Community Health Needs Assessment

Prepared for
INOVA ALEXANDRIA HOSPITAL

By
VERITÉ HEALTHCARE
CONSULTING, LLC

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ABOUT VERITÉ HEALTHCARE CONSULTING

Verité Healthcare Consulting, LLC (Verité) was founded in May 2006 and is located in Alexandria, Virginia. The firm serves as a national resource that helps hospitals conduct community health needs assessment, and develop implementation strategies that address priority needs. The firm also helps hospital associations and policy makers with community benefit reporting, planning, program assessment, and policy and guidelines development. Verité is a recognized, national thought leader in community benefit and in the evolving expectations that tax-exempt healthcare organizations are being required to meet.

The CHNA prepared for Inova Alexandria Hospital was directed by the firm's president and managed by a senior-level consultant. Associates and research analysts supported the work. The firm's president, as well as all senior-level consultants and associates, hold graduate degrees in relevant fields.

More information on the firm and its qualifications can be found at www.VeriteConsulting.com

Verité Healthcare Consulting's work reflects fundamental concerns regarding the health of vulnerable people and the organizations that serve them

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INTRODUCTION

This community health needs assessment (CHNA) was conducted by Inova Alexandria Hospital (Inova Alexandria or the hospital) because the hospital wants to understand better community health needs and to develop an effective implementation strategy to address priority needs. The hospital also has assessed community health needs to respond to community benefit regulatory requirements.

Federal regulations require that tax-exempt hospitals provide and report community benefits to demonstrate that they merit exemption from taxation. As specified in the instructions to IRS Form 990, Schedule H, community benefits are programs or activities that provide treatment and/or promote health and healing as a response to identified community needs.

Community benefit activities or programs seek to achieve objectives, including:

- improving access to health services,
- enhancing public health,
- advancing increased general knowledge, and
- relief of a government burden to improve health.[1]

To be reported, community need for the activity or program must be established. Need can be established by conducting a community health needs assessment.

The 2010 Patient Protection and Affordable Care Act (PPACA) requires each tax-exempt hospital to "conduct a [CHNA] every three years and adopt an implementation strategy to meet the community health needs identified through such assessment."[2]

CHNAs seek to identify priority health status and access issues for particular geographic areas and populations by focusing on the following questions:

- ***Who*** in the community is most vulnerable in terms of health status or access to care?
- ***What*** are the unique health status and/or access needs for these populations?
- ***Where*** do these people live in the community?
- ***Why*** are these problems present?

The question of ***how*** the organization can best use its limited charitable resources to address priority needs will be the subject of the hospital's Implementation Strategy.

This assessment considers multiple data sources, including secondary data (regarding demographics, health status indicators, and measures of health care access), assessments prepared by other organizations in recent years, and primary data derived from a community survey and from interviews with persons who represent the broad interests of the community, including those with expertise in public health.

The following topics and data are assessed in this report:

- Demographics, e.g., numbers and locations of vulnerable people;

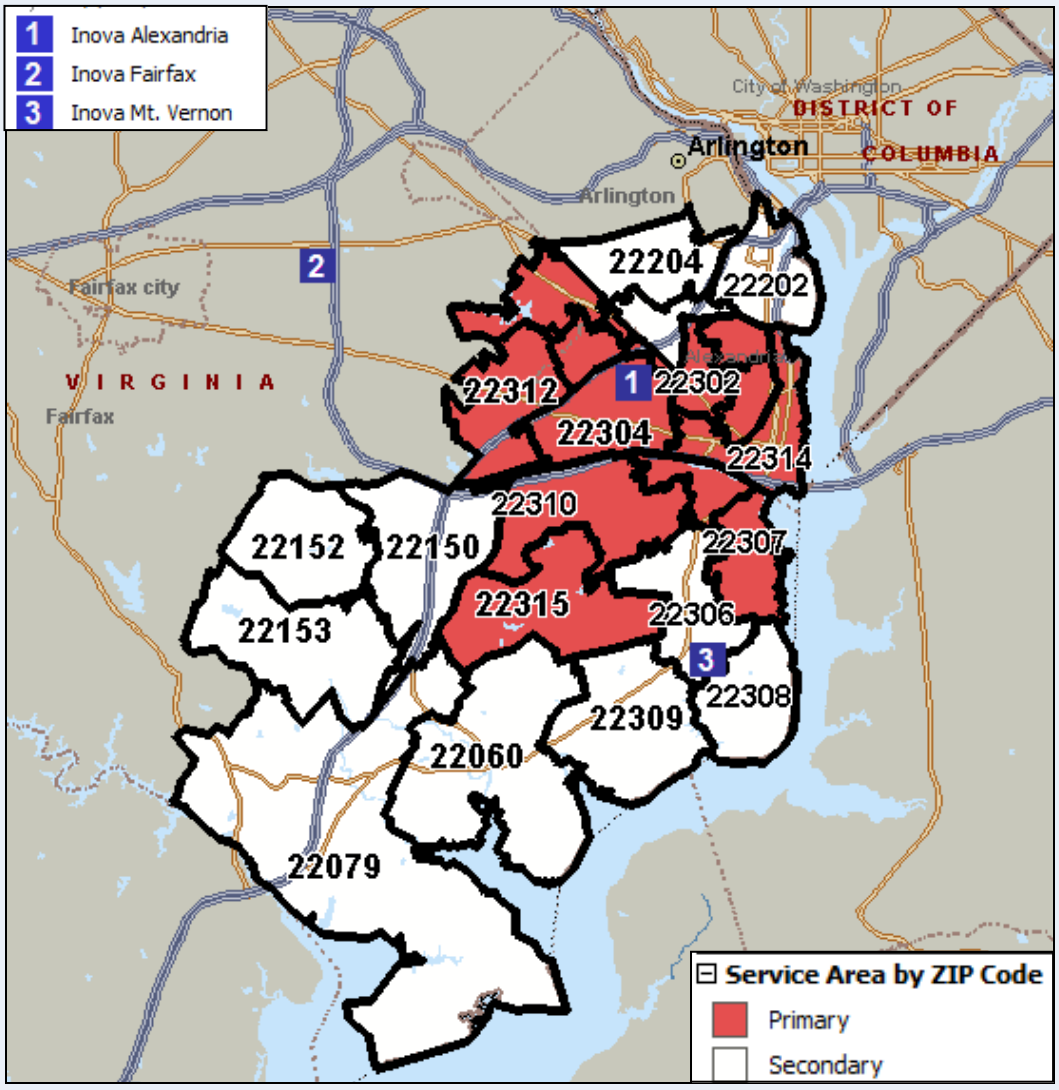
[1] [1] Instructions for IRS Form 990, Schedule H, 2012.

[2] Patient Protection and Affordable Care Act.

- Economic issues, e.g., poverty and unemployment rates, and impacts of state or local budget changes;
- Community issues, e.g., homelessness, housing, environmental concerns, crime, and availability of social services;
- Health status indicators, e.g. morbidity rates for various diseases and conditions, and mortality rates for leading causes of death;
- Health access indicators, e.g., uninsurance rates, discharges for ambulatory care sensitive conditions (ACSC), and use of emergency departments for non-emergent care;
- Health disparities indicators; and
- Availability of healthcare facilities and resources.

The assessment identifies a prioritized list of community health needs. Inova Alexandria Hospital will be preparing an Implementation Strategy that describes how the hospital plans to address the identified needs.

EXECUTIVE SUMMARY



Inova Alexandria Community By The Numbers

- 23 ZIP codes in the City of Alexandria and Arlington and Fairfax counties
- Estimated Population (2012): 559,203
- 43% of discharges originated in Alexandria City in 2010
- Projected population change (2013-2018):
  - Growth of 1% overall
  - 5% increase in 65+ population
- Below VA average poverty rates, with pockets of low-income people across the community
- Growing diversity:
  - Rapidly growing Asian and Hispanic (or Latino) populations
  - 41% non-White in 2013
- 12% of Inova Alexandria Hospital 2010 discharges for ambulatory care sensitive conditions (ACSC)

In general, the Inova Alexandria community benchmarks favorably on a variety of health indicators compared to national and Virginia averages. However, health status and access problems are present and this assessment seeks to identify the most pressing issues.

The hospital's community is comparatively wealthy, but problematic health disparities exist for low-income populations and racial and ethnic minorities.

Poverty and unemployment can create barriers to access (e.g., to health services, healthy food, and other necessities) and thus contribute to poor health. Although overall the community had lower poverty and unemployment rates than the Virginia and U.S. averages, unemployed, lower income, and uninsured people are in: West Alexandria, Lincolnia/Bailey's Crossroads, and Mt. Vernon Sourth/Ft. Belvoir. These areas are home to relatively high proportions of Black and Hispanic (or Latino) residents.

Parts of Alexandria City, Arlington County, and Fairfax County contain federally-designated Medically Underserved Populations (MUPs). Alexandria City contains one Health Professional Shortage Area (HPSA).

Virginia has enacted budget reductions that affect health and human service providers. These reductions affect children and youth services, aging and elderly services, mental health programs and services, health services for indigent and low-income populations, and public health departments.

Twelve percent of Inova Alexandria Hospital discharges were found to be for ambulatory care sensitive conditions (ACSC), or potentially preventable if patients were accessing primary care resources at optimal rates. Over half are for patients 65 years of age and older; the most common conditions for those patients were: congestive heart failure, chronic obstructive pulmonary disease, urinary tract infaction, dehydration, and bacterial pneumonia.

Priority Needs

Poor health status can result from a complex interaction of challenging social, economic, environmental, and behavioral factors, combined with a lack of access to care. Addressing these "root" causes is an important way to improve a community's quality of life and to reduce mortality and morbidity.

The table that follows describes the health needs identified throughout the assessment as priorities in the community served Inova Alexandria Hospital.

Access to Health and Human Services

- **Insufficient Collaboration and Coordination Among Organizations Providing Health and Social Services**

  Health needs in the community would be better addressed if collaboration among community-wide health care providers, facilities, and agencies providing health and social services were enhanced. Stakeholders expressed a need for comprehensive integration (e.g., primary care and mental health) and coordination of care (e.g., primary care referrals to specialists) across the community-wide system of services and providers. Effective communication and active relationships between these organizations would be beneficial, especially to vulnerable populations.

- **Lack of Affordable and Accessible Primary and Specialty Care and Insurance**

  Low-income and minority populations have difficulty accessing health care services and insurance. Clinics and other community organizations are struggling to meet growing demand. Access to specialty care is particularly problematic for Medicaid and uninsured patients. Many residents, particularly those living in the Mt. Vernon North and Mt. Vernon South/Ft. Belvoir areas, have difficulty finding transportation to services.

- **Lack of Access to Preventive Care**

  Residents in Alexandria/Old Town, West Alexandria, Mt. Vernon North, and Mt. Vernon South/Ft. Belvoir experience comparatively high rates of ambulatory care sensitive hospital admissions that could be avoided with improved access to primary and preventive care. Some residents, especially low-income and uninsured people, are not accessing these services due to high cost, lack of convenience, or awareness of available services.

- **Language Barriers and Need for Additional Culturally Competent Care Providers**

  Culturally competent health services and health system navigation services are needed as diversity increases.

Chronic Disease

- **High Rates of Cancer Incidence and Disparities in Cancer Mortality**

  Ovarian cancer rates are comparatively high. Fairfax County exhibits a high rate of breast cancer. Cancer mortality is comparatively high in certain non-White populations, predominately for the Black and Other[3] (non-White, non-Black) populations in Alexandria City.

- **Disparities in Cardiovascular Disease Mortality**

  Mortalities related to heart health are comparatively high in certain non-White populations, predominantly in the Other[3] (non-White, non-Black) population.

- **Disparities in Chronic Liver Disease and Cirrhosis Mortality - (Alexandria City)**

  The Black population in Alexandria City has a comparatively high mortality rate for chronic liver disease and cirrhosis.

Dental Health

- **Lack of Access to Dental Care**

  Additional, affordable dental care services are needed for low-income, uninsured, and undocumented adults to improve dental health outcomes.

Health Behaviors

- **Alcohol Abuse**

  Efforts to reduce alcohol misuse are needed due to comparatively high rates of heavy drinking in the community.

- **High Rates of Smoking – (Alexandria City)**

  Efforts to reduce the prevalence of smoking are needed, especially among adolescents, young adults, and lower-income populations in Alexandria City.

[3] The "Other" population includes residents who identify as American Indian/Native American, Asian/Pacific Islander, two or more races, or some other race.

- **High Rates of Unsafe Sex and Teen Pregnancy - (Alexandria City)**
  Efforts to promote safe sex habits, especially among youth, are needed in Alexandria City.

Maternal and Child Health

- **Disparities in Infant Health Outcomes**
  Services (including enhanced prenatal care in the first trimester) are needed to reduce comparatively high infant mortality rates for certain non-White populations. Services also are needed to reduce the number of very low birth weight infants for certain population groups.

Mental Health

- **Lack of Access to Mental Health Services and Poor Mental Health Status**
  Additional, comprehensive mental health services are needed to address the needs of children/adolescents, low-income and uninsured/underinsured residents, those suffering from stress, and veterans.

Morbidity and Mortality

- **Disparities in Mortality**
  For several leading causes of death (e.g., stroke, injuries), mortality rates for non-White populations are comparatively high.
- **Diet and Exercise-Related Issues**
  Poor diet and a lack of exercise contribute to poor health status in the community, particularly the prevalence of obesity/overweight and diabetes, as well as disparities in diabetes mortality.
- **High Rates of Communicable Diseases**
  The incidence of tuberculosis is above the Virginia average in the community as a whole. The percentage of residents living with HIV/AIDS or diagnosed with syphilis is comparatively high in the City of Alexandria.

Physical Environment

- **Poor Air Quality**
  The community has comparatively high concentrations of particulate matter and ozone.

Social and Economic Factors

- **Basic Needs Insecurity**
  The economic downturn, combined with a comparatively high cost of living, has led to difficulties accessing affordable food and shelter especially for residents of Mt. Vernon South/Ft. Belvoir. The economic downturn also contributed to pockets of unemployment and poverty as well as community concerns about homelessness in Alexandria City and Arlington County.
- **Lack of Health Education - (Fairfax County)**
  Increased health education and knowledge of available services are needed, particularly for children and families in Fairfax County.

APPENDIX

METHODOLOGY

Analytic Methods

This Appendix begins by identifying the communities served by Inova Alexandria. Findings based on various quantitative analyses regarding health needs in those areas are discussed, followed by a review of health assessments conducted by other organizations in recent years.

The Appendix then presents information obtained from interviews with stakeholders who represent the broad interests of the community, including public health officials and experts, and Inova Alexandria-affiliated clinicians, administrators, and staff. Interviews were conducted from March through August of 2012. The assessment also considers information obtained from a public community survey.

Identifying priority community health needs involves benchmarking and trend analysis. Statistics for several health status and health access indicators were analyzed and compared to state-wide and national benchmarks or goals. The assessment considers multiple data sources, including indicators from local, state, and federal agencies. Including multiple data sources and stakeholder views is important when assessing the level of consensus that exists regarding community health needs. If alternative data sources including interviews support similar conclusions, then confidence is increased regarding the most problematic health needs in a community.

Prioritization Process and Criteria

Verité applied a ranking methodology to help prioritize the community health needs identified by the assessment. Verité listed the identified health issues and assigned to each a severity score based on the extent to which indicators exceeded Virginia or U.S. averages. An average severity score was calculated for each category of data (secondary data, previous assessments, interviews, and survey data) to account for the number of sources that measured each health issue. These averages were assigned a weight: 40 percent, 10 percent, 40 percent, and 10 percent respectively. A final score was calculated by summing the weighted averages. **Exhibit 1** illustrates this process for three example indicators.

Exhibit 1: Example Prioritization Process by Data Source and Indicator, Alexandria City

Data Source	Alcohol Use	Language Barriers	Suicide
County Health Rankings	2	-	-
Community Health Status Indicators Project	-	-	0
Virginia Public Health Data	-	-	0
Healthy People 2010	-	-	-
Behavioral Risk Factor Surveillance Survey	2	-	-
U.S. Census	-	2	-
Secondary Data - Weighted Average (40%)	**0.8**	**0.8**	**0**
Previous Assessments	2	2	1
Previous Assessments - Weighted Average (10%)	**0.2**	**0.2**	**0.1**
Interviews	1	1	-
Interviews - Weighted Average (40%)	**0.4**	**0.4**	**-**
Community Survey	-	1	-
Community Survey - Weighted Average (10%)	**-**	**0.1**	**-**
Final Score	**1.4**	**1.5**	**0.1**

Source: Verité Analysis, 2012.

The methodology takes into account severity scores for each health issue and the number of sources that measure each issue.

Information Gaps

No information gaps have affected Inova Alexandria's ability to reach reasonable conclusions regarding priority community health needs.

Collaborating Organizations

For this assessment, Inova Alexandria Hospital collaborated with Inova Fairfax Medical Campus, Inova Fair Oaks Hospital, Inova Loudoun Hospital, and Inova Mt. Vernon Hospital.

DEFINITION OF COMMUNITY ASSESSED

This section identifies the community assessed by Inova Alexandria. Verité relied on Inova Alexandria's current service area definitions to identify the communities to be assessed. The definitions were based on the geographic origins of hospital discharges.

Inova Alexandria's community is comprised of 23 ZIP codes in 9 subregions that extend into (and overlap with) Arlington County, Fairfax County, and the City of Alexandria (**Exhibits 2 and 3**). The hospital is located in West Alexandria (ZIP code 22304).

Exhibit 2: Community Population, 2012

Subregions	2012 Population*	Percent of Population 2012
Primary Service Area		
Alexandria City Subregions	**135,615**	**24.3%**
Alexandria/Old Town	70,225	12.6%
West Alexandria	65,390	11.7%
Fairfax County Subregions	**134,948**	**24.1%**
Franconia/Kingstowne	55,557	9.9%
Lincolnia/Bailey's Crossroads	56,948	10.2%
Mt. Vernon North	22,443	4.0%
Primary Service Area Total	**270,563**	**48.4%**
Secondary Service Area		
Arlington County Subregions	**92,563**	**16.6%**
Shirlington/South Arlington	92,563	16.6%
Fairfax County Subregions	**196,077**	**35.1%**
Lorton/Newington	28,516	5.1%
Mt. Vernon South/Ft. Belvoir	79,758	14.3%
Springfield	87,803	15.7%
Secondary Service Area Total	**288,640**	**51.6%**
Combined Service Area Total	**559,203**	**100.0%**

Source: The Metropolitan Washington Council of Governments, 2012.
*2012 projections based on Verité analysis of 2008 and 2013 population estimates.

48% of the Inova Alexandria community originated from the primary service area

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Almost 60% of the community resided in Fairfax County

In 2012, the Inova Alexandria community had a population of approximately 559,000 persons. Approximately 48 percent of the population resided in the primary service area (**Exhibit 2**).

Some health indicators only are available at a county-wide or city-wide level of detail. When assessing these indicators, it is important to take into account the percentage of the total community population that resides in each jurisdiction. **Exhibit 3** shows that Inova Alexandria community ZIP codes accounts for less than 50 percent of Arlington and Fairfax counties' total population. Accordingly, caution should be used when assessing data available only for Arlington and Fairfax counties as a whole.

Exhibit 3: Community and Jurisdiction Population Overlap, 2012

Jurisdiction	Community Population*	Percent of Community Population	Total Jurisdiction Population*	Community Percent of Total Jurisdiction
Alexandria City	135,615	24.3%	135,380[4]	100.%
Arlington County	92,563	16.6%	199,954	46.3%
Fairfax County	331,025	59.2%	1,083,557	30.5%
Total	**559,203**	**100.0%**	**1,418,890**	**39.4%**

Sources: The Metropolitan Washington Council of Governments, 2012, and U.S. Census Bureau, 2011.
* Jurisdiction population estimates were based on Verité analysis of data from the U.S. Census Bureau, American Community Survey, 5 Year Estimates 2006-2010. Community population estimates were based on Verité analysis of 2008 demographic data.

The community was defined based on the geographic origins of Inova Alexandria inpatients. In 2010, approximately 64 percent of the hospital's inpatients originated from the primary service area and 37 percent from Fairfax County. The service area accounted for 85 percent of the hospital's inpatient discharges.

The community definition was confirmed by examining the geographic origin of emergency department encounters. In 2010, approximately 79 percent of Inova Alexandria's emergency department visits originated from ZIP codes in the primary and secondary service areas (**Exhibit 4**).

Exhibit 4: Inova Alexandria Inpatient Discharges and Emergency Department Visits by Jurisdiction, 2010

Jurisdiction	Percent of Discharges	Percent of ED Visits
Primary Service Area		
Alexandria City	43.3%	48.8%
Primary Service Area Total	**63.8%**	**66.0%**
Secondary Service Area		
Arlington County	4.2%	4.8%
Fairfax County	16.9%	8.1%
Secondary Service Area Total	**21.1%**	**12.8%**
Combined Service Areas Total	**84.9%**	**78.8%**
Other Areas	**15.1%**	**21.2%**
All Discharges	**13,233**	**62,033**

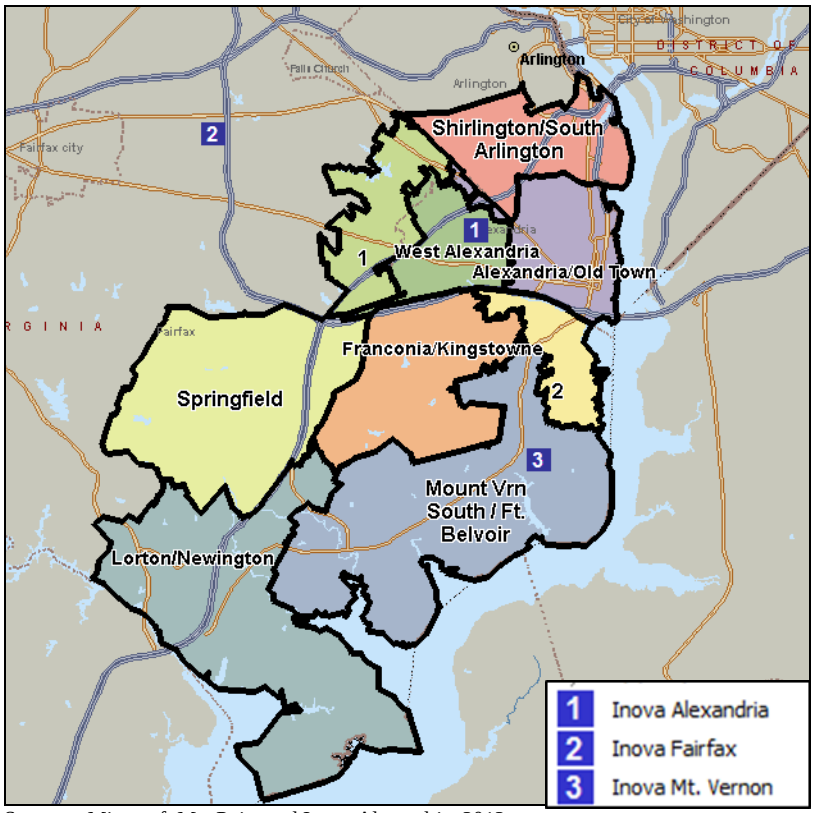
Source: Health Systems Agency of Northern Virginia, 2011, and Emergency Department Data, 2011.

Alexandria City accounted for 43% of all Inova Alexandria inpatient discharges and 49% of all emergency department visits

Exhibit 5 presents a map that shows the ZIP codes that comprise each subregion.

[4] Different data were used to calculate community and jurisdiction populations causing the population of Alexandria City as a whole to be reported as lower than the population in the ZIP codes in Alexandria City served by Inova Alexandria. Inova Alexandria serves the entirety of Alexandria City.

Exhibit 5: Community Map by Subregion and ZIP Code*



Sources: Microsoft MapPoint and Inova Alexandria, 2012.
* Subregion 1 is Lincolnia/Bailey's Crossroads and subregion 2 is Mt. Vernon North.

Estimated population 2012: 559,203

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Arlington and Fairfax counties and the City of Alexandria

...

Nine subregions

SECONDARY DATA ASSESSMENT

This section assesses secondary data regarding health needs in Inova Alexandria's community.

Demographics

Population change plays a determining role in the types of health and social services needed by communities. Overall, the population living in the community is expected to increase 3.3 percent between 2008 and 2013 and is expected to increase by another 0.8 percent between 2013 and 2018 (**Exhibit 6**).

Exhibit 6: Percent Change in Community Population by Subregion, 2008-2013 and 2013-2018

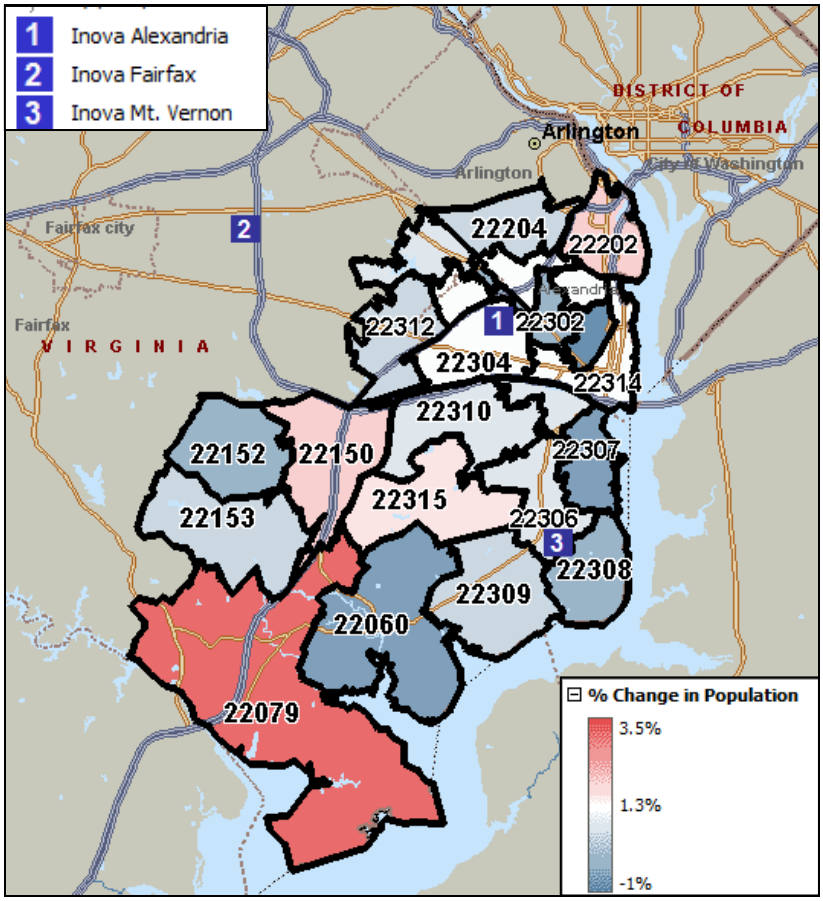
Subregion	Total Population			Percent Change in Population	
	2008	2013	2018	2008-2013	2013-2018
Primary Service Area					
Alexandria City Subregions	**132,168**	**136,494**	**137,640**	**3.3%**	**0.8%**
Alexandria/Old Town	69,284	70,462	70,835	1.7%	0.5%
West Alexandria	62,884	66,032	66,805	5.0%	1.2%
Fairfax County Subregions	**131,851**	**135,735**	**136,800**	**2.9%**	**0.8%**
Franconia/Kingstowne	53,742	56,020	56,623	4.2%	1.1%
Lincolnia/Bailey's Crossroads	55,813	57,235	57,616	2.5%	0.7%
Mt. Vernon North	22,296	22,480	22,561	0.8%	0.4%
Primary Service Area Total	**264,019**	**272,229**	**274,439**	**3.1%**	**0.8%**
Secondary Service Area					
Arlington County Subregion	**90,275**	**93,144**	**93,905**	**3.2%**	**0.8%**
Shirlington/South Arlington	90,275	93,144	93,905	3.2%	0.8%
Fairfax County Subregions	**190,752**	**197,469**	**199,278**	**3.5%**	**0.9%**
Lorton/Newington	25,497	29,325	30,222	15.0%	3.1%
Mt. Vernon South/Ft. Belvoir	79,134	79,915	80,204	1.0%	0.4%
Springfield	86,121	88,229	88,852	2.4%	0.7%
Secondary Service Area Total	**281,027**	**290,613**	**293,183**	**3.4%**	**0.9%**
Combined Service Areas Total	**545,046**	**562,842**	**567,623**	**3.3%**	**0.8%**

Source: The Metropolitan Washington Council of Governments, 2012

The Northern Virginia area is growing at a faster rate than the Commonwealth of Virginia as a whole. The subregion of Lorton/Newington expects the fastest growth (**Exhibit 6**).

Exhibit 7 maps the anticipated population change by ZIP code from 2013 to 2018.

Exhibit 7: Population Change by ZIP Code, 2013-2018



Sources: Microsoft MapPoint and the Metropolitan Washington Council of Governments, 2012.

The 65+ population is projected to increase 5.4% in the secondary service area from 2013 to 2018

Exhibit 8 indicates that the 65+ and 55 to 64 age cohorts are expected to increase faster than the population of the community as a whole.

