

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, ILH 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 discussions

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

This 2019 Inova Loudoun Hospital (ILH) Community Health Needs Assessment (CHNA) and Loudoun County Community Health Assessment gathered community input through two main methods – Forces of Change discussions and the community survey.

Forces of Change discussions bring together individuals working in and with the community, who represent a broad diversity of stakeholders. Participants included individuals with special knowledge of or expertise in public health; local public health departments; agencies with current data or information about the health and social needs of the community; representatives of social service organizations; business leaders, and leaders, representatives, and members of medically underserved, low-income, and minority populations.

Inova and Loudoun County Health Department representatives conducted Forces of Change sessions with the Loudoun Health Council, Loudoun Human Services Network and the Loudoun County Chamber of Commerce.

Inova, the Health Department and the Loudoun Health Council promoted the community survey to partners and residents alike. The survey was available in print or online in nine languages (Amharic, Arabic, Chinese (Mandarin), English, Farsi, Korean, Spanish, Vietnamese and Urdu). Printed copies were provided to partners and local clinics, as well as health department facilities. Surveys were also distributed to families through the Loudoun County Public School system.

Appendix B: Community Description

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

The Inova Loudoun Hospital community is comprised of 19 ZIP codes, including all of Loudoun County and one ZIP code in Fauquier County.

Total Population

Figure B1: ILH Community

City or County	Percent of Discharges	Percent of Emergency Department Visits
Clarke County, VA	0.6%	0.5%
Loudoun County, VA	81.9%	86.6%
Community Total	82.5%	87.1%
Other Areas	17.5%	12.9%
All Areas	100.0%	100.0%
Total Discharges and ED Visits	12,391	58,892

Source: Inova Health System, 2018.

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

Community	Total Population			Percent Change	
	2015	2020	2025	2015-2020	2020-2025
Loudoun County	368,145	417,996	452,047	13.5%	8.1%
Ashburn/Arcola	107,502	121,399	127,267	12.9%	4.8%
Leesburg	81,562	88,381	96,057	8.4%	8.7%
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%
Western Loudoun	43,826	51,121	58,078	16.6%	13.6%
Community Total	368,145	417,996	452,047	13.5%	8.1%

Source: Metropolitan Washington Council of Governments, 2015

Age

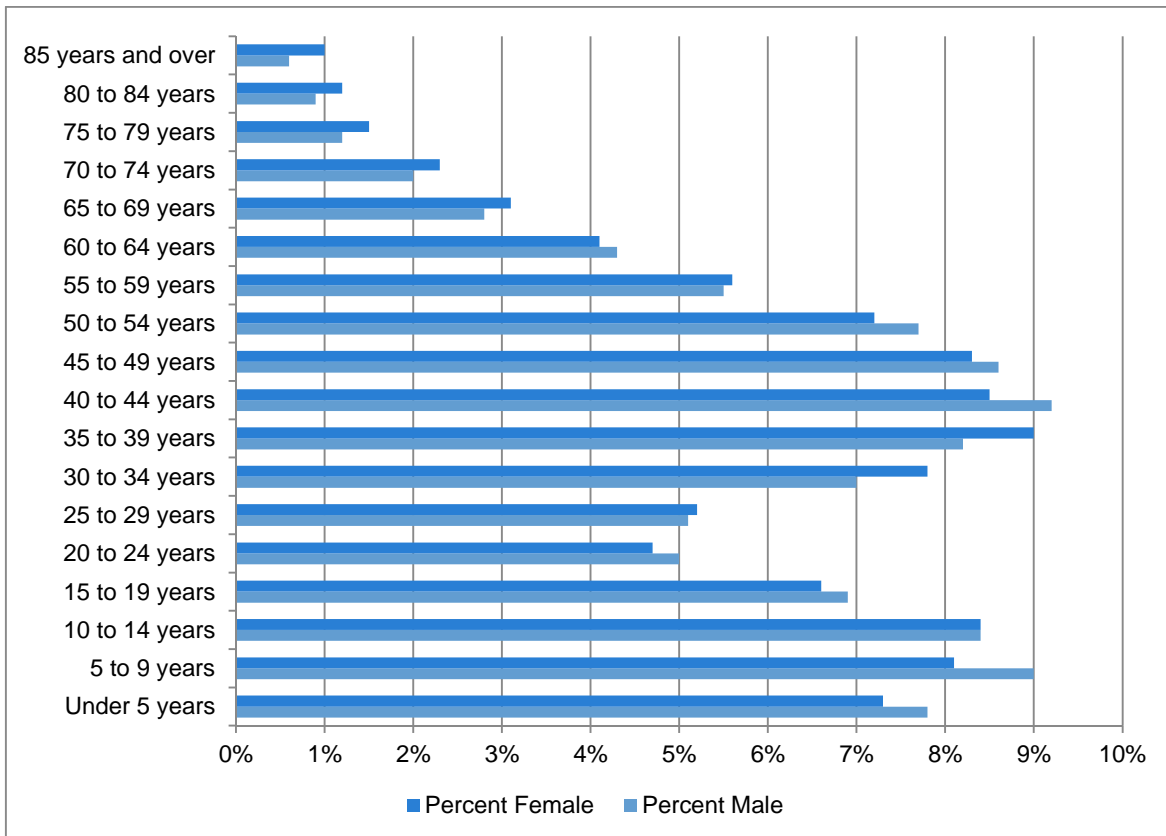
Population characteristics and changes directly influence community health needs. The total population in the Inova Loudoun Hospital community is expected to grow nearly 13 percent from 2015 to 2025. In that same time frame, the population 65+ is expected to increase by 52%. The growth of older populations 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 Cohort, ILH Community (2015 – 2025)

Age Cohort	Total Population			Percent Change	
	2015	2020	2025	2015-2020	2020-2025
0-17	111,167	124,072	131,855	11.6%	6.3%
18-44	133,690	148,820	157,360	11.3%	5.7%
45-64	93,519	105,229	113,903	12.5%	8.2%
65+	29,769	39,875	48,929	33.9%	22.7%
Total	368,145	417,996	452,047	13.5%	8.1%

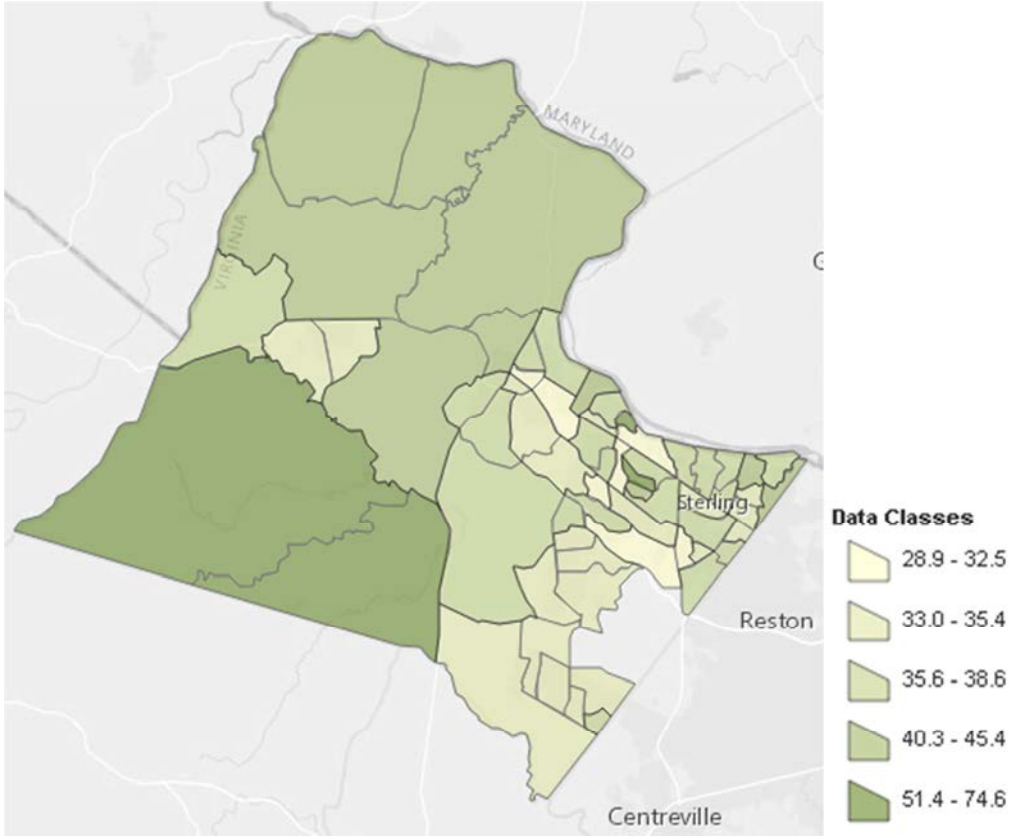
Source: Metropolitan Washington Council of Governments, 2015

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



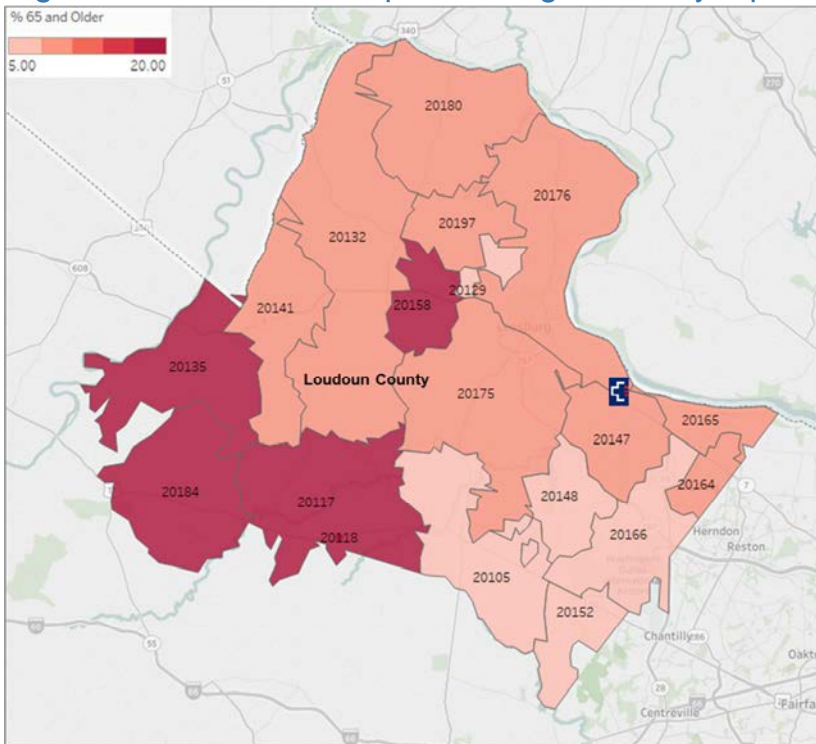
Source: 2013-2017 ACS 5-year estimates.

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



Source: 2013-2017 ACS 5-year estimates.

