Community Health Needs Assessment

Prepared for
VALLEY HEALTH SYSTEM
War Memorial Hospital

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EXECUTIVE SUMMARY

Introduction

This community health needs assessment (CHNA) was conducted by War Memorial Hospital ("War Memorial" 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. Needs 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, 2015.

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.

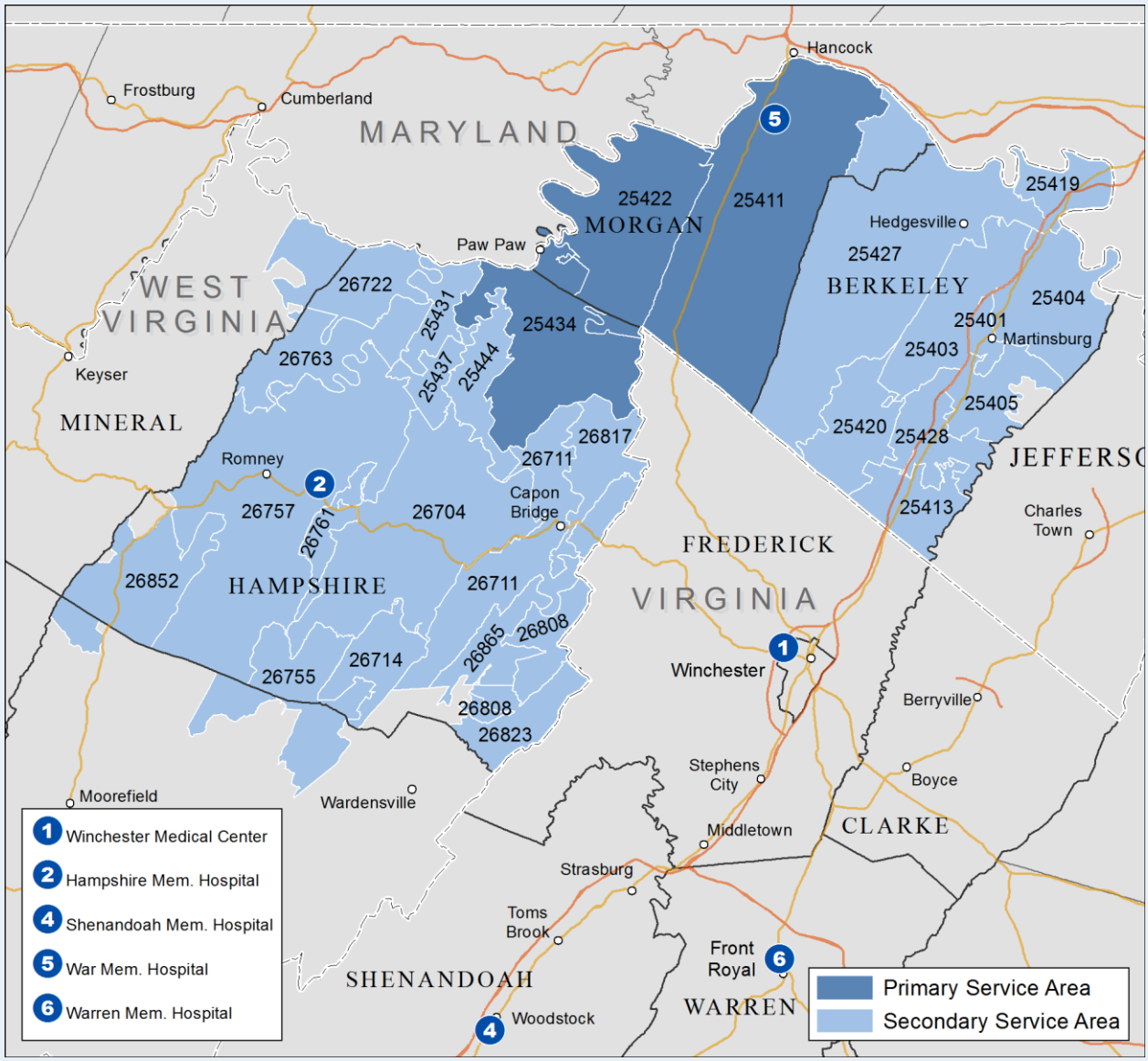
Input from persons representing the broad interests of the community, including individuals with special knowledge of, or expertise in, public health, were taken into account via interviews and, community response sessions to include 19 group interviews based upon sectors, and a community health survey with 1,990 respondents.

Valley Health System 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.

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

Definition of the Community



War Memorial Hospital Community by the Numbers

- **Community includes three counties in West Virginia: Berkeley, Hampshire, and Morgan.**
- **Total population in 2015: 129,868**
- **Projected population change between 2015 and 2020: 6.1%**
- **69.6% of inpatient discharges and 71.1% of emergency department visits originated from the community**
- **Demographics:**
  - **14.0% of population are 65+**
  - **90.4% White in 2014**

Prioritized Description of Community Health Needs

The CHNA identified and prioritized 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.

Prioritized Health Needs

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

To provide insight into trends, a comparison to findings from War Memorial's August 2013 CHNA is included below the description and key findings of each priority need, and outlined *below*.

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

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

Key Findings

- War Memorial's community contains four census tracts identified as food deserts. These are located in Berkeley, Hampshire, and Morgan Counties
- Food deserts are defined as low-income areas more than one mile from a supermarket or large grocery store in urban areas and more than 10 miles from a supermarket or large grocery store in rural areas.
- Fifty-seven schools in the War Memorial community, located in every county had 40 percent or more of their students eligible for free and reduced-price lunches, indicating risks of poor nutrition and hunger.
- Commenting on the contributing factors to poor health status, interview participants mentioned nutrition and diet, low physical activity and exercise, and food insecurity.

Many commented on the lack of affordable, healthy food choices in some parts of the community.

- Morgan County showed a higher rate of access to exercise opportunities, than the other two counties that represent the War Memorial community as reported by *County Health Rankings*.
- Physical inactivity was prominent in Hampshire and Morgan Counties, which showed rates higher than the West Virginia average.

Comparison to August 2013 CHNA: Physical activity, nutrition, and obesity-related chronic diseases was one of the top health priority areas identified in War Memorial's August 2013 CHNA. Participants in key informant interviews in 2013 reported obesity and diabetes were the second and third most frequently mentioned "top health-related issues" in the community; heart disease, poor dietary choices, and not enough exercise were in the top ten.

2. 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 to the health of the community's residents. Access to care is influenced by many factors, including insurance coverage and the ability to afford services, the availability and location of health care providers, an understanding of where to find services when needed, and reliable personal or public transportation.

Key Findings

- The War Memorial community is experiencing lower ratio rates when it comes to the number of primary care physicians per 100,000 populations, number of dentists available within the region: in addition, there is a great need for mental health providers. In West Virginia, ratio rates for mental health providers are in the bottom 50 percentile compared to the U.S. median.
- In Hampshire County, the ratio of population to primary care physicians was more than 75 percent worse than the U.S. average.
- Medically Underserved Area (MUA) or Medically Underserved Population (MUP) designations were present within Hampshire, Morgan, and Mineral Counties.
- Two of the three West Virginia counties in the service area ranked in the bottom half of all counties in West Virginia on "access to care" in the *County Health Rankings*. The 2016 *County Health Rankings* measures have changed slightly for the Access to Care indicator to include ratio of population to mental health providers.
- Two of the three counties in War Memorial's primary and secondary service areas have higher percentages of uninsured residents than West Virginia, according to the U.S. Census. Three of the four counties have higher percentages of uninsured residents than the U.S.
- 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.

Comparison to August 2013 CHNA: Access to Primary and Preventative Care was one of the top priorities identified in War Memorial's August 2013 CHNA. Access to affordable health care was one of the priority issues identified in War Memorial's August 2013 CHNA, for reasons including: a lack of providers relative to the population; affordability and uninsurance; and the challenges of unemployment and low income.

3. Financial Hardship and Basic Needs Insecurity

Income levels, employment and economic self-sufficiency correlate with the prevalence of a range of health problems and factors contributing to poor health. People with lower income or who are unemployed/underemployed are less likely to have health insurance or the ability to afford out of pocket health care expenses. Lower income is associated with increased difficulties securing reliable transportation, which impacts access to medical care, and 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 War Memorial community as a whole has a higher percentage of households with incomes under $25,000 than the West Virginia average (31.3%). The highest portion of households with incomes under $25,000 in 2014 were located in Hampshire County at 46.6 percent.
- Within the War Memorial community, unemployment rates have increased in every county for 2014. The most significant increase in unemployment rates was reported in Morgan County at 14.1 percent, an increase of 3.4 percent from the 2013 rate.
- Participants in interviews believe that a lack of low income housing, and poverty were the top issues contributing to poor health status and limit care. Other income-related factors noted include difficulty with securing transportation to medical appointments and homelessness.
- In the survey, low income and financial challenges were reported. For survey respondents who reported not being able to always get the care they needed, affordability and lack of insurance coverage were the reasons most frequently mentioned.

Comparison to August 2013 CHNA: Financial Hardship and Basic Needs Insecurity was one of the top priorities identified in War Memorial's August 2013 CHNA. Low income and poverty was the fourth most frequently-mentioned issue believed to contribute to poor health status and to access to care difficulties, by participants in key informant interviews. Other income-related factors noted include difficulty with transportation access, homelessness, and food insecurity and hunger.

4. 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 the ability 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

- In War Memorial's community, all counties are designated as a Medically Underserved Area (MUA), or Medically Underserved Population. Morgan County reported shortages in all three categories for dental, mental, and primary care services.
- Mental and behavioral health was mentioned as a health status issue by key informants. Interviewees generally reported that the community's mental health needs have grown, while the mental health service capacity has not. Lack of available resources was reported.
- The major concern mentioned by key informants was the need for more providers to care for adults and children with mental and behavioral health issues.
- Another concern mentioned by key informants was the inability to connect patients with services needed. Wait times for patients to see a clinician are very long.

Comparison to August 2013 CHNA: Mental and Behavioral Health was one of the top priorities identified in War Memorial's August 2013 CHNA. Interview participants described a wide range of mental health issues, including for example: bullying among youth, autism spectrum symptoms and diagnosis, 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 diagnosis of mental health problems and substance abuse.

5. 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 substance abusers, but those around them; negatively impacting health, safety and risky behaviors, including violence and crime, adult productivity, student 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

- A measure of alcohol-impaired driving deaths placed Berkeley County in the top 49% of all West Virginia counties, according to *County Health Rankings* report.

- Rates of adult tobacco use in all three counties (Berkeley, Hampshire, and Morgan) in West Virginia were in the top 49% of counties in the state. Smoking across the community averaged 24 percent.
- Substance abuse was a major concern and mentioned frequently by key informant interview participants. It was portrayed as a growing and serious issue.
- Survey respondents reported substance abuse and mental health as top most identified health issues for the War Memorial community.

Comparison to August 2013 CHNA: Substance abuse was one of the priority issues identified in War Memorial's August 2013 CHNA. It was frequently mentioned as a serious issue by interview participants. Focus groups identified substance abuse and mental health as a high health priorities.

6. Maternal and Child Health

Maternal and child health indicators, including teen pregnancy and infant mortality, should be considered when evaluating the health of a community. The rate of teen pregnancy is an important health statistic in any community for reasons that include: concerns for the health of the mother and child, the financial and emotional ability of the mother to care for the child, and the ability of the mother to complete her secondary education and earn a living. Teen pregnancy also stresses the educational system and the families of teen mothers. Infant mortality can be a sign of deficits in access to care, health education, personal resources, and the physical environment.

Key Findings

- The rate of sexually transmitted infections in Berkeley County was higher than the U.S. average as reported in the County Health Rankings.
- In the War Memorial community, low birth weight rates were highest in Morgan County according to the *County Health Rankings*.
- In the survey, cost, and lack of insurance were the most frequently reported barriers to care. Fifteen percent of the respondents responded that that age-appropriate routine screenings were not completed due to lack of insurance, and 25 percent of respondents reported routing screenings were not completed due to costs.

Comparison to August 2013 CHNA: Teen pregnancy was one of the top priorities identified in War Memorial's August 2013 CHNA. The infant mortality rate in Morgan County was more than double the West Virginia rate, and was 70 percent higher in Berkeley County than in West Virginia.

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 assists in identifying the highest-priority health needs.

Statistics for health status, health care access, and related indicators were analyzed and included data from local, state, and federal public agencies, community service organizations in the War Memorial community, and 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 collected through: 18 group interviews with 80 key informants (March 2016); a community health survey with 1,990 respondents; and four "community response sessions (May 2016)" comprised of 39 additional community stakeholders 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, agencies with current data or information about the health needs of the community; and leaders, representing the medically underserved, low-income, and minority populations, and populations with chronic disease needs. Feedback from community response session participants helped validate findings and prioritize identified health needs.

Prioritization Process and Criteria

Valley Health System applied a ranking methodology to prioritize the community health needs identified by the assessment, incorporating both quantitative and qualitative data throughout. Scores were calculated for each data category (secondary data, previous assessments, survey, and interviews) based on the number of sources measuring each health issue. The severity of the issue and measured by the data and 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

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

Valley Health System's internal project team included Mark H. Merrill, president and CEO, Valley Health System; Tom Kluge, president of Hampshire Memorial Hospital and War Memorial Hospital; Carol Koenecke-Grant, vice president of Strategic Services; Chris Rucker, vice president of Community Health and Wellness and president of Valley Regional Enterprises; Kathleen Devlin Culver, manager, Corporate Communications; Michael Wade, program manager; and Mary Zufall, coordinator, Community Health.

The Valley Health System Community Health Needs Assessment (CHNA) Steering Committee was developed to provide insight regarding the needs of the communities participating in the 2016 CHNA. The Steering Committee guides the process to ensure alignment with organizational mission and vision and support of legislative mandates regarding CHNA reporting. Members of the committee make sure that components of the CHNA are being adequately compiled and addressed and that the project is completed with prioritized health needs.

Valley Health System's Community Health Needs Assessment steering committee included:
David Cooper, GIS manager, Northern Shenandoah Valley Regional Commission
Charles Devine, M.D., health director, Winchester Health Department
Sharen Gromling, executive director, Our Health, Inc.
Stefan Lawson, executive director, Free Medical Clinic of the Northern Shenandoah Valley
Mark Y. Lineburg, Ed.D. superintendent, Winchester Public Schools
Tracey Mitchell, manager, Wellness Services, Valley Health Wellness Center
Nadine Pottinga, president/CEO, United Way of Northern Shenandoah Valley
Faith Power, member, Valley Health System Board of Trustees
Kevin Sanzenbacher, chief of Police, City of Winchester
Karen Schultz, Ph.D., director & professor, Center for Public Service and Scholarship, Shenandoah University
David T. Sovine, Ed.D. superintendent, Frederick County Public Schools
Frank Subasic, member, Valley Health System Board of Trustees
Shannon Urum, prevention specialist, Northwestern Community Services Board

War Memorial collaborated with a variety of individuals through workgroups that focused 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 57** through **61** of this report.

DEFINITION OF COMMUNITY ASSESSED

War Memorial's community is comprised of three counties in West Virginia (35 ZIP codes). The hospital's primary service area (PSA) is Morgan County. The secondary service area (SSA) is composed of Berkeley and Hampshire Counties (**Exhibit 1)**. The hospital is located in Berkeley Springs, West Virginia.

In 2015, the War Memorial community was estimated to have a population of 153,181 persons. Approximately 11.5 percent of the population resided in the primary service area (Exhibit 1).

Exhibit 1: Community Population by County, 2015

2015	County	Total Population 2015 (Actual)	Total Population 2020 (Estimated)
PSA		**17,579**	**17,611**
	Morgan County, WV	17,579	17,611
SSA		**135,602**	**120,240**
	Berkeley County, WV	112,289	120,240
	Hampshire County, WV	23,313	22,615
Totals		**153,181**	**137,851**

Sources: Projections: Weldon Cooper for Public Service, VA; Projections: WVU Bureau of Business and Economic Research

This community definition was validated by the geographic origins of WAR MEMORIAL inpatients and emergency department encounters (**Exhibit 2**).

