	3.9%
Gainesville/Haymarket/Bull Run	98,697	108,472	116,376	9.9%	7.3%
Lake Ridge/Occoquan	60,501	61,882	64,540	2.3%	4.3%
Manassas East	56,797	61,121	62,755	7.6%	2.7%
Manassas West	37,695	40,588	44,824	7.7%	10.4%
Woodbridge	62,961	75,599	78,944	20.1%	4.4%
Community Total	**1,754,657**	**1,862,598**	**1,959,364**	**6.2%**	**5.2%**

Source: Metropolitan Washington Council of Governments, 2015

Age

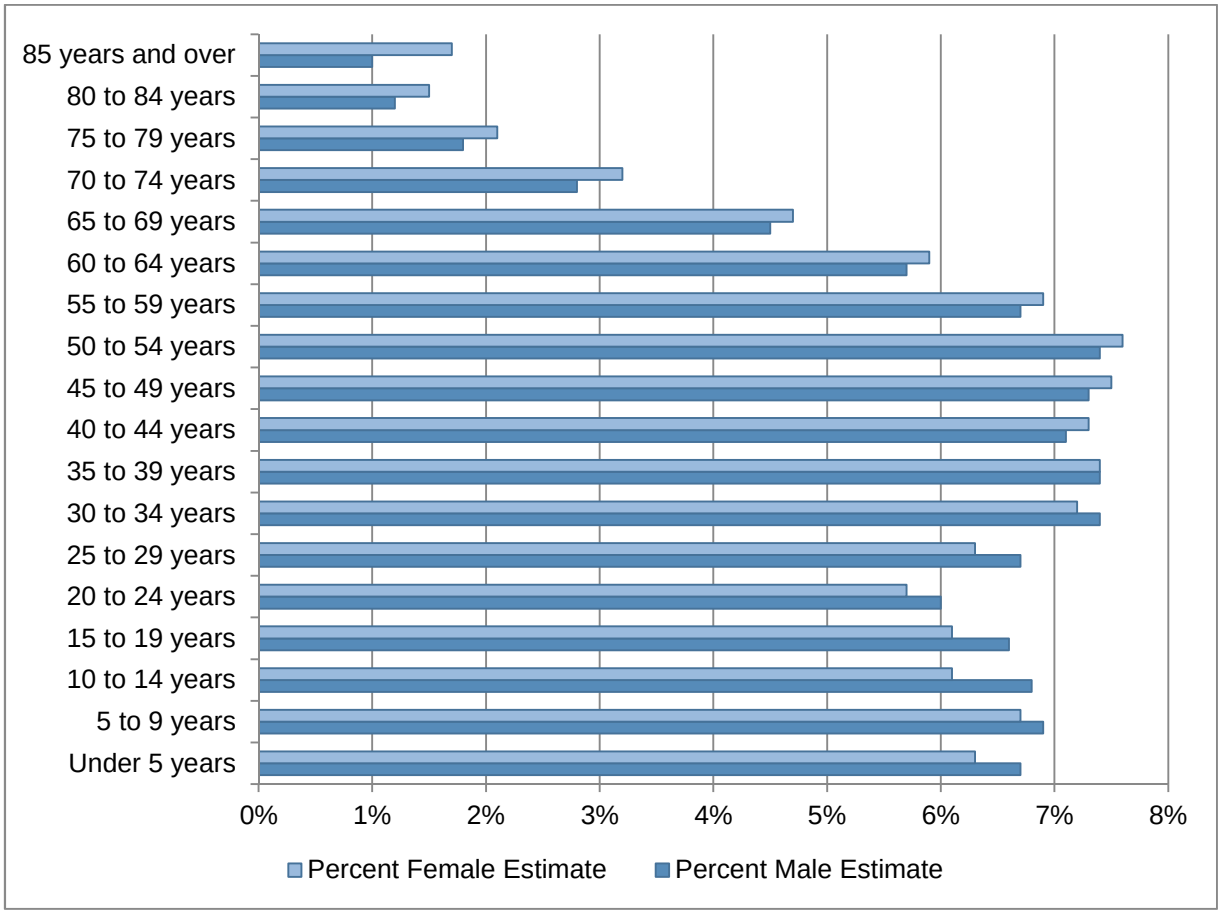
Population characteristics and changes directly influence community health needs. The total population in the Inova Fairfax Medical Campus community is expected to grow nearly 12 percent from 2015 to 2025. In that same time frame, the population 65+ is expected to increase by 50%. The growth of older populations is likely to lead to a growing need for health services, since on an overall per-capita basis, older individuals typically need and use more services than younger persons.

Figure B3: Percent Change in Population by Age, IFMC Community (2015 – 2025)

Age Cohort	Total Population			Percent Change	
	2015	2020	2025	2015-2020	2020-2025
0-17	441,388	455,673	468,413	3.2%	2.8%
18-44	644,693	675,495	699,733	4.8%	3.6%
45-64	476,305	489,781	504,349	2.8%	3.0%
65+	192,271	241,649	286,870	25.7%	18.7%
Total	**1,754,657**	**1,862,598**	**1,959,364**	**6.2%**	**5.2%**

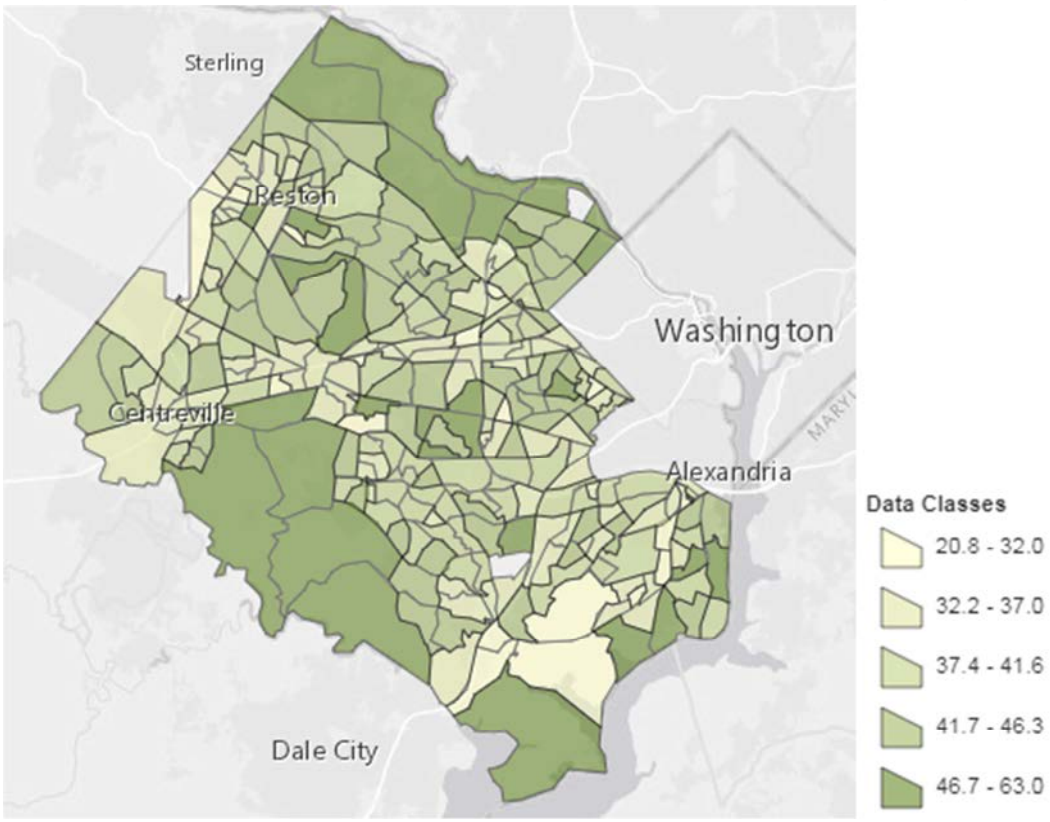
Source: Metropolitan Washington Council of Governments, 2015

Figure B4: Age Distribution by Sex, Fairfax County (2017)



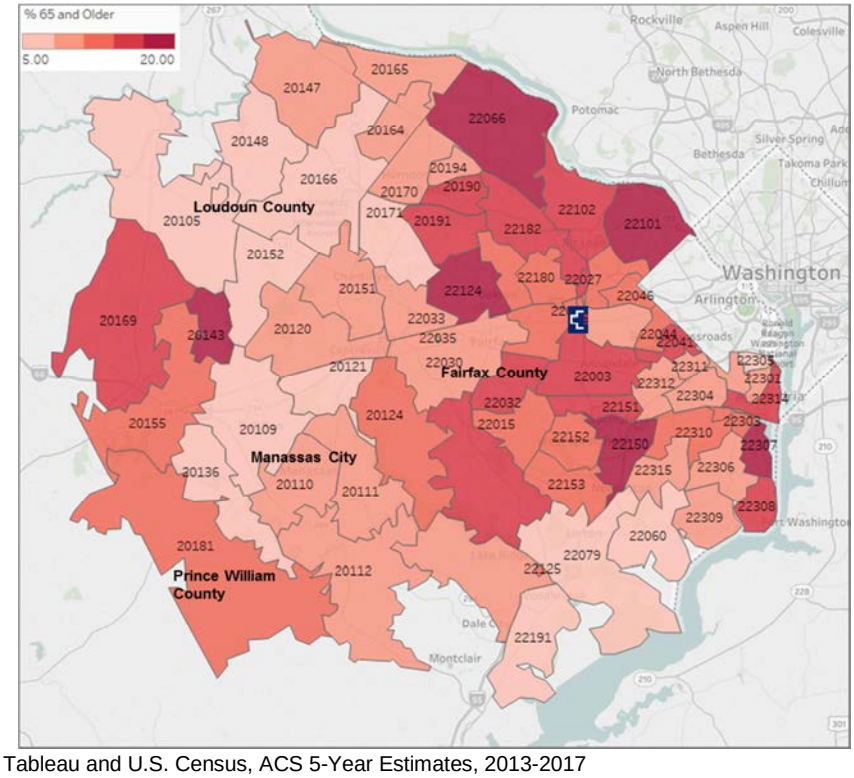
Source: 2013-2017 ACS 5-year estimates.

Figure B5: Median Age by Census Tract, Fairfax County (2017)



Source: 2013-2017 ACS 5-year estimates.

Figure B6: Percent of Population Aged 65+ by Zip Code, IFMC Community (2017)