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

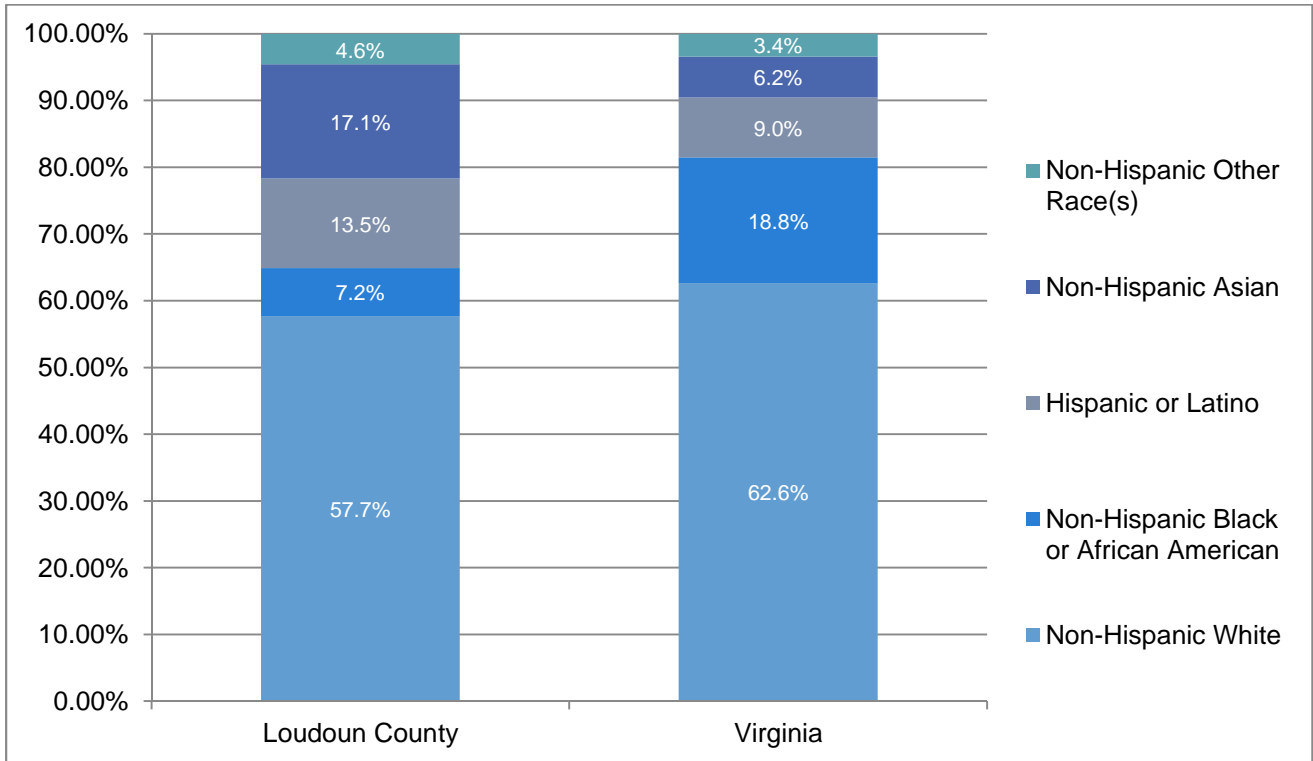


Source: Tableau and U.S. Census, ACS 5-Year Estimates, 2013-2017

Race and Ethnicity

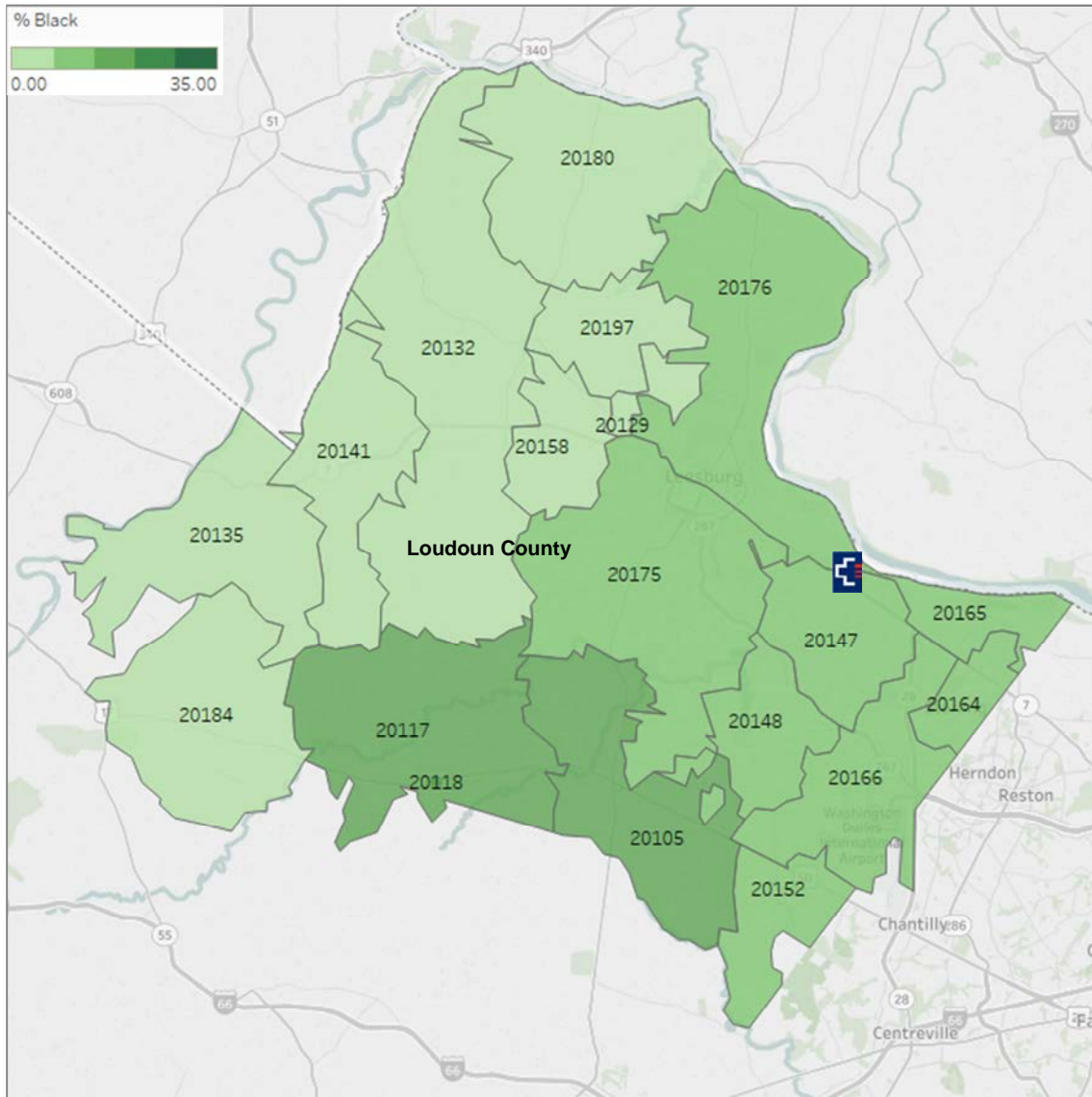
In Loudoun County in 2017, Asians, Hispanics, and African Americans represented 17%, 13%, and 7% of the county’s population, respectively. Racial and ethnic diversity is increasing, as these groups are growing and the percent of the population that is White/Caucasian (excluding Hispanics and Latinos) 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)



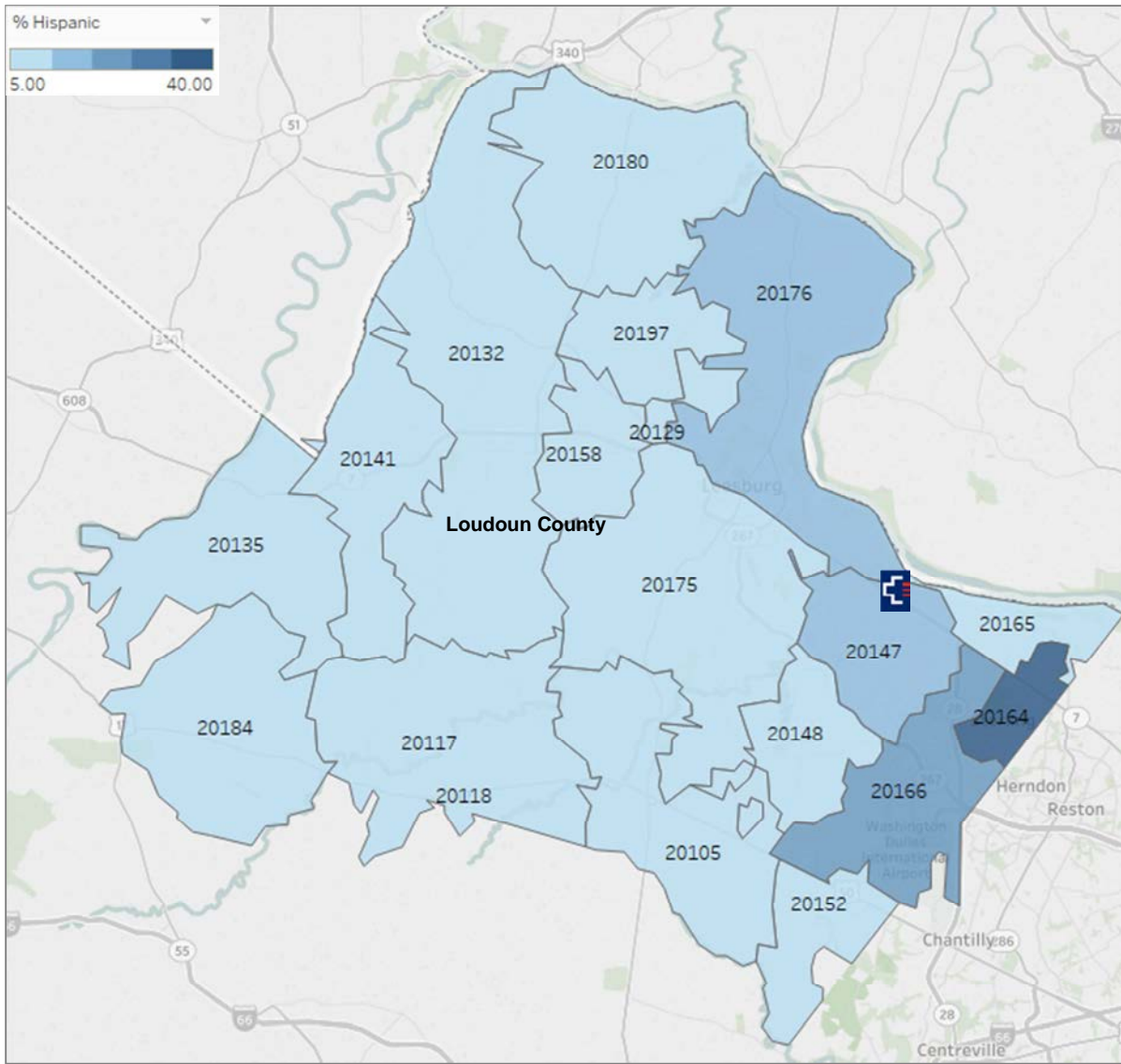
Source: 2013-2017 ACS 5-year estimates.