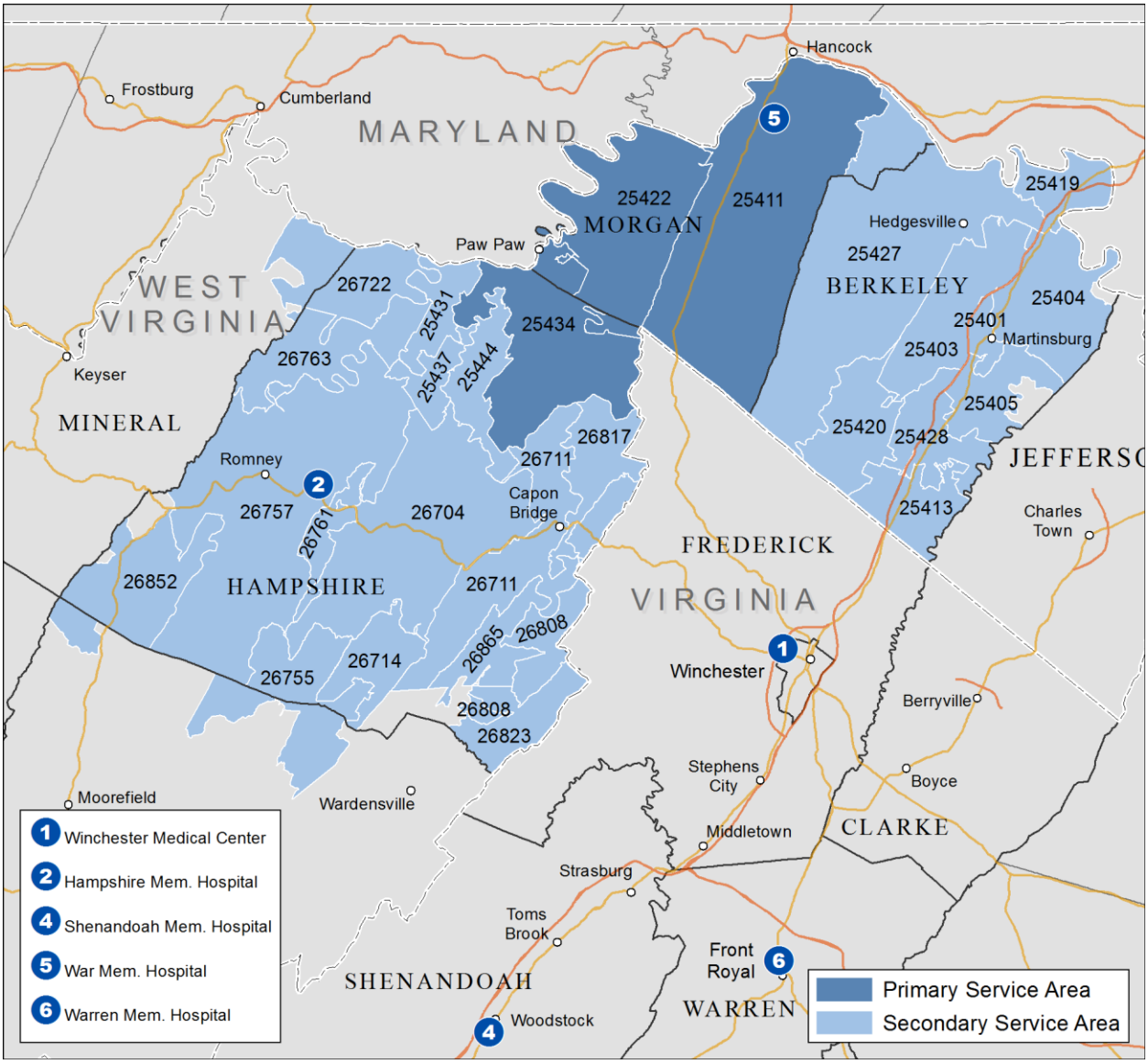
Exhibit 2: War Memorial Inpatient and Emergency Department Discharges, 2015

County	Number of Inpatient Discharges	Percent of total Inpatient Discharges	Number of ED Discharges	Percent of ED discharges
PSA	**234**	**69.6%**	**5,226**	**71.1%**
Morgan	234	69.6%	5,226	71.1%
SSA	**45**	13.4%	**558**	**7.6%**
Berkeley	39	11.6%	545	7.4%
Hampshire	6	1.8%	13	0.2%
PSA and SSA Total	**279**	**83.0%**	**5,784**	**78.6%**
Other areas	**57**	**17.0%**	**1,571**	**21.4%**
Total Discharges	**336**	**100.0%**	**7,355**	**100.0%**

Source: Valley Health, 2015

In 2015, the War Memorial community collectively accounted for 83.0 percent of the hospital's inpatients and emergency department discharges. The majority of the hospital's inpatients (69.9%) and emergency department visits (71.1%) originated from the primary service area of Morgan County (**Exhibit 2**).

Exhibit 3: War Memorial Hospital Community: Three counties comprise War Memorial's primary and secondary service areas.



Source: Northern Shenandoah Valley Regional Commission

SECONDARY DATA ASSESSMENT

This section presents secondary data regarding health needs in War Memorial'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, 2015-2020

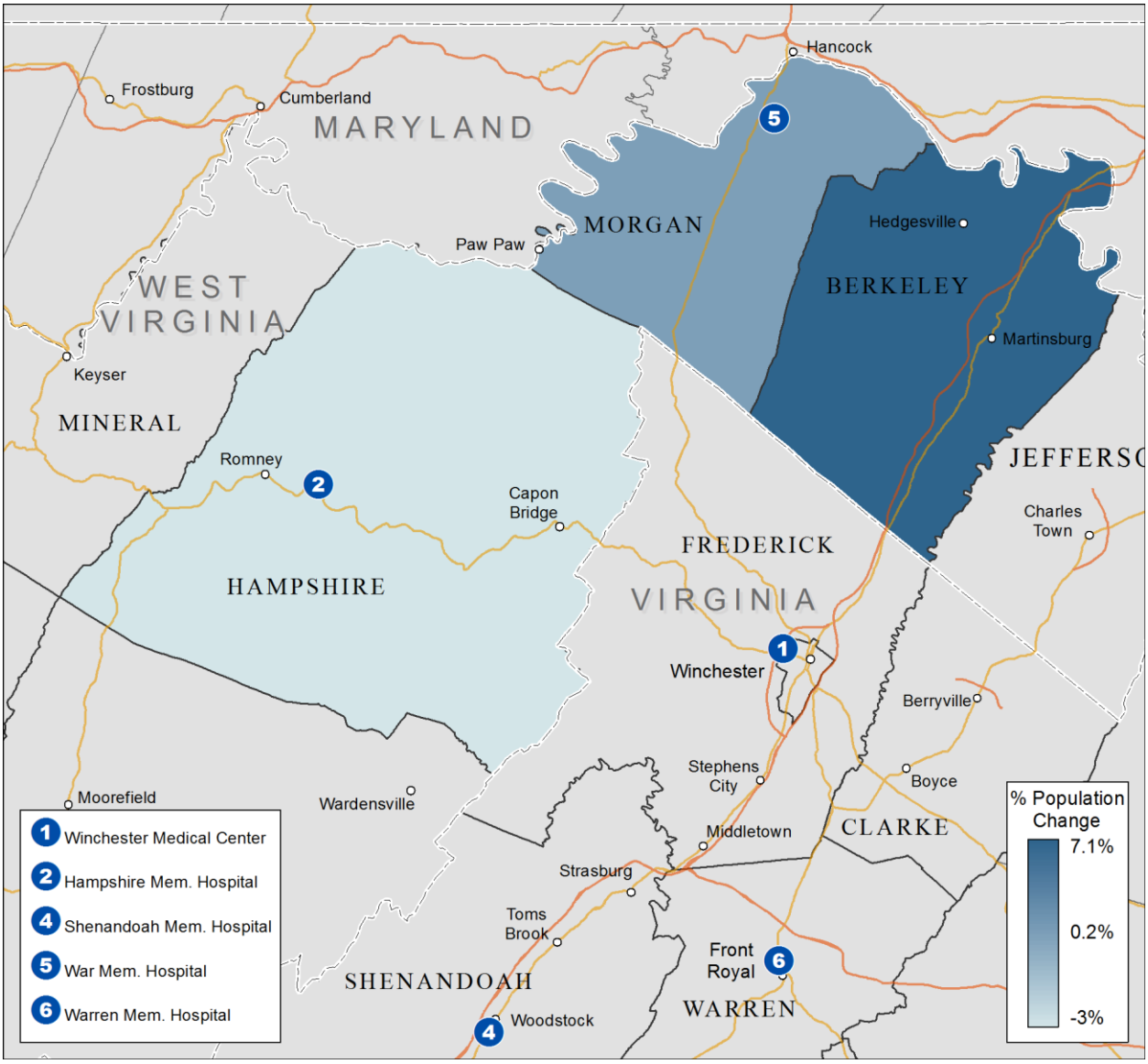
County	Total Population 2015 (Actual)	Total Population 2020 (Estimated)	Percent Change in Population 2015-2020
PSA	**17,579**	**17,611**	**0.2%**
Morgan County, WV	17,579	17,611	0.2%
SSA	**112,289**	**142,855**	**5.3%**
Berkeley County, WV	112,289	120,240	7.1%
Hampshire County, WV	23,313	22,615	-3.0%
Totals	**129,868**	**160,466**	**4.8%**

Source: Projections: Weldon Cooper for Public Service, VA; Projections: WVU Bureau of Business and Economic Research

Overall, the population in the War Memorial community is expected to increase by 6.1 percent between 2015 and 2020 (**Exhibit 4**). West Virginia's population is expected to decline by 0.9 percent between 2015 and 2020.[2]

[2] The Weldon Cooper Center for Public Service, University of Virginia. (2015). Retrieved from: www.coopercenter.org/demographics

Exhibit 5: Population Change by County and ZIP Code, 2015-2020



Source: Northern Shenandoah Valley Regional Commission

Berkeley County is expected to grow faster than the community as a whole (approximately 7.1 percent), while Hampshire County is projected to experience population decline (**Exhibits 4 and 5)**.

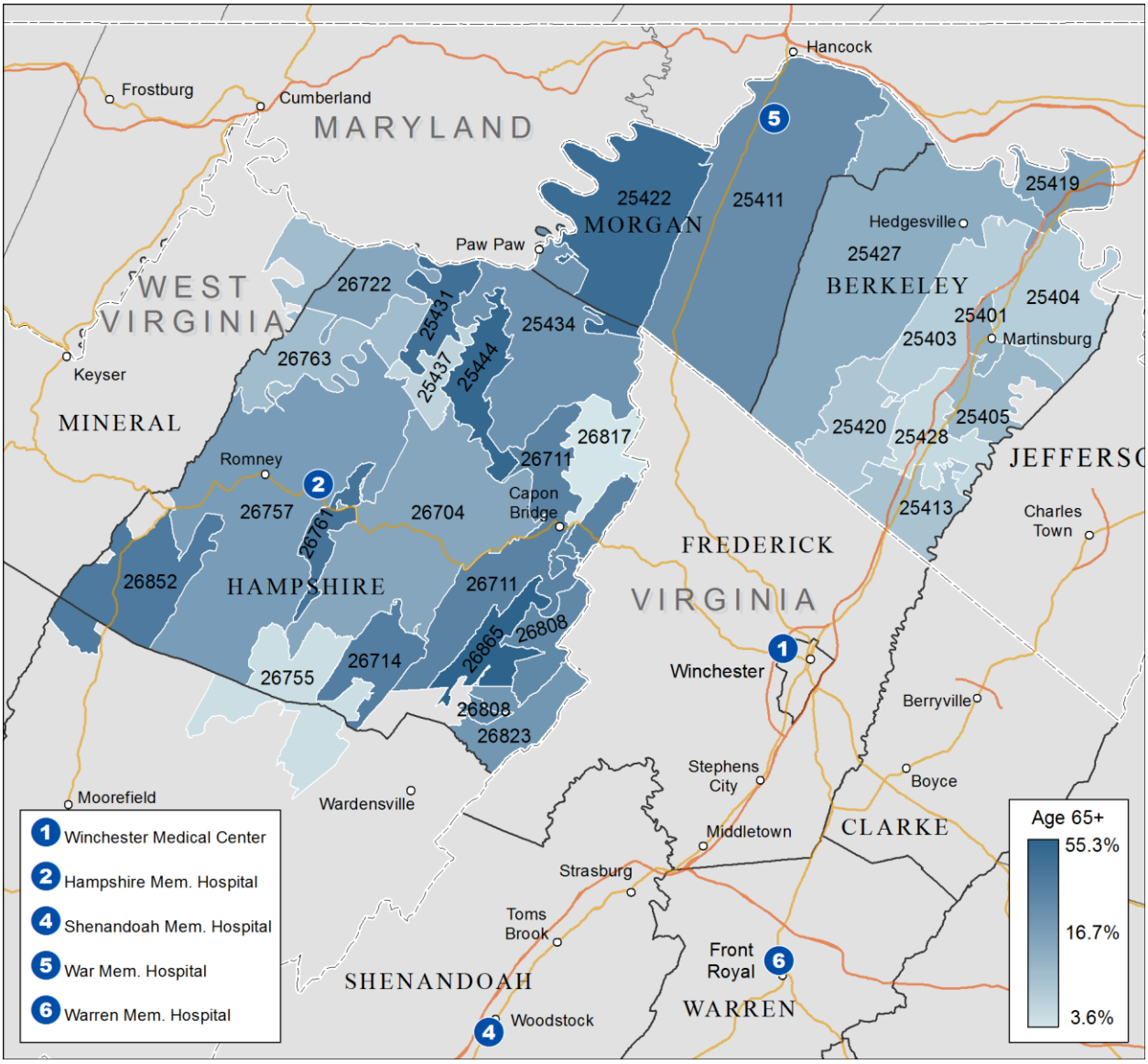
Exhibit 6: Percent Change in Population by Age/Sex Cohort, 2013-2014

Age/Sex Total Population	Population 2013	Population 2014	% Change	% of 2014 Total Population
Female 0-19	18,988	18,543	-2.4%	12.5%
Male 0-19	19,164	19,574	2.1%	13.2%
Female 20-44	23,707	23,905	0.8%	16.1%
Male 20-44	23,293	23,171	-0.5%	15.6%
Female 45-64	20,946	21,171	1.1%	14.3%
Male 45-64	21,131	21,328	0.9%	14.4%
Female 65+	10,544	11,003	4.2%	7.4%
Male 65+	9,287	9,753	4.8%	6.6%
Total	**147,060**	**148,448**	**0.9%**	**100.0%**

Source: US Census Data 2014

The number of residents in the War Memorial community aged 65 years and over has increased since 2013, with the largest increase among males in this group (4.8 percent). The female population in the 65 and older age cohort increased by 4.2 percent (**Exhibit 6**).

Exhibit 7: Percent of Population Aged 65+ by County and ZIP Code, 2014



Source: Northern Shenandoah Valley Regional Commission

At 54.0 percent, Berkeley County has the highest percentage of people aged 65 and over. The ZIP codes with the highest percentage of people aged 65 and over are 25404 (Martinsburg) in Berkeley County, and 25411 (Berkeley Springs) in Morgan County (**Exhibit 7**).

Exhibit 8: Distribution of Population by Race, 2014-2019

2014	Morgan	Hampshire	Berkeley	Total Population 2014	% of Population 2014	Change in Population 2014-2019	Total Population 2019	% of Population 2019
American Indian and Alaska Native	4	~	124	128	0.1%	0.1%	128	0.1%
Asian	67	17	897	981	0.7%	0.9%	990	0.7%
Black or African American	140	330	7,663	8,133	5.5%	4.8%	8,521	5.7%
Native Hawaiian/Pacific Islander	~	~	44	44	0.0%	0.0%	44	0.0%
Some other Race	~	26	1,296	1,322	0.9%	3.4%	1,367	0.9%
Two or more Races	263	269	3,053	3,585	2.4%	0.0%	3,585	2.4%
White	16,976	23,032	94,247	134,255	90.4%	0.5%	134,899	90.2%
Total	**17,450**	**23,674**	**107,324**	**148,448**	**100.0%**	**0.7%**	**149,534**	**100.0%**

Source: US Census Data 2014
Source: Crimson – Percent change in population 2014-2019

About 90.4 percent of the War Memorial community's population is White. Overall population for the War Memorial community is expected to increase 0.7 percent by 2019 (**Exhibit 8**).

Exhibit 9: Distribution of the Population by Ethnicity, 2014

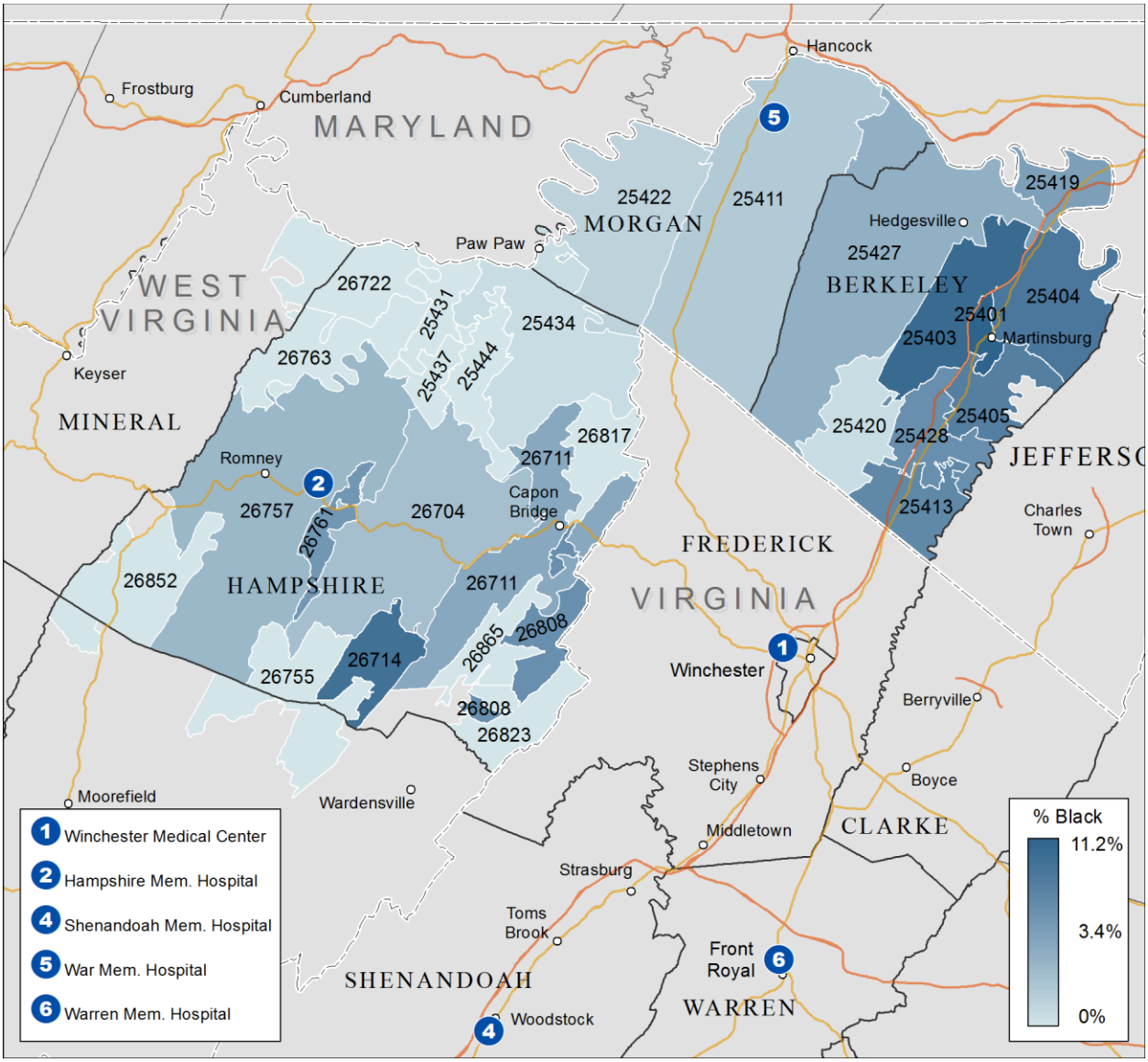
Ethnicity	Morgan	Hampshire	Berkeley	Total Population
Hispanic or Latino	205	272	4,140	4,617
Not Hispanic or Latino	17,245	23,402	103,184	143,831
Total	**17,450**	**23,674**	**107,324**	**148,448**

Source: US Census Data 2014

According to the U.S. Census Data, the Hispanic or Latino population is 3.1 percent of the War Memorial community (**Exhibit 9**).