Exhibit 8: Percent Change in Population by Age, 2008-2013 and 2013-2018

Age/Sex Cohort	Community Population			Percent Change in Population	
	2008	2013	2018	2008-2013	2013-2018
Primary Service Area					
0-17	21.1%	21.4%	21.4%	4.4%	0.9%
Female 18-44	19.9%	17.5%	17.1%	-9.2%	-1.9%
Male 18-44	20.2%	17.9%	17.5%	-8.2%	-1.7%
45-54	15.9%	16.5%	16.6%	7.1%	1.4%
55-64	12.4%	13.8%	14.1%	14.5%	2.8%
65+	10.5%	12.8%	13.4%	26.2%	5.0%
Total	**264,019**	**272,229**	**274,439**	**3.1%**	**0.8%**
Secondary Service Area					
0-17	23.9%	23.4%	23.3%	1.3%	0.3%
Female 18-44	18.5%	16.7%	16.3%	-6.6%	-1.3%
Male 18-44	18.7%	17.1%	16.8%	-5.4%	-1.1%
45-54	16.4%	16.3%	16.2%	2.6%	0.7%
55-64	12.5%	14.0%	14.3%	16.4%	3.1%
65+	10.0%	12.5%	13.0%	28.5%	5.4%
Total	**281,027**	**290,613**	**293,183**	**3.4%**	**0.9%**
Combined Service Areas					
0-17	22.6%	22.4%	22.4%	2.7%	0.6%
Female 18-44	19.2%	17.1%	16.7%	-7.9%	-1.6%
Male 18-44	19.4%	17.5%	17.1%	-6.8%	-1.4%
45-54	16.1%	16.4%	16.4%	4.8%	1.0%
55-64	12.4%	13.9%	14.2%	15.5%	2.9%
65+	10.3%	12.6%	13.2%	27.3%	5.2%
Total	**545,046**	**562,842**	**567,623**	**3.3%**	**0.8%**

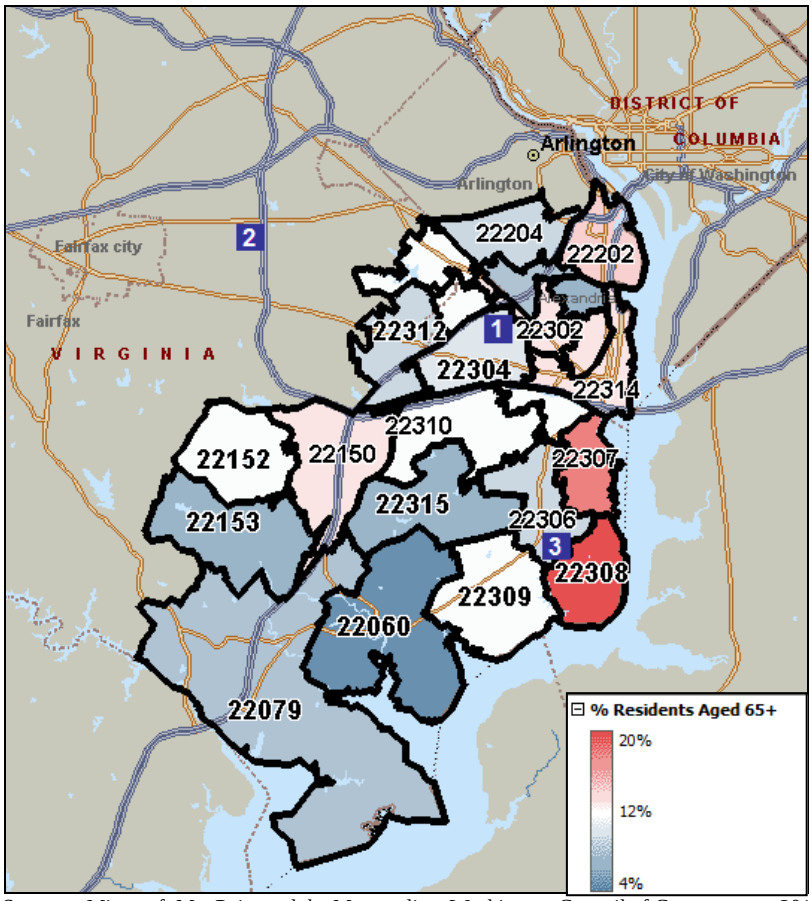
Source: The Metropolitan Washington Council of Governments, 2012.

Growth and aging of the population, coupled with the impact of coverage expansions associated with health reforms, will increase demand for health services. The pediatric population in the primary service area is expected to increase by one percent between 2013 and 2018. However, Alexandria City Public Schools expect enrollment to increase by 20 percent by 2018 due to population growth and students returning to the public school system. [5]

The proportion of the population 65 years of age and older varies by ZIP code. The subregion of Mt. Vernon South/Ft. Belvoir (ZIP code 22308 and 22307, respectively) had comparatively high proportions of this population (**Exhibit 9**).

[5] Joint Alexandria City Council/School Board. (September 2012). Long-Range Educational Facilities Plan Work Program.

Exhibit 9: Percentage of Residents Aged 65+, 2008



Growth and aging of the population, coupled with the impact of coverage expansions associated with health reforms, will increase demand for health services

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At 19%, Mt. Vernon South/Ft. Belvoir (ZIP code 22308) had the highest proportion of the population aged 65+

Sources: Microsoft MapPoint and the Metropolitan Washington Council of Governments, 2012.

In 2008, nearly 60 percent of the community's population was White. Non-White populations are expected to grow faster than White populations in the community. The Asian population is expected to increase the most (**Exhibit 10**). The growing diversity of the community is important to recognize given that health disparities and the need to enhance cultural competency of health care providers are present.

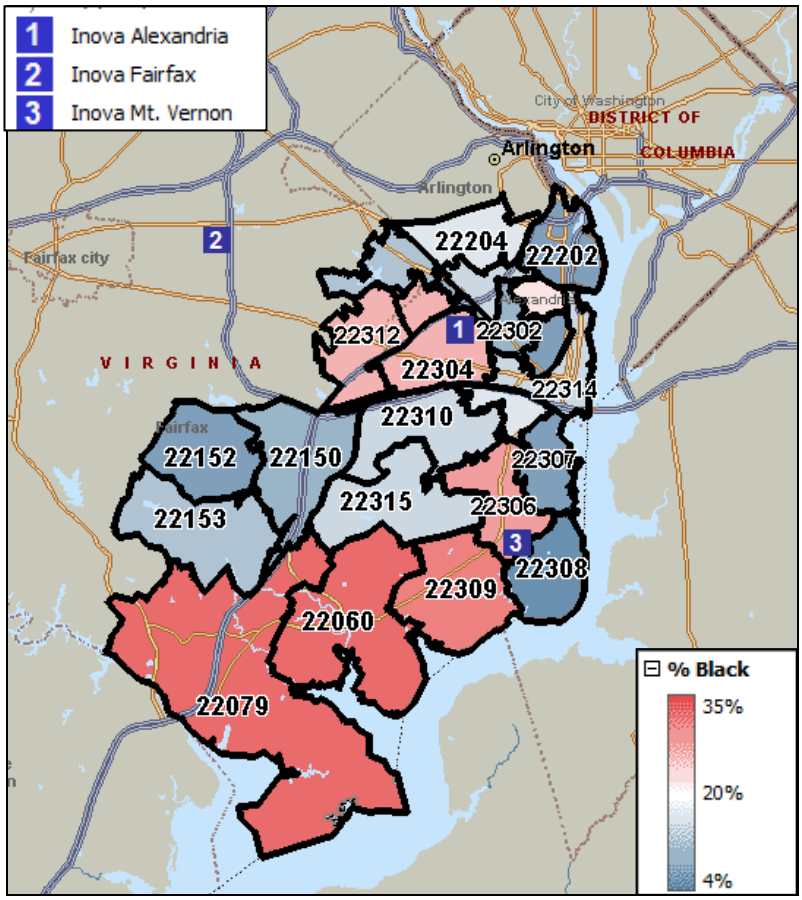
Exhibit 10: Distribution of Population by Race, 2008-2013 and 2013-2018

Racial Cohort	Community Population			% Change in Population	
	2008	2013	2018	2008-2013	2013-2018
Primary Service Area					
Asian	8.2%	8.3%	8.3%	4.6%	1.0%
Black	17.4%	17.2%	17.2%	1.6%	0.5%
Other	13.1%	13.2%	13.2%	4.1%	0.9%
White	61.3%	61.3%	61.3%	3.1%	0.7%
Total	**264,019**	**272,229**	**274,182**	**3.1%**	**0.7%**
Secondary Service Area					
Asian	11.2%	11.7%	11.8%	8.8%	1.7%
Black	17.3%	18.1%	18.3%	8.1%	1.7%
Other	12.9%	13.2%	13.3%	5.9%	1.3%
White	58.6%	56.9%	56.6%	0.4%	0.2%
Total	**281,027**	**290,613**	**292,875**	**3.4%**	**0.8%**
Combined Service Areas					
Asian	9.7%	10.1%	10.1%	7.0%	1.4%
Black	17.4%	17.7%	17.7%	5.0%	1.2%
Other	13.0%	13.2%	13.2%	5.0%	1.1%
White	59.9%	59.1%	58.9%	1.8%	0.4%
Total	**545,046**	**562,842**	**567,058**	**3.3%**	**0.7%**

Source: Claritas Inc., 2012.
* Date by Race/Ethnicity provide slightly different population projections for 2018 compared to other demographic data assessed in this report.

Exhibit 11 portrays the concentration of Black residents in the Inova Alexandria community. Black populations are most prevalent in Mt. Vernon South/Ft. Belvoir (ZIP code 22060) and Lorton/Newington (ZIP code 22079).

Exhibit 11: Areas with Highest Concentration of Black Residents, 2008



Sources: Microsoft MapPoint and Claritas Inc., 2010.

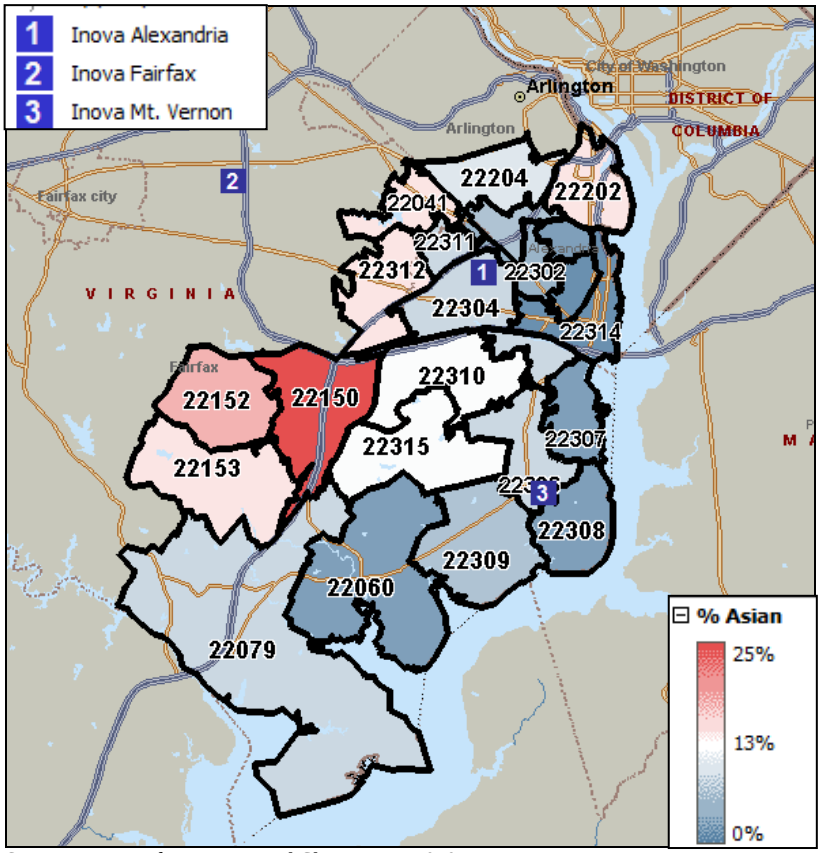
Black populations are expected to increase most rapidly in the secondary service area

…

Black populations are most prevalent in Mt. Vernon South/Ft. Belvoir (ZIP code 22060) and Lorton/Newington (ZIP code 22079)

Exhibit 12 illustrates the concentration of Asian residents in the Inova Alexandria community. Asian populations are most prevalent in Springfield (ZIP codes 22150 and 22152).

Exhibit 12: Areas with Highest Concentration of Asian Residents, 2008



Asian populations are expected to increase most rapidly in the secondary service area

…

Asian populations are most prevalent in Springfield (ZIP codes 22150 and 22152)

Sources: Microsoft MapPoint and Claritas Inc., 2010.

Projections indicate that the Hispanic (or Latino) community population is expected to increase more rapidly than non-Hispanic (or Latino) ethnicities. In terms of overall percent change, the Inova Alexandria community is projected to experience growth in the Hispanic (or Latino) population of approximately 6.0 percent between 2008 and 2013 and 1.3 percent between 2013 and 2018. Growth is particularly high in the hospital's secondary service area (**Exhibit 13**).

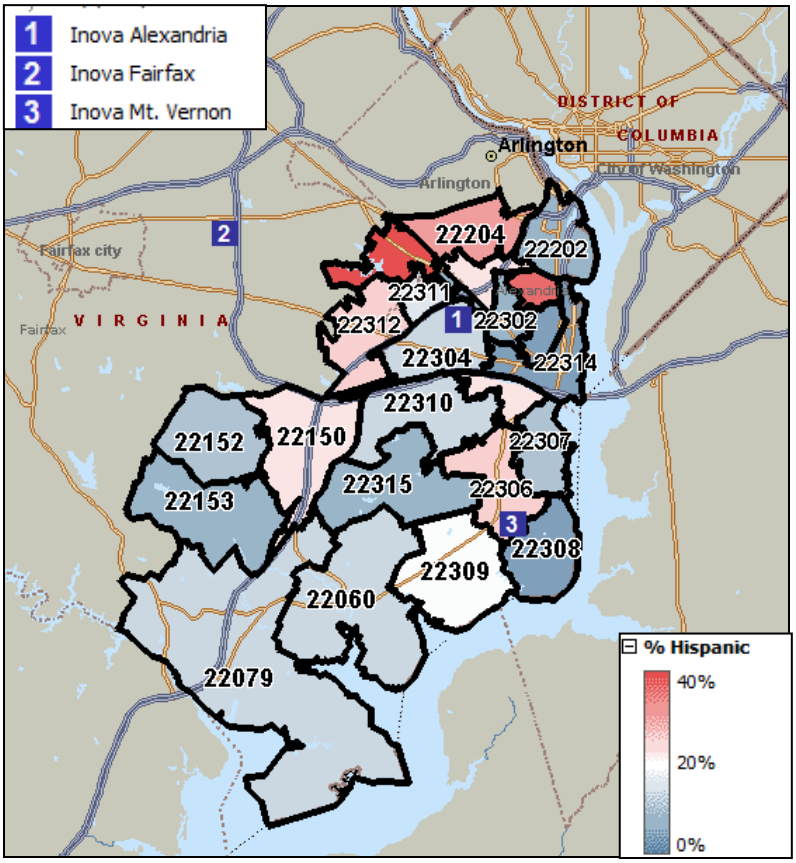
Exhibit 13: Distribution of Population by Ethnicity, 2008-2013 and 2013-2018

Ethnic Cohort	Community Population			% Change in Population	
	2008	2013	2018	2008-2013	2013-2018
Primary Service Area					
Hispanic (or Latino)	16.5%	16.8%	16.8%	4.7%	1.1%
Not Hispanic (or Latino)	83.5%	83.2%	83.2%	2.8%	0.7%
Total	**264,019**	**272,229**	**274,182**	**3.1%**	**0.7%**
Secondary Service Area					
Hispanic (or Latino)	17.6%	18.2%	18.4%	7.1%	1.5%
Not Hispanic (or Latino)	82.4%	81.8%	81.6%	2.6%	0.6%
Total	**281,027**	**290,613**	**292,875**	**3.4%**	**0.8%**
Combined Service Areas					
Hispanic (or Latino)	17.1%	17.5%	17.6%	6.0%	1.3%
Not Hispanic (or Latino)	82.9%	82.5%	82.4%	2.7%	0.6%
Total	**545,046**	**562,842**	**567,058**	**3.3%**	**0.7%**

Source: Claritas Inc., 2012.
* Date by Race/Ethnicity provide slightly different population projections for 2018 compared to other demographic data assessed in this report.

Exhibit 14 illustrates the concentration of Hispanic (or Latino) residents in the Inova Alexandria community. Hispanic (or Latino) communities appear to be most highly concentrated in Lincolnia/Bailey's Crossroads (ZIP code 22041), Alexandria (ZIP code 22305), and Shirlington/South Arlington (ZIP code 22204).

Exhibit 14: Areas with Highest Concentration of Hispanic (or Latino) Residents, 2008



The highest proportions of Hispanic (or Latino) residents live in Lincolnia/Bailey's Crossroads (ZIP code 22041), Alexandria (ZIP code 22305), and Shirlington/South Arlington (ZIP code 22204)

Sources: Microsoft MapPoint and Claritas Inc., 2012.

Exhibit 15 presents other demographic characteristics.

Exhibit 15: Prevalence of Demographic Indicators and Variation from the Commonwealth of Virginia, 2010

Demographic Indicators	Alexandria City	Arlington County	Fairfax County	Virginia	U.S.
Total Population With Any Disability	5.5%	4.8%	6.0%	**10.8%**	**11.9%**
Population 0-18 With Any Disability	2.1%	2.0%	2.2%	**3.4%**	**4.0%**
Population 18-64 With Any Disability	3.4%	3.1%	4.5%	**8.9%**	**10.0%**
Population 65+ With Any Disability	32.1%	24.1%	25.9%	**35.1%**	**36.7%**
Residents 25+ Who Did Not Graduate High School	10.4%	8.0%	8.4%	**13.5%**	**14.4%**
Residents 5+ Who Are Linguistically Isolated	12.7%	8.3%	15.0%	**5.7%**	**8.7%**
Housing Units With No Car	8.6%	12.3%	4.0%	**6.2%**	**9.1%**

Source: U.S. Census Bureau, 2012.

These characteristics include:

- In 2010, the three areas presented had lower percentages of disabled residents than Virginia and national averages.
- More community residents aged 25 and older have graduated high school than the Virginia and national averages. Alexandria City had the highest percentage of non-graduates at 10 percent.
- All three areas had higher percentages of linguistically isolated individuals than the Virginia average. Linguistic isolation is defined as the population aged 5 and older who speak a language other than English at home and who speak English less than "very well."
- Alexandria City and Arlington County had higher percentages of "housing units with no car available" than the Virginia average. At 12 percent, Arlington County had a higher percentage than both the Virginia and national averages.

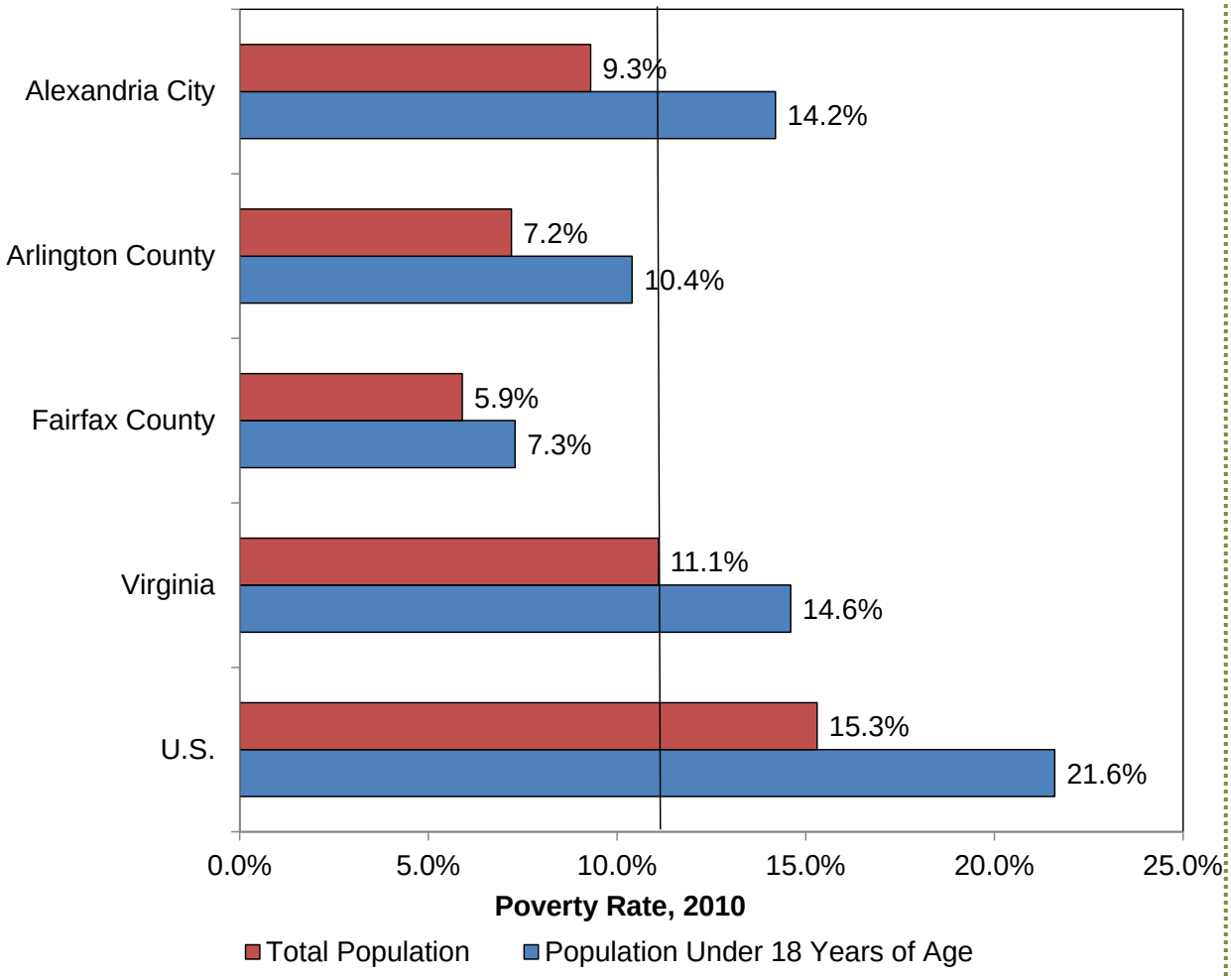
Economic Indicators

The following types of economic indicators with implications for health were assessed: (1) people in poverty, (2) unemployment rates, (3) homelessness, (4) crime, (5) Commonwealth of Virginia budget cuts, (6) utilization of government assistance programs, (7) household income, and (8) insurance status.

1. People in Poverty

Many health needs are associated with poverty. According to the U.S. Census, in 2010, about 15 percent of people in the U.S. and about 11 percent of people in Virginia lived in poverty. All areas reported a poverty rate, for the total population and the population aged 18 years and under, in 2010 that was lower than the Virginia and national averages (**Exhibit 16**). The pediatric population has higher rates of poverty than the adult population.

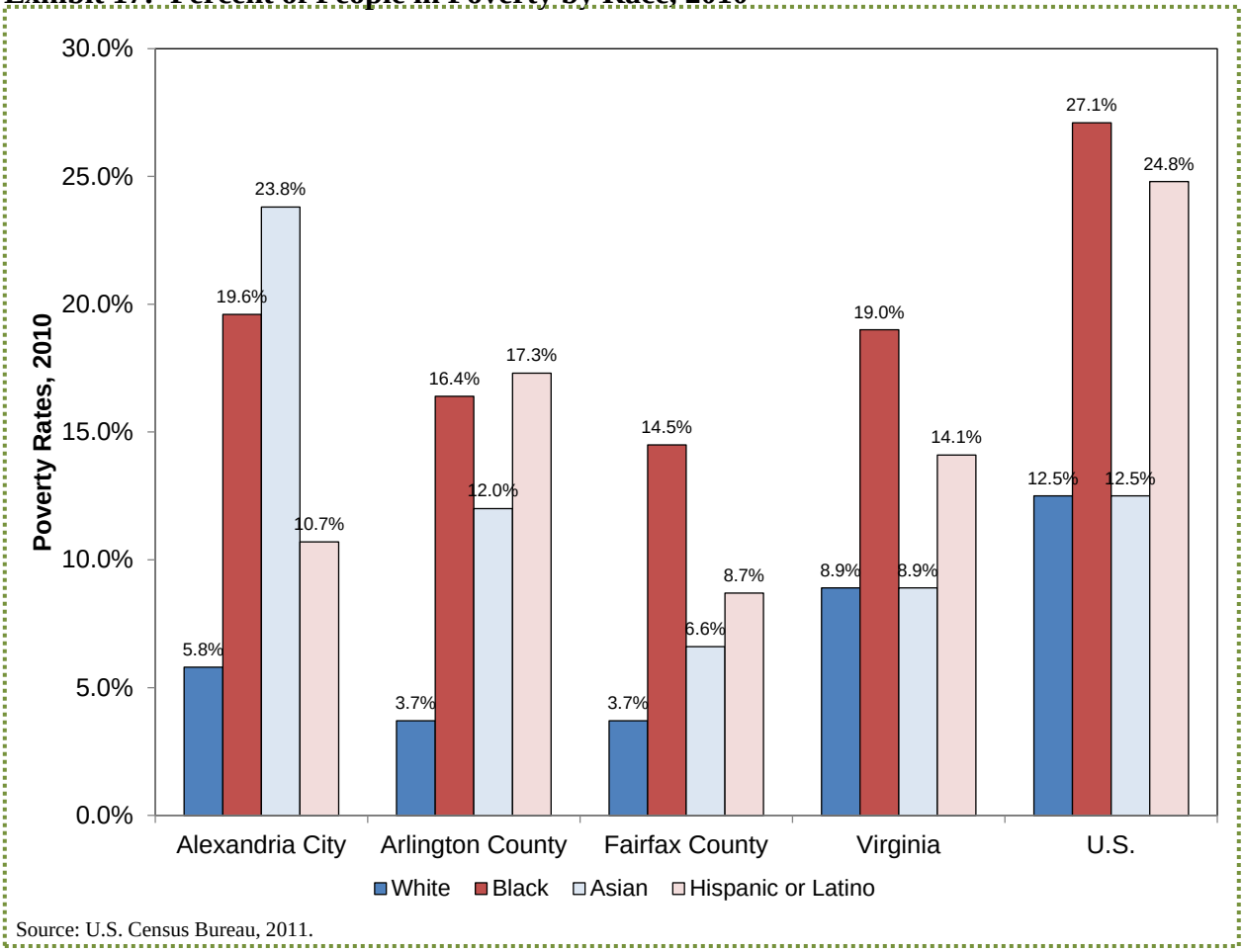
Exhibit 16: Percent of People in Poverty, 2010



Source: U.S. Census Bureau, 2011.

Exhibit 17 presents poverty rates by race. The Hispanic (or Latino), Black, and Asian populations had disproportionately higher poverty rates than the White populations in all three areas. The Black population in Alexandria City and the Hispanic (or Latino) and Asian population in Arlington County had higher poverty rates than the Virginia average. The Asian population in Alexandria City had higher poverty rates than both the Virginia and national averages.

Exhibit 17: Percent of People in Poverty by Race, 2010

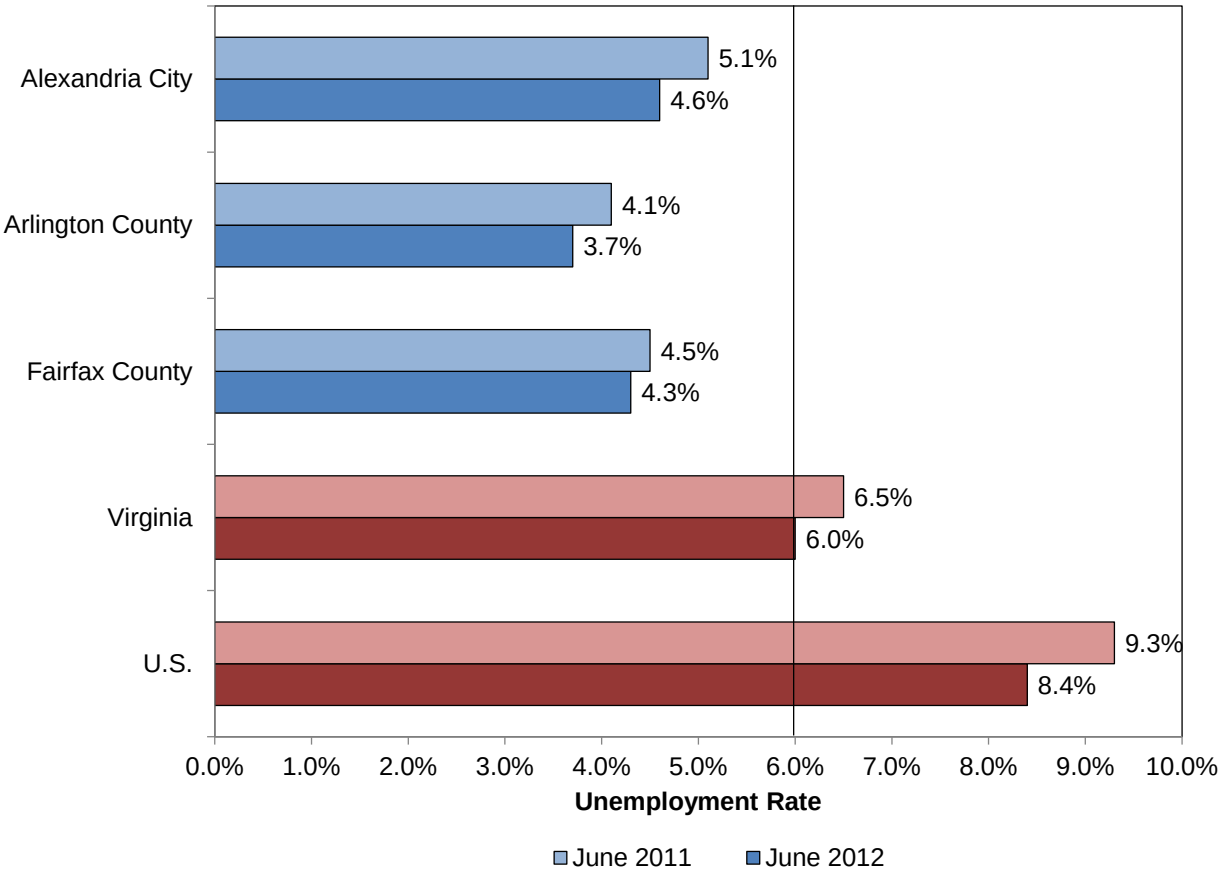


Source: U.S. Census Bureau, 2011.