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



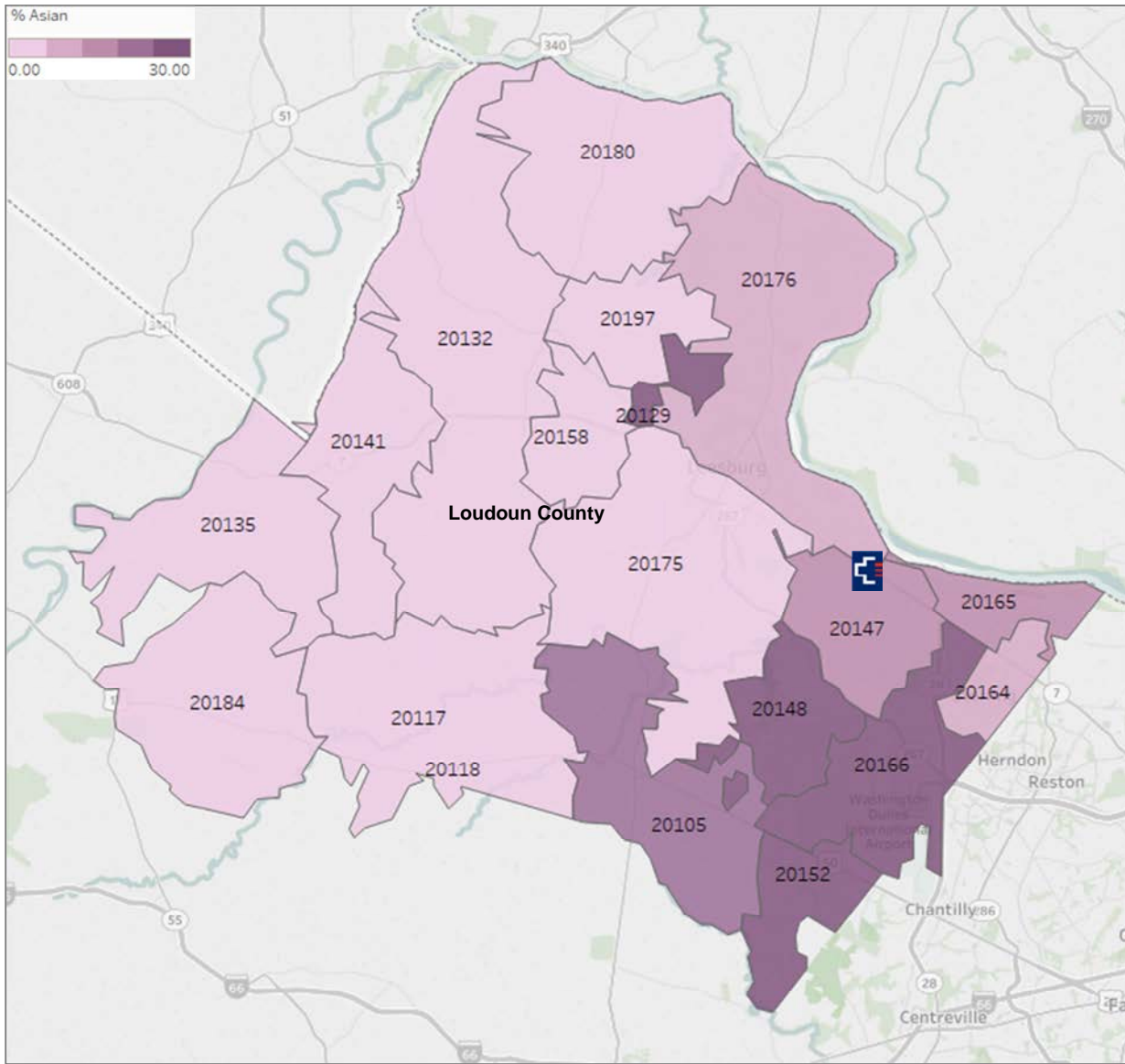
Source: Tableau and U.S. Census, ACS 5-Year Estimates, 2013-2017

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



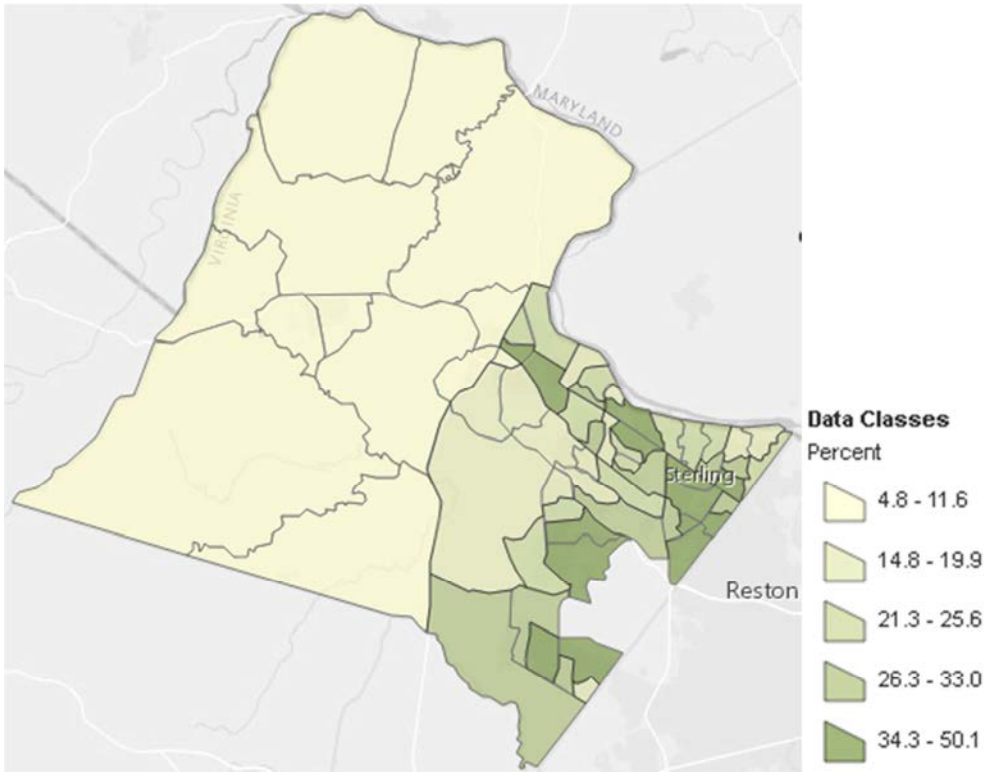
Source: Tableau and U.S. Census, ACS 5-Year Estimates, 2013-2017

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



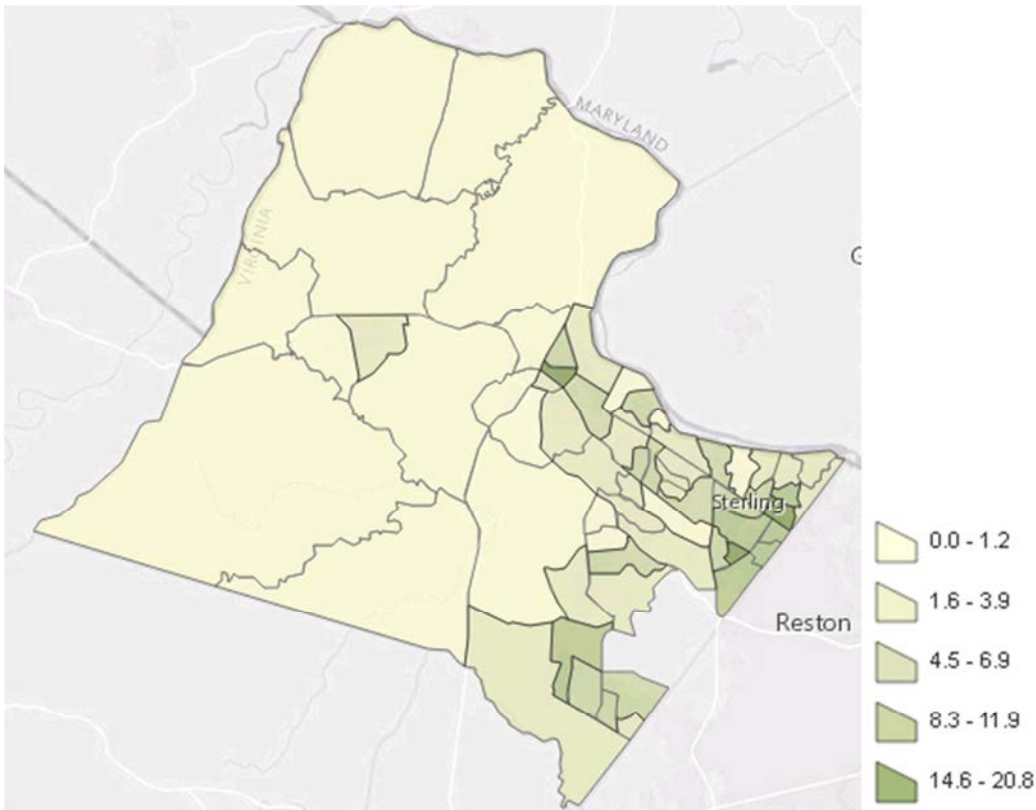
Source: Tableau and U.S. Census, ACS 5-Year Estimates, 2013-2017

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



Source: 2013-2017 ACS 5-year estimates.

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

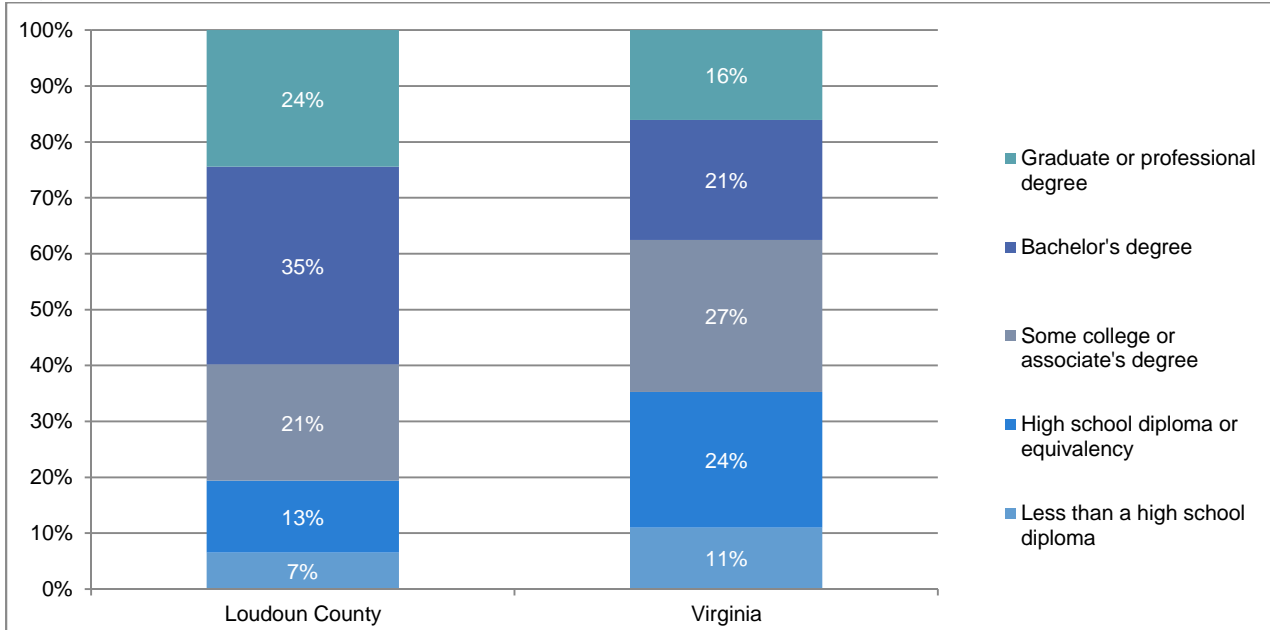


Source: 2013-2017 ACS 5-year estimates.

Education

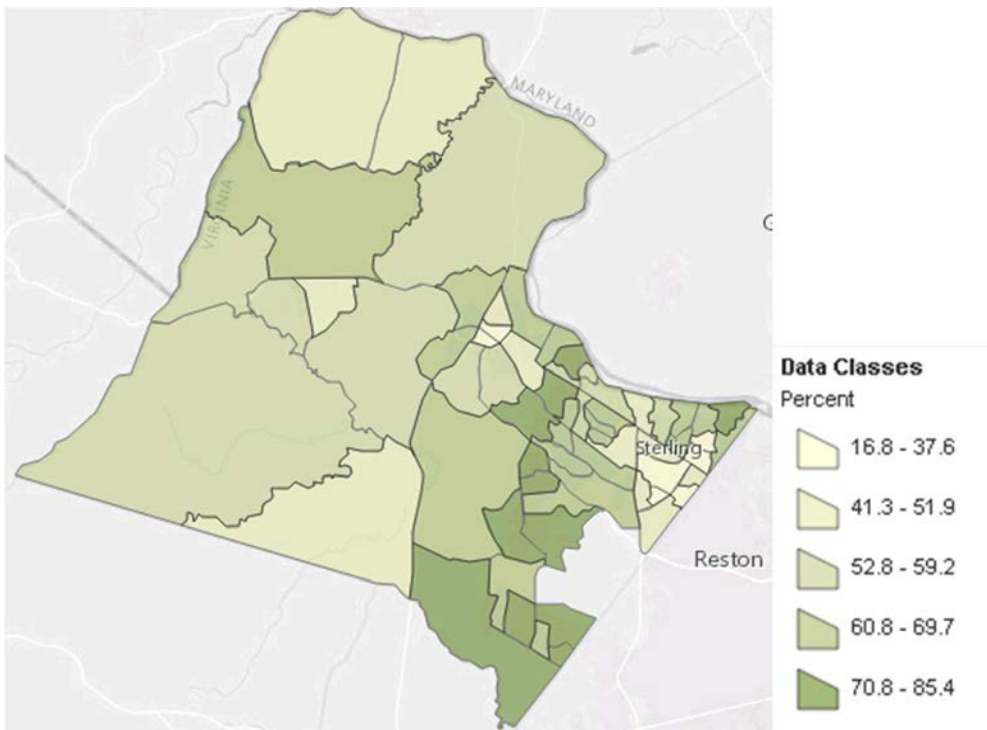
Overall the ILH Community is highly educated. In Loudoun County 59% of residents hold a Bachelor’s degree or higher, with nearly one quarter of residents holding a graduate or professional degree. However, there are noticeable discrepancies within the County.