Exhibits 10, and **11** illustrate the locations in the community where the percentage of the population that is Black, Hispanic or Latino is highest. The percentage of Black residents is highest in ZIP code 25401 (Martinsburg) in Berkeley County. The percentage of Hispanic or Latino residents is highest in ZIP code 26865 (Yellow Springs) in Hampshire County.

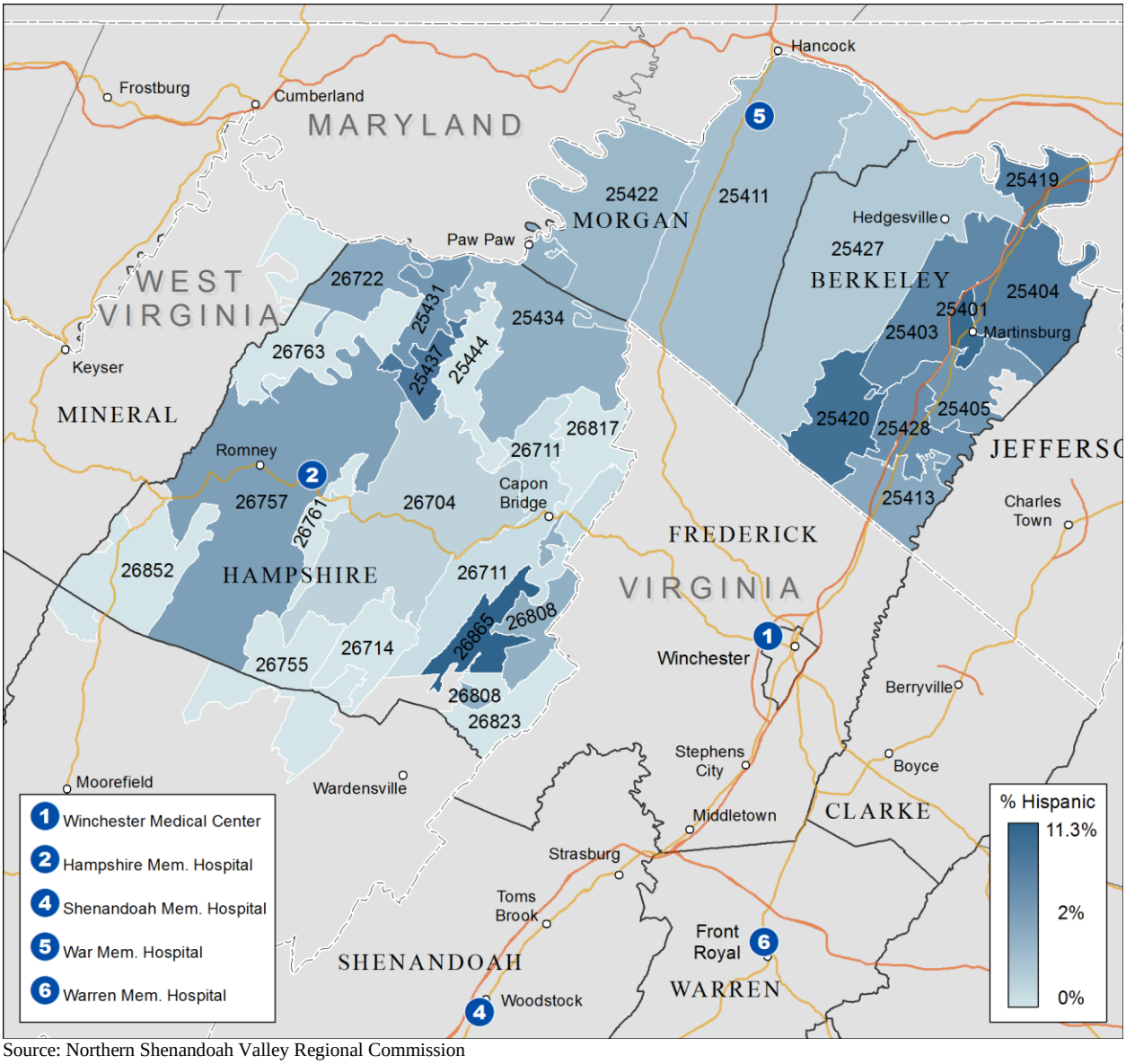
Exhibit 10: Percent of Population – Black, 2014



Source: Northern Shenandoah Valley Regional Commission

Berkeley County reported the highest percentages of Black residents.

Exhibit 11: Percent of Population – Hispanic or Latino, 2014



Source: Northern Shenandoah Valley Regional Commission

Berkeley County has the highest number of Hispanic or Latino residents.

Exhibit 12: Other Demographic Indicators, 2014

County	Population age 25 + without a high school diploma, 2014	Population % + who are linguistically isolated, 2014
PSA		
Morgan, WV	18.0%	2.6%
SSA		
Berkeley, WV	13.6%	1.8%
Hampshire, WV	23.8%	0.4%
West Virginia	**15.5%**	**5.5%**
US	**13.6%**	**8.6%**

Source: U.S. Census Bureau, ACS 5 year estimates, 2014.

Key findings include:

- Hampshire and Morgan Counties had higher percentages of non-graduates than the state average of 15.5 percent.
- In Morgan County, the percentage of residents who were linguistically isolated was lower than the West Virginia average of 5.5 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."

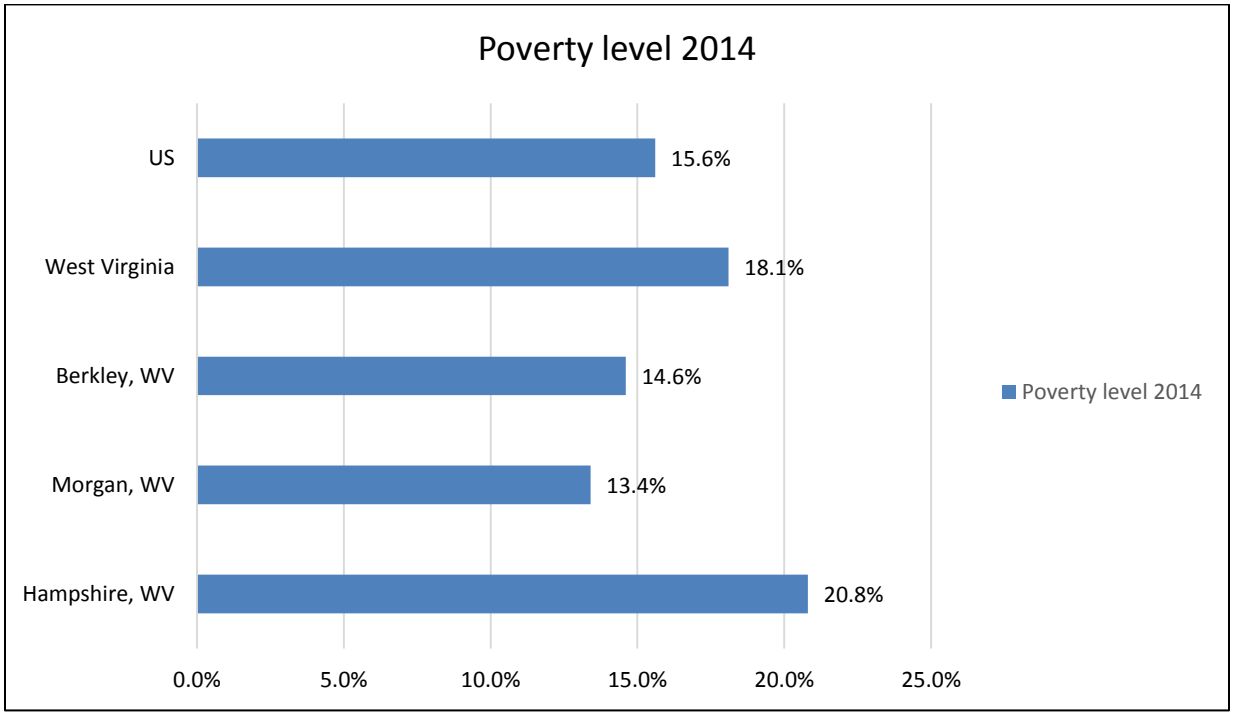
Economic Indicators

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) state and local budget adjustments.

1. People in Poverty

Many health needs are associated with poverty. In 2014 approximately 15.6 percent of people in the U.S., and 18.1 percent of people in West Virginia lived in poverty (**Exhibit 13**).

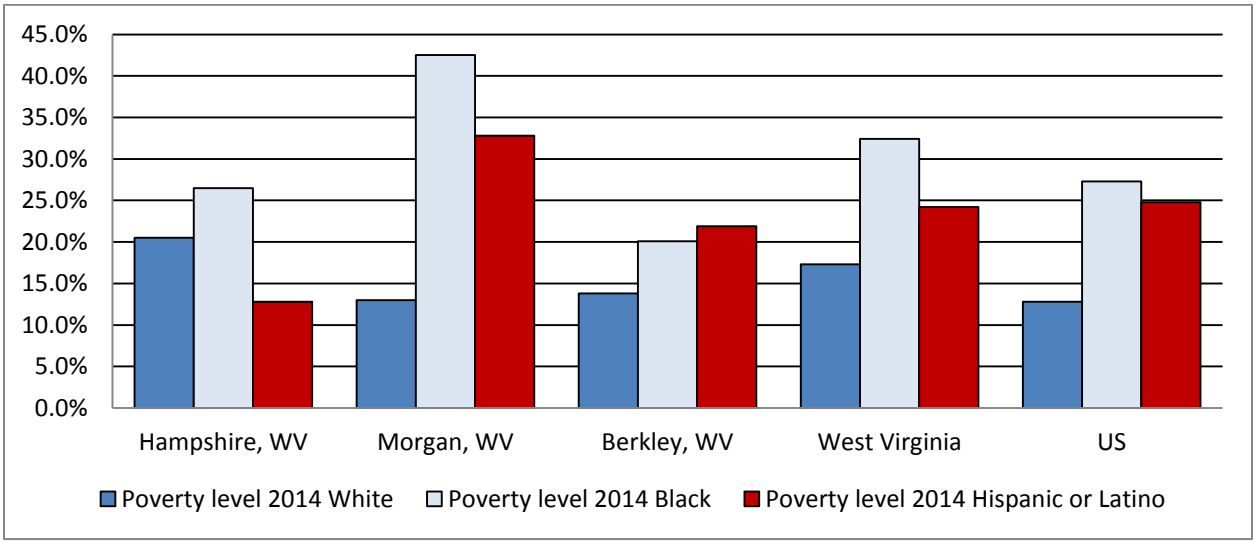
Exhibit 13: Percent of People in Poverty, West Virginia Counties, 2014



Source: U.S. Census Bureau, ACS estimates, 2014. Retrieved from:
http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_DP03&prodType=table
The vertical line signifies the poverty rate in Virginia.

Hampshire County reported poverty rates higher than the West Virginia and U.S. rates. The poverty rates for Berkeley, and Morgan Counties were lower than the West Virginia and U.S. rates (**Exhibit 13**).

Exhibit 14: Percent of People in Poverty by Race/Ethnicity, West Virginia Counties, 2014



Source: U.S. Census Bureau, ACS estimates, 2014. Retrieved from:
http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_DP03&prodType=table
Data were not available by all races for Grant, Hampshire, and Mineral Counties.

County	Poverty level 2014		
	White	Black	Hispanic or Latino
Hampshire, WV	20.5%	26.5%	12.8%
Morgan, WV	13.0%	42.5%	32.8%
Berkeley, WV	13.8%	20.1%	21.9%
West Virginia	**17.3%**	**32.4%**	**24.2%**
US	**12.8%**	**27.3%**	**24.8%**

The Black population in War Memorial's counties reported higher poverty rates than the White population. The Hispanic or Latino populations in Berkeley and Morgan Counties reported higher poverty rates than the White population (**Exhibit 14**).

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 War Memorial community in 2014, Berkeley, Hampshire, and Morgan Counties were below the state average for percent of families with incomes below $25,000, an approximation of the federal poverty level (FPL) for a family of four. **Exhibit 15** indicates the percent of lower-income households in the community.

Exhibit 15: Percent Lower-Income Households by County, 2014

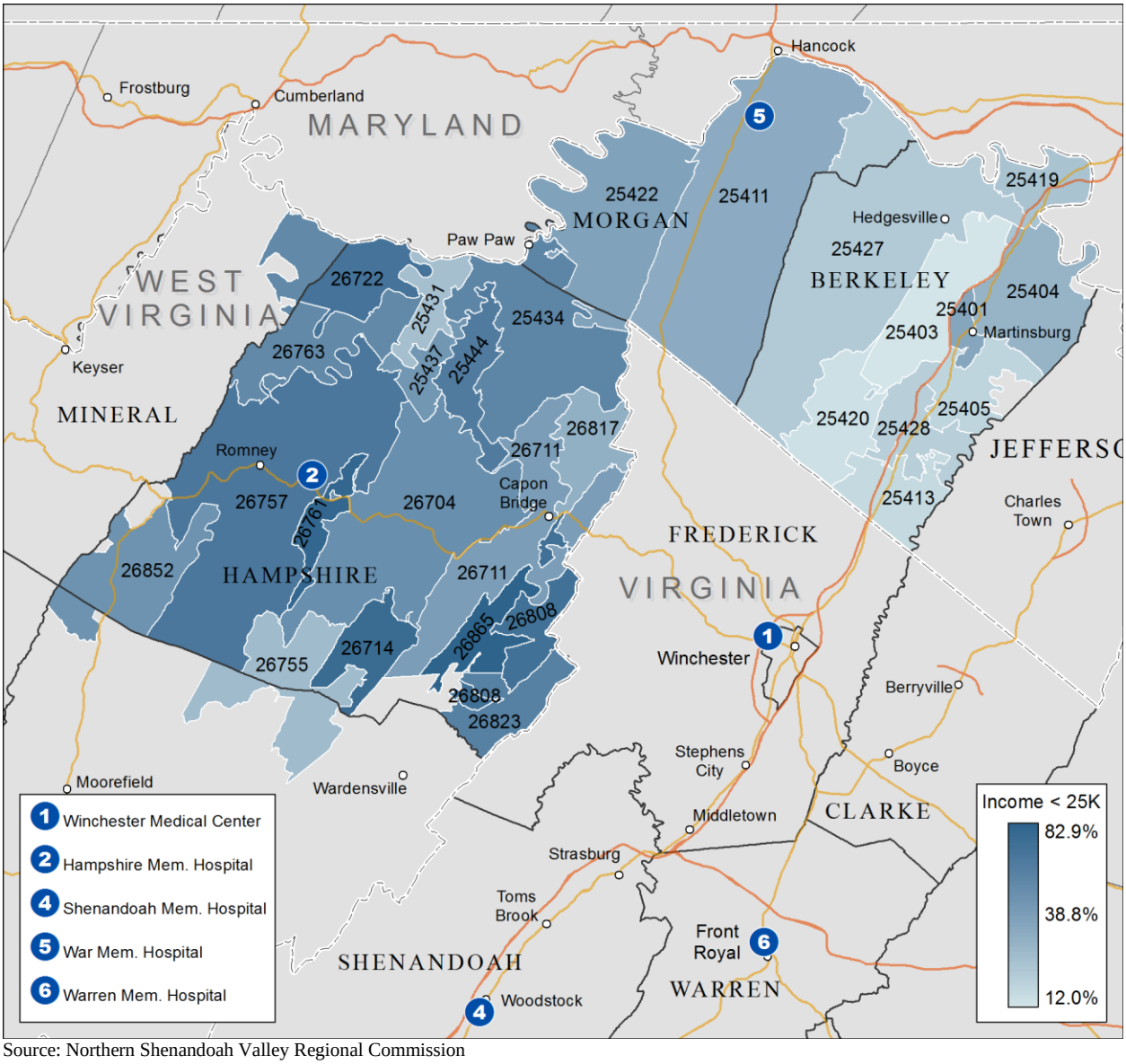
County	Average Family Income, 2014	Percent of Families[3] Less Than $25,000 in 2014	Percent of Households[4] Less than $25,000 in 2014
PSA			
Morgan, WV	$ 50,308.00	18.1%	33.0%
SSA			
Berkeley, WV	$ 63,535.00	16.1%	21.1%
Hampshire, WV	$ 42,977.00	17.9%	46.6%
West Virginia	**$ 52,875.00**	**20.3%**	**31.3%**
US	**$ 65,443.00**	**15.9%**	**23.2%**

Source: U.S. Census Bureau, ACS estimates, 2014. Retrieved from: http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_DP03&prodType=table#

In West Virginia, two of the three counties reported percentages, for Percent of Households, greater than the West Virginia state percentage of 31.3% (**Exhibit 15**).

[3] A family consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. All people in a household who are related to the householder are regarded as members of his or her family.
[4] A household includes all the people who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied as separate living quarters. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living arrangements.

