Community Health Needs Assessment

Prepared for
WINCHESTER MEDICAL CENTER
of Valley Health

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 assessments and develop implementation strategies that address priority needs. The firm also helps hospitals, 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 community health needs assessment prepared for Winchester Medical Center was directed by the firm's Vice President and managed by a senior-level consultant. Associates and research analysts supported the work. The firm's 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 a fundamental goal to assist in strengthening the health of communities and vulnerable populations, and the organizations that serve them

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EXECUTIVE SUMMARY

Introduction

This community health needs assessment (CHNA) was conducted by Winchester Medical Center (WMC or the hospital) to identify community health needs and to inform the subsequent development of an implementation strategy to address identified priority needs. The hospital's assessment of community health needs also responds to community benefit regulatory requirements.

Federal regulations require that tax-exempt hospital facilities conduct a CHNA every three years and develop an implementation strategy that addresses priority community health needs. Tax-exempt hospitals also are required to report information about community benefits they provide on IRS Form 990, Schedule H. 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 and programs seek to achieve several 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."

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 separate implementation strategy.

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

Methodological Summary

Community health needs were identified by collecting and analyzing data and information from multiple sources. Statistics for numerous health status, health care access, and related indicators were analyzed, including comparisons to benchmarks where possible. The principal findings of recent health assessments conducted by other organizations were reviewed, as well.

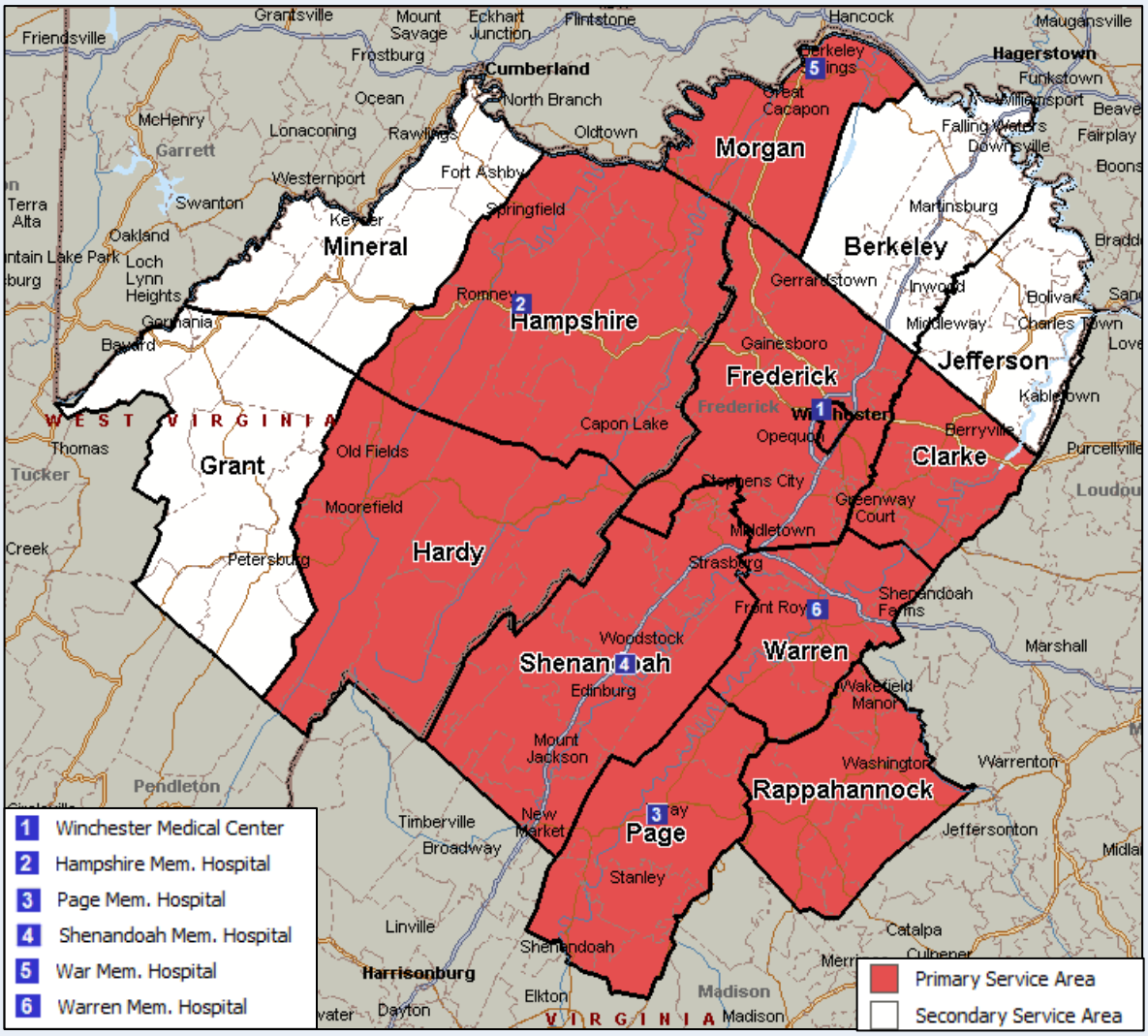
Input from persons representing the broad interests of the community, including individuals with special knowledge of or expertise in public health, were taken into account via interviews and, three community response sessions with 117 key informants and a community survey with 1,077 respondents.

Verité applied a ranking methodology to help prioritize the community health needs identified, incorporating both quantitative and qualitative data throughout. Scores for the severity and scope of identified health needs were assigned and calculated using weighted averages taking into account multiple data sources. Major themes discussed in the community response sessions were compared to the scored health issues to aid in identifying the prioritized list of health needs.

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

WMC collaborated with the other Valley Health hospitals for this assessment: Hampshire Memorial Hospital, Page Memorial Hospital, Shenandoah Memorial Hospital, War Memorial Hospital, and Warren Memorial Hospital.

Definition of the Community



Winchester Medical Center Community by the Numbers

- Community includes 13 counties in Virginia and West Virginia, plus Winchester City in Virginia
- Total population in 2013: 495,381
- Projected population change between 2013 and 2018: 2.8%
    - Population declines expected in five West Virginia counties
- Comparatively high unemployment rates and pockets of poverty
- 94.7% of inpatient discharges and 94.5% of emergency department visits originated from the community
- Demographics:
    - Projected growth of 17% in 65+ population
    - 89.4% White in 2013, with projected growth in non-White populations
    - Comparatively low rates of high school graduation

Prioritized Description of Community Health Needs

The CHNA identified and prioritized several community health needs using the data sources, analytic methods, and prioritization process and criteria described in the Methodology section. These needs are listed below in priority order and described on the following pages, with examples of the data supporting the determination of each health need as a priority. Further detail regarding supporting data, including sources, can be found in the CHNA Data and Analysis section of this report.

List of Prioritized Health Needs

1. Access to Primary and Preventive Care
2. Mental and Behavioral Health
3. Substance Abuse and Tobacco Smoking
4. Physical Activity, Nutrition, and Obesity-related Chronic Diseases
5. Oral Health and Dental Care
6. Financial Hardship and Basic Needs Insecurity

To provide insight into trends, a comparison to findings from WMC's July 2010 CHNA is included below the description and key findings of each priority need.

1. Access to Primary and Preventive Care

Access to primary and preventive health care services through a doctor's office, clinic or other appropriate provider is an important element of a community's health care system, and is vital for helping the community's residents to be healthy. The ability to access care is influenced by many factors, including insurance coverage and the ability to afford services, the availability and location of health care providers, and reliable personal or public transportation.

Key Findings

- The number of primary care physicians per 100,000 population is below the Virginia and West Virginia averages in all areas except Winchester City, according to the Health Resources and Services Administration. Six of WMC's 13 service area counties are Medically Underserved Areas, two are Health Professional Shortage Areas for primary care, and Winchester City has Medically Underserved Populations.
- Five of six Virginia counties and four of seven West Virginia counties in the service area ranked in the bottom half of all counties in their respective states on "access to care" in the County Health Rankings.

- Eight of the nine counties in WMC's primary service area – plus Winchester City – have higher percentages of uninsured residents than their respective states, according to the U.S. Census. Ten counties overall have higher percentages of uninsured residents than their respective states. Eight of the 13 counties have higher percentages of uninsured residents than the U.S.
- Concerns about access to care were the second most frequently mentioned factor contributing to poor health in key informant interviews.
- Lack of accessible or reliable transportation to health care and a lack of providers who accept new Medicaid and even Medicare patients were the most frequently mentioned specific access to care issues in interviews, especially for low-income individuals and senior citizens.
- Twenty-three percent of survey respondents reported not being able to always get needed primary care.

Comparison to July 2010 CHNA: Access to affordable health care was one of the priority issues identified in WMC's July 2010 CHNA, for reasons including: a lack of providers relative to the population; affordability and uninsurance; and the challenges of unemployment and low income.

2. Mental and Behavioral Health

Mental and behavioral health includes both mental health conditions (e.g., depression, autism, bi-polar) and behavioral problems (e.g., bullying, suicidal behavior). Poor mental and behavioral health causes suffering for both those afflicted and the people around them. It can negatively impact children's ability to learn in school, and adults' ability to be productive in the workplace and to provide a stable and nurturing environment for their families. Poor mental or behavioral health frequently contributes to or exacerbates problems with physical health and illness.

Key Findings

- Seven of the 13 counties in WMC's overall service area are Health Professional Shortage Areas for mental health; five counties in the primary service area are mental health HPSAs.
- The suicide rate in eight of the nine counties in the overall service area for which data were available was worse than their respective states' rates, according to the state health departments in Virginia and West Virginia.
- Mental and behavioral health was the most frequently mentioned health status issue by key informant interview participants. Interviewees generally reported that the community's mental health needs have risen, while mental health service capacity has not.
- Interview participants described a wide range of mental health issues, including for example: bullying among youth, autism spectrum symptoms and diagnoses, depression among senior citizens, adult and family stress and coping difficulties associated with unemployment and under-employment, a lack of affordable outpatient mental health

professionals, and a lack of local inpatient treatment facilities. Interviewees also noted frequent dual diagnoses of mental health problems and substance abuse.

- Mental health was among the top ten most frequently mentioned "top health-related issues" in the community by survey respondents, and 35 percent answering a question about mental health care said they rarely or never could get needed care.

Comparison to July 2010 CHNA: Mental health care was one of the priority issues identified in WMC's July 2010 CHNA, for reasons including: the presence of mental health HPSAs; unfavorable suicide rates compared to the commonwealth's average; frequent mentions by interview participants of both mental health needs and a lack of treatment options; and focus groups identifying substance abuse and mental health as the second highest health priority.

3. Substance Abuse and Tobacco Smoking

Substance abuse includes the use of: illicit substances (e.g., cocaine, heroin, methamphetamine, and marijuana); misuse of legal over-the-counter and prescription medications; and abuse of alcohol. Substance abuse affects not only the abusing individuals, but also those around them with negative impacts on health, safety and risky behaviors, risks of violence and crime, adults' productivity, students' ability to learn, and families' ability to function. Tobacco smoking is well-documented to be a risk factor for various forms of cancer, heart disease and other ailments, and to pose health risks for those exposed to secondhand smoke.

Key Findings

- Rates of adult tobacco use in five of WMC's primary service area counties place them in the bottom (worse) half of counties in their respective states, according to County Health Rankings. An indicator of excessive drinking and motor vehicle crash death rates places six service area counties in the bottom (worse) half of their respective states' county rankings.
- Substance abuse was the second most frequently mentioned health status issue by key informant interview participants, and was portrayed as both growing and serious. Interviewees reported recent increases in the abuse of prescription pain medications, including "pill parties" among youth and drug-seeking behavior in physicians' offices and hospital emergency departments. Abuse of over-the-counter medications by youth was mentioned, as well.
- Interviewees cited a lack of local treatment services, particularly inpatient facilities, for people with substance abuse problems. Some interviewees reported that substance abuse and addiction among pregnant women is creating more perinatal and neonatal health problems. As noted above for mental health needs, dual diagnoses of substance abuse and mental health problems are not uncommon.
- Tobacco use was among the five most frequently mentioned "top health-related issues" in the community by survey respondents, and substance abuse was among the top ten. Survey respondents with Medicare coverage (and therefore age 65 and over) were much more likely (22.5%) than the overall respondent group (13.2%) to report drinking alcohol ten or more days in the past month

Comparison to July 2010 CHNA: Substance abuse was one of the priority issues identified in WMC's July 2010 CHNA, for reasons including: alcohol use as reported by County Health Rankings; frequent mentions as a serious issue by interview participants; and focus groups identifying substance abuse and mental health as the second highest health priority.

4. Physical Activity, Nutrition, and Obesity-related Chronic Diseases

A lack of physical activity and poor nutrition are contributing factors to overweight and obesity, and to a wide range of health problems and chronic diseases among all age groups, including high cholesterol, hypertension, diabetes, heart disease, stroke, some cancers, and more. Nationally, the increase in both the prevalence of overweight and obesity and associated chronic diseases is well-documented, and has negative consequences for individuals and society. Low-income and poverty often contributes to poor nutrition and to hunger.

Key Findings

- Food deserts – low-income areas more than one mile from a supermarket or large grocery store in urban areas and more than 10 miles from a supermarket or large grocery store in rural areas – exist in six of the nine counties plus Winchester city in WMC's primary service area. In the secondary service area, food deserts exist in two of four counties.
- Ninety-eight schools in the WMC community, located in every county except for Clarke, had 40 percent or more of their students eligible for free and reduced-price lunches, indicating risks of poor nutrition and hunger.
- In key informant interviews, obesity and overweight was the fourth most frequently mentioned health status issue as being important to the community, and diabetes was the sixth most frequent.
- Commenting on the contributing factors to poor health status, interview participants mentioned nutrition and diet, low physical activity and exercise, and food insecurity and hunger all in the top ten. Many commented on both the relative lack of affordable, healthy food choices in some parts of the community, and children at risk of hunger on weekends and during summers when school lunch programs are not available. Obesity was reported to be rising among children and youth.
- In the survey, obesity, diabetes, not enough exercise, and poor dietary choices were four of the six most frequently mentioned "top health-related issues" in the community; heart disease was in the top ten. Among survey respondents who speak Spanish at home, limited access to healthy food, poor dietary choices, and not enough exercise were tied as the second-ranked health issues, behind diabetes and low income (which tied for first).
- In the survey, 28.3 percent of respondents reported not being physically active, 36.2 percent reported eating less than the recommended amount of fruit, and 63.7 percent reported eating less than the recommended amount of vegetables. These figures were higher in all cases among respondents with Medicaid or no health insurance, and among those without a college degree.

Comparison to July 2010 CHNA: Physical activity, nutrition, and obesity-related chronic diseases were not one of the top health priority areas identified in WMC's July 2010 CHNA, but chronic disease and obesity were among the top two health status issues reported in that assessment's survey. The need for health education and outreach programs that focus on healthy habits was a key theme from the 2010 assessment's focus groups. Participants in key informant interviews in 2013 reported obesity prevalence now being as bad as or worse than two to three years ago.

5. Oral Health and Dental Care

Oral health and dental health care is important for overall health, and poor dental health can have negative social, employment and economic consequences for individuals, as well. Income levels and the presence or lack of insurance coverage for dental care are important determinants of the ability to obtain preventive and restorative dental care.

Key Findings

- Six of the counties in WMC's service area are Health Professional Shortage Areas for dental care. These data are affirmed in the County Health Rankings' reported population-to-dentist ratios. Frederick County's dentist ratio was more than 75 percent worse than the U.S. average.
- Virginia eliminated funding for commonwealth-supported dental clinics statewide in FY 2013 and FY 2014.
- Oral health and dental care was the third most frequently mentioned health status issue by key informant interview participants. The issue was discussed in terms of poor dental hygiene, tooth decay in children and youth in addition to adults, and a lack of affordable, preventive dental health services.
- Interview participants stated access to dental care is very difficult for low income and uninsured individuals, particularly in less populated areas. In addition to private practice dentists, some clinics offer dental services, but some are able to perform extractions only.
- Interview and community response session participants noted that Medicaid covers dental care only for children and youth, and that not all dentists accept Medicaid patients. For low income, uninsured adults needing expensive restorative care, tooth extractions are sometimes the only practical option.
- Oral health challenges were reported by interview participants as affecting people across the age spectrum, with some reporting increasing incidence of severe decay among children and others stating that access to dental care – as for access to other care – was particularly difficult for elderly members of the community who may have transportation limitations and be socially isolated.

Comparison to July 2010 CHNA: Oral health and dental care were not one of the top health priority areas identified in WMC's July 2010 CHNA, but five of the six counties that are Health Professional Shortage Areas in 2013 were also shortage areas in the 2010 assessment.

6. Financial Hardship and Basic Needs Insecurity

Income levels, employment and degrees of economic self-sufficiency are known to be highly correlated with the prevalence of a range of health problems and factors that contribute to poor health. People with lower income or who are unemployed or underemployed are less likely to have health insurance or to be able to afford health care expenses paid out-of-pocket. Lower income is also associated with increased difficulties securing reliable transportation, including to medical care visits, and with the ability to purchase an adequate quantity of healthy food on a regular basis. For these and other reasons, the assessment identified financial hardship and basic needs insecurity as a priority health need in the community.

Key Findings

- The community as a whole has experienced a 19 percent increase in the percentage of households with incomes under $25,000 since 2009.
- Eight of the nine counties in WMC's primary service area – plus Winchester City – have higher percentages of uninsured residents than their respective states, according to the U.S. Census. Ten counties overall have higher percentages of uninsured residents than their respective states. Eight of the 13 counties have higher percentages of uninsured residents than the U.S.
- Governmental budgets at the state and local levels for health and public health-related services were generally flat or declining across the community, although there are differences by county, state and specific service.
- Low income and poverty was the top issue believed to be contributing to poor health status and to access to care difficulties, by participants in key informant interviews. Other income-related factors noted to be contributing to poor health include difficulty with transportation access (third most frequently mentioned), food insecurity and hunger, and homelessness.
- The economic downturn of the past several years was mentioned by interview participants as taking a toll on health in numerous ways, reducing access to health care and the ability to maintain a healthy lifestyle, and increasing stress and social instability.
- In the survey, low income and financial challenges was the second most frequently mentioned "top health-related issue" in the community, ahead of every other factor except for obesity. For survey respondents who reported not being able to always get the care they needed, affordability and a lack of insurance coverage were the most frequently stated reasons.

Comparison to July 2010 CHNA: Financial hardship and basic needs insecurity was not one of the top health priority areas identified in WMC's July 2010 CHNA, but that assessment did note several financial hardship measures relevant to health. The study reported that 21 percent of households in the community had annual incomes below $25,000, and that poverty and unemployment was comparatively high in significant parts of the region. Lack of access to affordable health care was considered the third highest priority in the 2010 assessment's focus groups.

CHNA DATA AND ANALYSIS

METHODOLOGY

Data Sources and Analytic Methods

Community health needs were identified by collecting and analyzing data and information from multiple quantitative and qualitative sources. Considering information from a variety of sources is important when assessing community health needs, to ensure the assessment captures a wide range of facts and perspectives and to assist in identifying the highest-priority health needs.

Statistics for numerous health status, health care access, and related indicators were analyzed, including from local, state, and federal public agencies, community service organizations in the WMC community, and from Valley Health. Comparisons to benchmarks were made where possible. Details from these quantitative data are presented in the report's body, followed by a review of the principal findings of health assessments conducted by other organizations in the community in recent years.

Input from persons representing the broad interests of the community was taken into account via: interviews with 101 key informants in April and May 2013; a community survey with 1,077 respondents; and three "community response sessions" with interviewees and 16 additional community stakeholders in June 2013 where preliminary findings were discussed. Interviews and community response sessions included: individuals with special knowledge of or expertise in public health; local and state health and other departments, and agencies with current data or information about the health needs of the community; and leaders, representative and members of medically underserved, low-income, and minority populations, and populations with chronic disease needs. Feedback from community response session participants helped to validate findings and prioritize identified health needs.

Prioritization Process and Criteria

Verité applied a ranking methodology to help prioritize the community health needs identified by the assessment, incorporating both quantitative and qualitative data throughout. Scores were calculated for each category of data (secondary data, previous assessments, survey, and interviews) based on the number of sources that measured each health issue and the severity of the issue as measured by the data and as indicated by community input. Scores were averaged and assigned a weight for each data category: 40 percent, 10 percent, 10 percent, and 40 percent, respectively. All identified health issues were assigned scores for severity and scope. Major themes discussed by participants in the community response sessions were compared to the scored health issues.

Information Gaps

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

Collaborating Organizations

WMC collaborated with the other Valley Health hospitals for this assessment: Hampshire Memorial Hospital, Page Memorial Hospital, Shenandoah Memorial Hospital, War Memorial Hospital, and Warren Memorial Hospital.

Valley Health's internal project team included Mark Merrill, Valley Health President and Chief Executive Officer, and President of Winchester Medical Center; Wes Williams, Vice President of Marketing and Public Relations; Todd Way, Senior Vice President of Regional Operations; Chris Rucker, Vice President of Community Health and Wellness and President of Valley Regional Enterprises; Tom Urtz, Corporate Director of Marketing and Public Relations; Gregory Hudson, Corporate Director of Planning and Business Development; and Mary Zufall, Community Health Coordinator.

WMC also collaborated with a variety of individuals through its five workgroups that focus on access to primary care; health, outreach, and prevention; mental health and substance abuse; family developmental and social health; and the local environment and social work.

Additionally, lists of the interviewees and community response session participants are provided in **Exhibits 60** through **63** of the report.

DEFINITION OF COMMUNITY ASSESSED

This section identifies and describes the community assessed by WMC and how it was determined.

WMC's community is comprised of 14 counties (114 ZIP codes) in Virginia and West Virginia. The hospital's primary service area (PSA) includes Clarke, Frederick, Page, Rappahannock, Shenandoah, and Warren Counties and the City of Winchester in Virginia and Hampshire, Hardy, and Morgan Counties in West Virginia. The secondary service area (SSA) is composed of Berkeley, Grant, Jefferson, and Mineral Counties in West Virginia (**Exhibit 1)**. The hospital is located in Winchester, Virginia.

Exhibit 1: Community Population, 2013

County/City	Total Population 2013	Percent of Total Population
PSA	**291,342**	**58.8%**
Clarke, VA	16,482	3.3%
Frederick, VA	78,767	15.9%
Hampshire, WV	22,798	4.6%
Hardy, WV	14,212	2.9%
Morgan, WV	16,538	3.3%
Page, VA	23,795	4.8%
Rappahannock, VA	10,667	2.2%
Shenandoah, VA	43,823	8.8%
Warren, VA	36,309	7.3%
Winchester, VA	27,951	5.6%
SSA	**204,039**	**41.2%**
Berkeley, WV	107,978	21.8%
Grant, WV	11,405	2.3%
Jefferson, WV	56,893	11.5%
Mineral, WV	27,763	5.6%
Total	**495,381**	**100.00%**

Source: Nielsen-Claritas, via Valley Health, 2013.

The WMC community included 495,381 people in 2013

…

The primary service area accounts for 59% of the total community's population

In 2013, the WMC community was estimated to have a population of approximately 495,000 persons. Approximately 59 percent of the population resided in the primary service area (**Exhibit 1**).

This community definition was validated based on the geographic origins of WMC inpatients and emergency department encounters (**Exhibit 2**).

Exhibit 2: Inpatient and Emergency Department Discharges, 2012

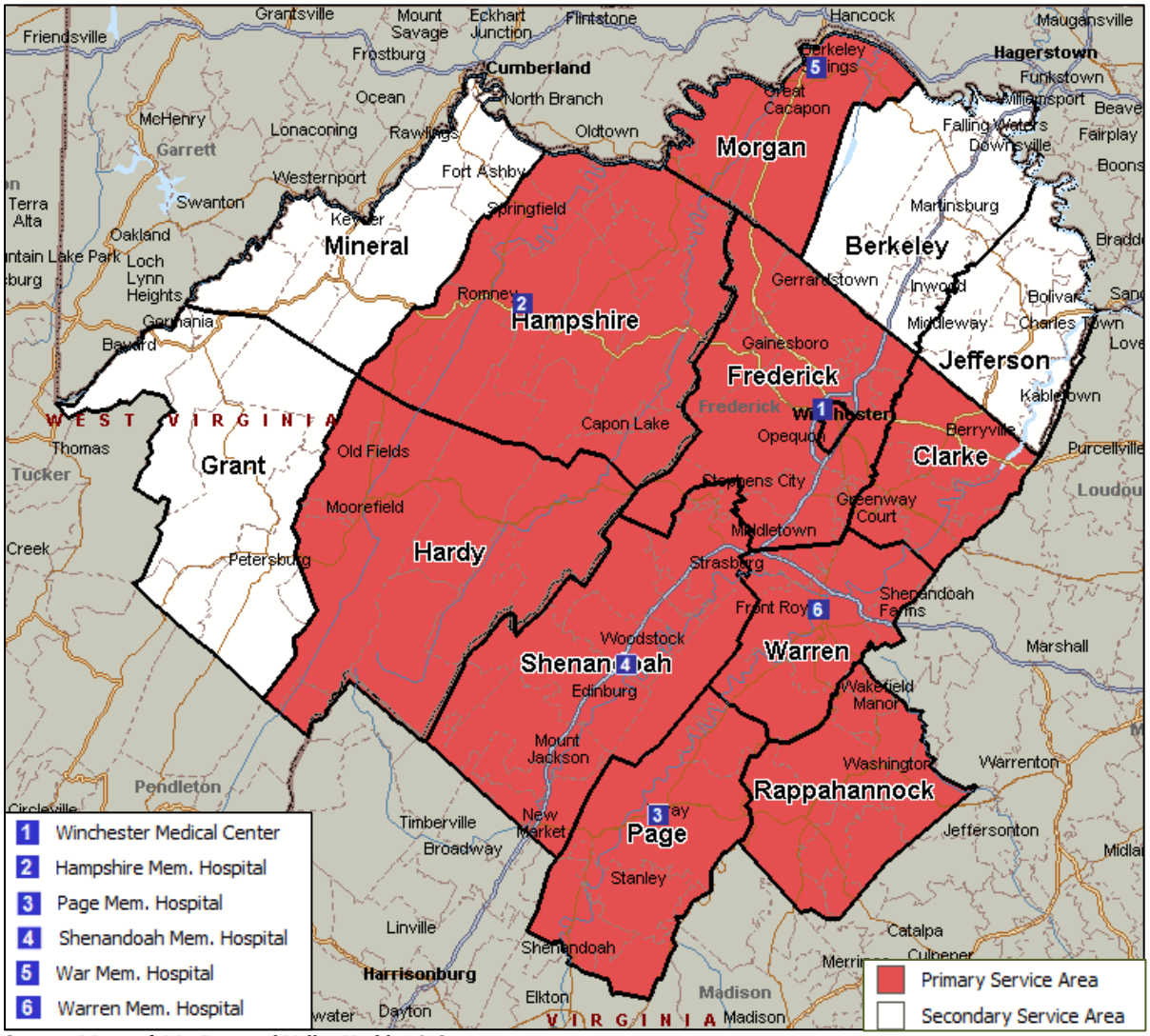
County/ City	Number of Inpatient Discharges	Percent of Inpatient Discharges	Number of ED Discharges	Percent of ED Discharges
PSA	**20,352**	**77.2%**	**55,569**	**81.1%**
Clarke, VA	1,344	5.1%	3,687	5.4%
Frederick, VA	7,452	28.3%	25,533	37.3%
Hampshire, WV	1,656	6.3%	3,522	5.1%
Hardy, WV	690	2.6%	1,280	1.9%
Morgan, WV	1,030	3.9%	1,856	2.7%
Page, VA	506	1.9%	303	0.4%
Rappahannock, VA	75	0.3%	102	0.1%
Shenandoah, VA	2,342	8.9%	3,929	5.7%
Warren, VA	1,827	6.9%	2,300	3.4%
Winchester, VA	3,430	13.0%	13,057	19.1%
SSA	**4,594**	**17.4%**	**9,157**	**13.4%**
Berkeley, WV	2,621	9.9%	6,372	9.3%
Grant, WV	308	1.2%	240	0.4%
Jefferson, WV	1,383	5.2%	2,303	3.4%
Mineral, WV	282	1.1%	242	0.4%
PSA and SSA Total	**24,946**	**94.7%**	**64,726**	**94.5%**
Other Areas	**1,400**	**5.3%**	**3,765**	**5.5%**
Total Discharges	**26,346**	**100.0%**	**68,491**	**100.0%**

Source: Valley Health, 2012

In 2013, the community collectively accounted for 95 percent of the hospital's inpatients and emergency department discharges. The majority (77 percent) of the hospital's inpatients originated from the primary service area. Approximately 56 percent of emergency department visits originated from Winchester City and Frederick County (**Exhibit 2**).

Exhibit 3 presents a map displaying the 13 counties plus Winchester city that comprise WMC's community, including its primary and secondary service areas.

Exhibit 3: Winchester Medical Center Community



Sources: Microsoft MapPoint and Valley Health, 2013

SECONDARY DATA ASSESSMENT

This section presents secondary data regarding health needs in WMC's community.

Demographics

Population characteristics and changes play a role in influencing the health issues of and services needed by communities (**Exhibit 4**).