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, Loudoun County (2017)



Source: 2013-2017 ACS 5-year estimates.

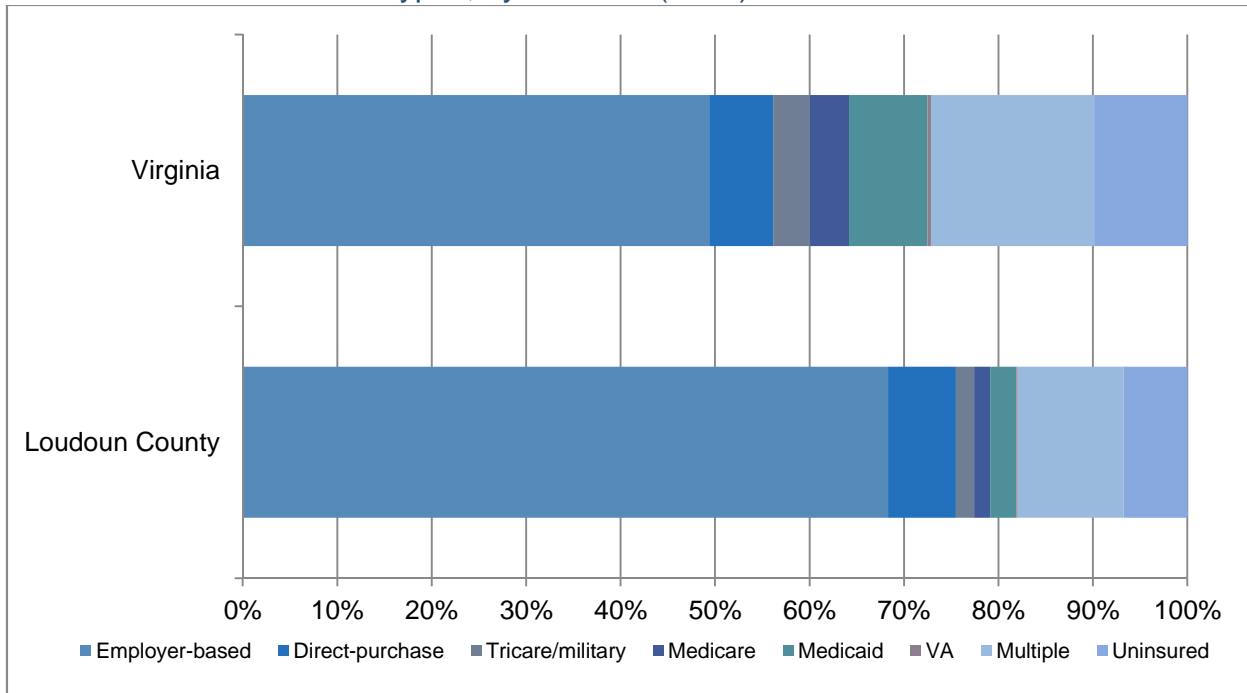
Health Insurance

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.

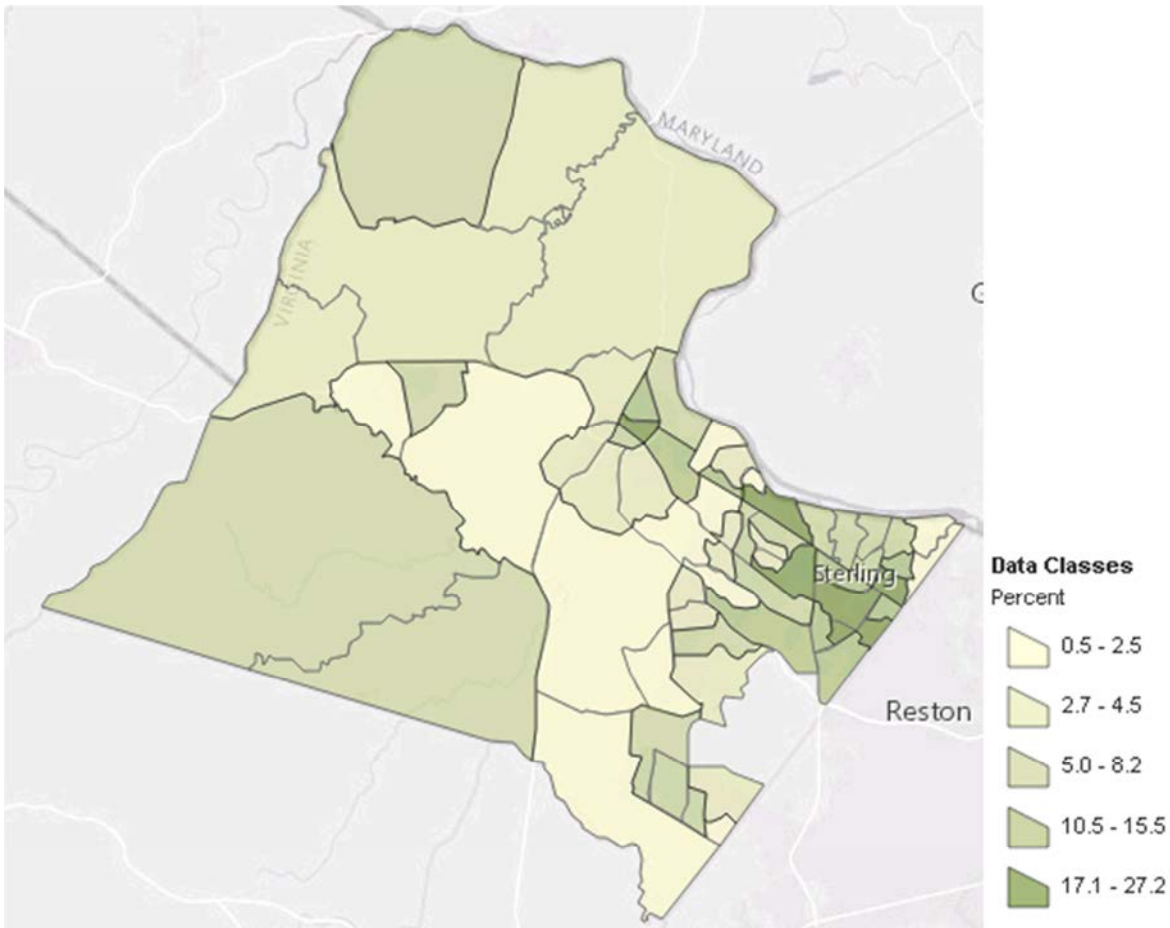
Figure B15: Health Insurance Types, by Location (2017)



Source: 2013-2017 ACS 5-year estimates.

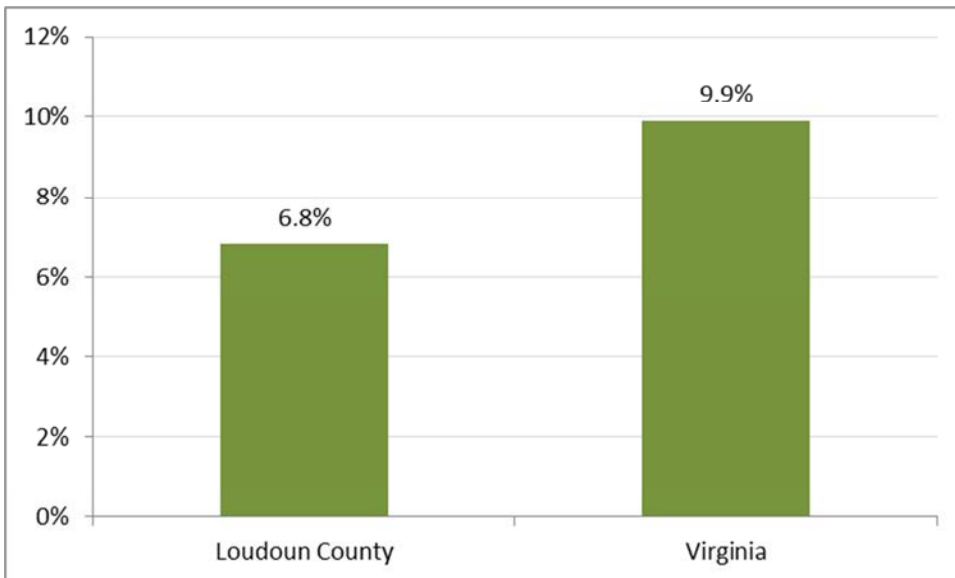
¹ DMAS.

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



Source: 2013-2017 ACS 5-year estimates.