Exhibit 16: Percent of Households with Incomes under $25,000 by County and ZIP Code, 2014

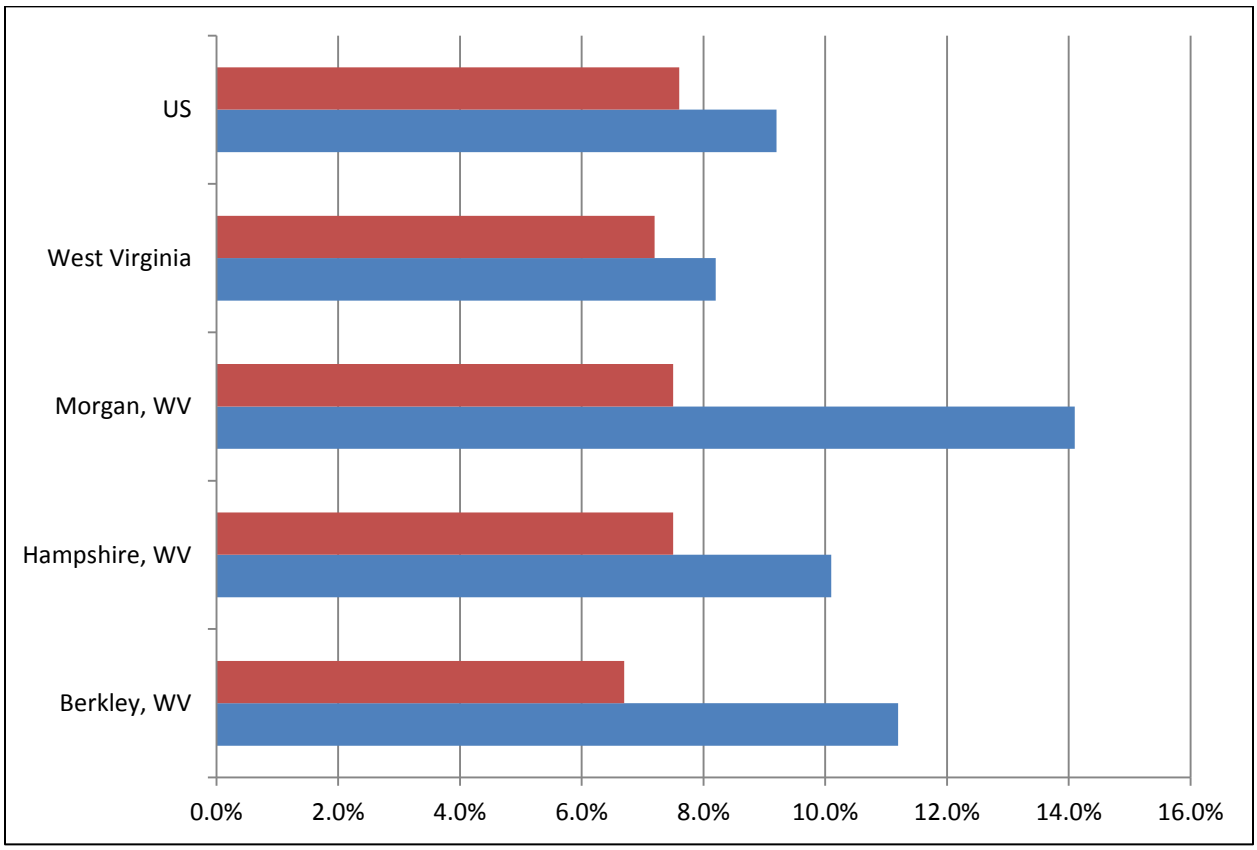


Source: Northern Shenandoah Valley Regional Commission

Hampshire County has the highest proportions of households with incomes under $25,000 in 2014 (**Exhibit 16**).

3. Unemployment Rates

Exhibit 17: Unemployment Rates, West Virginia Counties, 2013 (in red) and 2014 (in blue)



Source: US Census Bureau. Retrieved from:
http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_DP03&prodType=table

County	Unemployment rates 2014	Unemployment rates 2013
Berkeley, WV	11.2%	7%
Hampshire, WV	10.1%	8%
Morgan, WV	14.1%	7.5%
West Virginia	**8.2%**	7.2%
US	**9.2%**	7.6%

Source: US Census Bureau. Retrieved from:
http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_DP03&prodType=table

Morgan County reported the highest unemployment rate in the War Memorial community (**Exhibit 17**).

4. Crime

Exhibit 18: Violent and Property Crime Rates per 100,000 Population, 2013

County	Population (2013)	Violent crime	Murder and Non negligent manslaughter	Rape (revised definition)[1]	Robbery	Property crime	Burglary	Larceny-theft	Aggravated assault	Motor vehicle theft	Arson
PSA	**43,021**										
Morgan	43,021	54	2	2	0	36	14	19	50	3	0
SSA	**134,345**										
Hampshire	23,848	41	0	0	0	68	36	28	41	4	2
Berkeley	110,497	79	3	15	13	975	246	700	48	29	5
West Virginia Total	**1,850,326**	**302.0**	**4.0**	**27.3**	**35.2**	**235.5**	**2,034.7**	**484.9**	**1,447.3**	**102.5**	**N/A**
Rate per 100,000 inhabitants - Data shows the number of offenses reported within each county.											

Sources: Violent crime counts retrieved from the Federal Bureau of Investigation, Uniform Crime Reports, 2013. Population 2014 estimates obtained from the U.S. Census Bureau, ACS 5 year estimates, 2014 -2019. Retrieved from: https://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2013/crime-in-the-u.s.-2013/tables/5tabledatadecpdf/table_5_crime_in_the_united_states_by_state_2013.xls [5] Rate per 100,000 inhabitants

*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.

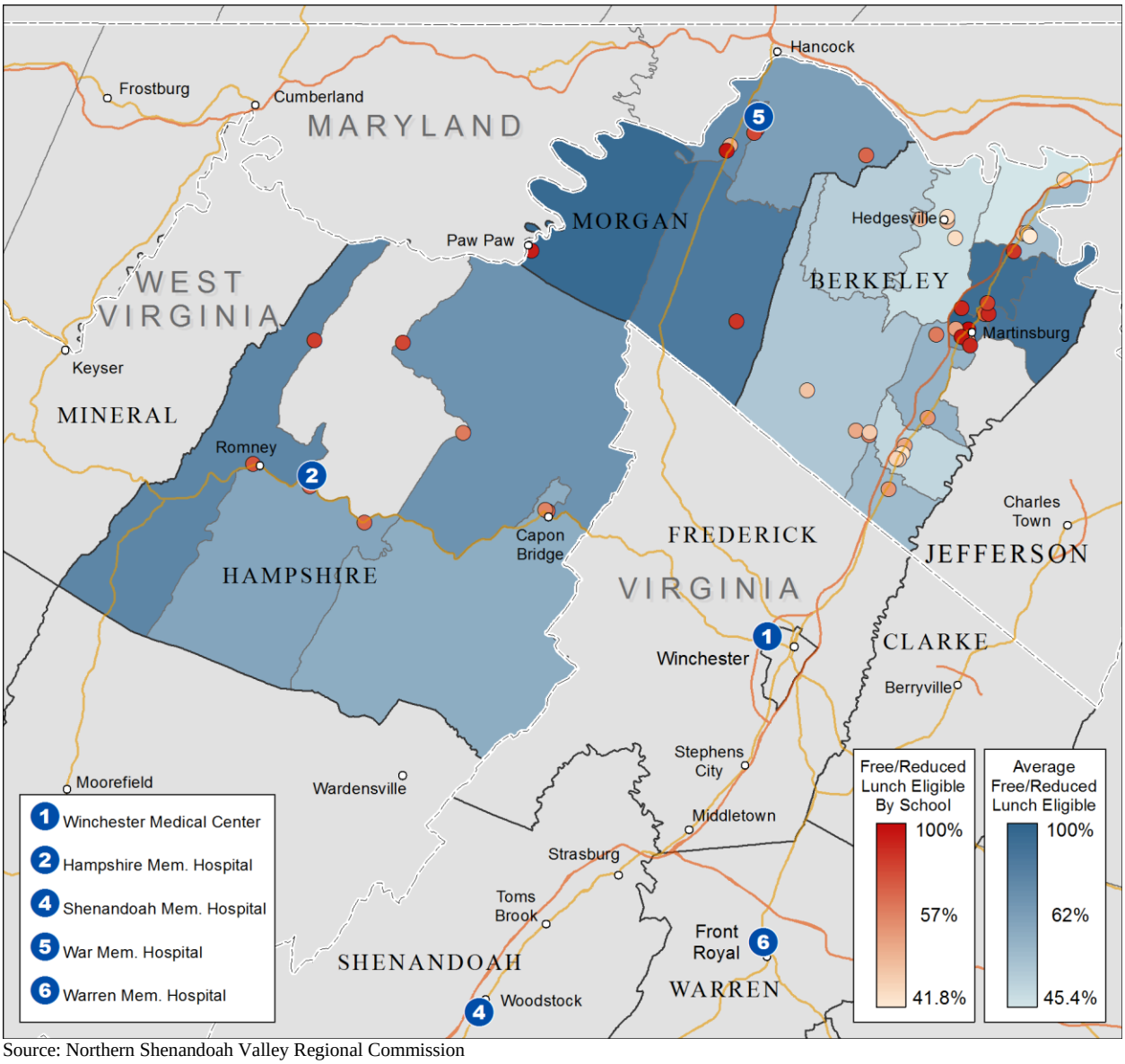
Berkeley County had higher rate of offenses for property crimes, including burglary, larceny-theft, aggravated assault and violent crimes than Hampshire and Morgan Counties (**Exhibit 18**).

5
1 The violent crime figures include the offenses of murder, rape (revised definition), robbery, and aggravated assault.
2 The figures shown in the rape (revised definition) column were estimated using the revised Uniform Crime Reporting (UCR) definition of rape. See data declaration for further explanation.
3 The figures shown in the rape (legacy definition) column were estimated using the legacy UCR definition of rape. See data declaration for further explanation.
4 This state's agencies submitted rape data according to the revised UCR definition of rape.
5 Agencies within this state submitted rape data according to both the revised UCR definition of rape and the legacy UCR definition of rape.
6 Includes offenses reported by the Metro Transit Police and the Arson Investigation Unit of the District of Columbia Fire and Emergency Medical Services.
7 Because of changes in the state/local agency's reporting practices, figures are not comparable to previous years' data.
NOTE: Although arson data are included in the trend and clearance tables, sufficient data are not available to estimate totals for this offense. Therefore, no arson data are published in this table.

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 19: Public School Students Eligible for Free or Reduced-Price Lunches, School Year 2014 - 2015



Source: Northern Shenandoah Valley Regional Commission

In the War Memorial community, there were 57 schools eligible for Title 1 funding (**Exhibit 19**).

Exhibit 20: West Virginia Department of Education
County Percent Need Data for Claim Date October 1, 2015

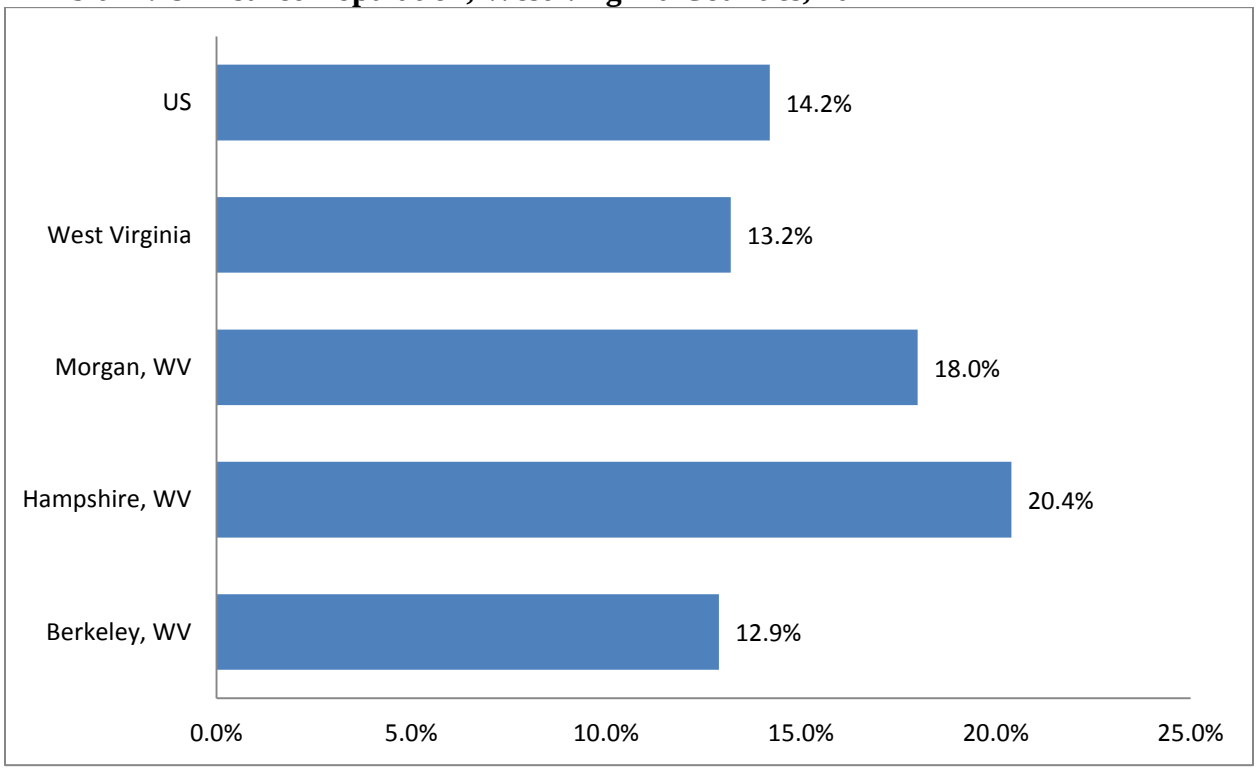
County	Number of Students	Free Eligible	Free %	Reduced Lunch Eligible	Reduced Lunch %	Total Free / Reduced	Total % Free / Reduced Lunch
Berkeley County Public Schools	18,539	8,980	48.44%	1,054	5.69%	10,034	54.12%
Grant County Public Schools	1,842	1,004	54.51%	96	5.21%	1,100	59.72%
Hampshire County Public Schools	3,414	1,888	55.30%	241	7.06%	2,129	62.36%
Hardy County Public Schools	2,491	1,592	63.91%	111	4.46%	1,703	68.38%
Jefferson County Public Schools	9,321	3,914	41.99%	295	3.16%	4,209	45.15%
Mineral County Public Schools	4,439	2,184	49.20%	337	7.59%	2,521	56.80%
Morgan County Public Schools	2,533	1,776	70.11%	0	0.00%	1,776	70.11%

Source: West Virginia Department of Education, Retrieved from: https://wvde.state.wv.us/ocn-download/PlaybookInfo/DataStatistics/Percent_Needy_2016_CEO_Ungrouped.pdf

Morgan County had the highest percentage of students participating in the Free or Reduced Lunch Program (**Exhibit 20**).

6. Insurance Status

Exhibit 21: Uninsured Population, West Virginia Counties, 2014



Source: U.S. Census Small Area Health Insurance Estimates (SAIHE), 2014.

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

County	Uninsured Population 2014
Berkeley, WV	12.9%
Hampshire, WV	20.4%
Morgan, WV	18.0%
West Virginia	**13.2%**
US	**14.2%**

7. Changing Health Care

Affordable Care Act

The Patient Protection and Affordable Care Act (Affordable Care Act) was enacted March 23, 2010. The Affordable Care Act actually refers to two separate pieces of legislation — the Patient Protection and Affordable Care Act (P.L. 111-148) and the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152) —that, together expand Medicaid coverage to millions of low-income Americans and makes numerous improvements to both Medicaid and the Children's Health Insurance Program (CHIP).

After the new law was enacted in March 2010, CMS worked with state partners to identify key implementation priorities and provide the guidance needed to prepare for the significant changes to Medicaid and CHIP that took effect on January 1, 2014. In particular, CMS provided several forms of guidance and federal support for state efforts to develop new or upgrade existing eligibility systems.

In March 2012, CMS released two final rules defining the eligibility and enrollment policies needed to achieve a seamless system of coverage for individuals who became eligible for Medicaid in 2014, as well as eligibility and enrollment for the new Affordable Insurance Exchanges. The final rules establish the framework for States' implementation of the eligibility expansion going forward.

Local Health Status and Access Indicators

This section examines health status and access to care data for the War Memorial community from several sources. The sources of the data are: (1) *County Health Rankings*; (2) West Virginia Department of Health; and (3) 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 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,[6] social and economic factors, and physical environment.[7] *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.

[6] 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.

[7] 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 fast food restaurants.

Exhibit 22 illustrates county rankings each composite category in 2016. Rankings indicate how each county ranked compared to the other 55 counties in West Virginia. A rank of 1 indicates the best county in the state. Indicators are shaded based on the county's percentile for the state or commonwealth ranking. For example, Hampshire County compared unfavorably to other West Virginia counties for Clinical Care; with a rank of 51 out of 55 counties and placing in the bottom quartile of all West Virginia counties.

Exhibit 22: County Rank among 55 West Virginia Counties, 2016

Indicator Category	Berkeley	Hampshire	Morgan
Health Outcomes	14	26	13
Length of Life (Mortality)	22	28	14
Quality of Life (Morbidity)	13	17	19
Health Factors	20	43	5
Health Behaviors (30%)	43	36	2
Clinical Care (20%)	8	51	36
Social & Economic Factors (40%)	8	41	3
Physical Environment (10%)	46	15	38

Source: County Health Rankings, 2016

Key	
Top 25th percentile of WV counties (Better) (Numeric Ranking 1-14)	
Top 25th percentile of WV counties (Better) (Numeric Ranking 15-28)	
25th to 49th percentile of WV counties (Numeric ranking 29-41)	
Bottom 25th percentile of WV counties (Worse Numeric Ranking of 42-55)	

Physical Environment Metrics have changed form 2013 - Built Environment has changed to Housing and Transit; Environmental Quality has changed to Air and Water Quality Ranking.

After we compute composite scores we sort them from lowest to highest within each state. The lowest score (best health) gets a rank of #1 for that state and the highest score (worst health) gets whatever rank corresponds to the number of units we rank in that state. It is important to note that we do not suggest that the rankings themselves represent statistically significant differences from county to county. That is, the top ranked county in a state (#1) is not necessarily significantly healthier than the second ranked county (#2). See the next section about quartiles for more information.