Exhibit 4: Percent Change in Population by County/City, 2013-2018

County/City	Total Population 2013	Total Population 2018	Percent Change in Population 2013-2018
PSA	**291,342**	**298,776**	**2.6%**
Clarke, VA	16,482	17,320	5.1%
Frederick, VA	78,767	82,730	5.0%
Hampshire, WV	22,798	22,352	-2.0%
Hardy, WV	14,212	13,859	-2.5%
Morgan, WV	16,538	16,471	-0.4%
Page, VA	23,795	24,092	1.2%
Rappahannock, VA	10,667	10,904	2.2%
Shenandoah, VA	43,823	44,992	2.7%
Warren, VA	36,309	37,224	2.5%
Winchester, VA	27,951	28,832	3.2%
SSA	**204,039**	**210,230**	**3.0%**
Berkeley, WV	107,978	112,337	4.0%
Grant, WV	11,405	11,251	-1.4%
Jefferson, WV	56,893	58,991	3.7%
Mineral, WV	27,763	27,651	-0.4%
Total	**495,381**	**509,006**	**2.8%**

Source: Nielsen-Claritas via Valley Health, 2013

All seven Virginia counties/cities are expected to increase in population

…

Five of seven West Virginia counties are expected to decline in population

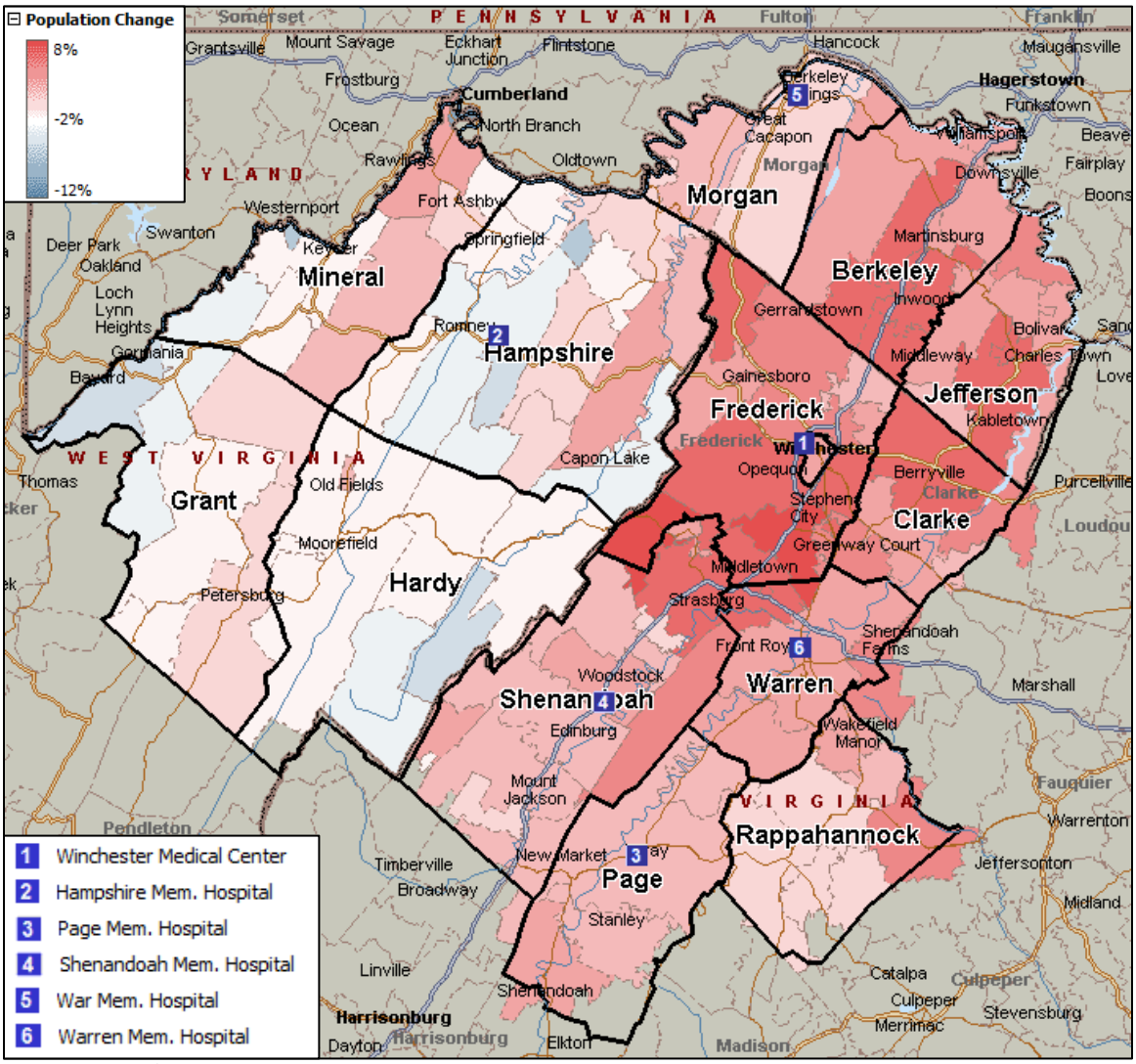
Overall, the population living in the WMC community is expected to increase by 2.8 percent between 2013 and 2018 (**Exhibit 4**). The Commonwealth of Virginia is expected to increase by 7.6 percent[2] and West Virginia is expected to increase 2.2 percent between 2012 and 2020.[3]

[2] The Weldon Cooper Center for Public Service, University of Virginia. (2013). Retrieved from: http://www.coopercenter.org/demographics/virginia-population-projections

[3] Bureau of Business and Economic Research, College of Business and Economics, West Virginia University. (2011). Retrieved from: http://www.be.wvu.edu/demographics/documents/WVPopProjectionbyAgeandSex2011_000.pdf

Rates of projected population change vary by county/city (**Exhibits 4** and **5)**.

Exhibit 5: Population Change by County/City and ZIP Code, 2013-2018



Sources: Microsoft MapPoint and Nielsen-Claritas via Valley Health, 2013.

Clarke and Frederick Counties in Virginia are expected to grow faster than the community as a whole at approximately five percent, while Hampshire and Hardy Counties in West Virginia are projected to experience the steepest population declines (**Exhibits 4** and **5).**

Exhibit 6 illustrates the number of residents by age and sex in 2013 and projected for 2018.

Exhibit 6: Percent Change in Population by Age/Sex Cohort, 2013-2018

Age/Sex Cohort	Total Population 2013	Total Population 2018	Percent Change in Population 2013-2018
Female 0-17	55,912	56,164	0.5%
Male 0-17	58,364	58,788	0.7%
Female 18-44	80,707	79,985	-0.9%
Male 18-44	81,197	81,002	-0.2%
Female 45-64	71,545	72,234	1.0%
Male 45-64	70,990	70,963	0.0%
Female 65+	41,681	48,822	17.1%
Male 65+	34,985	41,048	17.3%
Total	**495,381**	**509,006**	**2.8%**

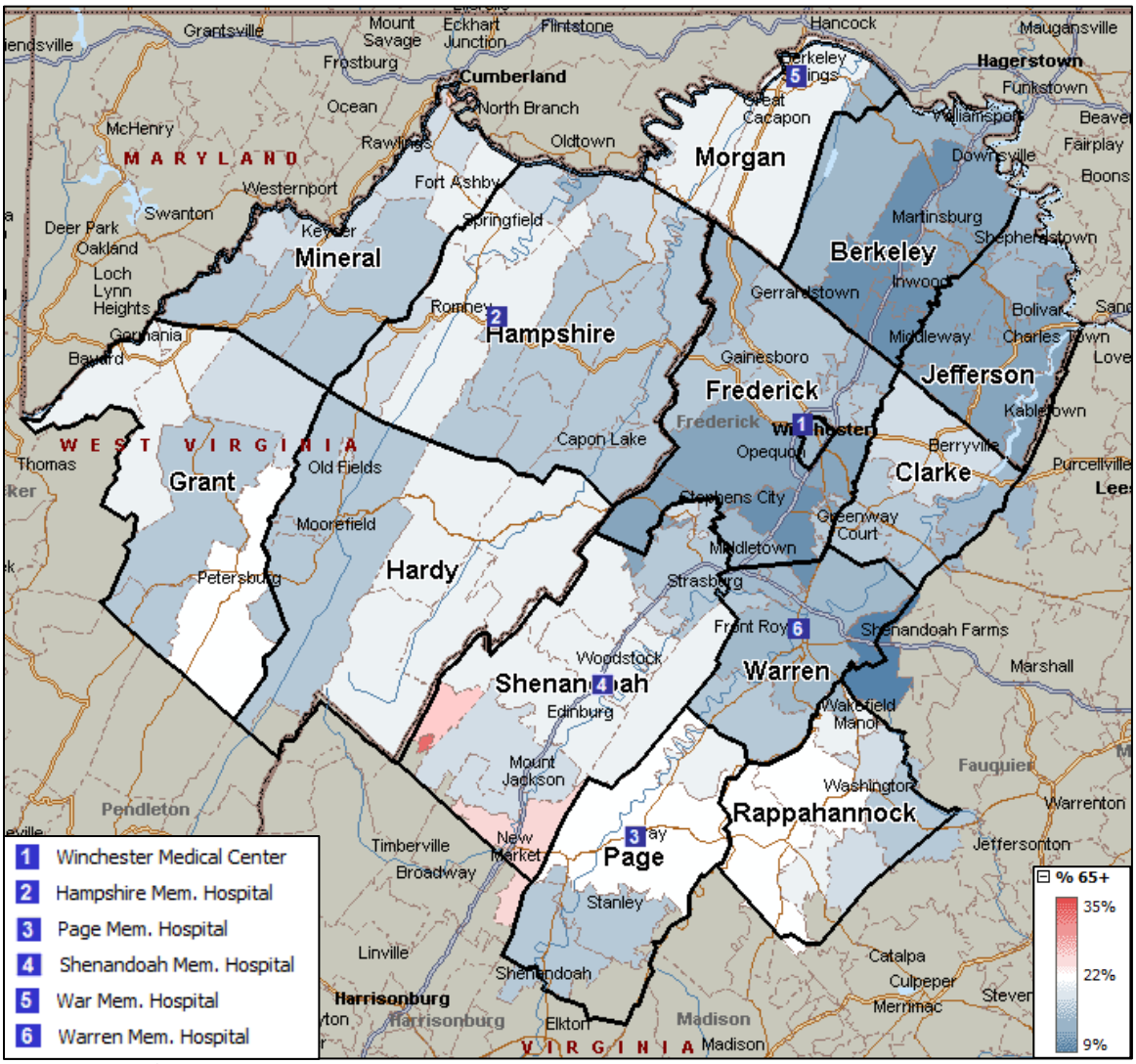
Source: Nielsen-Claritas via Valley Health, 2013.

The community population is aging

The number of residents aged 65 years and over is expected to increase rapidly, while the 18-44 age cohort will see a decline. The growth and aging of the population, coupled with the impact of anticipated health insurance coverage expansions associated with health reform, may increase demand for health services (**Exhibit 6**).

Exhibit 7 indicates the percent of the population aged 65 years and over in the community.

Exhibit 7: Percent of Population Aged 65+ by County/City and ZIP Code, 2013



Sources: Microsoft MapPoint and Nielsen-Claritas via Valley Health, 2013.

At approximately 20 percent, Grant and Morgan Counties have the highest percentage of people aged 65 and over. The ZIP codes with the highest percentages of people aged 65 and over are 22845 (Orkney Springs) and 22810 (Basye) in Shenandoah County (**Exhibit 7**). Frederick, Warren, Berkeley, and Jefferson Counties have the lowest percentages of people aged 65 and over.

Exhibit 8 indicates the distribution of the population by race in the WMC community.

Exhibit 8: Distribution of Population by Race, 2013

Race	Total Population 2013	Total Population 2018	Percent Change in Population 2013-2018
American Indian and Alaska Native	1,359	1,508	11.0%
Asian	4,857	5,704	17.4%
Black or African American	24,160	26,417	9.3%
Native Hawaiian / Pacific Islander	189	228	20.6%
Some Other Race	10,775	13,237	22.8%
Two or More Races	11,170	13,323	19.3%
White	442,871	448,589	1.3%
Total	**495,381**	**509,006**	**2.8%**

Source: Nielsen-Claritas via Valley Health, 2013.

The community was 89% White in 2013

About 89 percent of the community's population is White. Non-White populations are expected to grow from 11 percent to 12 percent of the total population from 2013-2018 (**Exhibit 8**). The gradually growing diversity of the community is important to recognize given the presence of health disparities and barriers to access to services experienced by different groups.

Exhibit 9 indicates the distribution of the population by ethnicity.

Exhibit 9: Distribution of the Population by Ethnicity, 2013

Ethnicity	Total Population 2013	Total Population 2018	Percent Change in Population 2013-2018
Hispanic or Latino	25,788	31,798	23.3%
Not Hispanic or Latino	469,593	477,208	1.6%
Total	**495,381**	**509,006**	**2.8%**

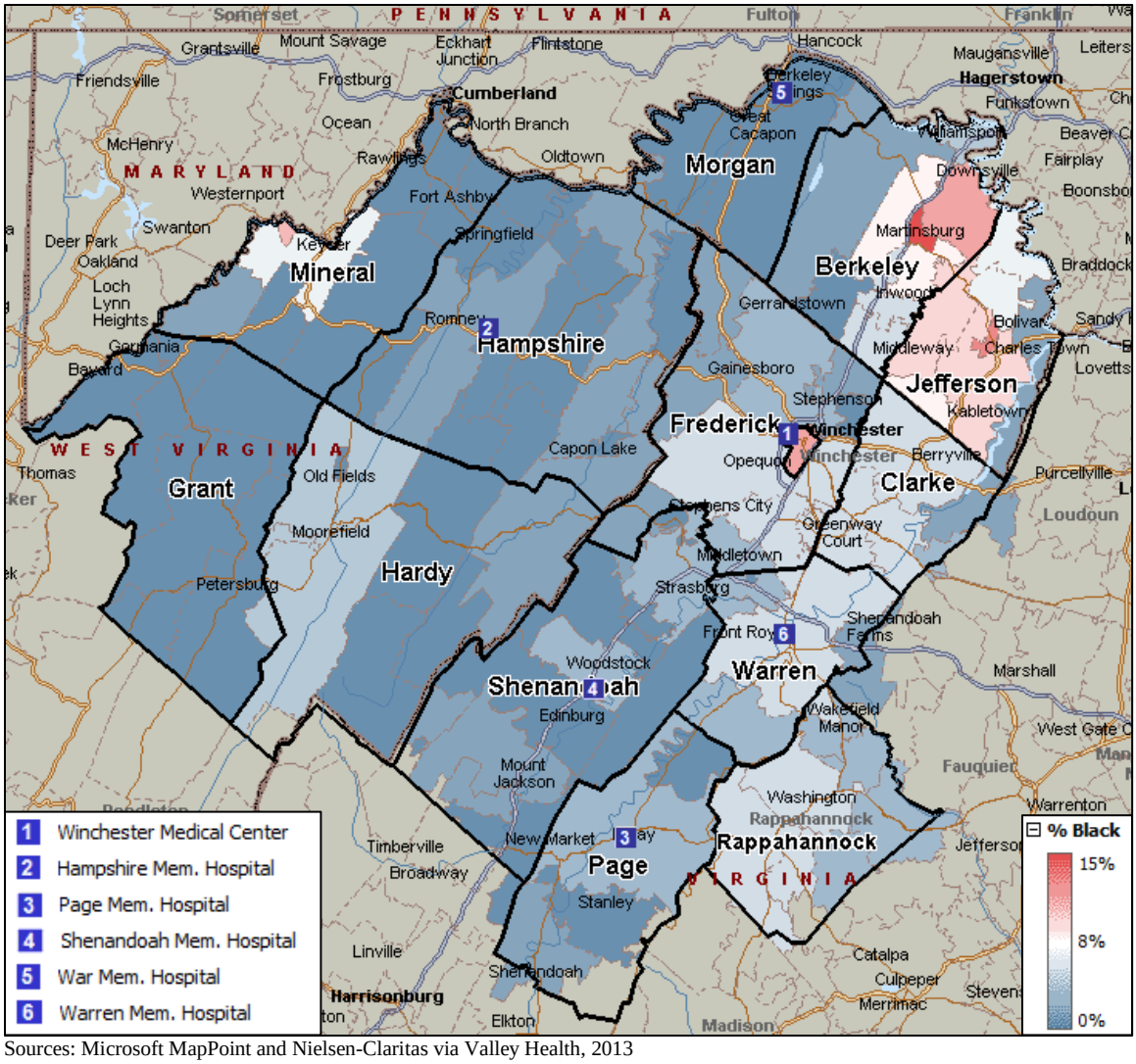
Source: Nielsen-Claritas via Valley Health, 2013.

5% of the community identified as Hispanic or Latino

Projections indicate that the Hispanic or Latino population is expected to increase more rapidly than the non-Hispanic or Latino population, and to increase from five percent to six percent of the total community from 2013-2018 (**Exhibit 9**).

Exhibits 10, 11, and **12** illustrate the locations in the community where the percentage of the population that is Black, Asian, and Hispanic or Latino is highest. The percentage of Black residents is highest in ZIP code 25401 (Martinsburg). The percentage of Asian and Hispanic or Latino residents is highest in ZIP code 22601 (Winchester).

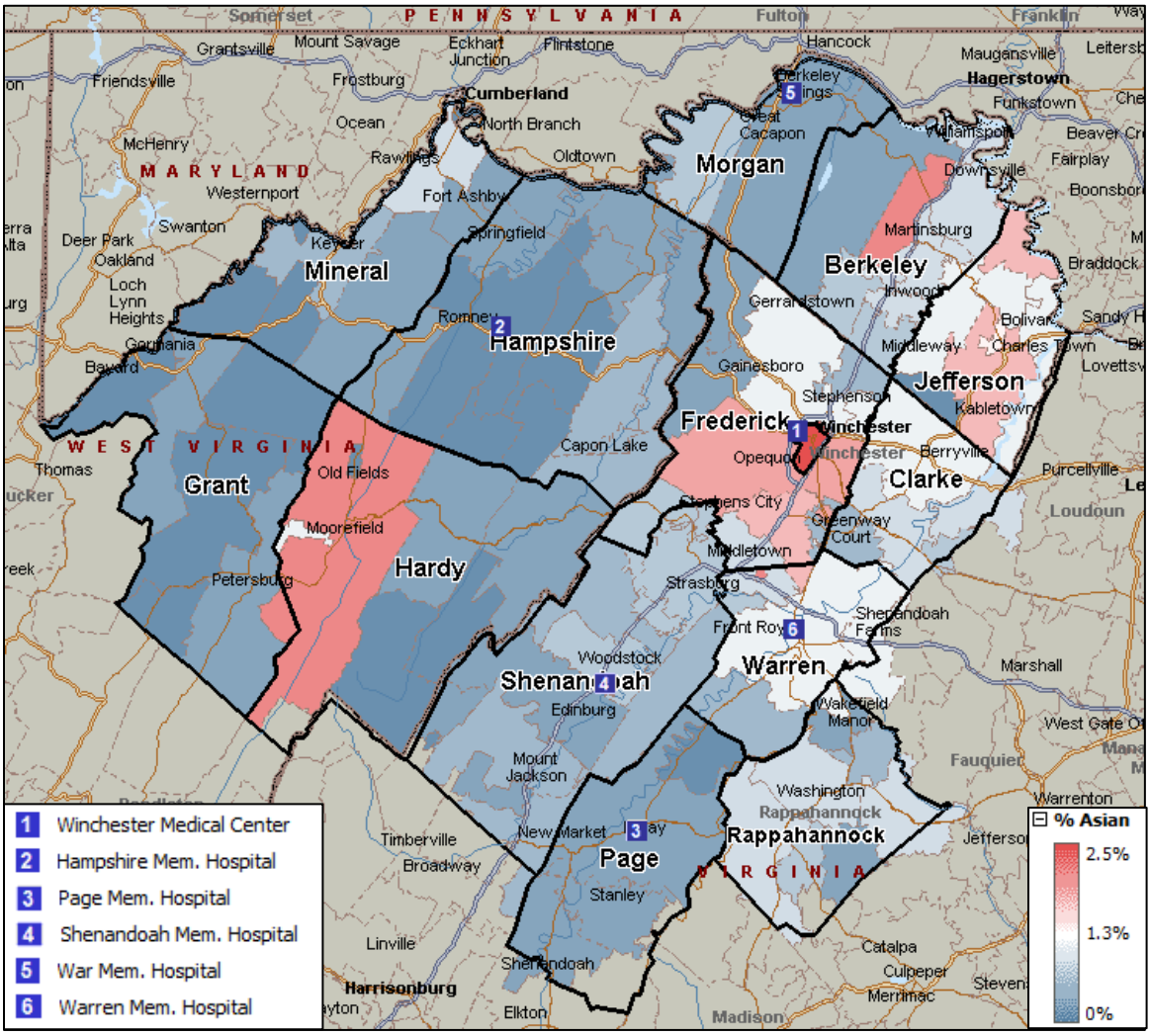
Exhibit 10: Percent of Population – Black, 2013



Sources: Microsoft MapPoint and Nielsen-Claritas via Valley Health, 2013

Martinsburg and surrounding areas, parts of Jefferson County, and Winchester city are the areas with the highest percentages of Black residents

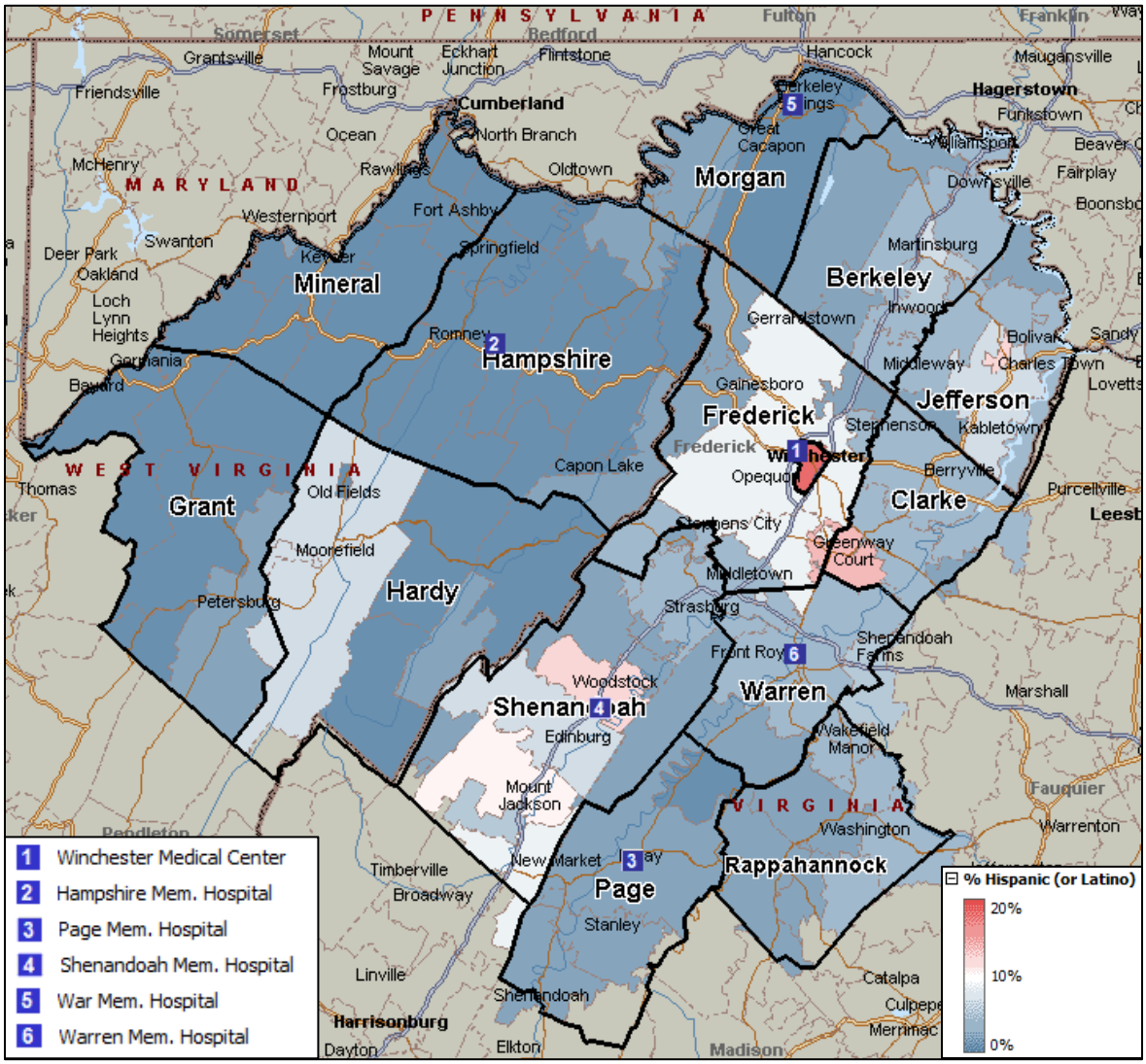
Exhibit 11: Percent of Population – Asian, 2013



Sources: Microsoft MapPoint and Nielsen-Claritas via Valley Health, 2013

Winchester City, Martinsburg, and parts of Hardy and Jefferson Counties are the areas with the highest percentages of Asian residents

Exhibit 12: Percent of Population – Hispanic or Latino, 2013



Sources: Microsoft MapPoint and Nielsen-Claritas via Valley Health, 2013

Winchester City, Woodstock, and White Post are the areas with the highest percentages of Hispanic (or Latino) residents

Other demographic indicators are presented in **Exhibit 13**.

Exhibit 13: Other Demographic Indicators, 2011

County/City	Population 25 + Without a High School Diploma	Population 5+ Who are Linguistically Isolated
PSA		
Clarke, VA	12.5%	2.1%
Frederick, VA	15.7%	3.5%
Hampshire, WV	22.4%	0.4%
Hardy, WV	20.2%	3.0%
Morgan, WV	15.9%	0.1%
Page, VA	26.9%	1.0%
Rappahannock, VA	17.0%	0.7%
Shenandoah, VA	17.4%	3.4%
Warren, VA	15.6%	2.4%
Winchester, VA	17.8%	10.1%
SSA		
Berkeley, WV	15.1%	1.7%
Grant, WV	20.6%	0.5%
Jefferson, WV	13.7%	1.2%
Mineral, WV	14.1%	0.6%
Virginia	**13.4%**	**5.6%**
West Virginia	**17.4%**	**0.7%**
U.S.	**14.6%**	**8.7%**

Source: U.S. Census Bureau, ACS 5 year estimates, 2011.

Winchester City had a high percentage of residents who were linguistically isolated …

At 27%, Page County had the highest percentage of residents 25+ who did not graduate from high school

Key findings include:

- All Virginia counties in the community, with the exception of Clarke, had a higher percentage than the state average of residents aged 25 and older who did not graduate high school. At nearly 27 percent, Page County had the highest percentage of non-graduates. Grant, Hampshire, and Hardy Counties in West Virginia had higher percentages of non-graduates than the state average.
- In Winchester City, the percentage of residents aged five and older who were linguistically isolated was nearly double the commonwealth average, at 10 percent. Linguistic isolation is defined as the population aged five and older who speak a language other than English and speak English less than "very well."

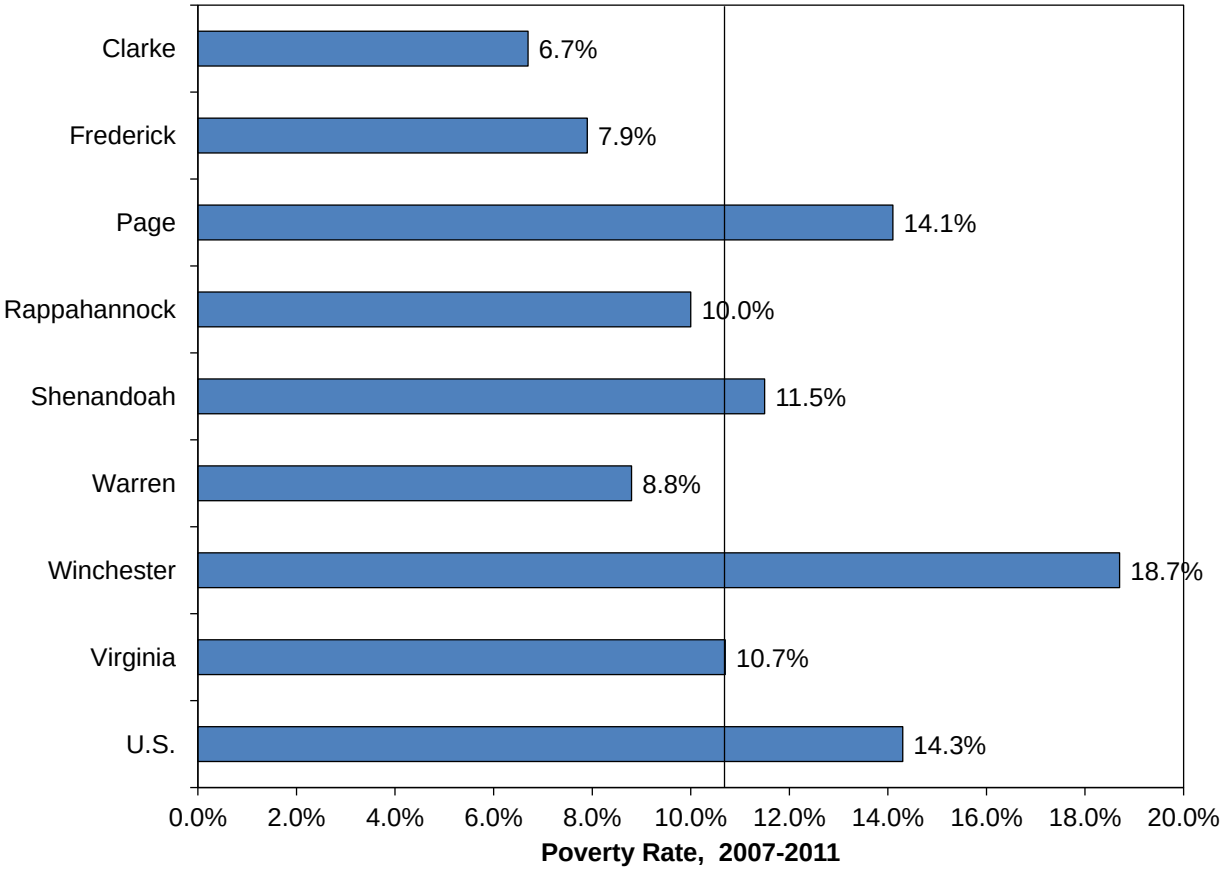
Economic Indicators

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

1. People in Poverty

Many health needs are associated with poverty. According to the U.S. Census, in 2011 approximately 14 percent of people in the U.S., nearly 11 percent of people in Virginia, and nearly 18 percent of people in West Virginia lived in poverty (**Exhibit 14**).

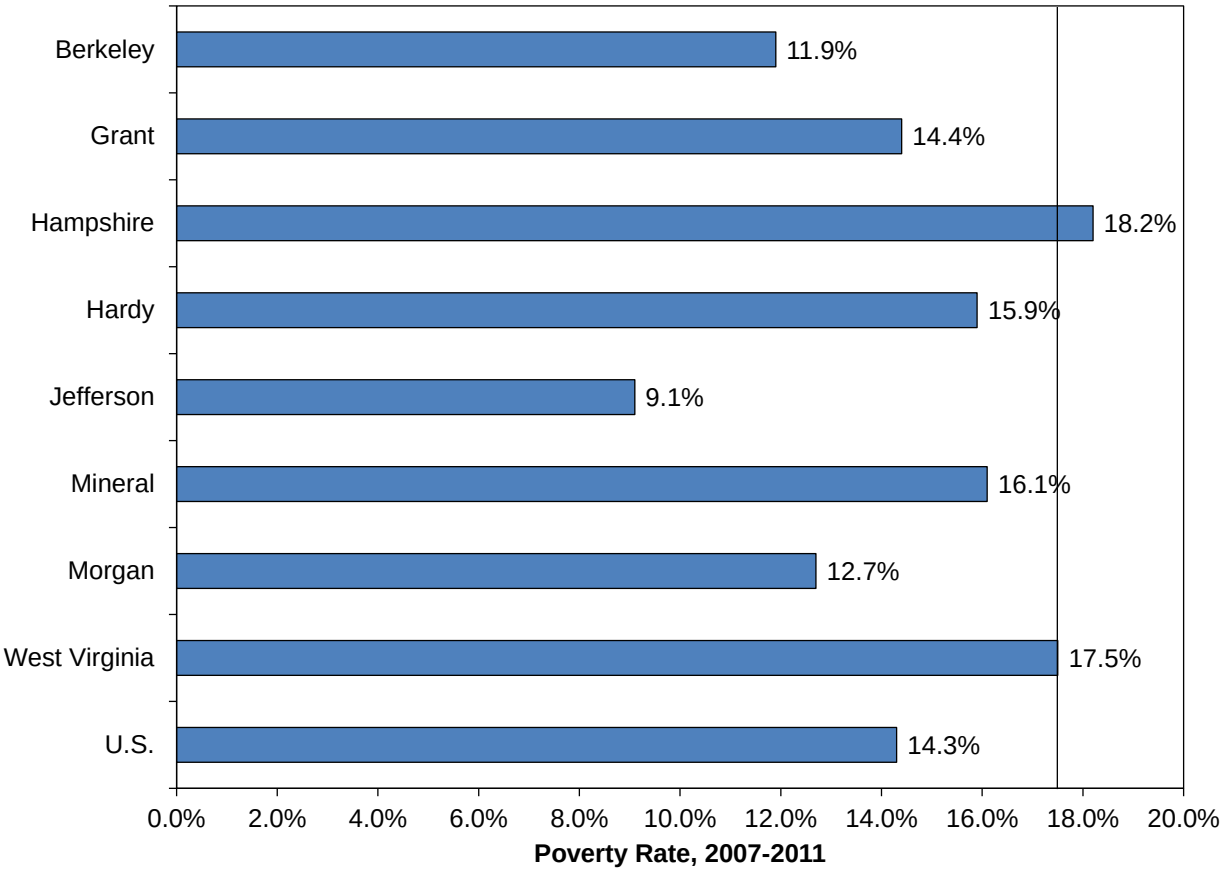
Exhibit 14A: Percent of People in Poverty, Virginia Counties, 2007-2011



Source: U.S. Census Bureau, ACS 5 year estimates, 2007-2011.
The vertical line signifies the poverty rate in Virginia.