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

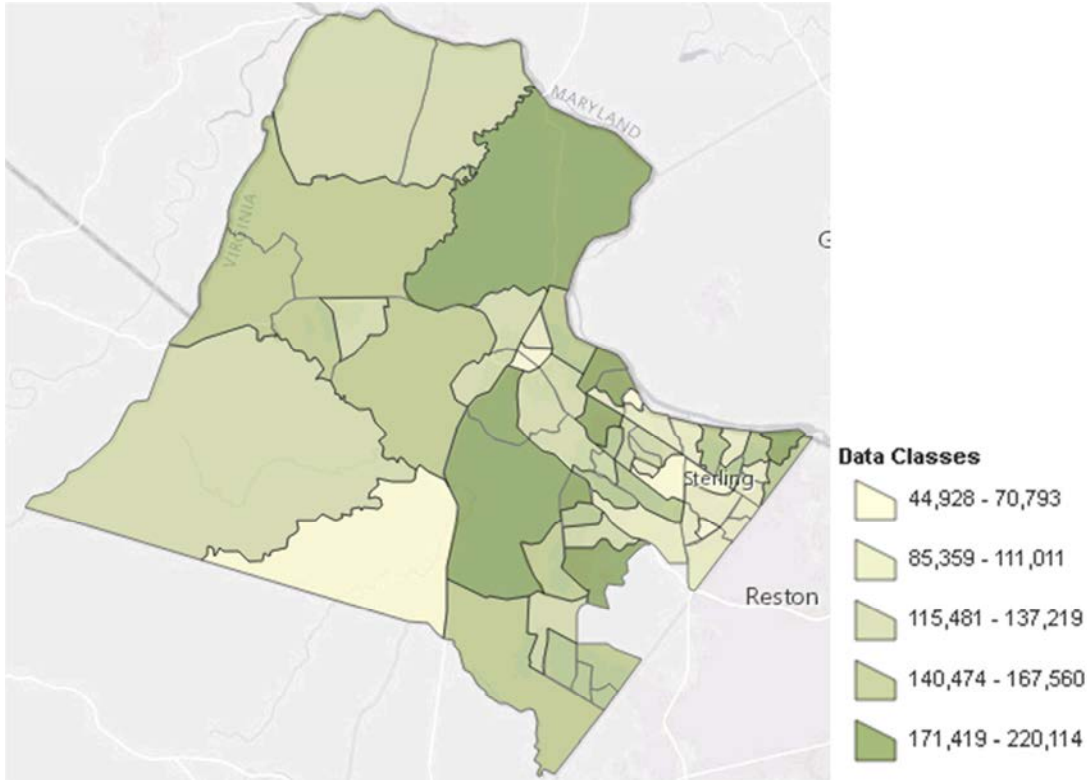


Source: U.S. Census, ACS 5-Year Estimates, 2013-2017

Socioeconomic

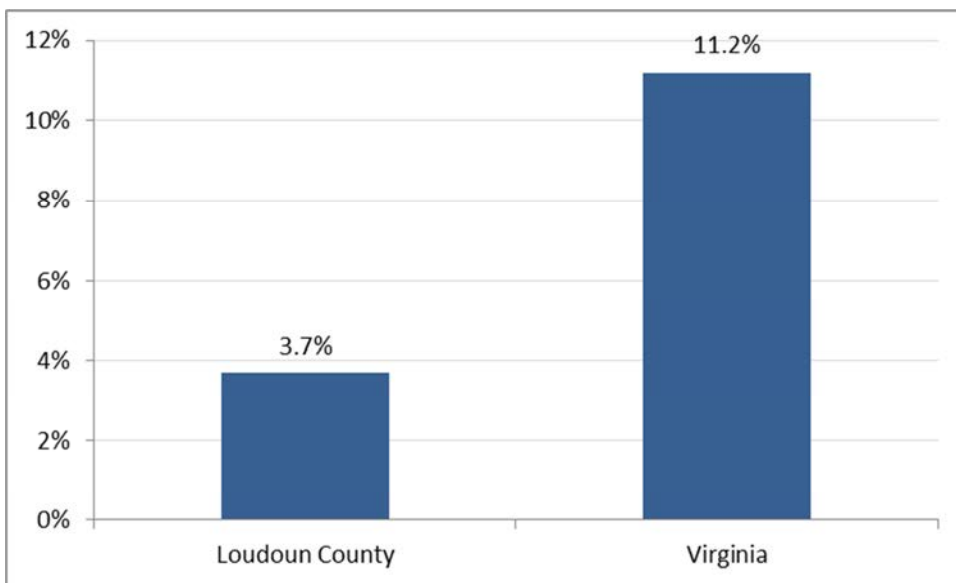
Many health needs have been associated with poverty, unemployment and other socioeconomic factors. While most socioeconomic indicators in the ILH community are favorable compared to Virginia overall, there are disparities by race/ethnicity, county/city and even census tract.

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



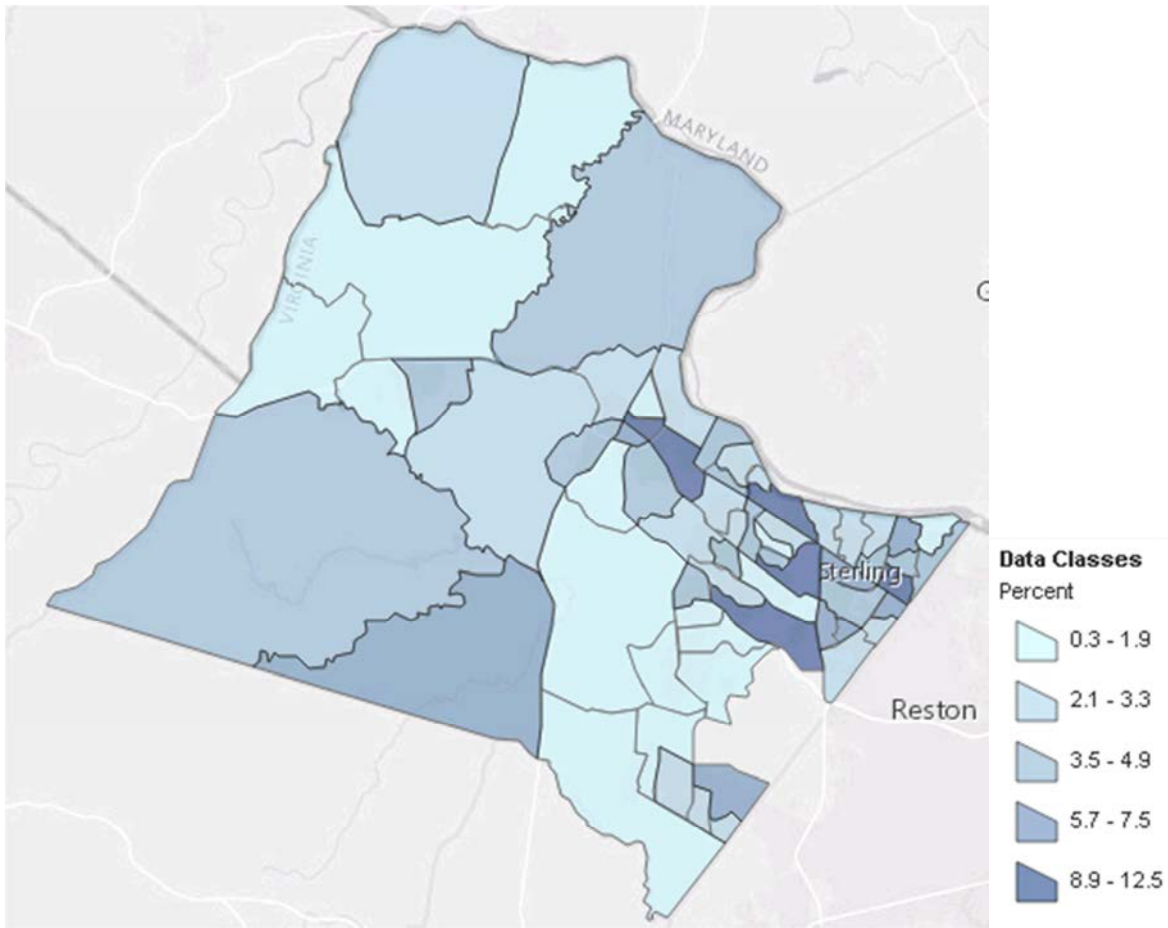
Source: U.S. Census, ACS 5-Year Estimates, 2013-2017

Figure B19: Poverty Distribution, ILH Community (2017)



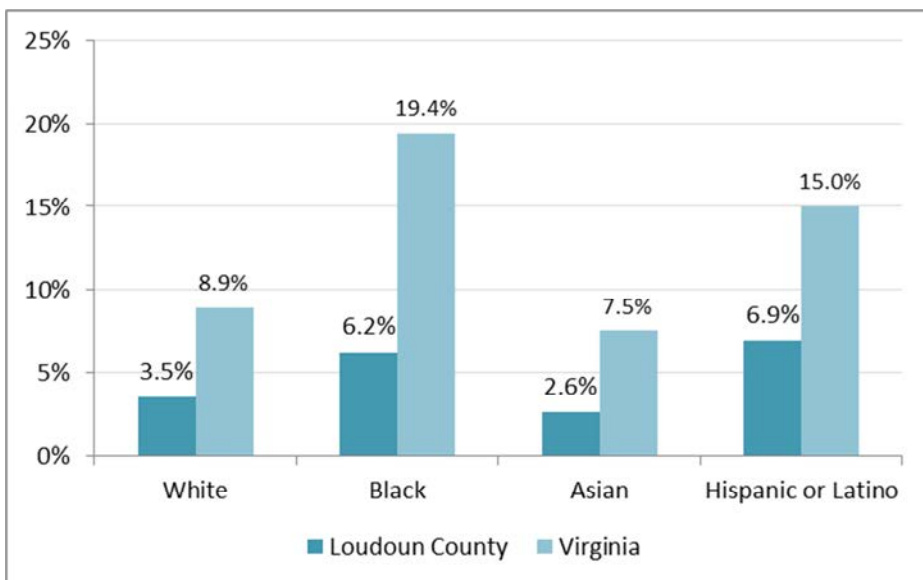
Source: U.S. Census, ACS 5-Year Estimates, 2013-2017

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



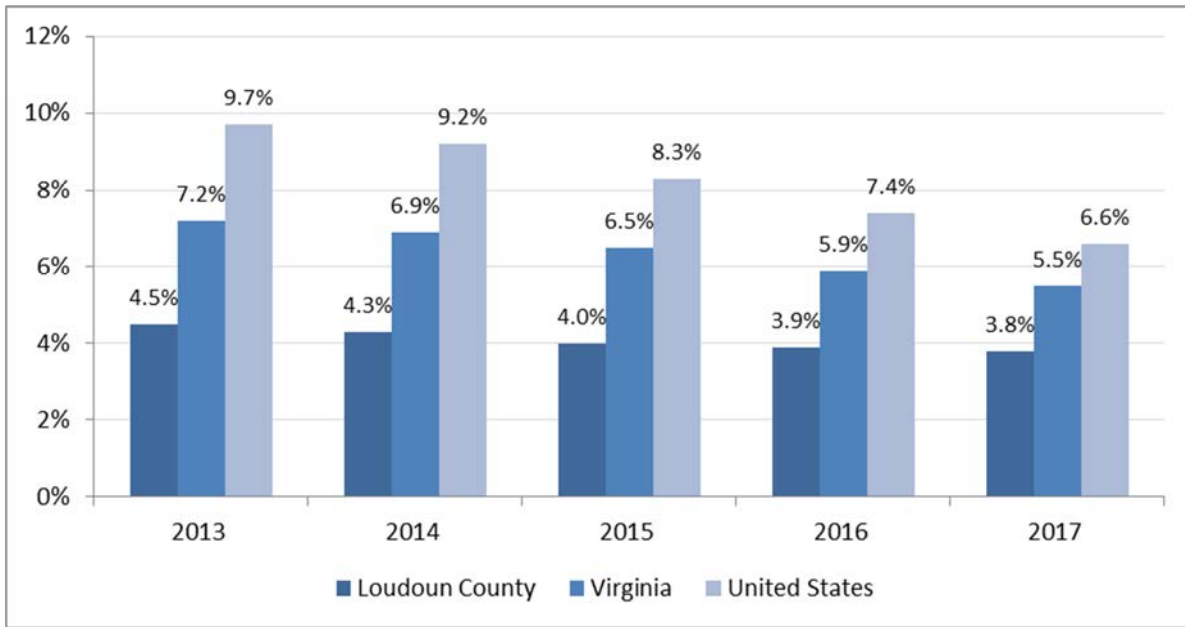
Source: U.S. Census, ACS 5-Year estimates, 2013-2017

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



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

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



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

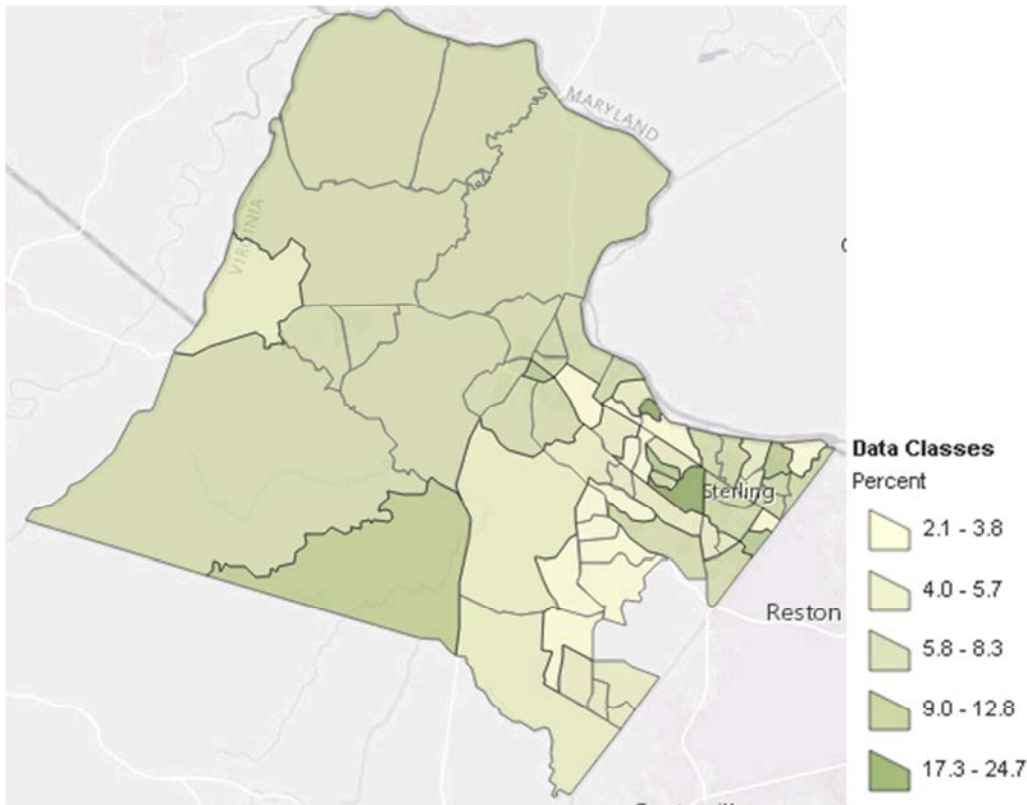
Figure B23: Other Socioeconomic Factors, ILH Community (2017)