Quartiles -To de-emphasize the differences between individual county ranks, we also group counties into quartiles according to their Health Outcomes and Health Factors ranks separately. For each set of ranks there are four quartiles that divide up all the units within the state into the top 25%, the second from top 25%, the second from bottom 25%, and the bottom 25%. The top 25% are the healthiest counties with the best ranks, the bottom 25% are the least healthy counties with the worst ranks, and the other two quartiles are in between. We provide color-coded maps of the Health Outcomes and Health Factors summary scores by quartile to see the distribution of ranks within each state

Exhibits 23A-E provide data for each underlying indicator of the composite categories in the *County Health Rankings*.[8] 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; this information is illustrated in Exhibits 23A-E. For example, Morgan County's physical environment was more than 50 percent worse than the U.S. average, and the cell in the table for the county was shaded to reflect this. Cells in the tables below are shaded if the indicator for a county in the War Memorial community exceeded the national average for that indicator by more than ten percent.

War Memorial counties/cities frequently ranked in the bottom half of West Virginia counties for access to care,[9] quality of care,[10] environmental quality[11] and physical environment[12] **(Exhibit 23A-E)**.

[8] *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

[9] The percent of the population without health insurance and ratio of population to primary care physicians. New measure for 2016 to include ratio of population to mental health providers.

[10] 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.

[11] Includes education, employment, income, family and social support, and community safety.

[12] Housing and transit focus areas (driving alone to work, long driving commutes, and severe housing problems)

Exhibit 23A: County Data Compared to U.S. Average, West Virginia Counties, 2016

2016	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	US Median	West Virginia
Health Outcomes	**14**	**11**	**26**	**19**	**1**	**21**	**13**	~	~
Premature Death (Years of Potential Life Lost Rate)	1,471	164	396	189	632	415	294	7,700	9,731
Poor or Fair Health (Percent Fair/Poor)	21%	21%	23%	22%	18%	22%	21%	16%	24%
Poor Physical Health Days (Physically Unhealthy Days)	4.8	4.7	4.9	4.9	4.2	4.9	4.7	3.7	5.0
Poor Mental Health Days (Mentally Unhealthy Days)	4.6	4.6	4.7	4.7	4.3	4.7	4.5	3.7	4.7
Low Birthweight (Percent LBW)	8%	9%	7%	8%	8%	8%	9%	8%	9%

Source: County Health Rankings, 2016.

Key	
Unreliable or missing data	~
Ranging from better than U.S. median up to 10% worse than U.S. median	
10%-49% worse than U.S. median	
50-74% worse than U.S. median	
>75% worse than U.S. median	

Exhibit 23B: County Data Compared to U.S. Average, West Virginia Counties, 2016

2016	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	US Median	West Virginia
Health Behaviors	**43**	**21**	**36**	**41**	**3**	**17**	**2**	N/A	N/A
Adult Smoking (Percent Smokers)	26%	22%	25%	24%	22%	24%	22%	18%	27%
Adult Obesity (Percent Obese)	36%	37%	34%	36%	33%	35%	34%	31%	34%
Food Environment Index	7.5	7.2	6.3	6.5	8.5	7.2	7.4	7.2	7.3
Physical Inactivity (Percent Physically Inactive)	28%	38%	31%	37%	28%	26%	31%	28%	32%
Access to Exercise Opportunities (Percent with Access)	61%	51%	18%	36%	67%	51%	72%	62%	58%
Excessive Drinking (Percent)	12%	11%	11%	11%	12%	11%	11%	17%	10%
Alcohol-impaired Driving Deaths (Percent)	44%	35%	32%	59%	31%	36%	17%	31%	23%
Sexually Transmitted Infections (Chlamydia Rate)	371	169	156	159	231	172	103	288	277
Teen Births	43	50	44	45	30	40	33	40	45

Source: County Health Rankings, 2016.

Key	
Unreliable or missing data	~
Ranging from better than U.S. median up to 10% worse than U.S. median	
10%-49% worse than U.S. median	
50-74% worse than U.S. median	
>75% worse than U.S. median	

Exhibit 23C: County Data Compared to U.S. Average, West Virginia Counties, 2016

2016	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	US Median	West Virginia
Clinical Care	**8**	**25**	**51**	**35**	**15**	**9**	**36**	~	~
Uninsured (Percent)	16%	19%	22%	20%	16%	17%	20%	17%	17%
Primary Care Physicians (Ratio)	2265:1	1960:1	4689:1	4640:1	2040:1	3463:1	2187:1	1,990:1	1285:1
Dentists (Ratio)	2085:1	2337:1	3355:1	1989:1	3482:1	3064:1	3491:1	2,590:1	2027:1
Mental Health Providers (Ratio)	654:1	1461:1	1806:1	1740:1	1506:1	1379:1	1745:1	1,060:1	908:1
Preventable Hospital Stays (Rate)	66	67	91	77	55	77	73	60	81
Diabetic Monitoring (% Receiving HbA1c)	84%	79%	88%	85%	81%	88%	86%	85%	84%
Mammography Screening (Percent)	59%	65%	56%	63%	54%	70%	57%	61%	58%

Source: County Health Rankings, 2016.

Key	
Unreliable or missing data	~
Ranging from better than U.S. median up to 10% worse than U.S. median	
11%-49% worse than U.S. median	
50-74% worse than U.S. median	
>75% worse than U.S. median	

Exhibit 23D: County Data Compared to U.S. Average, West Virginia Counties, 2016

2016	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	US Median	West Virginia
Social and Economic Factors	**8**	**24**	**41**	**38**	**1**	**20**	**3**	~	~
High School Graduation (Graduation Rate)	84%	88%	81%	83%	89%	94%	92%	89%	82%
Some College (Completion Rate)	53.8%	33.7%	28.2%	36.7%	60.9%	44.3%	46.0%	56%	69%
Unemployment (Rate)	5.3%	7.5%	6.0%	7.9%	4.5%	7.2%	5.7%	6.0%	53%
Children in Poverty (Percent in Poverty)	19.0%	26.0%	30.0%	25.0%	13.0%	22.0%	21.0%	23%	6.50%
Income Inequality (Ratio)	4.2	3.9	4.9	4.3	4.5	5.5	4.7	4.4	25%
Children in single-parent households	38%	28%	32%	37%	27%	35%	19%	32%	4.9
Social Associations (Association Rate)	8.9	15.3	9.0	11.5	8.9	13.4	17.1	13.0	33%
Violent Crime (Rate)	227	193	392	297	130	300	130	199	13.1
Injury Deaths (Rate)	81	77	77	92	65	73	87	74	311

Source: County Health Rankings, 2016.

Key	
Unreliable or missing data	~
Ranging from better than U.S. median up to 10% worse than U.S. median	
10%-49% worse than U.S. median	
50-74% worse than U.S. median	
>75% worse than U.S. median	

Exhibit 23E: County Data Compared to U.S. Average, West Virginia Counties, 2016

2016	Berkeley	Grant	Hampshire	Hardy	Jefferson	Mineral	Morgan	US Median	Virginia
Physical Environment	**46**	**5**	**15**	**11**	**42**	**4**	**38**	~	~
Air Pollution - Particulate Matter (Average Daily PM2.5)	13.0	13.1	13.1	13.0	12.9	13.2	13.0	11.9	12.7
Drinking Water Violations (Presence of Violations)	Yes	No	No	Yes	Yes	No	Yes	N/A	N/A
Severe Housing Problems (Percent)	14%	9%	11%	7%	16%	10%	11%	14%	15%
Driving Alone to Work (Percent Driving Alone)	83%	83%	80%	81%	76%	80%	80%	80%	77%
Long Commute-Driving Alone (Percent)	37%	35%	60%	31%	53%	33%	49%	29%	38%

Source: County Health Rankings, 2016.

Key	
Unreliable or missing data	~
Ranging from better than U.S. median up to 10% worse than U.S. median	
10%-49% worse than U.S. median	
50-74% worse than U.S. median	
>75% worse than U.S. median	

2. West Virginia Department of Health and Human Resources

The Centers for Disease Control and Prevention (CDC) data includes indicators regarding a number of health issues. In **Exhibits 24** through **27**, cells are shaded if the mortality rate for a county in the War Memorial 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 24: Leading Causes of Death by County, 2013

2013	Berkeley	Hampshire	Morgan	West Virginia	US
Total Deaths All Ages	**918**	**271**	**226**	**21,843**	**2,596,993**
Total Deaths Rate[13]	**8.4**	**11.6**	**12.9**	**1178**	**821.5**
Malignant Neoplasms (Cancer) Rate	197.8	273	314.3	**254.4**	**185.0**
Diseases of Heart Rate	173.9	268.7	268.6	**251.6**	**193.3**
Cerebrovascular Disease Rate	26.7	38.4	68.6	**53**	**40.8**
Chronic Lower Respiratory Disease Rate	56.7	81	62.9	**85.7**	**47.2**
Unintentional Injury Rate				**75.2**	**41.3**
Alzheimer's Disease Rate	21.2	42.7	45.7	**31.8**	**26.8**
Diabetes Mellitus Rate	38.6	17.1	51.4	**45.4**	**23.9**
Nephritis and Nephrosis Rate	12	21.3	40	**24.3**	**14.9**
Septicemia Rate	12	12.6	28.6	**17.9**	**12.1**
Influenza and Pneumonia Rate	15.6	25.6	34.3	**25.9**	**18.0**
Suicide Rate	15.6	12.8	17.1	**17.4**	**13.0**
Chronic Liver Disease Rate	11	42.7	17.1	**15.9**	**11.5**
Primary Hypertension & Renal Disease Rate	10.1	8.5	11.4	**15.2**	**9.7**

Source: Centers for Disease Control and Prevention 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	
11-49% worse than WV	
50-74% worse than WV	
> 75% worse than WV	

Morgan County reported rates of mortality related to nephritis and nephrosis, and septicemia more than 50 percent worse than the West Virginia averages. Hampshire County reported a chronic liver disease rate more than 75% worse than the West Virginia average (**Exhibit 24**).

[13] The ratio of total deaths to total population in a specified community or area over a specified period of time. The death rate is often expressed as the number of deaths per 1,000 of the population per year.

Exhibit 25: Cancer Mortality Rates by County, 2012

2012	West Virginia (White)	West Virginia (all races)
All cancers	~	**191.1**
Colorectal	17.1	**17.2**
Lung and Bronchus	60.1	**59.6**
Breast	22	**22.3**
Cervical	~	**3.4**
Prostate	15.3	**16.0**

Source: Centers for Disease Control, 2012. Rates are per 100,000 population.

	Berkeley	Hampshire	Morgan
All Cancers	207.8	207.9	217.9

Source: Centers for Disease Control, 2012. Rates are per 100,000 population.

Berkeley, Hampshire and Morgan Counties reported higher cancer rates than West Virginia average for all cancers. White populations reported the similar mortality rates as West Virginia for all races (**Exhibit 25**).

Exhibit 26: Cancer Incidence Rates by County, 2008-2012

Cancer Incidence	Berkeley	Hampshire	Morgan	West Virginia	US
All Cancers	463.1	475.1	425.4	**472.9**	**453.8**
Breast (Female)	118.2	115.7	106.2	**111.2**	**123.0**
Colorectal	52.3	53.0	38.2	**47.6**	**41.9**
Lung	86.2	92.5	67.8	**82.8**	**63.7**
Melanoma	16.5	12.4	17.2	**21.1**	**19.9**
Oral	13.1	18.0	~	**11.9**	**11.3**
Ovarian	12.2	~	~	**12.9**	**11.8**
Prostate	101.9	91.3	112.6	**114.1**	**131.7**

Source: Centers for Disease Control and Prevention, State Cancer Profiles, 2016. 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	
11-49% worse than WV	
50-74% worse than WV	
> 75% worse than WV	

Hampshire County reported an oral cancer incidence rate more than 51.3 percent worse than the West Virginia average. Two out of the three counties reported higher incidence rates than the state average for colorectal, and all counties reported higher incidence rates that state average for lung cancers (**Exhibit 26**).

Exhibit 27: Communicable Disease Incidence Rates by County, 2015

Health District / County	Chlamydia	Gonorrhea
Berkeley	298.0	98.0
Hampshire	30.0	3
Morgan	23.0	2.0
West Virginia	**277.0**	**99.2**
United States	**456.1**	**110.7**

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	
11-49% worse than WV	
50-74% worse than WV	
> 75% worse than WV	

Berkeley County reported chlamydia incidence rates worse than the West Virginia average **Exhibit 27**).

3. 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 28 compares BRFSS indicators to state and U.S. averages for the counties in the War Memorial community.

Exhibit 28: BRFSS Indicators and Variation from the State of West Virginia, 2013

Indicator		Berkeley	Hampshire	Morgan	WV
Health Behaviors	Binge drinkers**2006-2012	12.5%	9.9%	10.1%	**9.3%**
	Excessive drinkers***	13.5%	10.9%	10.8%	**10.0%**
	Current smoker	26.8%	28.8%	25.2%	**26.0%**
	No physical activity in past 30 days 2006-2012	27.0%	29.70%	29.9%	**31.0%**
Access	Unable to visit doctor due to cost 2006-2012	16.3%	20.3%	19.8%	**17.4%**
	Rate of primary care providers (PCP) per 100,000, 2013[14]	50.6	25.6	34.3	**82.6**
	Do not have health care coverage under 65, 2013	16.1%	22.4%	20.3%	**17.1%**
Health Conditions	Overweight or obese	33.7%	31.8%	30.3%	**32.5%**
	Told have diabetes 2006-2012	9.90%	8.4%	11.6%	**12.10%**
Mental Health	* Poor mental health > number of days/month	3.8	3.3	3.6	**4.3**
Overall Health	** Poor physical health > number of days/month	3.9	5.2	4.2	**5.2**
	Social-emotional support lacking: Adults (percent), 2006-2012[15]	20.1%	14.9%	21.2%	**19.1%**
	Reported poor or fair health	16.9%	21.1%	23.0%	**23.6%**

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.
DSU=Data Statistically Unreliable

In Berkeley, Hampshire, and Morgan Counties, the percentage of people who reported being binge drinkers or heavy drinkers was higher than the West Virginia average. Berkeley, Hampshire, and Morgan Counties had four or more indicators that were worse than the West Virginia average. The obesity indicator was higher in Berkeley County than the state average (**Exhibit 28**).

[14] Reporting indicator source has changed than what was previously reported in 2013.
[15] Reporting indicator source has changed than what was previously reported in 2013.

Ambulatory Care Sensitive Conditions

This section examines the frequency of discharges for Ambulatory Care Sensitive Conditions (ACSC) throughout the counties in War Memorial'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."[16] 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.

[16] 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-Level Analysis

Exhibit 29: War Memorial Discharges for ACSC by County and Payer[17], 2015

County	Blue Cross	Medicaid	Medicare	Other	Commercial	Self	Total IP ACSC Discharges
PSA	**7.2%**	**16.3%**	**65.9%**	**0.0%**	**7.7%**	**2.9%**	**7.9%**
Morgan	7.2%	16.3%	65.9%	0.0%	7.7%	2.9%	7.9%
SSA	**13.5%**	**17.2%**	**52.6%**	**0.3%**	**13.9%**	**2.6%**	**12.1%**
Berkeley	18.4%	16.5%	44.8%	0.4%	17.1%	2.9%	15.3%
Hampshire	8.4%	17.9%	60.7%	0.2%	10.5%	2.2%	10.0%
Total	**10.7%**	**13.6%**	**41.7%**	**0.2%**	**11.0%**	**2.0%**	**15.3%**

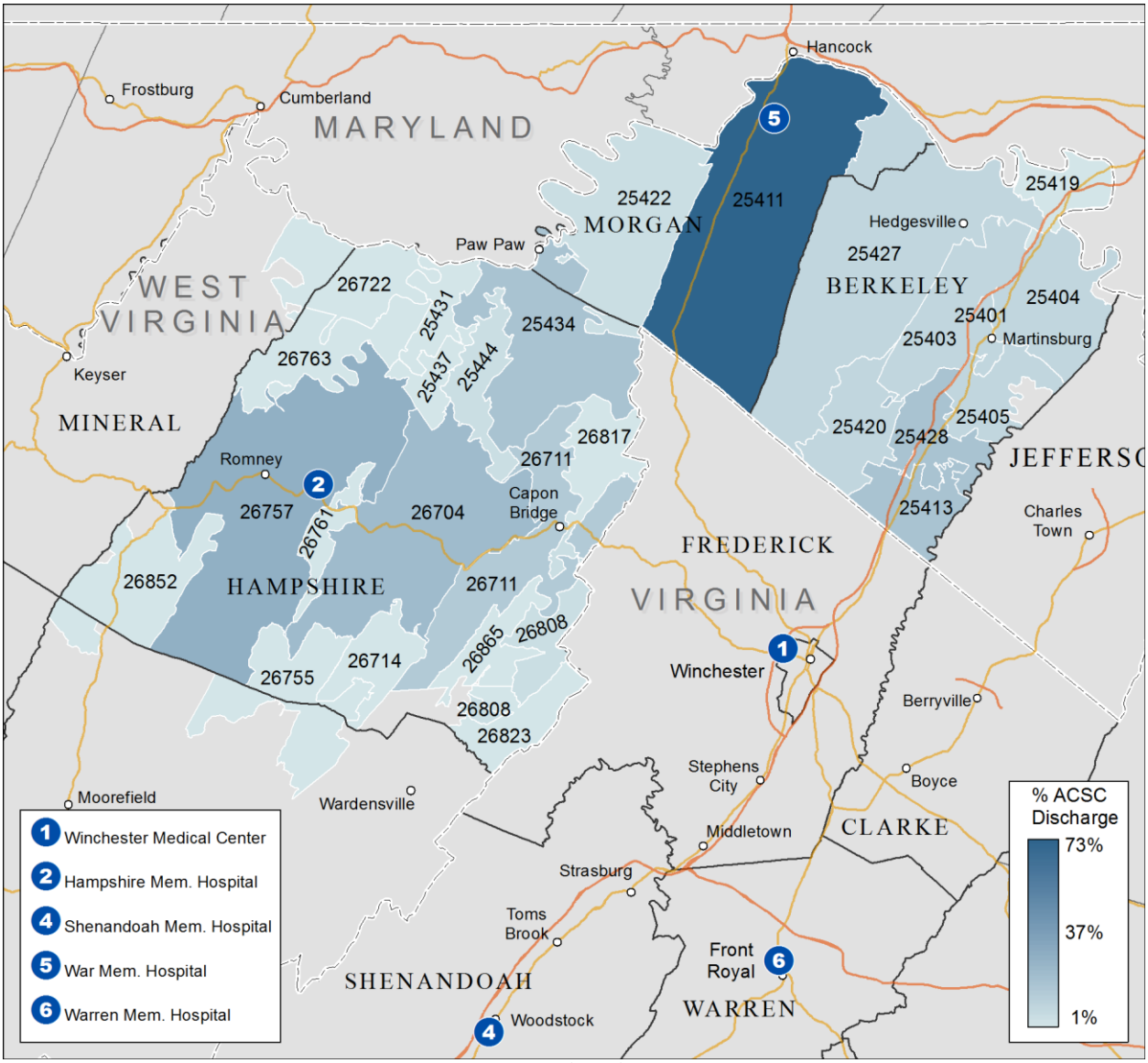
Source: Valley Health System, 2015 Inpatient Data.