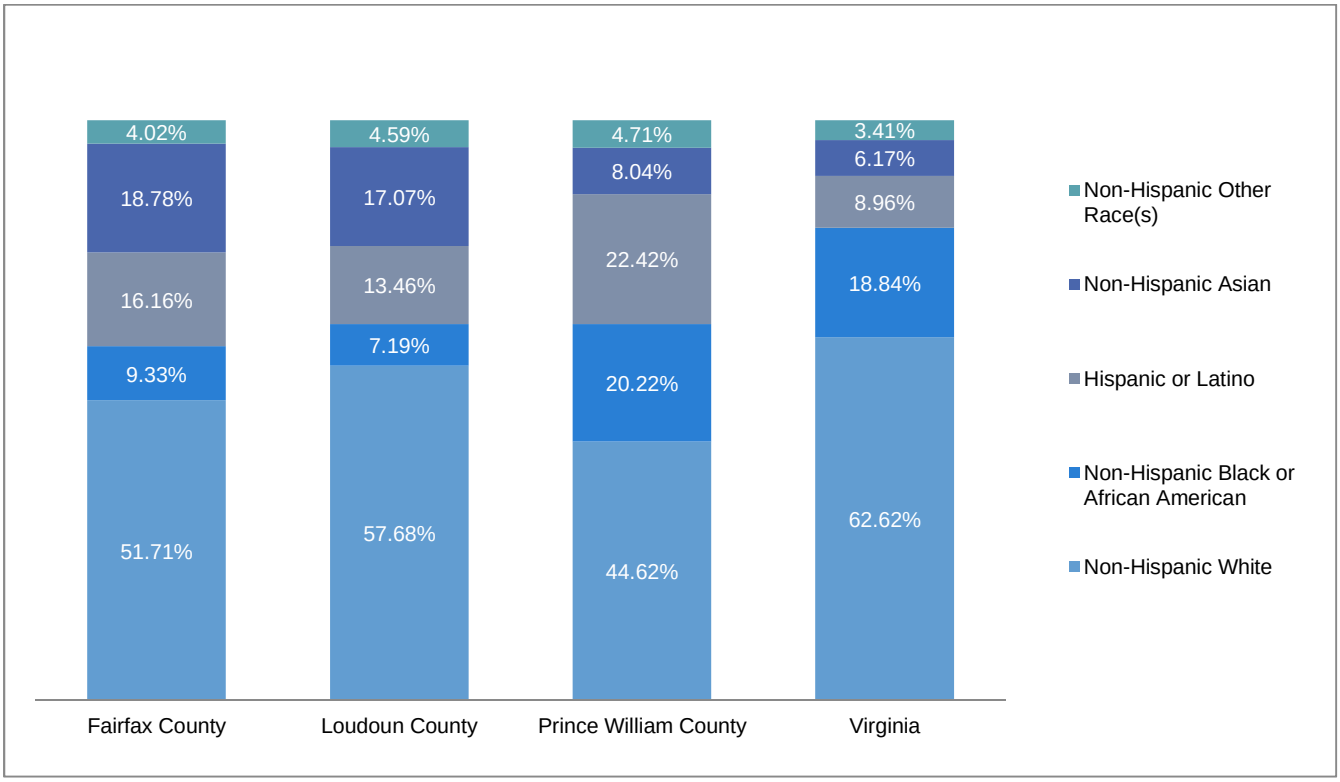


Source: Tableau and U.S. Census, ACS 5-Year Estimates, 2013-2017

Race and Ethnicity

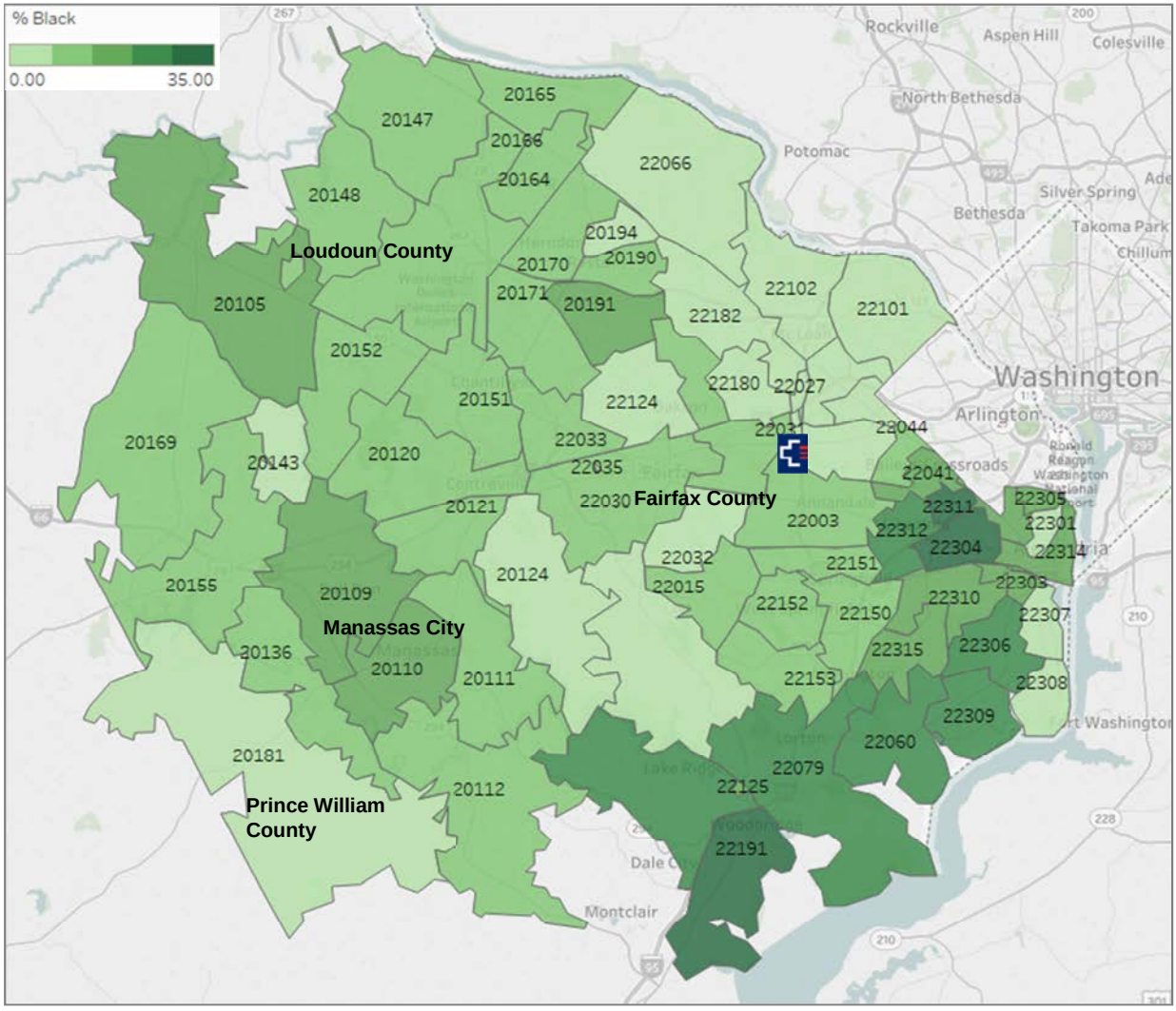
In Fairfax County in 2017, Asians, Hispanics, and African Americans represented 19%, 16%, and 9% of the county's population, respectively. One-quarter of the state's Hispanic population resides in Fairfax County (U.S. Census Bureau). As racial and ethnic diversity is increasing, the percent of the population that is White/Caucasian (excluding Hispanics and Latinos) is decreasing. Additionally, there are portions of the community with high percentages of residents who are foreign-born as well as households with limited English proficiency.

Figure B7: Race and Ethnicity by Location (2017)



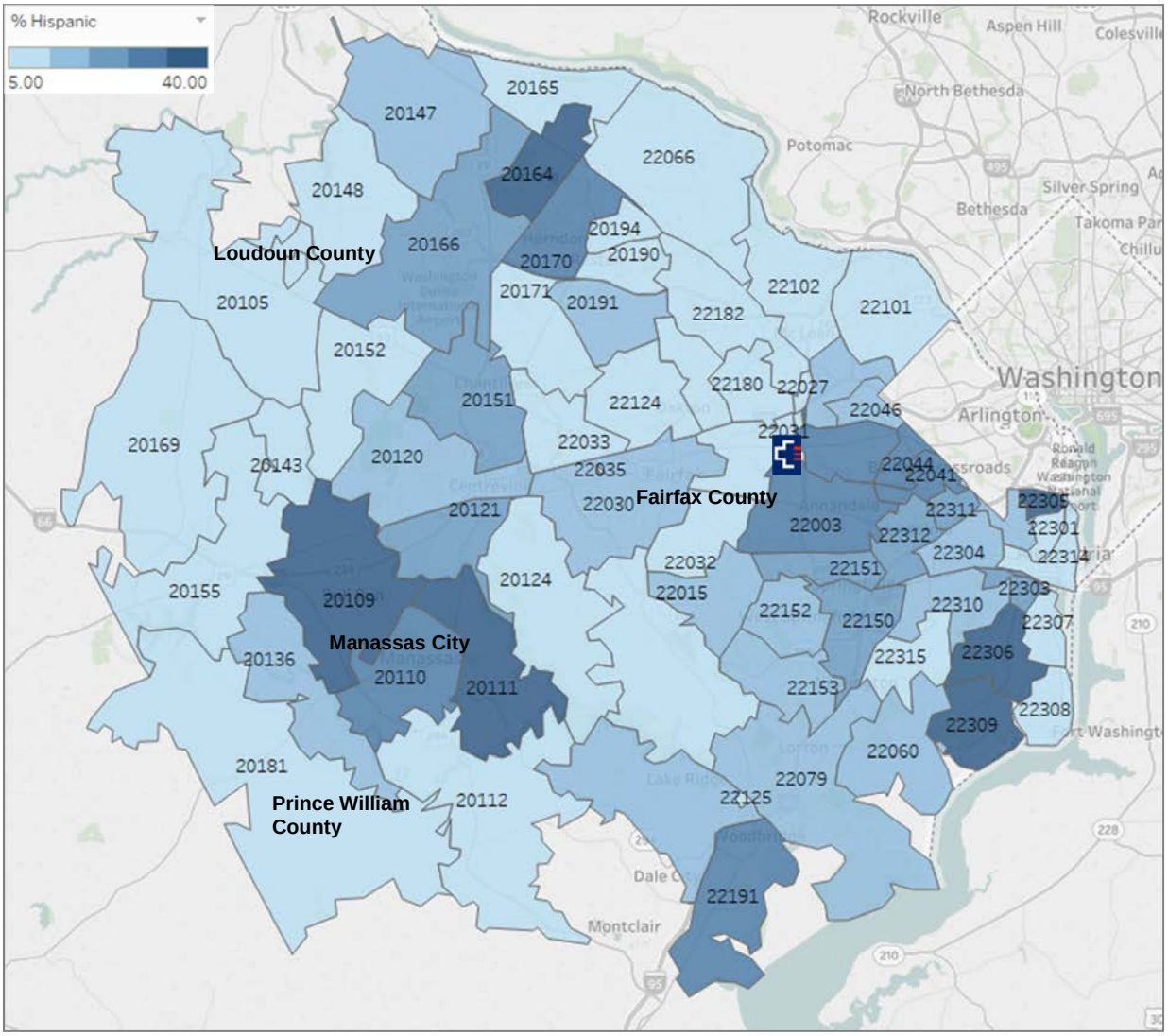
Source: 2013-2017 ACS 5-year estimates.

Figure B8: Percent of Population Black, IFMC Community (2017)



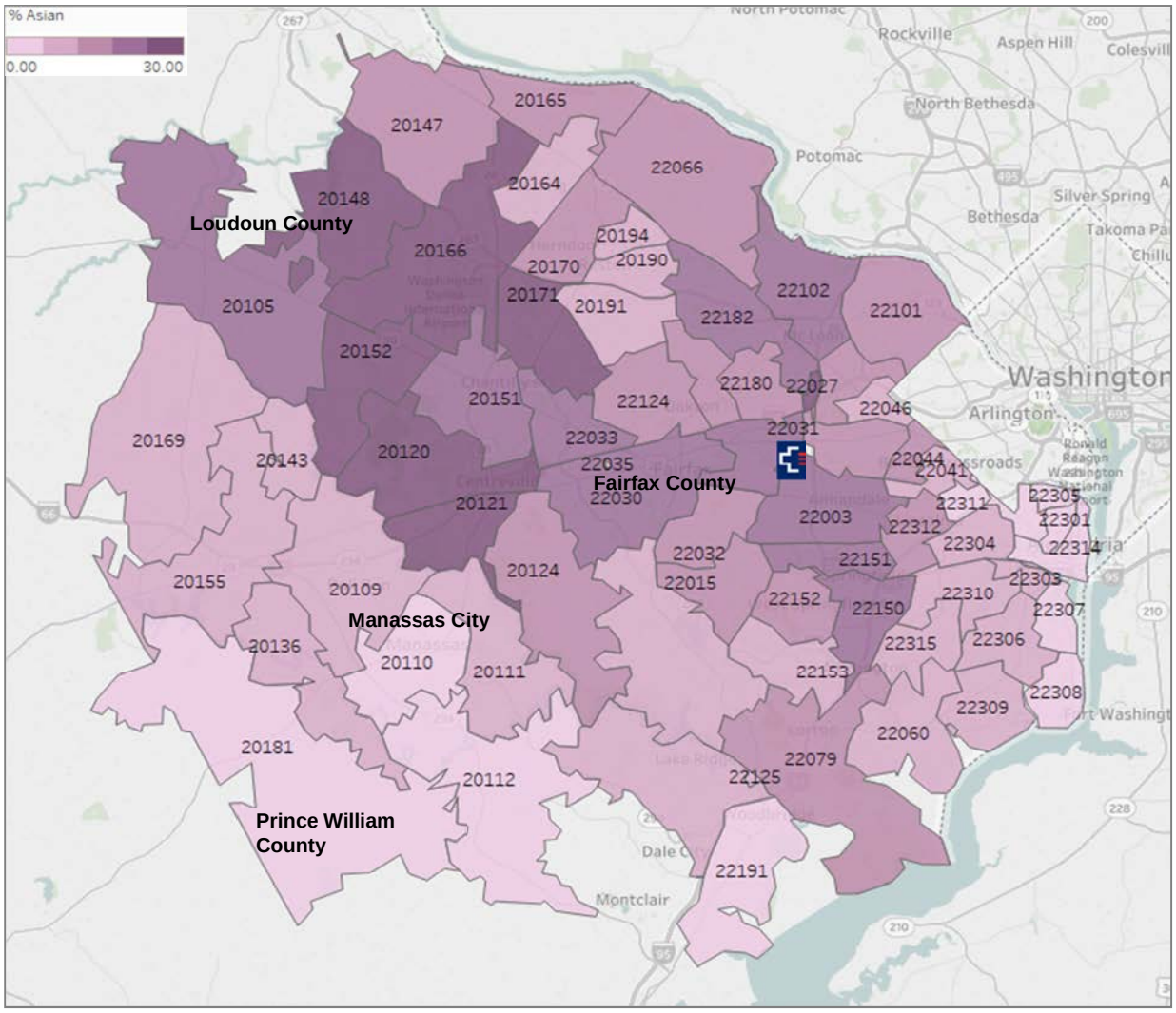
Source: Tableau and U.S. Census, ACS 5-Year Estimates, 2013-2017

Figure B9: Percent of Population Hispanic or Latino, IFMC Community (2017)



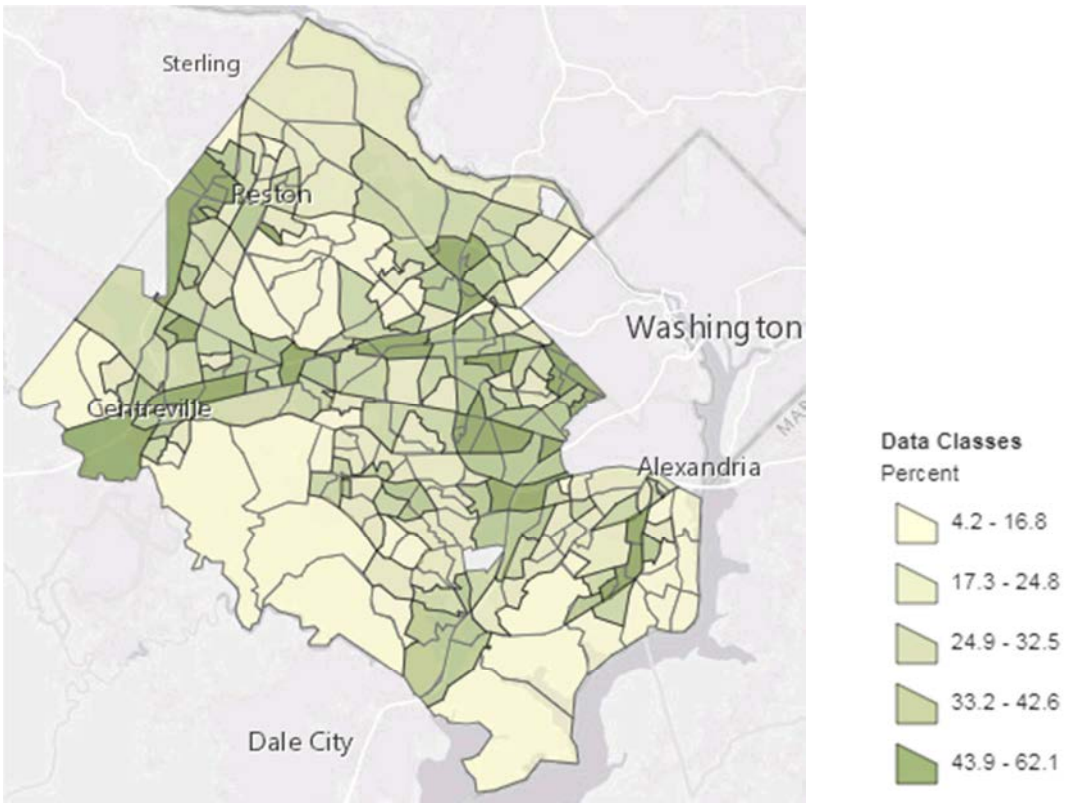
Source: Tableau and U.S. Census, ACS 5-Year Estimates, 2013-2017

Figure B10: Percent of Population Asian, IFMC Community (2017)



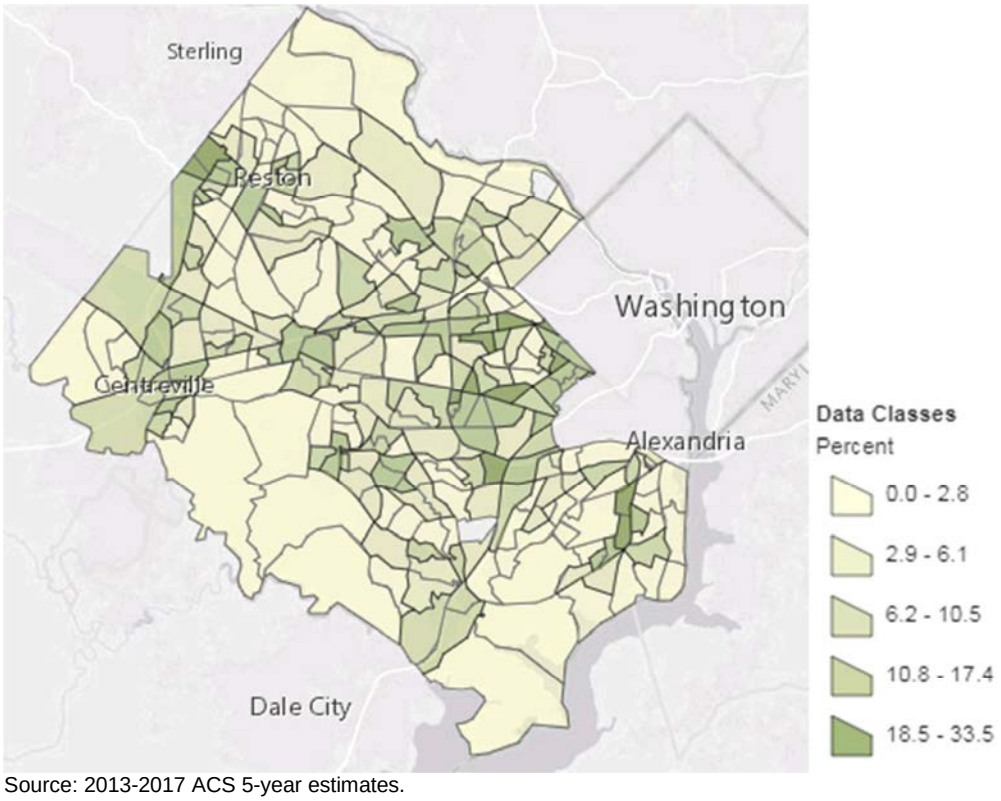
Source: Tableau and U.S. Census, ACS 5-Year Estimates, 2013-2017

Figure B11: Percent of Population Foreign-Born by Census Tract, Fairfax County (2017)



Source: 2013-2017 ACS 5-year estimates.