Page and Shenandoah Counties and Winchester City reported poverty rates higher than the Virginia average (**Exhibit 14A**).

Exhibit 14B: Percent of People in Poverty, West Virginia Counties, 2007-2011

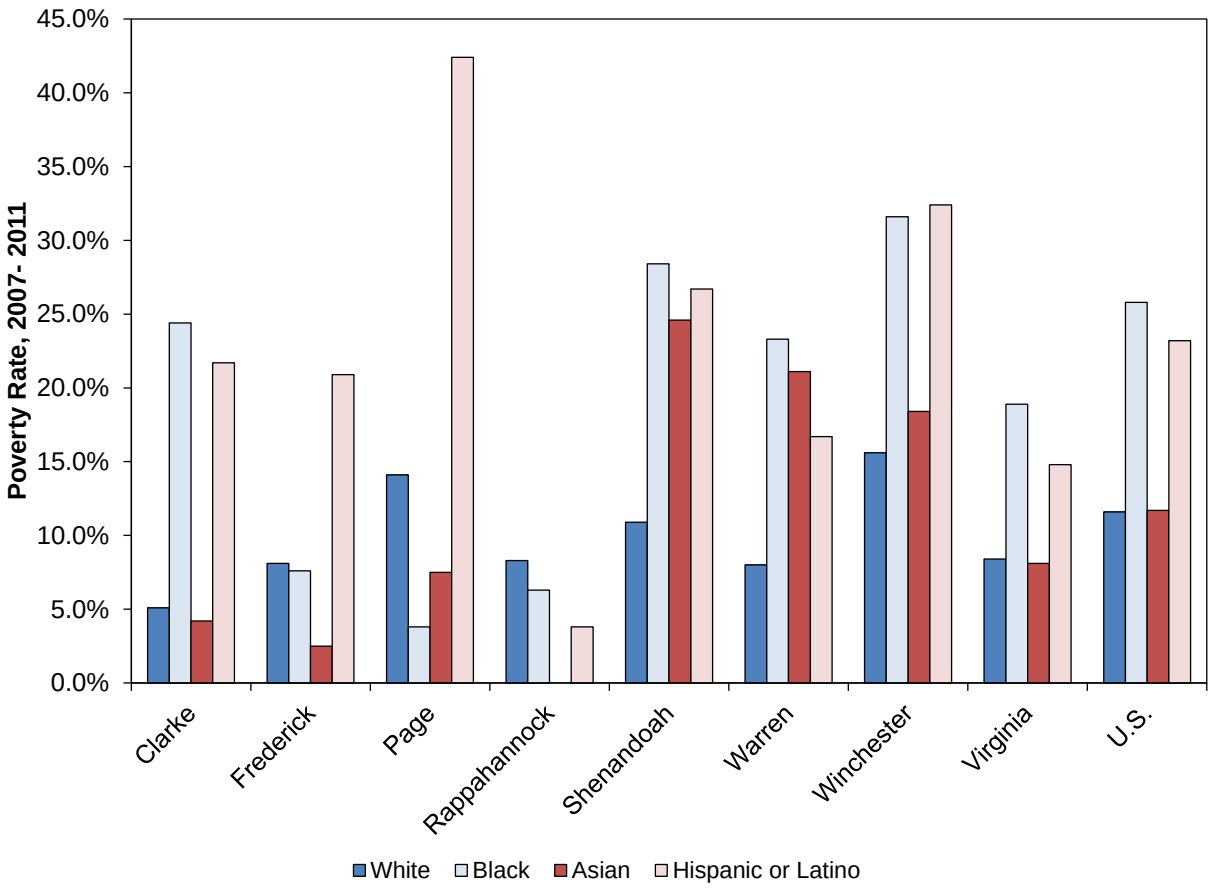


Source: U.S. Census Bureau, ACS 5 year estimates, 2007-2011.
The vertical line signifies the poverty rate in West Virginia.

Hampshire County reported a higher poverty rate than West Virginia. The poverty rates for Grant, Hampshire, Hardy, and Mineral Counties, and for West Virginia as a whole, were higher than the U.S. average (**Exhibit 14B**).

Exhibit 15A presents poverty rates by race in the community's Virginia counties.

Exhibit 15A: Percent of People in Poverty by Race/Ethnicity, Virginia Counties, 2007-2011

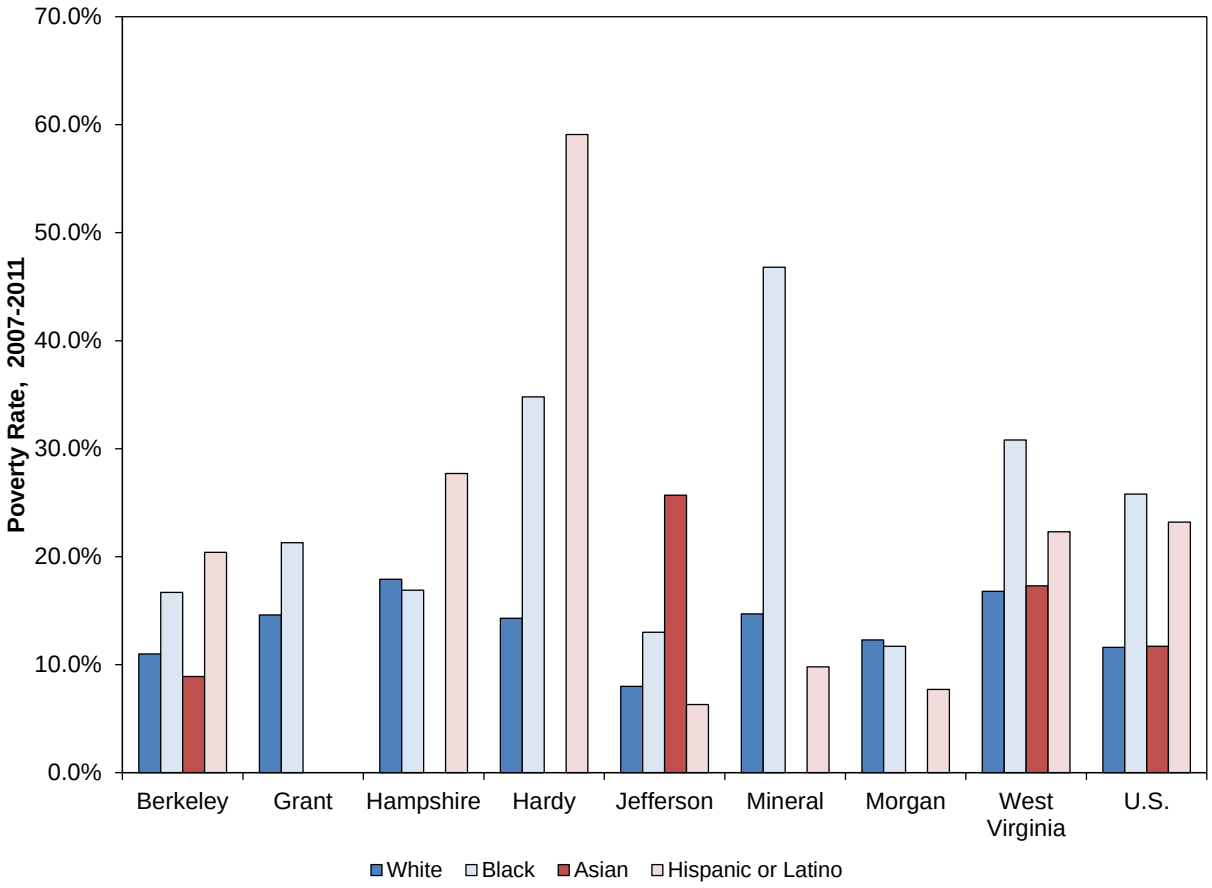


Source: U.S. Census Bureau, ACS 5 year estimates, 2007-2011.
Data were not available by all races for Rappahannock County.

Across most Virginia counties, the Black and Hispanic or Latino populations reported higher poverty rates in 2011 than the White population. The poverty rates for the Black and Hispanic or Latino populations were higher than the Virginia average in many counties (**Exhibit 15A**).

Exhibit 15B presents poverty rates by race in the community's West Virginia counties.

Exhibit 15B: Percent of People in Poverty by Race/Ethnicity, West Virginia Counties, 2007-2011



Source: U.S. Census Bureau, ACS 5 year estimates, 2007-2011.
Data were not available by all races for Grant, Hampshire, Hardy, Mineral, and Morgan Counties.

With the exception of Hampshire and Morgan, the Black population in WMC's West Virginia counties reported higher poverty rates than the White population. The Hispanic or Latino populations in Hampshire and Hardy Counties and the Asian population in Jefferson County had higher poverty rates than the state average (**Exhibit 15B**).

2. Household Income

The Federal Poverty Level (FPL) is used by many public and private agencies to assess household needs for low-income assistance programs. In the WMC community in 2013, 25 percent of all households had incomes below $25,000, an approximation of the federal poverty level (FPL) for a family of four. **Exhibit 16** indicates the percent of lower-income households in the community.

Exhibit 16: Percent Lower-Income Households by County/City, 2013

County/City	Average Household Income	Percent Less Than $25,000 2009	Percent Less Than $25,000 2013	Percent <25,000 Increase or (Decrease) 2009-2013
PSA	**$63,923**	**20.0%**	**26.6%**	**32.5%**
Clarke, VA	$94,682	12.8%	15.7%	23.0%
Frederick, VA	$80,286	12.5%	14.9%	19.5%
Hampshire, WV	$33,871	29.2%	47.9%	63.8%
Hardy, WV	$39,122	30.6%	43.4%	42.2%
Morgan, WV	$40,440	23.1%	41.1%	77.7%
Page, VA	$47,469	28.3%	34.6%	22.1%
Rappahannock, VA	$94,318	14.5%	15.8%	9.4%
Shenandoah, VA	$57,601	19.9%	25.8%	29.6%
Warren, VA	$73,524	17.2%	21.4%	24.4%
Winchester, VA	$57,117	25.0%	32.3%	29.2%
SSA	**$63,381**	**22.2%**	**22.4%**	**0.5%**
Berkeley, WV	$61,822	19.6%	21.9%	11.7%
Grant, WV	$47,453	35.3%	32.1%	-9.1%
Jefferson, WV	$77,471	19.7%	16.2%	-18.0%
Mineral, WV	$49,746	31.2%	31.3%	0.2%
Total	**$63,702**	**21.0%**	**24.8%**	**18.6%**

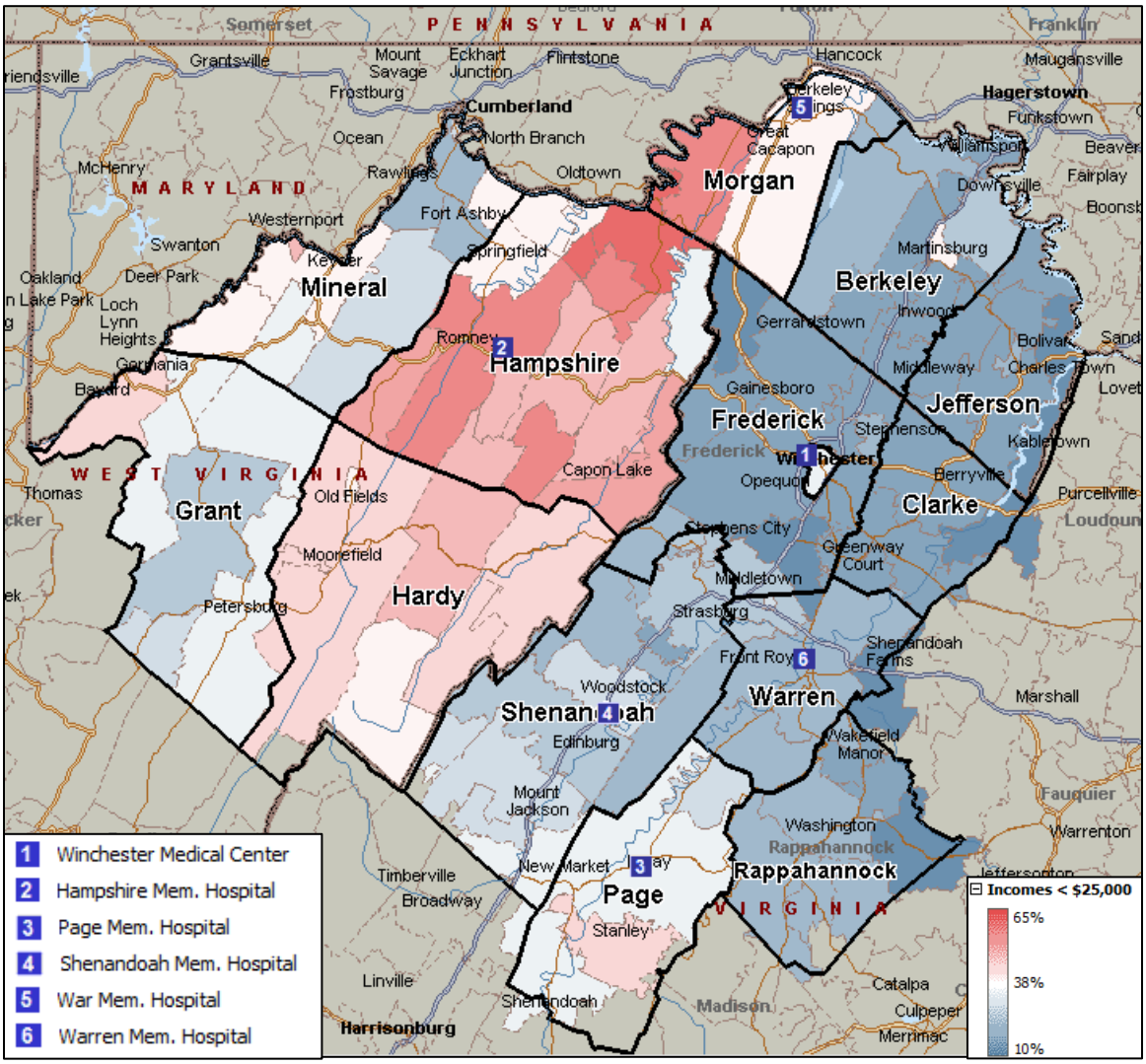
Source: Nielsen-Claritas via Valley Health, 2013

Hampshire, Hardy, and Morgan Counties had comparatively high percentages of households with incomes less than $25,000

Over 40 percent of the households in Hampshire, Hardy, and Morgan Counties had incomes less than $25,000. The community as a whole has experienced a 19 percent increase in the percentage of households with incomes under $25,000 since 2009. The counties of Hampshire, Hardy, and Morgan reported the lowest average household income and the highest increase in low-income households since 2009 (**Exhibit 16**).

Exhibit 17 presents a map of the percent of the households with incomes under $25,000 in the community.

Exhibit 17: Percent of Households with Incomes under $25,000 by County/City and ZIP Code, 2013



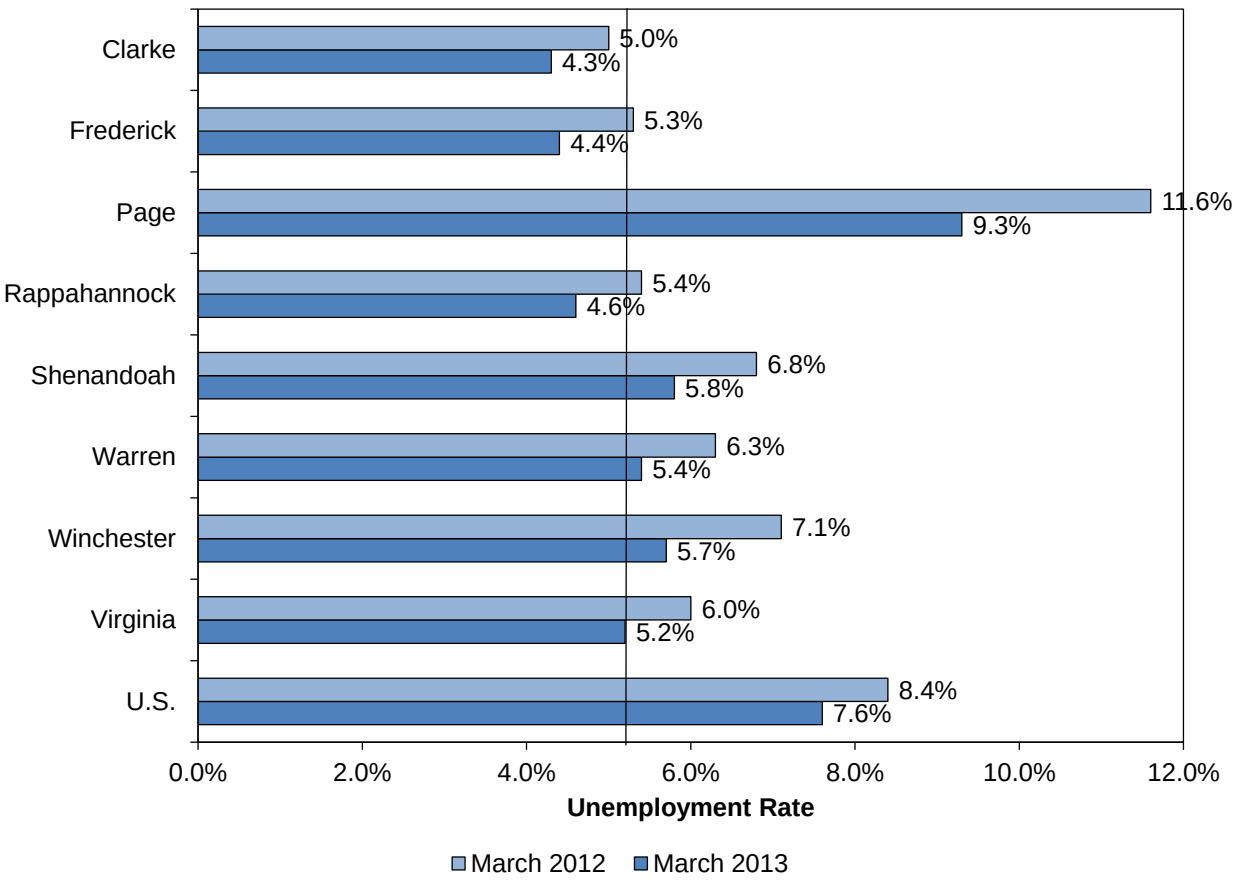
Sources: Microsoft MapPoint and Nielsen-Claritas via Valley Health, 2013.

The highest proportions of households with incomes under $25,000 in 2013 were located in ZIP codes 25437 (Points) and 25444 (Slanesville) in Hampshire County and 25434 (Paw Paw) in Morgan County (**Exhibit 17**).

3. Unemployment Rates

Exhibit 18A shows the unemployment rate for each Virginia county, with Virginia and national averages for comparison.

Exhibit 18A: Unemployment Rates, Virginia Counties/Cities, 2012 and 2013

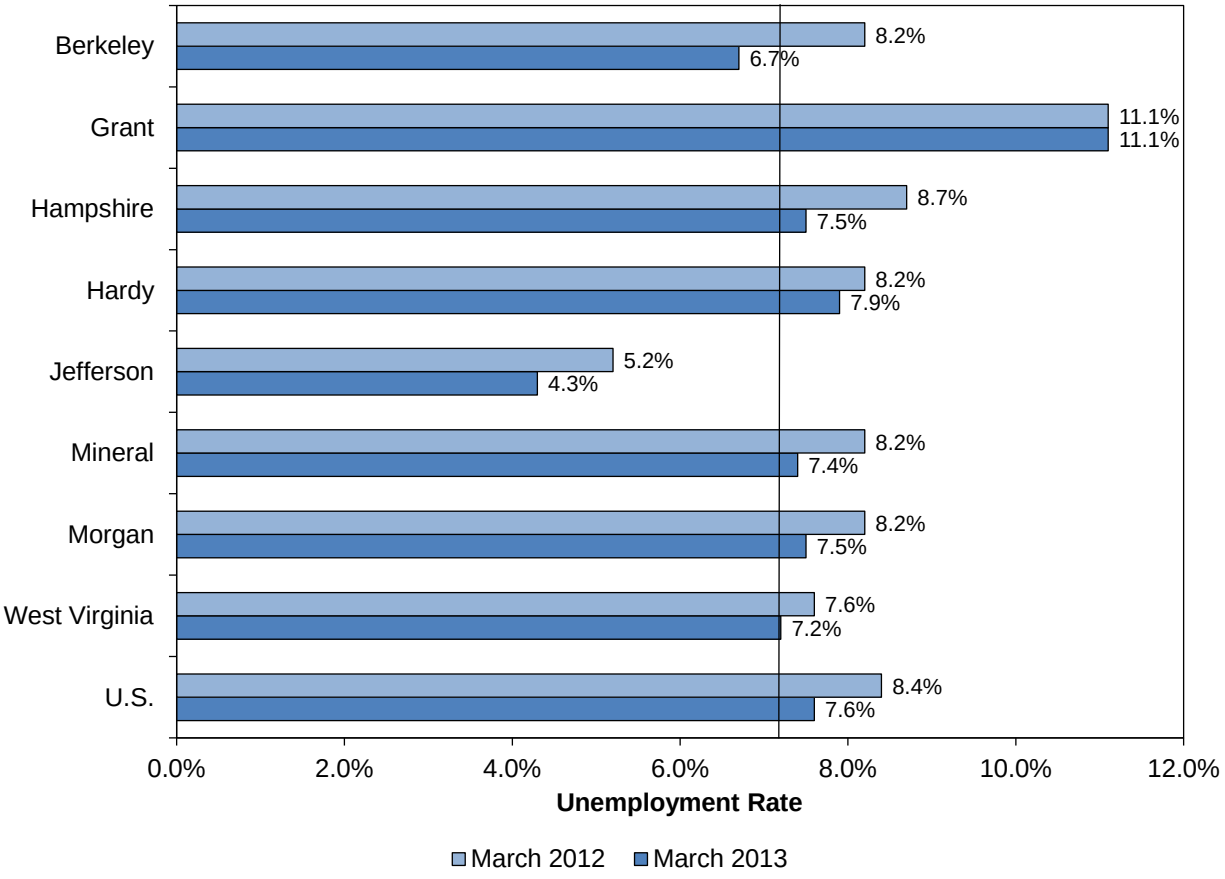


Source: Bureau of Labor Statistics, 2013.
The vertical line signifies the unemployment rate in Virginia in March 2013.

Page County reported the highest unemployment rate among Virginia counties in the WMC community (**Exhibit 18A**).

Exhibit 18B shows the unemployment rate for each West Virginia county, with West Virginia and national averages for comparison.

Exhibit 18B: Unemployment Rates, West Virginia Counties, 2012 and 2013



Source: Bureau of Labor Statistics, 2013.
The vertical line signifies the unemployment rate in West Virginia in March 2013.

Grant County reported the highest unemployment rate of the community's West Virginia counties (**Exhibit 18B**).

4. Crime

The Federal Bureau of Investigation reports data on violent crime in the United States (**Exhibit 19**).

Exhibit 19: Violent and Property Crime Rates per 100,000 Population, 2011

County/City	Population	Violent crime	Property crime	Burglary	Larceny-theft
PSA	**283,284**	**92.5**	**1,122.2**	**271.8**	**794.8**
Clarke, VA	14,081	63.9	1,001.3	241.5	710.2
Frederick, VA	77,277	98.3	1,957.9	436.1	1,407.9
Hampshire, WV	23,750	307.4	311.6	181.1	113.7
Hardy, WV	13,893	50.4	251.9	108.0	108.0
Morgan, WV	17,513	57.1	679.5	291.2	342.6
Page, VA	24,101	49.8	825.7	240.7	572.6
Rappahannock, VA	7,422	53.9	1,024.0	242.5	700.6
Shenandoah, VA	41,807	67.0	999.8	253.5	736.7
Warren, VA	37,323	50.9	833.3	99.1	685.9
Winchester, VA	26,117	N/A	N/A	N/A	N/A
SSA	**195,600**	**84.8**	**652.3**	**213.0**	**410.6**
Berkeley, WV	102,801	66.1	853.1	275.3	538.9
Grant, WV	11,955	33.5	133.8	58.6	75.3
Jefferson, WV	52,874	N/A	N/A	N/A	N/A
Mineral, WV	27,970	175.2	135.9	50.1	82.2
Virginia Total	**7,926,192**	**71.8**	**1,004.1**	**163.9**	**789.7**
West Virginia Total	**1,846,372**	**40.8**	**165.5**	**55.3**	**100.6**

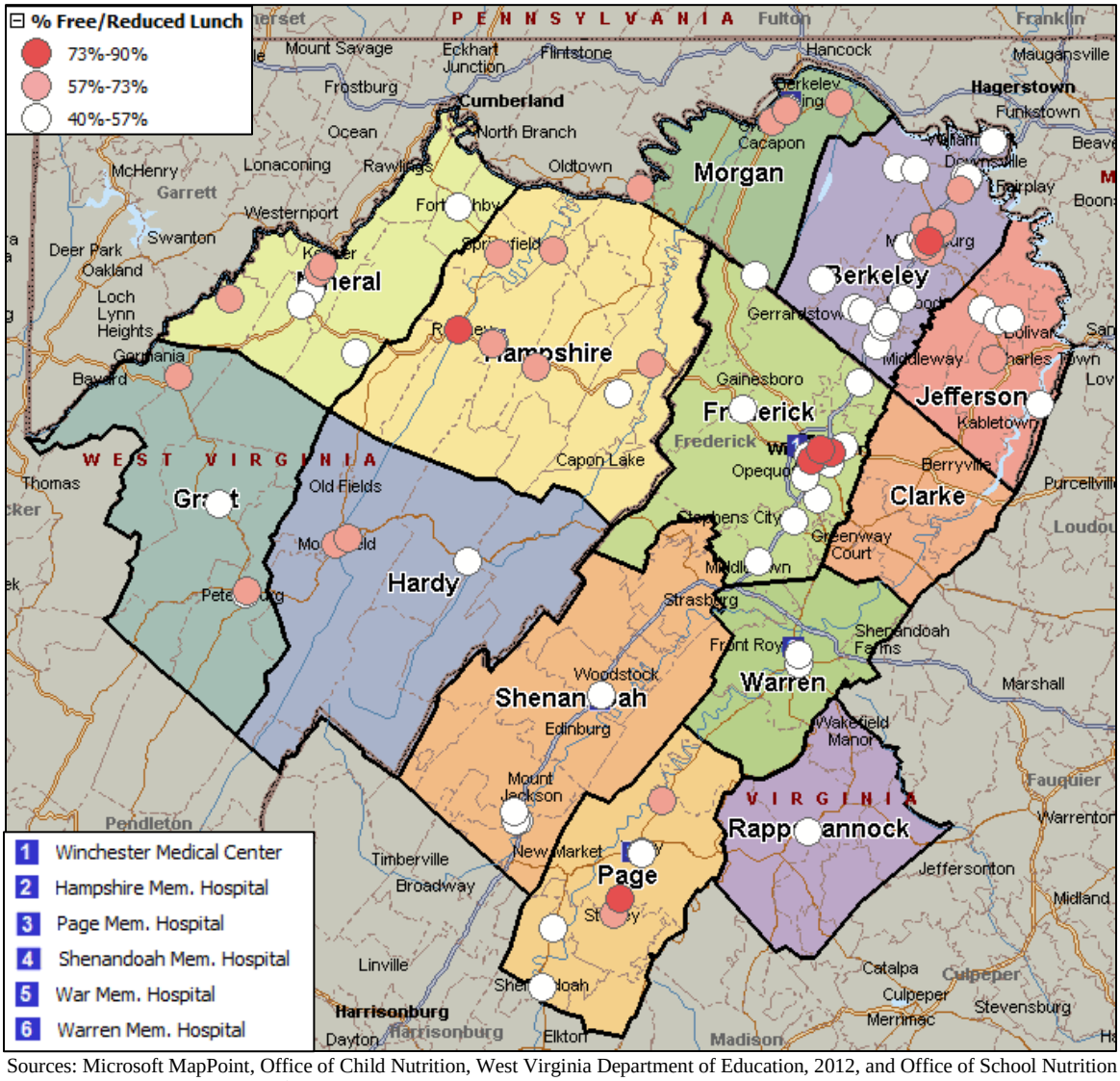
Sources: Violent crime counts retrieved from the Federal Bureau of Investigation, Uniform Crime Reports, 2012. Population 2011 estimates obtained from the U.S. Census Bureau, ACS 5 year estimates, 2007-2011. Rates calculated by Verité.
*Caution should be used when interpreting these rates; represents fewer than 10 incidents.
**Violent crime includes murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault; property crime includes burglary, larceny-theft, motor vehicle theft, and arson.

Berkeley County had significantly higher rates of all crimes than West Virginia. Frederick, Berkeley, Hampshire, and Morgan Counties had higher rates of property crimes, including burglary, than their respective states' averages. Rates of larceny also were comparatively high in Frederick, Berkeley, and Morgan Counties. Hampshire and Mineral Counties had comparatively high rates of violent crime (**Exhibit 19**).

5. Eligibility for the National School Lunch Program

Schools participating in the National School Lunch Program are eligible to receive financial assistance from the United States Department of Agriculture (USDA) to provide free or reduced-price meals to low-income students. Schools with 40 percent or more of their student bodies receiving this assistance are eligible for school-wide Title I funding, designed to ensure that students meet grade-level proficiency standards (**Exhibit 20**).