The table indicates that 15.3 percent of War Memorial Hospital discharges were for ACSCs in 2015. Medicare patients had the highest proportion of discharges for ACSCs. Berkeley and Hampshire Counties, had the highest percentage of discharges for ACSCs (**Exhibit 29**).

[17] Discharges from all Valley Health System hospitals.

2. ZIP Code-Level Analysis

Exhibit 30: Discharges[18] for ACSC by County and ZIP Code, 2015*



Source: Northern Shenandoah Valley Regional Commission, Analysis of data from Valley Health System, 2015.

The percentage of discharges that were for ACSCs was highest in the following ZIP codes: 26704 in Hampshire County (Augusta, 23.7%), and 25411 in Morgan County (Berkeley Springs, 43.0%) within the War Memorial community (**Exhibit 30**).

[18] Discharges are from all Valley Health hospitals.

3. Hospital-Level Analysis

Exhibit 31: ACSC Inpatient (IP) Discharges by Hospital, 2015

Entity Name	Total IP ASCS Discharges	Total IP Discharges	Percent of IP ACSC Discharges
Hampshire Memorial Hospital	285	464	61.4%
Page Memorial Hospital	177	751	23.6%
Shenandoah Memorial Hospital	1,210	1,555	77.8%
War Memorial Hospital	121	336	36.0%
Warren Memorial Hospital	1,316	2,217	59.4%
Winchester Medical Center	13,817	24,451	56.5%
Total	**16,926**	**29,774**	**56.8%**

Source: Valley Health System, 2015 Inpatient Data.

Page Memorial and War Memorial Hospitals had the lowest percent of ACSC discharges of all hospitals in Valley Health System. Shenandoah Memorial Hospital had the highest percent of ACSC discharges for 2015 (**Exhibit 31**).

Exhibit 32: Discharges for ACSC by Condition and Age, War Memorial Hospital, 2015

Condition	0 to 17	18 to 39	40 to 64	65 +	Total
*Heart failure	0	0	0	4	4
**Pneumonia	0	0	4	20	24
***Asthma	0	0	0	2	2
Urinary tract infection	0	0	0	4	4
****Diabetes	0	0	0	1	1
Dehydration	0	0	0	0	0
*****Hypertension	0	0	0	0	0
Angina	0	0	0	0	0
ABSCESS OF APPENDIX	0	0	0	0	0
Total	**0**	**0**	**4**	**22**	**35**
Percent Total	**0**	**0**	**15.4%**	**84.6%**	**100.0%**

Source: Valley Health System, 2015 Inpatient Data[19].

The top ACSC condition at War Memorial was bacterial pneumonia in older adults. Patients aged 65 years and over had the highest percentage of discharges for ACSC conditions (**Exhibit 32**).

[19] Discharges from all Valley Health System hospitals. *Heart failure codes (428.1, I11.0, I50.21, I50.23, I50.31, I50.33, I50.9), **Pneumonia codes (J15.9, 482.9, J18.9, J13, J18.9, J11.00, J15.6, 480.9, 481, 482, 482.1, 486, 487, J10.00, J15.7, P23.6, A40.3, J12.9), ***Asthma codes (J45.901, J45.42, 493.92, 493.01, 493.02, 493.21, J45.902, J45.41, J45.909, J45.42, 493.92), ****Diabetes codes (648.01, E10.10, O24.410, O24.419, O24.420, O24.429, E10.11, E10.621, E10.69, E11.21, E11.43, E11.52, E11.621, E10,69, E11.21, E11.43, E11.52, E11.621, E11.628, E11.649, E11.65, E11.69, E09.65, E10.649, E11.40, E11.51)

Community Need Index™ and Food Deserts

1. Dignity Health Community Need Index

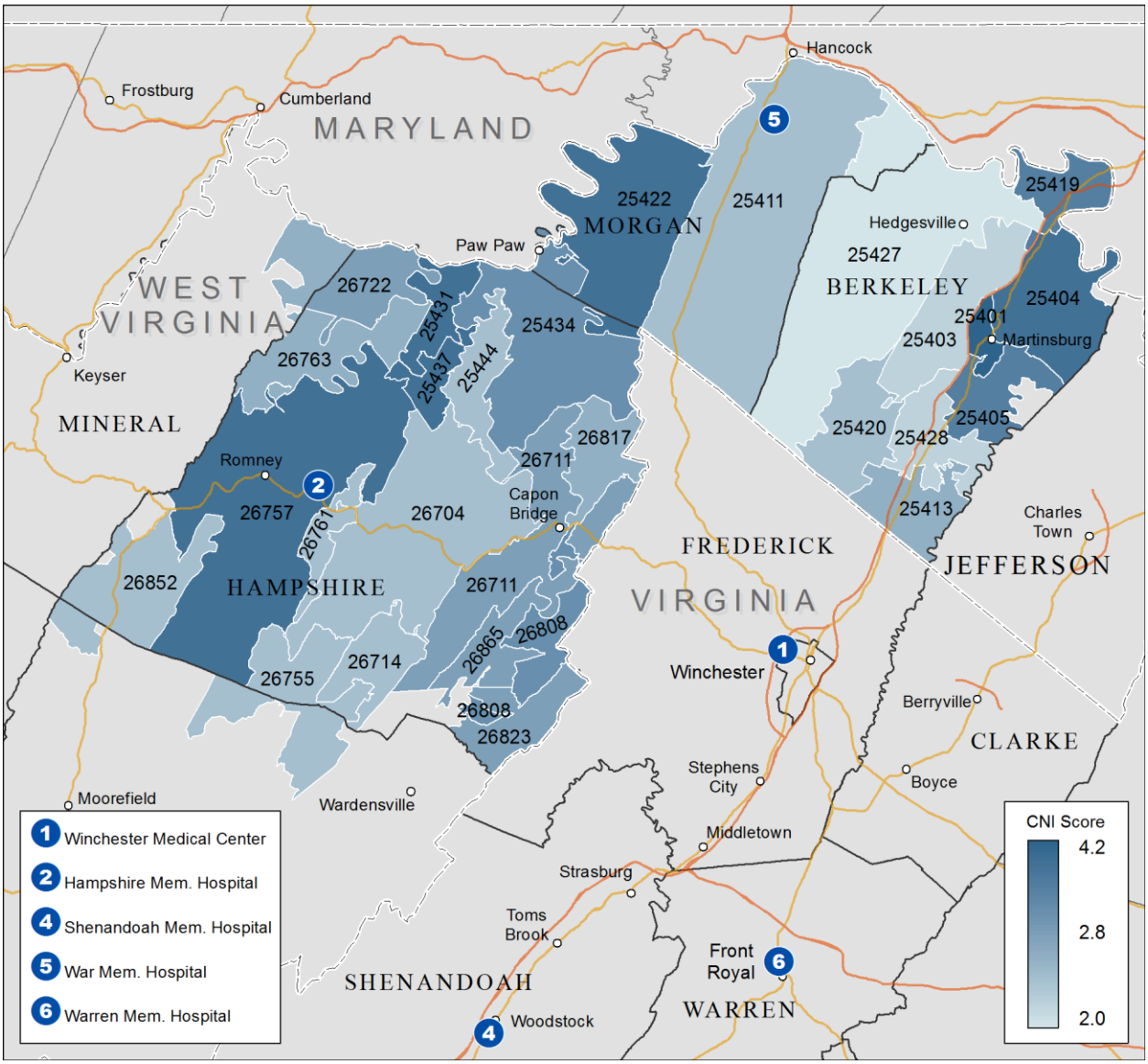
Dignity Health, a California-based hospital system, developed and has made widely available for public use a *Community Need Index*™ that measures barriers to health care access by County and ZIP code.[20] The index is based on five social and economic indicators:

- 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). The CNI aggregates five socioeconomic indicators long known to contribute to health disparity--income, culture/language, education, housing status, and insurance coverage--and applies them to every zip code in the United States. Each zip code is then given a score ranging from 1.0 (low need) to 5.0 (high need). Residents of communities with the highest CNI scores were shown to be twice as likely to experience preventable hospitalization for manageable conditions--such as ear infections, pneumonia or congestive heart failure--as communities with the lowest CNI scores.

[20] Accessed online at http://cni.chw-interactive.org/ on June 28, 2016.

Exhibit 33: Community Need Index™ Score by County and ZIP Code



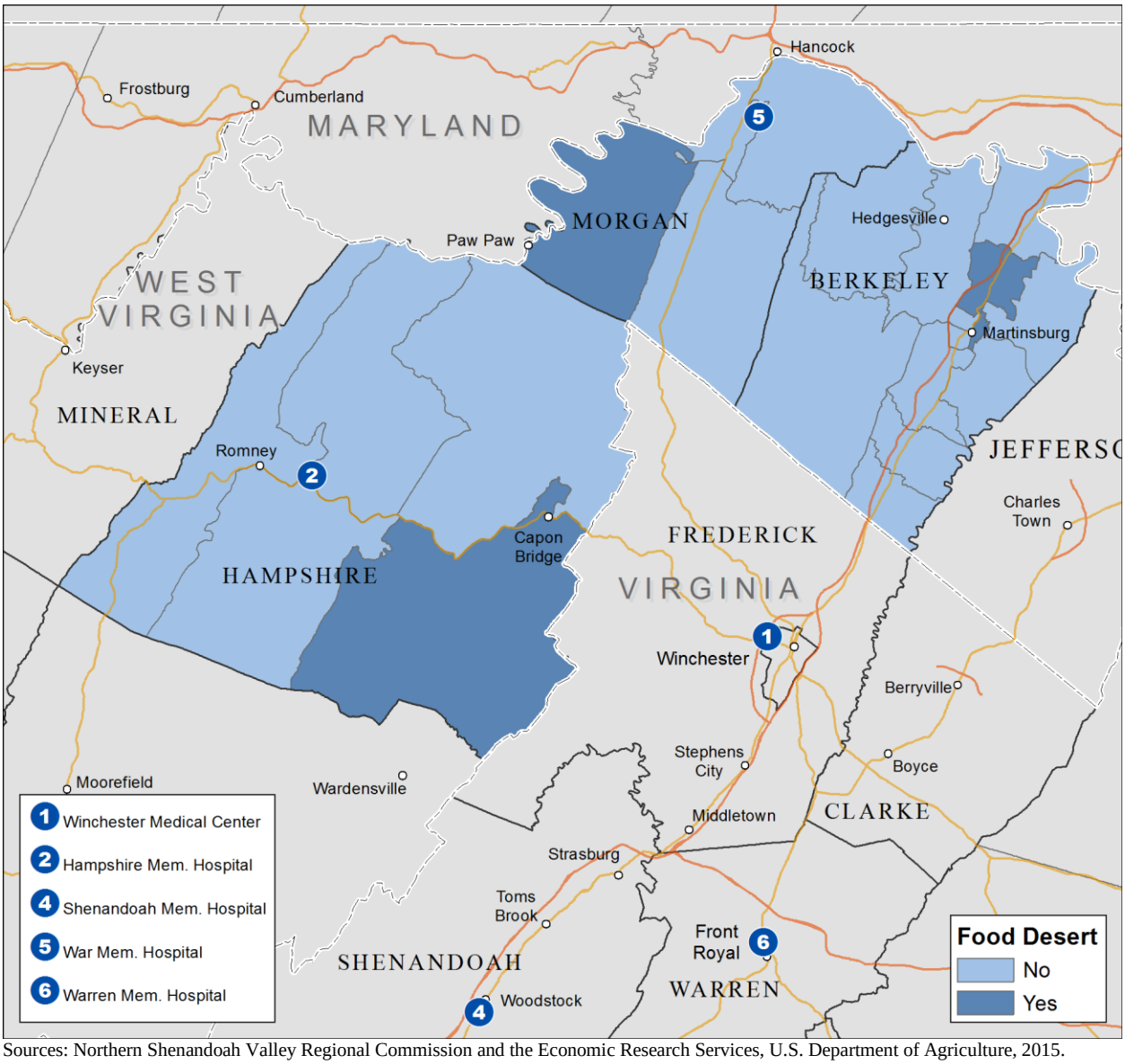
Source: Northern Shenandoah Valley Regional Commission

ZIP codes 25401 (Martinsburg, Berkeley County), 26757 (Romney, Hampshire County), and 25422 (Great Cacapon, Morgan County) scored in the "Highest Need" category (ranges from 3.6 – 4.2) (**Exhibit 33**). Areas of middle to high need are located in substantial parts of Hampshire, Hardy, and Morgan counties.

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 34** illustrates the location of food deserts in the War Memorial community.

Exhibit 34: Food Deserts by Census Tract



Sources: Northern Shenandoah Valley Regional Commission and the Economic Research Services, U.S. Department of Agriculture, 2015.

War Memorial's community contains 4 census tracts identified as food deserts. These are located in Berkeley, Hampshire, and Morgan Counties (**Exhibit 34**).

Overview of the Health and Social Services Landscape

This section identifies geographic areas and populations in the community that may face 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

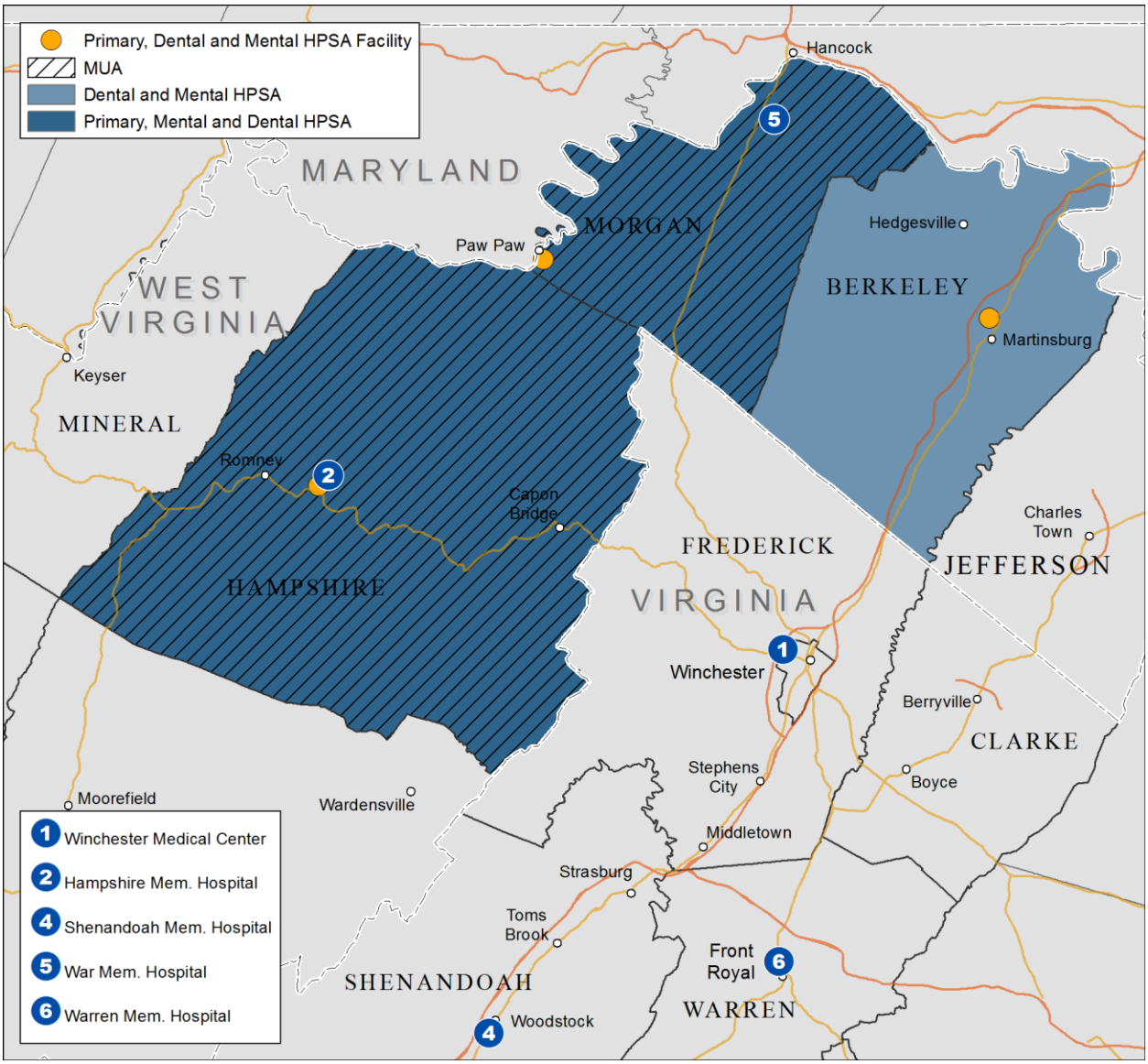
The Health Resources and Services Administration (HRSA) calculates an Index of Medical Underservice (IMU) score for communities across the U.S. The IMU calculation is a composite of the ratio of primary medical care physicians per 1,000 persons, the infant mortality rate, the percentage of the population 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.[21]

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."[22]

Exhibit 35 shows areas designated by HRSA as medically underserved. The War Memorial community contains eight MUAs and three MUPs.