Figure B12: Percent of Limited English Speaking Households by Census Tract, Fairfax County (2017)

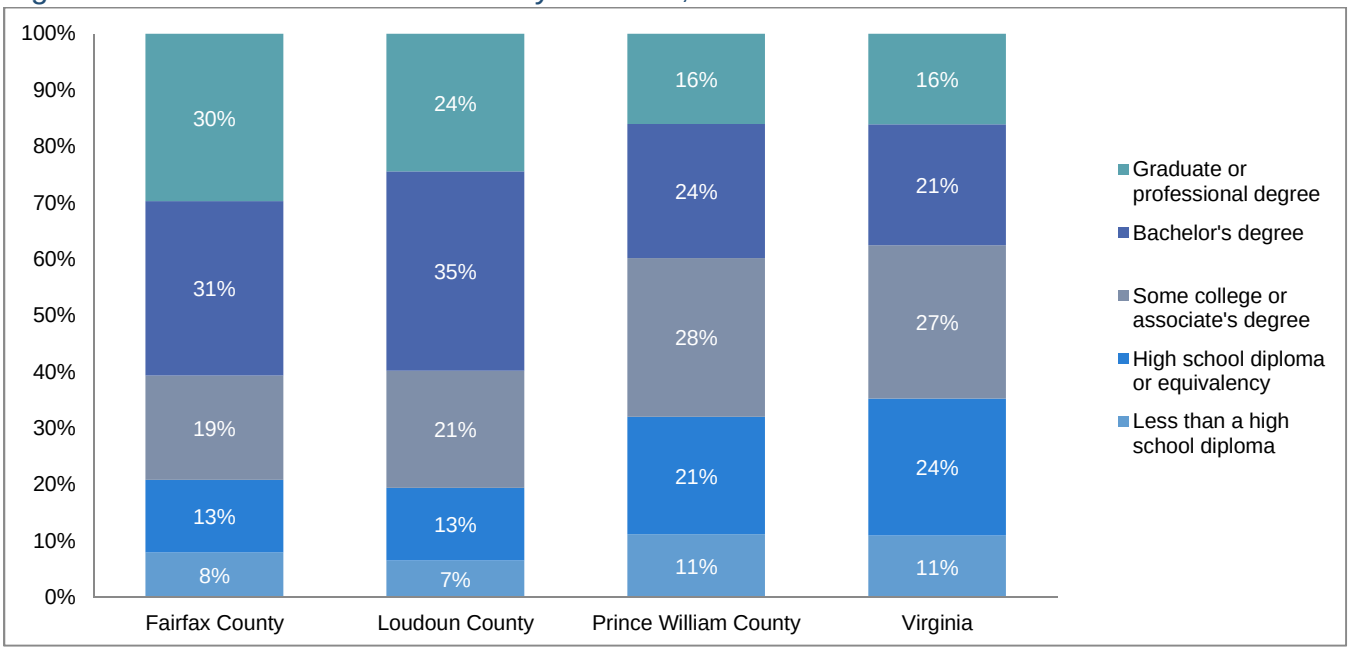


Source: 2013-2017 ACS 5-year estimates.

Education

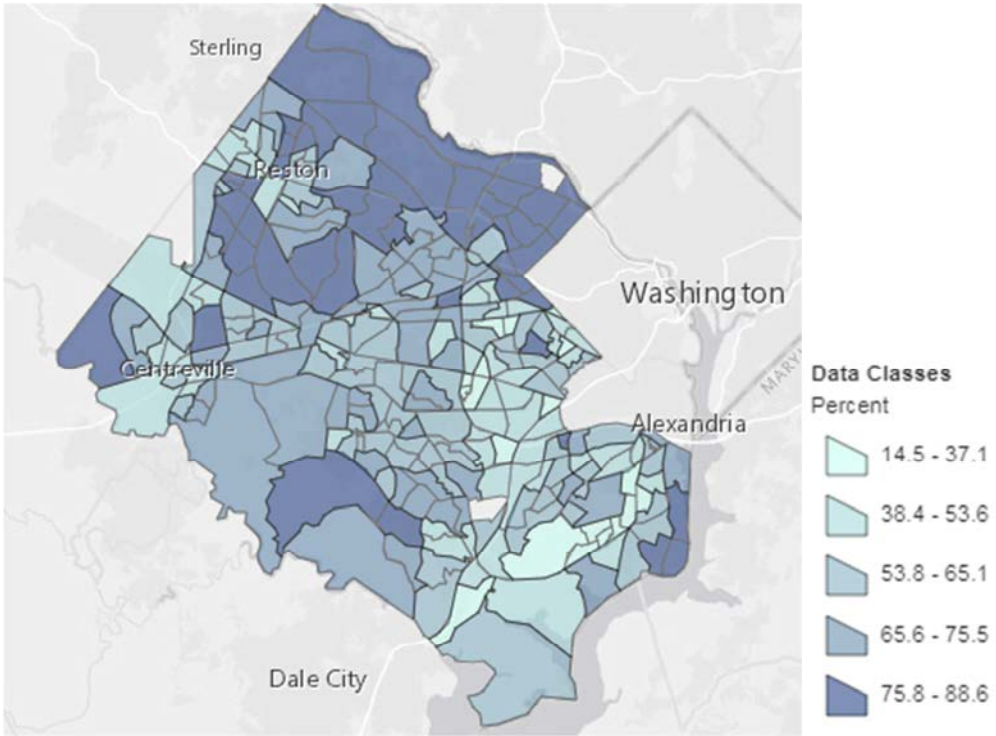
Overall the IFMC Community is highly educated. In Fairfax County 61% of residents hold a Bachelor's degree or higher, with nearly one third of residents holding a graduate or professional degree. However, there are noticeable discrepancies within the County.

Figure B13: Educational Attainment by Location, 2017



Source: 2013-2017 ACS 5-year estimates.

Figure B14: Percent of Residents Age 25+ with Bachelor's Degree or Higher by Census Tract, Fairfax County (2017)



Source: 2013-2017 ACS 5-year estimates.

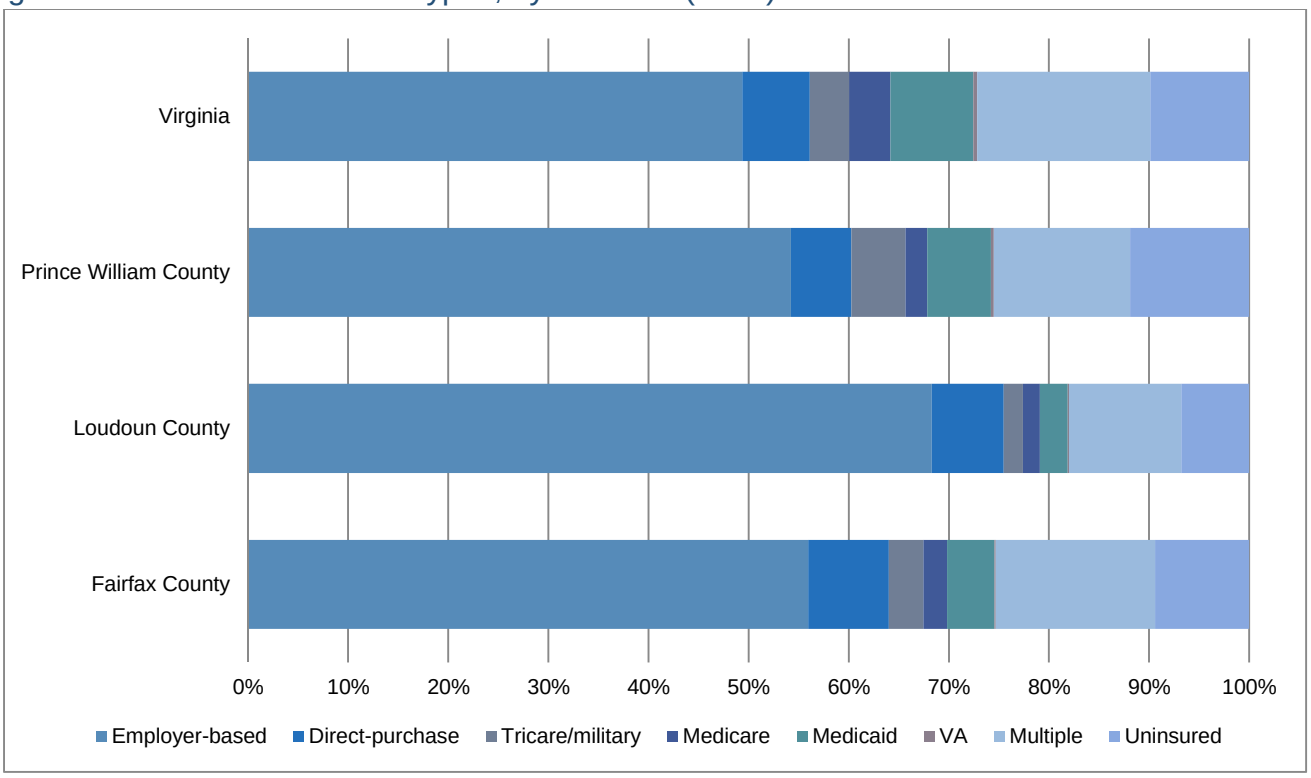
Health Insurance

Virginia Medicaid Expansion

Prior to 2019 in Virginia, Medicaid was primarily available to children in low-income families, pregnant women, low-income elderly persons, individuals with disabilities, and parents who met specific income thresholds.[1] Adults without children or disabilities were ineligible.

In January 2019 Virginia expanded Medicaid eligibility to make healthcare more accessible for these populations. It was estimated that over 400,000 Virginians would potentially gain coverage if Medicaid were expanded. As of July 2019, 300,000 Virginia residents enrolled in Medicaid under the expanded program.

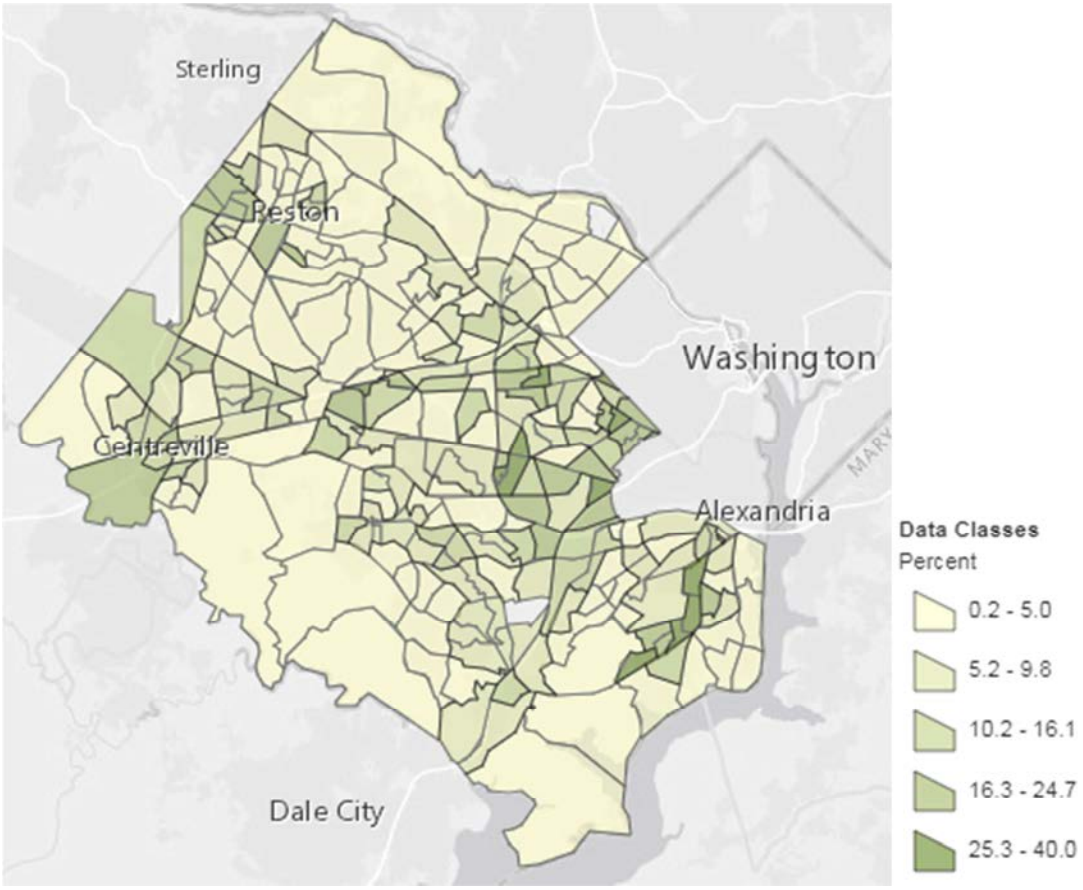
Figure B15: Health Insurance Types, by Location (2017)



Source: 2013-2017 ACS 5-year estimates.

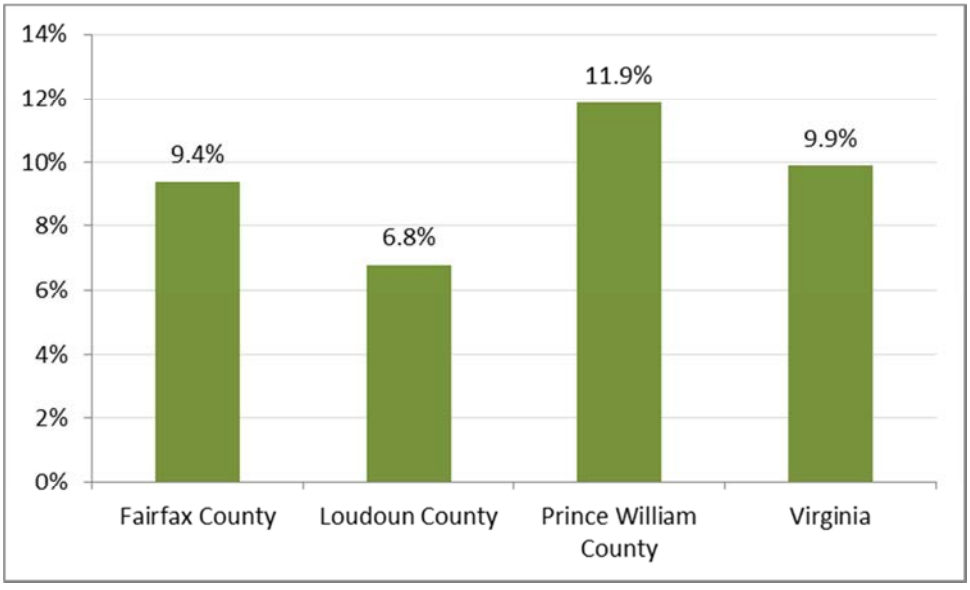
[1] DMAS.

Figure B16: Percent of Residents without Health Insurance Coverage by Census Tract, Fairfax County (2017)



Source: 2013-2017 ACS 5-year estimates.