Measure	Loudoun County	Virginia	U.S.
Population 25+ without High School Diploma	6.5%	11.0%	12.7%
Population with a Disability	5.6%	11.5%	12.6%
Population Linguistically Isolated*	4.8%	2.7%	4.7%

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

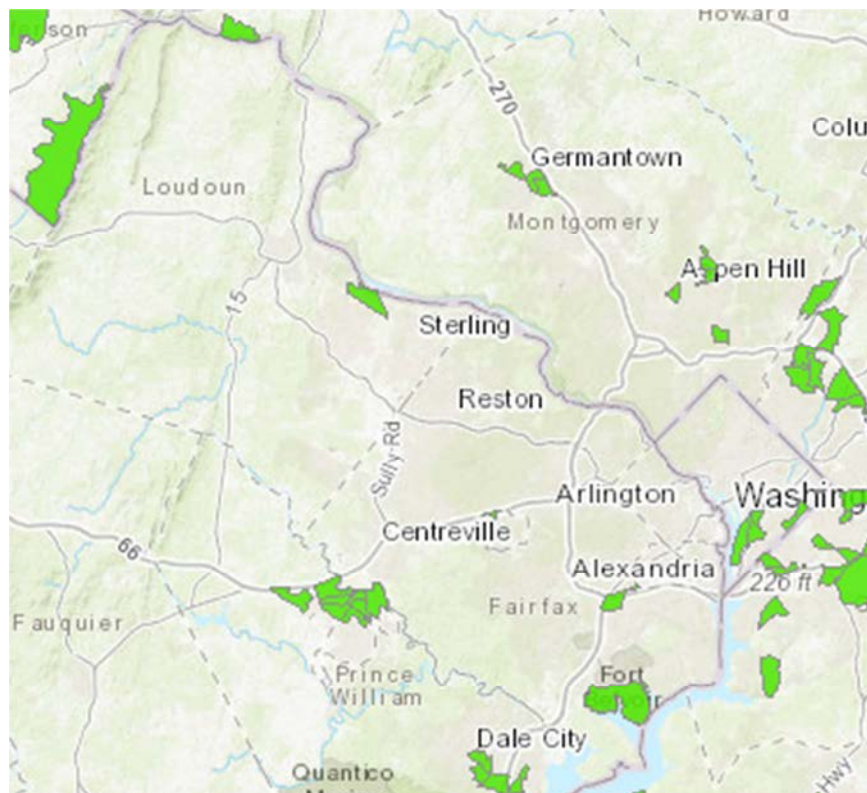
Source: *U.S. Census, ACS 5-Year Estimates, 2007-2011

Figure B24: Percent of Residents with a Disability by Census Tract, Loudoun 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 region that have been designated as areas where Medically Underserved Populations are present.

Figure B26: Medically Underserved Areas and Populations, Northern Virginia



Source: HRSA Data Portal, 2019

² Health 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 Loudoun Free Clinic (Leesburg, 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 Loudoun 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 | Legal, consumer, and financial management services |
| Food, clothing, and household items | Transportation |
| Summer food programs | Employment and income support |
| Health care and disability services | Family support and parenting |
| Health insurance and expense assistance | Holiday assistance |
| Mental health and counseling | Disaster services |
| Substance abuse and other addictions | Government and community services |
| Support groups | Education, recreation, and the arts |
| Tax preparation assistance | Donations and volunteering |

Appendix C: Forces of Change Assessment (FOCA)

The Forces of Change conversations included 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 Loudoun County
3. Biggest barriers to reaching optimal health
4. What particular populations subgroups that face these challenges more than others

Table C1: Loudoun Chamber of Commerce FOCA Response Matrix

Forces	Threats	Opportunities
Access to Care		
Health insurance	<ul style="list-style-type: none"> Medical care can be based on insurance policies/regulations increasing costs, the system is broken (access not equal) 	
Mental Health		
Teen suicide increase, overuse of social media/cell phones	<ul style="list-style-type: none"> Social disconnected; closer and closer to home 	
Immunizations and Infectious Disease		
Flu season	<ul style="list-style-type: none"> Increase in illness; some people will work through sickness and infect others 	<ul style="list-style-type: none"> Opportunity for health messages
Changing Demographics		
Median age of women is 35		<ul style="list-style-type: none"> Good for planning infrastructure, schools, childbearing, etc.
Immigration	<ul style="list-style-type: none"> People are not seeking care out of fear 	
Culture and Values		
New Year's resolutions	<ul style="list-style-type: none"> Not long lasting; added stress 	<ul style="list-style-type: none"> Opportunity to start health messages; starting earlier and earlier
Parent/child involvement & busy lifestyles	<ul style="list-style-type: none"> Time management tough, no down time, stress, less opportunities to make healthy choices, less family time 	
Lots of health & wellness forums; Loudoun Chamber's Live, Work, Be, Stay Well Movement		<ul style="list-style-type: none"> Lots of opportunities to gather & learn Concerted effort to increase healthy community
Built Environment/Environment		
Construction/growth	<ul style="list-style-type: none"> Increasing construction and growth is leading to cutting down trees, removing green space – hurting the environment Increasing traffic Losing places for animals, changing the county's identity 	<ul style="list-style-type: none"> More work opportunities, more places to go (option to grow and protect open spaces)
Availability of healthy eating options	<ul style="list-style-type: none"> Lots of misinformation (i.e. improper promotion), some options are hidden Not enough options and they are more expensive 	<ul style="list-style-type: none"> More options for food, more fast casual options that have healthier choices Lots of farmer's markets
Trails/beautiful outdoor spaces	<ul style="list-style-type: none"> Dangerous in some places (no bike lanes) 	<ul style="list-style-type: none"> Great outdoor spaces (but not enough variation)
Commutes/roads	<ul style="list-style-type: none"> Long commutes (could use as opportunity – push for mindful drive with health podcasts, etc.) 	<ul style="list-style-type: none"> Overpasses decrease flow of traffic

Forces	Threats	Opportunities
Pollution/New Dump	<ul style="list-style-type: none"> Known to cause negative health effects (asthma, etc) Rayon leaking = increase in cancers 	
Four seasons	<ul style="list-style-type: none"> Snow issues – economic/commute/health AC/heat in buildings 	<ul style="list-style-type: none"> Outdoor activities, mental health benefits, opportunity to have outdoor markets
Races		<ul style="list-style-type: none"> Good opportunities for physical activity
Weather/time change	<ul style="list-style-type: none"> More sedentary, stuck indoors Increase in traffic 	
Tobacco and Substance Use		
Opioid misuse	<ul style="list-style-type: none"> Stress Stress on systems 	
Economic Conditions		
Cost of housing/cost of living	<ul style="list-style-type: none"> Housing prices are high and increasing High cost of housing also impedes ability to hire Low-income need to make choices between basic needs and health 	

Table C2: Loudoun Health Council FOCA Response Matrix

Forces	Threats	Opportunities
Access to Care		
Difficulty accessing care	<ul style="list-style-type: none"> Decrease in medical professionals coming out of schools 	
Growing need for oral health care		
Aging population	<ul style="list-style-type: none"> Lack of providers taking Medicare Need more LTC facilities and adult day care centers 	
Lack of Medicaid providers, other community based care	<ul style="list-style-type: none"> Leads to using the ED/hospital instead of primary care Especially need more services for mental and oral health High deductibles 	
Lack of access to mental health services	<ul style="list-style-type: none"> Too many individuals with mental health issues in jail instead of proper treatment Expensive to pay out of pocket and providers often don't take insurance 	With Medicaid expansion gap may close
Barriers to care for immigrant population	<ul style="list-style-type: none"> Many are fearful of using services Need prescription support Lack of insurance Language barriers (education, pill bottles) 	
Medicaid expansion	<ul style="list-style-type: none"> Decrease in medical professionals coming out of schools 	
Mental Health		
Increase in families & individuals who have experiences serious trauma	<ul style="list-style-type: none"> Related to increase in population and decrease in providers Need better connection of resources 	
Stress	<ul style="list-style-type: none"> Keeping up with everyone else, lots of pressure on adolescents Increase in physical ailments 	
Mass shootings	<ul style="list-style-type: none"> No safe place 	

Forces	Threats	Opportunities
Changing Demographics		
Growing number of children, aging adults; population growth; growing diversity	<ul style="list-style-type: none"> Need more language and culturally appropriate care & outreach With age barriers grow 	<ul style="list-style-type: none"> Growth = more housing, stores, commerce, metro Aging in place, but will need more housing units if not possible
Growing foreign born population	<ul style="list-style-type: none"> Legal status keeps in poverty (lack of resources) 	<ul style="list-style-type: none"> Community has adapted to growing diversity
Culture and Values		
Hard to spread wellness messages	<ul style="list-style-type: none"> Message doesn't spread, especially hard to reach communities that are not connected Lots of info spread through schools & faith orgs (only hear if you are there) Youth are isolated 	<ul style="list-style-type: none"> Can reach more and more people through social media
Barriers to vaccination	<ul style="list-style-type: none"> Lack of real information/lots of misinformation, lack of perceived risk 	
Abuse/neglect	<ul style="list-style-type: none"> Elder abuse Fraud targeted at immigrant population 	
Built Environment/Environment		
Traffic/congestion/commute	<ul style="list-style-type: none"> Roads are more clogged, long commutes, increased road rage, aggressive driving Insufficient public transportation (not enough bus routes, resources not close to home) 	<ul style="list-style-type: none"> Roads in good condition New silverline for metro
Global warming/changing environments	<ul style="list-style-type: none"> More infectious diseases, natural disasters Increase in rain is threat to wine industry 	<ul style="list-style-type: none"> Outdoor opportunities
Dulles airport	<ul style="list-style-type: none"> Virus outbreaks 	
Lots of fast food	<ul style="list-style-type: none"> Cheaper to get fries than salad More healthier options in urban areas Need education 	<ul style="list-style-type: none"> Access to lower cost food Lots of farmer's markets, SNAP double dollars
Older neighborhoods	<ul style="list-style-type: none"> Disrepair, need infrastructure 	
Lots of faith and volunteer organizations		<ul style="list-style-type: none"> Increases social connections They have resources, but need to learn how best to promote
WV Rockwool Plant, data centers	<ul style="list-style-type: none"> Industry and health ramifications Water supply issues 	<ul style="list-style-type: none"> Increase in jobs, taxes
Diverse environments (rural & suburban, large community)	<ul style="list-style-type: none"> Fewer services in rural areas (health related, lifestyle, gyms etc), no emergency services in west 	
University campuses, hospitals in county		<ul style="list-style-type: none"> Education opportunities, good to have choice/competition/access
Chronic Conditions		
Increasing obesity, diabetes	<ul style="list-style-type: none"> Identified a long time ago but haven't moved the needle 	
Tobacco and Substance Use		
Opioid use, other drugs	<ul style="list-style-type: none"> Easy access 	<ul style="list-style-type: none"> Lots of education in schools
Alcohol related issues	<ul style="list-style-type: none"> Traffic accidents Injuries from fights 	<ul style="list-style-type: none"> Thriving breweries & wineries
Economic Conditions		
Poverty, growing food insecurity	<ul style="list-style-type: none"> Concentrated poverty in rural areas – harder to get places and access services 	
Housing/homelessness	<ul style="list-style-type: none"> High cost of housing, not enough affordable housing units Lack of variety Huge disparities, zipcode affects health more than anything 	<ul style="list-style-type: none"> New housing is safer (no lead, built to modern code)
Employment	<ul style="list-style-type: none"> People are having to work 2-3 jobs = burnout, decrease in meaningful connection, purpose Increased traffic if need to leave county Increased need for child care 	