2. Unemployment Rates

All areas reported lower unemployment rates in 2011 and 2012 than the Virginia and national averages (**Exhibit 18**). High unemployment rates are associated with high numbers of uninsured people due to the lack of employer-based insurance.

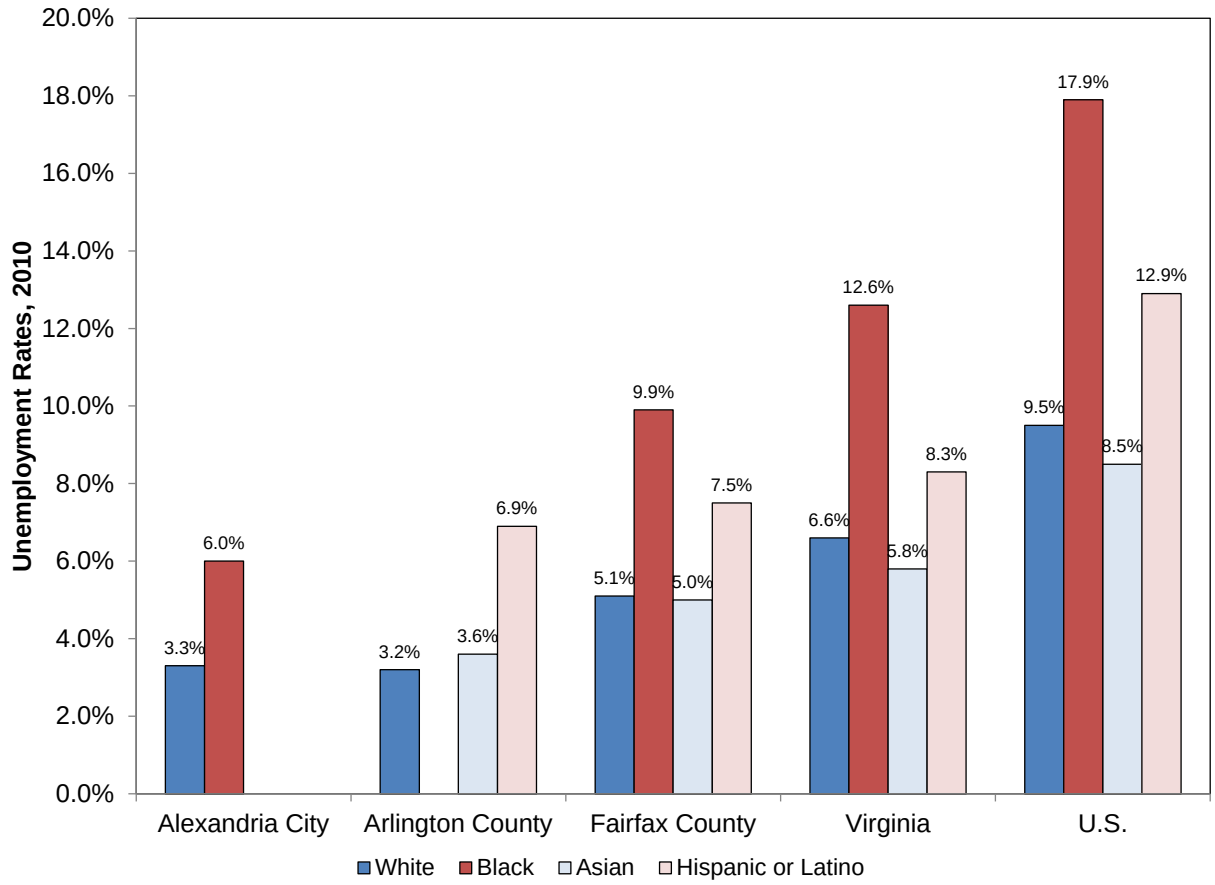
Exhibit 18: Unemployment Rates, 2011 and 2012



Source: U.S. Bureau of Labor Statistics, 2012.

While still lower than Virginia and national averages, in the areas for which data were available, unemployment rates in 2010 were disproportionately high for the Hispanic (or Latino) and Black populations (**Exhibit 19**).

Exhibit 19: Unemployment Rates by Race, 2010*



Source: U.S. Census Bureau, 2012.
* Unemployment data by race were available only for the year 2010. Data were not available for the Asian and Hispanic (or Latino) populations in Alexandria City or the Black population in Arlington County.

3. Homelessness

Since 2001, the Metropolitan Washington Council of Governments has conducted an annual count of the homeless population in the metropolitan region. Alexandria City reported the highest rate of homelessness between 2008 and 2011 (**Exhibit 20**). Rates of homelessness increased in Alexandria City and Arlington County between 2008 and 2011.

Exhibit 20: Homelessness Rates by Jurisdiction, 2008-2011

Jurisdiction	Homelessness Rate*				Percent Change in Rates 2008-2011
	2008	2009	2010	2011	
Alexandria City	24.1	24.0	26.9	28.8	19.8%
Arlington County	19.5	23.5	26.9	21.3	9.4%
Fairfax County	17.4	16.1	14.3	13.6	-21.6%
Total	**18.4**	**18.0**	**17.2**	**16.2**	**-11.9%**
Northern Virginia	**15.7**	**15.6**	**14.4**	**13.7**	**-12.6%**

Source: Homeless counts retrieved from the Metropolitan Washington Council of Governments' 2012 Homeless in Metropolitan Washington report.
Jurisdiction population estimates were retrieved from the U.S. Census Bureau: American Community Survey 5 Year Estimates 2006-2010, Annual Estimates of the Resident Population for Counties of Virginia April 1, 2000 to July 1, 2009, and County 2011 Population Datasets April 1, 2010 to July 1, 2011.
*Rates are per 100,000 population.

The Alexandria Homeless Services Coordinating Committee identified 208 single men and women and 151 persons in families as homeless in 2010.

4. Crime

The Federal Bureau of Investigation reports data on violent crime in the United States from county and city police departments that participate in its Uniform Crime Reporting (UCR) Program. All three areas reported lower rates of total violent crime than Virginia and national averages in 2010. Within the community, Alexandria City reported the highest rates of all violent crime types with the exception of murder and non-negligent manslaughter; Alexandria City reported a higher rate of robbery than the Virginia average (**Exhibit 21**).

Exhibit 21: Violent Crime Rates, 2010

Jurisdiction	Population 2010	Violent Crime Rates per 100,000 Population				
		Total Violent Crime	Murder and Non-negligent Manslaughter	Forcible Rape	Robbery	Aggravated Assault
Alexandria City	133,647	203.5	1.5	16.5	93.5	92.0
Arlington County	197,467	164.6	0.5	12.7	71.4	80.0
Fairfax County	1,048,554	92.6	2.2	12.1	36.5	41.8
Virginia	**7,841,754**	**217.9**	**4.7**	**19.5**	**72.1**	**121.5**
U.S.	**303,965,272**	**410.0**	**4.9**	**27.9**	**121.0**	**256.2**

Sources: Violent crime counts were retrieved from the Federal Bureau of Investigation, Uniform Crime Reports, 2012. Population 2010 estimates were obtained from the U.S. Census Bureau, ACS 5 Year Estimates 2006-2010. Rates were calculated by Verité.

5. Commonwealth of Virginia and Local Budget Cuts

The recent recession has had major implications for employment and for the availability of state and county resources devoted to health, public health, and social services. The Commonwealth of Virginia has significantly reduced funding appropriated to these services.

Governor McDonnell's proposed the 2012-2014 biennial budget,[6] approved by the 2012 General Assembly. Funding changes include:

- **Children and Youth Services**
    - Elimination of funding for child advocacy centers in the Office of Secretary of Health and Human Resources and Department of Social Services ($846,000 for both FY 2013 and FY 2014, for a total reduction of $1,692,000);
    - Reductions in base funding to the Comprehensive Services Act for At-Risk Youth and Families (CSA) ($17,678,003 for FY 2013 and $14,987,327 for FY 2014, for a total reduction of $32,665,330) and elimination of general fund support for wrap-around services in public schools ($5,401,216 for both FY 2013 and FY 2014, for a total reduction of $10,802,432 (offset by $700,000));
    - Elimination of funding for the Teen Pregnancy Prevention Initiative in Alexandria City[7] (the Initiative operated in the Richmond, Norfolk, Alexandria, Roanoke City, Crater, Portsmouth, and Eastern Shore health districts; funding reductions for the entire Initiative are $455,00 for both FY 2013 and FY 2014, for a total reduction of $910,000);
- **Aging and Elderly Services**
    - Elimination of funding for certain non-state agencies that serve aging and elderly populations ($386,722 for FY 2013 and $767,945 for FY 2014, for a total reduction of $1,154,667), including the Prince William County Care Coordination for the Elderly Virginians Program (approximately $5,500 for FY 2013 and $11,000 for FY 2014, for a total reduction of approximately $16,500);
    - Reductions in funding for in-home and community-based services, such as adult day care, homemaker, personal care, and transportation services, provided by Virginia's Area Agencies on Aging ($131,853 for both FY 2013 and FY 2014, for a total reduction of $263,706);
- **Health Services for Indigent and Low-income Populations**
    - Reductions in funding for Alexandria Neighborhood Health Services, Inc. ($37,830 for FY 2014);
    - Reductions in funding for the Jeanie Schmidt Free Clinic of Virginia ($19,125 for FY 2014);
    - Reductions in funding for the Mission of Mercy program through the Virginia Dental Association Foundation ($425 for FY 2013 and $10,625 for FY 2014, for a total reduction of $11,050);
    - Reductions in funding for the Virginia Association of Free Clinics ($1,598,200 for FY 2014), the Virginia Community Healthcare Association ($1,204,375 for FY 2014), and the Virginia Health Care Foundation ($2,040,286 for FY 2014);

[6]The 2012 Executive Budget Document. Retrieved on August 2, 2012 from http://dpb.virginia.gov/budget/buddoc12/index.cfm.
[7]Alexandria City committed City general funds to maintain this program.

- Elimination of funding for the three remaining general medical clinics in Virginia, including the one in the Alexandria Health Department ($233,500 in FY 2013 and $466,963 in FY 2014, for a total reduction of $700,463);
- Elimination of funding for commonwealth-supported dental clinics ($1,664,306 for both FY 2013 and FY 2014, for a total reduction of $3,328,612);
- Reductions in income limits for the Medicaid long-term care eligibility group ($36,435,516 for FY 2014);
- Reductions in funding to the commonwealth's Medicaid Children's Health Insurance Program due to slowed enrollment and lower managed care rates ($8,254,417 in FY 2013 and $52,782,923 in FY 2014, for a total reduction of $61,037,340);
- Reductions in funding to the VCU and UVA academic health centers for indigent care services ($14,995,994 for both FY 2013 and FY 2014, for a total reduction of $29,991,988);

- **Health Departments, Facilities, and Workers**
  - Reductions in general fund appropriations to the Department of Health ($1,771,250 FY 2013 and $8,224,191 for FY 2014, for a total reduction of $9,995,441);
  - Reductions in funding to the Department of Health Professions ($97,067 for both FY 2013 and FY 2014, for a total reduction of $194,134);
  - Withholding annual inflation adjustments from rates paid to nursing facilities ($51,479,932 FY 2013 and $79,055,622 for FY 2014, for a total reduction of $130,535,554), home health agencies ($154,126 for FY 2013 and $330,992 for FY 2014, for a total reduction of $485,118), outpatient rehabilitation agencies ($413,744 FY 2013 and $804,262 for FY 2014, for a total reduction of $1,218,006), and hospitals ($197,317,468 FY 2013 and $323,309,280 for FY 2014, for a total reduction of $520,626,748);
- **Other Health Programs and Services**
  - Reductions in the number of sign language interpreters provided for certain Twelve-Step Programs ($16,900 for both FY 2013 and FY 2014, for a total reduction of $33,800);
  - Balance the non-general fund appropriations for the Temporary Assistance for Needy Families (TANF) block grant for the Comprehensive Health Investment Project of Virginia (6,164,233 FY 2013 and $5,107,564 for FY 2014, for a total reduction of $11,271,797); and,
  - Elimination of one Virginia Epidemiology Response Team position ($48,335 for both FY 2013 and FY 2014, for a total reduction of $96,670).

In addition to the commonwealth's budget reductions, service area counties' proposed FY 2013 budgets include the following changes.

- **Alexandria City**:[8]
    - A two percent increase in the health and welfare expenditures of Alexandria City;
    - A proposed cut of 35 percent to maternal and child healthcare;
    - A decrease of 18 percent in adult healthcare funding;
    - An 18 percent increase in intellectual and disability health as well as in aging and adult services funding;
    - A ten percent increase in adult mental health and substance abuse funding;
    - A proposed increase in city funding toward the Teen Wellness Center from $357,912 to $499,24; and
    - An addition to the FY 2012 budget of $56,607 to address reductions in the Healthy Families Alexandria budget in past years and to provide a Family Support Worker for families in the community.
- **Arlington County**:[9]
    - Reductions in several community health-based grants;
    - A $25,984 decrease in the Comprehensive Health Investment Project (CHIP) grant;
    - An increase in personnel cost for 2013 due to increases in employee health insurance costs;
    - A proposed reduction to the Health and Human services division budget from $706,257 to $365,567, but no change in reductions in estimates of substance abuse and mental health budgets;
    - A decrease in one-time funding of $40,000 for the Arlington Free Clinic; and
    - A decrease in non-personnel expenses of $20,000 due to the elimination of one-time FY 2012 funding for Arlandria Neighborhood Health Services.
- **Fairfax County**:[10]
    - A decrease of about four percent since 2011 in Fairfax County Health Department funding; and
    - A decrease of about three percent since 2011 in the total health and welfare department, including the Department of Family Services, Department of Administration for Human Services, the Health Department, the Office to Prevent

[8] City of Alexandria FY 2013 Proposed Budget.1-11 http://alexandriava.gov/uploadedFiles/budget/info/FY%202012%20Approved%20Budget%20in%20Brief.pdf
[9] Arlington County Manager's FY 2013 Proposed Budget. 1-851. http://www.arlingtonva.us/departments/ManagementAndFinance/budget/page78609.aspx
[10] City of Fairfax FY 2013 Proposed Budget.1-11 http://www.fairfaxcounty.gov/dmb/

and End Homelessness, and the Department of Neighborhood and Community Services.

Health and social services agencies across Northern Virginia have expressed many concerns about these funding reductions.

6. Utilization of Government Assistance Programs

Federal, state, and local governments provide assistance programs for low-income individuals and families. These programs include vouchers that subsidize housings costs, free and reduced priced lunches at public schools through the National School Lunch Program, the Supplemental Nutrition Assistance Program (SNAP), and Temporary Assistance for Needy Families (TANF).

Housing certificates and vouchers allow residents who meet certain eligibility criteria to receive monthly housing assistance under Section 8 of the Housing Act of 1937. Under that program, subsidies of rental and mortgage costs help make housing more affordable. Residents who apply for these certificates and vouchers may be placed on a waiting list before funds become available. Alexandria City and Arlington County reported average months on the waiting list for Section 8 housing certificates and vouchers that were greater than both the Virginia and U.S. averages. Average household federal contributions for these areas are noticeably higher than the U.S. and Virginia averages (**Exhibit 22**).

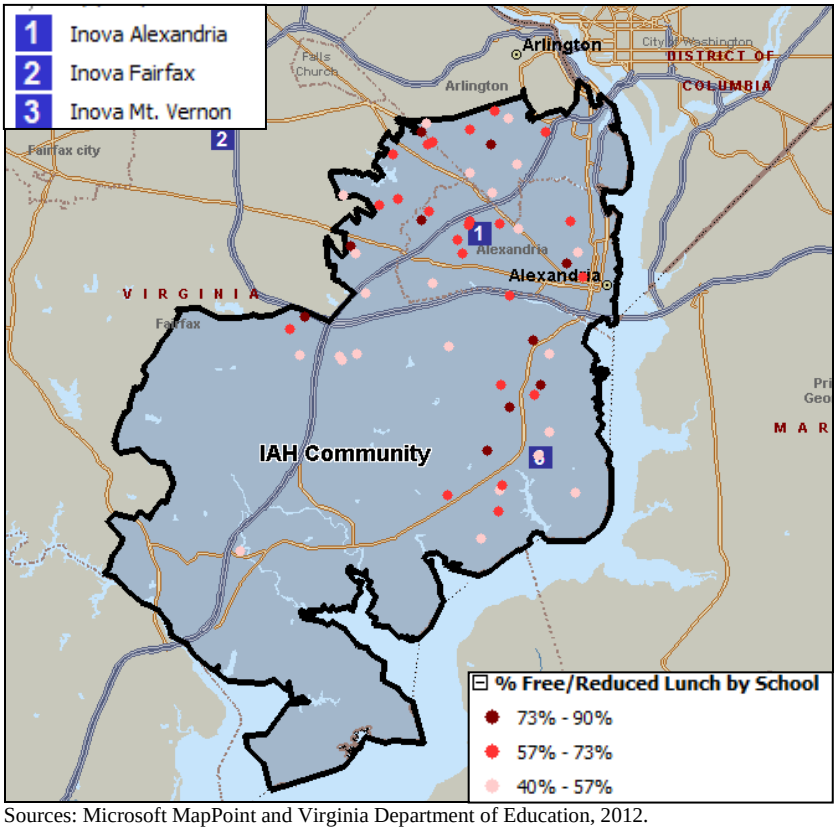
Exhibit 22: Waiting Time for Section 8 Housing Certificates and Vouchers by Jurisdiction, 2009

Jurisdiction	Number of Participating Households	Spending per Unit per Month		Average Months on Waiting List
		Average Household Contribution	Average Federal Contribution	
Alexandria City	1,324	$436	$1,062	15
Arlington County	1,291	$407	$944	36
Fairfax County	3,136	$462	$1,068	10
Virginia	**42,727**	**$359**	**$676**	**10**
U.S.	**2,071,161**	**$335**	**$657**	**14**

Source: U.S. Department of Housing and Urban Development, 2012.

Schools participating in the National School Lunch Program are eligible to receive financial assistance from the USDA to provide free or reduced-cost meals to low-income students. Schools with 40 percent or more of their student body receiving free or reduced-cost meals are eligible for school-wide Title I funding, designed to ensure that students meet grade-level proficiency standards. In the Inova Alexandria community, 58 out of 100 schools had greater than 40 percent of the student body eligible for free or reduced-cost lunches (**Exhibit 24**). These schools are located near Lincolnia/Bailey's Crossroads, Shirlington/South Arlington, and along the Richmond Highway corridor.

Exhibit 23: Public Schools with Over 40% of Students Eligible for Free or Reduced Price Lunches, School Year 2011-2012



Ten schools in the community have 73%-90% of students eligible for free or reduced priced lunches

Sources: Microsoft MapPoint and Virginia Department of Education, 2012.

Exhibit 24 shows the percent of the total population enrolled in the Supplemental Nutrition Assistance Program (SNAP). This U.S. Department of Agriculture program provides financial support for low-income and no-income residents to purchase food. At six percent, Alexandria City had the highest enrollment in the community.

Exhibit 24: Supplemental Nutrition Assistance Program (SNAP) Enrollment, 2010

Jurisdiction	Average SNAP Enrollment	Total Population	Percent of Total Population
Alexandria City	7,961.1	133,647	6.0%
Arlington County	6,221.5	197,467	3.2%
Fairfax County	36,958.8	1,082,077	3.4%
Virginia	**806,895.3**	**7,841,754**	**10.3%**

Source: Enrollment data was retrieved from the Virginia Department of Social Services, 2012. Population 2010 estimates were obtained from the U.S. Census Bureau, ACS 5 Year Estimates 2006-2010.

Exhibit 25 shows the percent of the total population enrolled in TANF. This U.S. Department of Health and Human Services program provides financial assistance to eligible low-income and no-income families with dependent children. At nearly one percent, Alexandria City had the highest enrollment in the community.

Exhibit 25: Temporary Assistance for Needy Families (TANF) Enrollment, 2010

Jurisdiction	Average TANF Enrollment	Total Population	Percent of Total Population
Alexandria City	1,060	133,647	0.8%
Arlington County	576	197,467	0.3%
Fairfax County	3,177	1,082,077	0.3%
Virginia	**77,092**	**7,841,754**	**1.0%**

Source: Enrollment data were retrieved from the Virginia Department of Social Services, 2012. Population 2010 estimates were obtained from the U.S. Census Bureau, ACS 5 Year Estimates 2006-2010.

7. Household Income

In the Inova Alexandria community and in 2008, approximately ten percent of all households had incomes below $25,000, an approximation of the federal poverty level (FPL) for a family of four; 26 percent had incomes less than $50,000, an approximation of 200 percent of the FPL for a family of four (**Exhibit 26**). FPL is used by many agencies and organizations to assess household needs for low-income assistance programs.

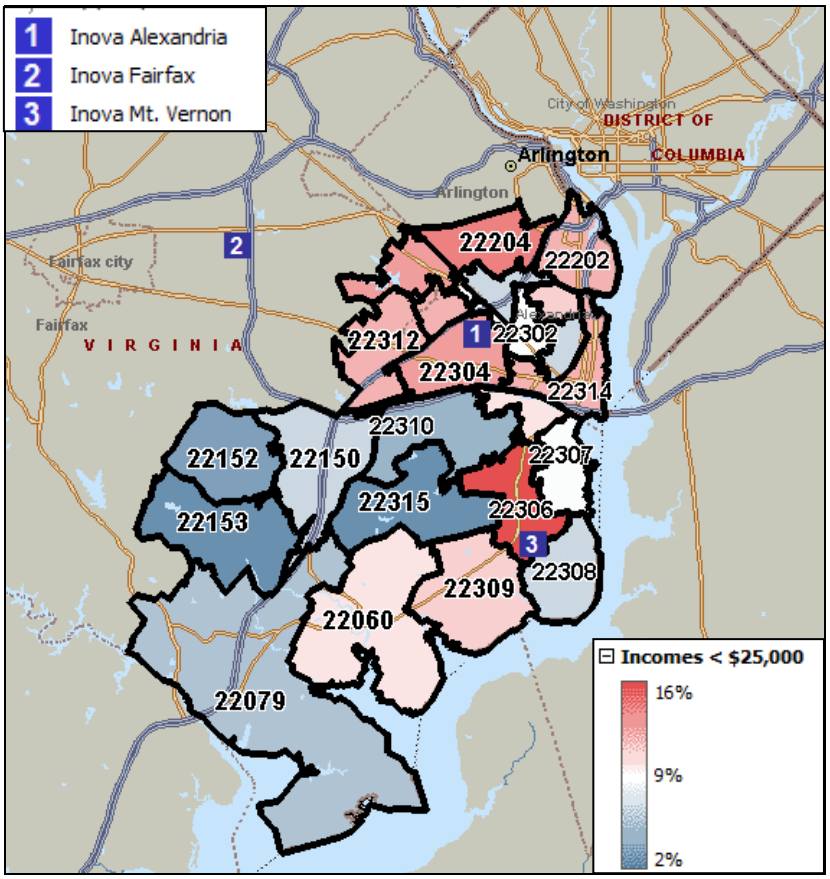
Exhibit 26: Percent Low-Income Households by Subregion, 2008

Subregion	Number of Households 2008	Average Household Income	Percent Less Than $25,000	Percent Less Than $50,000
Primary Service Area				
Alexandria City Subregions	**62,588**	**652,938**	**11.2%**	**29.7%**
Alexandria/Old Town	33,148	488,535	9.9%	24.2%
West Alexandria	29,440	164,403	12.7%	35.8%
Fairfax County Subregions	**52,538**	**615,761**	**8.1%**	**24.3%**
Franconia/Kingstowne	21,725	231,110	3.8%	13.2%
Lincolnia/Bailey's Crossroads	19,985	180,790	12.1%	33.4%
Mt. Vernon North	10,828	203,861	9.5%	29.7%
Primary Service Area Total	**115,126**	**1,268,699**	**9.8%**	**27.2%**
Secondary Service Area				
Arlington County Subregions	**39,162**	**286,105**	**11.6%**	**30.3%**
Shirlington/South Arlington	39,162	286,105	11.6%	30.3%
Fairfax County Subregions	**68,100**	**850,263**	**7.6%**	**23.0%**
Lorton/Newington	9,523	105,334	5.8%	20.6%
Mt. Vernon South/Ft. Belvoir	28,979	395,154	11.6%	32.4%
Springfield	29,598	349,775	4.3%	14.6%
Secondary Service Area Total	**107,262**	**1,136,368**	**9.1%**	**25.7%**
Combined Service Area Total	**222,388**	**1,202,534**	**9.5%**	**26.5%**

Source: Claritas Inc., 2012.

At a ZIP code level, the highest proportions of households with incomes under $25,000 in 2010 were located in Mt. Vernon South/Ft. Belvoir (ZIP code 22306) and Shirlington/South Arlington (ZIP code 22204). At four percent, Franconia/Kingstowne (ZIP code 22315) had the lowest proportion (**Exhibit 27**).

Exhibit 27: Percent of Households with Incomes Less than $25,000 by ZIP Code, 2008



ZIP code 22306 in Mt. Vernon South/Ft. Belvoir had the highest proportion of lower-income households: 16%

…

Franconia/ Kingstowne (ZIP code 22315) had the lowest proportion: under 4%

Sources: Microsoft MapPoint and Claritas Inc., 2012.

8. Insurance Status

Exhibit 28 indicates that, in 2010, a higher percentage of residents in Alexandria City and Fairfax County were uninsured than the Virginia average. Alexandria City's percentage of uninsured residents exceeded both the Virginia and national averages. The majority of the uninsured population aged 18-64 was employed.

Exhibit 28: Uninsured Population by Age Cohort and Jurisdiction, 2010

Jurisdiction	Total Population	Population Under 18	Population 18-64			
	Percent Uninsured	Percent Uninsured	Percent Uninsured and Employed	Percent Uninsured and Unemployed	Percent Uninsured not in Labor Force	Total Percent Uninsured
Alexandria City	17.7%	7.2%	14.8%	2.1%	4.8%	21.8%
Arlington County	12.5%	5.5%	10.9%	1.6%	2.5%	15.1%
Fairfax County	13.5%	8.4%	11.9%	2.1%	3.0%	17.0%
Virginia	**13.1%**	**6.6%**	**10.5%**	**3.0%**	**4.2%**	**17.8%**
U.S.	**15.5%**	**8.0%**	**12.4%**	**3.9%**	**5.1%**	**21.4%**

Source: U.S. Census Bureau, 2012.

Exhibit 29 portrays the distribution of community-wide discharges by subregion and by payer. This helps identify where uninsured (self-pay) people and Medicaid recipients live across the community.