Figure B17: Percent of the Population Without Health Insurance, IFMC Community (2017)

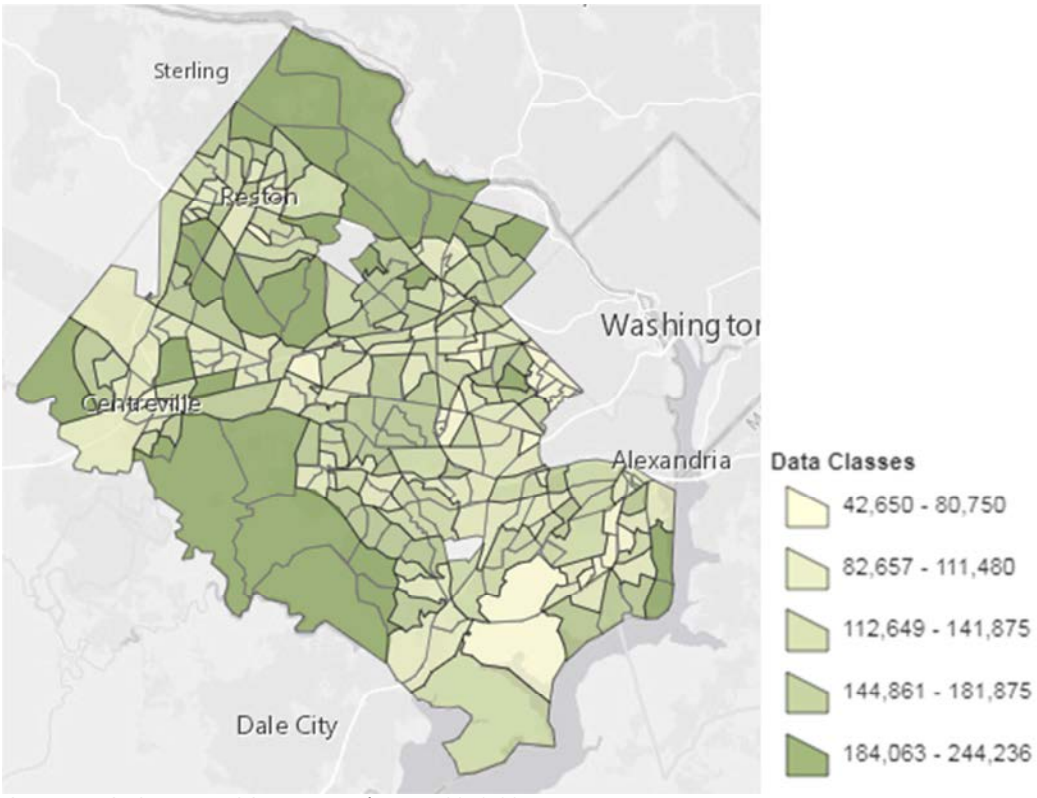


Source: U.S. Census, ACS 5-Year Estimates, 2013-2017

Socioeconomic

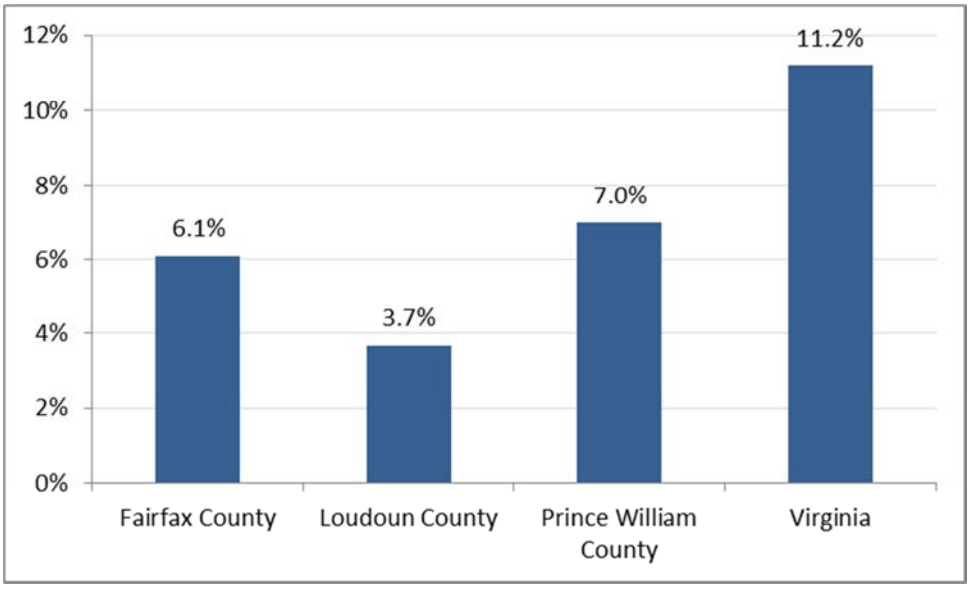
Many health needs have been associated with poverty, unemployment and other socioeconomic factors. While most socioeconomic indicators in the IFMC community are favorable compared to Virginia overall, there are disparities by race/ethnicity, county/city and even census tract.

Figure B18: Median Household Income by Census Tract, Fairfax County (2017)



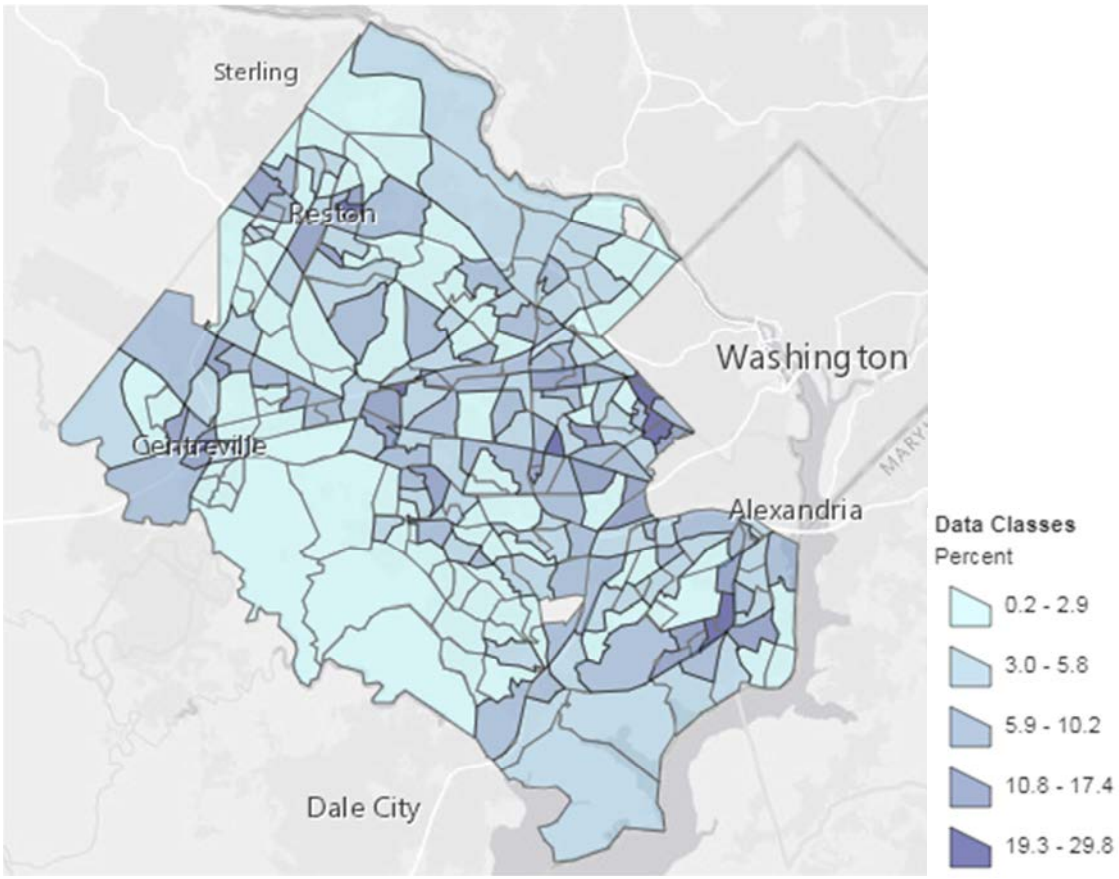
Source: U.S. Census, ACS 5-Year Estimates, 2013-2017

Figure B19: Poverty Distribution, IFMC Community (2017)



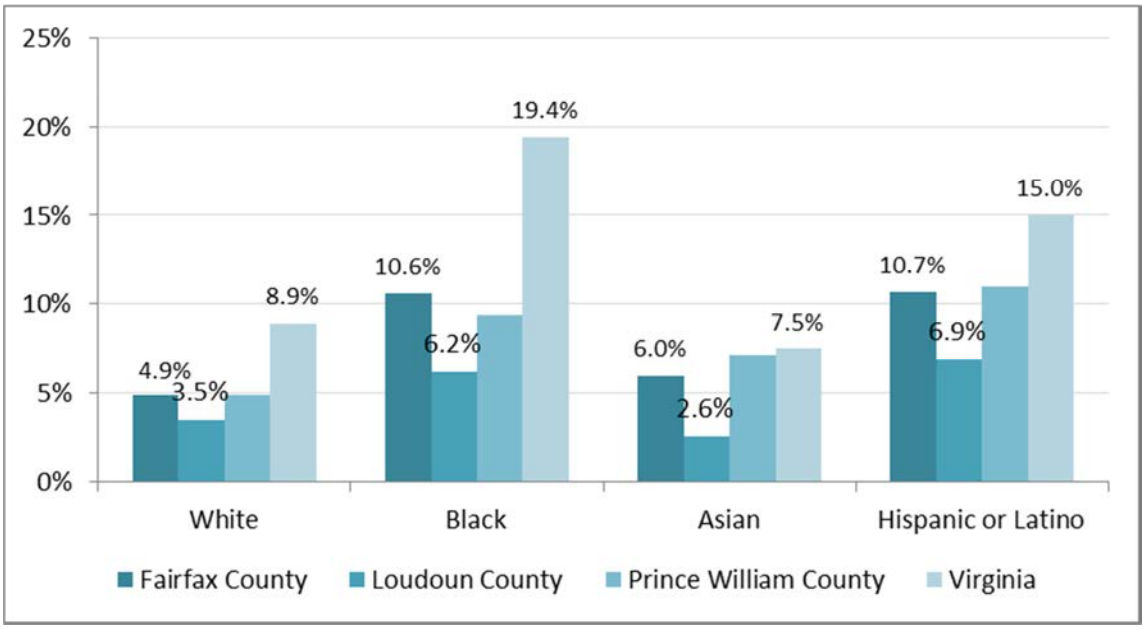
Source: U.S. Census, ACS 5-Year Estimates, 2013-2017

Figure B20: Poverty Distribution by Census Tract, Fairfax County (2017)



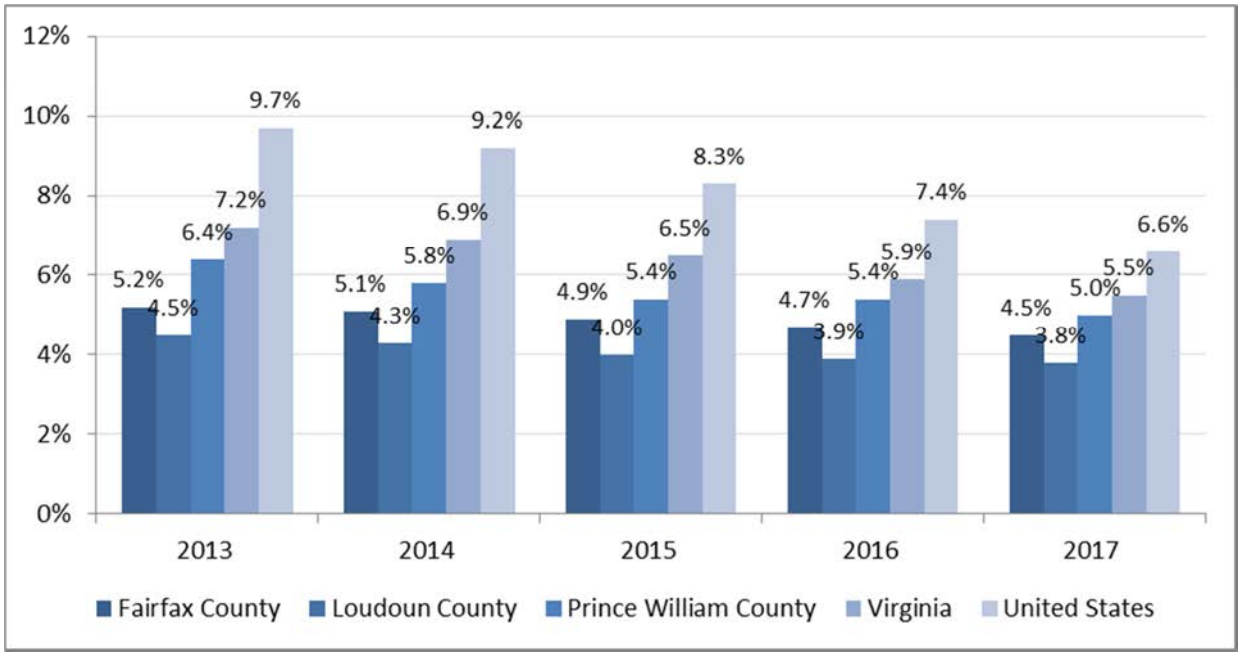
Source: U.S. Census, ACS 5-Year estimates, 2013-2017

Figure B21: Poverty Rates by Race and Ethnicity, IFMC Community (2017)



Source: U.S. Census, ACS 5-Year estimates, 2013-2017

Figure B22: Unemployment Rates Over Time, IFMC Community (2013 – 2017)



Source: U.S. Census, ACS 5-Year estimates, 2013-2017

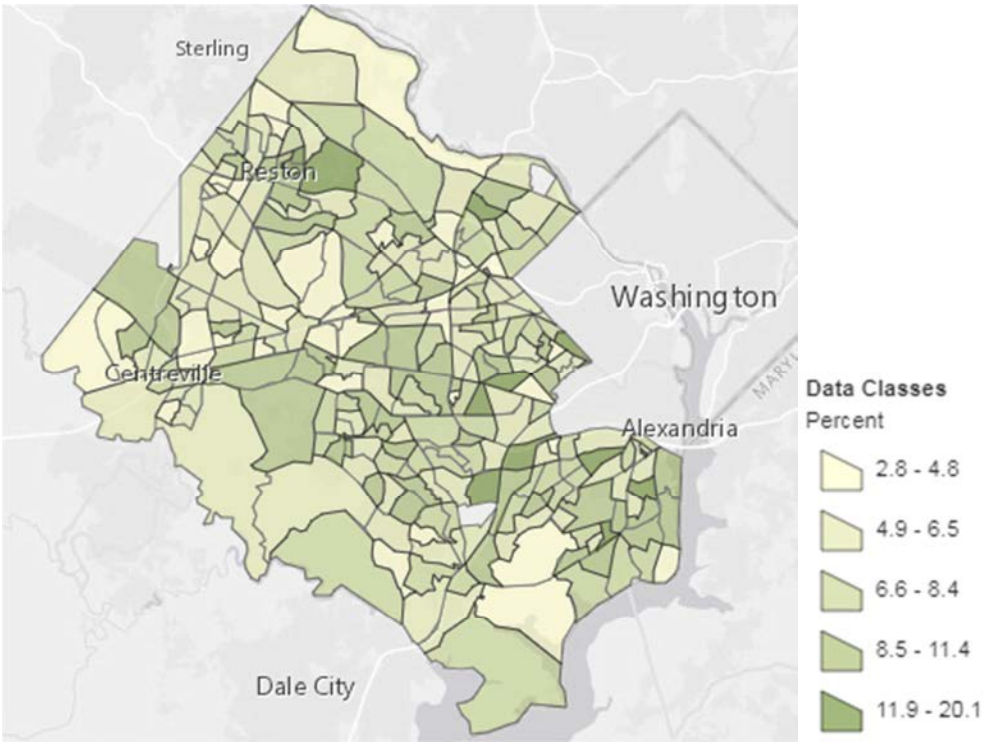
Figure B23: Other Socioeconomic Factors, IFMC Community (2017)