[21] 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.
[22] *Ibid*.

Exhibit 35A: Medically Underserved Areas and Populations and Health Professional Shortage Areas (HPSA), 2016



Source: Northern Shenandoah Valley Regional Commission, and Health and Human Services Administration, 2016.

Exhibit 35B: Medically Underserved Areas and Populations and Health Professional Shortage Areas, 2016

Name	HPSA Dental	HPSA Mental	HPSA Primary	MUA or MUP
Berkeley	Yes	Yes	No	No
Hampshire	Part	Yes	Yes	Yes
Morgan	Yes	Yes	Yes	Yes

Source: Northern Shenandoah Valley Regional Commission, and Health and Human Services Administration, 2016.

In the War Memorial community, Morgan County reported shortages in all three categories for dental, mental, and primary care services and has been designated as a Medically Underserved Area and a Medically Underserved Population (**Exhibit 35B**).

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."[23]

Areas and populations in the War Memorial community are designated as HPSAs (**Exhibit 44B**). Morgan County is designated as a primary medical care, dental, and mental health HPSAs. Hampshire is designated as a mental health HPSA. Parts of Hampshire County are also designated as a dental HPSA.

3. Description of Other Facilities and Resources within the Community

The War Memorial 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, Federally Qualified Health Centers (FQHC), health professionals, and other agencies and organizations.

Exhibit 36: Information on HPSA Facilities in the War Memorial community

County	Name	Type of HPSA
PSA		
Morgan, WV	Mountaineer Community Health Center, Inc.	Primary Medical Care, Mental Health, Dental Health
SSA		
Berkeley, WV	Shenandoah Valley Medical Center	Primary Medical, Mental Health, Dental Health
Hampshire, WV	Hampshire Memorial Hospital	Primary Medical Care, Mental Health, Dental Health

Source: Northern Shenandoah Valley Regional Commission, and Health and Human Services Administration, 2016.

There are three health care facilities in the War Memorial community, that are designated as HPSA facilities (**Exhibit 36**).

[23] U.S. Health Resources and Services Administration, Bureau of Health Professionals. (n.d.). *Health Professional Shortage Area Designation Criteria*. Retrieved 2015, from http://bhpr.hrsa.gov/shortage/hpsas/designationcriteria/index.html

Exhibit 37: List of Hospitals in the War Memorial community

County	Hospital Name
PSA	
Morgan, WV	War Memorial Hospital
SSA	
Berkeley, WV	Berkeley Medical Center
	Martinsburg VA Medical Center
Hampshire, WV	Hampshire Memorial Hospital

Source: Centers for Medicare & Medicaid Services, 2016.

The hospitals in Morgan and Hampshire Counties are critical access hospital facilities (**Exhibit 37**).

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 38: Information on Federally Qualified Health Centers in the War Memorial community

County/City	FQHC Name	Ownership
PSA		
Morgan, WV	Mountaineer Community Health Center, Inc.	Independent
	Tri-State Community Health Center - Berkeley Springs	Tri-State Community Health Center - Berkeley Springs
SSA		
Berkeley, WV	Shenandoah Community Health Center -Women's Health Services -Internal Medicine, Family Practice, Pediatric Services -Behavioral Health Services	Shenandoah Valley Medical System, Inc.
	Healthy Smiles Community Oral Health Center	Shenandoah Valley Medical System, Inc.
Other Resources		
A department of Shenandoah Valley Medical System, Inc., and not its own FQHC.	Starting Points Family Resource Center -Morgan County, WV	Shenandoah Valley Medical System, Inc.
A department of Shenandoah Valley Medical System, Inc., and not its own FQHC.	WIC Nutrition Services -Martinsburg, WV -Charles Town, WV -Berkeley Springs, WV -Romney, WV -Keyser, WV	Shenandoah Valley Medical System, Inc.

Source: Health Resources and Services Administration, 2016.

Although there are six FQHCs location within the War Memorial community, they are managed by three primary systems: Mountaineer Community Health Center, Shenandoah Valley Medical System, and Tri-State Community Health Center (**Exhibit 38**).

Exhibit 39: Health Professionals Rates per 100,000 Population by County

War Memorial Hospital County	Primary Care Physicians		Dentists		Mental Health Providers	
	Number	Rate per 100,000	Number	Rate per 100,000	Number	Rate per 100,000
PSA	**8**	**2.7**	**5**	**1.7**	**10**	**3.4**
Morgan	8	46.0	5	29.0	10	57.0
SSA	**53**	**25.4**	**60**	**28.7**	**182**	**87.2**
Berkeley	48	44.0	53	48.0	169	153.0
Hampshire	5	21.0	7	30.0	13	55.0
West Virginia	**1443**	**77.8**	**913**	**49.3**	**2037**	**110.1**

Source: Data provided by County Health Rankings, 2016.

In all three counties, primary care physician and dental provider availability is below the West Virginia average. Mental health availability is below average in all areas (**Exhibit 39**).

A number of other agencies and organizations are available in each county in the War Memorial community to assist in meeting health needs. In addition to the organizations listed below, see **Exhibits 47** through **50** 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:
    - Blue Ridge Opportunities
    - Breast Cancer Awareness Cumberland Valley
    - Goodwill Resource Center
    - Mary Babb Randolph Cancer Center
    - Patriots Path
    - The Hampshire County Special Services Center, Inc.
- Community organizations that provide services for disease prevention/treatment:
    - AIDS Response Effort
    - Diabetes Management Program – Valley Health System
- Community organizations that provide services relating to domestic violence:
    - Shenandoah Women's Center (Berkeley, Jefferson and Morgan Counties)
- Community organizations that provide free or reduced cost health care:
    - Affordable Dentures
    - EastRidge Health Systems
    - Good Samaritan Free Clinic

    - Healthy Smiles Community Oral Health Center
    - Potomac Highland Mental Health Guild
- Community organizations that provide housing support or shelter for homeless residents:
    - Bethany House (Martinsburg, WV)
    - Immanuel's House
    - Keyser Housing Authority
    - Martinsburg Housing Authority
    - Martinsburg Union Rescue Mission
    - Piedmont Housing Authority
    - St. Vincent de Paul
- Community organizations that provide hunger reduction services:
    - Amazing Grace Baptist Church
    - Angel Food Ministries First United Methodist Church
    - Berkeley County Meals on Wheels
    - Community Fellowship Church
    - Community Food Pantry in Great Cacapon, WV
    - Highland Food Pantry
    - MCIEC Food Pantry (Morgan County)
    - Starting Points of Morgan County – Meal Time Community Kitchen
    - Morgan County Interfaith Emergency Care
    - One Hope Ministries International Church
    - Romney First United Methodist Church
- Community organizations that provide family planning and maternal / child health services:
    - Abba Care
    - Care Pregnancy Center of the Eastern Panhandle
    - Petersburg Elementary and High School-Based Health Center
    - Preventative Women's Health
- 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, Boys and Girls Club, Meals on Wheels, and United Way.
- Local FQHCs and HPSA facilities (**Exhibit 36** and **38**)
- 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

Valley Health System also considered the findings of other needs assessments published since 2009. Three such assessments conducted in the WAR MEMORIAL area are referenced here, with highlights and summary points below.

1. Coors Healthcare Solutions, 2016

Coors Healthcare Solutions produced a "Physician Strategy Assessment"[24] 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 was used (MGMA).

Key findings relevant to this CHNA include:

- Morgan, Hampshire and Page Counties are federally designated as underserved areas.
- Physician specialty shortages exist in pediatrics, internal medicine, otolaryngology, general surgery, ophthalmology, urology, obstetrics/gynecology, gastroenterology, hematology/oncology, and allergy/immunology; these specialties were the top 10 noted in the Assessment.

2. Morgan County Public Schools, 2013-2014

Morgan County Schools conducted a survey, the "2013-2014 Morgan County Schools Pride Survey,"[25] of the county's high school students which was compared to the "Monitoring the Future" national survey.

Key findings relevant to this CHNA include:

- Morgan County high school students had lower rates of tobacco usage by 7th, and 10th graders, compared to the national average.
- Morgan County 7th and 9th graders had lower alcohol usage rates than the national average.
- Morgan County 6th and 8th graders had higher rates of marijuana usage than the national average.
- Morgan County 7th, 8th, and 10th had higher rates of prescription drug abuse than the national averages.

[24] Coors Consulting. (2016). *Physician Needs Assessment*. Retrieved 2016, from Valley Health System.
[25] Morgan County Schools. (2013-2014). Morgan County Student Pride Survey Results.

3. West Virginia Statewide Housing Needs Assessment, 2014

The West Virginia Housing Development Fund engaged Vogt Santer Insights to conduct a statewide housing needs assessment:[26] The assessment provides a comprehensive housing assessment that focuses on the current and anticipated housing need in each of the 55 counties. A detailed analysis of each county has been conducted to include demographic trends, economic and housing market performance, household income projections and anticipated market demand with the focus on affordable housing.

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

- Within the state, Jefferson County was one of the five mentioned counties to have the lowest unemployment rate of 4.8 percent as of December 2013.
- Jefferson County has one of the highest projected growth rates among rental household families under age 55, and showed a high growth rate among seniors (age 55 and older).
- Berkeley, Grant, Jefferson, and Hampshire Counties had the highest projected growth among senior (age 55 and older) renter households with incomes between 41 percent and 60 percent over Area Median Household Income (AMHI) in the next five years. Hampshire County also showed the lowest projected growth among families under age 55 for rental households.

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

PRIMARY DATA ASSESSMENT

Community Survey Findings

War Memorial'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 from January – March 2016 on Valley Health's web site and was widely publicized at the Community Wellness Festival, Lord Fairfax Community College, and the Mexican Consulate event on the Our Health, Inc. campus, and via e-mail distribution lists, computer kiosks throughout the region, partner organizations, mass mailing, newsletters, social media, and websites. The questionnaire was available in English and Spanish, and paper copies were available on request.

1. Respondent Characteristics

The survey questionnaire was completed by 260 residents from the War Memorial community. Survey responses were received from residents of 28 of the War Memorial community's 29 ZIP codes.

Almost 67.7 percent of respondents were female, and 43.8 percent were between the ages of 28 and 64. Ninety-three percent were White, and two percent identified as Black or African American. The majority of respondents reported being married (49 percent), employed full time (30 percent), privately insured (38 percent), and having an undergraduate degree or higher 24 percent). The majority (99 percent) of respondents speak English in the home.

Exhibit 40: Survey Respondents by County, 2016

County	Number of Respondents	Percent of Respondents	Percent of Total Population by County
PSA	**46**	**17.7%**	**0.04%**
Morgan County, WV	46	17.7%	0.00%
SSA	**214**	**82.3%**	**0.16%**
Berkeley County, WV	78	30.0%	0.06%
Hampshire County, WV	136	52.3%	0.10%
Totals	**260**	**100.0%**	**0.20%**

Source: Valley Health Community Survey, 2016.

Hampshire County had the highest percentage of respondents. Residents from the SSA accounted for 82.3 percent of respondents (**Exhibit 40**).

Exhibit 41: Survey Respondents by Age, 2016

Response	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
15 – 24	5.4%	14	0.0%	0
25 – 34	6.5%	17	0.0%	0
35 – 44	8.1%	21	0.0%	0
45 – 54	14.6%	38	100.0%	2
55 – 64	14.6%	38	0.0%	0
65 – 74	22.7%	59	0.0%	0
75+	28.1%	73	0.0%	0
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

The highest percentage of English-speaking respondents were aged 75 and older. Approximately 28.1 percent of total respondents were 75+ years old (**Exhibit 41**).

Exhibit 42: Survey Respondents by Sex, 2016

Response	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
Female	67.7%	176	100.0%	2
Male	32.3%	84	0.0%	0
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

The highest percent of English surveys received were from female population at 67.7 percent (**Exhibit 42**).

Exhibit 43: Survey Respondents by Ethnicity, 2016

Response	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
White	93.1%	242	0.0%	0
Black or African American	1.5%	4	0.0%	0
Hispanic or Latino	0.0%	1	100.0%	2
American Indian and Alaska Native	0.8%	2	0.0%	0
Asian		1	0.0%	0
Hawaiian Native and other Pacific Islander			0.0%	0
Some other race		1	0.0%	0
Two or more races	2.3%	6	0.0%	0
Other (please specify)	1.2%	3	0.0%	0
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

The White population was the largest group to respond to the English survey at 93.1 percent (**Exhibit 43**).

Exhibit 44: Survey Respondents by Marital Status, 2016

Response	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
Married/co-habiting	48.8%	127	100.0%	2
Not married/single	14.2%	37	0.0%	0
Divorced	13.5%	35	0.0%	0
Widowed	23.5%	61	0.0%	0
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

The largest percentage of returned surveys (48.8%) were received from married or co-habiting individuals (**Exhibit 44**).

Exhibit 45: Survey Respondents by Education Attainment, 2016

Answer Options	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
Did not complete high school	10.8%	28	50.0%	1
High school diploma or GED	43.1%	112	50.0%	1
Some college	21.9%	57	0.0%	0
College degree or higher	23.5%	61	0.0%	0
Other (please specify)	0.8%	2	0.0%	0
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

Most of the English surveys received were from individuals who have obtained a high school diploma. (**Exhibit 45**).

Exhibit 46: Survey Respondents by Income, 2016

Response	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
Less than $15,000	26.5%	69	50.0%	1
$15,000 - $24,999	29.2%	76	50.0%	1
$25,000 - $34,999	8.1%	21	0.0%	0
$35,000 - $49,000	8.5%	22	0.0%	0
$50,000 - $74,999	14.6%	38	0.0%	0
$75,000 - $99,999	7.3%	19	0.0%	0
Over $100,000	5.8%	15	0.0%	0
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

Individuals from all income levels were represented among the survey results. Although somewhat evenly distributed, the highest percentage of English survey respondents indicated income between $15,000 – $24,999 (29.2%), followed by those with income less than $15,000 (26.5%). (**Exhibit 46**).

Exhibit 47: Survey Respondents by Employment Status, 2016

Response	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
Full time	30.0%	78	50.0%	1
Part time (one job)	6.5%	17	0.0%	0
Part time (more than one job)	3.5%	9	0.0%	0
Retired	47.7%	124	0.0%	0
Student	1.2%	3	50.0%	1
Unemployed	6.2%	16	0.0%	0
Other (please specify)	5.0%	13	0.0%	0
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

Of the English survey respondents, 30.0 percent reported that they had a full-time job, and 47.7 percent reported that they were retired (**Exhibit 47**).

Exhibit 48: Language Spoken in Home, 2016

Response	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
English	98.5%	256	0.0%	0
Spanish	0.8%	2	100.0%	2
German	0.0%	0	0.0%	0
French	0.0%	0	0.0%	0
Chinese	0.0%	0	0.0%	0
Vietnamese	0.0%	0	0.0%	0
Other (please specify)	0.8%	2	0.0%	0
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

English is most frequently spoken in the homes of the respective survey respondents (**Exhibit 48**).

Exhibit 49: Where and How Did You Receive Survey? 2016

Answer Options	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
Church	0.0%	0	0.0%	0
Community Event or Meeting	8.1%	21	0.0%	0
Grocery store or Shopping mall	0.0%	0	0.0%	0
Mail	55.8%	145	0.0%	0
Newspaper	0.4%	1	0.0%	0
Personal Contact	3.8%	10	0.0%	0
Social Media (Facebook)	5.0%	13	0.0%	0
Workplace	4.2%	11	0.0%	0
Other (please specify)	22.7%	59	100.0%	2
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

Community responses were collected from various venues throughout the region. The highest percentage of surveys was in response to the direct mail campaign. (**Exhibit 49**).

2. Access Issues

Exhibit 50: Locations Where Respondents Received Routine Healthcare

Response	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
Free or low-cost clinic or health center	13.3%	45	100.0%	2
Urgent care facility or store-based walk-in clinic	9.4%	32	0.0%	0
Hospital Emergency Room	10.6%	36	0.0%	0
Provider of alternative medicine	5.0%	17	0.0%	0
Private medical professional (MD, APN, PA)	54.9%	186	0.0%	0
No routine medical care received	2.7%	9	0.0%	0
Other (please specify)	4.1%	14	0.0%	0
Completed Survey		**339**		**2**

Source: Valley Health Community Survey, 2016.

Exhibit 50 shows that 54.9 percent of English survey respondents receive routine (non-emergency, non-specialty) healthcare services from a private doctor's office and 9.4 percent receive routine care from an urgent care facility or store-based walk in clinic. Approximately 10.6 percent receive services from a hospital emergency room, while 13.3 percent receive care from a free or low-cost clinic or health center.

Exhibit 51: How do you pay for Healthcare?

Response	Response Percent	Response Count	Response Percent	Response Count
Cash (no insurance)	8.1%	31	100.0%	2
Private health insurance (for example: Anthem, Blue Cross, HMO)	38.1%	146	0.0%	0
Medicare	32.9%	126	0.0%	0
Medicaid	10.2%	39	0.0%	0
Veterans' Administration	3.4%	13	0.0%	0
Other (please specify)	7.3%	28	0.0%	0
Completed Survey		**383**		**2**

Source: Valley Health Community Survey, 2016.

Exhibit 51 shows that 38.1 percent of English survey respondents have private health insurance coverage and 32.9 percent have Medicare coverage. 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. The Spanish surveys indicated that the survey respondents paid cash for their healthcare.

Exhibit 52: Respondent Ability to Receive Needed Care, by Type of Care (English)

Response	Always	Sometimes	Rarely	Never	Response Count
Basic medical care	210	3	8	8	245
Dental care	167	26	24	19	239
Mental health care	100	25	18	19	238
Medical specialty care	150	32	21	7	246
Medicine and medical supplies	193	28	11	3	248
Routine screenings (mammograms, laboratory testing, age/gender appropriate screenings)	193	23	18	5	0

Source: Valley Health Community Survey, 2016.