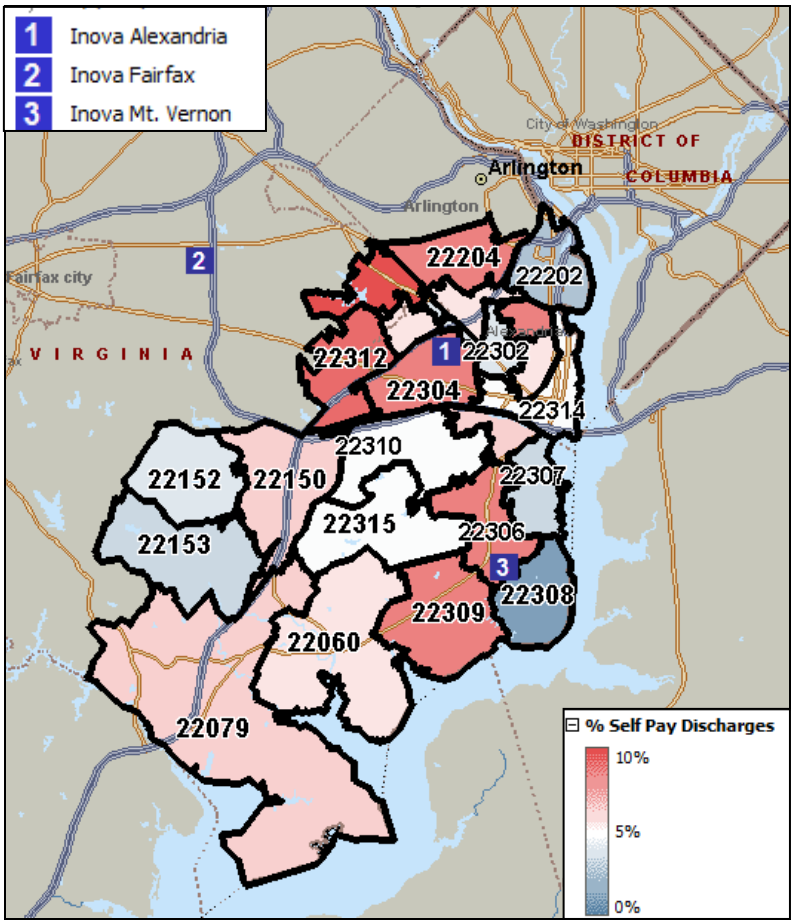
Exhibit 29: Community-Wide Discharges by Subregion and Payer, 2010

Subregion	Discharges 2010	Medicaid	Medicare	Other	Private	Self-pay	Unknown/ Missing
Primary Service Area							
Alexandria City Subregions	**9,118**	**12.4%**	**37.2%**	**1.0%**	**43.0%**	**6.3%**	**0.1%**
Alexandria/Old Town	4,736	12.6%	36.4%	1.1%	44.4%	5.4%	0.1%
West Alexandria	4,382	12.2%	38.1%	0.9%	41.6%	7.2%	0.0%
Fairfax County Subregions	**8,462**	**12.8%**	**33.2%**	**0.8%**	**46.3%**	**6.7%**	**0.2%**
Franconia/Kingstowne	3,082	6.8%	33.5%	0.7%	54.3%	4.6%	0.1%
Lincolnia/Bailey's Crossroads	3,846	19.3%	29.7%	0.9%	40.5%	9.2%	0.3%
Mt. Vernon North	1,534	8.3%	41.2%	0.8%	44.9%	4.7%	0.1%
Primary Service Area Total	**17,580**	**12.6%**	**35.3%**	**0.9%**	**44.6%**	**6.5%**	**0.1%**
Secondary Service Area							
Arlington County Subregions	**4,965**	**15.0%**	**32.1%**	**2.0%**	**43.3%**	**6.4%**	**1.2%**
Shirlington/South Arlington	4,965	15.0%	32.1%	2.0%	43.3%	6.4%	1.2%
Fairfax County Subregions	**12,853**	**13.6%**	**35.5%**	**1.1%**	**43.8%**	**5.9%**	**0.1%**
Lorton/Newington	1,583	12.1%	24.3%	1.5%	55.7%	6.2%	0.2%
Mt. Vernon South/Ft. Belvoir	5,936	17.4%	37.0%	1.0%	37.6%	7.0%	0.1%
Springfield	5,334	9.8%	37.2%	1.1%	47.3%	4.5%	0.1%
Secondary Service Area Total	**17,818**	**14.0%**	**34.5%**	**1.3%**	**43.7%**	**6.0%**	**0.4%**
Combined Service Areas Total	**35,398**	**13.3%**	**34.9%**	**1.1%**	**44.1%**	**6.3%**	**0.3%**

Source: Health Systems Agency of Northern Virginia, 2011.

Medicaid and self-pay discharges were most prevalent in certain areas of Fairfax County (e.g., Lincolnia/Bailey's Crossroads and Mt. Vernon South/Fort Belvoir) (**Exhibits 30, 31, and 32**).

Exhibit 30: Distribution of Self-pay Discharges by ZIP Code, 2010



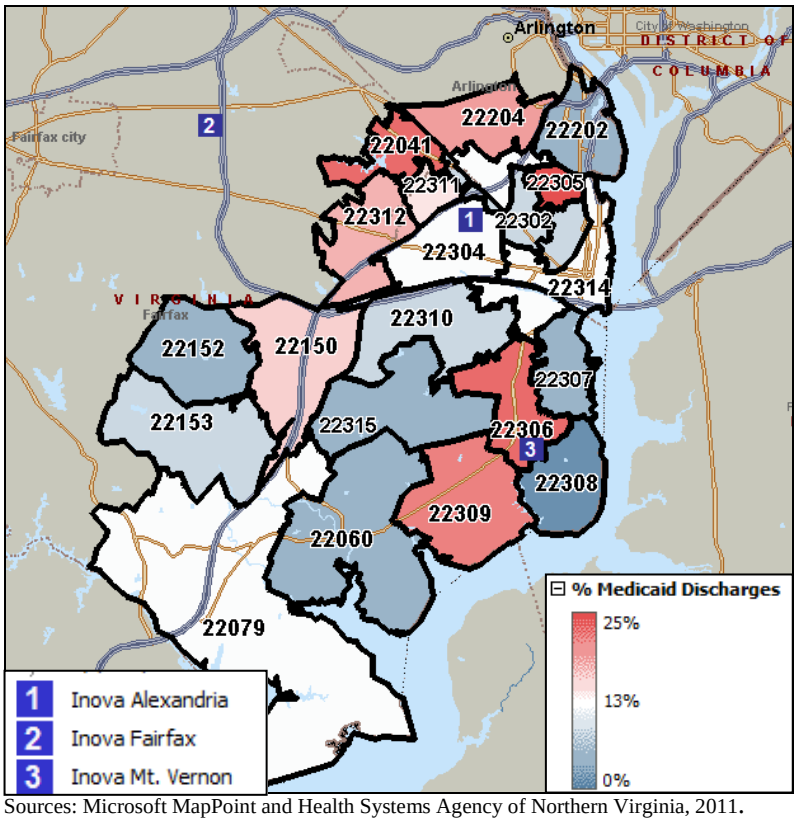
Sources: Microsoft MapPoint and Health Systems Agency of Northern Virginia, 2011.

Self-pay discharges were most prevalent in ZIP codes proximate to Inova Alexandria

…

A comparatively high proportion of self-pay discharges were found in Lincolnia/Bailey's Crossroads (ZIP codes 22041 and 22312)

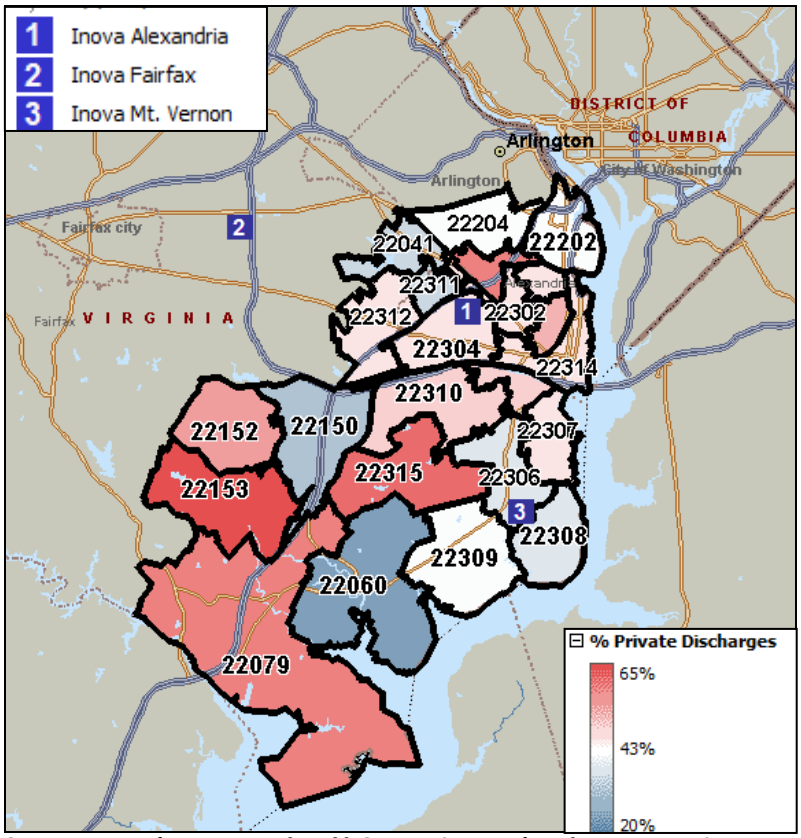
Exhibit 31: Distribution of Medicaid Discharges by ZIP Code, 2010



Sources: Microsoft MapPoint and Health Systems Agency of Northern Virginia, 2011.

Medicaid discharges were prevalent in Alexandria (ZIP code 22305), Lincolnia/Bailey's Crossroads (ZIP code 22041), and Mt. Vernon South/Fort Belvoir (ZIP codes 22306 and 22309)

Exhibit 32: Distribution of Private Discharges by ZIP Code, 2010



44% of community discharges were for patients with private coverage …

The greatest proportions of private discharges originated from Springfield (ZIP code 22153) and Franconia/ Kingstowne (ZIP code 22315)

Sources: Microsoft MapPoint and Health Systems Agency of Northern Virginia 2011.

County/City-Level Health Status and Access Indicators

The following secondary data sources were used to examine county-level and city-level health status and access to care indicators in the Inova Alexandria community: (1) County Health Rankings, (2) Community Health Status Indicators Project, (3) Virginia Department of Health, and (4) the Behavioral Risk Factor Surveillance System.

1. County Health Rankings

County Health Rankings, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, ranks each county within each state (or commonwealth) in terms of health factors and health outcomes. The health outcomes measure is a composite based on mortality and morbidity statistics. The health factors measure is a composite of several variables known to affect health outcomes: health behaviors, clinical care, social and economic factors, and physical environment.

County Health Rankings is updated annually. *County Health Rankings 2012* relies on data from 2002 to 2010, with most data originating in 2006 to 2009. *County Health Rankings 2011* relies on data from 2001 to 2009, with most data originating in 2006 to 2008. In 2011, *County Health Rankings* was able to rank 132 of Virginia's 134 counties. In 2012, *County Health Rankings* ranked 131 counties.

Exhibit 33 provides a summary analysis of the rankings for counties and cities in Inova Alexandria's community. Rankings for Virginia were divided into quartiles to indicate how each county ranks versus others in the commonwealth. **Exhibit 33** illustrates the quartile into which each area fell by indicator in the 2012 edition, and also illustrates whether an area's ranking worsened or improved from 2011. For example, in the 2012 edition, Arlington County was in the top half (13th out of 131) of Virginia counties and independent cities for the overall rate of morbidity; however, its ranking in 2012 fell for this indicator compared to the 2011 edition.

Exhibit 33: County-Level Health Status and Access Indicators

Indicator	Alexandria City	Rank Change 2011 to 2012	Arlington County	Rank Change 2011 to 2012	Fairfax County	Rank Change 2011 to 2012
Health Outcomes		6 to 6		2 to 2		1 to 1
Mortality	↓	6 to 7		2 to 2	↓	1 to 3
Morbidity	↓	12 to 13	↓	2 to 7		3 to 3
Health Factors		22 to 16		8 to 3		9 to 7
Health Behaviors		6 to 3		1 to 1	↓	2 to 4
Tobacco Use		17 to 10	↓	5 to 6	↓	7 to 10
Diet and Exercise*		N/A		N/A		N/A
Alcohol Use		97 to 75		103 to 82	↓	61 to 84
Sexual Activity	↓	97 to 101		27 to 26		5 to 5
Clinical Care		71 to 47		65 to 18		28 to 15
Access to Care[11]		75 to 25		95 to 15		38 to 9
Quality of Care	↓	74 to 95		47 to 40	↓	48 to 55
Social & Economic Factors		27 to 19		8 to 5		3 to 3
Education		37 to 34		9 to 8	↓	5 to 7
Employment		3 to 2		1 to 1	↓	3 to 4
Income		46 to 37		22 to 22		7 to 7
Family and Social Support	↓	34 to 37	↓	30 to 31		10 to 7
Community Safety		102 to 94		67 to 61		15 to 13
Physical Environment		131 to 128		129 to 124		132 to 131
Environmental Quality		130 to 129		129 to 128		132 to 131
Built Environment*[12]		N/A		N/A		N/A

Alcohol Use and Environmental Quality ranked poorly in all areas

…

Alexandria City ranked unfavorably on the most indicators

Source: *County Health Rankings*, 2011 and 2012.

*The 2012 edition of *County Health Rankings* used different data sources for the "Diet and Exercise" and "Built Environment" indicators than the 2011 edition. Therefore, it is not possible to draw comparisons between years for these indicators.

Key	
2012 County Ranking 1 – 66	
2012 County Ranking 67 - 98	
2012 County Ranking 99 -131	
Ranks Not Comparable Between 2011 and 2012	N/A
Rank Decreased from 2011 to 2012	↓

[11] A composite measure that examines the percent of the population without health insurance and ratio of population to primary care physicians.

[12] A composite measure that examines access to healthy foods and recreational facilities and the percent of restaurants that are for fast food.

For the Inova Alexandria community, the indicators that most frequently ranked in the bottom one-half of Virginia areas included Alcohol Use[13] and Environmental Quality.[14] Environmental Quality ranked in the bottom quarter for all areas.

Alexandria City had the highest number of unfavorable indicators, ranking in the bottom one-half of Virginia areas on the following: Alcohol Use, Sexual Activity,[15] Quality of Care,[16] Community Safety,[17] and Environmental Quality.

2. Community Health Status Indicators Project

The *Community Health Status Indicators* (CHSI) Project, provided by the U.S. Department of Health and Human Services, compares many health status and access indicators to both the median rates in the U.S. and to rates in "peer counties" or cities across the U.S.

Counties or jurisdictions are considered "peers" if they share common characteristics such as population size, poverty rate, average age, and population density. **Exhibit 34** highlights the analysis of CHSI health status indicators. Cells in the table are shaded if, on that indicator, a city or county compared unfavorably both to the U.S. as a whole and to the group of specified peer communities.

[13] A composite measure that examines the percent of adults who report heavy or binge drinking and the motor vehicle crash death rate per 100,000 population.
[14] A composite measure that examines the number of air pollution-particulate matter days and air pollution-ozone days.
[15] A composite measure that examines the chlamydia rate per 100,000 population and the teen birth rate per 1,000 females ages 15 to 19.
[16] A composite measure that examines the hospitalization rate for ambulatory care sensitive conditions, whether diabetic Medicare patients are receiving HbA1C screening, and percent of chronically ill Medicare enrollees in hospice care in the last 8 months of life.
[17] A measure that examines the violent crime rate per 100,000 population.

Exhibit 34: Unfavorable CHSI Indicators

Indicator	Alexandria City	Arlington County	Fairfax County
Low Birth Weight Infants			
Very Low Birth Weight Infants			
Premature Births			
No Care in First Trimester			
Births to Women Under 18			
Births to Women Age 40-54*			
Births to Unmarried Women			
Infant Mortality			
Hispanic Infant Mortality			
White non-Hispanic Infant Mortality			
Black non-Hispanic Infant Mortality			
Neonatal Infant Mortality			
Post-neonatal Infant Mortality			
Breast Cancer (Female)			
Colon Cancer			
Lung Cancer			
Coronary Heart Disease			
Stroke			
Homicide			
Suicide			
Motor Vehicle Injuries			
Unintentional Injury			

Key	
	Unfavorable

Source: The *Community Health Status Indicators* Project, 2010.
* The Community Health Status Indicators Project considers a high number of births to women age 40-54 to be an unfavorable health outcome. Caution should be used when interpreting this indicator; women may be choosing to delay having children to pursue career or educational goals.

Overall, the Inova Alexandria community compared relatively favorably for most health indicators. Alexandria City and Arlington County compared unfavorably on the three indicators, followed by Fairfax County with one indicator.

Births to women age 40-54 compared unfavorably in all areas. No care in the first trimester compared unfavorably in two of the areas.

3. Virginia Department of Health

The Virginia Department of Health (VDH) maintains a publicly-available data warehouse that includes indicators regarding a number of health issues. **Exhibit 35** compares each area's age-adjusted rates for leading causes of death to Virginia averages**. Exhibits 36 through 39** assess non age-adjusted rates for racial and ethnic disparities associated with cancer, cardiovascular disease, injury, and other causes of death. **Exhibits 40 through 43** provide information on cancer incidence rates, sexually transmitted infection diagnosis rates, the number of residents living with HIV, and reported cases of tuberculosis. **Exhibits 44 and 45** provide information on maternal and child health indicators by race.

Exhibit 35: Leading Causes of Death, 2010

Death Rates*	Alexandria City	Arlington County	Fairfax County	Virginia
Deaths From All Causes	623.3	557.8	510.1	**739.2**
Malignant Neoplasms	146.7	135.2	128.5	**170.9**
Diseases Of The Heart	142.8	133.1	108.6	**167.6**
Cerebrovascular Diseases	37.3	31.9	27.1	**41.7**
Chronic Lower Respiratory Disease	31.1	18.9	22.9	**37.9**
Unintentional Injury	15.7	15.0	18.3	**32.2**
Alzheimer's Disease	15.2	17.0	11.6	**24.4**
Nephritis And Nephrosis	13.8	14.0	12.2	**20.1**
Diabetes	18.5	14.6	11.5	**18.7**
Septicemia	25.1	13.1	15.2	**17.2**
Influenza And Pneumonia	14.8	10.9	10.5	**15.3**
Suicide	9.4	9.1	7.4	**11.9**
Chronic Liver Disease	5.8	3.2	4.0	**7.8**
Primary Hypertension And Renal Disease	17.8	6.7	6.8	**7.5**
Parkinson's Disease	9.8	6.7	8.3	**6.9**

Key	
Better than VA	
0%-25% worse than VA	
25% to 75% worse than VA	
>75% worse than VA	

Source: Virginia Department of Health, 2012.
Rates are per 100,000 population and age-adjusted to the 2000 population.

According to VDH, Alexandria City compared unfavorably to Virginia on three indicators. One indicator, primary hypertension and renal disease, was more than 75 percent worse than Virginia. Arlington County compared favorably to Virginia on all 15 indicators, while Fairfax County compared unfavorably on septicemia (**Exhibit 35**).

Exhibit 36 portrays non-age adjusted 2010 cancer mortality rates by race. Cells are shaded if the rate for a cohort within one of the areas presented exceeds the Virginia average for that cohort.

Exhibit 36: Cancer Mortality Rates by Race, 2010

Jurisdiction and Race	Colorectal	Pancreas	Lung and Bronchus	Breast (Male and Female)	Cervical and Uterine	Prostate	Non-Hodgkin's Lymphoma	Leukemia
Alexandria City								
White	7.3	8.3	18.7	13.5	7.3	5.2	4.1	5.2
Black	21.5	6.2	36.9	21.5	6.2	18.5	18.5	3.1
Other*	0.0	0.0	18.2	9.1	0.0	9.1	0.0	27.3
Total	**10.0**	**7.1**	**22.9**	**15.0**	**6.4**	**8.6**	**7.1**	**6.4**
Arlington County								
White	7.9	11.0	23.2	9.8	7.3	3.7	2.4	3.7
Black	5.2	20.8	31.2	5.2	5.2	10.4	5.2	0.0
Other*	8.2	12.3	16.4	8.2	4.1	0.0	0.0	0.0
Total	**7.7**	**12.0**	**23.1**	**9.2**	**6.7**	**3.9**	**2.4**	**2.9**
Fairfax County								
White	10.5	7.5	27.9	10.0	8.5	8.4	6.1	5.5
Black	9.1	7.3	16.3	12.7	7.3	1.8	4.5	5.4
Other*	6.9	3.7	9.6	4.6	1.4	0.0	3.7	3.7
Total	**9.7**	**6.7**	**23.2**	**9.2**	**7.0**	**6.1**	**5.5**	**5.1**
Virginia								
White	15.9	11.7	54.6	12.9	8.6	8.2	6.2	7.0
Black	17.3	10.2	42.4	16.2	8.7	13.0	4.3	4.0
Other*	6.5	3.5	13.9	3.7	2.6	1.5	2.8	3.2
Total	**15.5**	**10.9**	**49.4**	**12.9**	**8.2**	**8.7**	**5.6**	**6.1**

Key	
Higher Than VA Average	

Source: Virginia Department of Health, 2012.
Rates are per 100,000 population and are not age-adjusted.
* The "Other" population includes residents who identify as American Indian/Native American, Asian/Pacific Islander, two or more races, or some other race.

In the community, the non-White, non-Black population compared unfavorably to the Virginia average for four or more cancers. Alexandria City had higher rates of breast cancer than the Virginia average for all racial cohorts. Non-White populations in Arlington County had higher rates for pancreatic cancer than Virginia.

Within the community, Alexandria City had the highest mortality rate for colorectal, breast, and prostate cancer and for non-Hodgkin's lymphoma and leukemia. Non-White residents had higher mortality rates for all but two cancers in Alexandria City and all but three cancers in Arlington County. In Fairfax County, black residents had higher mortality rates for breast cancer compared to other race cohorts.

Exhibit 37: Cardiovascular Disease Mortality Rates by Race, 2010

Jurisdiction and Race	All Major Cardio-vascular Diseases	All Diseases of the Heart	Hypertensive Heart And Renal Diseases	Ischemic Heart Diseases	All Other Diseases of the Heart
Alexandria City					
White	163.8	115.1	7.3	64.3	43.5
Black	181.6	132.3	27.7	73.9	30.8
Other*	109.1	72.7	9.1	54.6	9.1
Total	**163.6**	**115.7**	**12.1**	**65.7**	**37.9**
Arlington County					
White	137.2	110.4	3.7	62.2	44.5
Black	218.1	129.8	10.4	72.7	46.7
Other*	65.6	36.9	0.0	16.4	20.5
Total	**136.3**	**103.6**	**3.9**	**57.8**	**41.9**
Fairfax County					
White	136.9	102.7	4.9	50.2	47.6
Black	90.8	69.9	5.4	34.5	30.0
Other*	58.7	37.6	2.3	22.0	13.3
Total	**117.0**	**86.8**	**4.5**	**43.2**	**39.1**
Virginia					
White	236.0	179.6	6.4	106.0	67.2
Black	223.5	161.9	10.7	84.7	66.6
Other*	60.9	41.0	1.7	26.2	13.2
Total	**221.6**	**166.6**	**6.9**	**96.3**	**63.4**

Key	
Higher Than VA Average	

Source: Virginia Department of Health, 2012.
Rates are per 100,000 population and are not age-adjusted.
* The "Other" population includes residents who identify as American Indian/Native American, Asian/Pacific Islander, two or more races, or some other race.

The non-White, non-Black population in Alexandria City compared unfavorably to Virginia for mortality associated with cardiovascular disease with the exception of "all other diseases of the heart." Alexandria City also had higher rates for hypertensive heart and renal diseases than the Virginia average for all racial cohorts.

Within the community, Alexandria City had the highest mortality rate of all types of cardiovascular diseases with the exception of "all other diseases of the heart." Black residents had higher mortality rates for all types of cardiovascular diseases in Arlington County and all types excepting "all other diseases of the heart" in Alexandria City. Black residents had higher rates for hypertensive heart and renal diseases in Fairfax County **(Exhibit 37)**.

Exhibit 38: Injury Mortality Rates by Race, 2010

Jurisdiction and Race	Unintentional Injuries, Total	Motor Vehicle Accidents	Accidental Falls, Firearms, And Drowning	Accidental Poisoning and Noxious Substances	All Other Unintentional Injuries	Suicide	Homicide
Alexandria City							
White	17.6	5.2	8.3	3.1	1.0	9.3	0.0
Black	9.2	0.0	3.1	3.1	3.1	9.2	6.2
Other*	0.0	0.0	0.0	0.0	0.0	18.2	0.0
Total	**14.3**	**3.6**	**6.4**	**2.9**	**1.4**	**10.0**	**1.4**
Arlington County							
White	15.2	1.8	5.5	4.9	3.0	9.8	0.0
Black	15.6	5.2	5.2	0.0	5.2	5.2	0.0
Other*	4.1	4.1	0.0	0.0	0.0	4.1	4.1
Total	**14.0**	**2.4**	**4.8**	**3.9**	**2.9**	**8.7**	**0.5**
Fairfax County							
White	20.3	4.6	7.6	3.4	4.7	9.6	1.0
Black	13.6	1.8	3.6	2.7	5.4	3.6	0.9
Other*	7.8	1.8	5.0	0.0	0.9	4.6	4.1
Total	**17.2**	**3.8**	**6.7**	**2.7**	**4.0**	**8.1**	**1.6**
Virginia							
White	36.3	9.5	9.3	8.2	9.3	14.7	2.6
Black	25.7	9.1	3.9	4.8	7.9	5.8	12.4
Other*	7.1	2.0	3.7	0.2	1.1	5.8	2.6
Total	**32.1**	**8.9**	**7.8**	**6.9**	**8.4**	**12.3**	**4.6**

Key
Higher Than VA Average

Source: Virginia Department of Health, 2012.
Rates are per 100,000 population and are not age-adjusted.
* The "Other" population includes residents who identify as American Indian/Native American, Asian/Pacific Islander, two or more races, or some other race.

Overall, (and compared to rates in the commonwealth), mortality due to unintentional injuries is comparatively low in the community.

Compared to Virginia averages, the non-White population in Alexandria City had a higher suicide rate. The non-White, non-Black population in Arlington and Fairfax counties had a higher rate of homicide **(Exhibit 38)**.

Exhibit 39: Other Mortality Rates by Race, 2010

Jurisdiction and Race	Diabetes Mellitus	Parkinson's Disease	Alzheimer's Disease	Cerebro-vascular Diseases	Influenza And Pneumonia	CLRD	Chronic Liver Disease and Cirrhosis
Alexandria City							
White	12.4	9.3	14.5	29.0	12.4	28.0	5.2
Black	27.7	0.0	0.0	30.8	12.3	12.3	9.2
Other*	0.0	0.0	18.2	18.2	9.1	0.0	0.0
Total	**15.0**	**6.4**	**11.4**	**28.6**	**12.1**	**22.1**	**5.7**
Arlington County							
White	11.6	5.5	12.8	21.3	7.9	13.4	3.7
Black	26.0	10.4	20.8	51.9	15.6	26.0	5.2
Other*	0.0	0.0	4.1	28.7	0.0	12.3	0.0
Total	**11.6**	**5.3**	**12.5**	**25.0**	**7.7**	**14.4**	**3.4**
Fairfax County							
White	10.7	7.9	10.9	23.5	10.4	22.5	5.1
Black	12.7	2.7	2.7	18.2	0.9	6.4	3.6
Other*	7.3	0.9	2.8	17.0	4.1	4.1	0.5
Total	**10.2**	**6.0**	**8.5**	**21.7**	**8.2**	**17.3**	**4.0**
Virginia							
White	17.5	8.1	27.6	42.0	16.6	44.8	9.8
Black	28.7	2.5	13.5	44.2	11.8	19.8	6.8
Other	6.5	1.1	2.6	16.3	3.9	4.6	1.5
Total	**19.1**	**6.5**	**23.0**	**40.7**	**14.8**	**37.0**	**8.6**

Key	
Higher Than VA Average	

Source: Virginia Department of Health, 2012.
Rates are per 100,000 population and are not age-adjusted.
* The "Other" population includes residents who identify as American Indian/Native American, Asian/Pacific Islander, two or more races, or some other race.

Non-White populations compared unfavorably to Virginia averages for a variety of mortality rates.

Within the community, Alexandria City had the highest mortality rates with the exception of Alzheimer's disease. Black mortality rates associated with diabetes are comparatively high across all areas. In Arlington County, Black residents had higher mortality rates for all causes of death **(Exhibit 39)**.

Exhibit 40: Cancer Incidence Rates by Jurisdiction, 2004-2008

Cancer Incidence	Alexandria City	Arlington County	Fairfax County	Virginia
Breast				
Count	381	565	3,597	26,319
Rate/100,000	103.1	123.4	131.9	124.2
Health District Rank	33	16	6	-
Cervical				
Count	17	25	175	1,356
Rate/100,000	4.9	4.8	6.4	6.7
Health District Rank	32	33	23	-
Colorectal				
Count	205	306	1,669	17,092
Rate/100,000	31.0	36.5	36.9	45.1
Health District Rank	35	33	32	-
Lung and Bronchus				
Count	250	352	2,045	25,741
Rate/100,000	40.2	43.7	47.6	68.4
Health District Rank	35	34	32	-
Melanoma				
Count	82	167	1,012	7,848
Rate/100,000	11.5	18.0	20.4	20.3
Health District Rank	34	22	18	-
Oral				
Count	63	77	448	4,095
Rate/100,000	9.6	8.7	8.9	10.4
Health District Rank	27	33	31	-
Ovarian				
Count	45	62	332	2,532
Rate/100,000	12.6	13.5	12.5	12.0
Health District Rank	15	7	16	-
Prostate				
Count	339	517	3312	27,726
Rate/100,000	123.6	136.3	144.5	159.4
Health District Rank	32	30	25	-

Key	
Bottom 50% of VA Health Districts	

Source: Virginia Department of Health 2008.
Rates are age-adjusted.