Measure	Fairfax County	Loudoun County	Prince William County	Virginia	U.S.
Population 25+ without High School Diploma	8.0%	6.5%	11.2%	11.0%	12.7%
Population with a Disability	7.0%	5.6%	7.5%	11.5%	12.6%
Population Linguistically Isolated*	7.3%	4.8%	6.1%	2.7%	4.7%

Source: U.S. Census, ACS 5-Year Estimates, 2013-2017

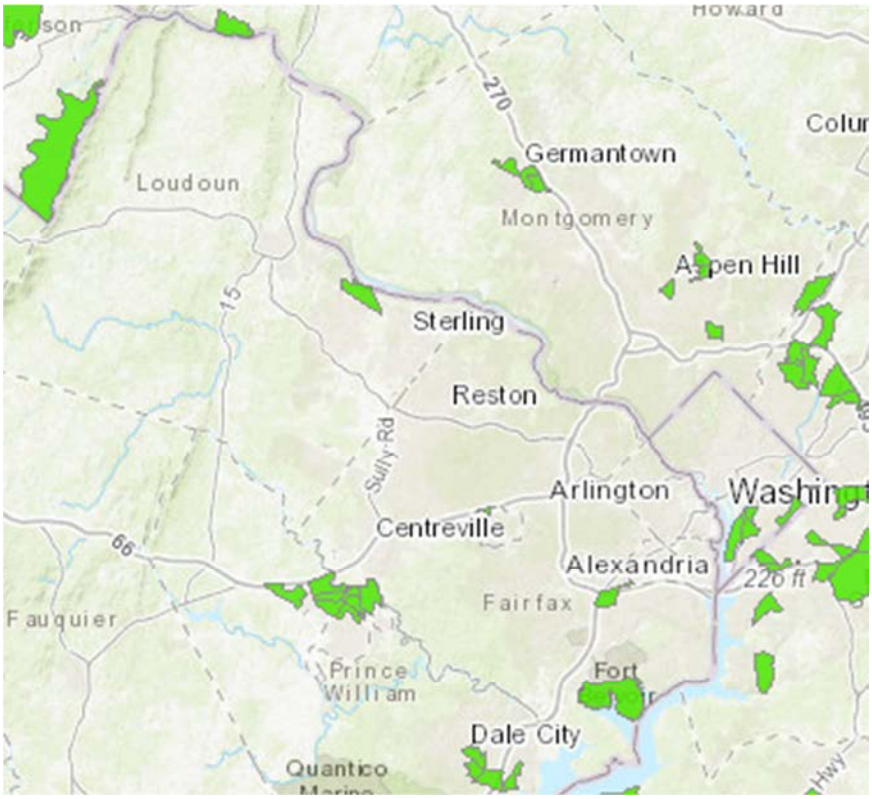
Source: *U.S. Census, ACS 5-Year Estimates, 2007-2011

Figure B24: Percent of Residents with a Disability by Census Tract, Fairfax County (2017)



Source: U.S. Census, ACS 5-Year estimates, 2013-2017

Figure B25: Food Deserts in Northern Virginia



Food deserts are defined as low-income areas more than one mile from a supermarket or large grocery store in urban areas and more than 10 miles from a supermarket or large grocery store in rural areas.

Areas shaded green are designated food deserts

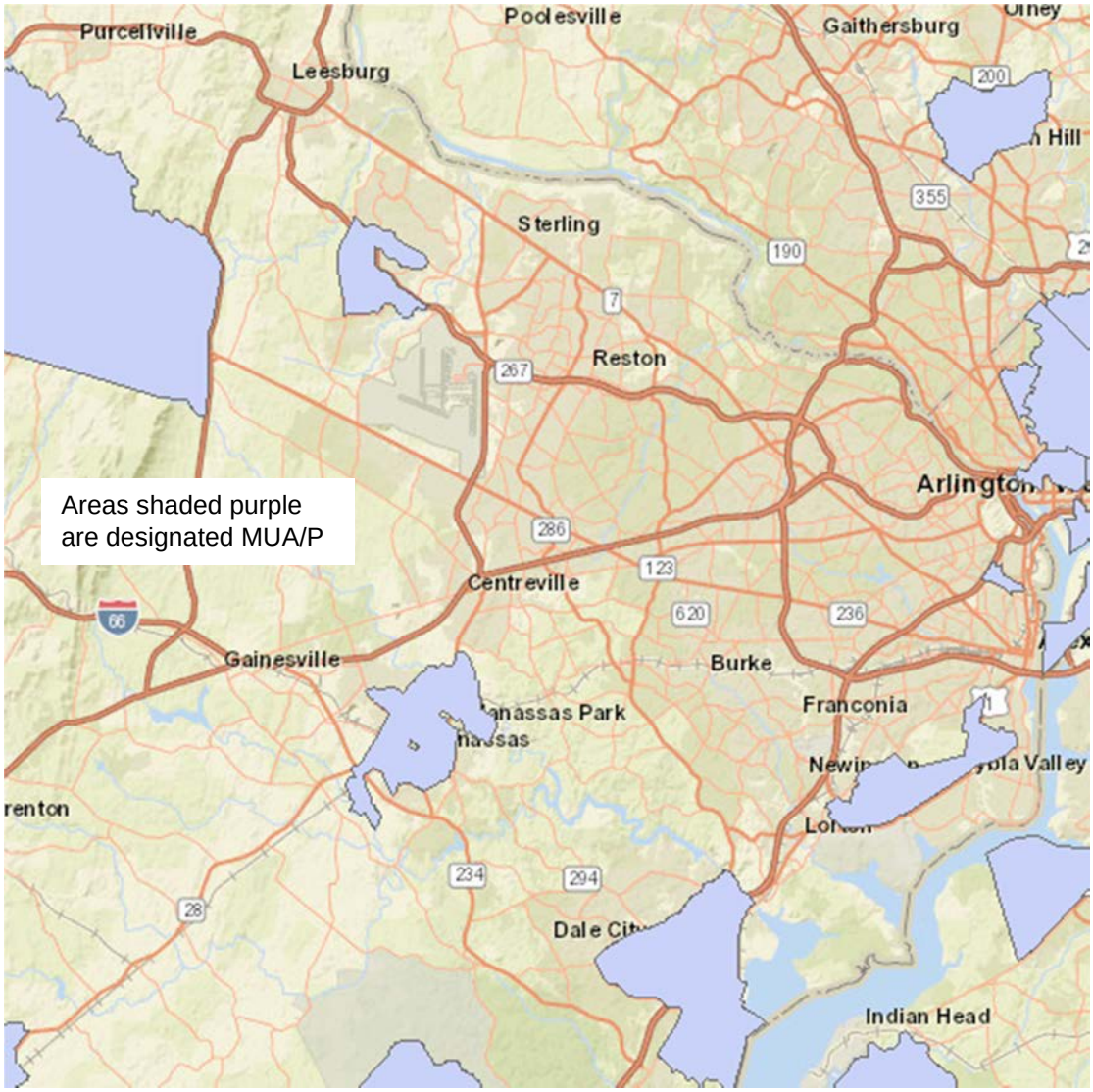
Source: U.S. Department of Agriculture, website accessed 9/19

Medically Underserved Areas and Populations

Medically Underserved Areas and Populations (MUA/Ps) are designated by the Health Resources and Services Administration (HRSA) based on an "Index of Medical Underservice." The index includes the following variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over.[2] Areas with a score of 62 or less are considered "medically underserved." Populations receiving MUP designation include groups within a geographic area with economic, cultural or linguistic barriers to health care.[3]

There are multiple census tracts within the hospital's community that have been designated as areas where Medically Underserved Populations are present. These areas fall primarily along the Richmond Highway corridor, Dale City, and Manassas West.

Figure B26: Medically Underserved Areas and Populations, Northern Virginia



Source: HRSA Data Portal, 2019

[2] Heath Resources and Services Administration. See http://bhw.hrsa.gov/shortage-designation/muap
[3] *Ibid.*

Resources
Federally Qualified Health Centers (FQHCs) are established to promote access to ambulatory care in areas designated as "medically underserved." These clinics receive enhanced reimbursement for Medicaid and Medicare services and most also receive federal grant funds under Section 330 of the Public Health Service Act. There currently are three FQHC organizations operating multiple sites in Northern Virginia.

Figure B27: Federally Qualified Health Centers

Facility	Street Address	City	ZIP Code
Greater Prince William Area Community Health Center, Inc.	17739 Main St	Dumfries	22026
Greater Prince William Area Community Health Center, Inc.	9705 Liberia Ave	Manassas	20110
Greater Prince William Area Community Health Center, Inc.	4379 Ridgewood Center Dr Ste 102	Woodbridge	22192
HealthWorks for Northern Virginia	1850 Cameron Glen Dr Ste 117	Reston	20190
HealthWorks for Northern Virginia	163 Fort Evans Rd NE	Leesburg	20176
HealthWorks for Northern Virginia	1141 Elden St Ste 300	Herndon	20170
HealthWorks for Northern Virginia	21641 Ridgetop Cir Ste 105	Sterling	20166
HealthWorks for Northern Virginia	11484 Washington Plz W	Reston	20190
Neighborhood Health	2100 Washington Blvd	Arlington	22204
Neighborhood Health	2 E Glebe Rd	Alexandria	22305
Neighborhood Health	720 N Saint Asaph St	Alexandria	22314
Neighborhood Health	7501 Little River Tpke Ste G4	Annandale	22003
Neighborhood Health	2120 Washington Blvd	Arlington	22204
Neighborhood Health	8221 Willow Oaks Corporate Dr	Fairfax	22031
Neighborhood Health	8221 Willow Oaks Corporate Dr	Fairfax	22031
Neighborhood Health	6677 Richmond Hwy	Alexandria	22306
Neighborhood Health	2616 Sherwood Hall Ln Ste 106	Alexandria	22306
Neighborhood Health	8350 Richmond Hwy Ste 301	Alexandria	22309
Neighborhood Health	1200 N Howard St	Alexandria	22304
Neighborhood Health	8119 Holland Rd	Alexandria	22306
Neighborhood Health	2 E Glebe Rd	Alexandria	22305
Neighborhood Health	4480 King St	Alexandria	22302

In addition to the FQHCs, there are other clinics in the area that serve lower-income individuals. These include the Arlington Free Clinic (Arlington, VA), the Culmore Clinic (Falls Church, VA) and multiple sites throughout the region of the George Mason University's Mason and Partners Clinics (MAP).

In addition to these resources, Inova operates several InovaCares Clinic sites across Northern Virginia. The Fairfax County Health Department also provides an array of services at locations throughout the jurisdiction.

Figure B28: Hospital facilities that operate in the community

Facility	Facility Type	# Beds	City	Zip
Dominion Hospital	Psychiatric	116	Falls Church	22044
Fairfax Surgical Center	Ambulatory Surgical	-	Fairfax	22030
HealthSouth Rehab Hospital of Northern Virginia	Rehabilitation	58	Aldie	20105
Inova Alexandria Hospital	Acute	318	Alexandria	22304
Inova Ambulatory Surgery Center at Lorton	Ambulatory Surgical	-	Lorton	22079
Inova Fair Oaks Hospital	Acute	182	Fairfax	22033
Inova Fairfax Medical Campus	Acute	894	Falls Church	22042
Inova Loudoun Ambulatory Surgery Center	Ambulatory Surgical	-	Leesburg	20176
Inova Loudoun Hospital	Acute	167	Leesburg	20176
Inova Mount Vernon Hospital	Acute	237	Alexandria	22306
Inova Surgery Center at Franconia-Springfield	Ambulatory Surgical	-	Alexandria	22310
Kaiser Permanente Tysons Corner Surgery Center	Ambulatory Surgical	-	McLean	22102
Lake Ridge Ambulatory Surgical Center	Ambulatory Surgical	-	Woodbridge	22192
McLean Ambulatory Surgery, LLC	Ambulatory Surgical	-	McLean	22102
North Spring Behavioral Healthcare	Psychiatric	100	Leesburg	20176
Northern Virginia Eye Surgery Center, LLC	Ambulatory Surgical	-	Fairfax	22031
Northern Virginia Surgery Center	Ambulatory Surgical	-	Fairfax	22033
Novant Health UVA Health System Haymarket Medical Center	Acute	60	Haymarket	20169
Novant Health UVA Health System Prince William Medical Center	Acute	130	Manassas	20110
Prince William Ambulatory Surgery Center	Ambulatory Surgical	-	Manassas	20110
Reston Hospital Center	Acute	187	Reston	20190
Reston Surgery Center	Ambulatory Surgical	-	Reston	20190
Sentara Northern Virginia Medical Center	Acute	183	Woodbridge	22191
Stone Springs Hospital Center	Acute	124	Dulles	20166
Virginia Hospital Center	Acute	394	Arlington	22205

Other Community Resources:

There is a wide range of agencies, coalitions, and organizations available in the region served by Inova Fairfax Medical Campus. 2-1-1 Virginia maintains a large database to help refer individuals in need to health and human services in the Commonwealth. This is a service of the Virginia Department of Social Services and is provided in partnership with the Council of Community Services, The Planning Council, and United Way chapters in the Commonwealth. According to 2-1-1, the following types of services and resources are available in this community:

Housing and utilities
Food, clothing, and household items
Summer food programs
Health care and disability services
Health insurance and expense assistance
Mental health and counseling
Substance abuse and other addictions
Support groups
Tax preparation assistance
Legal, consumer, and financial management services
Transportation
Employment and income support
Family support and parenting
Holiday assistance
Disaster services
Government and community services
Education, recreation, and the arts
Donations and volunteering

Appendix C: Forces of Change Assessment (FOCA)

The Partnership for Healthier Fairfax Steering Committee, which includes Inova representation, discussed the following questions. Figure C1 is a summary of their responses, categorized into overarching themes.