Response	Always	Sometimes	Rarely	Never
Basic medical care	85.7%	1.2%	3.3%	3.3%
Dental care	69.9%	10.9%	10.0%	7.9%
Mental health care	42.0%	10.5%	7.6%	8.0%
Medical specialty care	61.0%	13.0%	8.5%	2.8%
Medicine and medical supplies	77.8%	11.3%	4.4%	1.2%
Routine screenings (mammograms, laboratory testing, age/gender appropriate screenings)	13.3%	1.6%	1.2%	0.3%

Source: Valley Health Community Survey, 2016.

Exhibit 52 suggests that most English survey respondents indicated that they "always" had the ability to access needed care" with 13.3 percent reporting that they have gender- and age-appropriate routine screenings.

Exhibit 53: Barriers to Receiving Needed Care (English)

Response	No Insurance	Can't Get Appointment	Can't Afford it/Too Expensive	Inconvenient Hours	Lack of Transportation	Lack of Trust	Language Barrier	Other	No Insurance
Basic medical care	13	4	23	5	1	5	0	4	57
Dental care	35	2	35	3	0	6	0	1	33
Mental health care	18	3	25	1	0	11	2	2	143
Medical specialty care	12	1	25	2	0	10	1	2	40
Medicine and medical supplies	13	2	21	1	0	3	0	1	30
Routine screenings (mammograms, laboratory testing, age/gender appropriate screenings)	13	1	19	4	0	5	1	0	26

Source: Valley Health Community Survey, 2016.

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 53**).

3. Health Issues

Exhibit 54: Most Important Health Issues Identified (English)

Response	Response Percent	Response Count
Access to healthy food is limited	3.4%	27
Asthma	0.5%	4
Alzheimer's or dementia	2.7%	21
Affordable housing	1.7%	13
Cancer	11.7%	92
Chronic Obstructive Pulmonary Disease (COPD)	2.7%	21
Dental Health	2.0%	16
Diabetes	8.3%	65
Domestic Violence	2.2%	17
Heart disease and stroke	8.2%	64
Homelessness	1.7%	13
High blood pressure	4.1%	32
Low income/financial challenges	9.2%	72
Mental health (such as depression, bipolar, autism)	4.6%	36
Motor vehicle crash injuries	0.6%	5
Not enough exercise	4.6%	36
Poor air quality	0.4%	3
Poor dietary choices	4.5%	35
Respiratory/lung disease	1.7%	13
Sexually Transmitted Diseases (STDs)	1.4%	11
Stroke	1.5%	12
Substance abuse	14.8%	116
Suicide	0.1%	1
Teenage pregnancy	2.7%	21
Tobacco use	3.8%	30
Other (please specify)	1.1%	9

Source: Valley Health Community Survey, 2016.

Key	
Top five most important health issues identified	

When asked to identify the top health issues in the community, English survey respondents most often chose substance abuse, cancer, low income/financial challenges, diabetes, and heart disease and stroke. Although not in the top five health issues identified, mental health, poor dietary choices, not enough exercise and access to healthy food were also frequently cited health concerns (**Exhibit 54A**).

4. Health Behaviors

Exhibit 55: Most Important Risky Health Behaviors Identified

Response	English Response Percent	English Response Count	Spanish Survey Percent	Spanish Survey Response Count
Alcohol abuse	13.7%	106	0.0%	0
Being overweight	14.4%	111	16.7%	1
Dropping out of school	3.2%	25	0.0%	0
Drug abuse	25.9%	200	33.3%	2
Lack of exercise	5.6%	43	0.0%	0
Poor eating habits	11.2%	86	16.7%	1
Not getting shots to prevent disease	2.3%	18	0.0%	0
Racism or other form of bigotry	2.5%	19	0.0%	0
Tobacco use	9.2%	71	16.7%	1
Not using birth control	3.6%	28	0.0%	0
Not using seat belts/child safety seats	2.5%	19	16.7%	1
Unsafe sex	4.8%	37	0.0%	0
Other (please specify)	1.0%	8	0.0%	0

Source: Valley Health Community Survey, 2016.

Key	
Top five risky health issues identified	

When asked to identify the top risky health behaviors in the community, English survey respondents most often indicated drug abuse, alcohol abuse, being overweight, poor eating habits, and tobacco use, followed by not enough exercise, unsafe sex, and not using birth control (**Exhibit 55**).

Exhibit 56: Access to Fresh Fruits and Vegetables per Week

Response	Response Percent	Response Count	Spanish Survey Percent	Spanish Survey Response Count
One time	6.9%	18	0.0%	0
Two times	8.5%	22	0.0%	0
Three times	13.5%	35	50.0%	1
Four times	8.5%	22	0.0%	0
Five or more times during the week (5+)	54.6%	142	50.0%	1
I do not have regular access to fresh fruits and vegetables	8.1%	21	0.0%	0
Completed Survey		**260**		**2**

Source: Valley Health Community Survey, 2016.

A majority of respondents to both surveys reported that they were eating, or have access, to fresh fruits and vegetables at least three or more times per week. Only 8.1 percent of the respondents reported that they do not have access to fresh fruits and vegetables (**Exhibit 56**).

Summary of Interview Findings, 2016

Valley Health System and Our Health, Inc. conducted both face-to-face informant interviews and telephone interviews in March 2016. The interviews were designed to obtain input on health needs from persons who represent the broad interests of the community served by War Memorial Hospital, including those with special knowledge of or expertise in public health.

Nineteen group interviews were conducted with 80 individuals, 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 education and business communities. An annotated list of individuals providing community input is included, 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 second frequently-mentioned health issue in the community. Interviewees 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 bullying among youth, autism spectrum symptoms and diagnoses, depression among senior citizens, adult and family stress and coping difficulties, 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 most frequently mentioned health status issue, and was portrayed as both growing and serious throughout the region. Heroin was mentioned most often; however, alcohol, marijuana, and methamphetamine use were also mentioned. Interviewees reported that women who use illicit drugs and compromise the health of babies is of significant importance.
3. **Chronic Illness (i.e. Cholesterol, Diabetes, and Hypertension)**: Diabetes was the most frequently mentioned chronic disease in the interviews, and was often paired with discussion about obesity and overweight. This was true for all ages, but these health issues were noted to be rising among children and youth. Commenting on related

contributing factors, interview participants mentioned nutrition and diet, low physical activity and exercise levels, and food insecurity and hunger. Access to healthy foods was mentioned as a barrier, including that some do not have money to purchase fresh produce. There was widespread recognition of the toll a chronic illness has on health, its impact on the health care system, and the importance of not only treatment but also behavioral change in addressing the chronic disease.

4. **Cancer**: Cancer was mentioned frequently during the interview process. Some believe this is due to increased awareness of cancer services because of the Winchester Medical Center Foundation's Cancer Center Campaign promotion in the past year, and others mentioned that it may be the result of preventative screenings.

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, long-lasting health issue that is has not become notably worse since the launch of electronic cigarettes (e-cigarettes).

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. Responses were similar to the 2013 Community Health Needs Assessment reports. A rank-ordered list of the major contributing factors raised, some of them inter-related, is below:

1. **Access to health care (physicians/specialists)**: Interview participants cited a wide range of difficulties regarding access to care, including availability of providers (physicians/specialists), 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. Some interviewees mentioned that there are community residents that do not seek medical care due to their immigration status in the country.
2. **Financial insecurities and poverty**: It was frequently stated that issues related to income and financial resources limit access to care, contribute to poor diet and nutrition, and create stresses that negatively impact health.
3. **Education/Awareness**: Several interviewees mentioned that education and awareness about services were barriers to care. 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. Many noted that the community is not awareness of services available to them, and that finding services is not easily manageable for some residents. It was also mentioned that those coming out of prison have limited access to resources.
4. **Poor nutrition and diet**: Among health behaviors, dietary habits and nutrition were mentioned most frequently as major factors in obesity, diabetes, heart disease and related conditions, and chronic diseases. Interview participants mentioned this is due to a lack of access to affordable healthy foods for lower income families.

5. **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. Interview participants recognized that reasons for limited activity and strategies to increase activity differ across the life span.
6. **Affordable Housing/Assisted Living**: Interview participants frequently mentioned the need for affordable housing and assisted home care for senior citizens. Some interview participants highlighted the particular health risks experienced by older residents in the community. Seniors have lower incomes, transportation barriers, advanced chronic diseases, and social isolation that can negatively impact health status.
7. **Homelessness:** Homelessness is a risk factor for poor health, and creates stresses and challenges to maintaining one's health and seeking or obtaining needed health care.

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. This was done via interviews with 80 individuals and four "community response sessions" that included 39 participants. These 119 stakeholders included 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 57-61**).

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 57**:

Exhibit 57: Public Health Experts

Name	Title	Affiliation or Organization	Special Knowledge/Expertise or Nature of Leadership Role	Interview or Response Session
Rhona Collins	HIV/STD Counselor	Virginia Department of Health Lord Fairfax Health District	Public health expertise related to HIV/STD prevention.	Interview
Victoria Crone	Public Health Nutritionist Supervisor	Virginia Department of Health Lord Fairfax Health District	Public health expertise related to encouraging proper nutrition in WIC participants.	Interview
Meredith Davis	Epidemiologist	Virginia Department of Health Lord Fairfax Health District	Expertise in the public health needs of patients in Lord Fairfax Health District.	Interview
Charles Devine, III, MD	District Director	Virginia Department of Health Lord Fairfax Health District	Expertise in the public health needs of Lord Fairfax Health district residents.	Both
Ann Judge	Disease Prevention Grant Coordinator	Virginia Department of Health Lord Fairfax Health District	Expertise in public health needs of Lord Fairfax Health District residents as it relates to disease prevention.	Both
Mary Orndorff	Disease Prevention Health Coordinator	Virginia Department of Health Lord Fairfax Health District	Public health expertise related to health prevention.	Interview

Exhibit 57: Public Health Experts (continued)

Name	Title	Affiliation or Organization	Special Knowledge/Expertise or Nature of Leadership Role	Interview or Response Session
Leea Shirley	Public Health Nurse Supervisor	Virginia Department of Health Lord Fairfax Health District	Expertise in the public health needs of Lord Fairfax Health district residents.	Interview
Stephanie Shoemaker	Health Administrator	Hampshire County Health Department	Expertise in public health needs of Hampshire County residents	Response Session

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 58**). This list excludes the public health experts identified in **Exhibit 57**, who also meet this criterion.

Exhibit 58: Individuals from Health or Other Departments or Agencies

Name	Title	Affiliation or Organization	Special Knowledge/Expertise or Nature of Leadership Role	Interview or Response Session
Cosby Porter-David	Executive Director	Good Samaritan Free Clinic	Special knowledge regarding health needs of the indigent populations in the community for Berkeley County.	Interview
David Switzer, MD	Physician	Page Free Clinic	Special knowledge regarding health needs of the indigent populations in the Page County community.	Interview
Gerald Bechamps, MD	Vice President of Medical Affairs	Hampshire Memorial Hospital and War Memorial Hospital	Special knowledge regarding health needs of the indigent populations in Hampshire and Morgan County communities.	Response Session
Karen Sorensson	Primary Care Nurse Coordinator	Free Medical Clinic of Northern Shenandoah Valley	Special knowledge regarding health needs of the indigent populations in the community.	Interview
Stefan Lawson	Director	Free Medical Clinic of Northern Shenandoah Valley	Special knowledge regarding health needs of the indigent populations in the community.	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 59**). This list excludes the public health experts identified in **Exhibits 57 and 58**.

Exhibit 59: Community Leaders and Representatives

Name	Title	Affiliation or Organization	Special Knowledge/Expertise or Nature of Leadership Role	Interview or Response Session
Amy Wiley	Patient Access Manager	War Memorial Hospital	Morgan County	Response Session
Carol Koenecke-Grant	VP Strategic Services	Valley Health System	Special knowledge regarding marketing, communications and business development of VHS service region.	Response Session
Cathy Weaver	Member, Page Memorial Hospital Board of Trustees	Community	Community	Response Session
Chris Rucker	VP Community Health and Wellness, President, Valley Regional Enterprises	Valley Health System	Special knowledge regarding health needs and transportation services.	Response Session
David Cooper	GIS Manager	Northern Shenandoah Valley Regional Commission	GIS Mapping	Interview
David Crittenden	Director of Rehab	War Memorial Hospital	Morgan County	Response Session
Diane Kerns	Member, Hampshire Memorial Hospital Board of Trustees	Community	Community	Response Session
Faith Power	Member, Valley Health Board of Trustees	Community	Community	Response Session
Frank Subasic	Member, War Memorial Hospital Board of Trustees	Community	Community	Response Session

Exhibit 59: Community Leaders and Representatives (continued)

Name	Title	Affiliation or Organization	Special Knowledge/Expertise or Nature of Leadership Role	Interview or Response Session
Janice Boserman	PI/Quality	War Memorial Hospital	Morgan County	Response Session
Jessica Watson	Director CDRC	Chronic Disease Resource Center	Special knowledge regarding health needs of indigent patients	Response Session
Jill Williams	Program Supervisor	Healthy Families Northern Shenandoah Valley	Experience providing parenting support to at-risk families in the community.	Interview
Julie Horak	Pharmacy Manager	War Memorial Hospital	Morgan County	Response Session
Karen Schultz, PhD	Director & Professor, Center for Public Service and Scholarship	Shenandoah University	Special knowledge regarding health needs of the indigent populations in the community.	Response Session
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.	Community Health Survey
Kevin Tephabock	State Vice President	American Cancer Society (ACS)	Special knowledge of cancer-related health needs in the community.	Response Session
Sara Schoonover-Martin	Executive Director	Healthy Families Northern Shenandoah Valley	Experience providing parenting support to at-risk families in the community.	Interview
Shannon Urum	Prevention Specialist	Northwestern Community Services	Special knowledge of substance abuse prevention and treatment in vulnerable populations.	Response Session
Sharen Gromling	Executive Director	Our Health, Inc.	Special knowledge regarding health needs of the indigent populations in the community.	Both

4. Persons Representing the Broad Interests of the Community

Exhibit 60: Other Interviewees Representing the Broad Interests of the Community

Name	Title	Affiliation or Organization	Interview or Response Session
Brittney Jones	Quality & Case Manager	AIDS Response Effort, Inc.	Response Session
Bryan Rosati	Operations Manager - Winchester	Valley Regional Enterprise	Interview
Carolyn Knowles	Dispatch Manager	Valley Medical Transport	Interview
Carolyn Wilson	Oncology Nursing Project Specialist	Hampshire Memorial Hospital	Interview
David Cunsolo	Lead Pastor	Victory Church	Interview
Deena Lanham	Executive Director, Oncology, Women & Children Services	Hampshire Memorial Hospital	Interview
Doug Pixler	Director	Eastern Panhandle Transit Authority	Interview
Eileen Johnston	Director	Hampshire County Rural Development	Interview
Elaine Bartoldson	Deputy Director Marketing	Eastern Panhandle Transit Authority	Interview
Elise Stine-Dolinar	Marketing & Development Manager	United Way	Response Session
Ernie Carnevale	CEO	Blue Ridge Hospice	Interview
Jane Bauknecht	Director	Adult Care Center	Response Session
Jeannie Coffman	Faith Community Nurse	Parish Nursing	Response Session
John Nagley	Executive Director	AIDS Response Effort, Inc.	Response Session
Joyce Dunlap	Breast Health Navigator	Hampshire Memorial Hospital	Interview
Judy Melton	Registered Nurse II	Hampshire Memorial Hospital	Response Session
Juli Ferrell	Executive Director	Big Brothers Big Sisters	Response Session
Karen Shipp	Board Chair	Faith in Action	Response Session
Kelly Miller	Coordinator of Volunteer Services	Blue Ridge Hospice	Interview
Kim Herstritt	Executive Director	Literacy Volunteers	Interview
Leslie Stewart	Executive Director	CLEAN, Inc.	Interview

Exhibit 60: Other Interviewees Representing the Broad Interests of the Community (continued)

Name	Title	Affiliation or Organization	Interview or Response Session
Lisa Zerull, PhD	Academic Liaison & Program Manager Faith-Based Services	Valley Health	Interview
Mallie Combs	Director	Hardy County Rural Development	Interview
Maricela Messner	Coach	Maxwell Team	Response Session
Mark Grim	Staff	AIDS Response Effort, Inc.	Response Session
Mary Beth Pirolozzi	Executive Director	County United Way - Hampshire County	Interview
Nadine Pottinga	President/CPO	United Way of Northern Shenandoah Valley	Response Session
Pastor Mary Louise Brown	Pastor	Faith Community	Response Session
Paula Siburt	Director of Resource Development	United Way of Northern Shenandoah Valley	Response Session
Rebekah Schennum	Chair	Family Youth Initiative	Response Session
Reen Markland	Clinical Coordinator, Parish Nursing	Hampshire Memorial Hospital	Response Session
Roberta Lauder	Director of Resource Development	Shenandoah Area Agency on Aging	Response Session

Exhibit 61: Other Interviewees Representing the Broad Interests of the Community

Name	Title	Affiliation or Organization	Interview or Response Session
Rusty Holland	Executive Director	Concern Hotline	Response Session
Stephanie Grubb	Coordinator	Behavioral Health-Senior Outpatient Program	Response Session
Tracy Mitchell	Wellness Services Manager	Wellness Services	Response Session
Trina Cox	Fitness Services Director	Hampshire Memorial Hospital Wellness & Fitness	Interview

Name	Affiliation or Organization	Interview or Response Session
Cheryl Green	Salvation Army	Response Session
Matt Peterson	Habitat for Humanity	Response Session
Jane Barvir	Girl Scouts	Response Session
John Conrad	WATTS	Response Session
Becky Rollins	Highland Food Pantry	Response Session
Jenny Callis	Highland Food Pantry	Response Session
Renae Patrick	Blue Ridge Legal Services	Response Session
Jennifer Douglas	Heritage Child Development Center	Response Session
Charly Franks	Faith in Action	Response Session
Robert Boulter	Faithworks	Response Session
Pam Hayes	Dental Clinic of NSV	Response Session
Richard Kennedy	Apple Country Head Start	Response Session
Kaye Harris	The Laurel Center	Response Session
Jennifer Morrison	Response	Response Session
Bill Brent	American Red Cross	Response Session

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