Exhibit 20: Public Schools with over 40 Percent of Students Eligible for Free or Reduced-Price Lunches, School Year 2012-2013



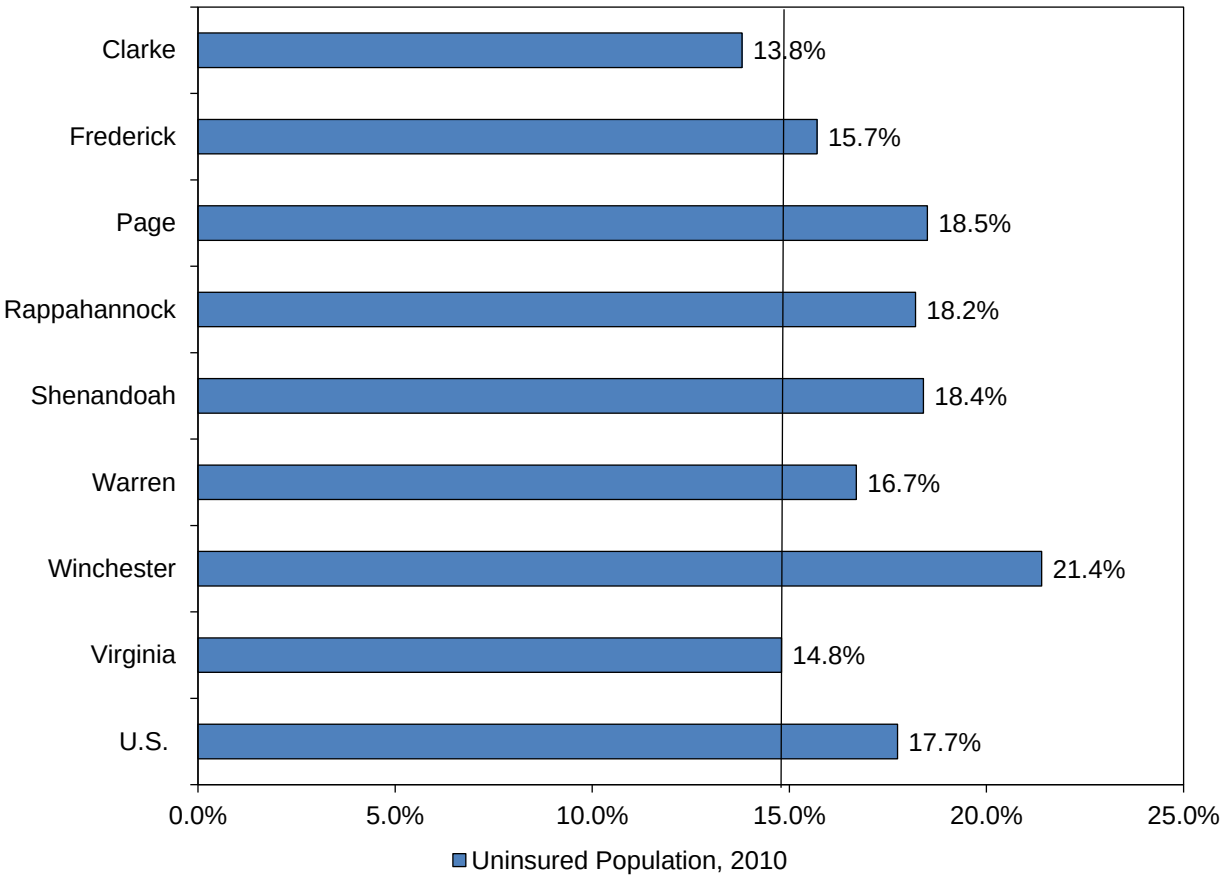
Sources: Microsoft MapPoint, Office of Child Nutrition, West Virginia Department of Education, 2012, and Office of School Nutrition Programs, Virginia Department of Education, 2012.

In the WMC community, 98 schools, located in every county/city except Clarke, were eligible for Title 1 funds (**Exhibit 20**).

6. Insurance Status

Exhibit 21 displays the percent of the population that is uninsured by county/city in the WMC community.

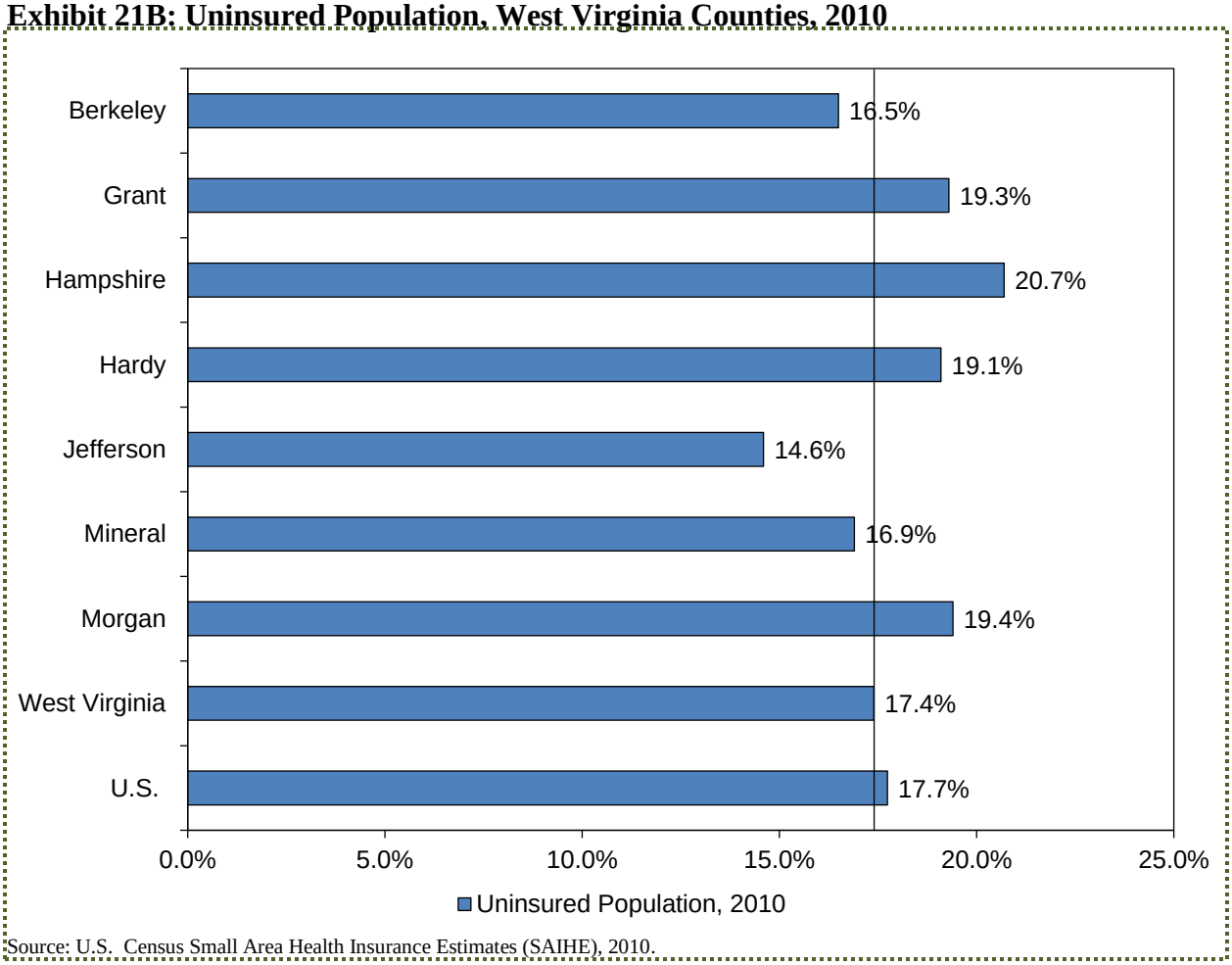
Exhibit 21A: Uninsured Population, Virginia Counties/Cities, 2010



Source: U.S. Census Small Area Health Insurance Estimates (SAIHE), 2010.

Exhibit 21A demonstrates that Page, Rappahannock, and Shenandoah Counties, and Winchester City have uninsurance rates higher than the Virginia and national averages.

Exhibit 21B: Uninsured Population, West Virginia Counties, 2010



Source: U.S. Census Small Area Health Insurance Estimates (SAIHE), 2010.

Grant, Hampshire, Hardy, and Morgan Counties have uninsurance rates higher than the West Virginia and national averages (**Exhibit 21B**).

7. Commonwealth of Virginia, West Virginia, and Local Public Budgets

The recent economic recession has had major implications for levels of state and county/city resources devoted to health care, public health, and social services.

The Commonwealth of Virginia has significantly reduced funding appropriated to these services. Relevant highlights from the 2012-2014 biennial budget[4] approved by the 2012 General Assembly 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;
    - Reductions in base funding to the Comprehensive Services Act for At-Risk Youth and Families (CSA) and elimination of general fund support for wrap-around services in public schools;
- **Aging and Elderly Services**
    - 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;
- **Health Services for Indigent and Low-income Populations**
    - Reductions in funding for the Virginia Association of Free Clinics, the Virginia Community Healthcare Association, and the Virginia Health Care Foundation;
    - Elimination of funding for commonwealth-supported dental clinics, and reductions in funding for the Mission of Mercy program through the Virginia Dental Association Foundation;
    - Reductions in funding to the commonwealth's Medicaid Children's Health Insurance Program due to slowed enrollment and lower managed care rates;
    - Reductions in income limits for the Medicaid long-term care eligibility group;
    - Reductions in funding to the Virginia Commonwealth University and University of Virginia academic medical centers for indigent care services;
- **Health Departments, Facilities, and Workers**
    - Reductions in general fund appropriations to the Department of Health;
    - Reductions in funding to the Department of Health Professions;
    - Withholding annual inflation adjustments from rates paid to nursing facilities, home health agencies, outpatient rehabilitation agencies, and hospitals;

At the county level in the Virginia parts of the community, public budgets reflect a mix of increases, decreases, and no changes from the most recent year. A few highlights are below:

[4]The 2012 Executive Budget Document. Retrieved on August 2, 2012 from http://dpb.virginia.gov/budget/buddoc12/index.cfm.

- **City of Winchester:**[5] In FY 2013, the City of Winchester allocated $7,205,000 for Human Services from the City Fund, a decrease of 6.0 percent from FY 2012. General Fund expenditures for Health and Welfare for FY 2013 were budgeted at $1,055,261, a 2.7 percent decrease from the previous year.
- **Frederick County:**[6] The Frederick County local health department adopted a FY 2013 budget of $301,959, similar to FY 2011 and FY 2012.
- **Clarke County:**[7] The local health department's expenditures are the same from the past five fiscal years, remaining at $199,000. Expenditures for Social Services decreased 4.8 percent from FY 2012-2013 to FY 2013-2014.
- **Warren County:**[8] For FY 2013, the Health and Welfare budget was reduced 5.9 percent from FY 2012. The social services department had a budget reduction of 7.9 percent.
- **Shenandoah County**:[9] Shenandoah County local health department's FY 2013 budget increased 0.8 percent from the previous year. The Area Agency on Aging Department's budget remained constant from FY 2011 to FY 2013.
- **Page County**:[10] Health and Welfare expenses for FY 2012 totaled $3,599,674.
- **Rappahannock County:**[11] Expenditures for the Share of Health Department increased 2.2 percent in FY 2013. Expenditures for Mental Health and Retardation Services increased 9.7 percent in FY 2013. Welfare Administration's expenditures increased 8.1 percent.

West Virginia has significantly reduced funding appropriated to health-related services. Relevant highlights from the 2014 budget[12] include:

- The Department of Health and Human Resources (DHHR) saw an overall budget decrease of 5.0 percent.
- Budget changes for specific sections of DHHR include: Bureau for Medical Services (6.2 percent decrease); Bureau of Behavioral Health and Health Facilities (0.8 percent decrease); Bureau for Public Health (7.3 percent decrease); and Health Care Authority (4.9 percent decrease).

[5] Winchester County Budget 2013. (2012). Retrieved from: http://www.winchesterva.gov/sites/default/files/documents/finance/2013-Adopted-Budget-Document.pdf
[6] Frederick County Budget 2013. (2012). Retrieved from: http://www.co.frederick.va.us/finance/finance_budget.aspx
[7] Clarke County Budget 2013. (2012). http://www.clarkecounty.gov/finance/budget-and-financial-information/fiscal_year_2013_budget_information.html
[8] Warren County Budget FY 2012-2013. (2012). Retrieved from: http://www.warrencountyva.net/resources/2012-2013-budget.html
[9] Shenandoah County Budget FY2013. (2012). Retrieved from: http://www.shenandoahcountyva.us/reportscode/budget/budget13.pdf
[10] Page County 2012-2013 Budget. (2012). Retrieved from: http://www.pagecounty.virginia.gov/files/Audig.Page%206-30-12.pdf
[11] Rappahannock County Budget 2013. (2012). http://www.rappahannockcountyva.gov/documents/FY13AdoptedBudget.pdf
[12]The State of West Virginia Executive Budget Fiscal Year 2014. Retrieved on May 11, 2013 from http://www.budget.wv.gov/SiteCollectionDocuments/VIBR2014.pdf.

At the county level in the West Virginia parts of the community, public budgets reflect a mix of increases, decreases, and no changes from the most recent year. A few highlights are below:

- **Berkeley County**:[13] From the general fund, the budget for mental health expenditures remained essentially steady at $55,500 in FY 2013-2014. The local health department's budget remained the same from FY 2012-2013 to FY 2013-2014 at $74,681. The total Social Services budget increased 3.1 percent in FY 2013-2014 to $108,000.
- **Grant County**:[14] The budget for the local health department for FY 2012-2013 was $50,000. Funds allocated toward Other Health items totaled $30,000. The amount budgeted for total Social Services for FY 2012-2013 was originally $85,000, and increased to $215,000 plus $5,000 from the Coal Severance Tax Fund.
- **Hampshire County**:[15] Health and Sanitation expenditures for FY 2012-2013 totaled $65,000. Social Services expenditures were $5,000.
- **Hardy County**:[16] The budget for the local health department for FY 2012-2013 totaled $65,000. Social Services budget was $5,000.
- **Jefferson County**:[17] From the general fund, the FY 2012-2013 budget for mental health increased five percent. The general health and sanitation budget decreased 18 percent.
- **Mineral County**:[18] The local health department's budget for FY 2012-2013 was $74,000; an additional $39,900 was allocated from the Coal Severance Tax Fund. The budget for Social Services was $13,500 for FY 2012-2013, plus an additional $10,500 from the Coal Severance Tax Fund.
- **Morgan County**:[19] The Morgan County local health department's expenditures for FY 2012-2013 were $30,000. No funds were allocated to Social Services for FY 2012-2013.

[13] Berkeley County Budget 2013-2014. (2013). Retrieved 2013, from : http://www.berkeleycountycomm.org/pdf/financial/Levy%20Estimate%20FY%202013-2014.pdf
[14] Grant County 2013 Budget. (2013). Retrieved 2013, from: http://www.wvsao.gov/LocalGovernment/files/levy/county_12-13/Grant2013.pdf
[15] Hampshire County 2013 Budget. (2013). Retrieved 2013, from: http://www.wvsao.gov/LocalGovernment/files/levy/county_12-13/Hampshire2013.pdf
[16] Hardy County 2013 Budget (2013). Retrieved 2013, from: http://www.wvsao.gov/LocalGovernment/files/levy/county_12-13/Hardy2013.pdf
[17] Jefferson County Budget. (2012). Retrieved from http://jeffersoncountyclerkwv.com/Finance/LevyEstimateBudget2012-2013.pdf.
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Local Health Status and Access Indicators

This section examines health status and access to care data for the WMC community from several sources. The data include: (1) County Health Rankings; (2) Virginia Department of Health; (3) West Virginia Department of Health; and (4) Behavioral Risk Factor Surveillance System. Indicators also were compared to Healthy People 2020 goals.

1. County Health Rankings

County Health Rankings, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, examines a variety of health status indicators and ranks each county/city within each commonwealth or state in terms of "health factors" and "health outcomes." These health outcomes and factors are composite measures based on several variables grouped into the following categories: health behaviors, clinical care,[20] social and economic factors, and physical environment.[21] *County Health Rankings* is updated annually. *County Health Rankings 2013* relies on data from 2004 to 2012, with most data originating in 2007 to 2011.

Exhibit 22 illustrates each county's or city's ranking for each composite category in 2013. Rankings indicate how each county/city in Virginia ranked compared to the 134 counties in the commonwealth, and how each county in West Virginia ranked compared to the 55 counties in West Virginia. A rank of 1 indicates the best county/city in the state. Indicators are shaded based on the county's percentile for the state or commonwealth ranking. For example, Clarke County compared unfavorably to other Virginia counties for Quality of Care; with a rank of 102 out of 134 counties and placing in the bottom quartile of all Virginia counties.

[20] A composite measure of Access to Care, which examines the percent of the population without health insurance and ratio of population to primary care physicians, and Quality of Care, which 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.

[21] A composite measure that examines Environmental Quality, which measures the number of air pollution-particulate matter days and air pollution-ozone days, and Built Environment, which measures access to healthy foods and recreational facilities and the percent of restaurants that are for fast food.

Exhibit 22A: County Rank among 134 Virginia Counties, 2013

Indicator Category	Clarke	Frederick	Page	Rappahannock	Shenandoah	Warren	Winchester City
Health Outcomes	27	26	43	37	28	62	81
Mortality	24	28	65	44	32	68	91
Morbidity	40	24	18	28	25	54	72
Health Factors	16	45	98	41	70	56	67
Health Behaviors	17	56	87	32	67	80	58
Tobacco Use	16	88	48	48	89	121	48
Diet and Exercise	42	55	96	21	80	43	58
Alcohol Use	40	60	113	62	49	44	18
Sexual Activity	13	37	57	8	59	53	109
Clinical Care	66	97	126	95	85	81	39
Access to Care	37	69	110	98	101	80	33
Quality of Care	102	111	122	87	69	80	63
Social & Economic Factors	8	29	92	34	54	41	82
Education	4	56	46	83	49	39	67
Employment	7	27	125	10	59	39	78
Income	16	24	83	43	63	40	84
Family and Social Support	29	32	50	36	85	44	103
Community Safety	48	65	44	5	38	59	111
Physical Environment	74	84	34	115	93	40	51
Environmental Quality	73	101	56	48	120	60	100
Built Environment	77	69	37	127	35	44	29

Source: County Health Rankings, 2013.

Key	
Top 50th percentile of VA counties (Better)	
25th to 49th percentile of VA counties	
Bottom 25th percentile of VA counties (Worse)	

Exhibit 22B: County Rank among 55 West Virginia Counties, 2013

Indicator Category	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan
Health Outcomes	14	21	5	10	4	19	33
Mortality	21	26	8	31	6	18	34
Morbidity	10	15	5	2	4	19	24
Health Factors	13	28	39	24	3	10	8
Health Behaviors	28	8	41	14	34	6	17
Tobacco Use	32	3	38	8	23	2	37
Diet and Exercise	9	26	41	14	30	28	10
Alcohol Use	32	16	51	52	45	18	42
Sexual Activity	49	37	27	22	31	21	7
Clinical Care	10	34	47	16	8	11	21
Access to Care	15	32	53	37	11	20	42
Quality of Care	7	34	29	5	12	4	2
Social & Economic Factors	9	42	26	30	1	20	7
Education	18	36	39	43	11	12	19
Employment	18	46	17	26	2	15	23
Income	5	36	38	13	1	15	7
Family and Social Support	43	16	21	52	6	20	37
Community Safety	28	27	21	34	16	55	12
Physical Environment	35	29	42	41	5	50	3
Environmental Quality	34	16	29	7	26	55	39
Built Environment	37	38	46	52	4	11	2

Source: County Health Rankings, 2013.

Key	
Top 50th percentile of WV counties (Better)	
25th to 49th percentile of WV counties	
Bottom 25th percentile of WV counties (Worse)	

WMC counties/cities frequently ranked in the bottom half of Virginia and West Virginia counties for tobacco use, alcohol use, access to care,[22] quality of care,[23] environmental quality[24] and built environment.[25] Five counties ranked in the bottom 25 percent of counties for alcohol use. Hampshire County compared the least favorably, with 13 indicators ranking in the bottom half of West Virginia counties and five of those indicators ranking in the bottom 25 percent of West Virginia counties (**Exhibit 22)**.

Exhibits 23 and 24 provide data for each underlying indicator of the composite categories in the County Health Rankings.[26] The County Health Rankings methodology provides a comparison of counties within a state or commonwealth to one another. It also is important to analyze how these same indicators compare to the national average. For example, Frederick County's dentist ratio was more than 75 percent worse than the U.S. average, and the county was shaded to reflect this. Cells in the tables below are shaded if the indicator for a county/city in the WMC community exceeded the national average for that indicator by more than ten percent.

Counties/cities in the WMC community reported comparatively high ratios of population to dentists and recreational facilities. Counties/cities in the community also reported high rates of average daily particulate matter (poor air quality), obesity (WV), and smoking as well as low food access (low-income population not close to a grocery store) compared to the national average.

[22] The percent of the population without health insurance and ratio of population to primary care physicians.
[23] 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.
[24] The number of air pollution-particulate matter days and air pollution-ozone days.
[25] Access to healthy foods and recreational facilities and the percent of restaurants that are for fast food.
[26] County Health Rankings provides details about what each indicator measures, how it is defined, and data sources at http://www.countyhealthrankings.org/sites/default/files/resources/2013Measures_datasources_years.pdf

Exhibit 23A: County/City Data Compared to U.S. Average, Virginia Counties, 2013

Data	Clarke	Frederick	Page	Rappahannock	Shenandoah	Warren	Winchester City
Health Outcomes							
Years of potential life lost per death before age 75 per 100,000	5,861.8	6,047.4	7,596.7	6,740.7	6,217.7	7,633.8	8,473.9
Adults reporting poor or fair health	12.1%	12.6%	16.5%	8.8%	12.5%	11.8%	18.2%
Average number of physically unhealthy days reported in the past 30 days	2.7	2.7	3.0	N/A	3.4	3.9	4.3
Average number of mentally unhealthy days reported in the past 30 days	4.0	3.4	3.3	N/A	2.6	4.5	N/A
Live births under 2,500 grams (Low birth weight)	7.2%	6.8%	5.7%	7.0%	7.0%	6.8%	7.9%
Health Behaviors							
Adults reporting smoking 100 cigarettes or more and currently smoking	12.7%	20.9%	N/A	N/A	21.0%	28.1%	N/A
Adults reporting BMI over 30 (obesity)	28.4%	28.5%	31.8%	26.4%	30.0%	28.6%	29.0%
Adults 20+ reporting no leisure time physical activity	24.7%	26.3%	27.8%	26.3%	28.7%	24.5%	25.3%
Adults reporting binge and heavy drinking	10.5%	14.2%	17.7%	N/A	13.6%	13.3%	N/A
Motor vehicle crash death rate per 100,000	18.5	15.1	17.9	N/A	13.7	13.7	8.9
Chlamydia incidence rate per 100,000	114.0	130.3	128.9	54.3	107.2	247.5	347.3
Birth rate per 1,000 females aged 15-19	24.6	36.0	43.2	22.5	45.5	34.7	59.2

Source: County Health Rankings, 2013.

Key	
Unreliable or missing data	-
Ranging from better than U.S. average up to 10% worse than U.S. average	
10%-50% worse than U.S average	
50-75% worse than U.S. average	
>75% worse than U.S. average	

Exhibit 23B: County/City Data Compared to U.S. Average, Virginia Counties, 2013

Data	Clarke	Frederick	Page	Rappahannock	Shenandoah	Warren	Winchester City
Clinical Care							
Population under 65 without insurance	13.8%	15.7%	18.5%	18.2%	18.4%	16.7%	21.4%
Ratio of population to primary care physicians	1,759:1	2,804:1	2,003:1	1,878:1	1,912:1	2,086:1	380:1
Ratio of population to dentists	2,865:1	7,225:1	6,059:1	3,773:1	3,863:1	4,253:1	756:1
Hospitalizations for ambulatory care sensitive conditions per 1,000 Medicare enrollees	81.0	82.2	85.4	75.6	72.8	69.5	78.7
Diabetic Medicare enrollees that receive a blood glucose screening	85.1%	87.5%	84.5%	86.5%	87.6%	86.8%	90.6%
Female Medicare enrollees that receive a mammogram	65.9%	59.8%	54.5%	65.9%	66.7%	63.6%	67.2%
Social and Economic Factors							
Number of 9th grade cohort that graduates in 4 years	98.9%	87.1%	97.2%	81.5%	91.9%	91.5%	86.1%
Adults 25-44 with some post-secondary education	65.3%	57.6%	34.6%	63.9%	47.1%	52.3%	57.0%
Population 16+ unemployed but seeking work	5.0%	5.9%	10.9%	5.2%	7.0%	6.4%	7.7%
Percent of children under 18 in poverty	10.3%	12.4%	23.5%	16.2%	20.3%	15.8%	23.6%
Percent of adults without social/emotional support	N/A	16.0%	17.1%	N/A	21.6%	19.5%	N/A
Children in a single parent household	19.2%	25.2%	30.5%	22.7%	31.6%	23.3%	43.4%
Violent crime rate per 100,000	129.4	146.9	121.3	55.2	116.4	138.7	292.2
Physical Environment							
Average daily measure of fine particulate matter in the air in micrograms per cubic meter	12.5	12.6	12.4	12.4	12.4	12.4	12.5
Population exposed to water with a safety violation in the past year	0.0%	0.0%	0.5%	0.0%	29.8%	0.6%	N/A
Recreation facilities per 100,000 population	7.1	10.2	8.3	0.0	11.9	8.0	22.9
Number of low income population not close to a grocery store	0.5%	3.1%	0.7%	18.7%	2.6%	1.5%	7.7%
Percent of restaurants classified as fast food	57.9%	53.8%	45.2%	33.3%	46.0%	44.6%	49.5%

Source: County Health Rankings, 2013.

Key	
Unreliable or missing data	-
Ranging from better than U.S. average up to 10% worse than U.S. average	
10%-50% worse than U.S average	
50-75% worse than U.S. average	
>75% worse than U.S. average	

Exhibit 24A: County/City Data Compared to U.S. Average, West Virginia Counties, 2013

Indicator	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan
Health Outcomes							
Years of potential life lost per death before age 75 per 100,000	8,260.3	8,599.3	7,692.4	9,051.3	7,397.2	8,106.3	9,287.1
Adults reporting poor or fair health	16.7%	23.6%	17.8%	15.8%	15.8%	15.8%	22.3%
Average number of physically unhealthy days reported in the past 30 days	4.1	3.8	4.5	3.7	3.5	4.2	4.7
Average number of mentally unhealthy days reported in the past 30 days	4.1	4.1	3.1	3.1	3.4	3.4	4.4
Live births under 2500 grams (Low birth weight)	7.6%	7.5%	6.7%	7.1%	7.4%	9.6%	8.0%
Health Behaviors							
Adults reporting smoking 100 cigarettes or more and currently smoking	27.3%	16.6%	28.5%	22.3%	25.9%	15.9%	28.3%
Adults reporting BMI over 30 (obesity)	31.5%	34.3%	35.2%	32.7%	34.9%	34.1%	31.3%
Adults 20+ reporting no leisure time physical activity	29.4%	30.7%	31.4%	28.0%	27.9%	32.0%	30.8%
Reporting Binge and heavy drinking	13.0%	6.9%	12.3%	10.8%	15.3%	8.0%	10.4%
Motor vehicle crash death rate per 100,000	16.4	22.9	29.6	33.3	19.1	20.7	27.6
Chlamydia incidence rate per 100,000	262.1	117.3	112.7	114.1	226.2	145.3	85.5
Birth rate per 1,000 females aged 15-19	51.3	53.7	46.3	42.7	34.1	36.8	36.3

Source: County Health Rankings, 2013.

Key	
Unreliable or missing data	-
Ranging from better than U.S. average up to 10% worse than U.S. average	
10%-50% worse than U.S average	
50-75% worse than U.S. average	
>75% worse than U.S. average	

Exhibit 24B: County/City Data Compared to U.S. Average, West Virginia Counties, 2013

Indicator	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan
Clinical Care							
Population under 65 without insurance	16.5%	19.3%	20.7%	19.1%	14.6%	16.9%	19.4%
Ratio of population to primary care physicians	2,325:1	1,704:1	2,995:1	7,034:1	2,682:1	2,822:1	2,189:1
Ratio of population to dentists	2,399:1	3,014:1	6,117:1	1,765:1	4,233:1	3,608:1	5,880:1
Hospitalizations for ambulatory care sensitive conditions per 1,000 Medicare enrollees	65.6	90.3	95.3	83.9	56.7	100.8	87.2
Diabetic Medicare enrollees that receive a blood glucose screening	84.1%	74.2%	84.2%	85.6%	78.6%	85.5%	89.0%
Female Medicare enrollees that receive a mammogram	59.6%	65.6%	55.7%	67.0%	60.5%	74.7%	64.8%
Social & Economic Factors							
Number of 9th grade cohort that graduates in 4 years	80.6%	83.1%	83.3%	78.7%	80.9%	92.4%	85.5%
Adults 25-44 with some post-secondary education	51.5%	31.6%	30.4%	36.3%	60.5%	39.9%	43.0%
Population 16+ unemployed but seeking work	7.9%	11.0%	7.8%	8.4%	6.0%	7.5%	8.3%
Percent of children under 18 in poverty	21.4%	28.7%	28.8%	24.3%	14.5%	24.8%	21.7%
Percent of adults without social/emotional support	20.1%	19.0%	15.6%	24.1%	15.7%	15.5%	21.0%
Children in a single parent household	33.5%	23.5%	31.7%	33.4%	23.2%	31.6%	29.9%
Violent crime rate per 100,000	218.9	213.2	192.6	226.3	150.9	548.0	128.9
Physical Environment							
Average daily measure of fine particulate matter in the air in micrograms per cubic meter	12.8	12.5	12.7	12.4	12.6	12.8	12.9
Population exposed to water with a safety violation in the past year	0.2%	0.0%	0.0%	0.0%	0.2%	28.3%	2.0%
Recreation facilities per 100,000 population	5.7	0.0	0.0	0.0	7.5	7.1	17.1
Number of low income population not close to a grocery store	7.2%	6.5%	10.2%	15.5%	1.2%	4.7%	5.2%
Percent of restaurants classified as fast food	54.5%	44.4%	41.2%	33.3%	34.7%	36.7%	26.3%

Source: County Health Rankings, 2013.

Key	
Unreliable or missing data	-
Ranging from better than U.S. average up to 10% worse than U.S. average	
10%-50% worse than U.S average	
50-75% worse than U.S. average	
>75% worse than U.S. average	

2. Virginia Department of Health

The Virginia Department of Health (VDH) maintains a data warehouse that includes indicators regarding a number of health issues. In **Exhibits 25** through **32**, cells in the tables below are shaded if the mortality rate for a county/city or health district in the WMC community exceeded the Virginia average for that condition by more than ten percent. In some cases, data from VDH are presented by health district.

The Lord Fairfax Health District is composed of Clarke, Frederick, Page, Shenandoah, and Warren Counties, and Winchester City. The Rappahannock / Rapidan Health District includes Rappahannock County from the WMC community, as well as Culpeper, Fauquier, Madison, and Orange Counties. Supplemental cancer incidence data were gathered from the Centers for Disease Control and Prevention.

Exhibit 25 displays the leading causes of death in Virginia and by county/city for the WMC community. It also displays, when available, the West Virginia average for corresponding indicators.