1. Threats vs. Opportunities
    a. Trends, i.e. patterns over time
    b. Factors, i.e. specific things about the community
    c. Events, i.e. policy changes or natural disasters
2. What are the most important health concerns today in the community
3. Biggest barriers to reaching optimal health
4. What particular populations subgroups that face these challenges more than others

Table C1: FOCA Response Matrix

Forces	Threats	Opportunities
Economic		
Slow long-term economic growth	• Both the county's and public schools' budgets are being impacted by concerns about state revenue and uncertainty about federal tax reform and fiscal policies • Potential reductions in funding for Health and Human Services, as well as infrastructure and transportation initiatives (bike trails, pedestrian walkways, and park development) • Wages have not kept pace with inflation • Overall increase in individuals living below the federal poverty level	• Recent economic trends indicate that home sales, jobs and other key economic indicators are improving • Development of creative non-governmental solutions • Collaboration across Health and Human Services for increased efficiencies and less duplication of programs and services • Initiative to update county policies and ordinances to promote health and increase the County's economic competitiveness
High cost of housing	• Land availability and population growth are driving housing costs • Nearly half of residents are housing cost-burdened, spending over thirty percent of their income on housing • Lack of affordable and accessible housing, including for seniors and those with long-term care needs • Workforce living farther from employment, increasing personal and public transportation costs • Rent costs are increasing and affordable rental housing units are in limited supply	• More availability of single-family attached units and multifamily units • Funding for affordable housing preservation • Workforce housing initiatives • Mixed-use development with mixed-income housing near jobs and services

Forces	Threats	Opportunities
Rising healthcare costs	• Inadequate physician reimbursement which potentially reduces access • Increasing insurance co-pays, deductibles and denials • Delay in diagnoses and treatment which worsens health outcomes and escalates costs further • Employers reducing health benefits • Uncertain federal regulatory environment	• Healthcare reform • Employee wellness programs • Increased attention on prevention • Greater personal responsibility for behaviors impacting health
Influence of large institutions / healthcare systems	• Loss of choice • Increased costs • Market forces that may affect the accessibility, quality, and/or affordability of health services	• Improved economies of scale • Potential for clinical quality improvements and better clinical outcomes
Environmental		
Urbanization of Fairfax County	• Lack of adequate services, infrastructure, and parks to serve the growing population in certain areas of the county • Limited government resources create reliance on the private sector to improve infrastructure and parks • Poor air quality continues to challenge the county and region as a whole • Highly transient community results in a lack of community connectedness	• Improved access to metro and public transportation options • Rise in mixed-use development and new residential proposals for multi-unit housing • Development of bike trails and pedestrian walkways • Redevelopment with enhanced connections to community resources • Development of parks following the Park Authority Urban Parks Framework • Synthesis of planning efforts • Abundant employment opportunities • Regional collaboration on major issues • Increased preparedness for emergencies
Transportation	• Traffic congestion contributes to long commute times, high stress, and lack of physical activity • Virginia Department of Transportation (VDOT) design standards geared toward vehicular travel, which inhibit safe pedestrian and bicycle travel • Disconnected walkways and trails limit ability to travel safely by foot or bike • High demand for transportation options • Inequitable burden of high transportation costs, consuming a large percent of income • Local transportation is not straightforward with limited coordination among different systems and programs	• Recognition that communities need to be more human-friendly • Increased attention on walkable and bike-able environments, transit, and teleworking • Development and implementation of the Bicycle Master Plan • Partnership with VDOT for the adoption of a context-sensitive road design manual across the entire County • Park Authority Trails Plan update with a focus on equitable access • Creation of alternative modes of transportation

Forces	Threats	Opportunities
Climate change	• Potential increase in the number and severity of weather events • Potential health consequences of deteriorating environment • Warmer temperatures • Worsening air quality • Limited capacity and awareness about resilience and adaptation • Potential for social and economic disruptions	• Increased awareness of the impact of environmental changes on health • County and Northern Virginia Regional Commission engagement in the issue, including projects to enhance resilience
Globalization	• Inadequate regulation of the international market places the public at increased risk due to contamination of products • Volume of imported goods increases the likelihood of the introduction of harmful pathogens, insects, plants, and animals • Heightened threat for infectious diseases • Rapid transmission of pathogens due to increased international travel	• Enhanced access to products and goods from across the world • Increased community awareness and education of potential threats • Regional and national engagement to address potential threats • Enhanced capacity for disease surveillance and preparedness
Green buildings	• Initial development costs are high and borne by the developer, while long-term cost savings and benefits are realized by the occupant or owner • Lack of focus on public, exterior spaces	• Healthcare facilities that model healthy environmental practices • Potential increase in jobs and change in consumer behaviors • Healthy buildings and public spaces • Increased public awareness through design awards, marketing, and county reports
Legal/Political		
Affordable Care Act (ACA)	• Efforts to repeal and replace the ACA, including repeal of the law's individual mandate, has created instability in the insurance marketplace • Loss of Medicaid and other coverage will lead to an increase in the number of uninsured individuals in Fairfax • Regulations related to healthy eating, environment, and other prevention-related issues are being eliminated, delayed, or not enforced • Coverage gaps still exist between Medicaid and private health insurance	• Potential for state Medicaid expansion • Increased public health focus on prevention and wellness rather than delivery of clinical care • Less need for state and local tax support for health care safety net

Forces	Threats	Opportunities
Dietary Guidelines	• Higher costs due to revised nutrition standards • Rising demand for special dietary requirements	• Accessibility of nutrition information and education • Improved availability of healthier meals and modified menu options • Integration of gardens into institutional, home, and community settings • Enhanced access to healthy foods
Social		
Diverse community	• Overall population is growing and becoming increasingly diverse • Costs of ensuring culturally competent care delivery • Challenges with communicating public health messaging and education in a culturally competent manner	• Diversification of the workforce • Cultural competency training for workforce • More multi-generational family ties • Faith Communities in Action working together to address issues • Greater focus on community engagement • Partnerships to identify ethnic communities and provide them with more integrated transportation systems and support services
Large immigrant population	• Growing number of individuals with limited English proficiency who are linguistically isolated • Stress on Health and Human Services and public safety • Fear of accepting public assistance due to tougher stance on immigration • Undocumented residents do not qualify for many public health services	• Resource that can help meet the needs of the increasingly diverse community • Adds balance to the aging of the workforce and native-born population • Economic and workforce capacity
Growing population of older adults and individuals with disabilities	• Growing proportion of the population comprising adults age 65 or older • Increased demand for infrastructure and supportive home and community-based services • Greater demand for long-term care services for older adults and individuals with disabilities • Increasing costs of services • Caregiver fatigue • Universal Design features for improved accessibility are challenging to proffer and inspect • Increased demand on the Community Services Board to extend service delivery to clients with developmental disabilities	• Increased pool of retired talent and resources • More alternatives for home and community-based supports for older adults and individuals with disabilities • Increasing number of programs and service models for long-term care • Caregiver support programs • Incentives for the creation of independent living facilities • Implementation of Universal Design for improved accessibility, including building code updates and proffer enforcement • 50+ Plan identifies strategies to meet the needs of the growing senior population

Forces	Threats	Opportunities
Homeless individuals, families and children	• African-Americans and older adults disproportionately experience homelessness • Remaining homeless population is difficult to reach and serve • Social, mental health and overall health effects on families and children experiencing homelessness • Disconnected youth	• Increased public-private efforts to prevent and end homelessness have resulted in a reduction in the overall number of homeless persons • Interventions to locate and serve homeless individuals
Large veteran population	• Need for more psychosocial and therapeutic supports, adaptive recreation, housing and workforce preparation • Potential increase in homelessness, domestic violence, and mental health issues • Increased strain on health and human services	• Greater collaboration between military and civilian community support networks • Retired military personnel as potential employee and volunteer resources • Veteran employment initiatives
Abuse, neglect, exploitation and violence	• Increased demand for resources, support services, and mental health services • Increased emergency department usage • Erosion of community safety and neighborhood environments • Vulnerability of at-risk groups • Domestic violence services are in demand and there is a shortage of emergency beds for victims	• Evaluate laws and their efficacy • Strengthen enforcement • Expansion of prevention programs to build personal, family and community resilience • Reducing domestic violence increases positive outcomes for children
Medical		
Increase in obesity and chronic disease	• Negative impact on health and quality of life • Increased burden for healthcare and employer costs	• Greater attention to policy, system, and environmental changes that can impact health outcomes • Prevalent education on health promoting behaviors • Update to county land use policies to facilitate the creation of a healthy built environment
Food and environmental allergies	• Impact on businesses, schools, child care providers, and community organizations to adjust practices • Increased medical costs • High incidence of asthma	• Greater understanding of allergies and potential consequences • Exploration of causal factors, such as air pollution, and mitigation • Increased access to healthy outdoor environments • Earlier intervention for asthma patients
Integration of behavioral and primary healthcare	• Increased costs • Coordination between independent systems • Patient resistance to behavioral and primary care interface due to the stigma associated with mental health conditions	• Prevention and more effective treatment of major illnesses, chronic disease and comorbid conditions • Additional supports for recovery and independent community living

Forces	Threats	Opportunities
Opioid epidemic	• Increased number of deaths due to opioid overdose • Challenges accessing outpatient and residential treatment services • Failure to recognize and address root causes of opioid abuse	• Public attention and political will to dedicate resources to address the issue • Increased availability of drugs to counter overdoses • Enhanced training of first-responders and hospital staff
Suicide	• High levels of depressive symptoms and suicide ideation among youth • Challenges accessing outpatient and residential treatment services	• Suicide prevention plan • Collaborative cross-system efforts to reduce suicide • Exploration of community and environmental interventions
Imbalance of supply and demand of the healthcare workforce	• Greater emphasis on specialty care instead of primary care • Increased cost of care • Shortage of behavioral healthcare providers	• Partnership between universities and healthcare systems • Workforce Investment Board initiatives • Increased focus on interdisciplinary training and changes in professional licensing to expand competencies to help address the imbalance
Technological/Scientific		
Evolving communication platforms	• Increased demand for information • Readily available misinformation • Compatibility and interoperability with existing technology • Information security and privacy	• New technologies can be leveraged to convey important public health messages • Increased access to information, utilization of services, and compliance with medical care • Electronic medical records and telemedicine provides increased access to health information
One Fairfax	• Income inequality has grown over time • Disparities exist in wages and employment • Inequities that contribute to disparities in outcomes by race, gender, and socioeconomic status	• Adoption of a social and racial equity policy that commits the county and schools to consider equity when making decisions or developing or delivering programs or services • Systemic approach to address root causes of inequities through collaboration • Community involvement and leveraging of resources to address socioeconomic disparities
Diversion First	• Jails had become the default institution to handle behavioral health problems • Public safety personnel were not trained on alternative interventions and resources	• Alternatives to incarceration for people with mental illness or developmental disabilities who commit low level offenses • Offenders can be linked with assessment, treatment, and needed supports • Decreased recidivism and costs for county • Better outcomes for people with behavioral health disorders • Training for first responders on resources and appropriate response for these individuals

Appendix D: Community Themes and Strengths Assessment (CTSA)

Data for the Community Themes and Strengths Assessment (CTSA) were collected through a survey (Figure D1) that asked participants details about themselves, such as gender, race, income and zip code, and their opinion about three main questions:

- What are the greatest strengths of our community?
- What are the most important health issues for our community?
- What would most improve the quality of life for our community?

Survey participants could select up to three choices for each question and leave open feedback in a freeform field. The survey was made available online and in paper format, and was in the field from September to October 31, 2018. Surveys were available in Arabic, Amharic, Chinese (Mandarin), English, Farsi, Korean, Spanish, Urdu and Vietnamese. This survey utilized a convenience sampling method; therefore, results from this survey are not generalizable to the entire community.

Themes were identified in the survey in two ways. First, the overall results were considered, and a survey response is considered a theme if it is in the top 5 of all responses (as shown in the CHNA Report). Second, the results were analyzed by respondent demographics in order to identify disparities and different perspectives. In this case, a survey response was considered a theme if it fell in the top five for that group and also had more than a 3 point difference in rank compared to the overall responses.

Figure D1: CTSA Survey

Survey Introduction:

Inova is conducting a short, anonymous survey to learn about what is important to people in our community. The results will be used to inform ongoing efforts to make our area a healthier community. We also ask a few questions about you so we can understand more about who took this survey. If you need more information, please visit www.inova.org. Thank you for participating in this anonymous survey.

1. In your opinion, what are the greatest strengths of our community?

Please select up to THREE (3) boxes below:

- ☐ Opportunities to be involved in the community
- ☐ Diversity of the community (social, cultural, faith, economic)
- ☐ Access to healthy food (fresh fruits and vegetables)
- ☐ Housing that is affordable
- ☐ Services that support basic needs (food, clothing, temporary cash assistance)
- ☐ Access to health care
- ☐ Educational opportunities (schools, libraries, vocational programs, universities)
- ☐ A good place for children
- ☐ A good place for older adults
- ☐ Jobs and a healthy economy
- ☐ Transportation options
- ☐ Mental health and substance abuse services
- ☐ Police, fire and rescue services
- ☐ Safe place to live
- ☐ Parks and recreation
- ☐ Walk-able, bike-able community
- ☐ Clean and healthy environment
- ☐ Arts and cultural events
- ☐ Other (please specify):

_____

2. In your opinion, what are the most important health issues for our community?

Please select up to THREE (3) boxes below:

- ☐ Dental problems
- ☐ Teen pregnancy
- ☐ Maternal, infant and child health
- ☐ Violence and abuse
- ☐ Preventable injuries (car or bicycle crashes, falls)
- ☐ Aging-related health concerns
- ☐ Tobacco use (cigarettes, vaping, e-cigarettes, snuff, chewing tobacco)
- ☐ Alcohol, drug, and/or opiate abuse
- ☐ Mental health problems (depression, anxiety, stress, suicide)
- ☐ Obesity
- ☐ Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)
- ☐ Illnesses spread by insects and/or animals (Lyme disease, Zika, rabies)
- ☐ Sexually transmitted diseases
- ☐ HIV
- ☐ Other illnesses that spread from person to person (flu, TB)
- ☐ Vaccine preventable diseases (whooping cough, measles, tetanus)
- ☐ Food safety
- ☐ Intellectual disabilities (autism, developmental disabilities)
- ☐ Sensory disabilities (hearing, vision)
- ☐ Physical disabilities
- ☐ Differences in health outcomes for different groups of people
- ☐ Other (please specify):

_____

3. In your opinion, what would most improve the quality of life for our community?
Please select up to THREE (3) boxes below:

- ☐ Opportunities to be involved in the community
- ☐ Welcoming of diversity (social, cultural, faith, economic)
- ☐ Access to healthy food (fresh fruits and vegetables)
- ☐ Housing that is affordable
- ☐ Services that support basic needs (food, clothing, temporary cash assistance)
- ☐ Access to health care
- ☐ Educational opportunities (schools, libraries, vocational programs, universities)
- ☐ Jobs and a healthier economy
- ☐ Transportation options
- ☐ Mental health and substance abuse services
- ☐ Public safety and health (law enforcement, fire, EMS and public health)
- ☐ Access to parks and recreation
- ☐ A walk-able, bike-able community
- ☐ Clean and healthy environment
- ☐ Arts and cultural events
- ☐ Working to end homelessness
- ☐ Other (please specify):

_____

Please answer the following questions about yourself. We ask these questions to better understand your answers.