Cancer rates in the bottom 50% of Virginia's 35 health districts: breast cancer in Arlington and Fairfax counties and ovarian cancer in Alexandria City, Arlington County, and Fairfax County

Certain cancer rates in the community are above Virginia averages, for example: breast cancer, melanomas, and ovarian cancer in Fairfax County, and ovarian cancer in Alexandria City and Arlington County **(Exhibit 40)**.

Exhibit 41: Sexually Transmitted Infection Diagnoses Rates by Jurisdiction, 2007-2010

Jurisdiction	Chlamydia Diagnosis Rate*				Gonorrhea Diagnosis Rate*				Syphilis Diagnosis Rate*			
	2007	2008	2009	2010	2007	2008	2009	2010	2007	2008	2009	2010
Alexandria City	270.0	353.1	353.3	359.4	51.4	70.9	76.0	67.9	20.0	16.0	12.7	16.4
Arlington County	203.4	230.5	221.6	187.8	20.5	42.4	39.1	40.9	15.2	11.0	11.0	17.8
Fairfax County	124.2	137.7	124.1	134.2	10.7	19.4	16.6	17.5	3.0	3.1	4.0	3.5
Virginia	**329.8**	**391.0**	**395.9**	**393.2**	**88.4**	**129.3**	**99.1**	**89.6**	**5.3**	**6.6**	**7.0**	**6.5**

Key	
Better than VA	
0%-25% worse than VA	
25% to 75% worse than VA	
>75% worse than VA	

Source: Virginia Department of Health 2011.
Rates are per 100,000 population.

In 2010, both Alexandria City and Arlington County reported syphilis diagnosis rates that were more than 75 percent worse than the Virginia rate **(Exhibit 41)**.

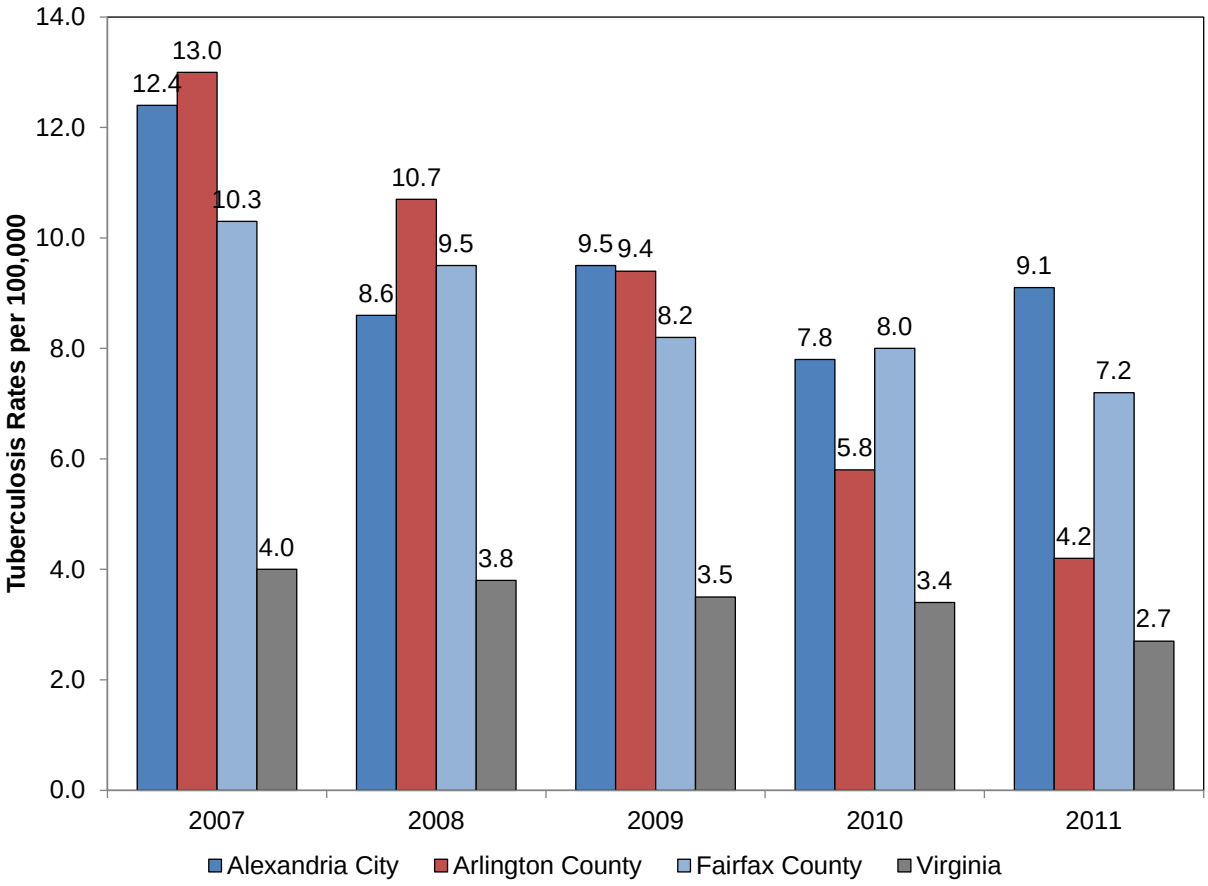
Exhibit 42: Residents Living with HIV by Jurisdiction, 2011

Jurisdiction	HIV Only	AIDS	All Cases of HIV/AIDS	
	Number	Number	Number	Rate*
Alexandria City	757	926	1,683	1,202.4
Arlington County	597	771	1,368	658.9
Fairfax County	934	981	1,915	177.0
Virginia	**11,930**	**11,878**	**23,808**	**297.6**

Source: Virginia Department of Health 2011.
Rates are per 100,000 population.

In 2011, Alexandria City and Arlington County had higher rates of residents living with HIV/AIDS than the Virginia average (**Exhibit 42**).

Exhibit 43: Reported Tuberculosis Rates by Jurisdiction, 2007-2011



Source: Virginia Department of Health, 2012.

Tuberculosis rates have decreased since 2007. However, incidence rates in Alexandria City, Arlington County, and Fairfax County consistently exceeded the Virginia average. Alexandria City reported the highest rate in the community in 2011 **(Exhibit 43)**.

Exhibit 44: Maternal and Child Health Indicators by Jurisdiction, 2010

Indicator	Alexandria City	Arlington County	Fairfax County	Virginia
Number of Total Births	2,667	3,097	15,256	**102,934**
Percent Non-Marital Births of Total Births	27.3%	18.5%	22.3%	**35.5%**
Percent Low Weight Births of Total Births	7.1%	6.8%	7.0%	**8.2%**
Percent Very Low Weight Births of Total Births	1.5%	1.2%	1.1%	**1.6%**
Percent Without Prenatal Care Began in First 13 Weeks	19.7%	19.4%	13.9%	**14.5%**
Teen Pregnancy Rate per 1,000 Females Age 10-19	41.6	14.0	8.8	**21.1**
Infant Death Rate Per 1,000 Live Births	4.5	4.2	4.5	**6.8**

Key	
Better than VA	
0%-25% worse than VA	
25% to 75% worse than VA	
>75% worse than VA	

Source: Virginia Department of Health, 2012.

Fairfax County reported comparatively favorable maternal and child health indicators. Women in Alexandria City and Arlington County have not been receiving adequate prenatal care in the first 13 weeks of pregnancy. Alexandria City exhibits high rates of teen pregnancy compared to the Virginia average **(Exhibit 44)**.

Exhibit 45: Maternal and Child Health Indicators by Race, 2010

Jurisdiction and Race	Percent Non-Marital Births of Total Births	Percent Low Weight Births of Total Births	Percent Very Low Weight Births of Total Births	Teen Pregnancy Rate per 1,000 Females Age 10-19	Infant Death Rate Per 1,000 Live Births
Alexandria City					
White	19.8%	6.8%	1.3%	40.1	3.5
Black	52.1%	8.9%	2.0%	42.5	8.4
Other*	22.3%	5.7%	1.7%	48.9	2.9
Total	**27.3%**	**7.1%**	**1.5%**	**41.6**	**4.5**
Arlington County					
White	14.7%	6.2%	1.1%	10.1	3.6
Black	42.9%	11.9%	1.3%	20.0	13.3
Other*	23.1%	7.3%	1.2%	30.1	3.1
Total	**18.5%**	**6.8%**	**1.2%**	**14.0**	**4.2**
Fairfax County					
White	23.8%	6.4%	1.0%	9.3	4.1
Black	43.1%	8.5%	2.3%	13.2	10.4
Other*	8.4%	8.2%	1.0%	4.4	3.2
Total	**22.3%**	**7.0%**	**1.1%**	**8.8**	**4.5**
Virginia					
White	27.8%	6.9%	1.2%	16.7	4.9
Black	66.3%	12.5%	3.0%	34.9	14.6
Other*	21.3%	8.1%	1.3%	15.4	2.5
Total	**35.5%**	**8.2%**	**1.6%**	**21.1**	**6.8**

Key	
Higher Than VA Average	

Source: Virginia Department of Health, 2012.
* The "Other" population includes residents who identify as American Indian/Native American, Asian/Pacific Islander, two or more races, or some other race.

Within the community, Alexandria City had the worst outcomes for all maternal and child health indicators. Teen pregnancy rates in Alexandria City were higher than Virginia averages for all racial cohorts. Black residents throughout the community and throughout the commonwealth have experienced significant maternal and child health disparities (**Exhibit 45**).

4. Behavioral Risk Factor Surveillance System

Data collected by the Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) are based on a telephonic survey that gathers data on various health indicators, risk behaviors, healthcare access, and preventive health measures. Data are collected for the entire U.S. Analysis of BRFSS data can identify localized health issues and trends, and enable county, state (or commonwealth), or nation-wide comparisons. **Exhibit 46** compares BRFSS indicators for the community served by Inova Alexandria, Virginia, and the U.S. Indicators are shaded if the area's values compare unfavorably to Virginia averages.

Exhibit 46: BRFSS Indicators and Variation from the Commonwealth of Virginia, 2010

Indicator		Alexandria City	Arlington County	Fairfax County	Virginia	U.S.
Health Behaviors	Binge Drinkers**	10.9%	14.7%	12.7%	9.7%	10.1%
	Heavy Drinkers***	7.6%	4.9%	8.9%	4.4%	4.4%
	Current Smoker	10.1%	7.0%	8.9%	16.4%	11.5%
	No Physical Activity Past 30 Days	17.6%	14.7%	15.8%	28.5%	27.4%
Prevention Variables	Women 18+ with No Pap Test in Past 3 Years	11.8%	12.7%	14.1%	16.0%	20.2%
	Women 40+ with No Mammogram in Past 2 Years	14.3%	4.4%	15.8%	19.4%	23.6%
Access Variables	Could Not See A Doctor Due to Cost in Past Year	8.4%	6.3%	5.1%	11.0%	11.8%
Health Conditions	Told Have Asthma	5.9%	10.5%	7.6%	8.9%	9.2%
	Told Have Diabetes	6.7%	4.2%	11.4%	13.1%	12.7%
	Told Have Coronary Heart Disease or Angina	3.4%	3.5%	6.3%	6.3%	6.6%
	Overweight or Obese	52.1%	48.3%	55.7%	61.9%	61.9%
Mental Health	Rarely or Never Receiving Needed Social and Emotional Support	6.1%	7.1%	4.0%	8.4%	8.7%
	Poor Mental Health > 21 Days/Month	4.2%	3.5%	1.9%	6.3%	N/A
Oral Health	No Dental Care Visit in Past Year	16.0%	11.2%	14.6%	26.2%	30.3%
	Greater than 6 Teeth Extracted	7.6%	4.2%	8.2%	13.9%	14.6%
	All Teeth Extracted	3.4%	3.5%	1.9%	7.8%	8.8%
Overall Health	Limited by Physical, Mental, or Emotional Problems	20.2%	20.3%	24.1%	25.0%	26.8%
	Poor Physical Health > 21 Days/Month	7.6%	4.2%	3.8%	9.1%	N/A
	Reported Poor or Fair Health	13.4%	11.2%	13.3%	19.6%	20.1%

Key	
Better than VA	
0%-25% worse than VA	
25% to 75% worse than VA	
>75% worse than VA	
Small Sample Size	*
Data Not Available	N/A

Source: CDC BRFSS, 2011.
**Adult males having five or more drinks on one occasion; adult females having four or more drinks on one occasion
***Adult men having more than two drinks per day; adult women having more than one drink per day.

All areas served by Inova Alexandria report an above average prevalence of heavy drinking and binge drinking. Arlington and Fairfax counties had three indicators that compared unfavorably to the Commonwealth of Virginia, followed by Alexandria City with two.

Overall, Virginia compared unfavorably to the U.S. for the percent of people who were current smokers, the percent of people with no physical activity in the past 30 days, and the percent of people who have ever been told by a doctor that they have diabetes.

Within the community, one indicator was reported as greater than 75 percent worse than Virginia averages: the percent of people who were heavy drinkers in Fairfax County.

Ambulatory Care Sensitive Conditions

This section examines the frequency of discharges for ACSC throughout the community and at the hospital.

The methodologies for quantifying discharges for ACSC have been well-tested for more than a decade. The methodologies quantify inpatient admissions for diabetes, perforated appendixes, chronic obstructive pulmonary disease (COPD), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, asthma, and other conditions that, in theory, could have been prevented if adequate ambulatory (primary) care resources were available and accessed by those patients.[18]

Disproportionately large numbers of discharges for ACSC indicate potential problems with the availability or accessibility of ambulatory care services. The Agency for Healthcare Research and Quality (AHRQ), part of the U.S. Department of Health and Human Services, publishes software and methodologies for assessing discharges for ACSC. The AHRQ software was applied to analyze the prevalence of discharges for ACSC in geographic areas served by Inova Alexandria.

The ACSC analysis provides a single indicator of potential health problems: allowing comparisons to be made reliably across geographic areas and hospital facilities. This analysis also allows demonstrating a possible "return on investment" from interventions that reduce admissions (for example, for uninsured or Medicaid patients) through better access to ambulatory care resources.

1. County/City-Level Analysis

Disproportionately large numbers of discharges for ACSC indicate potential problems with the availability or accessibility of ambulatory (primary) care services. **Exhibit 47** indicates for the Inova Alexandria community how many hospital discharges were found to be for ACSCs by payer and by area.

[18] See: http://www.ahrq.gov/data/hcup/factbk5 for more information on this methodology.

Exhibit 47: Inova Alexandria Community-Wide Discharges for ACSC by Payer, 2010

Jurisdiction	Medicaid	Medicare	Other	Private	Self-pay	Unknown /Missing	Total
Alexandria City	8.3%	17.9%	7.4%	5.8%	17.4%	0.0%	11.4%
Arlington	7.4%	14.8%	6.4%	4.7%	7.5%	4.4%	9.0%
Fairfax County	6.1%	16.9%	3.5%	5.8%	11.4%	11.8%	9.8%
Total	**6.5%**	**16.7%**	**4.6%**	**5.7%**	**11.7%**	**7.8%**	**9.9%**

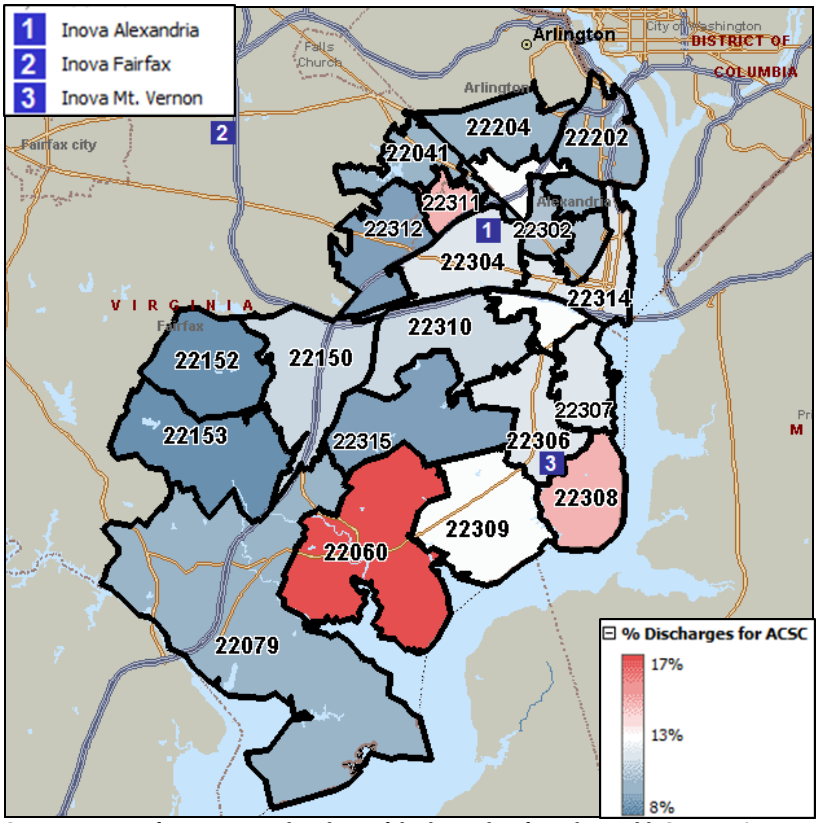
Source: Verité analysis of discharge data from the Health Systems Agency of Northern Virginia using AHRQ software, 2011.

The table indicates that in 2010, 9.9 percent of discharges were for ACSCs. Medicare beneficiaries had the highest proportion of discharges for ACSC, followed by self-pay (uninsured) people.

2. ZIP Code-Level Analysis

Exhibit 48 illustrates the rate of discharges for ACSC by ZIP code. These discharges were most prevalent in Mt. Vernon South/Ft. Belvoir (ZIP codes 22060, 22308, and 22309) and West Alexandria (ZIP code 22311).

Exhibit 48: Community ACSC Discharges by ZIP Code, 2010



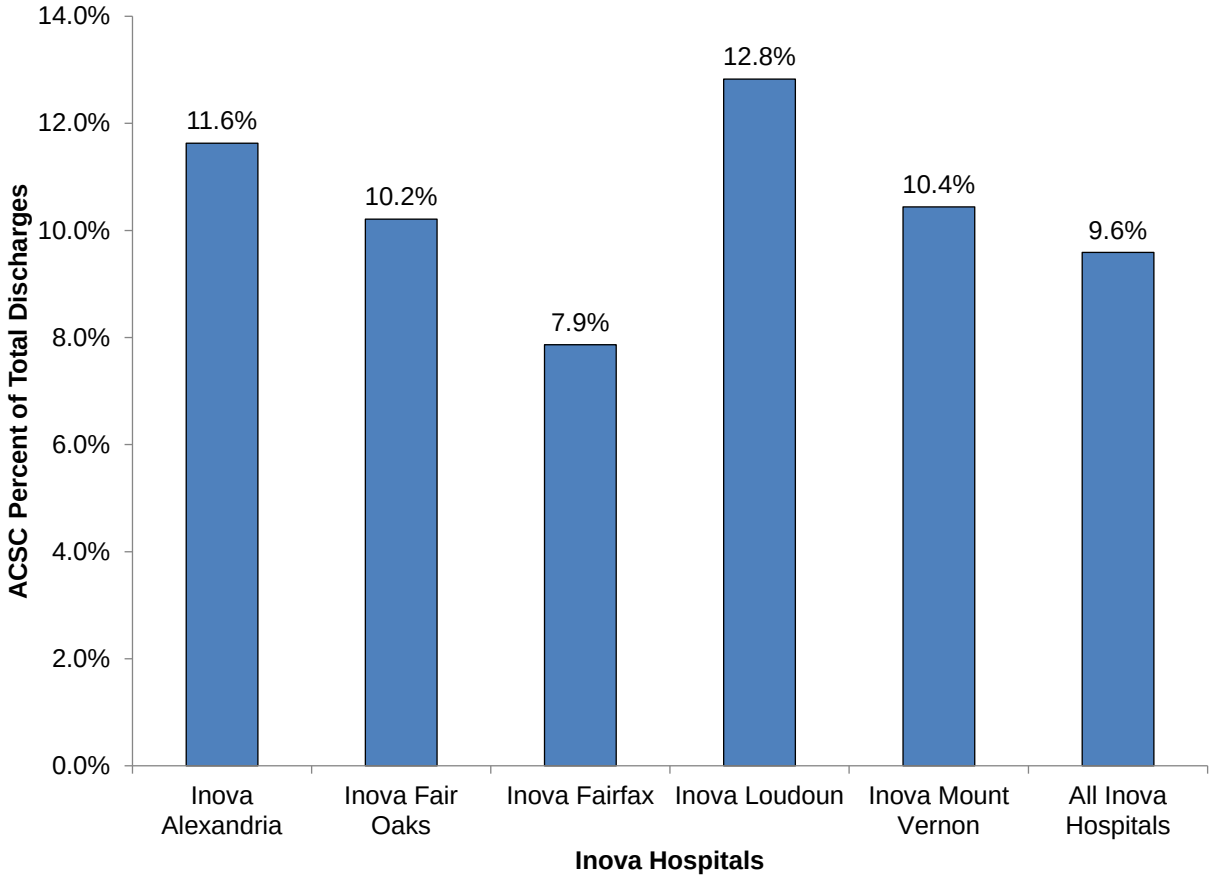
ACSC discharges were most prevalent along the Richmond Highway corridor in Mt. Vernon South/Ft Belvoir ZIP codes.

Sources: Microsoft MapPoint and analysis of discharge data from the Health Systems Agency of Northern Virginia using AHRQ software, 2011.

3. Hospital-Level Analysis

Exhibit 49 indicates that 11.6 percent of Inova Alexandria's discharges in 2010 were for ACSC. Across all Inova hospitals, 9.6 percent of discharges (about 8,100 cases) were for ACSC.

Exhibit 49: Inova Alexandria Hospital Discharges for ACSC as a Percent of Total Discharges, 2010



Source: Verité analysis of discharge data from the Health Systems Agency of Northern Virginia using AHRQ software, 2011.

Exhibit 50 indicates that Inova Alexandria's discharges for ACSC were most concentrated in four conditions: congestive heart failure, bacterial pneumonia, urinary tract infection, and adult asthma.

Exhibit 50: Discharges for ACSC by Condition and Inova Facility, 2010

Condition	Inova Alexandria	Inova Fair Oaks	Inova Fairfax	Inova Loudoun	Inova Mt. Vernon	Total
Congestive Heart Failure	21.4%	14.3%	22.6%	19.5%	22.9%	**20.7%**
Bacterial Pneumonia	18.1%	18.9%	14.7%	25.0%	17.7%	**17.9%**
Urinary Tract Infection	14.9%	21.0%	14.2%	16.0%	17.3%	**15.9%**
Adult Asthma	13.3%	7.6%	5.4%	5.0%	10.1%	**7.6%**
Chronic Obstructive Pulmonary Disease	5.5%	10.2%	6.8%	8.6%	7.6%	**7.4%**
Diabetes Long-term Complication	7.3%	5.5%	5.6%	6.6%	8.7%	**6.4%**
Pediatric Asthma	0.6%	2.4%	6.9%	2.8%	0.1%	**3.7%**
Dehydration	3.9%	3.2%	2.9%	2.2%	2.7%	**3.0%**
Perforated Appendix	2.3%	3.4%	3.2%	2.7%	2.8%	**3.0%**
Diabetes Short-term Complication	3.7%	1.8%	2.4%	2.5%	4.0%	**2.7%**
Hypertension	3.0%	3.2%	2.2%	3.1%	2.1%	**2.6%**
Pediatric Urinary Tract Infection	0.4%	1.2%	3.7%	1.9%	0.1%	**2.1%**
Accidental Puncture Or Laceration	1.6%	2.8%	1.9%	0.3%	1.2%	**1.7%**
Nosocomial Vascular Catheter Related Infections	1.6%	1.6%	1.2%	1.2%	0.9%	**1.3%**
Pediatric Perforated Appendix	0.1%	0.4%	2.6%	0.6%	0.4%	**1.3%**
Pediatric Diabetes Short-term Complication	0.0%	0.0%	2.2%	0.1%	0.0%	**0.9%**
Uncontrolled Diabetes	1.4%	0.3%	0.4%	0.2%	0.8%	**0.6%**
Angina Without Procedure	0.4%	1.0%	0.3%	0.7%	0.6%	**0.5%**
Pediatric Gastroenteritis	0.2%	0.9%	0.4%	0.6%	0.0%	**0.4%**
Iatrogenic Pneumothorax	0.5%	0.3%	0.5%	0.4%	0.0%	**0.4%**
Foreign Body Left In During Procedure	0.0%	0.0%	0.1%	0.0%	0.0%	**0.0%**
Total	**1,539**	**1,161**	**3,323**	**1,289**	**774**	**8,086**

Source: Verité analysis of discharge data from the Health Systems Agency of Northern Virginia using AHRQ software, 2011.

In 2010, 51.9 percent of Inova Alexandria's discharges for ACSC were for persons 65 years of age and older (**Exhibit 51**).

Exhibit 51: Discharges for ACSC by Age Group and Inova Facility, 2010

Condition	Inova Alexandria	Inova Fair Oaks	Inova Fairfax	Inova Loudoun	Inova Mt. Vernon	Total
0 to 17	1.2%	4.9%	15.6%	6.0%	0.6%	**8.4%**
18 to 39	12.8%	12.4%	9.8%	9.1%	9.2%	**10.6%**
40 to 64	34.1%	29.7%	26.1%	31.9%	29.5%	**29.4%**
65+	51.9%	53.0%	48.5%	53.1%	60.7%	**51.7%**
Total	**1,539**	**1,161**	**3,323**	**1,289**	**774**	**8,086**

Source: Verité analysis of discharge data from the Health Systems Agency of Northern Virginia using AHRQ software, 2011.

At Inova Alexandria, the most prevalent ambulatory care sensitive conditions for persons 65 years of age and older were for: congestive heart failure, chronic obstructive pulmonary disease, dehydration, urinary tract infection, and bacterial pneumonia (**Exhibit 52**).

Exhibit 52: Distribution of Inova Alexandria Discharges for ACSC by Age Group and Condition, 2010

Condition	0 to 17	18 to	40 to 64	65+	Total
Congestive Heart Failure		2.7%	27.1%	70.2%	**329**
Bacterial Pneumonia		10.1%	32.0%	57.9%	**278**
Urinary Tract Infection		20.5%	21.0%	58.5%	**229**
Adult Asthma		16.7%	41.2%	42.2%	**204**
Diabetes Long-Term Complication		13.3%	53.1%	33.6%	**113**
Chronic Obstructive Pulmonary Disease			34.5%	65.5%	**84**
Dehydration		3.3%	38.3%	58.3%	**60**
Diabetes Short-Term Complication		49.1%	40.4%	10.5%	**57**
Hypertension		17.4%	47.8%	34.8%	**46**
Perforated Appendix		44.4%	41.7%	13.9%	**36**
Accidental Puncture Or Laceration		8.0%	48.0%	44.0%	**25**
Nosocomial Vascular Catheter Related Infections		12.0%	44.0%	44.0%	**25**
Uncontrolled Diabetes		23.8%	57.1%	19.0%	**21**
Pediatric Asthma	100.0%				**9**
Iatrogenic Pneumothorax			57.1%	42.9%	**7**
Angina Without Procedure			66.7%	33.3%	**6**
Pediatric Urinary Tract Infection	100.0%				**6**
Pediatric Gastroenteritis	100.0%				**3**
Pediatric Perforated Appendix	100.0%				**1**
Total	**1.2%**	**12.8%**	**34.1%**	**51.9%**	**1,539**

Source: Verité analysis of discharge data from the Health Systems Agency of Northern Virginia using AHRQ software, 2011.

52% of Inova Alexandria's discharges for ACSC were for persons 65 years of age and older

Of Inova Alexandria's emergency department visits in fiscal year 2010, 9.6 percent also could be classified as being for ACSC. Across all Inova hospitals, 9.1 percent of emergency department visits could be classified as being for ACSC in 2010. **Exhibit 53** indicates that Inova Alexandria's emergency department visits for ACSC were more concentrated in four conditions: urinary tract infection, chronic obstructive pulmonary disease, adult asthma, and bacterial pneumonia.

Exhibit 53: Emergency Department Visits for ACSC by Condition and Inova Facility, 2010

Condition	Inova Alexandria	Inova Fair Oaks	Inova Fairfax	Inova Loudoun	Inova Mt. Vernon	Total
Urinary Tract Infection	25.7%	26.5%	30.4%	22.5%	31.5%	**28.1%**
Chronic Obstructive Pulmonary Disease	20.2%	17.9%	9.5%	16.1%	19.7%	**18.4%**
Adult Asthma	15.8%	13.7%	13.8%	16.7%	13.7%	**14.5%**
Bacterial Pneumonia	12.7%	15.0%	16.5%	16.8%	10.4%	**14.2%**
Hypertension	9.0%	8.2%	7.7%	7.7%	9.0%	**7.7%**
Congestive Heart Failure	5.2%	5.9%	8.6%	4.7%	6.1%	**5.4%**
Dehydration	4.8%	6.3%	4.8%	8.1%	2.4%	**5.0%**
Diabetes Long-term Complications	3.8%	2.8%	4.2%	3.4%	3.7%	**3.1%**
Diabetes Short-term Complications	1.6%	0.8%	1.6%	1.2%	1.6%	**1.2%**
Lower-extremity Amputation among Diabetics	0.3%	1.5%	0.5%	1.4%	1.0%	**1.0%**
Perforated Appendix	0.8%	0.7%	2.0%	1.0%	0.5%	**1.0%**
Angina without Procedure	0.2%	0.6%	0.4%	0.4%	0.3%	**0.4%**
Total	**5,965**	**4,592**	**8,016**	**6,118**	**3,276**	**34,200**

Source: Verité analysis of Emergency Department Data, 2011.