Exhibit 25: Leading Causes of Death by County/City, 2011

Death Rates	Clarke	Frederick	Page	Rappahannock	Shenandoah	Warren	Winchester City	Virginia 2011	West Virginia 2009
Deaths from all causes	855.1	675.1	929.0	507.2	746.8	895.4	758.2	**735.8**	**N/A**
Malignant neoplasms	239.8	188.1	208.3	89.6	154.0	234.2	166.6	**169.5**	**263.3**
Diseases of the heart	181.1	111.4	193.0	158.3	160.5	155.8	159.5	**161.3**	**280.1**
Cerebrovascular diseases	-	29.5	40.7	-	36.4	54.8	46.1	**41.4**	**13.1**
Chronic lower respiratory diseases	69.6	44.0	66.7	47.3	41.1	39.4	57.3	**38.4**	**60.1**
Unintentional injury	-	41.6	44.6	-	46.3	52.8	27.0	**33.4**	**83.5**
Alzheimer's disease	31.1	14.8	43.7	0.0	10.5	-	-	**23.0**	**41.6**
Diabetes mellitus	-	12.6	27.5	0.0	22.4	23.2	-	**19.4**	**63.2**
Influenza and pneumonia	-	23.1	23.4	-	29.0	23.0	19.4	**17.4**	**15.8**
Suicide	45.8	15.8	45.9	-	14.0	14.4	-	**12.5**	**13.5**
Chronic liver disease	-	10.2	23.8	-	6.2	0.0	-	**8.1**	**30.7**
Primary hypertension and renal disease	5.8	5.4	3.2	10.8	5.4	11.6	3.4	**6.9**	**22.0**

Source: Virginia Department of Health, 2011. Rates are per 100,000 population and are age-adjusted to the 2000 population.

Key	
Rates unreliable due to small sample size sample size	-
Ranging from better than VA up to 10% worse than VA	
10-50% worse than VA	
50-75% worse than VA	
> 75% worse than VA	

Page County compared unfavorably to Virginia on ten indicators

According to VDH, Page County compared unfavorably to Virginia on ten indicators, with three indicators more than 75 percent worse than the Virginia average. Mortality due to influenza and pneumonia was greater than the commonwealth average across all counties for which there was reliable data (**Exhibit 25**).

Exhibit 26 displays selected causes of death in Virginia and by health district and race for the WMC community. Mortality data by race only are available at the health district level.

Exhibit 26: Selected Causes of Death by Health District and Race, 2011

Health District and Race	Deaths from All Causes	Cancer	All Diseases of the Heart	Cerebro-vascular Diseases	Chronic Lower Respiratory Diseases
Lord Fairfax					
White	933.3	235.7	181.5	45.1	60.0
Black	680.7	182.6	141.1	-	-
Other	119.9	-	-	-	-
Total	**904.6**	**229.4**	**176.4**	**43.7**	**56.6**
Rappahannock / Rapidan					
White	850.1	207.1	164.0	43.1	45.2
Black	946.4	235.4	153.7	52.8	14.4
Other	322.5	0.0	-	-	0.0
Total	**851.3**	**206.4**	**160.6**	**44.0**	**40.5**
Virginia					
White	807.0	189.7	176.4	42.3	46.5
Black	704.5	166.9	155.8	44.8	20.4
Other	214.2	60.7	43.7	17.0	4.3
Total	**745.1**	**176.1**	**163.0**	**41.1**	**38.3**

Source: Virginia Department of Health, 2011. Rates are per 100,000 population, are not age-adjusted, and were calculated by Verité.

Key	
Rates unreliable due to small sample size	-
Ranging from better than VA up to 10% worse than VA	
10-50% worse than VA	
50-75% worse than VA	
> 75% worse than VA	

Both health districts reported overall mortality rates and cancer mortality rates more than 10 percent worse than Virginia averages. Other populations in the Rappahannock / Rapidan Health District experienced overall and cerebrovascular disease-related mortality rates more than 50 percent worse than commonwealth averages (**Exhibit 26**).

Exhibit 27 displays injury-related mortality in Virginia and by health district and race for the WMC community.

Exhibit 27: Injury-Related Mortality by Health District and Race, 2011

Health District and Race	Unintentional Injury	Motor Vehicle Injury	Suicide
Lord Fairfax			
White	42.2	13.0	22.6
Black	58.1	-	0.0
Other	-	0.0	0.0
Total	**42.8**	**13.4**	**20.9**
Rappahannock / Rapidan			
White	54.9	20.9	18.1
Black	33.6	14.4	0.0
Other	-	-	0.0
Total	**51.8**	**20.2**	**15.5**
Virginia			
White	37.9	10.3	16.0
Black	25.7	9.6	5.2
Other	12.7	4.5	4.7
Total	**33.7**	**9.8**	**13.0**

Overall, injury-related mortality was unfavorable in Lord Fairfax and Rappahannock / Rapidan health districts

…

Three indicators were more than 75% worse than the Virginia average

Source: Virginia Department of Health, 2011. Rates are per 100,000 population, are not age-adjusted, and were calculated by Verité.

Key	
Rates unreliable due to small sample size	-
Ranging from better than VA up to 10% worse than VA	
10-50% worse than VA	
50-75% worse than VA	
> 75% worse than VA	

Black residents in the Lord Fairfax Health District experienced unintentional-injury related mortality at a rate more than double the Virginia average for that cohort. White residents and the overall population in the Rappahannock / Rapidan Health District experienced motor vehicle-related mortality rates more than double the commonwealth averages for those population groups. The overall populations of the Lord Fairfax and Rappahannock / Rapidan health districts reported higher rates of mortality related to unintentional injury, motor vehicle injury, and suicide than commonwealth averages (**Exhibit 27**).

Exhibit 28 displays other disease-related causes of death in Virginia and by health district and race for the WMC community.

Exhibit 28: Additional Disease-Related Mortality by Health District and Race, 2011

Health District and Race	Alzheimer's Disease	Diabetes Mellitus	Influenza and Pneumonia	Chronic Liver Disease
Lord Fairfax				
White	21.1	21.1	29.8	11.0
Black	-	-	0.0	0.0
Other	0.0	0.0	0.0	0.0
Total	**20.0**	**20.0**	**27.6**	**10.2**
Rappahannock / Rapidan				
White	27.8	18.1	21.5	10.4
Black	38.4	38.4	33.6	14.4
Other	0.0	0.0	0.0	0.0
Total	**28.6**	**20.2**	**22.6**	**10.7**
Virginia				
White	26.9	19.2	20.2	10.2
Black	12.6	28.1	11.8	7.0
Other	2.1	5.6	3.8	2.0
Total	**22.2**	**20.1**	**17.3**	**9.0**

Source: Virginia Department of Health, 2011. Rates are per 100,000 population, are not age-adjusted, and were calculated by Verité.

Key	
Rates unreliable due to small sample size	-
Ranging from better than VA up to 10% worse than VA	
10-50% worse than VA	
50-75% worse than VA	
> 75% worse than VA	

The Rappahannock / Rapidan Health District's Black population displayed mortality rates relating to Alzheimer's disease, diabetes, influenza and pneumonia, and chronic liver disease more than double the Virginia averages for that cohort. Both health districts reported higher rates of mortality due to influenza and pneumonia and chronic liver disease than commonwealth averages (**Exhibit 28**).

Exhibit 29 portrays 2011 cancer mortality rates by race in Virginia and by health district and race for the WMC community.

Exhibit 29: Cancer Mortality Rates by Health District and Race, 2011

Health District and Race	All Cancers	Colorectal	Pancreatic	Lung	Breast	Cervical	Prostate
Lord Fairfax							
White	235.7	17.8	17.3	74.4	13.4	8.2	12.0
Black	182.6	-	-	58.1	-	0.0	-
Other	-	-	0.0	0.0	0.0	0.0	0.0
Total	**229.4**	**18.3**	**16.5**	**72.2**	**14.3**	**7.6**	**11.6**
Rappahannock / Rapidan							
White	207.1	16.0	13.2	61.2	9.7	13.2	10.4
Black	235.4	-	0.0	43.2	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**206.4**	**16.7**	**11.3**	**11.3**	**10.1**	**12.5**	**10.1**
Virginia							
White	189.7	14.9	12.0	54.9	13.7	8.6	8.1
Black	166.9	17.4	11.8	40.7	16.0	7.7	12.5
Other	60.7	5.0	5.0	12.9	3.4	3.2	2.1
Total	**176.1**	**14.7**	**11.5**	**49.1**	**13.5**	**8.0**	**8.6**

Source: Virginia Department of Health, 2012. Rates were calculated by Verité, are per 100,000 population, and are not age-adjusted.

Key	
Rates unreliable due to small sample size	-
Ranging from better than VA up to 10% worse than VA	
10-50% worse than VA	
50-75% worse than VA	
> 75% worse than VA	

Overall, the Lord Fairfax Health District reported mortality rates higher than the Virginia average for colorectal, pancreatic, lung, and prostate cancers. Rappahannock / Rapidan Health District reported higher mortality rates than the Virginia average for colorectal, cervical, and prostate cancers (**Exhibit 29**).

Exhibit 30 displays cancer incidence rates from 2005 to 2009 in Virginia and by county/city in the WMC community.

Exhibit 30: Cancer Incidence Rates by County/City, 2005-2009

Cancer Incidence	Clarke	Frederick	Page	Rappahannock	Shenandoah	Warren	Winchester City	Virginia
All cancers	425.8	473.0	422.5	422.5	416.6	413.5	461.6	**411.3**
Breast (Female)	124.2	128.1	107.5	120	119.2	133.1	103.9	**124.2**
Colorectal	60.5	41.3	52.9	45.4	32.0	55.0	35.8	**43.2**
Lung	57.0	75.3	64.3	41.9	63.8	80.9	74.0	**67.5**
Melanoma	-	23.1	21.9	-	14.5	20.9	20.2	**20.7**
Oral	-	13.6	12.7	-	11.4	13.4	-	**10.5**
Ovarian	-	22.0	-	-	-	-	-	**11.9**
Prostate	154.9	122.6	80.7	80.7	116.1	125.7	90.9	**143.8**

Source: Centers for Disease Control and Prevention, State Cancer Profiles, 2013. Rates are per 100,000 population and are age-adjusted to the 2000 population.

Key	
Rates unreliable due to small sample size	-
Ranging from better than VA up to 10% worse than VA	
10-50% worse than VA	
50-75% worse than VA	
> 75% worse than VA	

Overall, Rappahannock and Shenandoah Counties and Winchester City reported cancer incidence rates lower than the Virginia averages. Frederick and Warren Counties had rates of some cancers significantly worse than the Virginia average, and Frederick had an ovarian cancer incidence rate more than 75 percent worse than the commonwealth average (**Exhibit 30**).

Exhibit 31 displays communicable disease incidence rates in the WMC community's Virginia health districts. Communicable disease rates are presented at the health district level due to small sample sizes at the county level.

Exhibit 31: Communicable Disease Incidence Rates by Health District, 2011

Health District	Chlamydia	Gonorrhea	Lyme Disease
Lord Fairfax	274.6	18.9	54.5
Rappahannock / Rapidan	226.4	30.1	28.3
Virginia	**453.9**	**81.5**	**12.8**

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

Key	
Ranging from better than VA up to 10% worse than VA	
10-50% worse than VA	
50-75% worse than VA	
> 75% worse than VA	

The Lord Fairfax and Rappahannock / Rapidan health districts reported much lower chlamydia and gonorrhea rates than the Virginia average, but Lyme disease incidence rates more than double the Virginia average (**Exhibit 31**).

Exhibit 32 portrays maternal and child health indicators from 2011 for Virginia and for counties in the WMC community. It also displays, when available, the West Virginia average for corresponding indicators.

Exhibit 32: Maternal and Child Health Indicators by County/City, 2011

Indicator	Clarke	Frederick	Page	Rappahannock	Shenandoah	Warren	Winchester City	Virginia 2011	West Virginia 2009
Low birth weight infants	8.7%	6.2%	7.4%	1.8%	6.7%	8.6%	6.2%	**8.0%**	**9.20%**
Very low birth weight infants	4.8%	1.1%	0.0%	1.8%	0.9%	2.1%	3.0%	**1.6%**	**N/A**
Teen birth rate (aged 15-19)*	16.6	33.6	44.7	29.8	22.6	29.0	37.7	**24.1**	**49.2**
No prenatal care in first trimester	16.7	14.1%	25.8	29.1%	17.5%	21.8%	26.2%	**17.3%**	**17.9%**
Infant mortality rate**	-	3.4	-	0.0	6.5	11.6	14.9	**6.7**	**7.8**

Sources: Virginia Department of Health, 2011, and U.S. Census, ACS 5-year estimates, 2007-2011.
*Rates per 1,000 females aged 15-19 were calculated by Verité using U.S. Census, ACS 5-year estimates.
**Rates per 1,000 live births.

Key	
Rates unreliable due to small sample size	-
Ranging from better than VA up to 10% worse than VA	
10-50% worse than VA	
50-75% worse than VA	
> 75% worse than VA	

Maternal and child health indicators were comparatively unfavorable in Warren County and Winchester City

Clarke County and Winchester City reported rates of very low birth weight infants more than 50 percent higher than the Virginia average. Page County and Winchester City reported teen birth rates more than 50 percent higher than the commonwealth average. Warren County and Winchester City reported comparatively high infant mortality rates, both with rates more than 75 percent higher than the Virginia average (**Exhibit 32**).

3. West Virginia Department of Health and Human Resources

The West Virginia Department of Health and Human Resources (WVDHHR) maintains a data warehouse that includes indicators regarding a number of health issues. In **Exhibits 33** through **37**, cells are shaded if the mortality rate for a county in the WMC community exceeded the West Virginia average by more than ten percent for that condition. Supplemental cancer incidence data also were gathered from the Centers for Disease Control and Prevention.

Exhibit 33 displays the leading causes of death in West Virginia and by county for the WMC community. It also displays the Virginia average for corresponding indicators.

Exhibit 33: Leading Causes of Death by County, 2009

Selected Causes of Death	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	West Virginia 2009	Virginia 2011
Malignant neoplasms	196.4	126.8	260.0	139.6	206.6	286.7	262.4	**263.3**	**169.5**
Diseases of the heart	183.9	312.7	246.8	315.9	202.8	330.8	317.4	**280.1**	**161.3**
Hypertension and renal disease	5.8	0.0	-	-	-	33.1	0.0	**13.1**	**6.9**
Cerebrovascular diseases (stroke)	43.3	50.7	35.3	58.8	34.1	80.9	36.6	**60.1**	**41.4**
Chronic lower respiratory disease	47.2	50.7	61.7	66.1	51.2	33.1	67.1	**83.5**	**38.4**
Diabetes	30.8	-	39.7	36.7	22.7	29.4	30.5	**41.6**	**19.4**
Unintentional injury	57.8	59.2	61.7	102.9	49.3	55.1	48.8	**63.2**	**33.4**
Suicide	10.6	-	22.0	-	-	18.4	18.3	**15.8**	**12.5**
Chronic liver disease and cirrhosis	10.6	-	-	-	19.0	-	30.5	**13.5**	**8.1**
Alzheimer's disease	17.3	-	22.0	-	26.5	29.4	42.7	**30.7**	**23**
Influenza and pneumonia	11.6	0.0	-	44.1	9.5	-	0.0	**22.0**	**17.4**
Motor vehicle injury	14.4	-	26.4	36.7	19.0	22.1	24.4	**20.2**	**N/A**

Source: West Virginia Department of Health and Human Resources, 2009. Rates are per 100,000 population.

Key	
Rates unreliable due to small sample size	-
Ranging from better than WV up to 10% worse than WV	
10-50% worse than WV	
50-75% worse than WV	
> 75% worse than WV	

Although WMC Counties compare well to West Virginia for most indicators, the state as a whole compares poorly to Virginia

Hardy County reported rates of mortality related to influenza and pneumonia and motor vehicle injury more than 75 percent worse than the West Virginia averages. Mineral County reported mortality related to hypertension and renal disease more than 75 percent worse than the state average, as did Morgan County with chronic liver disease and cirrhosis (**Exhibit 33**).

Exhibit 34 displays cancer mortality rates for West Virginia counties in the WMC community.

Exhibit 34: Cancer Mortality Rates by County, 2009

Cancer Mortality Rates	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	West Virginia
All cancers	196.4	126.8	260.0	139.6	206.6	286.7	262.0	**263.3**
Colon	22.1	-	44.1	-	24.6	18.4	-	**21.2**
Pancreas	6.7	-	8.8	-	17.1	18.4	-	**12.7**
Trachea, bronchus, and lung	64.5	-	74.9	36.7	55.0	95.6	79.3	**86.4**
Breast	13.5	-	17.6	-	15.2	18.4	-	**15.6**
Prostate	7.7	-	8.8	-	17.1	-	-	**12.3**

Source: West Virginia Department of Health and Human Resources, 2009. Rates are per 100,000 population.

Key	
Rates unreliable due to small sample size	-
Ranging from better than WV up to 10% worse than WV	
10-50% worse than WV	
50-75% worse than WV	
> 75% worse than WV	

Hampshire County reported a colon cancer mortality rate more than double the West Virginia average. Jefferson and Mineral Counties each reported mortality rates for three cancers more than 10 percent worse than the state average (**Exhibit 34**).

Exhibit 35 displays cancer incidence rates from 2005 to 2009 for West Virginia counties in WMC's community.

Exhibit 35: Cancer Incidence Rates by County, 2005-2009

Cancer	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	West Virginia
All Cancers	478.1	338.4	592.6	385.3	412.7	455.8	391.2	**490.8**
Breast	115.5	71.3	149.4	77.8	126.4	95.7	89.9	**112.2**
Colorectal	53.5	38.8	58.2	45.3	48.9	54.7	38	**52.6**
Lung	89.4	46.4	107.6	43.6	66	84.9	90.1	**90.4**
Melanoma	16.8	-	19.4	-	13.4	-	-	**19.3**
Oral	10.8	-	26.8	19.4	9.3	-	-	**11.3**
Ovary	15.4	-	-	-	17.2	-	-	**12.8**
Prostate	133.3	101.6	120.6	130.6	101.8	136.6	98.8	**138.4**

Source: Centers for Disease Control and Prevention, State Cancer Profiles, 2013. Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population.

Key	
Rates unreliable due to small sample size	-
Ranging from better than WV up to 10% worse than WV	
10-50% worse than WV	
50-75% worse than WV	
> 75% worse than WV	

Hampshire County reported an oral cancer incidence rate more than 75 percent worse than the West Virginia average and also reported higher incidence rates than the state average for breast, colorectal, and lung cancers (**Exhibit 35**).

Exhibit 36 displays communicable disease incidence rates in the West Virginia counties comprising the WMC community.

Exhibit 36: Communicable Disease Incidence Rates by County, 2012

County	Chlamydia	Gonorrhea	Latent Tuberculosis Incidence
Berkeley	327.4	67.2	12.5
Grant	117.3	0.0	-
Hampshire	162.7	-	-
Hardy	235.3	-	149.7
Jefferson	205.6	28.0	108.4
Mineral	191.4	-	0.0
Morgan	159.6	-	0.0
West Virginia	**258.1**	**45.3**	**13.4**

Source: West Virginia Department of Health and Human Services Bureau for Public Health, 2013. Rates are per 100,000 population.

Key	
Rates unreliable due to small sample size	-
Ranging from better than WV up to 10% worse than WV	
10-50% worse than WV	
50-75% worse than WV	
> 75% worse than WV	

Hardy and Jefferson Counties reported latent tuberculosis incidence rates more than double the West Virginia average (**Exhibit 36**).

Exhibit 37 displays maternal and child health indicators for West Virginia counties in WMC's community. It also displays the Virginia average for corresponding indicators.

Exhibit 37: Maternal and Child Health Indicators by County, 2009

Indicator	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	West Virginia 2009	Virginia 2011
Low birth weight infants	7.8%	14.2%	6.8%	5.7%	6.2%	8.4%	10.5%	**9.2%**	**8.0%**
Teen birth rate (aged 15-19)*	50.4	72.7	56.0	50.0	45.3	47.6	32.0	**49.2**	**24.1**
No prenatal care in first trimester	15.0%	15.7%	13.6%	14.6%	11.8%	18.5%	22.4%	**17.9%**	**17.3%**
Smoking during pregnancy	20.6%	33.6%	28.7%	29.7%	15.8%	28.4%	24.8%	**27.2%**	**N/A**
Infant mortality rate**	13.3	0.0	0.0	-	9.6	-	18.5	**7.8**	**6.7**

Sources: West Virginia Department of Health and Human Resources, 2009 and U.S. Census, ACS 5-year estimates, 2005-2009.
*Rates per 1,000 females aged 15-17 were calculated by Verité using U.S. Census, ACS 5-year estimates, 2005-2009.
**Rate per 1,000 live births.

Key	
Rates unreliable due to small sample size	-
Ranging from better than WV up to 10% worse than WV	
10-50% worse than WV	
50-75% worse than WV	
> 75% worse than WV	

Although WMC's West Virginia counties compare well to the state for teen pregnancy, West Virginia's rate is double that of Virginia

Morgan County reported an infant mortality rate more than 75 percent worse than the West Virginia average. Grant County reported three maternal and child health indicators more than 10 percent worse than the state average (**Exhibit 37**).

4. Behavioral Risk Factor Surveillance System

Data collected by the Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSSS) are based on a telephone 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 38A compares various BRFSS indicators for Frederick, Shenandoah, and Warren Counties, with Virginia and U.S. averages for comparison. Indicators are shaded if an area's value was more than ten percent worse than the Virginia average. Data for Clarke and Page Counties and Winchester City were not included in this analysis due to small sample sizes. Data for Rappahannock County were unavailable. **Exhibit 38B** compares BRFSS indicators to state and U.S. averages for the community's West Virginia counties. Data for Grant County were unavailable.

Exhibit 38A: BRFSS Indicators and Variation from the Commonwealth of Virginia*, 2011

Indicator		Frederick	Shenandoah	Warren	VA	U.S.
Health Behaviors	Binge drinkers**	6.6%	9.5%	22.7%	**11.1%**	**12.0%**
	Heavy drinkers***	1.6%	9.5%	9.1%	**5.2%**	**5.3%**
	Current smoker	23.0%	14.3%	31.8%	**17.2%**	**16.7%**
	No physical activity in past 30 days	26.2%	16.7%	18.2%	**24.4%**	**25.7%**
	Sometimes, seldom, or never wear seat belt	1.6%	2.4%	9.1%	**4.5%**	**5.7%**
Access	Unable to visit doctor due to cost	14.8%	4.8%	4.5%	**11.1%**	**12.7%**
	No personal doctor/healthcare provider	13.1%	9.5%	9.1%	**16.0%**	**14.4%**
	Do not have health care coverage	9.8%	9.5%	13.6%	**30.2%**	**10.8%**
Health Conditions	Overweight or obese	52.5%	57.1%	63.6%	**59.6%**	**60.6%**
	Told have asthma	6.6%	9.5%	18.2%	**11.8%**	**12.9%**
	Told have coronary heart disease or angina	8.2%	0.0%	9.1%	**5.3%**	**6.0%**
	Told have diabetes	6.6%	21.4%	18.2%	**12.9%**	**12.4%**
Mental Health	Poor mental health > 21 days/month	9.8%	9.5%	0.0%	**5.8%**	**N/A**
Overall Health	Poor physical health > 21 days/month	11.5%	14.3%	9.1%	**8.6%**	**N/A**
	Limited by physical, mental, or emotional problems	24.6%	35.0%	22.7%	**26.2%**	**28.5%**
	Reported poor or fair health	26.2%	16.7%	22.7%	**19.2%**	**19.6%**

Source: CDC BRFSS, 2011.
*Data for Clarke and Page Counties and Winchester City were not included in this analysis due to small sample sizes. Data for Rappahannock County were unavailable.
**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.

Key	
Ranging from better than VA up to 10% worse than VA	
10-50% worse than VA	
50-75% worse than VA	
> 75% worse than VA	

Warren County compared most unfavorably, with six indicators more than 50 percent worse than the Virginia average, of which four were greater than 75 percent worse than the commonwealth average. Warren reported particularly high percentages of residents who binge drink, drink heavily, smoke, and do not wear seat belts. Frederick County compared most favorably, with only two indicators more than 50 percent worse than the Virginia average (**Exhibit 38A**).

Exhibit 38B: BRFSS Indicators and Variation from the State of West Virginia, 2011

Indicator		Berkeley	Hampshire	Hardy	Jefferson	Mineral	Morgan	WV	U.S.
Health Behaviors	Binge drinkers*	6.0%	4.6%	7.3%	15.4%	6.3%	4.3%	**6.9%**	**12.0%**
	Heavy drinkers**	1.9%	4.6%	1.8%	10.6%	1.6%	2.2%	**3.1%**	**5.3%**
	Current smoker	18.5%	26.2%	25.5%	22.8%	25.0%	26.1%	**23.8%**	**16.7%**
	No physical activity in past 30 days	31.5%	38.5%	40.0%	30.1%	29.7%	32.6%	**37.0%**	**25.7%**
	Sometimes, seldom, or never wear seat belt	7.4%	9.2%	10.9%	4.1%	3.1%	6.5%	**7.6%**	**5.7%**
Access	Unable to visit doctor due to cost	16.2%	20.0%	12.7%	12.2%	12.5%	10.9%	**17.6%**	**12.7%**
	No personal doctor/healthcare provider	14.8%	13.8%	21.8%	22.0%	12.5%	15.2%	**18.3%**	**14.4%**
	Do not have health care coverage	11.1%	7.7%	12.7%	12.2%	7.8%	21.7%	**14.6%**	**10.8%**
Health Conditions	Overweight or obese	64.8%	56.9%	70.9%	57.7%	57.8%	71.7%	**65.2%**	**60.6%**
	Told have asthma	9.7%	13.8%	7.3%	8.9%	10.9%	6.5%	**11.3%**	**12.9%**
	Told have coronary heart disease or angina	10.6%	7.7%	1.8%	6.5%	7.8%	10.9%	**8.3%**	**6.0%**
	Told have diabetes	16.2%	6.2%	12.7%	14.6%	4.7%	10.9%	**14.4%**	**12.4%**
Mental Health	Poor mental health > 21 days/month	11.1%	6.2%	1.8%	8.9%	7.8%	4.3%	**9.3%**	**N/A**
Overall Health	Poor physical health > 21 days/month	15.7%	18.5%	5.5%	11.4%	9.4%	8.7%	**12.9%**	**N/A**
	Limited by physical, mental, or emotional problems	32.2%	38.5%	30.9%	34.2%	37.5%	37.0%	**35.4%**	**28.5%**
	Reported poor or fair health	24.1%	36.9%	10.9%	21.1%	17.2%	19.6%	**27.8%**	**19.6%**

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.

Key
Ranging from better than WV up to 10% worse than WV
10-50% worse than WV
50-75% worse than WV
> 75% worse than WV

In Jefferson County, the percentage of people who reported being binge drinkers or heavy drinkers was more than 75 percent higher than the West Virginia average. Hampshire County had six indicators that were worse than the West Virginia average, the most in WMC's community's West Virginia counties, followed by Berkeley County with four. West Virginia compares unfavorably to U.S. averages for many indicators (**Exhibit 38B**).

5. Healthy People 2020 Goals

Health People 2020 (HP 2020) is a project of the U.S. Department of Health and Human Services (HHS). HP 2020 identifies national health priorities and works to improve public awareness regarding problematic health concerns.

Exhibit 39A: Healthy People 2020 Indicators and Goals, Virginia Counties/Cities

Indicator	Clarke	Frederick	Page	Rappahannock	Shenandoah	Warren	Winchester	HP 2020
Population with health insurance	86.2%	84.3%	81.5%	81.8%	81.6%	83.3%	78.6%	100.0%
Population with a usual source of primary care	-	86.9%	-	-	90.5%	-	-	83.9%
Cancer mortality rate	239.8	188.1	208.3	89.6	154	234.2	166.6	160.6
Diabetes mortality rate	5.1	12.6	27.5	-	22.4	23.2	9.7	65.8
Heart disease mortality rate	181.1	111.4	193	158.3	160.5	155.8	159.5	100.8
Stroke mortality rate	22.4	29.5	40.7	17.2	36.4	54.8	46.1	33.8
Chronic liver disease and cirrhosis mortality rate	5.1	10.2	23.8	10.8	6.2	0	6.1	8.2
Unintentional injury mortality rate	18	41.6	44.6	21.7	46.3	52.8	27	36
Suicide mortality	45.8	15.8	45.9	14.7	14	14.4	18.7	10.2
Colorectal cancer incidence	60.5	41.3	52.9	45.4	32	55	35.8	38.6
Population reporting seat belt use	-	98.4%	-	-	97.6%	-	-	92.4%
Binge drinkers	-	6.6%	-	-	9.5%	-	-	24.3%
Heavy drinkers	-	1.6%	-	-	9.5%	-	-	25.3%
Current smokers	-	23.0%	-	-	14.3%	-	-	12.0%
Population reporting no leisure time physical activity	-	26.2%	-	-	16.7%	-	-	32.6%
Infant mortality rate	7.9	3.4	4.4	-	6.5	11.6	14.9	6
Low birth weight infants	8.7%	6.2%	7.4%	1.8%	6.7%	8.6%	6.2%	7.8%
Very low birth weight infants	4.8%	1.1%	-	1.8%	0.9%	2.1%	3.0%	1.4%
Pregnant women receiving 1st trimester prenatal	83.3%	85.9%	74.2%	70.9%	82.5%	78.2%	73.8%	77.9%
Pregnant mothers abstaining from smoking	-	-	-	-	-	-	-	98.6%
Drinking water safety	100.0%	100.0%	99.5%	100.0%	70.2%	99.4%	-	91.0%

Sources: CDC BRFSS, 2012; CDC State Cancer Profiles, 2013; County Health Rankings, 2013; Virginia Department of Health, 2012.
Rates are per 100,000 population, aside from infant mortality, which is per 1,000 live births.

Key	
Unreliable or missing data	-
Ranging from better than HP 2020 up to 10% worse than HP 2020	
10%-50% worse than HP 2020	
50-75% worse than HP 2020	
>75% worse than HP 2020	

Exhibit 39B: Healthy People 2020 Indicators and Goals, West Virginia Counties

Indicator	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	HP 2020
Population with health insurance	83.5%	80.7%	79.3%	80.9%	85.4%	83.1%	80.6%	100.0%
Population with a usual source of primary care	85.2%	-	86.2%	78.2%	78.0%	87.5%	84.8%	83.9%
Cancer mortality rate	196.4	126.8	260.0	139.6	206.6	286.7	262.4	160.6
Diabetes mortality rate	30.8	-	39.7	36.7	22.7	29.4	30.5	65.8
Heart disease mortality rate	183.9	312.7	246.8	315.9	202.8	330.8	317.4	100.8
Stroke mortality rate	43.3	50.7	35.3	58.8	34.1	80.9	36.6	33.8
Chronic liver disease and cirrhosis mortality rate	10.6	-	-	-	19	-	30.5	8.2
Unintentional injury mortality rate	57.8	59.2	61.7	102.9	49.3	55.1	48.8	36.0
Suicide mortality	10.6	-	22	-	-	18.4	18.3	10.2
Colorectal cancer incidence	53.5	38.8	58.2	45.3	48.9	54.7	38.0	38.6
Population reporting seat belt use	92.6%	-	90.8%	89.1%	95.9%	96.9%	93.5%	92.4%
Binge drinkers	6.0%	-	4.6%	7.3%	15.4%	6.3%	4.3%	24.3%
Heavy drinkers	1.9%	-	4.6%	1.8%	10.6%	1.6%	2.2%	25.3%
Current smokers	18.5%	-	26.2%	25.5%	22.8%	25.0%	26.1%	12.0%
Population reporting no leisure time physical activity	31.5%	-	38.5%	40.0%	30.1%	29.7%	32.6%	32.6%
Infant mortality rate	13.3	-	-	-	9.6	-	18.5	6.0
Low birth weight infants	7.8%	14.2%	6.8%	5.7%	6.2%	8.4%	10.5%	7.8%
Very low birth weight infants	-	-	-	-	-	-	-	1.4%
Pregnant women receiving 1st trimester prenatal care	85.0%	84.3%	86.4%	85.4%	88.2%	81.5%	77.6%	77.9%
Pregnant mothers abstaining from smoking	79.4%	66.4%	71.3%	70.3%	84.2%	71.6%	75.2%	98.6%
Drinking water safety	99.8%	100.0%	100.0%	100.0%	99.8%	71.7%	98.0%	91.0%

Sources: CDC BRFSS, 2012; CDC State Cancer Profiles, 2013; County Health Rankings, 2013; West Virginia Department of Health and Human Services, 2012. Rates are per 100,000 population, aside from infant mortality, which is per 1,000 live births.