D1. Your HOME ZIP CODE: _ _ _ _ _

D2. Your AGE Mark (X) only ONE (1) box:

- ☐ Under 18 years
- ☐ 18 - 24 years
- ☐ 25 - 29 years
- ☐ 30 - 39 years
- ☐ 40 - 49 years
- ☐ 50 - 64 years
- ☐ 65 - 79 years
- ☐ 80+ years

D3. Your HIGHEST LEVEL OF EDUCATION
Mark (X) only ONE (1) box:

- ☐ Less than high school diploma
- ☐ High school diploma / GED
- ☐ Some college
- ☐ Associates / Technical degree
- ☐ Bachelor's degree
- ☐ Graduate degree or higher

D4. ARE YOU HISPANIC OR LATINO?
Mark (X) only ONE (1) box:

- ☐ Yes
- ☐ No

D5. Your RACE - Which one or more of the following race categories do you identify with?
Select ALL THAT APPLY:

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White or Caucasian

D6. Do you live in a home with HOUSEHOLD MEMBERS THAT ARE YOUNGER THAN 18 YEARS OLD? Mark (X) only ONE (1) box:

- ☐ Yes
- ☐ No

D7. Where do you USUALLY GO FOR HEALTHCARE? Mark (X) only ONE (1) box:

- ☐ Hospital / emergency room
- ☐ Private doctor's office / HMO
- ☐ Urgent care center
- ☐ Free or reduced-fee clinic
- ☐ I don't get healthcare

D8. Your ASSIGNED SEX AT BIRTH
Mark (X) only ONE (1) box:

- ☐ Female
- ☐ Male

D9. Your ANNUAL HOUSEHOLD INCOME
Mark (X) only ONE (1) box:

- ☐ Less than $10,000
- ☐ $10,000 - $49,999
- ☐ $50,000 - $99,999
- ☐ $100,000 - $149,999
- ☐ $150,000+

https://www.surveymonkey.com/r/LiveHealthyNOVA

Figure D2: Characteristics of Survey Respondents

	Number of Respondents	Percent of Respondents*
Total Responses	**7,508**	**100%**
Ethnicity		
Hispanic/Latino	1,113	77%
Not Hispanic/Latino	6,229	14%
No response	666	10%
Race		
White	4,507	60%
Black or African American	979	13%
Asian	1,436	19%
Two or more races		%
American Indian/Alaskan Native	174	2%
Native Hawaiian or Other Pacific Islander	74	1%
No response	571	8%
Language		
English	7,014	93%
Spanish	371	5%
Arabic	22	1%
Amharic	14	1%
Farsi	16	1%
Korean	11	1%
Urdu	1	1%
Vietnamese	11	1%
Chinese (Mandarin)	47	1%
Lives with child (<18 years)		
Yes	4,712	63%
No	2,666	36%
No response	130	2%
Sex		
Male	1,843	25%
Female	5,486	73%
No response	179	2%
Annual Household Income		
Less than $10,000	456	6%
$10,000 to $49,999	1,213	16%
$50,000 to $99,999	1,574	21%
$100,000 to $149,000	1,545	21%
Greater than $150,000	2,335	31%
No response	385	5%
Age Category		
Less than 18 years	73	1%
18-24 years	220	3%
25-29 years	461	6%
30-39 years	2,331	31%
40-49 years	2,203	29%
50-64 years	1,299	17%
65-79 years	717	10%
80+ years	136	2%
No response	68	1%

Education		
Less than High School Diploma	302	4%
High School Diploma or GED	589	8%
Some College	874	12%
Associates or Technical Degree	461	6%
Bachelor's Degree	2,481	33%
Graduate Degree or Higher	2,687	36%
No response	114	2%
Regular Source of Healthcare		
Private Doctor's Office or HMO	5,713	76%
Urgent Care	522	7%
Hospital or Emergency Room	426	6%
Free or Reduced Fee Clinic	426	6%
I don't get healthcare	265	4%
No response	155	2%
* May sum to greater than 100% due to rounding		

Top 5 Answers to "What are the top health issues facing our community?" by Select Demographic Groups

Figure D3: Low income Respondents (Household Income <$50,000/year)

Rank	Response	Number of People Who Selected Response
1	Mental health problems (depression, anxiety, stress, suicide)	600
2	Alcohol, drug, and/or opiate abuse	546
3	Dental problems	463
4	Violence and abuse	405
5	Obesity	333

Figure D4: Respondents with Less than a High School Diploma or GED (25+ years of age)

Rank	Response	Number of People Who Selected Response
1	Alcohol, drug, and/or opiate abuse	323
2	Mental health problems (depression, anxiety, stress, suicide)	300
3	Dental problems	246
4	Violence and abuse	246
5	Tobacco use (cigarettes, vaping, e-cigarettes, snuff, chewing tobacco)	178

Figure D5: Younger Respondents (<25 years of age)

¤ank	Response	Number of People Who Selected Response
1	Mental health problems (depression, anxiety, stress, suicide)	126
2	Alcohol, drug, and/or opiate abuse	103
3	Violence and abuse	80
4	Tobacco use (cigarettes, vaping, e-cigarettes, snuff, chewing tobacco)	69
5	Obesity	57

Figure D6: Older Respondents (50 years of age or older)

Rank	Response	Number of People Who Selected Response
1	Mental health problems (depression, anxiety, stress, suicide)	898
2	Alcohol, drug, and/or opiate abuse	727
3	Aging-related health concerns	680
4	Obesity	519
5	Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)	486

Figure D7: Spanish Speaking Respondents (Survey Language in Spanish)

Rank	Response	Number of People Who Selected Response
1	Alcohol, drug, and/or opiate abuse	138
2	Dental problems	131
3	Violence and abuse	109
4	Mental health problems (depression, anxiety, stress, suicide)	93
5	Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)	92

Figure D8: Survey Completed in a Language other than English or Spanish

Rank	Response	Number of People Who Selected Response
1	Aging-related health concerns	40
2	Alcohol, drug, and/or opiate abuse	34
	Mental health problems (depression, anxiety, stress, suicide)	34
3	Food safety	33
4	Dental problems	32

Figure D9: Respondents of Color (All respondents except white, non-Hispanic or without race/ethnicity info)

Rank	Response	Number of People Who Selected Response
1	Mental health problems (depression, anxiety, stress, suicide)	1,435
2	Alcohol, drug, and/or opiate abuse	1,114
3	Obesity	834
4	Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)	774
5	Differences in health outcomes for different groups of people	509

Figure D10: Respondents of Hispanic or Latino Ethnicity (regardless of race)

Rank	Response	Number of People Who Selected Response
1	Mental health problems (depression, anxiety, stress, suicide)	429
2	Alcohol, drug, and/or opiate abuse	392
3	Dental problems	281
4	Violence and abuse	262
5	Obesity	260

Figure D11: Female Respondents

Rank	Response	Number of People Who Selected Response
1	Mental health problems (depression, anxiety, stress, suicide)	2,865
2	Alcohol, drug, and/or opiate abuse	1,886
3	Obesity	1,152
4	Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)	1,086
5	Differences in health outcomes for different groups of people	1,008

Appendix E: Community Health Status Assessment (CHSA)

The health indicators that comprised the Community Health Status Assessment (CHSA) were selected based on best practices, availability, and local health department knowledge of emerging health issues. The data include rates and percentages of mortality, morbidity, and incidence and prevalence (death, chronic illness, and new and existing disease). Data were compiled from published secondary sources and surveys in November 2018. County-level data, as well as breakdowns by population characteristics, was not consistently available, which means the amount of information within certain health topics may be limited. Specific indicators were selected and compiled to support a broad picture of health in the IFMC Community, and may not encompass all data in existence.

Figure E1 lists the data sources for Figure E2, provides an overview of much but not all of the data considered. Please contact Inova for more information.

Figure E1: CHSA Data Sources

Data Source	Abbreviation
Fairfax County Public Schools Annual BMI Report	BMI
American Community Survey, 5 year, Census	ACS
U.S. Bureau of Labor Statistics	BLS
County Health Rankings	CHR
Centers for Medicare and Medicaid Services	CMS
Dartmouth Atlas of Healthcare	DAH
Feeding America	FA
National Center for Education Statistics	NCES
Small Area Health Estimates, Census	SAHE
National Cancer Institute, State Cancer Profiles	SEER
Virginia Behavioral Risk Factor Surveillance System	VA BRFSS
Virginia Department for Aging and Rehabilitative Services	VA DARS
Virginia Department of Education	VDE
Virginia Department of Health	VDH
Virginia Health Information	VHI
Virginia Online Injury Reporting System	VOIRS

Figure E2: CHSA Data

Category	Data Point	Value				Unit of measure	Year of Data	Data Source
		Fairfax County	Loudoun County	Prince William County	Virginia			
Chronic Conditions	Medicare beneficiaries with Alzheimer's Disease or Dementia	10	11.2	9.2	10	%	2016	VA DARS
	Age adjusted COPD hospitalization	6.3	9.6	11.7	16.9	per 10,000	2014-2016	VHI
	Age adjusted adult asthma hospitalization	4.1	4.2	6.7	6.6	per 10,000	2014-2016	VHI
	Age-adjusted hospitalization due to pediatric asthma	2.9	4	1.6	6.6	per 10,000	2014-2016	VHI
	All cancer deaths (age adjusted)	120.4	125.8	143.8	163.8	per 100,000	2011-2015	SEER
	All cancer incidence	352.8	371.1	365.1	414.3	per 100,000	2011-2015	SEER
	Age-adjusted death rate due to heart disease	87.9	102.1	96.1	147	per 100,000	2016	VDH
	Age-adjusted death rate due to stroke	25.4	24	31.3	37.2	per 100,000	2016	VDH
	Age-adjusted hospitalization rate due to heart failure	17	23.9	28.3	33.7	per 10,000	2014-2016	VHI
	Age-adjusted hospitalization rate due to hypertension	2.4	2.5	2.7	4.1	per 10,000	2014-2016	VHI
	Age-adjusted hospitalization due to diabetes	7.6	8.3	12.5	17.1	per 10,000	2014-2016	VHI
	Age-adjusted death rate due to diabetes	11.5	12.7	16.5	21.3	per 100,000	2016	VDH
	Persons with a disability	6.8	5.5	6.8	11.3	%	2016	ACS
	Persons with a disability who live in poverty (18-64)	14.4	10	11.5	23.8	%	2016	ACS
Economic Stability	Students Eligible for the Free Lunch Program	21.2	13.2	32.1	35	%	2015-2016	NCES
	Food insecurity rate	5	3.7	4.6	10.6	%	2016	FA
	Child food insecurity rate	8.7	7.6	10.7	13.3	%	2016	FA
	Income inequality	3.8	3.5	3.6	4.8	ratio 80%:20% income brackets	2017	CHR
	Median Household Income	114,329	125,672	98,546	66,149	US$	2016	ACS
	Children living below poverty level	7.5	4	10.3	15.1	%	2016	ACS
	People 65+ living below poverty level	5.3	4.9	4.9	7.6	%	2016	ACS
	People living below poverty level	6	4	7	11.4	%	2016	ACS
	Social and Economic Factors Ranking	5	2	19	--	of 133 counties	2018	CHR
	Annual unemployment rate	3	3	3.4	3.8	%	2017	BLS
Education	Proportion of students receiving advanced studies diploma	61.5	72.2	47.2	52	%	2018	VDE
	Enrolled in any post-secondary	83	86	75	71	%	2016	VDE
	4-year graduation rate	91.4	95.5	91.8	91.2	%	2017	VDE
	People 25+ with a Bachelor's degree or higher	60.3	58.8	39.5	36.9	%	2016	ACS

Category	Data Point	Value				Unit of measure	Year of Data	Data Source
		Fairfax County	Loudoun County	Prince William County	Virginia			
Healthcare Access	Below 138% FPL uninsured	28.5	28	29.3	22.1	%	2017	ACS
	Adults with health insurance, small area estimates	88.8	91.9	87.6	88.2	%	2016	SAHE
	Children with health insurance, small area estimates	95.3	95.4	94.1	95.1	%	2016	SAHE
	Clinical Care Ranking	15	25	75	--	of 133 counties	2018	CHR
	Preventable Hospital Stays - Medicare Population	29.8	42.1	38.5	42.8	discharges per 1,000 enrollees	2015	DAH
	Mammogram in past 2 years 40+	81.6	73	76	77.7	%	2012	VA BRFSS
	PAP test in past three years 18+	85.6	72	85.4	81.5	%	2012	VA BRFSS
	Colon Cancer Screening: Sigmoidoscopy or colonoscopy	69.9	67	73	69.5	%	2012	VA BRFSS
	Has not had to skip doctor because of cost	88.3	91.7	90.1	86.9	%	2014	VA BRFSS
Health Related Quality of Life and Well-being	Frequent Physical Distress	8.2	7.7	8.7	10.7	%	2016	CHR
	All Causes Mortality	4.4	3.7	4.1	7.9	per 1,000 population	2016	VDH
	Poor or Fair Health Age Adjusted	10	11	14	17	%	2016	CHR
	Health Behaviors Ranking	1	2	24	--	of 133 counties	2018	CHR
	Morbidity Ranking (Quality of Life)	7	1	17	--	of 133 counties	2018	CHR
	Mortality Ranking (Length of Life)	3	2	9	--	of 133 counties	2018	CHR
	Premature Death (YPLL Rate)	3,290	3262	4231	6,122	years of potential life lost	2014-2016	CHR
	Social associations	8.4	6.7	6.3	11.2	associations per 10,000 people	2016	CHR
Immunizations and Infectious Disease	Lyme's disease incidence	15.1	57.8	14.8	19.7	per 100,000	2017	VDH
	Tuberculosis incidence	6.3	3.4	4.1	2.4	per 100,000	2017	VDH
	Varicella (Chickenpox) incidence	5.9	5.2	3.7	4.0	per 100,000	2017	VDH
	Hepatitis B, chronic	70.9	58	45.5	27.5	per 100,000	2017	VDH
	Adults 65+ with pneumonia vaccination	76.2	68.1	61	69.2	%	2005-2010	VA BRFSS
	Hepatitis C, chronic	75.9	58	73.4	136.4	per 100,000	2017	VDH
Maternal, Infant, and Child Health	Teen birth rate 15-17	3.3	1.8	7.3	6.2	per 1,000 births	2016	VDH
	Teen birth rate <19	4.1	2.7	7.4	7.9	per 1,000 births	2016	VDH
	Infants born preterm	8.6	7.7	9	9.5	%	2016	VDH
	Infant mortality rate	4	3.9	4.4	5.8	per 1,000 births	2016	VDH
	Babies with low birth weight	7.1	6.2	7.5	8.1	%	2016	VDH
	Mothers who received early prenatal care	80.3	88.4	80.4	82.9	%	2013	VDH

Category	Data Point	Fairfax County				Loudoun County	Prince William County	Virginia
		Fairfax County	Loudoun County	Prince William County	Virginia			
Mental Health	Mental health provider rate	146	126	103	146	per 100,000	2017	CHR
	Adults ever diagnosed with a depressive disorder	11.8	17.7	8.8	17.4	%	2014	VA BRFSS
	Age-adjusted death rate due to suicide	8.3	12.5	10	12.8	per 100,000	2016	VOIRS
	Frequent mental distress	9.2	8.7	10	11	%	2016	CHR
	Depression: Medicare population	10.9	13.6	12.6	16.1	%	2016	CMS
	Poor mental health: 5+ days	14.9	9.3	16.1	17.8	%	2015	VA BRFSS
Neighborhood and Built Environment	Renters spending 30% or more of household income on rent	43.2	44	50.9	49.5	%	2016	ACS
	Severe housing problems (overcrowding, high cost, lack of kitchen or plumbing)	14	12	15	15.4	%	2010-2014	CHR
	Food Environment Index	9.6	10	9.2	8.2	0-10 (10 best)	2017	CHR
	Mean travel time to work	32	33.7	39.3	28.1	minutes	2016	ACS
	Workers commuting by public transportation	9.6	3.6	5.5	4.5	%	2016	ACS
	Workers who walk to work	1.8	1.5	1.3	2.4	%	2016	ACS
	Residential segregation non-white/white index	27	28	28	41	0-100 (0=full integration)	2012-2016	CHR
	Residential segregation black/white index	40	25	35	50	0-100 (0=full integration)	2012-2016	CHR
Obesity, Nutrition, and Physical Activity	Access to exercise opportunities	100	94	95	83	%	2018	CHR
	Kindergarteners who are obese	14.41	--	--	--	%	2016	BMI
	Adults who are sedentary	17	18	18	22	%	2014	CHR
	Adults engaging in physical activity in past month	81.2	82.2	84.9	76.5	%	2014	VA BRFSS
	Adults who are overweight or obese	53.5	54.3	69.5	64.7	%	2012	VA BRFSS
Oral Health	Dentist rate	104	61	53	68	per 100,000	2017	CHR
	Visited dentist in past year	78.3	77.3	71.7	68.9	%	2013-2014	VA BRFSS
	Permanent Teeth Removed	26.7	28.3	34.7	40.8	%	2014	VA BRFSS
Sexual and Reproductive Health	Teen pregnancy rate (15-17)	4.1	2.6	9	8.7	per 1,000 females 15-17	2016	VDH
	HIV Incidence	7.4	3.9	10.9	10.5	per 100,000	2017	VDH
	Gonorrhea incidence rate	46.5	25.8	67.2	131.8	per 100,000	2016	VDH
	Chlamydia incidence rate	259	232.7	419.9	471.6	per 100,000	2016	VDH
	HIV Prevalence	230.4	106.8	236.1	286.7	per 100,000	2017	VDH

Category	Data Point	Value				Unit of measure	Year of Data	Data Source
		Fairfax	Loudoun	Prince William	VA			
Tobacco and Substance Use	Adults who smoke	10	11	15	15	%	2016	CHR
	Adults who drink excessively	17	17	18	17.4	%	2016	CHR
	ED rate - heroin OD	8.3	4.4	16.6	17.8	per 100,000	2017	VDH
	ED rate - prescription opioid OD	65.6	63.7	62.8	102.6	per 100,000	2017	VDH
	Mortality rate - heroin/fentanyl OD	7.7	6.2	9.6	11	per 100,000	2017	VDH
	Mortality rate - prescription opioid OD	4.5	2.1	4.9	5.9	per 100,000	2017	VDH
Violence and Injury	All-cause injury or violent hospitalizations	277.4	243	244.4	436.4	per 100,000	2016	VOIRS
	Hospitalizations related to unintentional fall	169.8	141.7	109.6	212.3	per 100,000	2016	VOIRS
	All-cause injury or violent death	33.4	33.7	38	61.3	per 100,000	2016	VOIRS
	Firearm deaths	3.7	6.7	7.8	12.2	per 100,000	2016	VOIRS
	Motor vehicle deaths	3.7	3.4	5.3	8.7	per 100,000	2016	VOIRS
	Violent crime rate	89.4	85	163	194.2	per 100,000	2012-2014	CHR

Youth Risk Behavioral Survey

Fairfax County surveyed youth in public schools. The surveys asked questions similar to those raised by the CDC's Youth Risk Behavior Surveillance System (YRBSS).