Forces	Threats	Opportunities
Lack of affordable child care	<ul style="list-style-type: none"> Pool of funds runs out Cycle with employment (need job first, but need child care to get job) Lots of informal, unlicensed care 	
Cost of healthcare/cost of living	<ul style="list-style-type: none"> Harder and harder to pay for anything 	
Policy and Leadership		
Increased collaboration between service providers		<ul style="list-style-type: none"> Good collaboration exists
2019 Elections	<ul style="list-style-type: none"> Can change values/priorities 	<ul style="list-style-type: none"> Can change values/priorities
Violence/crime	<ul style="list-style-type: none"> Increase in violence = decrease in education 	<ul style="list-style-type: none"> Feels like there is less violence and less gangs

Table C3: Loudoun Human Services Network FOCA Response Matrix

Forces	Threats	Opportunities
Access to Care		
Communication barriers	<ul style="list-style-type: none"> Difficulties due to disabilities or language 	
Affordable health care	<ul style="list-style-type: none"> Not enough 	
Low health literacy		
Lack of insurance		
Access to preventive care	<ul style="list-style-type: none"> Programs not always available to farther parts of county or hours don't accommodate working schedules Prevention a want not a need (financial and transportation challenges) Stigma & judgement 	
Mental Health		
Stress	<ul style="list-style-type: none"> Stress from high expectations (across all income levels) Stress of circumstances 	
Social media	<ul style="list-style-type: none"> Everyone is on display all the time now 	
Loss of a child	<ul style="list-style-type: none"> High suicide rates and car accidents – affects the whole community 	
Bullying	<ul style="list-style-type: none"> Lowering self-esteem 	
Mental health services	<ul style="list-style-type: none"> Most not covered by insurance, high suicide rates 	<ul style="list-style-type: none"> Improving look at stigma around mental health More awareness and resources for Autism Spectrum Disorder, ADHD, etc.
Changing Demographics		
Growth in population diversity	<ul style="list-style-type: none"> There is a high operational cost to run programs with diversity of staff, language options, etc. 	
Aging population	<ul style="list-style-type: none"> Increased stress Higher demand for services Not enough Medicare nursing homes 	
Heredity/DNA	<ul style="list-style-type: none"> Health issues may be from family/higher with certain ethnicities 	
Overall population growth	<ul style="list-style-type: none"> Can't keep up with demand for services 	
Strong sense of community	<ul style="list-style-type: none"> Big disparities – can be hard to see Some in the community don't want to help others, high feelings of entitlement and questioning whether people deserve to receive services 	<ul style="list-style-type: none"> Big human services network, interaction with clients

Forces	Threats	Opportunities
Built Environment/Environment		
Physical disabilities	<ul style="list-style-type: none"> Harder to communicate with providers, get around buildings/offices/transportation systems Lack of awareness of ADA rights 	
Location	<ul style="list-style-type: none"> Simply where you live can affect your health 	
Food access	<ul style="list-style-type: none"> Lack of access to nutritious food (availability & cost), knowledge on healthy food Low energy with lack of food Easy availability of cheap unhealthy food 	<ul style="list-style-type: none"> Some areas have fast healthy food Lots of farmers markets Salads/meals to go at grocery stores
Public transportation	<ul style="list-style-type: none"> Not good bus lines, bad timing, not accessible, no shelters at bus stops No bus stops near homeless shelters other services, not very walkable Uber/Lyft not an option for all Metro station may bring more crime 	<ul style="list-style-type: none"> Metro line coming (increases accessibility & home value)
Traffic & long commutes	<ul style="list-style-type: none"> Increased stress, road rage More time sitting, less time for healthy activities More accidents If child is in child care, less time with them (or makes for a longer day with full work day plus long commute) 	
Lack of sidewalks/trails, Data Centers	<ul style="list-style-type: none"> High pollution, lots of construction, loss of green space from industry growth A lot of green space is privately owned, not enough public parks 	
Natural disasters	<ul style="list-style-type: none"> There has been a lot of rain 	
Dulles airport	<ul style="list-style-type: none"> Higher human trafficking, exposure to international diseases 	<ul style="list-style-type: none"> Ability to travel
Amazon headquarters coming to area	<ul style="list-style-type: none"> Harder to afford 	<ul style="list-style-type: none"> Increase home values
Chronic Conditions		
Obesity epidemic		
Tobacco and Substance Use		
Tobacco use	<ul style="list-style-type: none"> Juuling in schools (higher in farming communities) 	
Wine & beer industry is booming	<ul style="list-style-type: none"> Increasing substance use Self-medication Drunk driving 	<ul style="list-style-type: none"> Healthy economy Social opportunities

Forces	Threats	Opportunities
Economic Conditions		
Housing	<ul style="list-style-type: none"> Lack affordable housing and housing that is safe Need more diversity in the types and locations of affordable housing, so it is near transportation hubs and other services as well as more accessible to immigrants/all ages/individuals with criminal history Overcrowding can lead to increased violence and substance abuse 	<ul style="list-style-type: none"> There are more units in development
Physical disabilities	<ul style="list-style-type: none"> Can impede ability to work Changes in life situation 	
Legal needs	<ul style="list-style-type: none"> Lack of access to attorneys 	
Employment	<ul style="list-style-type: none"> Low paying jobs in non-profits When housing is expensive, harder to hire workers There are not enough tech workers to meet the need High retirement rate in the government 	<ul style="list-style-type: none"> Lots of jobs in service industry
Education	<ul style="list-style-type: none"> Education and income are related, and both affect ability/willingness to access health care Out of school time is vulnerable time 	
High cost of living		
Poverty	<ul style="list-style-type: none"> Need to make choices between food/other basic needs and health 	

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:

- | | |
|--|--|
| <input type="checkbox"/> Opportunities to be involved in the community | <input type="checkbox"/> Jobs and a healthier economy |
| <input type="checkbox"/> Welcoming of diversity (social, cultural, faith, economic) | <input type="checkbox"/> Transportation options |
| <input type="checkbox"/> Access to healthy food (fresh fruits and vegetables) | <input type="checkbox"/> Mental health and substance abuse services |
| <input type="checkbox"/> Housing that is affordable | <input type="checkbox"/> Public safety and health (law enforcement, fire, EMS and public health) |
| <input type="checkbox"/> Services that support basic needs (food, clothing, temporary cash assistance) | <input type="checkbox"/> Access to parks and recreation |
| <input type="checkbox"/> Access to health care | <input type="checkbox"/> A walk-able, bike-able community |
| <input type="checkbox"/> Educational opportunities (schools, libraries, vocational programs, universities) | <input type="checkbox"/> Clean and healthy environment |
| | <input type="checkbox"/> Arts and cultural events |
| | <input type="checkbox"/> Working to end homelessness |
| | <input type="checkbox"/> 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	6,567	100%
Ethnicity		
Hispanic/Latino	830	13%
Not Hispanic/Latino	5,410	82%
No response	327	5%
Race		
White	4,160	63%
Black or African American	293	5%
Asian	1,183	18%
Two or more races	242	4%
American Indian/Alaskan Native	68	1%
Native Hawaiian or Other Pacific Islander	18	0%
No response	603	9%
Language		
English	6,349	97%
Spanish	186	3%
Arabic	5	<1%
Amharic	2	<1%
Farsi	7	<1%
Korean	7	<1%
Urdu	0	<1%
Vietnamese	1	<1%
Chinese (Mandarin)	10	<1%
Lives with child (<18 years)		
Yes	5,167	79%
No	1,120	17%
No response	280	4%
Sex		
Male	1,450	22%
Female	4,753	72%
No response	364	6%
Annual Household Income		
Less than \$10,000	185	3%
\$10,000 to \$49,999	745	11%
\$50,000 to \$99,999	1,055	16%
\$100,000 to \$149,000	1,468	22%
Greater than \$150,000	2,593	40%
No response	521	8%
Age Category		
Less than 18 years	24	<1%
18-24 years	114	2%
25-29 years	259	4%
30-39 years	2,328	35%
40-49 years	2,438	37%
50-64 years	849	13%
65-79 years	266	4%
80+ years	20	<1%
No response	269	4%

Education		
Less than High School Diploma	173	3%
High School Diploma or GED	384	6%
Some College	593	9%
Associates or Technical Degree	370	6%
Bachelor's Degree	2,363	36%
Graduate Degree or Higher	2,392	36%
No response	292	4%
Regular Source of Healthcare		
Private Doctor's Office or HMO	5,085	77%
Urgent Care	458	7%
Hospital or Emergency Room	293	4%
Free or Reduced Fee Clinic	254	4%
I don't get healthcare	163	3%
No response	314	5%

* 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)	346
2	Alcohol, drug, and/or opiate abuse	325
3	Dental problems	258
4	Obesity	210
5	Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)	194

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	Dental problems	56
2	Alcohol, drug, and/or opiate abuse	41
3	Obesity	35
4	Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)	33
5	Violence and abuse	30

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

Rank	Response	Number of People Who Selected Response
1	Mental health problems (depression, anxiety, stress, suicide)	67
2	Violence and abuse	33
3	Preventable injuries (car or bicycle crashes, falls)	30
	Tobacco use (cigarettes, vaping, e-cigarettes, snuff, chewing tobacco)	30
4	Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)	27

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)	547
2	Alcohol, drug, and/or opiate abuse	482
3	Aging-related health concerns	278
4	Illness spread by insects and/or animals (Lyme disease, Zika, rabies)	270
5	Obesity	263

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

Rank	Response	Number of People Who Selected Response
1	Dental problems	71
2	Alcohol, drug, and/or opiate abuse	68
3	Obesity	58
4	Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)	53
5	Tobacco use (cigarettes, vaping, e-cigarettes, snuff, chewing tobacco)	51

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

Rank	Response	Number of People Who Selected Response
1	Mental health problems (depression, anxiety, stress, suicide)	12
2	Tobacco use (cigarettes, vaping, e-cigarettes, snuff, chewing tobacco)	9
3	Alcohol, drug, and/or opiate abuse	7
	Obesity	7
	Dental problems	7

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)	1,028
2	Alcohol, drug, and/or opiate abuse	781
3	Other chronic health conditions (asthma, cancers, diabetes, heart disease, stroke)	531
4	Preventable injuries (car or bicycle crashes, falls)	477
5	Tobacco use (cigarettes, vaping, e-cigarettes, snuff, chewing tobacco)	462

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)	313
2	Alcohol, drug, and/or opiate abuse	291
3	Obesity	224
4	Dental problems	198
5	Tobacco use (cigarettes, vaping, e-cigarettes, snuff, chewing tobacco)	190

Figure D11: Female Respondents

Rank	Response	Number of People Who Selected Response
1	Mental health problems (depression, anxiety, stress, suicide)	2,820
2	Alcohol, drug, and/or opiate abuse	1,803
3	Illness spread by insects and/or animals (Lyme disease, Zika, rabies)	1,139
4	Obesity	941
5	Preventable injuries (car or bicycle crashes, falls)	863