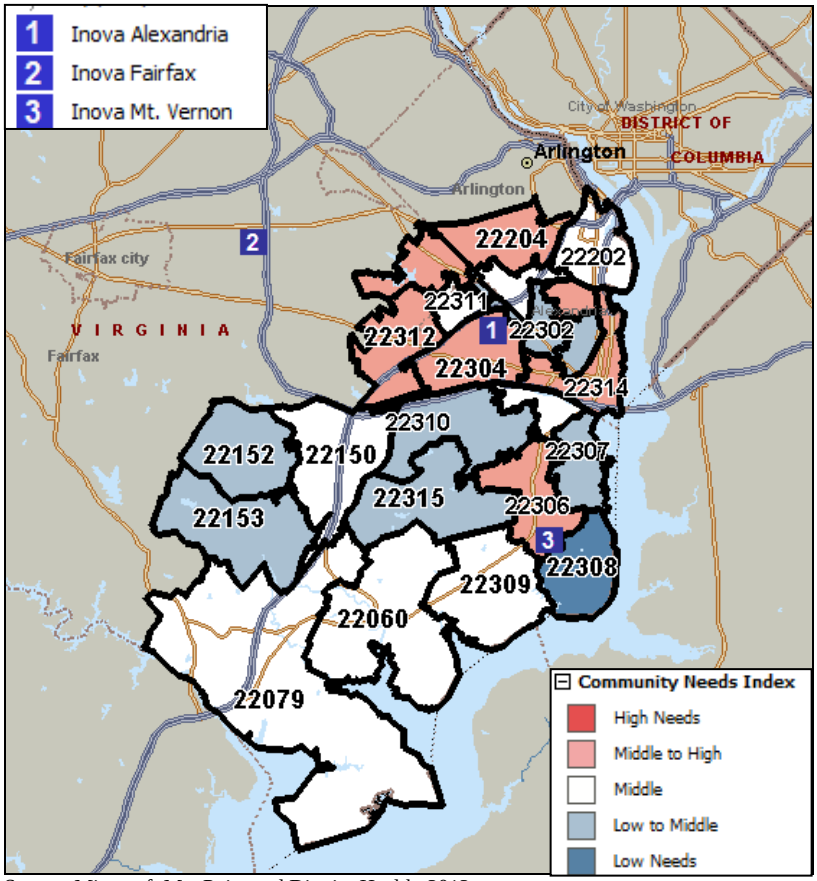
Dignity Health Community Needs Index

Dignity Health, a hospital system based in California, developed the *Community Needs Index*, a standardized index that measures barriers to healthcare access by county and ZIP code. The index is based on five social and economic indicators:

- The percentage of elderly, children, and single parents living in poverty;
- The percentage of adults over the age of 25 with limited English proficiency, and the percentage of the population that is non-White;
- The percentage of the population without high school diplomas;
- The percentage of uninsured and unemployed residents, and;
- The percentage of the population renting houses.

The *Community Needs Index* represents a score based on these indicators, assigned to each ZIP code. Scores range from "Lowest Need" (1.0-1.7), to "Highest Need" (4.2-5.0). **Exhibit 54** presents the *Community Needs Index* (CNI) score of each ZIP code in the Inova Alexandria community. Shirlington/South Arlington (ZIP code 22204) and Lincolnia/Bailey's Crossroads (ZIP code 22041) exhibit the most unfavorable scores in the community at 4.0.

Exhibit 54: Community Needs Index Score by ZIP Code*



Areas of higher access needs were concentrated in areas proximate to Inova Alexandria …

Shirlington/South Arlington (ZIP code 22204) and Lincolnia/Bailey's Crossroads (ZIP code 22041) had the highest CNI score of 4

Source: Microsoft MapPoint and Dignity Health, 2012.
*Not all ZIP codes are assigned a CNI score; these ZIP codes are gray on the map.

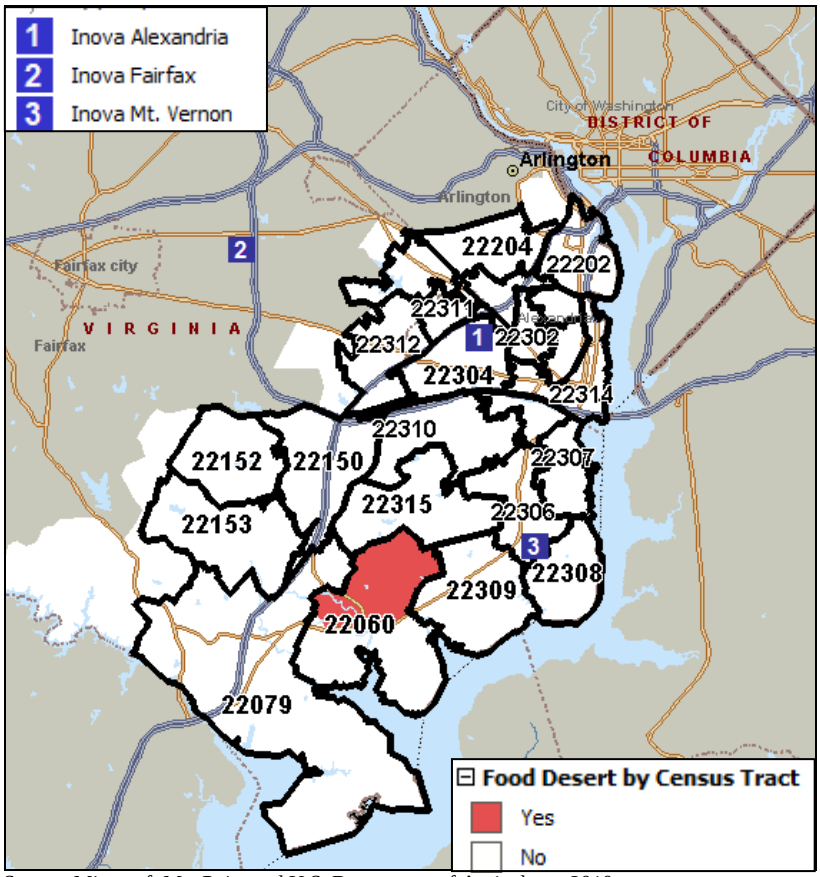
Food Deserts

The U.S. Department of Agriculture's Economic Research Service estimates the number of people in each census tract that live "more than 1 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."[19] Several government-led initiatives aim to increase the availability of nutritious and affordable foods to people living in these "food deserts." **Exhibit 55** indicates the location of identified food deserts in the Inova Alexandria community.

One census tract in the community was determined to be a food desert. The food desert is located in Mt. Vernon South/Ft. Belvoir (ZIP code 22060).

[19] U.S. Department of Agriculture. Retrieved 2011, from http://www.ers.usda.gov/Data/FoodDesert/

Exhibit 55: Location of Food Deserts by Census Tract, 2009



One food desert was located in Mt. Vernon South/Ft. Belvoir (ZIP code 22060)

Source: Microsoft MapPoint and U.S. Department of Agriculture, 2010.

In 2010, 13 percent of the population of Northern Virginia was at risk of hunger. Additionally, 1 in 6 persons under the age of 18 were at risk of hunger.[20] Food insecurity is not directly related to poverty. In many cases, residents with incomes greater than 185 percent of FPL are food insecure, especially in unemployed or underemployed households, areas with a high cost of living, and in families with high medical bills.[21]

Chronic Disease

According to the CDC, chronic diseases are "noncommunicable illnesses that are prolonged in duration, do not resolve spontaneously, and are rarely cured completely." The CDC also indicates that chronic diseases are "the most common and costly of all health problems" and are "also the most preventable." Certain behaviors, especially "tobacco use, insufficient physical

[20] Capital Area Food Bank. (2010). 2010 Capital Area Food Bank Hunger Statistics.
[21] Feeding America. (2012). Map the Meal Gap: Child Food Insecurity 2012.

activity, poor eating habits, and excessive alcohol use" contribute to the occurrences of chronic diseases.[22]

Chronic diseases are both common in prevalence and costly to treat. The CDC indicates that nearly fifty percent of adult Americans "live with at least one chronic illness" and that these illnesses are responsible for 75 percent of health care costs.

Because of the health impacts of chronic disease, PPACA includes provisions that aim to prevent, manage, or reduce chronic disease. IRS Notice 2011-52 (anticipatory regulations regarding the CHNA process) further emphasizes its importance by encouraging hospital facilities to interview persons who can serve as a leader or representative of those with chronic diseases.

Assessment findings regarding chronic disease include the following.

- Chronic Disease Incidence Rates
    - The incidence rates of ovarian cancer in all three jurisdictions and breast cancer and melanomas in Fairfax County were higher than Virginia rates, according to the Virginia Department of Health.
    - Rates of asthma in Arlington County and coronary heart disease or angina in Fairfax County compared unfavorably to Virginia averages, according to the Behavioral Risk Factor Surveillance System.
- Chronic Disease Mortality Rates
    - The breast cancer mortality rate in Arlington County compared unfavorably to national and peer county averages according to the Community Health Status Indicators Project.
    - The primary hypertension and renal disease mortality rate in Alexandria City compared unfavorably to Virginia averages according to the Virginia Department of Health.
    - Health disparities exist among racial cohorts for various cancers, cardiovascular diseases, cerebrovascular diseases, Alzheimer's disease, chronic lower respiratory disease, and diabetes mellitus mortality rates according to the Virginia Department of Health.
    - Certain racial cohorts compared unfavorably to Virginia averages for the following mortality rates according to the Virginia Department of Health:
        - The non-White population: various cancers in all three jurisdictions and Alzheimer's disease, cerebrovascular diseases, and chronic lower respiratory disease in Arlington County;
        - The White population: breast cancer, hypertensive heart disease, and renal disease in Alexandria City and prostate cancer in Fairfax County;

[22] See http://www.cdc.gov/chronicdisease/resources/publications/AAG/chronic.htm.

        - The Black population: hypertensive heart disease, renal disease, chronic liver disease and cirrhosis in Alexandria City and Alzheimer's disease, cerebrovascular diseases, and chronic lower respiratory disease in Arlington County;
        - The Other[23] population: various cardiovascular diseases in all three jurisdictions, cerebrovascular diseases in Alexandria City and Fairfax County, Alzheimer's disease in Alexandria City, and diabetes mellitus in Fairfax County.
- Discharges for ACSC associated with Chronic Disease
    - Congestive heart failure, adult asthma, diabetes long-term complications, and chronic obstructive pulmonary disease all accounted for at least five percent of Inova Alexandria's discharges for ACSC.

Analysis of diagnosis codes in inpatient discharge data from the Inova Health System indicate that 49 percent of Inova Alexandria discharges were for conditions identified by CMS associated with chronic disease. Discharges for chronic disease were concentrated in chronic kidney disease, diabetes, anemia, heart failure, rheumatoid arthritis/osteoarthritis, hypertension, asthma, stroke, chronic obstructive pulmonary disease and bronchiectasis, acute myocardial infarction, and atrial fibrillation (**Exhibit 56)**.

[23] The "Other" population includes residents who do not identify as White or Black.

Exhibit 56: Percent of Chronic Condition Discharges from Inova Alexandria, 2010

Chronic Condition	Percent of Discharges
Chronic Kidney Disease	15.9%
Diabetes	9.7%
Anemia	9.0%
Heart Failure	8.7%
Rheumatoid Arthritis / Osteoarthritis	7.7%
Hypertension	6.9%
Asthma	5.9%
Stroke	4.8%
Chronic Obstructive Pulmonary Disease And Bronchiectasis	4.5%
Acute Myocardial Infarction	4.4%
Atrial Fibrillation	4.2%
Ischemic Heart Disease	3.9%
Acquired Hypothyroidism	2.5%
Hyperlipidemia	2.4%
Alzheimer's Disease And Related Disorders Or Senile Dementia	2.1%
Hip/Pelvic Fracture	1.9%
Depression	1.8%
Benign Prostatic Hyperplasia	0.9%
Lung Cancer	0.9%
Colorectal Cancer	0.7%
Female / Male Breast Cancer	0.6%
Prostate Cancer	0.4%
Glaucoma	0.1%
Endometrial Cancer	0.1%
Osteoporosis	0.0%
Total Discharges Associated with Chronic Conditions	**7,473**

Source: Verité analysis of discharge data from the Inova Health System.

Medically Underserved Areas and Populations

HRSA calculated an Index of Medical Underservice (IMU) score for communities across the U.S. The IMU score calculation includes the ratio of primary medical care physicians per 1,000 persons, the infant mortality rate, the percentage of the population with incomes below the poverty level, and the percentage of the population greater than age 64. IMU scores range from zero to 100, where 100 represents the least underserved and zero represents the most underserved.[24]

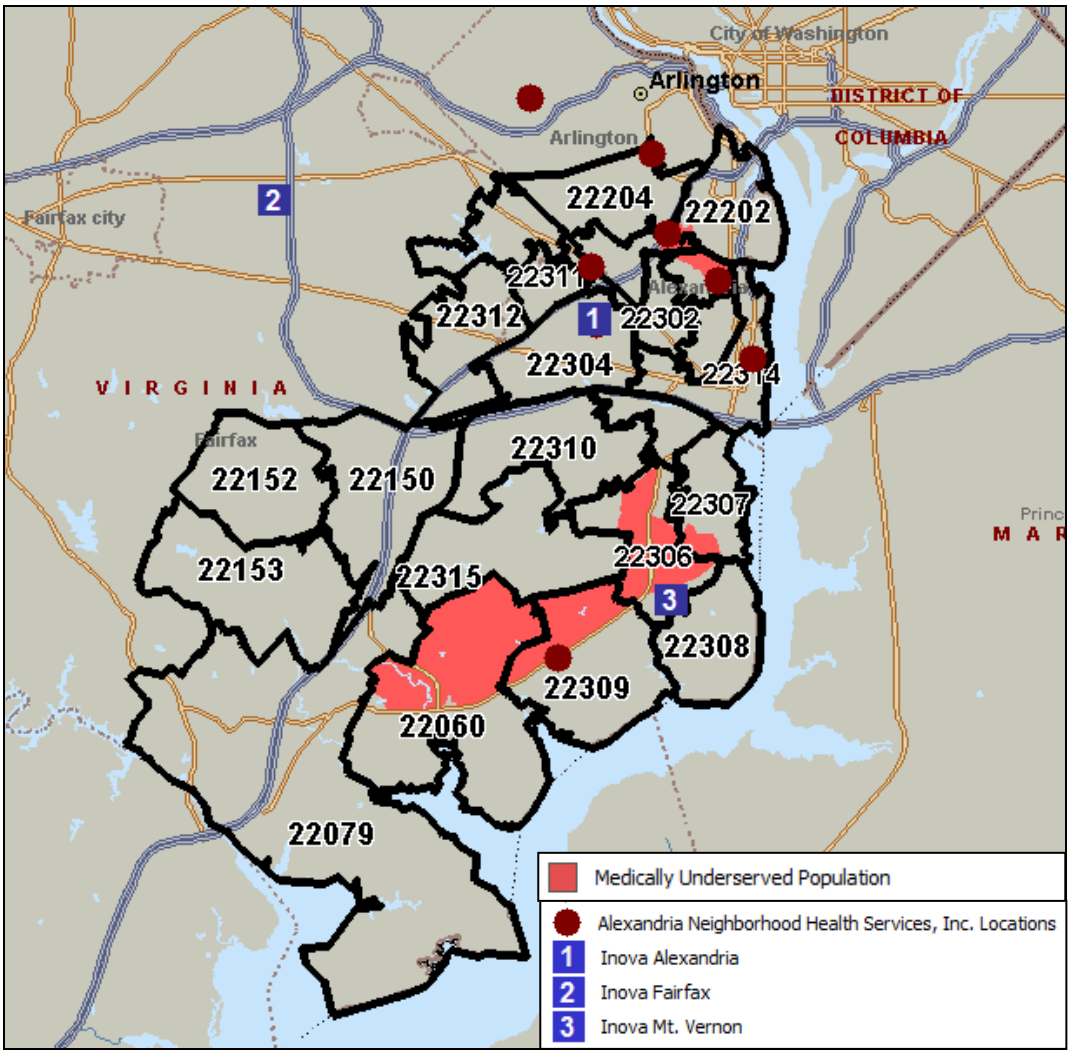
Any area or population receiving an IMU score of 62.0 or less qualifies for Medically Underserved Area (MUA) or Medically Underserved Population (MUP) designation. Federally Qualified Health Centers (FQHCs) may be established to serve MUAs and MUPs. Populations receiving MUP designation include groups within a geographic area with economic barriers or cultural and/or linguistic access barriers to receiving primary care. When a population group does not qualify for MUP status based on the IMU score, Public Law 99-280 allows MUP designation if "unusual local conditions which are a barrier to access to or the availability of

[24] U.S. Health Resources and Services Administration. (n.d.) *Guidelines for Medically Underserved Area and Population Designation*. Retrieved 2012, from http://bhpr.hrsa.gov/shortage/muaps/index.html.

personal health services exist and are documented, and if such a designation is recommended by the chief executive officer and local officials of the State where the requested population resides."[25]

Exhibit 57 shows areas designated by HRSA as medically underserved. Alexandria City and Arlington County contains MUPs. Fairfax County recently submitted an application for MUP status that was approved by HRSA.

Exhibit 57: Location of Federally Designated Areas in the Inova Alexandria Community, 2012



Source: Microsoft MapPoint, Inova Alexandria, and U.S. Health Resources and Services Administration, 2012.

[25] *Ibid.*

Health Professional Shortage Areas

A geographic area can receive a federal Health Professional Shortage Area (HPSA) designation if a shortage of primary care, dental care, or mental health care professionals is present.

In addition to areas and populations that can be designated as HPSAs, a facility can receive federal HPSA designation and a resultant, additional Medicare payment if it provides primary medical care services to an area or population group identified as having inadequate access to primary care, dental, or mental health professionals and service capacity.

HPSAs are: "(1) An urban or rural area (which need not conform to the geographic boundaries of a political subdivision and which is a rational area for the delivery of health services); (2) a population group; or (3) a public or nonprofit private medical facility."[26]

In the Inova Alexandria community, Alexandria Neighborhood Health Services, Inc. (ANHSI) is designated as a primary care, mental, and dental health HPSA. ANHSI recently acquired a physician practice located in Fairfax County and now has eight locations (**Exhibit 57**).

Description of Other Facilities and Resources within the Community

The Inova Alexandria community contains a variety of resources that are available to meet the health needs identified in this CHNA. These resources include clinics, hospitals, health professionals, and other agencies and organizations.

In the Inova Alexandria community, one Federally Qualified Health Center is designated as primary medical care, mental health, and dental HPSA. Alexandria Neighborhood Health Services, Inc. provides family medicine services including primary, prenatal, dental, and behavioral healthcare. The health center is open five days per week, with evening hours on Tuesday, Wednesday, and Thursday.[27]

Alexandria City and Fairfax County each contain hospital facilities (**Exhibit 58**).

[26] U.S. Health Resources and Services Administration, Bureau of Health Professionals. (n.d.). *Health Professional Shortage Area Designation Criteria*. Retrieved 2012, from http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/index.html

[27] http://www.anhsi.org/index.html

Exhibit 58: Hospital Facilities in the Inova Alexandria Community, 2011

Location	Facility Name	ZIP Code
Alexandria City	Inova Alexandria Hospital	22304
Arlington County	None in Service Area ZIP Codes[28]	-
Fairfax County	Franconia-Springfield Surgery Center	22310
	Inova Fairfax Medical Campus	22042
	Inova Fair Oaks Hospital	22033
	Inova Mt. Vernon Hospital	22306
	Northern Virginia Eye Surgery Center	22031
	Northern Virginia Surgery Center	22033
	Potomac Ambulatory Surgery Center, LLC	22031
	Reston Hospital Center	20190
	Reston Surgery Center	20190
	Skin Cancer Outpatient Surgical Hospital	22182

Source: The Virginia Department of Health Office of Licensure and Certification Directory of Inpatient Hospitals and Outpatient Surgical Centers in Virginia, and the CMS Impact File, 2012.

Ambulatory surgery centers appear in **Exhibit 58** because Virginia licenses these sites as "outpatient hospital" facilities.

Federally Qualified Health Centers (FQHCs) were created by Congress to promote access to ambulatory care in areas designated as "medically underserved." These clinics receive cost-based reimbursement for Medicare and many also receive grant funding under Section 330 of the Public Health Service Act. FQHCs also receive a prospective payment rate for Medicaid services based on reasonable costs.

The HPSA facility, Alexandria Neighborhood Health Services, Inc., is also an FQHC.

Exhibit 59 presents the number of primary care physicians, mental health providers, and dentists per 100,000 population. The number of professionals available on a per-capita basis is above Virginia averages for all three areas.

[28] Virginia Hospital Center is located in Arlington County. However, it is outside of the ZIP codes that are part of Inova Alexandria's defined community.

Exhibit 59: Health Professionals per 100,000 Population by Jurisdiction

Jurisdiction	Primary Care Physicians*		Mental Health Providers*		Dentists*	
	Number	Rate per 100,000	Number	Rate per 100,000	Number	Rate per 100,000
Alexandria City	180	124.5	134	92.7	84	65.0
Arlington County	285	135.6	166	79.0	119	62.4
Fairfax County	1,621	159.0	663	65.0	912	88.7
Virginia	**9,676**	**124.1**	**3,788**	**48.6**	**2,896****	**37.1**

Source: HRSA's Area Resource File via *County Health Rankings*, 2012.
*Primary care physicians' data is from 2009; data regarding mental health providers and dentists is from 2007.
**Number of dentists in Virginia calculated by Verité.

As of 2012, a range of other agencies and organizations are available in each jurisdiction to assist in meeting health needs, including county health departments and human services departments.

Some of these include:

- One Federally Qualified Health Center, Alexandria Neighborhood Health Services, Inc.;
- The Arlington County, Fairfax County, and Alexandria City health departments and their associated clinics;
- The Arlington County, Alexandria City, and Fairfax-Falls Church Community Services Boards;
- Low cost prescription services such as the Fairfax County Prescription Discount Card and NovaScripts Central;
- Free clinics and other clinics that serve underserved populations, including the Arlington Free Clinic, Culmore Clinic, Mission Life Center Hope Clinic, Arlington Pediatric Clinic, Lions Eye Clinic, and Northern Virginia Dental Clinic;
- InovaCares initiatives including Inova CaresClinic for Children, Inova CaresClinic for Women, and the Inova Juniper Program (which serves clients with HIV/AIDS); and
- Two Fairfax County Community Health Care Network (CHCN) locations (which serve low-income, uninsured patients).

Additionally, lists of available resources have been compiled by community foundations, clinics, and health departments and can be found at the following websites:

- Alexandria City Department of Community and Human Services: http://alexandriava.gov/DCHS
- Alexandria City Health Department Healthy Links: http://alexandriava.gov/health/info/default.aspx?id=11464
- Alexandria City Health Department Medical Services: http://alexandriava.gov/health/info/default.aspx?id=11444
- Arlington County Department of Human Services: http://www.arlingtonva.us/departments/HumanServices/HumanServicesMain.aspx

- Fairfax County Health Department Safety Net Contact List: http://www.fairfaxcounty.gov/hd/pcs/pcspdf/chcn-safety-net-contact-list.pdf
- Fairfax County Health Department A-Z: http://www.fairfaxcounty.gov/hd/a-z-hd.htm
- Fairfax County Human Services Resource Guide: http://www.fairfaxcounty.gov/hsrg/
- Fairfax County Public Schools Low Cost Health Care Resources in Northern Virginia: http://www.fcps.edu/HyblaValleyES/resources/Clinics.pdf
- Inova in the Community: http://www.inova.org/inova-in-the-community/index.jsp
- National Capital Region 2-1-1 Combined Database: http://www.211metrodc.org/
- Northern Virginia Health Foundation Wellness Directory: http://novahealthfdn.org/health-wellness-directory
- Northern Virginia Health Services Coalition Find A Clinic: http://www.novaclinics.org/find-a-clinic
- Northern Virginia Regional Commission Quick Guide: http://www.novaregion.org/index.aspx?nid=281
- Virginia Association of Free Clinics: http://vafreeclinics.org/

Findings of Other Recent Community Health Needs Assessments

Verité also considered the findings of other needs assessments published since 2008. Fifteen such assessments have been conducted in the Inova Alexandria area and are publicly available. Summary findings from these assessments are provided below, with the most recent presented first.

Although Alexandria City accounts for the majority of Inova Alexandria's discharges, assessments from Arlington and Fairfax counties also were reviewed because the two counties contribute 17 and 59 percent of the community population, respectively. In addition to the following assessments, the Partnership for a Healthier Alexandria currently is conducting a community health assessment using the Mobilization for Action through Planning and Partnerships (MAPP) process.

1. Arlington County Department of Human Services

Arlington County's Department of Human Services has made available on its website a draft community health status assessment.[29] The assessment used the Mobilization for Action through Planning and Partnerships (MAPP) process to identify the county's public health issues.

Preliminary findings were as follows:

- Arlington had a highly diverse population with 25 percent of its population being foreign born. The county had a higher proportion of Hispanic (or Latino) residents than Northern Virginia, Virginia, or the nation overall.
- Sixty-seven percent of residents had a bachelor's degree or higher, making Arlington one of the most highly educated counties in the nation. Arlington's public investment in education was among the highest expenditures in the U.S.
- Economic disparities were prevalent in the community. Arlington County had a relatively high median income in 2005, and had one of the lowest unemployment rates in the nation at two percent in 2007. However, in 2005, eight percent of the community lived at or below poverty, the highest percentage in Northern Virginia. Twenty one percent of survey respondents reported being uninsured in 2008.
- Arlington County's rate of homeless persons in the community was high compared to other Northern Virginia counties. The number of chronically homeless increased from 2005 to 2007.
- Many resources were available in the community, but access to primary care and specialty services were limited by eligibility requirements and long waiting lists for the uninsured and underinsured. Access to mental health services in particular was limited for those without insurance coverage.
- Adults and youth in Arlington County reported high rates of binge drinking. Forty-one percent of Arlington County youth reported not using a condom the last time they had sex. High numbers of youth reported poor diet, lack of physical activity, and obesity.
- The tuberculosis rate was higher than regional, Virginia, and national averages. The majority of cases were in foreign born residents. The area also reported high rates of syphilis and AIDS.
- The Arlington community experienced poor air quality.

2. The Commonwealth Institute for Fiscal Analysis

In 2012, the Commonwealth Institute for Fiscal Analysis published a report entitled, *Under Pressure: The State of Working Northern Virginia.*[30] That report provided an overview of data

[29] Arlington County Department of Human Services (2009) *MAPP Community Health Status Assessment*. Retrieved 2011, from http://www.arlingtonva.us/departments/HumanServices/PublicHealth/mapp/MAPPDocuments/file62639.pdf

regarding the economic well-being of Northern Virginia, with a particular focus on the challenges faced by low and moderate-income residents.

The following key findings are relevant to Northern Virginians' ability to access care:

- Median income levels declined disproportionately in Northern Virginia from 2007 to 2010; lower-income households saw a decline more than three times that of the region's higher-income households.
- The cost of living in the region is high, placing further strain on lower-income residents. In 2010, a family of four living in Northern Virginia (assuming one pre-school aged child and one school-aged child) required an income ranging from approximately $51,000 in Fauquier County to nearly $67,000 in Loudoun County to meet a minimum standard of living.
- From 2007 to 2012, enrollment in public assistance services increased. Most notably, the number of people enrolled in the Supplemental Nutrition Assistance Program (SNAP) increased 131 percent in the region, compared to a 77 percent increase in Virginia as a whole.

3. George Mason University College of Health and Human Services

In 2012, George Mason University published a report entitled *Recommendations to the Fairfax County Health Care Reform Implementation Task Force*.[31] The report summarized Fairfax County's health status and healthcare resources as context for the consideration of options for responding to the recent federal health reform law.

Health status and healthcare access findings in the report are as follows:

- Although Fairfax County as a whole is comparatively wealthy and asset-rich, inequalities exist in health status and healthcare access, particularly for low-income populations and racial and ethnic minorities in the Richmond Highway corridor, Bailey's Crossroads-Culmore area, and the Reston-Herndon area.
    - The number of families living at or below 200 percent of poverty increased 33 percent from 2000-2009.
    - The high cost of living in the county particularly has affected those living on low or fixed incomes.
    - Mortality rates, teen pregnancy, low birth weights and infant mortality rates, cancer, high blood pressure, and communicable disease rates were highest for Black residents.