Figure E3: 2017 YRBS Results

	City of Alexandria	Fairfax County	Virginia	United States
Unintentional Injuries and Violence				
Rode with a driver who had been drinking alcohol	19.5	-	14.2	16.5
Drove when they had been drinking alcohol	-	6.3	5.6	5.5
Texted or e-mailed while driving a car or other vehicle	29.1	35.4	-	39.2
Carried a weapon	8.1	8.7	-	15.7
Were in a physical fight	15.7	-	19.8	23.6
Were electronically bullied	8.9	11.3	12.6	14.9
Were bullied on school property	12.0	12.6	15.7	19.0
Felt sad or hopeless almost everyday for 2 weeks or more during last 12 months	29.4	25.9	29.5	31.5
Seriously considered attempting suicide in last 12 months	12.5	13.7	15.7	17.2
Made a plan about how they would attempt suicide during last 12 months	10.6	-	12.6	13.6
Attempted suicide during last 12 months	6.9	5.4	7.2	7.4
Tobacco Use				
Ever tried cigarette smoking	18.4	11.3	-	28.9
Had their first cigarette smoking before age 13	-	4.0	8.0	9.5
Currently smoked cigarettes	3.9	2.6	6.5	8.8
Did not try to quit smoking cigarettes	67.9	-	65.8	58.6
Currently used electronic vapor product	7.5	4.0	11.8	13.2
Alcohol and Other Drug Use				
Ever drank alcohol	-	34.5	-	60.4
Had their first drink of alcohol before age 13	-	9.0	14.7	15.5
Currently drank alcohol	23.2	15.2	24.5	29.8
Ever used marijuana	29.6	17.4	-	35.6
Tried marijuana for the first time before age 13	-	1.7	5.5	6.8
Currently used marijuana	15.9	8.9	16.5	19.8
Ever took prescription pain medicine without a doctor's order/prescription	-	4.6	12.6	14.0

	City of Alexandria	Fairfax County	Virginia	United States
Sexual Behaviors				
Ever had sexual intercourse	28.9	16.8	-	39.5
Had sexual intercourse for the first time before age 13	2.9	1.5	-	3.4
Currently sexually active	20.6	11.6	-	28.7
Did not use a condom during last sexual intercourse	39.7	33.7	-	46.2
Drank alcohol or used drugs before last sexual intercourse	14.9	20.7	-	18.8
Dietary Behaviors				
Drank soda or pop one or more times per day in last week	-	9.8	16.4	18.7
Physical Activity				
Were physically active at least 60 minutes per day on 5 or more days in the last week	30.6	41.9	42.3	46.5
Played video or computer games or used a computer for 3 or more hours per day in the last week	46.7	48.6	42.9	43.0
Watched television 3 or more hours per day on an average school day	19.5	13.4	18.9	20.7

Unless otherwise specified, questions asked about behavior in the last month.

Appendix F: Identifying Top Health Issues Methodology

As described throughout this document and the CHNA Report, each of the three assessments identified areas of concern. Community health needs were determined to be "top health issues" if they were identified as problematic in at least two of the three assessments.

An Assessment Scoring Matrix was developed by the collaborative in order to visualize these results. Figure F1 shows this matrix for the IFMC Community.

Figure F1: IFMC Assessment Scoring Matrix

Category	CTSA Theme?	CHSA Theme?	FOCA Theme?
Chronic health conditions (stroke, heart disease, diabetes, Alzheimer's/dementia, arthritis, cancer)	x	x	x
Economic stability (income inequality, poverty, unemployment)	x	x	x
Education (school climate, suspensions, graduation rates, advanced academics, college)	x		
Health related quality of life and well-being (life expectancy, years of life lost due to illness, quality of life rankings)			
Healthcare access (insurance coverage, unnecessary hospitalization, healthcare disparities)	x	x	x
Immunizations and infectious disease (infectious disease incidence, immunization rates)			
Injury and violence (accidental injury, motor vehicle collision, assault)	x	x	
Maternal, infant and child health (infant mortality, maternal mortality, birth rate among adolescents, prenatal care)		x	
Mental health (mental distress, suicide, depression)	x	x	x
Neighborhood and built environment (residential segregation, housing costs, food environment, commuting, green space)	x	x	x
Obesity, nutrition, and physical activity (overweight or obesity, food insecurity, levels of physical activity)	x		x
Oral health (tooth loss, received dental services)	x		
Sexual and reproductive health (adolescent sexual health and pregnancy, HIV and STI incidence and prevalence)		x	
Tobacco and substance use and abuse (tobacco and e-cigarette use, alcohol and drug use)	x	x	

Using this framework, the top health issues identified for the IFMC community **were chronic conditions; economic stability; healthcare access; injury and violence; mental health; neighborhood and built environment; obesity, nutrition and physical activity; and tobacco and substance use and abuse**.

Appendix G: Actions Taken Since Previous IFMC CHNA

This appendix discusses community health improvement actions taken by Inova since its last CHNA reports were published in 2016, and based on the subsequently developed Implementation Strategies. The information is included in the 2019 CHNA reports to respond to final IRC 501(r) regulations, published by the IRS in December 2014.

Priority Strategic Initiatives

1. Improve the Care and Conditions of Aging Adults
   a. ElderLink has implemented an evidence-informed program out of the Rosalynn Carter Institute for Caregiving called “Caring For You, Caring For Me” (CFYCFM) to support caregivers of older adults in the community. CFYCFM is a 10 hour workshop series that is delivered over the course of 5 weeks. The program is a blend of lecture and discussion and is aimed at providing education and support to those who care for older adults.
   b. No One Dies Alone is a program that provides companionship and support to patients who are at the end of their lives and may not have friends or family at their side. Volunteers stay with these patients and provide compassion and emotional support so these patients will not spend their moments alone. Started at IFMC at the end of 2017, in 2018 the program grew to 64 volunteers and 1,390 volunteer hours in 2018.
   c. Additionally, the Geriatrics Services (including Geriatric Medicine, HELP, NICHE) and Neuroscience departments partnered to provide two workshops on dementia for care providers offered free to the community with 75 attendees.
   d. The Inova Medical House Calls program is designed to help patients successfully “age in place” while reducing readmissions and overall cost. An interdisciplinary team provides comprehensive primary care in patient homes and assisted living facilities. Patients are generally 65 years of age or older and they have difficulty leaving home for medical appointments. These primary care services are “high-touch” with intensive patient management and care coordination with an emphasis on advance care planning. The program staff leverages strong relationships with inpatient teams, hospice agencies, skilled nursing staff, physical therapy staff, occupational therapy staff, mental health counselors and county services for high-quality patient outcomes.
   e. One major issue in care for the growing older adult population has been a scarcity of options for primary care. To meet this need, Inova added a geriatrician in three of the Inova Medical Group primary care practices.
   f. As part of its focus to promote community health and education, Inova’s Department of Population/Community Health provides small grants to not-for-profit organizations. One of these grants was to Insight Memory Care Center, where funds will help support the organization’s adult day respite care program. IMCC is the only licensed adult day center in Northern Virginia dedicated to enhancing the lives of individuals with Alzheimer’s disease and related dementias as well as their caregivers and families.

2. Improve Care and Access to Care for Individuals with Mental Health and/or Substance Abuse Needs
   a. Inova Behavioral Health Services is committed to offering a full spectrum of mental health and addiction treatment services, and has been working to increase access through creative and multi-modal initiatives. These activities include, but are not limited to the following: adding behavioral health professionals at primary care and OB practices, adding care navigators at all behavioral health clinics and emergency rooms, adding telehealth at all Inova emergency rooms and a new peer counseling program for opioid overdose.
   b. A new Psychiatric liaison position has been created at Inova Fairfax Medical Campus. This individual provides behavioral health care management for adults admitted to the hospital for medical diagnoses. The psych liaison will assist with treatment recommendations, identify behavioral health needs following discharge, develop educational and training programs, and identify resources (or the lack thereof) for behavioral health needs in the community.
   c. Inova recognizes that hospitals can have a large impact on the rising opioid epidemic. In order to do its part to reduce prescription drug abuse, Inova is working with its doctors to reduce opioid prescriptions using alternative forms of pain management, including piloting new virtual reality therapy, and has successfully reduced overall opioid use at all hospitals.
   d. Additionally, in 2018 Inova Fairfax Medical Campus installed a public drop-off box for safe disposal of unused drugs.
   e. Inova Behavioral Health Services is committed to offering a full spectrum of mental health and addiction treatment services, and has been working to increase access through creative and multi-modal initiatives. One new initiative is the implementation of SBIRT (Screening, Brief Intervention and Referral to Treatment). SBIRT is a simple screening tool that helps identify people at high risk of substance abuse, and is now in place in all hospital emergency departments (ED). Results of the screening guide the level of intervention. People at mild or moderate risk receive a short counseling session. Those diagnosed as addicted are referred for treatment.
   f. Another way that Inova is working to fill the gap in services for child and adolescent mental health is through the REACH Program. REACH is an educational program for providers to learn how to use psychiatric medications with the pediatric patients in their offices. Over the last four years Inova has provided this training opportunity to 250 pediatricians and nurse practitioners.

3. Improve Cultural Competency and Inclusion.
   a. To further improve the health of the diverse communities that we serve, in late 2016 and early 2017, Inova launched three new Simplicity Health clinics, a group of primary care clinics for adults that provide ongoing care, prevention and disease management at affordable fees for chronic illnesses like diabetes, hypertension and heart disease. With Simplicity Health clinics, we are bringing excellent care to convenient locations, including one in Annandale, for high-need communities, making healthcare not only affordable, but also accessible. Staff are as diverse as the communities we serve and are able to speak a variety of languages, such as Korean, Vietnamese, Spanish and Arabic.
   b. Inova's Program Outreach Administrator is the co-chair of the Health Workforce team of the Partnership for a Healthier Fairfax. This team is working on a project to improve outcomes for the diverse population served through education and outreach to providers about the use and importance of CLAS standards. In 2018, a curriculum was developed and has since been implemented in a number of settings. The curriculum is based on the facilitated discussion of video stories sharing the lived experiences of diverse individuals in the healthcare system.

4. Outside of these priority areas identified in the IFMC 2016 CHNA Implementation Plan, the hospital has continued community benefit programs that address a variety of health concerns. Inova operates much of its community health programs centrally, and as a result, many of these programs are not operated directly by IFMC.
   a. In 2019, with the newly expanded Medicaid eligibility rules, Inova built on the foundation created by the Simplicity Health Clinics to launch Inova Health Advantage. Inova Health Advantage Clinics provide primary care services to Medicaid enrollees to include health maintenance and disease prevention, patient education and counseling, and the treatment of acute and chronic medical conditions such as diabetes and hypertension.
   b. Inova's Partnership for Healthier Kids (PHK) Access to Care program provides families with comprehensive application and enrollment assistance to connect them with an appropriate and affordable source of health care services. PHK began expansion efforts in the end of 2018 with the onset of Medicaid expansion in Virginia.
   c. The Language and Disability Services Department is dedicated to ensuring equal access to Inova's services regardless of language preference or the need for special accommodations. In support of patient safety and satisfaction, language interpretation and document translations are provided at every Inova facility, to facilitate communication with the 14% of Inova's patient population who are Limited English Proficient (LEP), and the 0.2% of clients who are Deaf or Hard of Hearing (D/HH).
   d. The Inova Comprehensive Addiction Treatment Services Program (CATS) is a leader in providing the highest quality addiction treatment services in Northern Virginia and surrounding areas. A series of structured programs offers effective, compassionate treatment for individuals dealing with all forms of substance abuse disorders, including addiction to alcohol, prescription drugs, heroin, cocaine and other drugs. Services are available to adults ages 18 and older. The range of services includes: Inpatient Medical Detoxification, Partial Hospitalization Program, Intensive Outpatient Program, Outpatient Groups, Medication Assisted Therapy and Substance Use Assessments.
   e. The Inova Kellar Center is a comprehensive, behavioral health treatment center and special education school for children, adolescents and their families. With locations in Fairfax and Loudoun counties, Inova Kellar Center provides a full continuum of outpatient services for psychiatric disorders, substance use disorders, and behavioral and emotional issues. Services include assessment, psychological testing, educational testing, psychiatric evaluation, medication management, individual, family and group therapy and Intensive In-Home services. For adolescents who require intense mental health interventions, the Center provides an afterschool Intensive Outpatient Program for mental health and co-occurring disorders and a full day Partial Hospitalization Program for adolescents who are in crisis and unable to attend school. The treatment services and programs are provided to children and families regardless of ability to pay. The Kellar School of Inova Kellar Center provides special education services to children and adolescents who have not been successful in the public school setting and may be at risk for being removed from the community and placed in more restrictive settings.
   f. The mission of Life with Cancer (LWC) is to enhance the quality of life of those individuals in the community affected by cancer. The program addresses the specific needs by providing individual and family counseling, support groups, educational seminars, workshops on cancer diagnosis and treatment, and a full array of complimentary therapies. Life with Cancer is generously supported by our community; therefore all services are available at no charge to residents of the Washington Metropolitan area.

g. The Inova Ewing FACT department is a comprehensive, outpatient forensic nursing program for children and adults. Established in the late 1990s, the Inova Ewing FACT department has provided specialized care for victims of sexual abuse, domestic violence and child abuse. FACT serves all of Northern Virginia including Fairfax, Arlington, Loudoun and Prince William counties, the cities of Alexandria and Falls Church, parts of Fauquier and Stafford counties, military installations and universities. FACT also performs courtesy exams for outlying jurisdictions including the District of Columbia, Maryland and West Virginia. The program has grown significantly over the years and now provides services in the areas of Sexual Assault, Intimate Partner/Domestic Violence, Physical Child Abuse, Strangulation and Human Sex Trafficking.