Key	
Unreliable or missing data	-
Ranging from better than HP 2020 up to 10% worse than HP 2020	
10%-50% worse than HP 2020	
50-75% worse than HP 2020	
>75% worse than HP 2020	

Heart disease and suicide mortality rates were problematic across the WMC PSA and SSA, as were rates of smoking. Unintentional injury mortality rates were comparatively high in the SSA. Mineral and Morgan Counties in West Virginia reported five indicators each which were more than 75 percent worse than the HP 2020 goals (**Exhibits 38A** and **B**).

Ambulatory Care Sensitive Conditions

This section examines the frequency of discharges for Ambulatory Care Sensitive Conditions (ACSC) throughout the counties in WMC's community and at the hospital.

ACSC are sixteen health "conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease."[27] As such, rates of hospitalization for these conditions can "provide insight into the quality of the health care system outside of the hospital," including the accessibility and utilization of primary care, preventive care and health education. Among these conditions are: diabetes, perforated appendixes, chronic obstructive pulmonary disease (COPD), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, and asthma.

Disproportionately high rates of discharges for ACSC indicate potential problems with the availability or accessibility of ambulatory care and preventive services and can suggest areas for improvement in the health care system and ways to improve outcomes.

[27] Agency for Healthcare Research and Quality (AHRQ) Prevention Quality Indicators, accessed online at http://archive.ahrq.gov/data/hcup/factbk5/factbk5d.htm on June 28, 2013.

1. County/City-Level Analysis

Exhibit 40 indicates the percentage of hospital discharges in the WMC community that were for ACSCs, by payer.[28]

Exhibit 40: Discharges for ACSC by County/City and Payer, 2012

County/City	Government	Medicaid	Medicare	Other	Private	Self	Total
PSA	**12.8%**	**11.3%**	**20.9%**	**7.4%**	**10.0%**	**15.2%**	**15.5%**
Clarke, VA	0.0%	8.7%	20.7%	12.5%	8.6%	14.8%	15.6%
Frederick, VA	21.8%	10.8%	20.5%	2.4%	8.5%	12.4%	14.0%
Hampshire, WV	9.1%	13.1%	22.8%	20.8%	12.0%	15.7%	18.0%
Hardy, WV	-	7.1%	16.9%	0.0%	8.6%	6.3%	12.5%
Morgan, WV	25.0%	15.2%	21.9%	0.0%	13.5%	18.0%	18.9%
Page, VA	33.3%	11.7%	24.3%	22.2%	23.8%	15.9%	22.5%
Rappahannock, VA	-	26.3%	25.8%	0.0%	6.9%	26.1%	21.6%
Shenandoah, VA	0.0%	14.0%	21.6%	21.1%	10.7%	11.6%	16.6%
Warren, VA	14.3%	11.0%	21.0%	12.5%	13.2%	20.6%	17.3%
Winchester, VA	7.7%	10.6%	20.8%	0.0%	10.6%	15.4%	15.3%
SSA	**12.5%**	**11.4%**	**19.5%**	**11.7%**	**10.5%**	**15.6%**	**15.4%**
Berkeley, WV	9.5%	7.7%	16.1%	4.8%	6.5%	21.1%	11.1%
Grant, WV	-	13.5%	7.6%	0.0%	5.3%	7.7%	7.6%
Jefferson, WV	0.0%	9.2%	15.6%	0.0%	7.6%	10.1%	11.5%
Mineral, WV	0.0%	11.1%	13.6%	50.0%	8.7%	12.5%	12.0%
Total	**12.7%**	**11.3%**	**20.4%**	**9.3%**	**10.2%**	**15.3%**	**15.4%**

Source: Verité analysis of data from Valley Health, using AHRQ software, 2012.

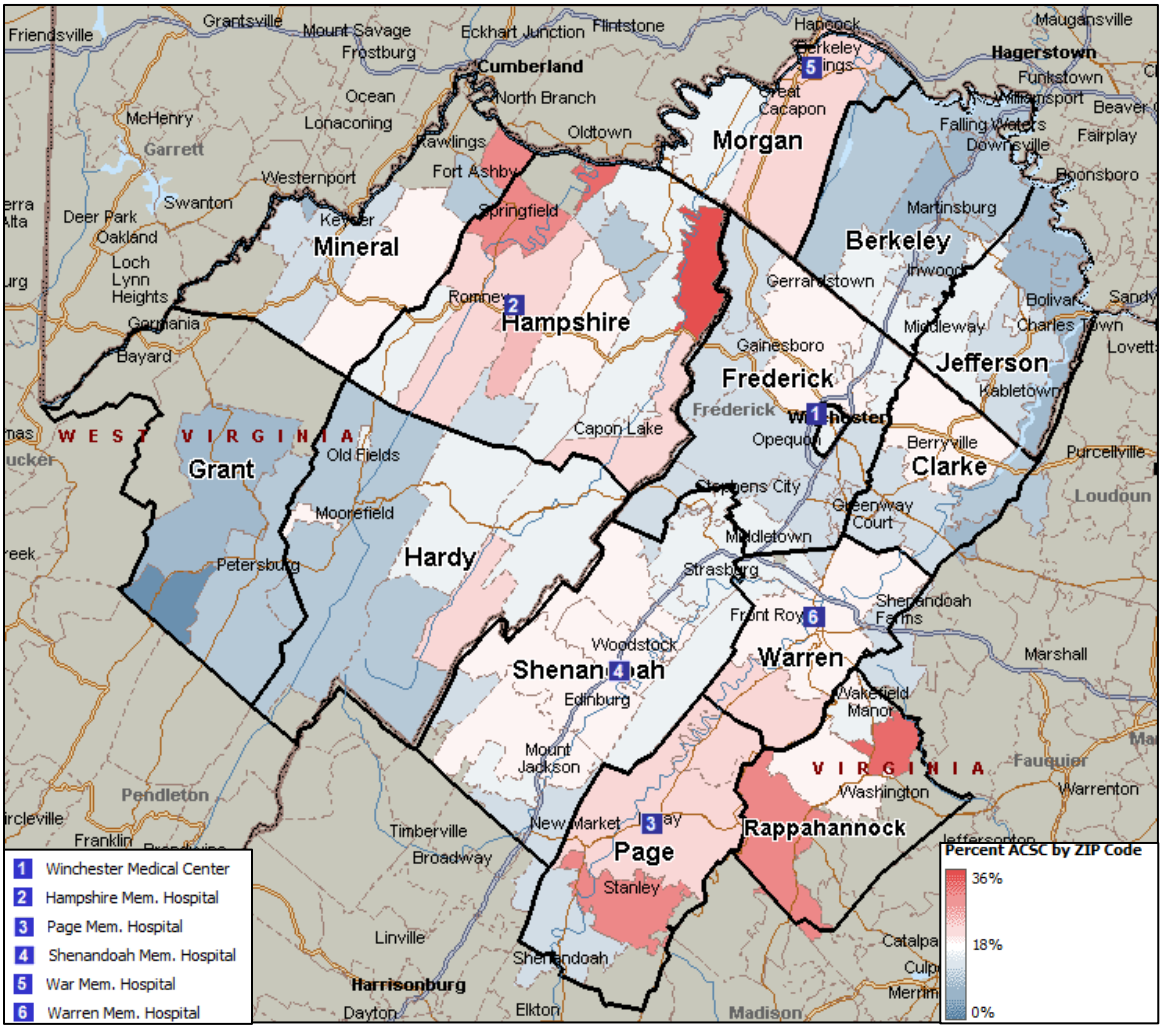
The table indicates that 15.4 percent of Valley Health's discharges were for ACSCs in 2012. Medicare patients had the highest proportion of discharges for ACSCs. Self-pay patient (typically uninsured individuals), had an ACSC rate equal to the overall figure. Page and Rappahannock Counties in Virginia, and Morgan and Hampshire Counties in West Virginia, had the highest percentage of discharges for ACSC (**Exhibit 40**).

[28] Discharges from all Valley Health hospitals.

2. ZIP Code-Level Analysis

Exhibit 41 illustrates the percentage of discharges for all community residents that were for ACSCs, by ZIP code.

Exhibit 41: Discharges[29] for ACSC by County/City and ZIP Code, 2012*



Sources: Microsoft MapPoint and Verité analysis of data from Valley Health, using AHRQ software, 2012.
*ZIP codes with fewer than ten discharges were excluded.

The percentage of discharges that were for ACSC was highest in the following ZIP codes: 26817 in Hampshire County (Bloomery, 35.1%), 22627 in Rappahannock County (Flint Hill, 31.0%), and 25431 in Rappahannock County (Levels, 30.8%) (**Exhibit 41**).

[29] Discharges are from all Valley Health hospitals.

3. Hospital-Level Analysis

Exhibit 42 displays the percent of discharges for ACSC from each hospital in the Valley Health system.

Exhibit 42: ACSC Discharges by Hospital, 2012

Hospital	Percent ACSC	Total Discharges
Hampshire	33.6%	470
Page	34.0%	903
Shenandoah	25.3%	1,911
War	32.5%	462
Warren	20.1%	3,145
Winchester	12.7%	26,346
Total	**15.3%**	**33,237**

Source: Verité analysis of data from Valley Health, using AHRQ software, 2012.

Of all Valley Health facilities, Page Memorial Hospital and Hampshire Memorial Hospital had the highest proportions of ACSC discharges

WMC had the lowest percent of discharges which were ACSC of all hospitals in the Valley Health system (**Exhibit 42**).

Exhibit 43 portrays discharges by ACSC by condition.

Exhibit 43: Discharges for ACSC by Condition, Winchester Medical Center, 2012

Condition	0 to 17	18 to 39	40 to 64	65+	Total
Congestive heart failure admission		0.4%	24.8%	74.8%	733
Bacterial pneumonia admission		6.1%	28.8%	65.1%	621
COPD or asthma in older adults		0.0%	39.0%	61.0%	541
Urinary tract infection admission		8.2%	22.1%	69.7%	485
Diabetes long-term complication admission		6.1%	45.2%	48.7%	228
Dehydration admission		9.7%	37.6%	52.7%	165
Diabetes short-term complication admission		53.7%	36.2%	10.1%	149
Hypertension admission		3.1%	52.6%	44.3%	97
Low birth weight	100.0%				93
Pediatric gastroenteritis admission	100.0%				50
Perforated appendix admission		23.4%	40.4%	36.2%	47
Pediatric asthma admission	100.0%				38
Uncontrolled diabetes admission		11.1%	66.7%	22.2%	27
Pediatric urinary tract infection admission	100.0%				26
Angina without procedure admission		7.1%	50.0%	42.9%	14
Asthma in younger adults		100.0%			14
Pediatric perforated appendix admission	100.0%				7
Pediatric diabetes short-term complication admission	100.0%				5
Total	**6.6%**	**6.7%**	**29.7%**	**57.0%**	**3,340**

Source: Verité analysis of data from Valley Health, using AHRQ software, 2012.

The top four ACSC conditions at WMC were: congestive heart disease, bacterial pneumonia, chronic obstructive pulmonary disease or asthma in older adults, and urinary tract infection. Patients aged 65 years and over had the highest percentage of discharges for ACSC conditions (**Exhibit 43**).

Community Need Index™ and Food Deserts

1. Dignity Health Community Need Index

Dignity Health, a California-based hospital system, developed and has made widely available for public use a *Community Need Index*™ that measures barriers to health care access by county/city and ZIP code.[30] The index is based on five social and economic indicators:

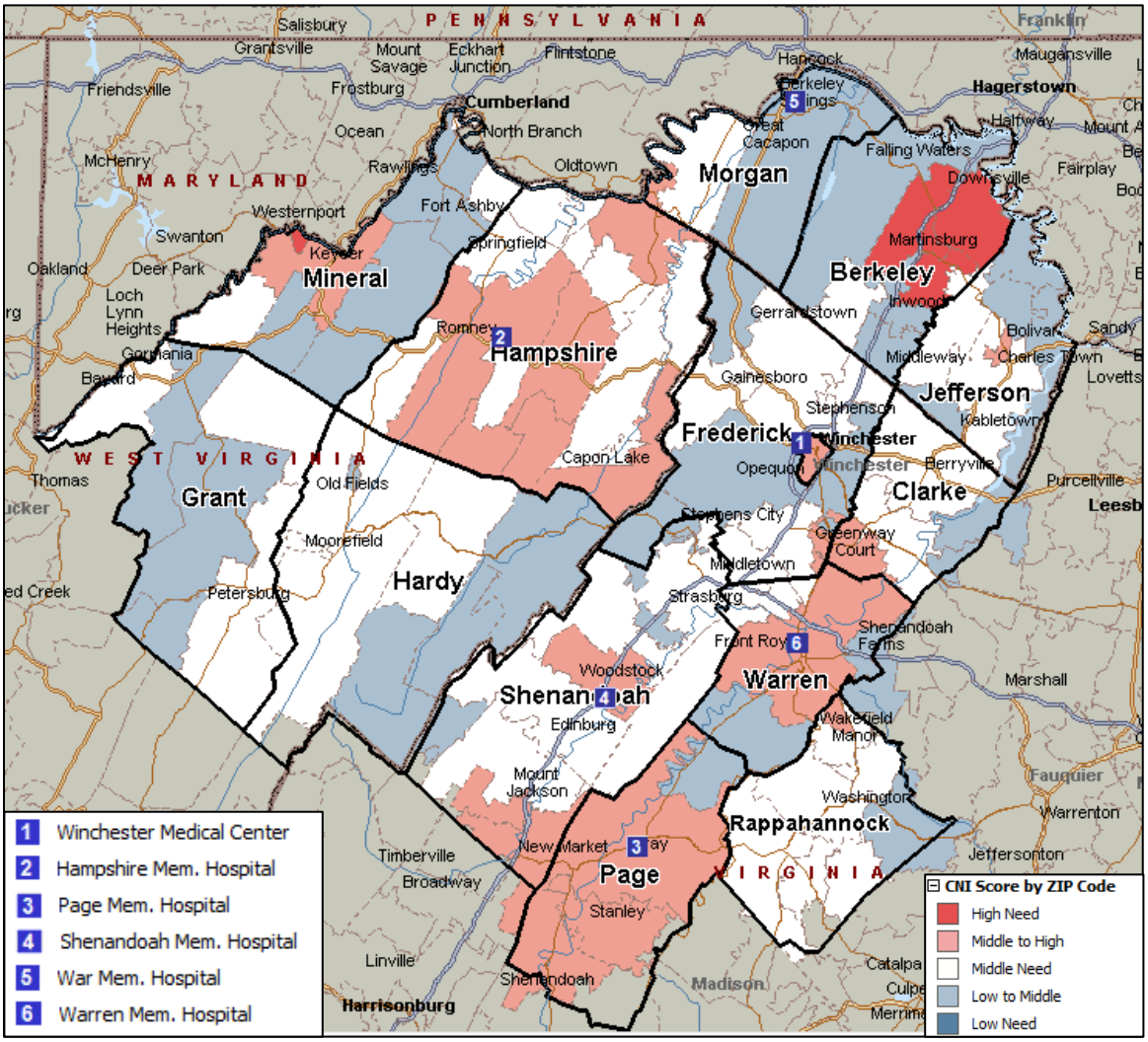
- The percentage of elders, children, and single parents living in poverty;
- The percentage of adults over the age of 25 with limited English proficiency, and the percentage of the population that is non-White;
- The percentage of the population without a high school diploma;
- The percentage of uninsured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

The *Community Need Index*™ calculates a score for each ZIP code based on these indicators. Scores range from "Lowest Need" (1.0-1.7) to "Highest Need" (4.2-5.0).

[30] Accessed online at http://cni.chw-interactive.org/ on June 28, 2013.

Exhibit 44 presents the *Community Need Index*™ (CNI) score of each ZIP code in the WMC community.

Exhibit 44: Community Need Index™ Score by County and ZIP Code



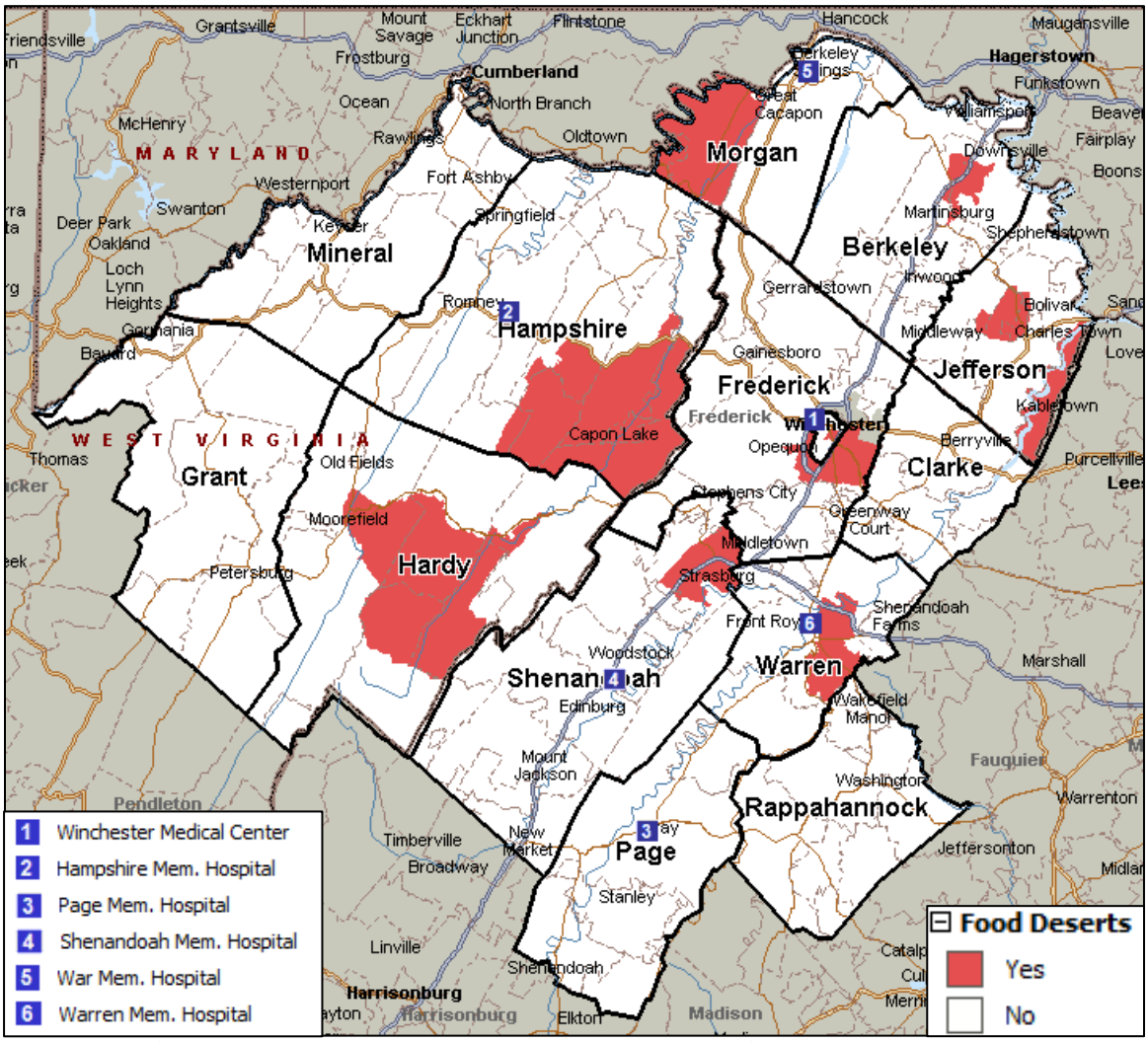
Sources: Microsoft MapPoint and Dignity Health, 2013.

ZIP codes 25401, 25403, 25404, 25405 (all in Martinsburg, Berkeley County), and 26750 (Piedmont, Mineral County) all scored in the "Highest Need" category (**Exhibit 44**). Areas of middle to high need are located in substantial parts of Hampshire, Page and Warren Counties, smaller parts of Shenandoah and Clarke Counties, and Winchester City.

2. Food Deserts (Lack of Access to Nutritious and Affordable Food)

The U.S. Department of Agriculture's Economic Research Service estimates the number of people in each census tract that live in a "food desert," defined as low-income areas more than one mile from a supermarket or large grocery store in urban areas and more than 10 miles from a supermarket or large grocery store in rural areas. Many government-led initiatives aim to increase the availability of nutritious and affordable foods to people living in these food deserts. **Exhibit 45** illustrates the location of food deserts in the WMC community.

Exhibit 45: Food Deserts by Census Tract



Sources: Microsoft MapPoint and the Economic Research Services, U.S. Department of Agriculture, 2013.

WMC's community contains 13 census tracts identified as food deserts. These are located in and around the municipalities of Augusta, Baker, Bluemont, Charles Town, Front Royal, Great Cacapon, Martinsburg, Strasburg, and Winchester (**Exhibit 45**).

Overview of the Health and Social Services Landscape

This section identifies geographic areas and populations in the community that may be facing barriers accessing care due to medical underservice or a shortage of health professionals.

The section then summarizes various assets and resources available to improve and maintain the health of the community.

1. Medically Underserved Areas and Populations

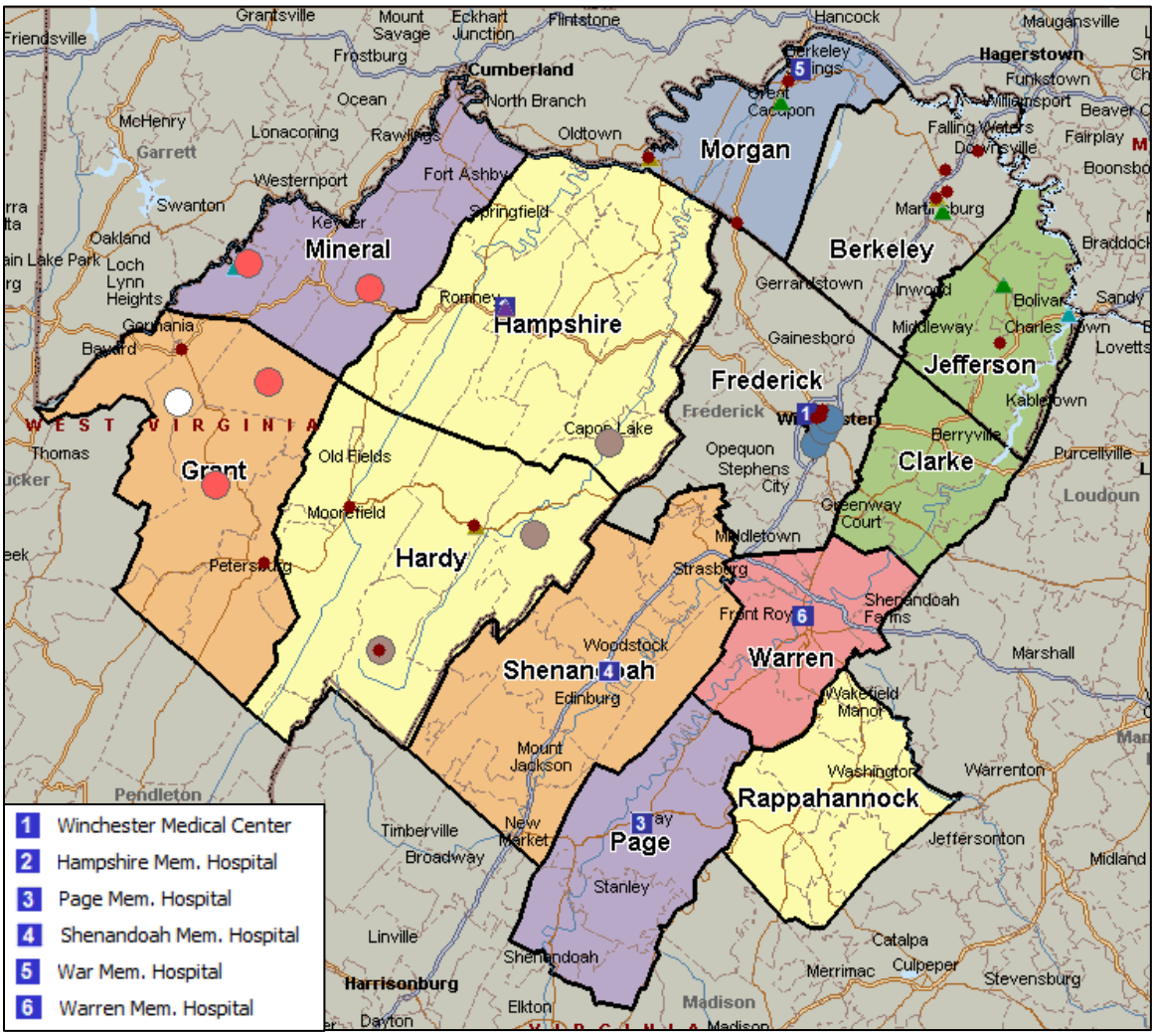
The Health Resources and Services Administration (HRSA) calculates an Index of Medical Underservice (IMU) score for communities across the U.S. The IMU calculation is a composite of the ratio of primary medical care physicians per 1,000 persons, the infant mortality rate, the percentage of the population 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.[31]

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 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."[32]

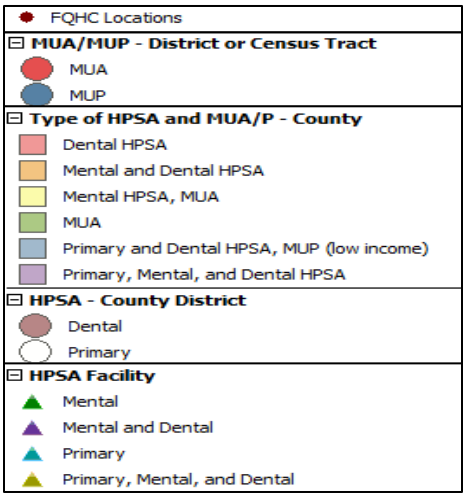
Exhibit 46 shows areas designated by HRSA as medically underserved. The WMC community contains eight MUAs and three MUPs.

[31] 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.
[32] *Ibid.*

Exhibit 46: Medically Underserved Areas and Populations and Health Professional Shortage Areas, 2012



Sources: Microsoft MapPoint and the Health Resources and Services Administration, 2013.



The Winchester Medical Center community contains eight MUAs and three MUPs

...

Grant, Hampshire, Hardy, Rappahannock, and Shenandoah counties are Mental Health HPSAs

2. Health Professional Shortage Areas

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

In addition to areas and populations that can be designated as HPSAs, a health care facility can receive federal HPSA designation and an 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 services.

HPSAs can be: "(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."[33]

Areas and populations in the WMC community are designated as HPSAs (**Exhibit 46**). Page and Mineral Counties are designated as primary medical care, dental, and mental health HPSAs, while Grant and Shenandoah Counties are designated as mental health and dental HPSAs. Mt. Storm, located in Grant County, is considered a primary medical care HPSA. Morgan County is a primary medical care and dental HPSA. Hardy, Hampshire, and Rappahannock Counties are designated as mental health HPSAs and Winchester City and Warren County are designated as dental HPSAs. Parts of Hampshire and Hardy Counties also are considered dental HPSAs.

[33] 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

3. Description of Other Facilities and Resources within the Community

The WMC community contains a variety of resources that are available to meet the health needs identified in this CHNA. These resources include facilities designated as HPSAs, hospitals, FQHCs, health professionals, and other agencies and organizations.

Exhibit 47 displays the facilities that are designated as HPSAs in the WMC community.

Exhibit 47: Information on HPSA Facilities in the WMC Community

County	Name	Type of HPSA
PSA		
Hampshire, WV	Hampshire Memorial Hospital	Mental Health, Dental Health
Hardy, WV	E.A. Hawse Health Center - 2 Locations	Primary Medical Care, Mental Health, Dental Health
Morgan, WV	Mountaineer Community Health Center, Inc.	Primary Medical Care, Mental Health, Dental Health
	East Ridge Health Systems - Berkeley Springs	Mental Health
SSA		
Berkeley, WV	Shenandoah Valley Medical Center	Primary Medical, Mental Health, Dental Health
	East Ridge Health Systems - Martinsburg	Mental Health
Jefferson, WV	East Ridge Health Systems - Kearneysville	Mental Health
	Harpers Ferry Family Medicine	Primary Medical
Mineral, WV	Elk Garden Clinic	Primary Medical Care

Source: Health Resources and Services Administration, 2013.

There are 10 health care facilities in the WMC community, all in West Virginia, that are designated as HPSA facilities (**Exhibit 47**).

Exhibit 48 identifies the hospitals in the WMC community.

Exhibit 48: List of Hospitals in the WMC Community

County/City	Hospital Name
PSA	
Hampshire, WV	Hampshire Memorial Hospital
Morgan, WV	War Memorial Hospital
Page, VA	Page Memorial Hospital
Shenandoah, VA	Shenandoah Memorial Hospital
Warren, VA	Warren Memorial Hospital
Winchester, VA	Winchester Medical Center
SSA	
Berkeley, WV	Berkeley Medical Center
	Martinsburg VA Medical Center
Grant, WV	Grant Memorial Hospital
Jefferson, WV	Jefferson Memorial Hospital
Mineral, WV	Potomac Valley Hospital

Source: Centers for Medicare & Medicaid Services, 2013.

The community contains four acute care hospitals and seven critical access hospital facilities (**Exhibit 48**).

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.

Exhibit 49: Information on Federally Qualified Health Centers in the WMC Community

County/City	FQHC Name	Ownership
PSA		
Winchester City, VA	Migrant Services-Winchester Outreach	Shenandoah Valley Medical System
	Winchester Family Health Center – 2 Locations	Shenandoah Valley Medical System
Hardy, WV	E. A. Hawse Health Center, Inc. – 2 Locations	E. A. Hawse Health Center, Inc.
	Potomac Valley Family Medicine	E. A. Hawse Health Center, Inc.
Morgan, WV	Mountaineer Community Health Center, Inc.	Independent
	Shenandoah Maternity- Berkeley Springs	Shenandoah Valley Medical System
	SVMS Behavioral Health, Berkeley Springs	Shenandoah Valley Medical System
SSA		
Berkeley, WV	Board of Child Care	Shenandoah Valley Medical System
	Healthy Smiles Comm. Oral Health Center	Independent
	Quad Graphics, Inc.	Shenandoah Valley Medical System
	Shenandoah Behavioral Health	Shenandoah Valley Medical System
	Shenandoah CHC- Women's Center	Shenandoah Valley Medical System
	Shenandoah Community Health Center	Shenandoah Valley Medical System
	Shenandoah Valley Medical System, Inc.	Shenandoah Valley Medical System
Grant, WV	Grant Pediatrics and Internal Medicine	E. A. Hawse Health Center, Inc.
	Mt. Storm Health Center	Independent
Jefferson, WV	Behavioral Health Services of SVMS	Shenandoah Valley Medical System

Source: Health Resources and Services Administration, 2013.