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[30] The Commonwealth Institute (May 2012) *Under Pressure: The State of Working Northern Virginia*. Retrieved 2012, from http://www.thecommonwealthinstitute.org/wp-content/uploads/2012/05/120508_under_pressure.pdf

[31] George Mason University (March 2012) *Recommendations to the Fairfax County Health Care Reform Implementation Task Force*. Retrieved May 2012, from http://chpre.org/wp-content/uploads/2012/04/Final-GMU-Fairfax-County-FINAL-Report-4-3-12.pdf

- Thirteen percent of Fairfax County residents lacked health insurance in 2010. Eight percent of children five years of age and younger lived in poverty.
    - Hispanic (or Latino) residents are most likely to be uninsured. This group accounts for 30 percent of the total uninsured population in the county.
- An estimated 23 percent of the uninsured population was served by Fairfax County's safety net providers, specifically the Community Service Boards (CSBs) and Community Health Care Network (CHCN) clinics. Roughly 40 percent of the uninsured population seeks care each year.
- Approximately half of the county's uninsured population may gain insurance coverage as a result of healthcare reform; half of those individuals will obtain private coverage rather than Medicaid. The county's safety net services can be instrumental in maintaining access to care during this transition.
- The area is expecting a shortage of primary care physicians in coming years. Thirty-nine percent of the county's primary care physicians were 60 years of age or older in 2010 and are anticipated to retire within the next few years. Few new physicians are electing primary care.
    - The area lacked sufficient physicians and specialists to treat low-income, Medicare, and Medicaid patients. Dental health professionals, as well as physicians who serve children, the chronically ill, the elderly, and those with disabilities, will be in greatest demand in upcoming years. The area especially lacked mental and behavioral health providers, regardless of insurance status. These problems will be compounded when the health reform law takes effect.
- Fairfax County care providers need to collaborate to improve access to services. The development and implementation of information technology is recommended to support integrated service delivery, administrative functions, and coordination among providers.
- The community would benefit from an outreach campaign to educate residents about new coverage options and services.

4. Northern Virginia Health Foundation

In September of 2011, the Northern Virginia Health Foundation commissioned a report entitled *Oral Health in Northern Virginia.*[32] That report provided a region specific analysis on oral health needs based on a literature review and a survey of residents in the region. The survey covered residents from Arlington, Fairfax, Loudoun, and Prince William counties as well as the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park.

Findings show that lower-income people in Northern Virginia face barriers to accessing dental care and have comparatively poor oral health:

[32]Northern Virginia Health Foundation (September 2011) *Oral Health in Northern Virginia*. Retrieved 2012, from http://novahealthfdn.org/wp-content/uploads/NVHF-OralHealth-Report-FINAL.pdf

- In Northern Virginia, more than a third of those in lower-income households (making less than $40,000 per year) rated their oral health as fair or poor. The percentage was much lower for those in households making over $40,000 per year.
- Virginia as a whole scored poorly on its ability to address children's oral health needs, according to a *The State of Children's Dental Health: Making Dental Coverage Matter*, a report by the Pew Center on The States. Approximately 48 percent of children enrolled in Virginia Medicaid's "Smiles for Children" program received no dental services at all in 2009. Benefits for adults enrolled in Medicaid are limited to medically necessary oral surgery.
- There were organizations throughout Northern Virginia that provide dental care for low income and uninsured individuals, but waiting lists remained full, and more than 300 patients typically are waiting for care.
- The report identifies barriers to accessing dental care including: low income levels, high costs of care, lack of transportation, a lack of access to dental insurance, and a lack of access to dentists who are able to treat the handicapped or those with special needs.
- Only about 24 percent of lower-income adults with physical health coverage also have dental health coverage. Typically 64 percent of insured higher-income individuals had dental coverage.
- Lower-income residents were more likely to seek hospital emergency room care for acute dental problems. Almost five times as many lower-income residents had received emergency room care in the last two years compared to higher-income residents.
- Nearly 45 percent of lower-income parents were not able to afford dental care for their children in the last two years. Only about 62 percent of low-income parents had taken their children to the dentist in the last two years, compared to 79 percent of the higher-income parents.
- Higher percentages of lower-income adults had dentures and reported waiting to get a tooth pulled, compared to higher-income adults.
- Only about 35 percent of lower-income women saw the dentist for basic checkups while pregnant, compared to two thirds of higher-income women.
- Almost 23 percent of lower-income women had gum or teeth related problems during the pregnancy compared to three percent of higher-income women.

5. Partnership for a Healthier Fairfax MAPP Report

The *Community Health Status Assessment Report*,[33] published by the Partnership for a Healthier Fairfax in September 2011, provided an overview of the health and wellbeing of Fairfax County. Partnership for a Healthier Fairfax utilized the Mobilization for Action through Planning and

[33] Partnership for a Healthier Fairfax (September 2011) *Community Health Status Assessment Report*. Retrieved 2012, from http://www.fairfaxcounty.gov/hd/mapp/pdf/comm-health-assessment.pdf

Partnerships (MAPP) process to identify public health issues. The regions included in this study were Fairfax County, the City of Fairfax, and the towns of Herndon, Clifton, and Vienna.

Key problem area categories included:

1. Income Disparities
    - While Fairfax County was one of the most affluent areas in the US, the number of residents living in poverty increased by 33 percent from 2000-2009.
    - In 2009, six percent of individuals were living in poverty.
    - Reston, Herndon, Bailey's Crossroads-Culmore, Central Fairfax, and the Richmond Highway corridor had a high percentage of people living in poverty.
2. Access
    - More than one out of every 10 residents of the county lacked health insurance in 2009, though more residents were likely to have health insurance than the US average.
    - Virginia's eligibility criteria for Medicaid were between 80 percent and 133 percent of FPL, depending on the program; eligibility criteria for SCHIP were less than 185 percent of FPL. Additionally, many primary care physicians were unwilling to accept new Medicaid patients due to reimbursement and other concerns.
    - Fairfax County is anticipating a shortage of primary care physicians, nurses, and specialists due to the number of physicians reaching retirement age. New physicians entering the medical profession are less likely to elect primary care, and those who do choose a primary care practice are not entering at a rate fast enough to replace those who are leaving. Providers willing and able to serve children, the chronically ill, the elderly, and those with disabilities and/or mental disorders will be in greatest demand.
3. Health Behaviors
    - Fifty-four percent of Fairfax County's adult population was physically inactive. The county benchmarks poorly on this indicator compared to other areas of Virginia.
    - Seventy-two percent of residents ate fewer than five servings of fruits and vegetables daily.
    - Fifty-two percent of county residents were overweight or obese.
    - Alcohol was the most commonly abused substance for individuals under the age of 18.
    - Twenty percent of the Fairfax County population suffered from high blood pressure.
4. Housing

- The cost of living in Fairfax County was high. The county is among the most expensive areas in the nation for housing. The elderly and low-income populations were burdened by housing costs.

5. Mental Health
    - Fairfax Public Schools reported a rate of depression that was higher than the national average. Suicide was one of the leading causes of death among youth and young adults in Fairfax County.
6. Infectious Disease
    - Tuberculosis rates were more than two times higher than Virginia and national averages.
7. Environment
    - Air quality was ranked as the poorest in Virginia.
    - Initiatives to improve public transportation lagged behind need.
    - Most marine and freshwater recreational waters in Fairfax County failed to meet water quality regulations and guidelines.
    - Fairfax County saw significant increases in the number of reported cases of Lyme disease since 2000. Fairfax County's rate of 25 cases per 100,000 persons was more than double the Virginia rate.
    - Incidence of animal rabies in Fairfax County consistently was one of the highest out of all Virginia counties between 2000 and 2009.
    - In 2009, 13 times as many Lyme disease cases were reported than were reported in 2000.

6. Virginia Department of Health

The Virginia Department of Health's Office of Minority Health and Public Health Policy published a report in 2011 entitled *Inequities in Birth Outcomes in Northern Virginia.*[34] That report sought to educate the community regarding the causes and effects of birth and infant health inequities while proposing frameworks to address these inequities.

The following disparities were identified in the report:

- Northern Virginia had lower rates of infant mortality and low birth weight infants than the commonwealth and nation in 2006. However, the rates for Black infant mortality and low birth weight were significantly higher than White or Hispanic (or Latino) rates.

[34] Virginia Department of Health. (2011) *Inequities in Birth Outcomes in Northern Virginia*. Retrieved 2011, from http://www.vdh.state.va.us/healthpolicy/policyanalysis/documents/Inequities-in-Birth-Outcomes-NOVA.pdf

- In Northern Virginia in 2006, the infant mortality rate was highest for Black residents at 10.4 deaths per 1,000 live births; White residents experienced 4.1 deaths per 1,000 live births and Hispanic (or Latino) residents experienced 3.6 deaths per 1,000 live births.
- In 2006, the infant mortality rate in Northern Virginia decreased as years of education increased. However, this was least pronounced for Black residents whose rates stayed higher than rates for non-Black residents at all education levels.

7. Fairfax County Department of Neighborhood and Community Services and Fairfax County Public Schools

The *School Year 2011-2012 Fairfax County Youth Survey*[35] was developed collaboratively by the Fairfax County Public Schools and Department of Neighborhood & Community Services. That survey, administered on a confidential basis to students in grades six, eight, ten, and twelve, offers insight into youth behaviors and trends in substance abuse, mental health, violence and delinquency, overall health status, and health risk behaviors.

Summary findings from the most recent survey are listed below:

- Alcohol was the most commonly used substance among Fairfax County youth, but the prevalence of students who used alcohol in the last month (at 22 percent) was lower than the national average. Twelfth graders reported the highest percentage of alcohol use at 37 percent.
- Approximately four percent of eighth graders reported using inhalants in the past month compared to one percent in twelfth grade. Twenty percent of twelfth graders reported using marijuana. This is more than five times the rate reported by eighth graders.
- Thirty-two percent of students reported experiencing depression in the past year. Females and Hispanic (or Latino) residents were more likely to experience depression.
- Twenty-six percent of Fairfax County youth reported eating five servings of fruits and vegetables per day, almost twice the national average.
- Thirteen percent of females reported engaging in one hour or more of physical activity for at least seven days per week compared to 28 percent of males. Physical activity levels decrease with students' age.
- Fifty-one percent of students reported being bullied in the past year. Bullying was most prevalent in eighth and tenth grades.
- Two-thirds of youth who report being sexually active also reported using a condom. Twenty percent of students report ever having sex. Black and Hispanic (or Latino) students are more likely to have had sex than other groups, at 30 and 32 percent, respectively.

[35] Fairfax County Public Schools and Department of Neighborhood & Community Service. (September 2011) *School Year 2011-2012Fairfax County Youth Survey*. Retrieved 2012, http://www.fairfaxcounty.gov/demogrph/youthpdf.htm

- Female students had a higher likelihood of considering committing suicide, at 20 percent, compared to males at 12 percent.

8. Alexandria Homeless Services Coordinating Committee

In 2010, the Alexandria Homeless Services Coordinating Committee, which manages the City of Alexandria's Continuum of Care collaboration, published a report entitled, *Homeless Enumeration Narrative Reports Alexandria 2010*.[36] The Continuum of Care collaboration is a partnership of local organizations and private citizens that serves the needs of the homeless and those at risk for homelessness. The document reported the results of a 2010 point-in-time assessment based on data collected through the Homeless Management Information System, surveys of shelter staff and volunteers, and facility bed records.

Key findings were as follows:

- In the City of Alexandria, 208 single men and women and 151 persons in families were identified as homeless at the time of the count.
- The total homeless population increased by three percent since 2008, and the number of homeless children increased by seven percent.
- The city's various shelters provided 213 beds for individuals and 198 beds or units for persons in families.
- Fifty-two percent of homeless single men and women reported having a monthly income. The primary sources of income were from employment, disability benefits, and Social Security retirement benefits.
- Twenty-one percent of homeless individuals were chronic substance abusers, 19 percent had chronic health problems, and 12 percent were dually diagnosed with substance abuse and severe mental illness.

9. Arlington Partnership for Children, Youth, and Families

The Arlington Partnership for Children, Youth, and Families made available on their website the results of the *2010 Youth Risk Behavior Survey*.[37] That survey, administered to youth in sixth, eighth, tenth, and twelfth grades offered insight into youth behaviors and trends in substance abuse, mental health, violence and delinquency, overall health status, and health risk behaviors.

The results of the survey are listed below:

- Depression affected 24 percent of all students in 2010. More students in grades ten and twelve reported feeling depressed for two or more weeks in the past year. Five percent of all students reported attempting suicide in the past year.

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[36] Alexandria Homeless Services Coordinating Committee (2010) *Homeless Enumeration Narrative Reports Alexandria 2010*. Retrieved 2011, from http://www.alexandriava.gov/uploadedFiles/mhmrsa/HOMELESS%20ENUMERATION%20NARRATIVE%20REPORTSalexandria.pdf

[37] Arlington Partnership for Children, Youth, and Families. (2010) *2010 Youth Risk Behavior Survey – Arlington*. Retrieved 2012, from http://www.arlingtonpartnershipforyouth.org/docs/ALLFinal04To10.pdf

- Thirty percent of all students did not have a physical in the past year.
- Thirty-three percent of 10th graders reported ever smoking, and 12 percent reported using cigarettes in the past 30 days. Forty-eight percent of 12th graders reported ever smoking and 20 percent reported using cigarettes in the past 30 days.
- Alcohol was the most commonly used substance among Arlington County youth. Forty-three percent of all students and 76 percent of twelfth graders reported ever drinking alcohol, and 22 percent of students used alcohol in the past month.
- Thirty-eight percent of tenth and twelfth graders reported ever using marijuana.
- Fifty percent of all students reported not engaging in one hour or more of physical activity on at least five days per week, and over half of students reported not consuming recommended amounts of healthy food.
- Fifty-four percent of Arlington County youth reported that they have more than two hours of "screen time," defined as time in front of the television or computer, per weekday.
- Twelve percent of students were at risk for obesity, while 42 percent reported trying to lose weight.

10. The Center for Nonprofit Development and Pluralism (Washington AIDS Partnership)

In 2010, The Center for Nonprofit Development and Pluralism developed a report funded by the Washington AIDS Partnership and Kaiser Permanente, entitled *The Profiles Project: How the Washington, DC Suburbs Respond to HIV/AIDS.*[38]

Important findings include:

- Black residents accounted for 48 percent of those living with HIV/AIDS in Northern Virginia; males accounted for 75 percent of those living with HIV/AIDS.
- Portability of care, defined as having the "ability to obtain HIV-related services from the same provider if s/he moves across jurisdictions within the eligible metropolitan area," was lacking in the region.

[38] The Washington AIDS Partnership and Kaiser Permanente. (April 2010). *The Profiles Project: How the Washington, DC Suburbs Respond to HIV/AIDS.* Retrieved July 2012, from http://www.mosaica.org/Resources/HIVAIDS/ProfilesProject.aspx

11.Arlington County Disability Services Board

In 2009, the Arlington County Disability Services Board published a needs assessment report[39] to determine the current needs of the area's disabled citizens and to raise awareness regarding these issues. Data were gathered from an online survey made available on the county website and sent to various local organizations. Roughly 80 individuals responded to the survey.

The majority of respondents ranked the following needs as being of high priority:

- Housing: The highest priority need for this population group was affordable and accessible housing, as well as assisted living options.
- Medical and therapeutic care: Lack of access to affordable medical and therapeutic care and health insurance were major concerns.
- Independent living services: This population required access to services, education, and training to allow them to lead independent lifestyles.
- Family support: The community would benefit from programs and information useful for maintaining a family when one of its members has a disability.
- Transportation: A lack of sufficient transportation options was a primary barrier to access for this population.
- Assistive technology: The majority of respondents depended on wheelchairs, walkers and/or other adaptive equipment for mobility.
- Emergency preparedness: There was a need for emergency services in the community that address physical or sensory disabilities before, during, and after an emergency.
- Education: The community lacked sufficient services focused on the specific needs of those with disabilities. Such services included special education, speech and language services, and occupational and physical therapy.
- Training: Respondents believed that the community requires additional training and development of qualified service providers. Such providers included educators, skilled medical practitioners, interpreters, in-home caregivers, and rehabilitation engineers.

[39] Arlington County Disability Services Board. (February 2009). *Arlington County 2009 Needs Assessment Report***.** Retrieved 2012, from http://www.arlingtonva.us/departments/Commissions/HumanServices/DAC/page68474.aspx

12.Metropolitan Washington Council of Governments and Washington Regional Association of Grantmakers

The *Community Health Status Indicators for Metropolitan Washington, 2009,*[40] published collaboratively by the Health Officials Committee of the Metropolitan Washington Council of Governments and the Health Working Group of the Washington Regional Association of Grantmakers, examined the health status of the region's residents with a particular focus on the social determinants of health.

The assessment included the following areas in the Metropolitan Washington region: Frederick, Montgomery, and Prince George's counties in Maryland, the counties of Arlington, Fairfax, Loudoun, and Prince William and cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park in Virginia, and the District of Columbia.

Key findings are as follows:

- The percentage of low-income adults who were uninsured was over 50 percent in all Virginia jurisdictions. Arlington County had the highest at 73 percent.
- In the cities of Alexandria and Fairfax and the counties of Arlington and Fairfax, 12 to 15 percent of the population over five years of age did not speak English well.
- Arlington and Fairfax counties and the cities of Alexandria, Fairfax, and Falls Church reported higher percentages of women not receiving prenatal care than the goal established by the federal government in Healthy People 2010. Over 20 percent of women in Arlington County and the City of Alexandria reported late or no prenatal care.
- All jurisdictions reported breast cancer mortality rates higher than the Healthy People 2010 goal. Arlington County and the City of Fairfax reported rates over the national average.
- Fairfax and Falls Church cities had motor vehicle injury death rates that were significantly higher than the national average of 15 per 100,000 population.
- Fairfax City had the highest suicide rate of all jurisdictions at 13 per 100,000 population, compared to a national average of 11.
- The tuberculosis rate in Arlington and Fairfax counties was more than twice the national average.
- Over 15 percent of the population reported being obese in Fairfax County and the cities of Alexandria and Manassas. In the jurisdictions with available data, 67 percent or more adults do not eat five or more fruits and vegetables per day.
- Higher percentages of residents reported being current smokers in Prince William County and the City of Alexandria compared to peer jurisdictions.

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[40]Metropolitan Washington Council of Governments & Washington Regional Association of Grantmakers. (June 2009) *Community Health Status Indicators for Metropolitan Washington, 2009*. Retrieved 2012, from http://www.mwcog.org/uploads/pub-documents/zVZdWA20090623085814.pdf

13.Voices for Virginia's Children

In 2009, Voices for Virginia's Children[41] compiled data from the surveys conducted in secondary schools in Northern Virginia, including data from the *Fairfax County Youth Survey* conducted by the Fairfax County Department of Neighborhood and Community Services and Fairfax County Public Schools, the Arlington *Youth Risk Behavior Survey* conducted by The Arlington Partnership for Children, Youth, and Families, and the Alexandria *Youth Risk Behavior Survey* conducted by Alexandria Public Schools. Surveys were conducted in Arlington, Fairfax, and Loudoun counties, and in the City of Alexandria.

Findings about youth health risk behaviors include the following:

- Although lower than the national averages, alcohol was the most commonly abused substance:
    - In Fairfax County, 27 percent of 10th and 43 percent of 12th graders consumed alcohol in the last month.
    - In Alexandria City, 26 percent of students in the 9th through 12th grades consumed alcohol in the last month.
    - In Arlington County, 37 percent of 10th and 54 percent of 12th graders consumed alcohol in the last month.
- Although lower than the national averages, marijuana was the most abused illicit drug in this region;
    - In Fairfax County, nine percent of 10th graders and 17 percent of 12th graders used marijuana in the last month.
    - In Alexandria City, 19 percent of students in the 9th through 12th grades used marijuana in the last month.
    - In Arlington County, 20 percent of 10th graders and 27 percent of 12th graders used marijuana in the last month. This is higher than the national averages.
- Mental health was a prominent issue in the region.
    - About eight percent of the high school students in Alexandria had attempted suicide, slightly higher than the national average of seven percent.
    - Nine percent of students in 8th, 10th, and 12th grade had attempted suicide in the past 12 months.
- Youth reported high rates of sexual activity.
    - Alexandria, at 52 percent, had a higher rate of students than the national average who had ever had sex; It also had a higher rate of individuals with four of more sexual partners at 18 percent.

[41] Voices for Virginia's Children (July 2009) *Self-Portrait of Youth in Northern Virginia*. Retrieved July 7, 2012, from http://vakids.org/pubs/NoVA/YouthSurvey_Web.pdf.

- The rates in Arlington and Fairfax were lower than the national averages.

14. Alexandria City Public Schools

In 2008, Alexandria City Public Schools Monitoring and Evaluation Services published the *Youth Risk Behavior Survey: Final Report.*[42] That survey, administered on a confidential basis to students in grades seven through twelve, offers insight into youth behaviors and trends in substance abuse, mental health, violence and delinquency, overall health status, and health risk behaviors.

The results of the survey are listed below:

- A significant percentage of Alexandria youth reported high levels of "screen time." Forty-two percent of high school students and 55 percent of middle school students reported watching three or more hours of television daily. Twenty-seven percent of high school students and 34 percent of middle school students reported using a computer for three or more hours daily.
- Sixty-five percent of students reported not engaging in at least one hour of physical activity five or more days per week.
- Roughly 25 percent of high school youth were at risk for becoming overweight or were overweight. Black and Hispanic (or Latino) youth were more likely to be overweight and to make poor nutritional choices.
- Females were more likely to believe that they were overweight and to try to lose weight. Females were also more likely to report feeling depressed.
- Fifty-two percent of high school students and 27 percent of middle school students reported ever having sex. Roughly 16 percent of students reported having sex before age 13. Rates of condom use were high. Black and Hispanic (or Latino) students were more likely to be sexually active, and males were more likely to report having more sexual partners.
- Alcohol was the most commonly used drug among Alexandria youth, but the prevalence (67 percent) was lower than the national average. Among high school students, White youth reported higher rates of drug use than other groups.
- Seventy-eight percent of middle school males reported being in a physical fight compared to 56 percent of females and 32 percent of all high school students.
- Twenty-nine percent of students reported ever riding with a drunk driver. This percentage is slightly higher than the national average.

[42] Alexandria City Public Schools. (February 2008) *Youth Risk Behavior Survey: Final Report.* Retrieved 2012, from http://alexandriava.gov/uploadedfiles/mhmrsa/info/youth_topics_030708/YRBSReport_Final.pdf

15. Alexandria Council of Human Service Organizations

In 2008, Braintree Solution Consulting Inc. prepared a community needs assessment for the Alexandria Council of Human Services Organizations entitled, *A Snapshot of Human Development in Alexandria: A Needs Assessment of the Alexandria Human Services System.*[43] The assessment identified health and human service needs in the City of Alexandria's four regions: Old Town, West End, Arlandria, and Del Rey.

Key findings from the following nine categories were:

1. Disparities
    - As a whole, Alexandria was a relatively wealthy city with a high quality of life. However, the city faced significant disparities in income, employment, and healthcare access. Alexandria's median income was nearly $75,000; yet in 2005, at eight percent, the city had the highest percentage of residents living below poverty in Northern Virginia.
    - More than half of community residents had a college degree, yet the high school drop-out rate in 2006 was nearly five percent.
2. Access
    - Access to care was a relevant issue for low-income, culturally isolated, and other vulnerable populations due to lack of insurance, unemployment, financial hardship, limited funding for supportive services, or lack of knowledge about services available in the community.
    - Many physicians were reaching retirement which may result in a shortage of health professionals. Community members, especially those who are low-income or uninsured, had trouble accessing specialty services. Private specialists were in "short supply" and were operating at capacity.
    - Access to community resources, especially for youth and the elderly, would be increased by improved public transportation availability.
3. Housing
    - Alexandria is densely populated and housing prices are high. Low-income populations, seniors, and the disabled were in need of additional affordable housing, rental assistance, and transitional housing.
    - Many seniors faced financial hardship and a lack of family and social support and were therefore in need of affordable assisted living options.

[43] Braintree Solution Consulting (June 2008) *A Snapshot of Human Development in Alexandria: A Needs Assessment of the Alexandria Human Services System*. Retrieved 2011, from http://alexandriava.gov/uploadedFiles/achso/FinalNeedsAssessment.pdf

4. Culturally Sensitive Care
    - Language and cultural barriers, concerns about immigration status, and higher poverty rates prevented some populations from seeking out and obtaining care.
    - Alexandria and West End communities had the highest concentration of populations that do not speak English. These areas would benefit from more bilingual staff and dissemination of information in multiple languages, especially through multiple media outlets.
5. Mental Health and Substance Abuse
    - Poor mental health and a lack of substance abuse treatment were top concerns in the area. Local service providers rated mental health as the second most critical gap for youth, the third most critical gap for adults, and the fifth most critical gap for the elderly. Depression is a prevalent issue.
    - Barriers to accessing mental and behavioral health included waiting lists, language and cultural barriers, and cost.
6. Youth and Children
    - Survey results indicated that parenting education and affordable, high-quality childcare were pressing concerns, especially for low-income families.
    - Residents expressed a need for increased post-secondary education options for youth, especially job skills/vocational training.
7. Coordination and Collaboration
    - The community needs improved access, awareness, and delivery of services. These issues could be addressed through greater coordination of care and collaboration among providers.
8. Behavioral Factors
    - Community residents identified sedentary lifestyles, obesity, substance abuse, tobacco use, and teen pregnancy as priority concerns in Alexandria.
9. Health Status
    - In 2000, incidence rates of tuberculosis, AIDS, and colorectal cancer were above Virginia and national averages.

Secondary Data Indicators of Concern

This assessment analyzed secondary data regarding demographics, social and economic factors, health behaviors, physical environment, care delivery, morbidity, and mortality. **Exhibit 61** presents the indicators that appeared most unfavorable in the Inova Alexandria community when compared to national, state, or local benchmarks. Further details and discussion regarding these indicators can be found in previous sections.

Exhibit 60A: Secondary Data Indicators of Concern

Category	Indicator	Location	Community Value	Benchmark	Data Format	Benchmark Definition
Demographics	Growth in population 65+ 2013-2018	Community	5.2%	0.8%	Percent	IAH community all ages
	Growth in Asian population 2013-2018	Community	1.4%	0.4%	Percent	White population
	Growth in Hispanic (or Latino) population 2013-2018	Community	1.3%	0.6%	Percent	Non-Hispanic (or Latino) population
	Residents 5+ linguistically isolated	Community	8.3-15%	5.7%	Percent	VA average
	Housing units with no car	Alexandria	8.6%	6.2%	Percent	VA average
		Arlington	12.3%	6.2%	Percent	VA average
Social and Economic Factors	Poverty rate: Black	Alexandria	19.6%	19.0%	Percent	VA average
	Poverty rate: Hispanic (or Latino)	Arlington	17.3%	14.1%	Percent	VA average
	Poverty rate: Asian	Arlington	12.0%	8.9%	Percent	VA average
		Alexandria	23.8%	8.9%	Percent	VA average
	Homelessness	Alexandria	28.8	13.7	Rate per 100,000	Northern Virginia average
		Arlington	21.3	13.7	Rate per 100,000	Northern Virginia average
	Section 8 housing assistance wait time	Alexandria	15	10	Months	VA average
		Arlington	36	10	Months	VA average
	Low-income households 2008	Mt. Vernon South/Ft. Belvoir	11.6%	9.5	Percent under $50,000	IAH community total
		Shirlington/South Arlington	11.6	9.5	Percent under $50,000	IAH community total
	Uninsured population	Alexandria	17.7%	13.1%	Percent	VA average
		Fairfax	13.5%	13.1%	Percent	VA average
	Medicaid discharges	Lincolnia/Bailey's Crossroads	19.3%	13.3%	Percent	IAH community total
		Mt. Vernon South/Ft. Belvoir	17.4%	13.3%	Percent	IAH community total
	Uninsured discharges	Lincolnia/Bailey's Crossroads	9.2%	6.3%	Percent	IAH community total
	Births to women age 40-54	Alexandria	4.9%	2.7%	Percent	U.S. average
		Arlington	6.0%	2.7%	Percent	U.S. average
		Fairfax	5.5%	2.7%	Percent	U.S. average
	No prenatal care in first trimester	Alexandria	27.2%	16.1%	Percent	U.S. average
		Arlington	21.9%	16.1%	Percent	U.S. average
		Alexandria	19.7%	14.5%	Percent	VA average
		Arlington	19.4%	14.5%	Percent	VA average

Source: Verité analysis of secondary data.