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 ILH 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
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	
		Loudoun County	Virginia				
Chronic Conditions	Medicare beneficiaries with Alzheimer's Disease or Dementia	11.2	10.0	%	2016	VA DARS	
	Age adjusted COPD hospitalization	9.6	16.9	per 10,000	2014-2016	VHI	
	Age adjusted adult asthma hospitalization	4.2	6.6	per 10,000	2014-2016	VHI	
	Age-adjusted hospitalization due to pediatric asthma	4.0	6.6	per 10,000	2014-2016	VHI	
	All Cancer Deaths (age adjusted)	125.8	163.8	per 100,000	2011-2015	SEER	
	All cancer incidence	371.1	414.3	per 100,000	2011-2015	SEER	
	Age-adjusted death rate due to heart disease	102.1	147.0	per 100,000	2016	VDH	
	Age-adjusted death rate due to stroke	24.0	37.2	per 100,000	2016	VDH	
	Age-adjusted hospitalization rate due to heart failure	23.9	33.7	per 10,000	2014-2016	VHI	
	Age-adjusted hospitalization rate due to hypertension	2.5	4.1	per 10,000	2014-2016	VHI	
	Age-adjusted hospitalization due to diabetes	8.3	17.1	per 10,000	2014-2016	VHI	
	Age-adjusted death rate due to diabetes	12.7	21.3	per 100,000	2016	VDH	
	Persons with a disability	5.5	11.3	%	2016	ACS	
	Persons with a disability who live in poverty (18-64)	10.0	23.8	%	2016	ACS	
	Economic Stability	Students Eligible for the Free Lunch Program	13.2	35.0	%	2015-2016	NCES
Food insecurity rate		3.7	10.6	%	2016	FA	
Child food insecurity rate		7.6	13.3	%	2016	FA	
Income inequality		3.5	4.8	ratio 80%:20% income brackets	2017	CHR	
Median Household Income		125,672.0	66,149.0	US\$	2016	ACS	
Children living below poverty level		4.0	15.1	%	2016	ACS	
People 65+ living below poverty level		4.9	7.6	%	2016	ACS	
People living below poverty level		4.0	11.4	%	2016	ACS	
Social and Economic Factors Ranking		2.0	--	of 133 counties	2018	CHR	
Annual unemployment rate		3.0	3.8	%	2017	BLS	
Education		Proportion of students receiving advanced studies diploma	72.2	52.0	%	2018	VDE
		Enrolled in any post-secondary	86.0	71.0	%	2016	VDE
	4-year graduation rate	95.5	91.2	%	2017	VDE	
	People 25+ with a Bachelor's degree or higher	58.8	36.9	%	2016	ACS	
	Below 138% FPL uninsured	28.0	22.1	%	2017	ACS	
Healthcare Access	Adults with health insurance, small area estimates	91.9	88.2	%	2016	SAHE	
	Children with health insurance, small area estimates	95.4	95.1	%	2016	SAHE	
	Clinical Care Ranking	25.0	--	of 133 counties	2018	CHR	
	Preventable Hospital Stays - Medicare Population	42.1	42.8	discharges per 1,000 enrollees	2015	DAH	
	Mammogram in past 2 years 40+	73.0	77.7	%	2012	VA BRFS	
	PAP test in past three years 18+	72.0	81.5	%	2012	VA BRFS	
	Colon Cancer Screening: Sigmoidoscopy or colonoscopy	67.0	69.5	%	2012	VA BRFS	
	Has not had to skip doctor because of cost	91.7	86.9	%	2014	VA BRFS	

Category	Data Point	Value		Unit of Measure	Year of Data	Data Source
		Loudoun County	Virginia			
Health Related Quality of Life and Well-being	Frequent Physical Distress	7.7	10.7	%	2016	CHR
	All Causes Mortality	3.7	7.9	per 1,000 population	2016	VDH
	Poor or Fair Health Age Adjusted	11.0	17.0	%	2016	CHR
	Health Behaviors Ranking	2.0	--	of 133 counties	2018	CHR
	Morbidity Ranking (Quality of Life)	1.0	--	of 133 counties	2018	CHR
	Mortality Ranking (Length of Life)	2.0	--	of 133 counties	2018	CHR
	Premature Death (YPLL Rate)	3,262.0	6,122.0	years of potential life lost	2014-2016	CHR
	Social associations	6.7	11.2	associations per 10,000 people	2016	CHR
Immunizations and Infectious Disease	Lyme's disease incidence	57.8	19.7	per 100,000	2017	VDH
	Tuberculosis incidence	3.4	2.4	per 100,000	2017	VDH
	Varicella (Chickenpox) incidence	5.2	4.0	per 100,000	2017	VDH
	Hepatitis B, chronic	58.0	27.5	per 100,000	2017	VDH
	Adults 65+ with pneumo vaccination	68.1	69.2	%	2005-2010	VA BRFSS
	Hepatitis C, chronic	58.0	136.4	per 100,000	2017	VDH
Maternal, Infant, and Child Health	Teen birth rate 15-17	1.8	6.2	per 1,000 births	2016	VDH
	Teen birth rate <19	2.7	7.9	per 1,000 births	2016	VDH
	Infants born preterm	7.7	9.5	%	2016	VDH
	Infant mortality rate	3.9	5.8	per 1,000 births	2016	VDH
	Babies with low birth weight	6.2	8.1	%	2016	VDH
	Mothers who received early prenatal care	88.4	82.9	%	2013	VDH
Mental Health	Mental health provider rate	126.0	146.0	per 100,000	2017	CHR
	Adults ever diagnosed with a depressive disorder	17.7	17.4	%	2014	VA BRFSS
	Age-adjusted death rate due to suicide	12.5	12.8	per 100,000	2016	VOIRS
	Frequent mental distress	8.7	11.0	%	2016	CHR
	Depression: Medicare population	13.6	16.1	%	2016	CMS
	Poor mental health: 5+ days (Alex is 2014)	9.3	17.8	%	2015	VA BRFSS
Neighborhood and Built Environment	Renters spending 30% or more of household income on rent	44.0	49.5	%	2016	ACS
	Severe housing problems (overcrowding, high cost, lack of kitchen or plumbing)	12.0	15.4	%	2010-2014	CHR
	Food Environment Index	10.0	8.2	0-10 (10 best)	2017	CHR
	Mean travel time to work	33.7	28.1	minutes	2016	ACS
	Workers commuting by public transportation	3.6	4.5	%	2016	ACS
	Workers who walk to work	1.5	2.4	%	2016	ACS
	Residential segregation non-white/white index	28.0	41.0	0-100 (0=full integration)	2012-2016	CHR
Residential segregation black/white index	25.0	50.0	0-100 (0=full integration)	2012-2016	CHR	
Obesity, Nutrition, and Physical Activity	Access to exercise opportunities	94.0	83.0	%	2018	CHR
	Adults who are sedentary	18.0	22.0	%	2014	CHR
	Adults engaging in physical activity in past month	82.2	76.5	%	2014	VA BRFSS
	Adults who are overweight or obese	54.3	64.7	%	2012	VA BRFSS

Category	Data Point	Value		Unit of Measure	Year of Data	Data Source
		Loudoun County	Virginia			
Oral Health	Dentist rate	61.0	68.0	per 100,000	2017	CHR
	Visited dentist in past year	77.3	68.9	%	2013-2014	VA BRFS
	Permanent Teeth Removed	28.3	40.8	%	2014	VA BRFS
Sexual and Reproductive Health	Teen pregnancy rate (15-17)	2.6	8.7	per 1,000 females age 15-17	2016	VDH
	HIV Incidence	3.9	10.5	per 100,000	2017	VDH
	Gonorrhea incidence rate	25.8	131.8	per 100,000	2016	VDH
	Chlamydia incidence rate	232.7	471.6	per 100,000	2016	VDH
	HIV Prevalence	106.8	286.7	per 100,000	2017	VDH
Tobacco and Substance Use	Adult Smoking	11.0	15.3	%	2016	CHR
	Adults who drink excessively	17.0	17.4	%	2016	CHR
	ED rate - heroin OD	4.4	17.8	per 100,000	2017	VDH
	ED rate - prescription opioid OD	63.7	102.6	per 100,000	2017	VDH
	Mortality rate - heroin/fentanyl OD	6.2	11.0	per 100,000	2017	VDH
	Mortality rate - prescription opioid OD	2.1	5.9	per 100,000	2017	VDH
Violence and Injury	All-cause injury or violent hospitalizations	243.0	436.4	per 100,000	2016	VOIRS
	Hospitalizations related to unintentional fall	141.7	212.3	per 100,000	2016	VOIRS
	All-cause injury or violent death	33.7	61.3	per 100,000	2016	VOIRS
	Firearm deaths	6.7	12.2	per 100,000	2016	VOIRS
	Motor vehicle deaths	3.4	8.7	per 100,000	2016	VOIRS
	Violent crime rate	85.0	194.2	per 100,000	2012-2014	CHR

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 ILH Community.

Figure F1: IFOH 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)	x		x
Injury and violence (accidental injury, motor vehicle collision, assault)	x	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		
Oral health (tooth loss, received dental services)	x	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	x

Using this framework, the top health issues identified for the ILH community **were chronic conditions; economic stability; healthcare access; immunizations and infectious disease; injury and violence; mental health; neighborhood and built environment; oral health and tobacco and substance use and abuse.**

Appendix G: Actions Taken Since Previous ILH 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. Increase Access to Primary Care

- 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 Sterling, 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. 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.
- c. 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, including an outreach worker located at the Simplicity Health site in Sterling.
- d. One-page information sheets have been created with descriptions of community resources related to social needs (i.e. food, shelter, etc), mental health and substance abuse and primary care. These guides will enable front line staff to provide patients with the tools necessary to stay healthy and ensure a continuum of care post discharge.
- e. In December 2017 ILH held its first employee resource fair. At the fair, representatives from both internal and external resources staffed tables and provided information on services available to patients and members of the community. The fair was attended by front line staff, nurses, case management team members, and anyone working that day to learn directly more about the options available. The organizations represented at the fair are also in large part the resources that will be included in the one-pagers noted above. Additional fairs have been held since the inaugural event.
- f. To continue to promote health and meet the community where they are, Inova Loudoun Hospital & the IHVI Schaufeld Family Heart Center partnered with Loudoun Hunger Relief to bring "heart healthy" education to their clients. There were three evening sessions, which included Biometric Screenings (BMI, Cholesterol, Glucose, Blood Pressure), educational classes and give-aways. HealthWorks, the local FQHC, was present to register individuals as a new patient, giving them a new medical home.

2. Improve Care and Access to Care for Individuals with Mental Health and Substance Abuse Needs
 - a. A new Psychiatric liaison position has been created at Inova Loudoun Hospital. This individual provides behavioral health care management for individuals (adults and adolescents) 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.
 - b. 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 Loudoun Hospital emergency care centers (Ashburn, Cornwall, Lansdowne and the Peds ED) reduced physician orders within the centers for opioids by an average of 83%. Additionally, in situations where opiates are appropriate, patients are given a prescription for a shorter duration as well as a lower dose. In addition, in 2018 Inova Loudoun Hospital installed a public drop-off box for safe disposal of unused drugs.
 - c. 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.
 - d. To meet the critical community need for mental health services, Inova opened a new Kellar Center location in Sterling, bringing affordable, compassionate, professional mental healthcare services to young people and their families in Loudoun County. Inova Kellar Center provides a full continuum of outpatient services and programs, including individual, family and group therapy, medication management, psychiatric evaluations, psychological testing and partial hospitalization.
 - e. Additionally, ILH sponsored multiple informational sessions in partnership with The Community Foundation (The Philanthropy Summit) and LCPS (Mental Health & Wellness Conference) focused on access to Behavioral Health Services and resiliency training for adolescents. ILH also sponsored the Source of Strength program to enable LCPS to bring the program to the middle schools.
 - 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 the Ryan Bartel Foundation, where funds will support the extension of the Sources of Strength (SOS) training - an evidence-led, youth suicide prevention and wellness program. This grant will allow the Ryan Bartel Foundation to take SOS into the wider community, bridging the gap for the population who is not directly trained or exposed to SOS campaigns through Loudoun County Public Schools, who has implemented the program in 20 schools.

3. Increase Access to Dental Care
 - a. Working with community partners to increase access and utilization of oral health services, Inova has several staff members in various roles on the Virginia Oral Health Coalition. Subgroups are working on improving access, understanding the needs of children with special healthcare needs and increasing education on the importance of oral health.
 - b. Additionally, at the end of 2017 Inova made a donation to support the Northern Virginia Dental Clinic, which has a site in Sterling, VA, part of the ILH community.

4. Outside of these priority areas identified in the ILH 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 ILH.
 - a. 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, and will be utilized throughout the region to provide cultural sensitivity training for healthcare workers.
 - b. 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).
 - c. 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.
 - d. 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.
 - e. 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.