Although there are 19 FQHCs in the WMC community, they are managed by five primary systems: Shenandoah Valley Medical System, Healthy Smiles Community Oral Health Center, E.A. Hawse Health Center, Inc., Mt. Storm Health Center, and Mountaineer Community Health Center (**Exhibit 49**).

Exhibit 50 presents the numbers of primary care physicians, mental health providers, and dentists per 100,000 population.

Exhibit 50: Health Professionals Rates per 100,000 Population by County/City

County/ City	Primary Care Physicians		Mental Health Providers		Dentists	
	Number	Rate per 100,000	Number	Rate per 100,000	Number	Rate per 100,000
PSA	**179**	**62.7**	**60**	**21.0**	**93**	**32.6**
Clarke, VA	8	56.9	4	28.4	5	34.9
Frederick, VA	28	35.7	11	14.0	11	13.8
Hampshire, WV	8	33.4	0	0.0	4	16.3
Hardy, WV	2	14.2	0	0.0	8	56.6
Morgan, WV	8	45.7	0	0.0	3	17.0
Rappahannock, VA	4	53.2	5	66.6	2	26.5
Shenandoah, VA	22	52.3	9	21.4	11	25.9
Page, VA	12	49.9	1	4.2	4	16.5
Warren, VA	18	47.9	3	8.0	9	23.5
Winchester, VA	69	262.8	27	102.8	36	132.2
SSA	**82**	**41.3**	**8**	**4.0**	**69**	**34.8**
Berkeley, WV	45	43.0	3	2.9	44	41.7
Grant, WV	7	58.7	1	8.4	4	33.2
Jefferson, WV	20	37.3	4	7.5	13	23.6
Mineral, WV	10	35.4	0	0.0	8	27.7
Virginia	**5,919**	**73.8**	**3,620**	**45.1**	**4,563**	**55.2**
West Virginia	**1,416**	**76.4**	**167**	**9.0**	**826**	**43.4**

Source: Data provided by County Health Rankings, 2013, via HRSA Area Resource File, 2011-2012.

Primary care physician availability is below the Virginia and West Virginia averages in all areas except Winchester City. In Virginia, mental health provider availability is below the commonwealth average in all areas except Rappahannock County and Winchester City; dental provider availability is below average in all areas except Winchester City. In West Virginia, mental health provider availability is below average in all areas in which data was available; dental provider availability is below average in all areas except Hardy County (**Exhibit 50**).

A number of other agencies and organizations are available in each county/city in the WMC community to assist in meeting health needs. In addition to the organizations listed below, see **Exhibits 60** through **63** for a listing of community organizations represented by individuals participating in key informant interviews and community response sessions.

- Community organizations that provide services to residents with disabilities:
  - Access Independence
  - ARC of Northern Shenandoah Valley
- Community organizations that provide services for disease prevention / treatment:
  - AIDS Response Effort

- Community organizations that provide services relating to domestic violence:
    - Response, Inc.
    - Shenandoah Women's Center
- Community organizations that provide free or reduced cost health care:
    - Affordable Dentures
    - Concern Hotline
    - Crossroads Counseling Center
    - Eastern Panhandle Free Clinic
    - Eastridge Health Systems
    - Free Medical Clinic of Northern Shenandoah Valley
    - Good Samaritan Free Clinic
    - Healthy Smiles Community Oral Health Center
    - Potomac Highland Mental Health Guild
    - Shenandoah County Free Clinic / Shenandoah Dental Clinic
    - St. Luke Community Clinic
- Community organizations that provide housing support or shelter for homeless residents:
    - Bethany House
    - House of Hope
    - Keyser Housing Authority
    - Martinsburg Housing Authority
    - Martinsburg Union Rescue Mission
    - Mission Serve Group
    - Piedmont Housing Authority
    - Winchester Union Rescue Mission
- Community organizations that provide hunger reduction services:
    - Berkeley County Meals on Wheels
    - Community Food Pantry in Great Cacapon
    - Compassion Cupboard
    - Loaves and Fishes
    - MCIEC Food Pantry
    - Meal Time Community Kitchen
    - Morgan County Interfaith Emergency Care

    - Open Door Food Pantry
- Community organizations that provide family planning and maternal / child health services:
    - Abba Care
    - Care Pregnancy Center of the Eastern Panhandle
    - Shenandoah County Pregnancy Center
- Community organizations that provide services for at-risk children / families:
    - Freemont St. Nursery
    - Healthy Families Northern Shenandoah Valley
- Community organizations that provide veterans services:
    - Patriot's Path
- Local chapters of national organizations, such as the Alzheimer's Association, American Cancer Association, American Heart Association, American Red Cross, Habitat for Humanity, YMCA, and YWCA
- Local places of worship that provide food or housing assistance:
    - Columbia Furnace Church of the Brethren
    - Rock Worship Center, Compassion House
    - St. Stephens CME
- Local FQHCs and HPSA facilities (**Exhibit 47** and **49**)
- Local first responders, including fire departments, police departments, and Emergency Medical Services (EMS)
- Local government agencies, Chambers of Commerce, and City Councils
- Local and district public health departments
- Local schools, colleges, and universities

Findings of Other Recent Community Health Needs Assessments

Verité also considered the findings of other needs assessments published since 2009. Fourteen such assessments conducted in the WMC area are referenced here, with highlights and summary points below.

1. AmeriMed Consulting, 2012

AmeriMed Consulting produced a "Physician Needs Assessment"[34] on the patient market, medical staff, and physician market to help Valley Health evaluate and plan for the community's medical staffing needs. Primary data included physician interviews and medical staff interviews, while secondary data was from the U.S. Census and Medical Group Management Association (MGMA).

Key findings relevant to this CHNA include:

- Thirteen percent of primary care physicians reported no longer accepting new Medicaid patients, and between 31 and 57 percent (depending on the state payor type) reported not accepting new Medicare patients;
- Among medical specialties, there is a need for psychiatry, obstetrics/gynecology, cardiology and dentistry; and
- Nearly 30 percent of physicians have reached age 55, and many retire or leave their careers early.

2. Lord Fairfax Health District and KRA Corporation, 2012

The "Youth Risk Behavior Survey (YRBS) – Summary Report for Middle and High School Students"[35] was conducted among 8th and 11th graders at schools in five of the six counties of the Lord Fairfax Health District. Clarke, Frederick, Page, and Warren Counties and the City of Winchester participated in the survey; Shenandoah County did not participate.

Findings from the survey include:

- Fewer 11th graders (21.6 percent) stated having participated in a physical education class during an average week when in school compared to the national average (42.9 percent).
- More 11th graders (13.1 percent) reported having been hit, slapped, or physically hurt by a significant other compared to the national average (10.3 percent). Additionally, more 11th graders also reported having been forced to have sexual intercourse when they did not want to compared to the national average.

[34] AmeriMed Consulting. (2012). *Physician Needs Assessment*. Retrieved 2013, from Valley Health.
[35] Lord Fairfax Health District and KRA Corporation. (2012). *Youth Risk Behavior Survey-Summary Report for Middle and High School Students.* Retrieved 2013, from Lord Fairfax Health District.

- More 11th graders (12.0 percent) stated having had sexual intercourse before age 13 compared to the national average (4.9 percent).
- More 11th graders (11.0 percent) reporting having attempted suicide, compared to the national average of 6.6 percent; 6.8 percent of 8th graders had attempted suicide. More 8th graders than 11th graders had considered attempting suicide.
- Students in both grades reported comparatively low rates of cigarette smoking and alcohol use. Drug use in 11th graders, however, was comparatively high for cocaine, heroin, and methamphetamines.

3. United Way of the Northern Shenandoah Valley, 2012

United Way completed a senior citizen study, "Senior Study: Assessing the Needs of At-Risk Seniors in the Northern Shenandoah Valley,"[36] in January 2012, in which nearly 250 seniors participating in Meals on Wheels or the Senior Center took part. The primary data of the survey was conducted by United Way and the Shenandoah Area Agency on Aging (SAAA). The purpose of the survey was to engage at-risk seniors (those at or below 133 percent of the federal poverty level), to analyze the barriers to accessing healthcare for this group of individuals.

Key findings relevant to this CHNA include:

- Nearly three-quarters of seniors responding to the survey reported annual incomes of less than $15,000.
- Almost a quarter of respondents felt that they were unable to afford prescription medications, and the same proportion did not have regular dental visits because of the cost of the visits (and cost of co-pays).
- The main priority of the majority of respondents was an inability to access support for household tasks, such as food preparation and house cleaning.
- About 30 percent of seniors reported being worried about unintentional injuries. Fear of falling was a greater concern for seniors in Winchester than seniors in Clarke and Warren Counties, than elsewhere.
- Winchester City senior respondents were most likely to be in poor mental health and face depression or depression-like conditions.
- Nearly 40 percent stated a concern about the affordability of assisted living in the city of Winchester and the counties of Clarke, Frederick, Page, Shenandoah, and Warren.
- Only about 12 percent of seniors felt all their current needs have been met.

[36] United Way of Northern Shenandoah Valley. (2012). Senior Study: Assessing the Needs of At-Risk Seniors in the Northern Shenandoah Valley. Retrieved 2013.

4. Virginia Department of Health, Division of Injury and Violence Prevention, 2012

The Virginia Department of Health completed a report, "Youth Suicide in Virginia," in 2012.[37] The report recorded self-inflicted hospitalizations and youth suicide by age, race/ethnicity, age group, and health district (including the Lord Fairfax Health District, containing all of the Virginia counties in the service area) from 1996-2005. The secondary data included were from the Center for Disease Control and Prevention.

Key findings relevant to this CHNA include:

- In Virginia youth suicide rates dropped between 1996 and 2000, and then steadied around 2005. The rate of suicides was highest for the 20-24 year age group.
- The Lord Fairfax Health District had a crude suicide rate of 10.89 per 100,000 population, higher than Alexandria, Arlington, Loudoun, Rappahannock, and other Health Districts in the region.

5. Warren Coalition, 2012

The Warren Coalition conducted a survey, the "Warren County Student Pride Survey,"[38] of the county's high school students which was compared to the Monitoring the Future national survey.

Key findings relevant to this CHNA include:

- Warren County high school students had higher rates of tobacco usage across 8th, 10th, and 12th graders, compared to the national average.
- Warren County 8th graders had higher alcohol and prescription drug usage than the national average.
- Cocaine usage was higher for 8th and 10th graders than the national average.
- Warren County 11th graders had a higher rate of inhalant and hallucinogen usage than the national average.
- Warren County 8th and 11th graders had a higher rate of ecstasy, meth, and OTC than the national averages.
- The top five issues identified by Warren County high school students were family problems, bullying, alcohol use, texting while driving, and tobacco use.

[37] Virginia Department of Health- Division of Injury & Violence Prevention. (2012). *Youth Suicide in Virginia.* Retrieved 2013, from: http://www.vdh.state.va.us/ofhs/prevention/preventsuicideva/documents/2012/pdf/youthsuicidereport19962005.pdf

[38] Warren Coalition. (2012). Warren County Student Pride Survey Results.

6. Shenandoah Free Clinic Community Survey and People Incorporated of Virginia, 2011

Shenandoah County and People Incorporated of Virginia conducted a survey, the "Shenandoah County Free Clinic Health Clinic Expansion Project Survey",[39] regarding medical needs of county residents to provide data for a grant application to improve the Shenandoah County Free Clinic. A phone survey was conducted in 2009 (number of respondents not available), followed by another survey in 2011 to patients (40 respondents), providers (7 respondents), and the Hispanic community (35 respondents).

Findings from the surveys include:

- In 2009, half of the providers surveyed did not have availability for new patients, specifically Medicaid patients.
- In 2009, the wait time for a mental health-related appointment averaged 8 weeks in Woodstock. The average wait time for care at the free clinic was 6 weeks for current patients and 3 months for new patients.
- In 2011, 46 percent of Hispanic (or Latino) respondents and 62 percent of patients stated that they visited a hospital emergency room because there was nowhere else to get medical services.
- In 2011, about 49 percent of Hispanic (or Latino) respondents left the community for medical diagnosis, treatment, and services in the past year, most commonly visiting Harrisonburg, University of Virginia, and Winchester. Twenty-eight percent of patients reported leaving the community for treatment.
- In 2011, about a quarter of Hispanic (or Latino) respondents did not seek medical help as soon as they needed it. Some of the reasons for not receiving care immediately were inability to afford the cost of care and visits, lack of time to attend visits, and the long wait times.
- In 2011, of the services that Hispanic (or Latino) respondents stated needing the most, dental services were identified most frequently, followed by vision and cardiology services.
- The majority of patients, nearly 62 percent had to wait one to two weeks to make an appointment, while about 39 percent had to wait three to four weeks.

[39] Shenandoah County and People Incorporated of Virginia. (2011). Shenandoah County Free Clinic Health Clinic Expansion Project Survey. Retrieved 2013, from the Shenandoah County Free Clinic.

7. Voices for Virginia's Children, 2011

Voices for Virginia's Children produced a report, "Building Our Future: The State of Virginia's Early Childhood System,"[40] on child care and early childhood programs in Virginia. Secondary data were from the Virginia Department of Social Services.
Key findings relevant to this CHNA include:

- Winchester City was identified as a community that was at-risk for poor maternal and child health due to the limited number of home visitation programs that provide family support and child development services.
- The number of eligible school divisions that did not participate in the Virginia Preschool Initiative (VPI), a program aimed at providing early education to at-risk four-year olds, decreased from 22 school districts in 2003-2004 to14 school districts in 2010-2011.
- In 2011, nearly 7,800 children were in need of VPI and Head Start programs; these numbers have been trending upward since 2001.
- The percentage of Head Start children with a dental home has increased six percentage points, from 91 percent to 97 percent, between 2007 and 2010.

8. Winchester Department of Social Services, 2011

The Winchester Department of Social Services completed their "Winchester Department of Social Services FY11 Annual Report"[41] to discuss the community's priorities and performance. The department uses its own secondary data as well as other publicly available data, including the U.S. Census.

Key findings relevant to this CHNA include:

- The number of applications for the Supplemental Nutrition Assistance Program (SNAP) program increased from 2009 to 2011, while the number of applications for Temporary Assistance for Needy Families (TANF) decreased.
- Applications for energy assistance, including fuel assistance, crisis assistance, and cooling assistance, increased from 2009 to 2011.

9. Lord Fairfax Health District, 2010

The Lord Fairfax Health District completed a "2010 Language Needs Assessment"[42] that analyzed the limited English proficiency of the counties in the Lord Fairfax Health District, which include: Frederick, Clarke, Page, Shenandoah, Warren, and Winchester City. The primary data in the report include data from the Virginia Department of Health and U.S. Census.

[40] Voices for Virginia's Children. (2011, October). *Building Our Future: The State of Virginia's Early Childhood System*. Retrieved 2013, from: http://www.vakids.org/pubs/ECE/Building%20Our%20Future%20Oct%202011.pdf
[41] Winchester Department of Social Services. (2011). Winchester Department of Social Services FY 2011 Annual Report. Retrieved 2013, from http://www.winchesterva.gov/sites/default/files/documents/social-services/FY11-Annual-Report-Booklet.pdf.
[42] Lord Fairfax Health District. (2010). *2010 Language Needs Assessment*. Retrieved 2013, from: http://www.vdh.virginia.gov/CLAS_Act/researchresources/documents/languageprofiles/LordFairfax.pdf

Key findings relevant to this CHNA include:

- Winchester City had the highest number of limited English proficient persons within the district, at 6,777 individuals, followed by Shenandoah County, at 3,006 individuals, followed by Frederick County, at 2,309. Clarke County had the fewest individuals, at 236 individuals with limited English proficiency.
- The primary language spoken by 80 percent of LEP individuals was Spanish.
- There has been a 61 percent increase in the use of educational services for LEP students, with the highest usage of services in Frederick County (over 500 students).
- About six percent of all patients receiving services at the Lord Fairfax Health District were classified as LEP students, and about eight percent of all patient encounters are with LEP patients.

10. Congregational Health ReSource, LLC, 2009

Congregational Health ReSource, LLC, completed a congregational health assessment[43] of Woodstock in Shenandoah County and Luray in Page County[44] for the Virginia Department of Health, Office of Minority Health. Primary data included a survey of clergy and non-clergy in the communities and asked about attitudes and beliefs about how congregational health.

Key findings relevant to this CHNA include:

- Pastors in both communities highlighted primary health concerns for their congregation: cancer, heart disease, and aging/geriatrics. Pastors in Page County also mentioned lack of awareness of preventive medicine.
- Barriers to accessing health care in Shenandoah County include lack of adequate and affordable insurance, lack of knowledge of available resources, cultural barriers, adequate income to afford basic necessities, and transportation.
- Barriers in the Page County that affect the health of congregation members include cultural barriers, lack of knowledge of available resources, and lack of education or vocational training.

11. Bartlett and Buck, 2013

Bartlett and Buck completed the "Mobilizing for Action through Planning and Partnerships: Berkeley, Jefferson and Morgan Counties, West Virginia Community Health Status Assessment" on health status, quality of life, and risk factors.[45] Secondary sources for the assessment included U.S. Census and county health department websites. Primary sources included a community survey, informant interviews, and focus groups.

[43] Congregational Health ReSource, LLC. (2009). Final Report: Shenandoah County (Woodstock).
[44] Congregational Health ReSource, LLC. (2009). Final Report: Page County (Luray).
[45] Bartlett, Tina and Buck, Joy. (2013, February). *Mobilizing for Action through Planning and Partnerships: Berkeley, Jefferson and Morgan Counties West Virginia*. Retrieved 2013, from: www.hsc.wvu.edu/eastern/SON/Bridges/Forms/Mapp-Form.aspx

The study identified the following eight priority subjects for planning and intervention:

1. "Strategies to reduce disparities in maternal/child health, particularly in the area of infant mortality;
2. Access to and the quality of behavioral health providers and services, including substance use prevention and intervention;
3. Regional economic development that includes the creation of higher paying jobs with insurance benefits…;
4. Strategies to improve citizen safety, including targeted interventions in higher crime areas, improved road safety and illicit substance use and abuse;
5. Chronic illness self-management, particularly acute and community-based diabetes care, heart failure and chronic obstructive pulmonary disease (COPD).
6. Early detection and timely intervention in cancer targeting both breast cancer and the links between environment, behavior and the incidence of lung cancer among women;
7. Enhanced collaboration with public health and community-based initiatives…;
8. Better access to healthy foods, including community gardens, increased access to farmer's markets and healthier options in restaurants and schools."

12.Morgan County, West Virginia, 2012

Morgan County produced the "Morgan County Behavioral Health Profile"[46] that details various health conditions, behaviors, and risk factors of the county. Secondary data included West Virginia Behavioral Risk Factor Survey, West Virginia Bureau for Public Health, and the Fatality Analysis Reporting System.

The document compares Morgan County, West Virginia to Berkeley, Hampshire and Mineral Counties on a range of health risk behaviors and health status indicators, documenting county-by-county differences and comparisons with statewide averages and rates. Specific topics include: smoking and smokeless tobacco use; binge drinking and DUI arrests; substance abuse; diabetes; cancer; mental health (including suicide); and homelessness.

Because it draws from some of the same data sources as this CHNA, many of its findings are comparable. Two items of particular note:

- Since 2001, Hampshire County has seen an increase of 300 percent in deaths from prescription drug overdose, Morgan County has seen a 200 percent increase, Berkeley County has seen a 150 percent increase, and West Virginia has seen an increase of 230 percent.

[46] Morgan County. (2012). Morgan County Behavioral Health Profile. Retrieved 2013, from: http://www.dhhr.wv.gov/bhhf/sections/programs/ProgramsPartnerships/AlcoholismandDrugAbuse/Research/Documents/Morgan%20County.pdf

- The study documented the association of poor mental health and substance abuse with homelessness. Nearly 68.2 percent of the homeless population in Morgan County was identified as having poor health status from substance abuse, compared to 43.2 percent of Berkeley County, and 17.7 percent of Hampshire County. About 11.5 percent of the homeless population was referred to a mental health provider in Morgan County, compared to 15.0 percent of the homeless population in Berkeley County.

13.West Virginia Community Action Partnership, 2012

The West Virginia Community Action Partnership assessed the priority needs of two regions, Jefferson and Berkeley Counties and Grant, Hampshire, Hardy, Mineral, Morgan, and Pendleton Counties, in "Believing in West Virginia"[47] by grouping counties that were in close proximity to each other. The assessment incorporated secondary data from sources such as the U.S. Census.

Key findings relevant to this CHNA include:

- The top poverty-related issues in Jefferson and Berkeley Counties were affordable housing, services for the homeless, and health and dental care. The top issues in the other counties were employment, job training, and transportation.
- The three most problematic health diseases for West Virginia residents were heart disease at 24.6 percent of the population, cancer at 21.5 percent of the population, and chronic lower respiratory disease, at 7.4 percent.
- About 20.0 percent of the employed residents in West Virginia do not have health insurance.
- The obesity rate in West Virginia is the second highest in the U.S., at 32.5 percent.

14.West Virginia Health Statistics Center, 2012

The West Virginia Department of Health and Human Resources and Bureau for Public Health conducted a telephone survey of West Virginia households and published a report of findings:[48] the "Believe in West Virginia: Assessment of Needs Report." The survey asked about health status, health care access, rates of physical inactivity, nutrition, obesity and overweight, tobacco use, hypertension, cholesterol, alcohol consumption, oral health, immunization, and other health indicators. The secondary data included were from Behavioral Risk Factor Surveillance System data. Comparisons were made between 2009-2010 survey data and data from 1984 to 2010.

Because it presents some of the same health indicators as this CHNA, many of its findings are comparable. Items of particular note include:

[47] West Virginia Community Action Partnership. (2012). *Believing in West Virginia.* Retrieved 2013, from: http://www.wvcommunityactionpartnership.org/pdfs/2012needsassesment.pdf
[48] West Virginia Community Action Partnership. (2012). *Believe in West Virginia: Assessment of Needs Report.* Retrieved, 2013 from: http://www.wvcommunityactionpartnership.org/pdfs/2012needsassesment.pdf

- There are strong correlations between low income, low educational attainment and high rates of uninsurance, lesser affordability of care, higher smoking rates and lesser consumption of fruits and vegetables.
- Obesity and overweight prevalence did not vary dramatically by age, income, or education.
- Alcohol consumption did not differ significantly by income or educational attainment.

PRIMARY DATA ASSESSMENT

Community Survey Findings

WMC's survey of community health consisted of questions about a range of health status and access issues, as well as respondent demographic characteristics. The survey was made available for six weeks in April and May 2013 on Valley Health's web site and was widely publicized via mailings, e-mail lists, newspaper and local media ads, and dissemination through partner health and community service organizations. The questionnaire was available in English and Spanish, and paper copies were available on request.

1. Respondent Characteristics

The survey questionnaire was completed by 1,077 residents from the WMC community. Survey responses were received from residents of 76 of the WMC community's 114 ZIP codes.

Almost 79 percent of respondents were female, and 73 percent were between the ages of 35 and 64. Ninety-one percent were White, and three percent identified as Hispanic (or Latino). The majority of respondents reported being in good, very good, or excellent overall health (91 percent), married (74 percent), employed full time (66 percent), privately insured (76 percent), and having an undergraduate degree or higher (60 percent). The majority (96 percent) of respondents speak English in the home. Two percent of respondents reported that they spoke multiple languages at home, and two percent reported speaking only Spanish at home. Twelve percent of residents reported living alone, and 24 percent of those living alone did not receive any emotional or financial support.

Exhibit 51 presents the percentage of respondents by county/city.

Exhibit 51: Survey Respondents by County/City, 2013

County/City	Number of Responses	Percent of Respondents	Percent of Total Population 2012
PSA	**984**	**91.4%**	**58.8%**
Clarke, VA	35	3.2%	3.3%
Frederick, VA	358	33.2%	15.9%
Hampshire, WV	81	7.5%	4.6%
Hardy, WV	7	0.6%	2.9%
Morgan, WV	48	4.5%	3.3%
Page, VA	33	3.1%	4.8%
Rappahannock, VA	5	0.5%	2.2%
Shenandoah, VA	130	12.1%	8.8%
Warren, VA	104	9.7%	7.3%
Winchester, VA	183	17.0%	5.6%
SSA	**93**	**8.6%**	**41.2%**
Berkeley, WV	58	5.4%	21.8%
Grant, WV	2	0.2%	2.3%
Jefferson, WV	22	2.0%	11.5%
Mineral, WV	11	1.0%	5.6%
Total	**1,077**	**100.0%**	**495,381**

Source: Valley Health Community Survey, 2013.

The majority of respondents were from Frederick and Shenandoah counties and Winchester City

…

Counties furthest from WMC exhibited lower response rates

Frederick had the highest percentage of respondents. Residents from the PSA accounted for 92 percent of respondents (**Exhibit 51**).

2. Access Issues

The majority of survey respondents reported visiting a primary care provider regularly. Twenty percent did not. Nine percent of respondents reported not having a primary care provider.

Exhibit 52 shows that 62 percent of families received routine (non-emergency, non-specialty) healthcare services from a private doctor's office and 19 percent received routine care from an urgent care facility or store-based walk in clinic. Approximately 13 percent received services from a free or low-cost clinic or health center, hospital emergency room, school-based clinic, soup kitchen, or homeless shelter.

Exhibit 52: Locations Where Respondents Received Routine Healthcare

Response	Percent of Responses	No Health Insurance / Medicaid	Medicare	Private / Commercial Insurance	Less than College Degree
No routine healthcare received	4.1%	12.3%	4.2%	3.1%	5.3%
Free or low-cost clinic or health center	3.2%	33.4%	8.3%	1.6%	5.2%
Private doctor's office	61.8%	56.6%	70.8%	67.6%	51.4%
Urgent care facility or store-based walk-in clinic	17.3%	11.8%	6.3%	19.2%	16.3%
Hospital emergency room	5.2%	29.6%	4.2%	3.8%	7.7%
School-based clinic	1.7%	8.6%	0.0%	0.9%	3.0%
Soup kitchen	1.5%	8.6%	0.0%	0.6%	2.9%
Homeless shelter	1.5%	8.6%	0.0%	0.6%	2.9%
Other	3.8%	30.7%	6.3%	2.5%	5.5%

Source: Valley Health Community Survey, 2013. Total community responses (N=1,557), No Health Insurance / Medicaid (N=192), Medicare (N=48), Private / Commercial Insurance (N=1,107), Less than College Degree (N=732).

When responses are arrayed by respondents' source of insurance coverage and education level, variation in where community members receive their routine healthcare services becomes evident. While 71 percent of those with Medicare and 68 percent of those with private or commercial insurance visited private doctor's offices, only 51 percent of those with less than a college degree did. Medicaid recipients and those without health insurance were much more likely to use free or low-cost clinics and health centers or hospital emergency rooms for routine healthcare. Additionally, 12 percent of Medicaid recipients and those without health insurance did not receive routine healthcare (**Exhibit 52**).

Exhibit 53 indicates whether respondents felt that they were able to get needed care, by insurance coverage and education level.

Exhibit 53: Respondent Ability to Receive Needed Care, by Type of Care

Response	Primary Care	Vision Care	Dental Care	Mental Health Care	Medical Specialty Care	Medicine, Medical Supplies, and Equipment	Prevention and Wellness Services
Total community							
Always	81.2%	75.7%	75.7%	47.7%	68.3%	80.0%	53.5%
Sometimes	14.1%	16.0%	16.3%	20.4%	19.0%	12.3%	21.9%
Rarely	3.4%	6.1%	5.7%	11.5%	7.9%	5.0%	12.8%
Never	1.3%	2.2%	2.4%	20.4%	4.8%	2.7%	11.8%
No health insurance/Medicaid							
Always	25.7%	26.7%	24.0%	24.1%	21.2%	27.2%	10.5%
Sometimes	31.7%	25.7%	25.0%	21.7%	23.5%	25.0%	26.3%
Rarely	21.8%	27.7%	28.0%	24.1%	24.7%	28.3%	15.8%
Never	20.8%	19.8%	23.0%	30.1%	30.6%	19.6%	47.4%
Medicare							
Always	92.5%	82.1%	74.4%	64.7%	65.6%	84.4%	55.2%
Sometimes	2.5%	5.1%	5.1%	11.8%	25.0%	9.4%	13.8%
Rarely	2.5%	10.3%	10.3%	0.0%	9.4%	3.1%	10.3%
Never	2.5%	2.6%	10.3%	23.5%	0.0%	3.1%	20.7%
Private / commercial insurance							
Always	80.6%	73.6%	75.3%	44.5%	66.8%	78.4%	53.2%
Sometimes	14.7%	18.3%	17.7%	21.8%	20.0%	13.5%	22.8%
Rarely	3.5%	5.8%	5.4%	14.3%	8.6%	4.9%	14.0%
Never	1.3%	2.2%	1.6%	19.5%	4.6%	3.2%	10.0%
Less than college degree							
Always	70.2%	64.6%	63.3%	36.7%	52.1%	66.7%	48.1%
Sometimes	16.3%	18.1%	19.1%	19.9%	22.4%	15.4%	22.6%
Rarely	7.8%	11.0%	11.0%	17.3%	13.5%	10.4%	11.7%
Never	5.7%	6.3%	6.6%	26.1%	12.1%	7.6%	17.7%

Source: Valley Health Community Survey, 2013. N size varies for each insurance and care type.

Exhibit 53 suggests that most respondents in the community felt that they did not "always" receive needed mental health care, and about half of respondents felt that they did not always receive prevention and wellness services. More residents responded that they always received primary care, vision care, dental care, medical specialty care, and medicine, medical supplies, and equipment.

Only 10 percent to 27 percent of those with Medicaid or no health insurance felt that they always received each of the various types of care. Those with less than a college degree were less likely to always be able to access care than the overall community.

Exhibit 54 presents the percentage of respondents who reported "not always" being able to get needed care by county/city. Data indicate that access varies by type of care and locality.