Exhibit 60B: Secondary Data Indicators of Concern

Category	Indicator	Location	Community	Benchmark	Data Format	Benchmark Definition
Health Behaviors	Alcohol use	Alexandria	75	131	County rank	Number of counties
		Arlington	82	131	County rank	Number of counties
		Fairfax	84	131	County rank	Number of counties
	Unsafe sex	Alexandria	101	131	County rank	Number of counties
	Heavy drinkers	Alexandria	7.6%	4.4%	Percent	VA average
		Fairfax	8.9%	4.4%	Percent	VA average
	Binge drinkers	Arlington	14.7%	9.7%	Percent	VA average
		Fairfax	12.7%	9.7%	Percent	VA average
Physical Environment	Environmental quality	Alexandria	129	131	County rank	Number of counties
		Arlington	128	131	County rank	Number of counties
		Fairfax	131	131	County rank	Number of counties
	Community safety	Alexandria	94	131	County rank	Number of counties
Clinical Care: Delivery	ACSC discharges	Mt. Vernon South/Ft. Belvoir	16.5%	9.9%	Percent	IAH community total
	ACSC discharges at IAH	Service area	11.6%	9.6%	Percent	Inova facilities total
Health Outcomes: Morbidity	Breast cancer incidence	Arlington	16	35	Health district rank	District with lowest
		Fairfax	6	35	Health district rank	District with lowest
	Ovarian cancer incidence	Alexandria	15	35	Health district rank	District with lowest
		Arlington	7	35	Health district rank	District with lowest
		Fairfax	16	35	Health district rank	District with lowest
	Teen pregnancy	Alexandria	41.6	21.1	Rate per 1,000	VA average
	Syphilis diagnoses	Alexandria	16.4	6.5	Rate per 100,000	VA average
		Arlington	17.8	6.5	Rate per 100,000	VA average
	Residents living with HIV/AIDS	Alexandria	1,202.4	297.6	Rate per 100,000	VA average
		Arlington	658.9	297.6	Rate per 100,000	VA average
	Tuberculosis	Alexandria	9.1	2.7	Rate per 100,000	VA average
		Arlington	4.2	2.7	Rate per 100,000	VA average
		Fairfax	7.2	2.7	Rate per 100,000	VA average
Health Outcomes: Mortality	Homicide	Alexandria	7.9	6.1	Rate per 100,000	U.S. average
	Breast cancer	Arlington	27.6	24.1	Rate per 100,000	U.S. average
		Alexandria	15.0	12.9	Rate per 100,000	VA average
	Non-Hodgkins Lymphoma	Alexandria	7.1	5.6	Rate per 100,000	VA average
	Leukemia	Alexandria	6.4	6.1	Rate per 100,000	VA average
	Pancreatic cancer	Arlington	12.0	10.9	Rate per 100,000	VA average
	Hypertension and renal disease	Alexandria	15.0	7.4	Rate per 100,000	VA average

Source: Verité analysis of secondary data.

PRIMARY DATA ASSESSMENT

Community input was gathered through interviews and a community web-based survey. Findings from this primary data are presented below.

Interview Findings

Interviews regarding health needs in the community served by Inova Alexandria were conducted with 25 key informants, including external stakeholders (those not affiliated with Inova Alexandria or the Inova Health System) and internal Inova staff. The interviews provided input on a wide range of community health issues, including barriers to access to health services, changes in community population, prevalence of certain health conditions, social determinants of health, health disparities, and other topics. The interviews were guided by a structured interview guide, and interviewees were encouraged to identify and discuss all current and emerging issues affecting community health.

Verité staff summarized all interview comments and assessed the frequency with which community health issues were mentioned and also assessed informant views regarding the severity of each concern. The following issues are considered of greatest concern to community health, based on that assessment.

- **Access Issues**
    - **Lack of Affordable Care.** Interviewees expressed concern about the cost of health services for both primary and specialty care– in particular for community residents who are Hispanic (or Latino), Black, low-income, uninsured, or undocumented. This is also an issue for the insured due to high co-pays or deductibles and limited insurance coverage. The current safety net increasingly is resource constrained and unable to meet growing demand. Interviewees report long waiting lists at safety net clinics.
    - **Lack of Access to and Affordability of Insurance.** Health insurance is unaffordable for many lower-income residents. Asian and Hispanic (or Latino) adults are more likely to be uninsured, as are recent immigrants and undocumented people. Those who have coverage are facing higher co-payments, which are problematic given the challenging economic environment. Interviewees also cited issues with the cost of dental insurance, which frequently does not provide comprehensive benefits. Interviewees also reported that Medicaid and Medicare beneficiaries have difficulty locating care and navigating the system. Interviewees mentioned residents in Alexandria City and Mt. Vernon as most vulnerable to these concerns.
    - **Lack of Access to Preventive Care Services.** A number of interviewees raised concerns about access to prevention services, in particular for low-income and undocumented community members. Interviewees also noted that Medicare beneficiaries have difficulty accessing preventive care services.
    - **Lack of Collaboration Among Providers.** Interviewees encouraged greater collaboration among providers in the Inova Alexandria community. Despite a

great infrastructure, interviewees noted that community resources worked in "silos" and needed to form alliances and build relationships.

- **Lack of Mental Health Services.** Virtually all interviewees cited a lack of mental health services as a major concern. There are "not enough providers" and the lack of services is a "huge concern." Community members who have limited English proficiency experience language barriers when seeking counseling. Veterans returning to the area from war and children diagnosed with autism are experiencing significant challenges accessing mental health care. Interviewees mentioned low-income and uninsured/underinsured residents as most vulnerable to these concerns as mental health services frequently are high cost and have limited insurance coverage.
- **Lack of Affordable and Accessible Dental Care.** Access to dental care was frequently mentioned. One interviewee called it the "number one problem." Such access is particularly problematic for low-income, uninsured, or undocumented adults and for Hispanic (or Latino) residents. Interviewees noted a gap in services for adult Medicaid beneficiaries and those slightly above the poverty line. The issue, however, affects all ages and geographic areas. Existing dental clinics are unable to meet current and growing demand.
- **Lack of Providers and Physicians (Including Specialists).** The Inova Alexandria community is urban and populated; however, the area is experiencing an undersupply of physicians. Interviewees mention the following types of gaps: dentists who accept Medicaid and new patients, primary care physicians who accept new Medicare patients, specialists willing to provide on-call coverage, and specialists who accept Medicaid (leading to the need to refer specialty care for Medicaid and uninsured people to the University of Virginia). Interviewees mentioned the uninsured/underinsured as most vulnerable to these concerns.
- **Transportation Barriers.** Certain residents of the community also experience access barriers due to transportation problems. These include low-income people, seniors, and those without automobiles who rely on public transportation described as inadequate in some areas of Alexandria City and Fairfax County. Traffic congestion increasingly is affecting access to care, particularly during rush hour. Transportation barriers contribute to high no-show rates at safety net clinics.
- **Access to Prenatal Care.** Several interviewees raised concerns about access to prenatal services for low-income, immigrant, and undocumented women. Residents in Arlington County reportedly are most vulnerable to this concern.

- **Morbidity/Health Status Issues**
  - **Mental and Behavioral Health.** Poor mental health increasingly is prevalent in the community for: people living alone, children, and those suffering from stress. Interviewees reported that social stigmas often prevent the immigrant population from seeking care.
  - **Rates of Obesity/Overweight.** Virtually all informants mention obesity/weight as a major problem area. One described obesity as "mind boggling." The prevalence of obesity is highest in low-income, minority populations; there is an

acute need for culturally-sensitive services. Many interviewees recommended a major focus on children and adolescents. Poor diet, a lack of exercise, stress, and concerns about the time residents spend in their cars are major contributing factors.

- **Alcohol Use.** Several interviewees mentioned the prevalence of alcohol abuse as problematic, including among higher-income community residents, adolescents, immigrants, and residents along the Richmond Highway. Some expressed concern about public drunkenness.
- **Poor Dental Health.** Lack of access to dental services, coupled with a lack of education regarding the overall health benefits associated with good oral hygiene, is contributing to poor dental health. Community residents are waiting too long to seek care. The homeless, low-income, and recent immigrants are particularly vulnerable.
- **Smoking.** A continued prevalence of smoking was identified in Alexandria City, especially among youth and lower-income residents.
- **Unsafe Sex and Teen Pregnancy.** Several interviewees mentioned the prevalence of unsafe sex as problematic, especially among adolescents. Residents reportedly are less concerned about contracting sexually transmitted infections in Northern Virginia than in other areas of the country. Teen pregnancy is a particular concern in Alexandria City.
- **Poor Diet and Exercise.** Several interviewees mentioned poor diet and exercise as problematic, especially among children, teens, and residents of Alexandria City and Bailey's Crossroads.

- **Social and Economic Issues**
  - **Basic Needs Insecurity: Food, Housing, Utilities.** Many interviewees indicated that certain lower-income groups of community residents and immigrants are experiencing problems with access to healthy food, the cost of utilities, and a lack of affordable housing. This issue is particularly problematic in Mt. Vernon. Residents noted that this issue is worsening.
  - **Cultural/Language Barriers.** The area's immigrant population faces barriers to accessing health and social services. Linguistic isolation, lack of health system knowledge, and fear contribute to these barriers.
  - **Financial Hardship and Unemployment.** Several interviewees mentioned that low-income and undocumented residents, as well as ex-offenders, are particularly vulnerable. Although the area as a whole is wealthy, disparities and "pockets of poverty" are present.
  - **Lack of Community Health Education.** Interviewees mentioned that many residents are not informed about breastfeeding, diet and exercise, correct usage of medication, and the importance of dental health. Interviewees noted that health education programs should be aimed toward children and families.

Community Survey Findings

Inova Alexandria sought input from the public regarding the health of the community through an online survey. The community survey was publicized through mailings and flyers, and a link was made available on the Inova Health System's website to an electronic survey instrument from May through August 2012. The survey consisted of 33 questions about respondent demographics and a range of health status and access issues.

1. Respondent Characteristics

A total of 308 residents from the Inova Alexandria community completed the survey. The majority of respondents reported being in good or very good overall health, between the ages of 35 and 64, married, employed, Christian, and White. Eighty-four percent of respondents were female and 16 percent were male.

Additional characteristics of the survey participants are as follows:

- The majority (91 percent) of respondents speak English in the home and speak English very well (90 percent). Spanish was the top non-English language reported. Of those respondents who speak a language other than English in the home, 36 percent reported speaking English less than "very well."
- Forty percent of respondents know someone with a disability.
- Approximately two percent of respondents reported being unemployed.

Exhibit 61 presents the percentage of respondents from each subregion. The subregion with the highest percentage of respondents was Alexandria/Old Town.

Exhibit 61: Survey Responses, 2012 – Respondents by Subregion

Subregion	Percent of Respondents
Alexandria/Old Town	22.7%
Franconia/Kingstowne	10.1%
Lincolnia/Bailey's Crossroads	10.7%
Lorton/Newington	3.2%
Mt. Vernon North	5.2%
Mt. Vernon South/Ft. Belvoir	11.4%
Shirlington/South Arlington	8.1%
Springfield	17.9%
West Alexandria	10.7%
Total Responses	**308**

Source: Inova Community Survey, 2012.

22 of the community's 23 ZIP codes were represented in the survey

It is important to consider the generalizability of a survey sample. The survey respondents do not adequately represent the diversity of the Inova Alexandria community. Accordingly, caution should be used when assessing the data presented below.

2. Health Issues

When asked to identify the top health issues in the Inova Alexandria community, respondents most often chose obesity, diabetes, and heart disease. Five percent of the community respondents chose "Other" as a top health issue. Due to the small sample size of Inova Alexandria community respondents who chose "Other," these data are reported based on responses from the Inova Health System as a whole. The most prevalent responses included Lyme disease, "lifestyle issues," and high blood pressure (**Exhibit 62**).

Exhibit 62: Survey Responses, 2012 – Top Health Issues

Response	Percent of Respondents*
Obesity	74.6%
Diabetes	63.4%
Heart disease	63.0%
Cancer	52.5%
Mental health: depression, bipolar, autism	44.2%
Addiction / Substance abuse	32.3%
Tobacco use	27.4%
Asthma	25.4%
Alzheimer's or dementia	21.5%
Stroke	15.2%
Osteoporosis	10.9%
HIV / Sexually transmitted diseases	10.6%
Other	5.3%
Birth defects	1.0%
Hepatitis A	0.7%

*Percentages are based on the number of Inova Alexandria respondents who identified top health issues in the community.
N = 303

"Other" Responses	Percent of Responses*
Lyme disease	17.5%
Lifestyle issues	15.0%
High blood pressure	12.5%
Access to care	7.5%
Aging needs	7.5%
Disability	6.3%
Lack of chronic disease management	5.0%
Mental health	5.0%
Communicable diseases	5.0%
Neurology	3.8%
Allergies	2.5%
Oral Health	1.3%
ADHD	1.3%
Pediatrics	1.3%
Auto-immune disorders	1.3%
Parkinson's	1.3%
Poverty	1.3%
Transportation	1.3%
COPD	1.3%
Family planning	1.3%
Cultural barriers to care	1.3%

*Percentages are based on the number of "Other" responses received from the Inova Health System respondents as a whole.
N = 80
Source: Inova Community Survey, 2012.

3. Barriers to Access

The survey included questions about access to and utilization of health services. The majority of participants reported having some form of health insurance, having a usual source of care, and visiting a doctor regularly. Five percent of respondents reported being uninsured.

Exhibit 63 identifies the facility or provider at which respondents and their families receive routine medical care. Of those respondents who do not seek routine medical care from a private medical professional, the majority attend urgent care facilities or store-based walk-in clinics. Uninsured respondents are more likely to seek care at a free or low-cost clinic or health center or the emergency room when compared to those with private coverage.

Exhibit 63: Survey Responses, 2012 – Routine Medical Care

Response	Insurance Coverage		
	All Types	Private Coverage	Uninsured/ Medicaid
Private medical professional (MD, APN, PA)	87.5%	93.5%	11.1%
Urgent care facility or store-based walk-in clinic	7.2%	7.8%	5.6%
Hospital emergency room	6.6%	3.9%	38.9%
Provider of alternative medicine	5.9%	5.2%	5.6%
Other	5.3%	3.0%	5.6%
Free or low-cost clinic or health center	3.6%	0.9%	50.0%
No routine medical care received	3.6%	1.7%	38.9%

All Types (N=304), Private Coverage (N=232), Uninsured/Medicaid (N=18).
Source: Inova Community Survey, 2012.

Exhibit 64 presents the accessibility of various types of healthcare. Few respondents had difficulty accessing basic medical care. Survey data indicate that dental care, medical specialty care, and medicine and supplies are less accessible. Thirteen percent of respondents reported rarely or never being able to get needed mental health care – the least accessible of the five health care types.

Exhibit 64: Survey Responses, 2012 – Able to Get Needed Care

Response	Percent of Respondents				
	Basic Medical Care	Dental Care	Mental Health Care	Medical Specialty Care	Medicine and Supplies
Always	90.2%	84.8%	71.9%	82.2%	86.3%
Sometimes	7.2%	9.6%	15.2%	12.8%	9.7%
Rarely	1.6%	4.0%	4.8%	2.7%	2.7%
Never	1.0%	1.7%	8.1%	2.3%	1.3%

Basic Medical Care (N=306), Dental Care (N=303), Mental Health Care (N=270), Medical Specialty Care (N=298), Medicine and Supplies (N=300)
Source: Inova Community Survey, 2012.

Exhibit 65 presents the percentage of respondents who reported "always" being able to get needed care by subregion; data indicate that access varies by type of care and locality. A higher percentage of respondents from Lincolnia/Bailey's Crossroads, Mt. Vernon North, and Mt. Vernon South/Ft. Belvoir reported difficulty accessing care compared to other subregions. Across all subregions, fewer people were able to get mental health care, medical specialty care, and medicine and supplies.

Exhibit 65: Survey Responses, 2012 – Always Able to Get Needed Care by Subregion

Subregion	Percent of Respondents				
	Basic Medical Care	Dental Care	Mental Health Care	Medical Specialty Care	Medicine and Supplies
Alexandria/Old Town	92.9%	91.3%	75.4%	85.5%	91.3%
Franconia/Kingstowne	93.5%	87.1%	72.0%	89.7%	90.3%
Lincolnia/Bailey's Crossroads	81.3%	74.2%	60.0%	74.2%	74.2%
Lorton/Newington*	100.0%	100.0%	77.8%	88.9%	100.0%
Mt. Vernon North	87.5%	75.0%	61.5%	75.0%	68.8%
Mt. Vernon South/Ft. Belvoir	79.4%	75.8%	48.3%	72.7%	72.7%
Shirlington/South Arlington	92.0%	76.0%	80.0%	76.0%	88.0%
Springfield	96.4%	92.7%	83.7%	88.9%	96.3%
West Alexandria	87.9%	81.8%	75.9%	81.3%	84.4%
All Subregions	**90.2%**	**84.8%**	**71.9%**	**82.2%**	**86.3%**

Key	
Least able to get needed care (bottom 25% of responses)	
Small sample size (N=10 or less)	*

Basic Medical Care (N=306), Dental Care (N=303), Mental Health Care (N=270), Medical Specialty Care (N=298), Medicine and Supplies (N=300)

Source: Inova Community Survey, 2012.

Respondents indicating they are not always able to get care were asked to identify barriers to access (**Exhibits 66 and 67**). Cost and lack of insurance were the two most frequently reported barriers to care.

Data indicate that females had more difficulty with cost of care, language barriers, and lack of insurance than males, while males more often cited inconvenient hours as a barrier to access. A higher percentage of male respondents reported lack of trust as a barrier to accessing basic medical care and medical and specialty care compared to females (**Exhibit 66**).

Exhibit 66: Survey Responses, 2012 – Barriers to Care

Type of Care and Sex	Percent of Respondents								Total Respondents (N)
	Can't Afford It	Can't Get Appointment	Inconvenient Hours	Lack of Transportation	Lack of Trust	Language Barrier	No Insurance	Other	
Male									
Basic Medical Care	0.0%	0.0%	25.0%	0.0%	25.0%	0.0%	25.0%	25.0%	(4)
Dental Care	20.0%	20.0%	20.0%	0.0%	0.0%	0.0%	20.0%	20.0%	(5)
Mental Health Care	11.1%	0.0%	11.1%	0.0%	0.0%	0.0%	22.2%	55.6%	(9)
Medical Specialty Care	25.0%	25.0%	25.0%	0.0%	25.0%	0.0%	25.0%	0.0%	(4)
Medicine and Medicinal Supplies	25.0%	0.0%	25.0%	0.0%	0.0%	0.0%	25.0%	50.0%	(4)
Female									
Basic Medical Care	34.5%	24.1%	17.2%	0.0%	3.4%	6.9%	51.7%	10.3%	(29)
Dental Care	62.2%	5.4%	5.4%	0.0%	2.7%	5.4%	48.6%	8.1%	(37)
Mental Health Care	43.5%	17.4%	7.2%	0.0%	2.9%	5.8%	27.5%	34.8%	(69)
Medical Specialty Care	40.5%	21.4%	19.0%	0.0%	2.4%	4.8%	40.5%	11.9%	(42)
Medicine and Medicinal Supplies	64.5%	3.2%	0.0%	0.0%	0.0%	6.5%	41.9%	19.4%	(31)
Total									
Basic Medical Care	30.3%	21.2%	18.2%	0.0%	6.1%	6.1%	48.5%	12.1%	(33)
Dental Care	57.1%	7.1%	7.1%	0.0%	2.4%	4.8%	45.2%	9.5%	(42)
Mental Health Care	39.7%	15.4%	7.7%	0.0%	2.6%	5.1%	26.9%	37.2%	(78)
Medical Specialty Care	39.1%	21.7%	19.6%	0.0%	4.3%	4.3%	39.1%	10.9%	(46)
Medicine and Medicinal Supplies	60.0%	2.9%	2.9%	0.0%	0.0%	5.7%	40.0%	22.9%	(35)

Source: Inova Community Survey, 2012.

Exhibit 67 presents the responses of residents from the entire Inova Health System who chose "Other" as a barrier to care. Due to the small sample size of Inova Alexandria community respondents who chose "Other," these data are reported based on responses from the Inova Health System as a whole. Sixty-six percent of all "Other" responses stated that residents did not need one or more of the care types listed. The most common "Other" barriers reported include lack of services and in-plan providers for adult and pediatric mental health, difficulty with referrals and care coordination for specialty care, and insufficient health insurance coverage.

Exhibit 67: Survey Responses, 2012 – "Other" Barriers to Care

"Other" Responses	Percent of "Other" Responses*
Do Not Need Services	65.5%
Basic Medical Care	
Lack of primary care providers	0.6%
Dental Care	
Lack of in-plan providers	0.6%
Mental Health	
Lack of services and in-plan providers	5.2%
No description	3.4%
Lack of services and in-plan providers for pediatric mental health	2.9%
Insufficient insurance coverage	2.3%
Stigma regarding mental health treatment	1.7%
Difficulty navigating insurance	0.6%
Specialty Care	
Difficulty with referrals/care coordination	2.3%
Lack of services and in-plan providers	1.7%
Lack of convenient appointment times	0.6%
Medicine and Supplies	
Insufficient medication coverage	3.4%
Uninsured	0.6%
Doctor-related prescription issues	0.6%
Pharmacy-related prescription issues	0.6%
Inconvenience	0.6%
General	
Insufficient insurance coverage	2.9%
Difficult for disabled residents to access services and providers	1.1%
Lack of Medicare providers and insufficient coverage	0.6%
Difficulty navigating insurance	0.6%
Lack of providers	0.6%
Uninsured or underinsured	0.6%
No description	0.6%

*Percentages are based on the number of "Other" responses received from the Inova Health System respondents as a whole.
N= 174
Source: Inova Community Survey, 2012.

4. Health Behaviors

Respondents were asked about health risk behaviors and outcomes as well as the vaccines and screenings they have received.

Exhibit 68 illustrates the percentage of residents who reported adverse risk behaviors and outcomes. Being overweight and not exercising on a regular basis were the most frequently cited behaviors in the community.

Exhibit 68: Survey Responses, 2012 – Risk Behaviors

Behaviors	Percent of Respondents	Total Respondents (N)
Overweight	47.5%	(305)
No regular exercise	41.3%	(298)
Former smoker	34.9%	(301)
Children or grandchildren overweight	16.2%	(302)
Current smoker/tobacco user	5.9%	(307)

Source: Inova Community Survey, 2012.

48% of respondents reported being overweight

Exhibit 69 presents the percentage of respondents who reported receiving certain vaccines by sex and age cohort. The percentage of respondents aged 15-44 who received flu vaccines, respondents aged 45 and older who received hepatitis A and B vaccines, respondents aged 15-44 and females aged 45 and older who received a pneumonia vaccine, and respondents aged 45+ who received Tdap vaccines compared unfavorably to other cohorts. Fewer than 30 percent of respondents reported receiving human papillomavirus (HPV), meningococcal, and varicella vaccines.

Exhibit 69: Survey Responses, 2012 – Vaccines

Vaccine	Percent of Respondents by Age			
	Males 15-44	Females 15-44	Males 45+	Females 45+
Flu / influenza in the last year	75.0%	73.3%	94.6%	90.6%
Hepatitis A	37.5%	40.0%	16.2%	24.4%
Hepatitis B	50.0%	64.0%	21.6%	36.3%
Human papillomavirus (HPV) before the age of 26	0.0%	22.7%	-	-
Meningococcal	12.5%	28.0%	2.7%	2.5%
MMR (measles, mumps, rubella) if you were born after 1957	75.0%	68.0%	-	-
Pneumonia / pneumococcal	0.0%	10.7%	40.5%	27.5%
Tdap (tetanus, diptheria, pertussis) every 10 years	75.0%	70.7%	37.8%	53.1%
Varicella (chicken pox) if you've never had chicken pox	25.0%	20.0%	10.8%	6.9%
Zoster (shingles) if you are age 60+	-	-	40.5%	23.1%

Males 15-44 (N = 8), females 15-44 (N = 75), males 45+ (N = 37), females 45+ (N = 160)
Source: Inova Community Survey, 2012.

Exhibit 70 identifies the percentage of respondents who reported receiving certain health screenings by sex and age cohort. The percentage of females aged 45 and older who were screened for cervical cancer, the percentage of females aged 15-44 who were screened for high or low blood pressure, and the percentage of males aged 15-44 who were screened for high or low blood sugar compared unfavorably to other cohorts. Twenty percent or fewer male respondents aged 15-44 and respondents aged 45 and older reported being screened for sexually transmitted infections.

Exhibit 70: Survey Responses, 2012 – Health Screenings

Preventive Screening	Percent of Respondents by Age			
	Males 15-44	Females 15-44	Males 45+	Females 45+
Breast cancer (mammogram) in the last year	-	-	-	82.2%
Colorectal cancer (colonoscopy) in the last 5 years	-	-	71.1%	65.1%
Cervical cancer (Pap test)	-	82.9%	-	55.6%
High cholesterol	80.0%	74.3%	94.7%	78.7%
High or low blood pressure	100.0%	77.1%	92.1%	84.0%
High or low blood sugar	40.0%	61.4%	71.1%	63.3%
Prostate cancer in the last year	-	-	65.8%	-
Sexually transmitted infections	20.0%	51.4%	15.8%	11.2%

Males 15-44 (N = 5), females 15-44 (N = 70), males 45+ (N = 38), females 45+ (N = 169)
Source: Inova Community Survey, 2012.

Individuals Providing Community Input

Twenty-five key stakeholders participated in the interview process. The 25 stakeholders were comprised of public health experts; individuals from health or other departments and agencies; leaders or representatives of medically underserved, low-income, and minority populations; and other community members **(Exhibits 71, 72, 73, and 74**).

1. Public Health Experts

Individuals interviewed with special knowledge of or expertise in public health include (**Exhibit 71**):

Exhibit 71: Public Health Experts Interviewed

Name	Title	Affiliation or Organization	Special Knowledge or Expertise
Anthony Burchard	President	Inova Health System Foundation	Mr. Burchard has special expertise in public health due to his time funding and planning public health programs through Project Hope.
Dr. Stephen A. Haering	Health Director	Alexandria Health Department (Virginia Department of Health)	Dr. Haering is a Diplomate of the American Board of Preventive Medicine (specialty: Public Health & General Preventive Medicine) and a Fellow of the American College of Preventive Medicine. Dr. Haering has more than 10 years of experience in various public health settings. He has worked with the Virginia Department of Health since 2008 and has served as the Health Director of the Alexandria Health Department since August 2010.
Francine Jupiter	Mt. Vernon District Rep.	Fairfax County Health Care Advisory Board	Ms. Jupiter's educational background is in public health; she has worked as the Director of Social Services at Alexandria City Health Department, is a member of the Fairfax County Health Care Advisory Board, and is particularly knowledgeable about medical insurance claims issues and patient advocacy.
Dr. Charles Konigsberg, Jr.	Board Vice President	Alexandria Neighborhood Health Services Inc.	Dr. Konigsberg has special expertise in public health through his career in health departments in four states; he is the former Health Director at the Alexandria City Health Department.

2. Health or Other Departments or Agencies

Several interviewees were from departments or agencies with current data or other information relevant to the health needs of the Inova Alexandria community (**Exhibit 72**). This list excludes the public health experts identified in **Exhibit 71**.

Exhibit 72: Individuals from Health Departments or Agencies Interviewed

Name	Title	Affiliation or Organization
Kerry Donley	Vice Mayor	City of Alexandria
William Euille	Mayor	City of Alexandria
Michele Evans	Deputy City Manager	City of Alexandria
Jay Fisette	Member	Arlington County Board

3. Community Leaders and Representatives

The following individuals were interviewed because they are leaders or representatives of medically underserved, low-income, and/or minority populations (**Exhibit 73**). This list excludes the public health experts identified in **Exhibit 71**.

Exhibit 73: Community Leaders or Representatives Interviewed

Name	Title	Affiliation or Organization	Nature of Leadership Role
Mary Agee	Executive Director	Northern Virginia Family Services	Mrs. Agee represents the underserved patients who receive services at Northern Virginia Family Services and the low-income workers who are connected with healthcare jobs through the Training Futures program.
Anne Andrews	Member, Board of Directors	Alexandria Neighborhood Health Services Inc.	As a Board Member at Alexandria Neighborhood Health Services, Inc. (ANHSI), Anne Andrews serves as a representative of the low-income population receiving services at the clinic.
George Barker	Senator	Virginia General Assembly	Senator Barker represents vulnerable populations in Northern Virginia who seek public health services.
Dr. Ji-Young Cho	Program Director	Korean Community Service Center of Greater Washington	Dr. Cho serves as a leader of the Asian American community who utilize services and programs through the Korean Community Service Center of Greater Washington.
Denise Garcia	ADA Compliance Administrator	Inova Health System	Ms. Garcia represents populations in Northern Virginia who require resources and facilities that are ADA compliant.
Herb Lea	Executive Director Chair	United Community Ministries	Mr. Lea works represents the underprivileged populations receiving services at United Community Ministries.
Nury Marquez	Executive Director	Hispanic Committee of Virginia	Ms. Marquez is an active community leader who represents the Hispanic (or Latino) population in Northern Virginia.
Rod Williams	VP, Community Affairs	Inova Health System	Mr. Williams represents the underserved populations receiving support through Inova's programs that provide nutritional support, healthy habits education, and community based learning.
Dr. Tom Wilson	Executive Director	Northern Virginia Dental Clinic	Dr. Wilson represents vulnerable populations receiving dental care at the Northern Virginia Dental Clinic and at events, such as Mission of Mercy, that help underserved populations receive dental care.

4. Persons Representing the Broad Interests of the Community

Exhibit 74: Other Interviewees Representing the Broad Interests of the Community

Name	Title	Affiliation or Organization
Huey J. Battle	Regional Manager, Community Involvement	Washington Gas Chair, VA Workforce Council
Dr. Vera Dvorak	Medical Director for Case Management	Inova Health System
Dr. Loring Flint	Executive Vice President & Chief Medical Officer	Inova Health System
William H. Gary, Sr.	Vice President	Northern Virginia Community College
Lori Morris	Vice Chair	Inova Health Care Services Board
Nicole Paulk	VP, Strategic Planning/Innovation	Inova Health System
David West	Lee District Rep.	Fairfax County Health Care Advisory Board
Dr. Timothy Yarboro	At-Large	Fairfax County Health Care Advisory Board

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