Exhibit 54: Respondents Not Always Able to Receive Care, by County/City

County/ City	Primary Care	Vision Care	Dental Care	Mental Health Care	Medical Specialty Care	Medicine, Medical Supplies, and Equipment	Prevention and Wellness Services
PSA	**19.0%**	**24.8%**	**24.9%**	**52.3%**	**32.0%**	**20.4%**	**47.7%**
Clarke, VA	-	-	-	-	-	-	-
Frederick, VA	14.7%	19.8%	20.0%	54.4%	31.4%	18.9%	45.6%
Hampshire, WV	19.8%	30.3%	25.0%	37.0%	27.3%	14.3%	37.7%
Hardy, WV	-	-	-	-	-	-	-
Morgan, WV	23.4%	28.3%	29.8%	42.9%	36.1%	29.3%	55.9%
Page, VA	-	-	-	-	-	-	-
Rappahannock, VA	-	-	-	-	-	-	-
Shenandoah, VA	21.9%	28.5%	31.2%	71.1%	39.2%	18.9%	58.0%
Warren, VA	17.9%	27.5%	28.0%	58.6%	32.3%	20.5%	45.7%
Winchester, VA	24.7%	27.8%	28.5%	45.9%	32.1%	27.3%	52.9%
SSA	**16.0%**	**19.8%**	**17.8%**	**51.9%**	**28.8%**	**15.3%**	**34.8%**
Berkeley, WV	15.5%	20.4%	19.3%	47.6%	28.2%	16.7%	40.5%
Grant, WV	-	-	-	-	-	-	-
Jefferson, WV	-	-	-	-	-	-	-
Mineral, WV	-	-	-	-	-	-	-
Total	**18.8%**	**24.3%**	**24.3%**	**52.3%**	**31.7%**	**20.0%**	**46.5%**

Source: Valley Health Community Survey, 2013. Primary Care (N=1,066), Vision Care (N=1,031), Dental Care (N=1,057), Mental Health Care (N=373), Medical Specialty Care (N=726), Medicine, Medical Supplies, and Equipment (N=822), Prevention and Wellness Services (N=948).
A "-" indicates that percentages are unreliable due to small sample size.

Across all counties, respondents reported not always being able to access mental health care (52 percent), prevention and wellness services (36 percent), and medical specialty care (32 percent) more than for other services. The highest percentage of respondents reporting that they are not always able to receive mental health care services was in Shenandoah County (71 percent) (**Exhibit 54**).

Respondents indicating that they were not always able to get care were asked to identify barriers to access (**Exhibit 55**).

Exhibit 55: Barriers to Receiving Needed Care

Response	Primary Care	Vision Care	Dental Care	Mental Health Care	Medical Specialty Care	Medicine, Medical Supplies, and Equipment	Prevention and Wellness Services
I don't have insurance	12.6%	18.0%	17.2%	8.3%	10.1%	12.5%	9.3%
I can't get an appointment	9.1%	5.7%	5.3%	5.9%	7.9%	6.0%	5.1%
I can't afford it / too expensive	16.3%	24.3%	28.1%	15.2%	16.8%	21.4%	19.7%
The hours are inconvenient	10.7%	8.9%	9.0%	6.9%	7.5%	8.0%	9.6%
These services are not available in my area	5.4%	5.3%	4.9%	7.3%	9.5%	6.3%	6.4%
I don't have transportation	5.4%	5.3%	5.1%	4.2%	5.1%	5.8%	4.1%
I don't trust the doctor	6.6%	5.5%	4.9%	5.1%	5.5%	6.0%	4.6%
The doctors and staff do not speak my language	4.8%	4.7%	4.5%	3.9%	4.7%	5.5%	3.8%
I can't take time off from work or from caring for others	12.2%	7.7%	9.0%	6.8%	8.3%	8.2%	9.4%
Other	16.9%	14.8%	12.1%	36.4%	24.5%	20.2%	27.9%

Source: Valley Health Community Survey, 2013. Primary Care (N=484), Vision Care (N=494), Dental Care (N=512), Mental Health Care (N=591), Medical Specialty Care (N=506), Medicine, Medical Supplies, and Equipment (N=415), Prevention and Wellness Services (N=605).

Key	
Top two barriers by care type	

Cost and lack of insurance were the most frequently reported barriers to care. Among those choosing "other," most responses cited either cost or a lack of need for services as the reason they did not access care (**Exhibit 55**).

3. Health Issues

Exhibit 56 presents the top health issues identified by survey respondents .

Exhibit 56: Top Health Issues, by Insurer, Education, and Language Spoken at Home

Health Issue	Total Community	No Health Insurance / Medicaid	Medicare	Private / Commercial Insurance	Less than College Degree	Spanish Spoken at Home
Obesity	11.5%	7.6%	12.0%	11.4%	9.8%	8.4%
Low income / financial challenges	11.0%	15.1%	11.5%	10.8%	11.5%	13.3%
Diabetes	8.2%	7.9%	5.8%	8.1%	8.6%	13.3%
Not enough exercise	6.8%	6.2%	7.3%	6.9%	6.4%	9.6%
Tobacco use	6.8%	6.2%	7.9%	7.0%	6.2%	7.2%
Poor dietary choices	6.7%	7.6%	5.8%	6.7%	5.6%	9.6%
Cancer	6.0%	3.1%	6.8%	5.9%	7.2%	0.0%
Substance abuse / addiction	6.0%	4.5%	4.7%	6.3%	5.4%	2.4%
Heart disease	5.8%	4.1%	7.3%	5.6%	6.2%	0.0%
Mental health (such as depression, bipolar, autism)	5.5%	4.8%	4.2%	5.9%	4.3%	2.4%
Unemployment	4.6%	4.8%	5.2%	4.5%	5.9%	1.2%
Dental health issues	3.3%	4.8%	4.7%	3.3%	3.7%	8.4%
Affordable housing	2.7%	4.5%	4.2%	2.6%	3.1%	2.4%
Access to healthy food is limited	2.4%	4.5%	1.0%	2.5%	2.6%	9.6%
Homelessness	2.3%	2.1%	0.5%	2.4%	2.5%	0.0%
Chronic Obstructive Pulmonary Disease (COPD)	2.3%	2.1%	2.6%	2.3%	2.4%	0.0%
Alzheimer's or dementia	1.8%	1.0%	2.1%	1.5%	2.3%	0.0%
Unsafe sex	1.4%	2.4%	1.0%	1.5%	1.3%	2.4%
Asthma	1.2%	1.4%	2.1%	1.1%	1.4%	2.4%
Domestic violence	1.2%	2.7%	0.0%	1.1%	1.2%	2.4%
Stroke	0.8%	0.7%	1.0%	0.7%	0.9%	0.0%
Poor air quality	0.6%	0.7%	0.5%	0.7%	0.6%	1.2%
Unsafe neighborhoods	0.4%	0.7%	0.0%	0.4%	0.4%	0.0%
Birth defects	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Other (please specify)	0.6%	0.7%	1.6%	0.6%	0.4%	3.6%

Source: Valley Health Community Survey, 2013. The N varies for each answer, as people were able to select several issues as top concerns. Total Number of Responses: Community (N=5,747), No Health Insurance / Medicaid (N=291), Medicare (N=191), Private / Commercial Insurance (N=4,453), Less than College Degree (N=2,268), Spanish Spoken at Home (N=83).

Key	
Top five health issues by group	

When asked to identify the top health issues in the community, respondents most often chose obesity, low income or financial challenges, diabetes, insufficient exercise, and tobacco use. Poor dietary choices were of particular concern among Medicaid recipients and those with no health insurance, as well as those who spoke Spanish at home. Those speaking Spanish at home also cited limited access to healthy food as a major concern(**Exhibit 56**).

Exhibit 57 indicates, of survey respondents who have certain conditions, whether they are getting needed care, choose not to get care, or do not know where or how to get care. For example, 94.6 percent of the 240 respondents who said they have asthma felt as if they are getting the care they need.

Exhibit 57: Receiving Care for Health Conditions

Health Condition	Receiving Needed Care	Choose Not to Get Care at this Time	Don't Know Where or How to Get Care for this Condition
Asthma	94.6%	2.5%	2.9%
Alzheimer's / dementia	79.4%	4.4%	16.2%
Cancer	98.1%	0.0%	1.9%
Chronic obstructive pulmonary disease (COPD)	85.4%	7.3%	7.3%
Diabetes	96.2%	1.0%	2.8%
High blood pressure	97.0%	1.3%	1.7%
Heart disease	95.1%	1.3%	3.5%
Mental health issues	79.3%	9.7%	11.0%
Obesity / overweight	67.0%	19.9%	13.1%
Sexually transmitted diseases	77.8%	22.2%	0.0%
Substance abuse / addiction	45.6%	33.3%	21.1%

Source: Valley Health Community Survey, 2013. Asthma (N=240), Alzheimer's / dementia (N=68), Cancer (N=158), Chronic obstructive pulmonary disease (N=96), Diabetes (N=288), High blood pressure (N=632), Heart disease (N=226), Mental health issues (N=290), Obesity / overweight (N=528), Sexually transmitted diseases (N=9), Substance abuse / addiction (N=57).

Care was accessed most for high blood pressure (97 percent), heart disease (95 percent), and asthma (94 percent). Many respondents stated not choosing to get care and / or not knowing where to get care for Alzheimer's / dementia, mental health issues, obesity, and substance abuse / addiction (**Exhibit 57**).

4. Health Behaviors

Exhibit 58 portrays various health behaviors reported by survey respondents in the WMC community.

Exhibit 58: Health Behaviors

Health Behavior	Total Community	No Health Insurance / Medicaid	Medicare	Private / Commercial Insurance	Less than College Degree
Not physically active	28.3%	31.5%	27.5%	29.0%	34.9%
Eat less than recommended amounts of fruit	36.2%	42.6%	52.5%	35.8%	48.0%
Eat less than recommended amounts of vegetables	63.7%	74.1%	74.4%	62.1%	74.2%
Never or rarely shop at farmer's market	68.7%	81.5%	66.7%	68.8%	70.9%
Travel 5 miles or more for fresh produce	39.3%	48.1%	30.0%	39.8%	43.0%
Drank alcohol 10+ days in the past month	13.2%	3.7%	22.5%	12.1%	8.9%
Ever used prescription drugs belonging to friends or family	12.2%	11.9%	15.4%	11.9%	12.9%

Source: Valley Health Community Survey, 2013. N size varies for each cohort and each health behavior.

Twenty eight percent of respondents reported not being physically active, a figure that did not vary much by insurance status. A large percentage of respondents reported that they were not eating the recommended amount of vegetables and that they never or rarely shopped at a farmer's market. Those with no health insurance and those with Medicaid were less likely to shop at a farmer's market and were more likely to travel five miles or more for fresh produce. Medicare recipients were more likely to drink alcohol ten or more days in a month and to eat less than the recommended amount of fruits, as well as vegetables (**Exhibit 58**).

Respondents were asked to identify health topics that children in various age groups needed to know more about. **Exhibit 59** examines the health topics that respondents chose for children in the WMC community.

Exhibit 59: Important Health Information Topics for Children and Youth

Topic	Ages 0-5	Ages 6-10	Ages 11-15	Ages 16-19
Dental hygiene	23.3%	10.6%	5.5%	5.2%
Nutrition	18.4%	11.1%	6.6%	6.6%
Getting enough sleep	11.5%	8.2%	6.3%	6.5%
Bullying	13.5%	11.4%	6.8%	6.3%
Asthma management	4.6%	6.6%	4.0%	3.7%
Diabetes management	3.9%	5.8%	4.7%	5.0%
Eating disorders	5.2%	7.2%	7.1%	6.9%
Tobacco	6.1%	8.4%	7.4%	7.2%
Alcohol	4.2%	7.1%	7.4%	7.3%
Drug abuse	4.3%	7.8%	7.5%	7.2%
Mental health issues	1.5%	4.4%	7.0%	7.2%
Suicide prevention	0.8%	3.6%	7.4%	7.3%
Sexual intercourse	0.6%	3.2%	7.9%	7.3%
Sexually transmitted diseases	0.6%	2.9%	7.9%	7.4%
Reckless driving / speeding	0.8%	1.2%	6.0%	8.1%
Other	0.8%	0.6%	0.6%	0.6%

Source: Valley Health Community Survey, 2013. Ages 0-5 (N=3,198), Ages 6-10 (N=6,645), Ages 11-15 (N=10,143), Ages 16-19 (N=9,689).

Key	
Top three issues by age group	

Among children aged 0 to 10 years, health topics such as dental hygiene, nutrition, and bullying were seen as important. Sexual intercourse and sexually transmitted diseases were the primary suggested educational topics for youth aged 11 to 19, with drug abuse also recommended for youth aged 11 to 15, and reckless driving / speeding recommended for youth aged 16 to 19 (**Exhibit 59**).

Summary of Interview Findings

Key informant interviews were conducted face-to-face and by telephone by Verité Healthcare Consulting in April and May 2013. The interviews were designed to obtain input on health needs from persons who represent the broad interests of the community served by WMC, including those with special knowledge of or expertise in public health.

Interviews were held with 101 individuals (some in group interviews), including: persons with special knowledge of or expertise in public health; health and other public departments or agencies with data or information relevant to the health needs of the community; and leaders, representatives and members of medically underserved, low-income, and minority populations, and of populations with chronic disease needs; and representatives of the educational and business communities. An annotated list of individuals providing community input is in the following section of this report.

Interviews were conducted using a structured questionnaire. Informants were asked to discuss community health issues and encouraged to think broadly about the social, behavioral and other determinants of health. Interviewees were asked about issues related to health status, health care access and services, chronic health conditions, populations with special needs, and health disparities.

The frequency with which specific issues were mentioned and interviewees' perceptions of the severity (how serious or significant) and scope (how widespread) of each concern were assessed. The following health status issues and contributing factors were reported to be of greatest concern. The items in each list are presented in order of stated importance, although the differences in some cases are relatively minor.

Health Status Issues

1. **Mental and behavioral health**: Mental and behavioral health was the most frequently-citied health issue in the community, and one with significant severity. Interviewees generally reported that the community's mental health needs have risen, while mental health service capacity has not. They described a wide range of mental health issues, including for example: bullying among youth, autism spectrum symptoms and diagnoses, depression among senior citizens, adult and family stress and coping difficulties, a lack of affordable outpatient mental health professionals, and a lack of local inpatient treatment facilities. Interviewees also noted frequent dual diagnoses of mental health problems and substance abuse.
2. **Drug and substance abuse**: Substance abuse was the second most frequently mentioned health status issue, and was portrayed as both growing and serious. In addition to use of illicit substances (e.g. cocaine, heroin, methamphetamine, and marijuana), interviewees reported recent increases in the abuse of prescription pain medications, including "pill parties" among youth and drug-seeking behavior in physicians' offices and hospital emergency departments. Abuse of over-the-counter medications by youth was frequently mentioned. Interviewees cited a lack of local treatment services, particularly inpatient facilities, for people with substance abuse problems. Some interviewees reported that

substance abuse and addiction among pregnant women is creating more perinatal and neonatal health problems. As noted above for mental health needs, dual diagnoses of substance abuse and mental health problems are not uncommon.

3. **Oral health and dental care**: Oral health and dental care for all ages was the third most frequently mentioned health status issue by key informant interview participants. The issue was discussed in terms of poor dental hygiene, tooth decay in children and youth in addition to adults, and a lack of affordable, preventive dental health services. Interview participants stated that access to dental care is very difficult for low income and uninsured individuals, particularly in less populated areas. While Medicaid covers dental care for children and youth, not all dentists accept Medicaid patients. For low income, uninsured adults needing expensive restorative care, tooth extractions are sometimes the only available or practical option.
4. **Obesity**: Obesity and overweight was the fourth most frequently mentioned health status issue. This was true for all ages, but noted to be rising among children and youth. Commenting on related contributing factors, interview participants mentioned nutrition and diet, low physical activity and exercise, and food insecurity and hunger.
5. **Smoking and tobacco**: Smoking and tobacco use was frequently mentioned in the context of concerns about drug and substance abuse. Smoking was viewed as a significant health issue that has been in existence for some time, but that is not becoming notably worse.
6. **Diabetes**: Diabetes was the most frequently mentioned chronic disease in the interviews, and was often paired with a discussion of the condition of obesity and overweight. There was widespread recognition of the toll it takes on health, its impact on the health care system, and the importance of not only treatment but also health behavior change in addressing the disease, as well as concern about younger adults and youth beginning to be diagnosed with the condition.
7. **Pregnancy-related health issues**: Interview participants raised two primary concerns with respect to pregnancy health and related perinatal and neonatal health. The first is a perceived increase in teen pregnancies and a lowering of the ages at which some girls are becoming pregnant. The other is concern about the effects of substance use and abuse by pregnant women on their unborn and newborn children, which was stated to cause serious and potentially lifelong health deficits in these children.
8. **Cancer**: There was some concern about increasing prevalence of some cancers, about ensuring adequate early screening and detection, and about people having to or choosing to leave the immediate community for some cancer treatments.

Factors Contributing to Health Status and Access to Care

In addition to discussing health status issues and health conditions in the community, interview participants addressed the factors or conditions they believe most contribute to poor health status. A rank-ordered list of the major contributing factors raised, some of them inter-related, is below:

1. **Low income and poverty**: Issues related to income and financial resources were frequently stated to limit access to care, contribute to poor diet and nutrition, and create stresses that negatively impact health.
2. **Access to health care**: Interview participants cited a wide range of difficulties with access to care, including availability of providers, cost and affordability of care, significant transportation barriers for low-income and elderly populations, and language or cultural barriers for some members of the community.
3. **Low educational levels and a lack of health education and knowledge**: Factors linked generally to educational attainment and specifically to health education were noted by interview participants as impeding both the ability to effectively seek and manage health care, and to adopt and practice healthy behaviors.
4. **Poor nutrition and diet**: Among health behaviors that contribute to or inhibit good health, dietary habits and nutrition were mentioned most frequently as major factors in obesity, diabetes, heart disease, and related conditions and chronic diseases.
5. **Preventive health services and preventive health behaviors**: Interview participants raised prevention of illness and disease in two distinct but related ways, which are connected to other factors on this list. First was a lack of use of preventive health services such as regular physical exams and health screenings – due variously to access difficulties and to a tendency not to seek care unless one is experiencing an acute condition. Second was a lack of preventive health behaviors, including but not limited to specific ones on this list. In both cases, the lack of prevention was viewed as contributing to more advanced stages of illness.
6. **Lack of physical activity and exercise**: Among health behaviors that contribute to or inhibit good health, a lack of physical activity and exercise was mentioned as a concern for all age groups, from youth through senior citizens. Interview participants recognized that reasons for limited activity and strategies to increase it differ across the life span.
7. **Food insecurity and hunger**: Closely linked to, but different from, poor nutrition and diet was interview participants' observations that low income – brought on by unemployment, underemployment, and other economic insecurity – can contribute to malnourishment and to obesity, with significant health consequences.
8. **Homelessness**: Interview participants mentioned homelessness as a risk factor for poor health, and some made particular note of those who are newly homeless as a consequence of the recent economic recession. Homelessness creates stresses and practical challenges to maintaining one's health and seeking or obtaining needed health care.
9. **Risk-factors among Elderly Residents**: Some interview participants highlighted the particular health risks experienced by older residents in the community. Seniors not uncommonly experience lower incomes, transportation barriers, advanced chronic diseases, and social isolation that can negatively impact health status.

Individuals Providing Community Input

The CHNA took into account input from many people who represent the broad interests of the community served by the hospital, via interviews with 101 individuals and three "community response sessions" that included many of the interviewees and 16 additional participants. These 117stakeholders in total 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 individuals representing the broad interests of the community **(Exhibits 60, 61, 62,** and **63**).

1. Public Health Experts

Individuals interviewed with special knowledge of or expertise in public health, some of whom also participated in a community response session, include those in **Exhibit 60**:

Exhibit 60: Public Health Experts Interviewed

Name	Title	Affiliation or Organization	Special Knowledge/Expertise or Nature of Leadership Role	Interview or Response Session
Carol Lindsey	Local Health Administrator	Hampshire County Health Department	Expertise in public health needs of Hampshire County residents	Both
Dr. Charles Devine, III	District Director	Lord Fairfax Health District	Expertise in the public health needs of Lord Fairfax Health district residents.	Both
Dr. Diana Gaviria	Health Officer	Berkeley County Health Department	Expertise in public health needs of Berkeley County residents.	Interview
Dr. Randall Midock	Director	Child Development Clinic, Lord Fairfax Health District	Expertise regarding children's public health and developmental issues, including psychological health.	Interview
George Bernardino	Health Administrator	Jefferson County Health Department	Public health expertise in health assessment, public programs, and social services for the community of Jefferson County.	Interview
Karen Farnsworth	Project Coordinator	Virginia Department of Health	Expertise in the public health needs of children and youth in Lord Fairfax Health District.	Both
Keely Sartori	WIC Supervisor	Virginia Department of Health	Public health expertise related to encouraging proper nutrition in WIC participants.	Interview
Sean Bennett	Administrator, Threat Preparedness Coordinator	Grant County Health Department	Expertise in public health related to disaster prevention and aid.	Both
Tom Minke	Director	Page County Health Department	Expertise in the public health needs of Page County residents.	Interview

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 community (**Exhibit 61**). This list excludes the public health experts identified in **Exhibit 60**, who also meet this criterion.

Exhibit 61: Individuals from Health Departments or Agencies Interviewed

Name	Title	Affiliation or Organization	Interview or Response Session
Carla Taylor	Director	Shenandoah County Social Services	Response Session
Christa Shifflett	Executive Director	Warren County Community Health Coalition	Both
Cynthia Hinkle	Specialist, Adolescent Pregnancy Prevention Initiative	West Virginia Department of Health and Human Resources	Interview

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 62**). This list excludes the public health experts identified in **Exhibit 60**.

Exhibit 62A: Community Leaders and Representatives Interviewed

Name	Title	Affiliation or Organization	Special Knowledge/Expertise or Nature of Leadership Role	Interview or Response Session
Dianna Herionimus	Office Manager	Winchester Family Health Center	Special knowledge regarding health needs of the indigent populations in the community.	Interview
Dr. Glenn Burdick	Executive Director	St. Luke Community Clinic	Special knowledge regarding health needs of the indigent populations in the community.	Both
Dr. Timothy Caraher	Physician	Winchester Family Health Center	Special knowledge regarding health needs of the indigent populations in the community.	Interview
Heather Buonocore	President	The F.R.E.E. Foundation	Special knowledge of related to maximizing functional independence and improving quality of life of disadvantaged individuals in the community.	Interview
Holly Cowie	West Virginia Affiliate	Susan G. Komen	Special knowledge of breast cancer-related health needs in the community.	Response Session
Jill Williams	Program Supervisor	Healthy Families NSV	Experience providing parenting support to at-risk families in the community.	Both
Karol Derflinger	Therapeutic Day Treatment Director	Family Preservation Services	Experience in improving parenting and family functioning while keeping children safe in families in crisis.	Interview
Katy Pitcock	Co-Chair and Coordinator Community Prenatal and Language Access	Virginia Medical Interpreting Collaborative	Special knowledge of health needs of populations that have limited in English proficiency.	Both
Kevin Tephabock	State Vice President	American Cancer Society (ACS)	Special knowledge of cancer-related health needs in the community.	Response Session
Madelyn Rodriguez	Service Coordinator	Grafton Integrated Health Network	Special knowledge of health needs of populations that have limited in English proficiency.	Response Session

Exhibit 62B: Community Leaders and Representatives Interviewed

Name	Title	Affiliation or Organization	Special Knowledge/Expertise or Nature of Leadership Role	Interview or Response Session
Nancy Feldman	Executive Director	Faith In Action	Special knowledge of vulnerable populations receiving transportation services.	Interview
Pam Murphy	Executive Director	Shenandoah County Free Clinic	Special knowledge regarding health needs of the indigent populations in the community.	Both
Pamila Wilsor	Clinical Nurse Manager	Winchester Family Health Center	Special knowledge regarding health needs of the indigent populations in the community.	Interview
Sara Schoonover-Martin	Executive Director	Healthy Families NSV	Experience providing parenting support to at-risk families in the community.	Both
Shannon Urum	Prevention Specialist	Northwestern Community Services	Special knowledge of substance abuse prevention and treatment in vulnerable populations.	Response Session
Sheila Orndoff	Executive Director	Shenandoah Alliance for Shelter	Special knowledge of needs of homeless and disadvantaged populations.	Response Session
Stacey Lam	Medical Practice Manager	Page Rural Health Center	Special knowledge regarding health needs of the indigent populations in the community.	Interview
Steve Herring	SVMS Finance Director	Shenandoah Valley Medical Systems	Special knowledge regarding health needs of the indigent populations in the community.	Interview
Tina Burns	Director, Clinical Recruitment	Shenandoah Community Health Center	Special knowledge regarding health needs of the indigent populations in the community.	Interview
Tina Rutt	Nurse Practitioner	Page County Free Clinic	Special knowledge regarding health needs of the indigent populations in the community.	Interview

4. Persons Representing the Broad Interests of the Community

Exhibit 63A: Other Interviewees Representing the Broad Interests of the Community

Name	Title	Affiliation or Organization	Interview or Response Session
Anita Scandurra	Director	Wellness Services	Interview
April McClain	Director	Shenandoah Memorial Hospital	Interview
Bill Haire	Chief Operating Officer	Winchester Medical Center	Interview
Bobbi Wells	Director	Page County Schools and Page Alliance for Community Action	Interview
Brody Williams	Fitness Center Coordinator	Page Memorial Hospital	Interview
Brooke Herndon	Director of Development	Grafton Integrated Health Network	Interview
Bryan Rosati	Operations Manager - Winchester	Valley Regional Enterprise	Interview
Carolyn Knowles	Dispatch Manager	Valley Medical Transport	Interview
Carolyn Wilson	Oncology Nursing Project Specialist	Winchester Medical Center	Both
Charlotte Fritts	GPS Program Coordinator & JKES Parent Liaison	Winchester Public Schools	Interview
Chris Rucker	VP Community Health and Wellness, President of Valley Regional Enterprises	Valley Health	Both
Christin Bell	Oncology Service Line Coordinator	Winchester Medical Center	Interview
Connie Nutter	President	NAMI Winchester	Interview
David Cunsolo	Lead Pastor	Victory Church	Interview
Debra J. Litten	Supervisor of Student Services	Shenandoah County Public Schools	Response Session
Dena Kent	President, Valley Regional Enterprises (retired)	Valley Health	Interview
Desiree Brunell	Director, Nursing Resources	Winchester Medical Center	Interview
Donald (Don) Price	Executive Director	Access Independence	Interview
Donna Carpenter	Executive Director	Lauren Center Intervention for Domestic and Sexual Violence	Interview
Doug Joyner	Coordinator, Curriculum & Instruction	Winchester Public Schools	Response Session
Doug Stanley	County Administrator	Local Government-Warren County	Interview
Dr. B. Keith Rowland	Superintendent	Shenandoah County Public Schools	Interview
Dr. Charles Bess	Physician, Family Practice	Private Practice	Interview
Dr. Gerald Bechamps	Vice President of Medical Affairs	Hampshire Memorial Hospital and War Memorial Hospital	Interview
Dr. Jack Potter	Medical Director of Emergency Services	Valley Health	Interview
Dr. Jeffrey Feit	Vice President	Valley Health Physician Support Services	Interview

Exhibit 63B: Other Interviewees Representing the Broad Interests of the Community

Name	Title	Affiliation or Organization	Interview or Response Session
Dr. Ricky L. Leonard	Superintendent	Winchester City Schools	Interview
Eddie Cassidy	Executive Director	Council on Alcoholism	Interview
Edyth McGoff	Director, Emergency Department	Warren Memorial Hospital	Interview
Emily Mitchell	Director of Nursing	Page Memorial Hospital	Interview
Ernie Carnevale	CEO	Blue Ridge Hospice	Interview
Floyd Heater	President	Shenandoah Memorial Hospital	Both
Helen Hatfield	Dental Hygiene Coordinator	Lord Fairfax Community College	Response Session
James Keresztury	Director, Cancer Prevention and Control	Mountains of Hope Cancer Coalition	Response Session
Jeff Jeran	Director	Valley Health Wellness and Fitness	Both
Jenna French	Executive Director	Woodstock Chamber of Commerce	Interview
Jodi Young	Clinical Manager	Winchester Medical Center	Interview
John Brauer	CEO	NW Works, Inc.	Interview
John Milleson	President and CEO	Bank of Clark County	Interview
John Nagley	Executive Director	AIDS Response Effort	Interview
John Robbins	President	Page County Chamber of Commerce	Interview
Joseph Shtulman	President/CPO	United Way of Northern Shenandoah Valley	Interview
Julie Alexander	Outreach Coordinator	Winchester Medical Center	Both
Kari Spaid	Director of Nursing	Hampshire Memorial Hospital	Response Session
Leslie Stewart	Executive Director	CLEAN, Inc.	Interview
Linda Gill	Dental Hygiene Coordinator	Lord Fairfax Community College	Interview
Lisa Wells	Trauma Coordinator	Winchester Medical Center	Interview
Lisa Zerull	Academic Liaison & Program Manager Faith-Based Services	Winchester Medical Center	Interview
Lyn Goodwin	Community Relations Manager	War Memorial Hospital	Interview
Mark H. Merrill	President & CEO	Valley Health	Response Session
Marsha Dehaven	Senior Residential Counselor	Our Family	Interview
Mary Presley	Physical Therapy	Warren Memorial Hospital	Interview
Mike Murphy	Superintendent	Clarke County Public Schools	Both
Neil McLaughlin	President	Hampshire Memorial Hospital and War Memorial Hospital	Both
Nicole Foster	President	Front Royal Chamber of Commerce	Interview
Nicole Pangle	Executive Director	ARC of Northern Shenandoah Valley	Interview
Pam Gray	Clinical Manager	Page Memorial Hospital	Interview
Pam Unhock	Coordinator of Health Services	Frederick County Public Schools	Both
Pamela M. McInnis	Superintendent	Warren County Public Schools	Interview

Exhibit 63C: Other Interviewees Representing the Broad Interests of the Community

Name	Title	Affiliation or Organization	Interview or Response Session
Patrick Nolan	President	Warren Memorial Hospital	Both
Patty Fields	Office Data Specialist	Hampshire Memorial Hospital	Interview
Paul Clements	Administrator	Lynn Care Center	Interview
Paul Scardino	Director	National Counseling Group	Interview
Paula Siburt	Director of Resource Development	United Way of Northern Shenandoah Valley	Response Session
Portia Brown	Director of Quality and Regulatory Affairs	Page Memorial Hospital	Interview
Randy Collins	President & CEO	Top of Virginia Regional Chamber	Interview
Randy Reed	Program Director	Winchester Medical Center	Interview
Rebekah Ady Schennum	Project Director	Family Youth Initiative	Response Session
Reen Markland	Regional Parish Nurse Coordinator	Winchester Medical Center	Both
Renee Smith	Membership Director & Peer Recovery Expert	NAMI Winchester	Interview
Rodney Huff	Nurse Practitioner	Shenandoah Oncology	Interview
Sandra Viselli	Director	Hampshire County Committee on Aging, Inc.	Interview
Sara Kuykendall	Dietician	Wellness Services	Interview
Sharen Gromling	Executive Director	Our Health, Inc.	Interview
Sherry Watts	Director of Workforce Development	Eastern WV Community & Technical College	Response Session
Stacey Rice	Clinical Manager	Winchester Medical Center	Interview
Stephanie Dirckx	Executive Director, Heart and Vascular	Winchester Medical Center	Interview
Sue Hildreth	Executive Director	Concern Hotline	Interview
Susan Betcher	Drug Prevention Specialist	Page County Public Schools	Interview
Susan Rogers	Director of Nursing	Grant County Nursing Home	Response Session
Tara Woolever	Supervisor of Social Sciences and Health and Wellness Education	Frederick County Public Schools	Interview
Todd Way	Sr. Vice President	Valley Health	Both
Travis Clark	President	Page Memorial Hospital	Interview
Trina Cox	Director	Hampshire Wellness Center	Both

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